

A Grammar of Togo Kan (Dogon language family, Mali)

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color codes (excluding headings)

blue: transcription of Togo Kan forms (italics)

green: transcription of forms from other Malian languages and of all unitalicized forms
(reconstructions, underlying forms, and IPA transcriptions]

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1 Introduction

1.1 Dogon languages

This is one of several grammars of Dogon languages produced by me and others as part of a project begun in 2004.

There are some 20 Dogon languages by a conservative count and perhaps 80 locally named varieties. The difference between dialect and language is often unclear.

The wider relationships of Dogon are not well understood. Traditionally they have been ascribed to the Niger-Congo family, but a demonstration of this or other genetic relationship has yet to be made and some linguists doubt the Niger-Congo connection.

1.2 Togo Kan language

Togo Kan (or TgK for short) is spoken in the sandy plains (south-)east of the plateau and cliffs of central Dogon country, still in Mali but not far from the Burkina border. It is the dominant language in a block ranging from about N 13° 52'' to 14° 13'', and from W 03° 11'' to 03° 25''.

The language is called *tògò^L-káⁿ* by most of its native speakers. (For superscripts like ^L see §3.7.2.) Togo (*tògô*) is the overwhelmingly dominant family (i.e. clan) name among native speakers of TgK, even in the more southerly villages. “Kan” is from *káⁿ* ‘mouth’, here as a compound final meaning ‘language’.

However, *tènè^L-káⁿ* is the common term for varieties spoken in an area including Toroli and Azanga, generally south of the 14th parallel (but not including Zon or Wilwal). It is possible that speakers in this area consider Tene Kan to be a distinct variety, though my main TgK informant denied any major dialectal difference. *ténè* is the name of the zone, not a family name. Most speakers of Tene Kan have Togo as surname.

Villages where Togo Kan (or Tene Kan) is the dominant language are listed in (1). The names are given both in the native pronunciation and in the Gallicized written name found on maps, namely the colonial-era government maps for “Bandiagara” (above 14 N) and “Tougan” (below 14 N), sold by the Institut de Géographie in Bamako. Current official village names may be slightly different. In citations, I generally omit French accents.

Among the common adjectival modifiers in the village names are *kàná* ‘new’, *pɛⁿ* ‘old’ and by extension ‘main, principal’, *gàrá* ‘big’, and *ná:* ‘main, principal’. Forms of *àná* ‘village’, *kúⁿ* ‘head’, *ójú* ‘road’, and *gìrⁿí* house’ also occur in some compounds. Unparenthesized coordinates are from our own survey, in degrees and minutes (both 0 to 60), plus decimal fractions of minutes (.001 to .999). Coordinates in parentheses are estimated from maps. The maps show two widely separated Pélédourou villages, one of which we surveyed. Some village clusters have a global name as well as specific names for each village.

(1) native name map name coordinates

- a. “Togo Kan” speaking
 àmàdù-bádù^{HL} ánà [not on map] 14 15.230 03 19.701
 ámá-mùrⁿù, divided into:

<i>àmà-mùrⁿù-bòró</i>	[not on map]	14 13.548	03 15.769
<i>àmà-mùrⁿù-dùnyó</i>	[not on map]	14 13.580	03 15.201
<i>àmà-mùrⁿù-kû"</i>	[not on map]	14 13.155	03 14.632
<i>(àmà-mùrⁿù-)ànà-kágà</i>	[not on map]	14 13.399	03 15.017
<i>(àmà-mùrⁿù-)òrò-sógù</i>	[not on map]	14 13.355	03 15.215
<i>àná bérⁿé</i>	[not on map]	14 14.387	03 17.438
<i>ànà-bèrⁿè dó:rú</i>	[not on map]	14 14.215	03 17.504
<i>ànà-kágà</i>	[see <i>ámá-mùrⁿù</i>]	—	—
<i>ànà-mùlà kàná</i>	[not on map]	14 02.636	03 18.476
<i>ànà-mùlà pě"</i>	Anamouila	14 07.419	03 21.910
<i>ànà-ójù</i> ("village-road")	[not on map]	14 14.259	03 20.792
<i>ànjó:nó</i> ^{HL} <i>ánà</i>	[not on map]	14 36.316	03 16.566
<i>árú-nà:-bèrⁿè</i>	[not on map]	14 08.555	03 19.399
<i>bà:lí</i>	Barelirou	14 07.386	03 22.275
<i>bà:"gòlò kàná</i>	[not on map]	14 00.058	03 14.744
<i>bà:"gòlò pě"</i>	Baraniongolé	14 01.643	03 17.325
<i>bàrkálá</i>	[not on map]	14 09.040	03 23.803
<i>báwⁿà</i>	Bama	14 05.660	03 20.458
<i>bèjèrè gárá</i>	[not on map]	14 14.694	03 16.059
<i>bépè</i> , divided into:	Beniouma	—	—
<i>bèpè kàná</i>		14 10.104	03 20.149
<i>bèpè ná:</i>		14 09.823	03 23.323
<i>bèpè-pèrú</i>		14 09.493	03 22.969
<i>bírékàrⁿà</i>	[not on map]	14 04.222	03 13.426
<i>bírgé</i>	Birga	14 02.415	03 15.559
<i>dàmísèⁿ</i> ^{HL} <i>ánà</i>	[not on map]	14 13.896	03 16.112
<i>dé:rú</i>	Déri	14 15.317	03 17.487
<i>dɔ:ⁿ</i>	Don	14 11.060	03 17.133
<i>dùnâ:</i>	[=tóról-dùnâ:]	—	—
<i>géwrú</i>	Guéourou	14 10.187	03 14.505
<i>gírè-gárá</i>	[not on map]	14 13.665	03 21.633
<i>góró</i>	[not on map]	14 15.649	03 16.328
<i>gɔ:m</i> , divided into:	Gomou	—	—
<i>gɔ:m kàná</i>	[not on map]	14 11.582	03 19.329
<i>gɔ:m ná:</i>	[not on map]	14 11.931	03 20.047
<i>jàbabájá:</i>	[not on map]	14 14.469	03 16.979
<i>jímé:rⁿú</i>	Djimérou	14 09.693	03 18.872
<i>jímè:rⁿù-dùnyó</i>	[not on map]	14 09.788	03 19.110
<i>jɔ:ⁿ</i>	Zon	13 51.185	03 07.447
<i>ké:rⁿè</i>	[not on map]	14 09.411	03 20.407
<i>kòyⁿ-gírⁿí</i>	Koporo-Kénié-Na	14 07.845	03 21.257
<i>kɔⁿpě"</i>	Koporo-Kénié-Pe	14 13.343	03 17.919
<i>kòròlí</i>	Korolou	14 13.106	03 22.072
<i>kùrù-kû"</i> , divided into:	[not on map]	—	—
<i>kùrù-kû" dágà</i>	[not on map]	14 12.741	03 17.746
<i>kùrù-kû" gárá</i>	[not on map]	14 12.252	03 18.071
<i>kùnúnjgóró</i>	Kontogourou	14 05.889	03 21.257
<i>ójú-tá:ŋà</i> , divided into:	Oustanga	—	—
<i>òjù-tá:ŋà ná:</i>	[not on map]	14 07.341	03 17.665
<i>òjù-tá:ŋà pě"</i>	[not on map]	14 07.653	03 19.276

<i>óò</i>	[not on map]	14 10.212	03 16.735
<i>òrò-gùrú</i>	Orogourou	14 07.227	03 23.963
<i>òrò-pă:</i> (“baobab-refuge”)	Oropa	14 12.025	03 14.505
<i>òrò-ségú</i>	Oroségou	14 06.359	03 21.973
<i>òrò-sògù</i>	[see <i>ámá-mùr'ù</i>]	—	—
<i>pé:rú</i>	Pel	14 05.048	03 16.149
<i>pélé-dùrù</i> (“dove-groan”)	Pélédourou	13 57.656	03 13.173
<i>pè:rù kàná</i>	Perkana	14 07.886	03 23.606
<i>pòm-dójù</i> , divided into:	Pomboro-Dodiou	—	—
<i>pòm-dòjù béniè</i>	[not on map]	14 09.192	03 10.478
<i>pòm-dòjù kû</i>	[not on map]	14 09.595	03 09.672
<i>sàⁿ-sògù</i>	Sansogou	14 12.331	03 22.670
<i>ságúrú</i>	Saourou	14 12.331	03 22.670
<i>sá:sògù</i>	[= <i>tìnâ: sá:sògù</i>]	—	—
<i>sà:-tém</i>	[not on map]	14 14.381	03 20.402
<i>sémérè</i>	Sembéré	14 08.815	03 17.589
<i>sí:né</i>	Sinnda	14 08.047	03 25.005
<i>sóró-bárà</i>	[not on map]	14 04.889	03 22.283
<i>tàⁿ-sògù</i>	[= <i>bàrà kàná</i> , but cf. <i>tèⁿ-sògù</i>]	—	—
<i>tàⁿ-sògù kàná</i>	[= <i>bàrà kàná</i> , but cf. <i>tèⁿ-sògù</i>]	—	—
<i>tè:ⁿgórò</i>	Témégolo	14 08.352	03 15.851
<i>ténè</i>	Tenndéli	14 05.663	03 24.896
<i>téwⁿè</i>	Tiéママ	14 07.509	03 20.139
<i>tíⁿ-sògùrù</i> , divided into:	Timessogou	—	—
<i>tíⁿ-sògùrù dágá</i>	[not on map]	14 03.739	03 18.706
<i>tíⁿ-sògùrù kàná</i>	[not on map]	14 03.462	03 18.493
<i>tìnâ:</i>	Tina	14 07.561	03 12.807
<i>tìnâ: sá:sògù</i>	Sassougo	14 08.271	03 11.401
<i>tògđn-tínâ:</i>	[= <i>tìnâ:</i>]	—	—
<i>tònò-àná</i>	[not on map]	14 11.693	03 18.315
<i>tònđ:</i>	Tonou	14 04.159	03 20.637
<i>tò:nđñú</i>	Taounougou	14 06.710	03 19.476
<i>tójörⁿđ-légu</i>	[not on map]	14 02.087	03 09.870
<i>wílwàl</i>	[not on map]	13 58.146	03 13.173
<i>wílwàl-mă</i>	[not on map]	13 58.197	03 14.452
<i>yòwò-kórù</i>	[not on map]	14 12.273	03 20.991

b. “Tene Kan” speaking

<i>anjàŋá</i>	Azanga	13 55.934	03 19.739
<i>bàrà kàná</i>	[not on map]	13 47.349	03 25.383
<i>jí:jà:</i>	Diga	(13 57	03 16)
<i>gà:ⁿ-dúrú</i>	Gandourou	13 52.925	03 16.855
<i>gàná-gíří-kò:ró</i>	Ganaguénékouro	13 50.760	03 20.008
<i>gùrùséndé</i>	Gouroussindé	13 53.414	03 19.450
<i>kánuwá</i>	Kanama	13 58.804	03 19.028
<i>kòròmà-tíⁿtíⁿ</i>	[not on map]	13 50.020	03 25.453
<i>pélé-dùrù</i> (“dove-groan”)	Pélédourou	(13 56	03 25)
<i>sá:l᷑ⁿ</i>	Saalé	(13 56	03 20)
<i>sòrò-gàrá</i>	Sodougara	13 47.215	03 25.673
<i>tèⁿ-sògù</i>	Tansogou	13 53.074	03 23.394

<i>tènâ:</i>	Téna	13 51.118	03 22.240
<i>tóról</i>	Toroli	13 55.510	03 13.348
<i>tóról-dùnâ:</i>	[not on map]	13 54.445	03 10.523

I was told that *téwnè* (Tiémama) was the oldest TgK speaking village.

Togo Kan and Tengou Kan have been regarded in recent classifications as dialects of a single language. There is no satisfactory overall name for this “language,” which has been somewhat arbitrarily called “Tene Kan” and more recently “Tengou Kan” in the online Ethnologue. There are actually five such endonyms for varieties of this “language”: Togo Kan, Tene Kan, Tengou Kan (in the narrow sense), Guimiri Kan language (*giwnrni-kán*), and Worou Kan (*wò:rù-kán*). The latter is also known as Wolou Kan. The primary surnames are Guindo for Tengou Kan (narrow sense), Sagara for Guimiri Kan, and Poudiougo for Worou Kan. Perhaps a better name for the “language” would be “Southeastern Dogon” or “Tengou-Togo.”

I can find no reference to Guimiri Kan or Worou Kan in the literature, and it is evident that the relationships among all these varieties will have to be worked out by new fieldwork. For the time being I will follow Dogon usage and distinguish all of them.

Historically, the Togo (originally from Tiemama), the Guindo (from Ireli), the Sagara (from e.g. Ende), and the Poudiougo (from Wol) have spread from their original villages at or near the cliffs into the vast expanse of sandy plains to the southeast. Several of the Guimiri Kan and Worou Kan speaking villages are north and northeast of Togo Kan country, while many Tengou Kan speaking villages are to the west, but the boundaries are ragged. This is especially true of the southern part of the Togo Kan zone, where each village has a different mix of TgK, Tengou Kan, Guimiri Kan, and Worou Kan, plus Gourou (closely related to Jamsay, with surnames Djimde, Niangali, Dama, and Bamadio), and Mossi (speaking Moore). Pigué village (N 13 51.186 by W 03 07.448) is a Toro So outlier, with surname Douyon. Several villages in this southern area have three or four languages in use. Where they are closely related (Togo Kan, Tengou Kan, Worou Kan, Guimiri Kan), it would be interesting to study the sociolinguistics at the community level (e.g., how are “language” boundaries maintained over generations?).

There are numerous Fulbe in the area, mostly freeborn (surnames Diallo, Bari, Boli, Sidibe) rather than the Fulfulde-speaking ex-slaves known collectively as Rimaibe (primary surname Tamboura). Freeborn Fulbe specialize in cattle herding but many now also practice farming. There is a sharp social and cultural divide between Fulbe and Dogon, immediately visible in housing (Fulbe huts versus Dogon mud-brick houses), clothing, hairstyles, etc. There are several small Fulbe hamlets in the spaces between Dogon villages. There are also Fulbe quarters at the edges of some Dogon villages, or separate Fulbe “suburbs” a short distance away.

The majority of TgK speakers are Muslims. However, there are Protestant and/or Catholic churches in several villages in the area.

Weekly markets (on the seven-day cycle) are held at Gandourou (Sunday), Koporo-Pe and Toroli (both Monday), Zon and Témégolo (both Tuesday), Koporo-Na and Pomboro-Dodiou-Koun (both Wednesday), and Tendeli (Saturday). There is also a small-scale market at Geourou (Friday).

The primary informant for the grammar and lexicon was Boukel Togo, who was also the first Malian intern in our Dogon project. He grew up in Koporo-Pe, in an essentially all-TgK speaking area. This village has a weekly market which attracts vehicles from several directions, so there is some contact with non-TgK speakers. However, there is no especially salient second language, other than the French learned in schools and the Bambara that is

often picked up by young people working seasonally in the cities, or by going to school in Bandiagara or other outside communities.

Some salient features of TgK are given in chapter 2.

1.3 Environment

Most of the TgK-speaking villages are in the sandy plains, some distance from the cliffs and plateaus of central Dogon country (far enough away to avoid the dune ridges that run parallel to the cliffs). There are no remarkable topographic features (rivers, large lakes, inselbergs, dense forests) in the zone. The economy revolves chiefly around millet farming and light herding. There is little dry-season gardening due to the absence of year-round water bodies. The rainy season extends from June to September with the main harvest around October. Blacksmiths, weavers, basket-weavers, and potters are widely scattered rather than concentrated in a few specific villages.

1.4 Previous and contemporary study of Togo Kan

1.4.1 Previous scholarship (Prost)

There is one significant previous work on TgK, a grammar in French by missionary André Prost (1969). Like most similar works of that era, it is accurate as far as it goes. Prost did not mark tones, and in view of the way tonal patterns (lexical and grammatical) permeate the grammar of the language this is a significant handicap. Consulting Prost was helpful to me in early stages of the fieldwork in suggesting constructions to study further. Prost's work remains valuable with respect to TgK dialectology, since the main dialect he worked on (that of Pel) is somewhat different from the one described here, and since he adds some further notes about outlying dialects.

I mention Prost throughout this grammar primarily with respect to dialectology. I note here two striking lexical differences between Prost's Pel dialect and the Kôporo-Pé dialect I have studied:

(2)	Pel (Prost)	Kôporo-Pé	gloss
	"ja"	<i>pàŋá</i>	'take, pick up' ('prendre')
	" <u>kana</u> "	<i>bìré</i>	'do, make'

Underlined "n" is Prost's symbol for retroflexed tap *n*, i.e. for *rⁿ* in my transcription. Most Dogon languages have cognates of "kana" as the basic 'do, make' verb, e.g. Jamsay *kárⁿá* and Mombo *kání*, while cognates of *bìré* mean 'perform, carry out (work or other purposeful activity)'. The languages disagree as to the basic verb for 'take' or 'pick up'; "ja" belongs with Najamba *jé-* and Bankan Tey *zé*, while *pàŋá* is cognate to e.g. Jamsay *yàŋá*.

1.4.2 Fieldwork

My fieldwork on TgK began in late December 2009 and has continued off and on since. Boukel Togo, a native of Kôporo-Pé village, was recruited as the first Malian intern in our project. He was with me in Douentza for several months during 2010.

During some of this time Boukel sat at an aging desktop computer and keyboarded TgK words and short phrases into our comparative Dogon lexical spreadsheet. Then he and I jointly edited the lexical material, some of which has found its way into this grammar (particularly sections on derivational morphology, compounding, and the like). Some additional grammatical elicitation was also done during this period, though I was simultaneously working on other Dogon languages.

In 2011 Boukel was hired (with a pay raise!) for three months. Our team made its first trip to Togo country then. We recorded texts in Koporo-Pe, surveyed most of the TgK speaking villages, and resolved a few difficult flora-fauna identifications by collecting or observing specimens. The recordings (a little over an hour) were transcribed and translated back in our bases in Douentza and Sevare.

Since then I have occasionally met with Boukel in Bamako to iron out remaining details.

1.4.3 Acknowledgements

The overall project on Dogon languages began with grant PA-50643-04 (2004-06) from the National Endowment for the Humanities (NEH) for solo fieldwork by me primarily on Jamsay. Brief survey work during that project led to the idea of a comparative Dogon linguistic project. Its three phases have been funded by The National Science Foundation, Documenting Endangered Languages program: grants BCS-0537435 (2006-09), BCS-0853364 (2009-13), and BCS-1263150 (2013-16). The bulk of the fieldwork on TgK was carried out during the second phase.

Our primary Malian assistant (and my Jamsay informant) is Minkailou Djiguiba. Readers are invited to view our website, which includes interesting documentary videos: www.dogonlanguages.org.

2 Sketch

A few highlights of the grammar will be given here for purposes of initial orientation. Features distinguishing Togo Kan (TgK) from other Dogon languages are emphasized.

2.1 Phonology

2.1.1 Segmental phonology

The consonantal inventory is a typical Dogon one, with the following typologically variable features. Sibilants: *s* but not *z* is present. Palatoalveolars: *j* is present, but *c* is generally absent except in foreign words and names (e.g. from Fulfulde). Nasalized sonorants {*wⁿ yⁿ rⁿ*} occur noninitially.

Vowels: the usual Dogon inventory with seven vowel qualities, long and short. Nasalized vowels are present, short as well as long. Mid-height vowels constitute two classes, [+ATR] {*e o*} and [-ATR] {*e ɔ*}, that are the basis for some ATR-harmonic phenomena. High vowels are extraharmonic, compatible with either harmonic set, while *a* patterns as [-ATR].

TgK is notable for the full or partial deletion of word- and stem-final sonorants and short high vowels. The disappearance of a final nasal is sometimes reflected by nasalization of the originally preceding vowel, but final semivowels {**y* **w*} may disappear without a trace.

2.1.2 Prosody

Cv with short vowel is an allowable stem shape for verbs and nouns, alongside the more common *Cv:*, *CvCv*, *CvCvCv*, etc. Verbs must end in a vowel, while other stems including nouns may end in a consonant.

Nearly all stems, nouns as well as verbs, have either /H/ (all-high) or /LH/ (rising) as the basic lexical melody. The slash notation /.../ is used for lexical melodies, angled brackets {...} for tone overlays and more generally for surface tone patterns. For verbs, but not other stem-classes, the lexical tone-class is partially predictable from the initial consonant. Stem-initial voiced obstruents (the classic depressor consonants) require /LH/ while voiceless obstruents (anti-depressors) require /H/. Initial sonorants are neutral and allow a lexical choice between /LH/ and /H/. The lexical tones of verbs are subject to erasure by tone overlays controlled by verbal inflectional suffixes or by the larger syntactic construction. Therefore depressor consonants do not affect tones even for verbs at the phonetic level.

For nouns, adjectives, and numerals, lexical tones pay no attention to depressor versus other consonants. This is conspicuous in cognate verb-nominal pairings like *bé: béké*: ‘defecate’, where the nominal *béké* is lexically (arbitrarily) /H/-toned while the verb is /LH/-toned, respecting the initial depressor consonant. Nouns, adjectives, and numerals have their lexical melodies overridden by tonosyntactic overlays words in a NP.

Dying-quail intonation (prolongation of the final syllable plus pitch decline) is the basic NP conjunction device, as in Jamsay. Prolongation without pitch drop is found with a number of adverbials.

2.1.3 Key phonological rules

The phonology, aside from the tonal morphophonology, is fairly simple.

There is some deletion (Syncope, Apocope) of short high vowels in positions like *CvC_Cv* and *CvC*, especially in verbs.

Nasalization-Spreading is observable, especially in verbal derivational suffixes after a stem with a final syllable that consists of a nasal consonant plus a vowel. However, when the relevant nasal consonant has been simplified from an older nasal-stop sequence, e.g. *y* from **ng*, it behaves like the original cluster and does not induce nasalization of a suffixal consonant.

Some (but not all) verb stems of the shapes *CvrV* and *CvrⁿV* reduce to *Cv-* and *Cvⁿ-*, respectively, before most inflectional suffixes.

2.2 Inflectable verbs

A verb form has the general shape [stem-derivation(s)-AMN-pronominal]. The stem is followed by any derivational suffixes; the productive ones are reversive *-rv*, causative (rarely passive) *-mv*, and paired mediopassive *-i:* (presuffixal *-ε:-*) versus transitive *-rv*. The simple or derived stem is followed by an AMN (aspect-mood-negation) suffix, sometimes zero (imperative). There is a final pronominal-subject position, though in TgK it is reduced to singular versus plural subject, and even this distinction is not rigorously made. The AMN category may control tone overlays on the stem.

Unusually for a Dogon language, there is no conjugated past clitic that can be added to an aspectually inflected verb.

2.3 Noun phrase (NP)

Unpossessed NPs consist of words whose linear order is noun-adjective(s)-numeral-demonstrative-Pl-'all'. Tone-dropping on the noun (and on any intervening word) is controlled right-to-left by adjectives, by relative clauses, and by demonstratives.

Possession can be nonappositional (i.e. direct). In this case, all possessors except the 1Sg pronoun immediately precede the possessed NP. The 1Sg possessor in the nonappositional construction is *mà* following the possessed noun. When the possessor precedes the possessed NP, the latter is subject to a tone overlay, {H} for prosodically light possessed nouns (up to two moras), but {HL} for prosodically heavy possessed nouns. There are two monosyllabic nouns, 'child' and 'woman, wife', that take {L} overlay when possessed.

Pronominal possession can also be expressed by an appositional construction of the form [Y [X *kè*]] 'the Y of X', where *kè* 'possession' (originally 'thing') is in apposition to the possessed NP Y and where X is a pronominal.

When a possessed NP functions as head NP in a relative ('Seydou's dog that fell'), the possessive construction is rebuilt as an appositional construction with the possessor now preceding the possessed NP: [[X *kè*] Y]. This allows Y to undergo tonal and other changes as head NP of the relative, with no interference from the possessor.

Tonsyntactic controllers within NPs are nonappositional preposed possessors, plus adjectives, relative clauses, and demonstratives. These are the primary reference restrictors, i.e. the elements that divide the set of otherwise potential referents into those that are (potentially) included and those that are specifically excluded.

An example of a rather complex NP is (3). It shows a more complex tonosyntactic structure than simpler NPs do because of the combination of a numeral and a demonstrative. The first three words (elsewhere *péjú*, *mára*, and *kúré*) are tone-dropped, but an H-tone is added on the final syllable of the numeral; the demonstrative itself is tone-dropped (from *yɔ:*).

- (3) [*pèjù* *màrⁿà* *kùré:^{L+H}*] ^L*yɔ:* *nà* *sâ:ⁿ*
 [sheep big six]^{L+H} ^LNearDist Pl all
 'all those 6 big sheep'

NPs functioning as head NPs of relatives are seemingly bifurcated, with the possessor, noun, adjective(s), and numeral remaining intact but surfacing inside the relative clause, while demonstratives, the plural morpheme, 'all' quantifiers, and discourse-function morphemes (like 'also' or 'even') constitute an NP coda following the verb. The "bifurcation" is really a function of the position of the relative clause within the larger NP, following Poss-N-Adj-Num but preceding the other elements.

The only definite marking is by addition of a final L-tone (tonal definite). A homophonous tonal locative with the same final L-tone is mentioned just below.

2.4 Case-marking and PPs

Adpositions are postpositions, i.e. they follow the NP or pronominal complement. Thus *sí:né* 'knife', instrumental *sí:né bè* 'by means of a knife'. Core nonspatial postpositions are dative *nì* (often reduced to cliticized =*n*), instrumental-comitative *bè*, and purposive *gê:* (and variants). Some but not all nouns have a tonal locative expressed by a final L-tone (as in Jamsay). Presumably there was once a *CV locative postposition that fell afoul of the diachronic erosion of final syllables, leaving behind only its tone. *bínì ~ bìn* 'in, inside of' and other marked spatial postpositions consist of synchronic or original nouns plus a falling melody consistent with an original possessor-controlled {H} overlay combined with the tonal locative (final L-tone).

There is no accusative case marker, except that the 1Sg pronoun has a special direct-object form. Dative *nì* is used broadly for indirect objects (nominal and pronominal).

2.5 Main clauses and constituent order

Constituent order in main clauses is SOV. The limited pronominal-subject marking in verbs encourages the use of subject pronouns, which occupy the same position as subject NPs at the beginning of the clause. Subjects are strongly clause-initial in TgK. Whereas some Dogon languages frequently have setting adverbs like 'yesterday' preceding subjects, in TgK such adverbs follow subjects, typically occurring between subject and object (4d-e). Non-setting adverbs and adverbial phrases may precede or follow nonpronominal direct objects, with the more focal of the two usually just before the verb (4g).

- (4) a. *sèydú* *bú:dú* *àmàdú=ìn* ^L*ò-è*
 S money A=Dat ^Lgive-Pfv
 'Seydou gave (the) money to Amadou.'

- b. *wó sèwárà ^Lyè-y*
 3SgSbj S ^Lgo-Pfv
 ‘He/She went to Sevare (a city).’
- c. *émé wòrú yá: ^Lwàr-è*
 1PlSbj farming yesterday ^Ldo.farm.work-Pfv.PlSbj
 ‘We did farming (farm work) yesterday.’
- d. *Iⁿ yá: [éwé bîn] wó ^Lð-è*
 1SgSbj yesterday [market in] 3SgObj ^Lsee-Pfv
 ‘I saw him/her yesterday in the market.’
- e. *Iⁿ yògô péjú dís-pú*
 1SgSbj tomorrow sheep sell-Ipfv
 ‘I will sell (the) sheep-Sg tomorrow.’
- f. *[nă bè] já-wò→ nî pă: pí:-pí*
 [person Pl] always here meal eat-Ipfv
 ‘The people always eat here.’
- g. *émé pú: [pòrùké: bè] ^Lgèrè-jù*
 1PlSbj millet [harvesting.knife with] ^Lharvest-Ipfv
 ‘We harvest millet with a harvesting knife.’
 (may be read as having ‘harvesting knife’ as focus, cf. §13.1.3)

2.6 Nominalized clauses and constituent order

Verbal-noun (i.e. infinitival) complement clauses may include nonsubject complements such as direct objects. Simple (unquantified, unmodified) object nouns are incorporated as compound initials to the verbal noun. Multi-word object NPs retain their full main-clause form, except that the presence of a demonstrative may trigger an unusual tonal pattern. If a subject NP is expressed, it takes the form of a possessor. See §17.3.1 for details.

2.7 Relative clauses

There is no full morphological system of verb-participles in relative clauses. Instead, the verb usually has the same form as the corresponding main-clause stem, but without subject agreement (whereas main-clause verbs may agree in plurality with their subject). Perfective verbs do show some participle-like changes in relative clauses.

Following a common Dogon pattern, the main lexical part of the head NP (possessor, noun, adjective, numeral) occurs inside the relative clause but undergoes tone-dropping. Demonstratives, plural *bè*, nonnumeral quantifiers like ‘all’, and discourse-function morphemes like ‘also’ follow the verb. The linear position and the tonosyntax can be accounted for by recognizing a basic order Poss-N-Adj-Num-Poss-Rel-Det-‘all’-DF. The relative clause functions as a reference-restricting modifier and therefore controls tone-dropping to its left, going as far as the noun. This is followed by movement of the string on the left of the relative clause into the relativization site within the relative clause proper. The entire sequence including the coda is really a NP with an incorporated relative clause.

In nonsubject relatives with a referentially specific subject NP, a pronominal subject pronoun appears immediately before the verb, not in clause-initial position as in main clauses. It is arguably a proclitic, but I do not transcribe it as such since there is no phonological interaction between it and the verb.

A semantically light noun with a sense like ‘owner’, ‘day’, or ‘place’ may follow the relative clause proper, with {L}-tone (arguably as possessed noun). This resembles the double-headed relative of some other Dogon languages, such as Jamsay.

Unusual features of TgK relatives include an optional inversion of adjective and numeral in the head NP (§6.4.2), and some quirks involving restructuring of possessed head NPs (§6.2.1-3).

A simple nonsubject relative is (5). The head NP ‘child’ occurs medially within the relative clause, i.e. in the relativization site. It is tone-dropped as internal relative head. Since the subject Seydou (man’s name) is specific, a coindexed 3Sg subject proclitic precedes the verb.

(5)	<i>sè:dú</i>	<i>i:ⁿL</i>	<i>wó</i>	^{HL} <i>lág-ɛ</i>
	Seydou	child ^L	3SgSbj	^{HL} hit-Pfv
				‘the child who(m) Seydou hit’

2.8 Interclausal syntax

Direct VP-chaining, i.e. with no special morphology on the verb of a nonfinal clause, is common. Some such chains occur in both perfective and imperfective contexts, while others occur only in imperfective aspectual contexts (chapter 15).

Suffixally expressed switch reference is present in certain ‘while’ clauses (same-subject versus different-subject), see §15.2.1.2-4.

Particle *dè* is the regular conditional antecedent ‘if’ (chapter 16), but it also occurs in a pseudo-conditional chain-like construction with a positive perfective verb, followed by a clause (usually with the same subject) denoting a chronologically sequenced event. Both clauses are interpreted as imperfective with respect to the speech event, see §15.2.2.6.

In the more common perfective context, the same-subject anterior subordinator *-ɛ:* is used instead of *dè* to indicate a chronological sequence.

In quoted clauses, the unconjugated quotative particle *wà* occurs clause-finally, but also after a subject NP (§17.1.3-4).

Imperfective complements of perception verbs, as in ‘I saw the child fall(-ing) out of a tree’, require a preverbal subject pronoun (even when a full subject NP has already been uttered), see §17.2.2.1.

2.9 Anaphora

TgK differs from most Dogon languages in having fully productive transpersonal reflexives. The morpheme *sáⁿ* (plural *sáⁿ bë*) can function as a reflexive object (‘X hit X’), a reflexive possessor (‘X hit X’s dog’), or a reflexive postpositional complement (‘X gave it [to X]’). It is accompanied by no pronominal-person marker, and the antecedent (normally the clausemate subject) may be first, second, or third person. In reflexive possessor function, *sáⁿ* competes with a dedicated transpersonal reflexive possessor *má*, both of which precede the possessum.

The other Dogon language known to have transpersonal reflexives in object and other functions is Tomo Kan, where the reflexive morpheme is postnominal *hà* (dialectally *sà*). A third language, Toro Tegu, has only a transpersonal possessor morpheme (postnominal *ma*).

Transpersonal reflexives are important for the study of the syntactic properties of imperative and hortative “subjects.” In all three Dogon languages that have them, imperative “subjects” fail to bind reflexives, in contrast to subjects of indicative clauses. Relevant examples for TgK are in §18.1.1 and §18.1.2.1 (*săⁿ* is absent in imperatives), and in §18.1.3.2 (*má* absent in imperatives). Therefore the plural suffix in imperative morphology must be understood as marking plural addressee, not plural subject. In hortatives, plural addressee is again marked in the morphology, but is distinct from the more inclusive 1PI subject. The latter can bind reflexives.

Other anaphoric elements are logophoric *ènè* (coindexed to the attributed author of quoted speech) and reciprocal *sàⁿ-túⁿ*, originally the reflexive possessor of a noun ‘companion’. Chapter 18 covers all TgK anaphorics.

3 Phonology

3.1 General

In comparison to other Dogon languages, a notable feature of TgK is the abundance of short-voweled monosyllabic *Cv*, particularly in noun and adjective stems. Many of the relevant stems have lost an etymological syllable-final sonorant such as *y or *n (the latter may leave a trace in the form of vowel nasalization).

3.2 Internal phonological structure of stems and words

3.2.1 Syllables

The typical syllable of TgK is *Cv* (i.e. short-voweled open syllable) or, less often, *Cv:*. Stem-finally, and sporadically stem-internally, *CvL* with a final sonorant *L* is also possible.

3.2.2 Metrical structure

If we assume that a shift to high vowels {i u} can reflect metrically weak positions in multisyllabic words, we can argue that the second and third of three syllables in a trisyllabic verb with final-syllable rhotic are weak in the bare stem (and related paradigmatic forms), but not in the imperative or some other verb forms. We can see this in alternations like *tújì-rⁿi* ‘cause to kneel’ (bare stem) and its imperative *túj^ɔ-rⁿɔ*. For other trisyllabic verb stems (i.e. with a non-rhotic consonant in the final syllable), the second (but not third) syllable is weak even in the imperative, as in *kúmúñù* ‘crumple’ (bare stem), imperative *kúmúñɔ*.

3.3 Consonants

The primary consonants of TgK are those in (6). Parentheses indicate marginal or restricted consonants. Nasalized {wⁿ yⁿ r^m} are present, while {z f ʒ} are absent except in recent loanwords. *f* and *h* are not original Dogon consonants but occur in a fair number of loanwords, mostly from Fulfulde, and are less foreign-sounding than the sibilants mentioned. Glottal stop *p* is a predictable junctural element in some reduplicated forms of vowel-initial stems.

(6) Consonants

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

c is IPA [tʃ], *j* is [dʒ], *p̪* is [ɲ], *r* is tap [ɾ], and *y* is [j].

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

There are important asymmetries in the positional possibilities of obstruents and sonorants, respectively. Excluding loanwords, reduplications, compounds, and nouns derived historically from compounds, obstruents (stops and fricatives) occur predominantly in stem-initial position; an exception is that *g* is moderately common in noninitial syllables. Non-rhotic oral sonorants occur freely in any syllable-initial position (word-initial or medial). By contrast, rhotics occur only in intervocalic position (i.e. never stem-initially).

3.3.1 Alveopalatals (*c, j*)

There is no particular tendency for velar stops {*k g*} to front to {*c j*} before front vowels (as they do in Jamsay, for example). Thus *kéjé* ‘cut’ (not #*céjé*) and *giré* ‘eye’ (not #*jiré*).

A *j* distinct from *g* is fairly common in a variety of vocalic environments. Examples are *bàjá* ‘pull’ and *jùjá* ‘brush against’.

Voiceless *c*, on the other hand, is virtually absent. In a working lexicon of several thousand items, only the flagrantly onomatopoeic *cî:n-câ:n* (sound of small birds chirping) contains this consonant.

3.3.2 Voiced velar stop *g* and spirantized *y*

Voiced velar stop *g* is phonetically spirantized to [ɣ] between any combination of preceding and following *a* and *o*. This appears to be a low-level allophonic process, and except in narrow phonetic transcriptions I write *g*.

3.3.3 Back nasals (*ŋ, n̪*)

ŋ and *n̪* are distinguished before all vowels, with no tendency to merge before front vowels. We hear a clear *ŋ* in e.g. *(óŋó) sá:ŋì* ‘make a yawn’, but *n̪* in e.g. *níŋíwⁿé* ‘sister’s child’.

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

p is one of the basic consonants: examples are *págá* ‘tie up’ and *pé:gù* ‘break in half’. In native vocabulary it is normally in stem-initial position, but it occurs intervocally in loanwords like *ná:pílá* ‘optional Muslim prayer’ (often, as here, reflecting *f in the source language), in frozen reduplications like *púpúgó* ‘out of shape’, and in various onomatopoeic or expressive forms like *pògòròpó* ‘toy rifle’ and *póp* ‘landing powerfully’. Cluster *mp* occurs in a few loans like *lámpáⁿ* ‘(modern) lamp’.

f occurs in a few Fulfulde and French loanwords. From the working lexicon I can cite *má:fé* ‘red sauce’, *fú:r* ‘oven’, and two important expressive elements *fó→ ...* ‘all the way to ...’ and *fú→* ‘all, entirely’. As noted above, original *f in loanwords is normally realized as *p*.

3.3.5 Laryngeals (*h*, *ʔ*)

h is not an original Dogon consonant, but it occurs stem-initially in Fulfulde loans and in a few other regionally widespread forms: *háyà* ‘well, ...’, *hâl* ‘even if’, *há:jù* ‘card (cotton)’, *hámp-i:* ‘chew (tobacco)’, *hɔ:l* ‘trust(v)’, *hí:jí* ‘pilgrimage (to Mecca)’. One of the ‘yes!’ forms is the ubiquitous *ɔ"hɔ:n*.

Phonetic glottal stop [?] is heard at the juncture between vowels within a word, in *ɔ"-ɔ?* (one of the ‘no!’ forms) and in Cv- reduplications of stems with no initial consonant like (stative) *i-ʔígè* ‘be standing’.

3.3.6 Sibilants (*s*, *f*, *z*, *ʒ*)

s is a basic consonant in stem-initial and to some extent intervocalic position. There is no special tendency for it to palatalize before front vowels, as seen in *sf:ri* ‘cook (meal)’.

Other sibilants {*f* *z* *ʒ*} are absent except in poorly-assimilated loanwords.

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

Nasalized semivowels occur intervocally and syllable-finally. The nasalized rhotic occurs intervocally (rhotics in general do not occur in other positions). We begin with examples where the nasalization is autonomous.

Examples of *rⁿ* are, *tírⁿí* ‘go get (firewood)’ and *ùrⁿú* ‘burrow(n)’. In some other Dogon languages, *n* corresponds to TgK *rⁿ*.

Examples of *wⁿ* are *kúwⁿ-i:* ‘shut (eyes)’, *áwⁿá* ‘(animal) be in good condition’, *tówⁿɔ* ‘do for a long time’, and expressive adverbial *déwⁿ→* ‘looking straight at’. In some other Dogon languages, *m* corresponds to TgK *wⁿ*.

yⁿ is less common and is mostly found stem- (and therefore syllable-) finally. These include compounds ending (at least historically) in a desyllabified form of *-í:ⁿ* ‘child’, such as *dýⁿ* ‘pestle’ and *túwé-yⁿ* ‘flint (for lighter)’. Other stems with final *yⁿ* include *séyⁿ* ‘a lot, very’ and *dáyⁿ* ‘boundary’. In a few nouns *yⁿ* is intervocalic; the known examples are *dóyⁿé* ‘ashes’ (which has cognates with *yⁿ* in some other Dogon languages, but cf. Najamba *dòdě:*) and two items of cultural vocabulary, *bùyⁿé* ‘tassels’ and *kàyⁿé* ‘bit (mouthpiece)’. There are also several expressive adverbials with syllable-final *yⁿ* like *kóyⁿ→* ‘oversized (teeth)’ and *déyⁿ→* ‘apart’.

Sequences of intervocalic nasalized sonorants co-occur in e.g. *géwⁿérⁿé* ‘charcoal’ and *súwⁿùrⁿù* ‘stalk(v)’. The sequence is usually *wⁿ* then *rⁿ* since rhotics but not semivowels are the typical sonorant consonants in the third or later syllables of complex words.

Nasalized sonorants often occur in stems or derivational verbal suffixes when preceded by a nasal syllable (such as *na* or *baⁿ*). In such cases one could argue that the nasalization of the sonorant is phonologically secondary. Examples are *néwⁿé* ‘scales (on skin)’, *séjérⁿé* ‘foot-chain’, and *gàmúrⁿù* ‘divide’. In cases like *jàwⁿúrⁿù* ‘scold’, the nasalization appears to spread recursively, starting from the initial nasal. However, TgK has many stems that fail to spread nasalization from a nasal to a subsequent sonorant: *déméré* ‘fat, stout’, *mùŋú-rù* ‘untie’ (reversive), *bòmí-rì* ‘put (child) on the back of (sb)’. In most such cases it can be shown that the nasal consonant reflects a cluster *mb or *ŋg that would not originally have spread nasality to subsequent syllables; see §3.5.1.1, below. But the synchronic effect is that Nasalization-Spread, though productive in e.g. Jamsay, is not a productive process in TgK.

When a semivowel closes a nasal syllable (e.g. *naw*) it is phonetically nasalized. Since this nasalization is automatic it could be omitted from the transcription, but I choose to indicate it: *pùnăyⁿ* ‘flour’, *năyⁿ* ‘four’, *térⁿéwⁿ-térrⁿéwⁿ* ‘very tight (intensifier)’. Rhotics do not occur syllable-finally.

3.3.8 Consonant clusters

3.3.8.1 Word- and morpheme-initial *CC* clusters

There are no tautosyllabic word- or suffix-initial consonant clusters. A suffix-initial *CC* cluster could arise, in theory, from syncope of an intervening vowel, but I can cite no examples.

In *ijkúrú* ‘mouse’, the initial nasal has its own tone and functions as a syllable, albeit a reduced one. I know of no other initial-syllable nasals.

3.3.8.2 Medial geminated *CC* clusters

Geminated clusters do not occur within stems or other morphemes. They may arise accidentally at compound boundaries especially when the first stem has its final vowel syncopated: *bìn^L-nùrⁿú* ‘stomache ache’. Even these cases are rare in TgK, which has few stems with final consonants.

3.3.8.3 Medial non-geminate *CC* clusters

Nongeminate medial clusters are also uncommon within stems and other morphemes. However, they do occur in borrowed vocabulary and in frozen compounds. Nouns ultimately from Arabic (usually via Fulfulde) preserve definite prefix *al-* before noncoronal consonants, providing one source (among others) for *IC* clusters.

Some stems that I initially transcribed with a medial homorganic stop-nasal cluster have been retranscribed with a nasalized vowel and an unclustered stop. These include reduplicative *jèⁿjèⁿ_L báⁿ* ‘millet cultivar’ (*báⁿ* ‘red’) and *jà^L dèⁿdèⁿ* ‘empty lot’ (*jáⁿ* ‘ground’); French loanwords *póⁿtí* ‘nail’ (*pointe*), *kúmáⁿdá:ⁿ* ‘(military) commander’, and *síⁿgóm* ‘chewing gum’; nouns *jòⁿtúrú* ‘donkey’ and *àⁿdùŋùmá* ‘invisible devil’; and *sí:ⁿká:ⁿ béré* ‘get a mate for’ (*béré* ‘get’) and *àⁿù^L jòⁿké:* ‘first rain of rainy season’ (*àⁿú* ‘rain’).

Nasal-stop clusters were verified as follows: *mb* in *támbúrɔ́* ‘date (fruit)’ (ultimately from Arabic) and *bálémبá* ‘champion (fighter)’; *mp* in *làmpáⁿ* ‘lamp’, *hámp-ì:* ‘chew (tobacco)’ (<Fulfulde), and *pómpì* ‘pump(v)’; *nd* in *àndí:* ‘year’, *àndáñú* ‘soft millet cakes’, *àndăⁿ* ‘tiny fly sp.’, *pà:ndé* ‘thick cotton thread’, *gándál* ‘vanity, pride’ (<Fulfulde), and *bándí* ‘bandit’; *nt* in *jánté* ‘conversation’ (<Fulfulde) and *àlbàrkànté* ‘incense (bdellium)’; *ŋg* in *jóngólú* ‘basket holder’, *máŋgóró* ‘mango’, *àŋgé:ⁿ* ‘agemate’, *àŋgùñùrⁿú* ‘giant tortoise’, and *àŋgilé:* ‘English person’; and *ŋk* in *wáŋké* ‘butcher’ and *dólkóŋké* ‘short-length boubou’.

A list of the attested clusters, with one example each, is (7).

(7) *CC* clusters

cluster	example
a. homorganic nasal plus stop	
<i>mb</i>	<i>támbúrɔ́</i> ‘dates (fruit)’ (ultimately <Arabic)
<i>mp</i>	<i>pómpì</i> ‘pump’ (<French <i>pompe</i>)
<i>nd</i>	<i>àndí:</i> ‘year’ (frozen compound)
<i>nt</i>	<i>jántì</i> ‘converse (with laughter)’ (<Fulfulde)
<i>ŋg</i>	<i>máŋgóró</i> ‘mango’ (regional)
<i>ŋk</i>	<i>wáŋké</i> ‘butcher (caste)’ (regional)
b. <i>I</i> plus noncoronal	
<i>lb</i>	<i>àlbàrkànté</i> ‘bdellium (incense)’ (root <Arabic √brk)
<i>lp</i>	<i>sálpànà</i> ‘early PM prayer’ (<Fulfulde)
<i>lg</i>	<i>wàlgà-wàlgá</i> ‘bouncing (necklace)’ (source unknown)
<i>lk</i>	<i>àlká:má</i> ‘wheat’ (<Arabic)
<i>lm</i>	<i>àlmè:tú</i> ‘match(es)’ (<French)
<i>lj</i>	[unattested]
c. others	
<i>rk</i>	<i>àlbàrkànté</i> ‘bdellium (incense)’ (root <Arabic)
<i>rs</i>	<i>pòrsɔ́ⁿ</i> ‘poison’ (<French)
<i>ns</i>	<i>ànsá:rá</i> ‘white person’ (syncopated from *àñàsá:rá, <Arabic)
<i>wg</i>	<i>jéwgé→</i> ‘teetering’ (expressive adverbial)
<i>wl</i>	<i>dàwlé</i> ‘esteem’ (<Arabic)
<i>wr</i>	<i>dáwrú</i> ‘spell (sorcery)’ (<Arabic)
<i>yk</i>	<i>báykál</i> ‘type of modern rifle’ (imported from Ghana)
<i>ws</i>	<i>háwsá</i> ‘Hausa (ethnicity)’

There are also some words that can be pronounced with or without a brief high vowel between two nonhomorganic medial consonants in trisyllabic or longer stems. Thus *àgsì^L-bòmbɔ́ⁿ* ‘hard red candy’ with variant *àgùsì^L-...,* and *nám-gì* ‘become poor (impoverished)’. These are transcribed as I hear them in normal speech. The native intuition (especially for verbs) is that the high vowel is present. Note the combination (cognate nominal plus verb) *dáwrú dàwírì* ‘cast spells’, where the usual pronunciation is *CvCCv* for the noun but *CvCvCv* with medial high vowel for the verb (cf. imperative *dàwárâ*). ‘Rifle, musket’ is usually heard as *màrùpá:*.

Clusters are more common at boundaries in compounds. Any combination of an allowable stem-final consonant with an allowable stem-initial consonant is potentially possible. Recall however that only certain consonants are allowed stem-finally, so the number of potential clusters is limited. Except as the result of low-level syncope of high vowels in

trisyllabics, there are no consonant clusters at boundaries in inflected verb forms, since every verb stem ends in a vowel.

3.3.8.4 Medial triple *CCC* clusters

Triple *CCC* clusters are virtually nonexistent. One is *mpl* in the poorly assimilated loanword *sémplés* ‘type of modern rifle (from Europe)’, said to derive from *cinq plus* on the label. Another is *wŋg* in *gáwŋgá* ‘furrow (or other low spot) in a field’.

3.3.8.5 Final *CC* clusters

Final *CC* clusters are also nonexistent except in poorly assimilated loanwords.

3.4 Vowels

The inventory of oral vowels is the standard one for Dogon languages, with seven vowel qualities, long and short. Nasalized vowels are less common than oral vowels but are well represented. Nasalized vowels may be long or short, unlike the situation in some other Dogon languages where they must be long. Short *Cvⁿ* syllables often reflect earlier **Cvn*, **Cvwⁿ*, or the like whose final consonant survives only as vowel nasalization.

(8) Vowels

oral		nasalized	
short	long	short	long
<i>u</i>	<i>u:</i>	<i>uⁿ</i>	<i>u:ⁿ</i>
<i>o</i>	<i>o:</i>	<i>oⁿ</i>	<i>o:ⁿ</i>
<i>ɔ</i>	<i>ɔ:</i>	<i>ɔⁿ</i>	<i>ɔ:ⁿ</i>
<i>a</i>	<i>a:</i>	<i>aⁿ</i>	<i>a:ⁿ</i>
<i>ɛ</i>	<i>ɛ:</i>	<i>ɛⁿ</i>	<i>ɛ:ⁿ</i>
<i>e</i>	<i>e:</i>	<i>eⁿ</i>	<i>e:ⁿ</i>
<i>i</i>	<i>i:</i>	<i>iⁿ</i>	<i>i:ⁿ</i>

3.4.1 Oral short and long vowels

The short oral vowels are common in all positions, as the most typical shapes of stems include *Cv*, *CvCv*, and *CvCvCv*. Within a stem, excluding loanwords, there are vowel-harmonic constraints, particularly in verb stems; see §3.4.6, below. There is an issue whether short and long vowels following a nasal or nasalized consonant should be considered phonologically oral or nasal; for discussion see §3.4.2, below.

Long oral vowels are most common in stems of the shapes *Cv:* and *Cv:Cv*. They also occur in longer stems with shapes such as *Cv:CvCv*, but these are usually either loanwords or compounds (including frozen compounds).

Examples of the main syllabic shapes with short oral vowels are in (9), using verbs, nouns, adjectives, numerals, and various grammatical words and particles. In formulae like *CvCv*, the initial *C* position may be vacant.

(9) Short oral vowels

form	gloss
a. <i>Cv</i>	
<i>verb stems, all non-nasal examples known</i>	
<i>ó</i>	‘give’
<i>tí</i>	‘send’
<i>jé</i>	‘take away’ (most forms based on <i>já:-</i>)
<i>yě</i>	‘go’ (most forms based on <i>yá:-</i>)
<i>noun stems, all non-nasal examples known</i>	
<i>lő</i>	‘medication’
<i>bě</i>	‘beard’
<i>jǎ</i>	‘fiber’
<i>lě</i>	‘slashing earth (to sow), planting(n)’
<i>té</i>	‘tea’ (<French and Arabic)
<i>compound initials and finals</i>	
<i>gìně^L-ă</i>	‘sleepiness’
<i>bòⁿL-ké</i>	‘nickname’
<i>yè^L X</i>	‘woman’ (in e.g. <i>yè^L ná:</i> ‘old woman’)
<i>yè^L-lǎ</i>	‘betrothal (at birth)’
<i>kìr^mi^L-tā</i>	‘bone fracture’
<i>đ^L-dú</i>	‘absence of moonlight’
<i>kèně^L-dó</i>	‘acidic reflux’
<i>grammatical morphemes (sample)</i>	
<i>wó</i>	3Sg pronoun
<i>kó</i>	‘that’ (definite demonstrative)
<i>yî</i>	‘here’ (generalized)
<i>yê</i>	‘there’ (definite)
<i>wđ</i>	‘be (somewhere, human)’
<i>kđ</i>	‘be (somewhere, nonhuman)’
<i>yđ, yé</i>	existential particle
<i>tđ</i>	‘around (somewhere)’
<i>bè</i>	instrumental postposition

b. *CvCv* (very common)

stems (sample)

<i>giré</i>	‘eye’
<i>nàjá</i>	‘cow’
<i>túmó</i>	‘(sun) rise’
<i>pérú</i>	‘ten’
<i>élú</i>	‘sweet’
<i>ìné</i>	‘what?’

c. *CvCvCv* (fairly common, but include frozen derivatives)

stems (sample)

<i>áwìrì</i>	'lay out (mat)'
<i>kégéré</i>	'saddle(n)'
<i>déméré</i>	'fat, stout'

CvC is not very common, since so many final sonorants have been lost. However, I can cite *läy* 'garlic' (French *l'ail*).

In the fairly small number of *Cv* nouns and noun-like compound elements included in (9a), if we exclude 'woman' (whose short *Cv* form before adjectives and in compounds has parallels in other Dogon languages) and the loanword 'tea', we are left with a set of stems that have probably lost an original final semivowel. For example, 'beard' has cognates like Toro Tegu *běw*, and 'medication' has cognates like Jamsay *lōy*. *CV* (from **Cv-y*) is a regular verbal noun form for *Cv:* verb stems, and some nouns with this shape (including the rising tone) originated as verbal nouns. A case can be made that verbs *ó* 'give' and *tí* 'send' also formerly ended in semivowels, compare Toro Tegu *ów* 'give' and *tíw* 'send'. These are the only two verb stems whose TgK paradigm is based consistently on *Cv* rather than *Cv:* shape. There are no *Cv* numerals or adjectives in TgK. So except for grammatical morphemes, *Cv* as a shape for stems may be an innovation.

The main stem shapes for long oral vowels are illustrated in (10). The number of *Cv:* stems is considerably greater than that of *Cv* stems, showing that *Cv:* is the more productive pattern.

(10) Long oral vowels

form	gloss
<i>a. Cv:</i>	
<i>verb stems (lists in §10.1.3.1-2)</i>	
<i>noun stems (all known examples)</i>	
<i>đ:</i>	'moon, month'
<i>bé:</i>	'excrement'
<i>bđ:</i>	'member'
<i>dě:</i>	'senior twin'
<i>dí:</i>	'water'
<i>gě:</i>	'hunger'
<i>gđ:</i>	'granary'
<i>gó:</i>	'(courtyard) wall'
<i>X^Lkè:</i>	'X's (possession)'
<i>kǔ:</i>	'yam (<i>Dioscorea</i>)' (<Bambara)
<i>jđ:</i>	'fishhook'
<i>lđ:</i>	'mother's younger sister'; 'step-mother'
<i>lí:</i>	'bed' (French <i>lit</i>)
<i>pó:</i>	'tankard, drinking cup' (French <i>pot</i>)
<i>só:</i>	'pail' (French <i>seau</i>)
<i>tě:</i>	'honey'
<i>tđ:</i>	'pile of millet grain spikes'
<i>tđ:</i>	'sprout(s)'
<i>sđ:</i>	'matter, issue'
<i>sđ:</i>	'awareness'

<i>sí:</i>	‘saw (tool)’ (French <i>scie</i>)
<i>compound initials and finals</i>	
<i>nùmò^L-jé:</i>	‘handful’
<i>nàŋà^L-té:</i>	‘(dairy) butter’
<i>nìŋìrⁿi^L-tɔ:</i>	‘deadline’
<i>kèⁿL-bò:</i>	‘splinter-removing gear’
<i>àrà^L-yá:</i>	‘heroism’
<i>pòrù^L-ké:</i>	‘harvesting knife’
<i>kírⁿi^L-sì:</i>	‘having a somewhat pointed snout’

adjective stems (all known examples)

<i>kō:</i>	‘empty, plain’
<i>tō:</i>	‘stray (crop plant)’
<i>ɛ:</i>	‘tight’
<i>wá:</i>	‘wide’

adverbs and grammatical morphemes

<i>ă:</i>	‘who?’
<i>yă:</i>	‘where?’
<i>yá:</i>	‘yesterday’
<i>lá:</i>	‘at first’
<i>bà→</i>	‘since’
<i>nó:</i>	‘this’
<i>kě: bà→</i>	‘in the past’

b. *Cv:Cv* (fairly common)

stems (sample)

<i>gó:ró</i>	‘kola nut’
<i>là:rá</i>	‘fields next to the village’
<i>é:ré</i>	‘peanut, groundnut’
<i>wò:nyù</i>	‘(liquid) be at full boil’
<i>sí:ri</i>	‘cook (meal)’
<i>pé:gù</i>	‘harvest (grain spikes) by breaking or pulling off’

c. other

<i>wàlâ:y</i>	‘by God!’ (swearing an oath)
---------------	------------------------------

Cv:C is not a normal stem shape, but it occurs in the loanwords *fú:r* ‘covered oven’ (French *four*) and *lá:m* ‘razor blade’ (French *lame*).

In bisyllabic stems, and to a lesser extent in trisyllabic and longer stems (many of which originated as compounds), the initial syllable is favored for long vowels. However, TgK has a considerable number of nonmonosyllabic stems (other than verbs) with a final long vowel, and a few of these have final long oral vowels not preceded by a nasal consonant. All examples from my working lexicon are in (11).

(11) Final long oral vowel in nonmonosyllabics

form	gloss
a. bisyllabic	
<i>noun stems (not obviously recent loanwords)</i>	
<i>àtí:</i>	‘bird trap’ (perhaps with <i>à-</i> prefix, §4.1.7; also in Jamsay)
<i>òtè:</i>	‘well (for water)’ (cf. Toro Tegu <i>téwō</i>)
<i>àndí:</i>	‘year’ (frozen compound)
<i>bè-sé:</i> ~ <i>bò-sé:</i>	‘father’s younger brother’ (frozen compound < ‘little father’)
<i>sàré:</i>	‘legal proceeding’ (contracted from * <i>sàriyá</i>)
<i>sáré:</i>	‘diarrhoea’ (contracted from * <i>sáriyé</i> or the like)
<i>àr'ù^L jɔ'kè:</i>	‘first heavy rain’
<i>adjectives</i>	
<i>bòró-sè:bè:</i>	‘skinny-buttocks’ (bahuvrihi compound)
<i>French loanwords (nouns and adjectives)</i>	
<i>kèpí:</i>	‘cap’ (French <i>képi</i>)
<i>sàpó:</i>	‘hat’ (French <i>chapeau</i>)
<i>pòlí:</i>	‘pulley’ (French <i>poulie</i>)
<i>kílé:</i>	‘key’ (French <i>clé</i>)
<i>tìyó:</i>	‘tube’ (French <i>tuyau</i>)
<i>kàkî:</i>	‘tan (color)’ (French <i>khaki</i>)
<i>adverbs, expressive adverbials</i>	
<i>dùrô:</i>	‘(garment) on backwards’
<i>other</i>	
<i>ìyɔ:</i>	‘want’ (irregular stative verb, §11.2.4.2)
b. trisyllabic or longer	
<i>bànàkú:</i>	‘cassava; sweet potato’ (<Bambara compound)
<i>àngilé:</i>	‘English person’ (French <i>anglais</i>)
<i>bàrùpó:</i>	‘calabash tomtom’ (frozen compound)
<i>màrùpá:</i>	‘rifle, musket’ (ultimately <Arabic)
<i>màrùtó:</i>	‘hammer’ (French <i>marteau</i>)

For prolonged final vowels in adjective stems in predicative form, see §11.4.1.2, below.

3.4.2 Nasalized vowels

TgK is richer in nasalized vowels than many other Dogon languages. This applies mainly to stem-final syllables, where many final nasal consonants have been lost, leaving behind a trace in the form of vocalic nasalization. Typically the resulting nasalized vowel retains its original length (long or short), so TgK has many stem-final short nasalized vowels (which are absent from some other Dogon languages).

(12) presents cases of short nasalized vowels in monosyllabics, where the nasalized vowel is clearly autonomous, i.e. it does not follow a nasal or nasalized consonant.

(12) Short nasalized vowels (autonomous) in monosyllabics

form	gloss
a. <i>Cvⁿ</i>	
<i>verb stems: for a list see §10.1.3.1</i>	
<i>noun stems: all known examples</i>	
<i>d᷑n</i>	‘price’
<i>t᷑n</i>	‘hump (in person’s back)’
<i>d᷑n</i>	‘hip’
<i>g᷑n</i>	‘gallbladder’
<i>k᷑n</i>	‘head’
<i>k᷑n</i>	‘mouth’
<i>d᷑n</i>	‘size’
<i>t᷑n</i>	‘fabric, garment’
<i>t᷑n</i>	‘firewood’
<i>j᷑n</i>	‘private field’
<i>k᷑n</i>	‘daba (hoe)’
<i>k᷑n</i>	‘weeping(n)’
<i>d᷑n</i>	‘waterjar’
<i>j᷑n</i>	‘handle (of pail); ‘forked stick’
<i>b᷑n</i>	‘wooden bench’ (French <i>banc</i>)
<i>p᷑n</i>	‘shortage of water’
<i>j᷑n</i>	‘dyer’
<i>s᷑n</i>	‘religion (Islam), prayer’
<i>b᷑n</i>	‘tomtom’
<i>b᷑n</i>	‘name’
<i>k᷑n</i>	‘pointed instrument’
<i>p᷑n</i>	‘bridge’ (French <i>pont</i>)
<i>adjective stems: all known examples</i>	
<i>k᷑n</i>	‘unmarried’
<i>p᷑n</i>	‘old’
<i>d᷑n</i>	‘poorly developed (millet)’
<i>b᷑n</i>	‘red’
<i>s᷑n</i>	‘good’
<i>t᷑n</i>	‘mild-mannered’
<i>compound initials and finals</i>	
<i>[n᷑m᷑-yⁿ]^L-d᷑n</i>	‘pinky finger’
<i>᷑n᷑^L-g᷑n</i>	‘roselle plant’
<i>k᷑r᷑^L-g᷑n</i>	‘meningitis’
<i>grammatical morphemes</i>	
<i>s᷑n</i>	reflexive
<i>t᷑n</i>	reciprocal
<i>-g᷑n</i>	characteristic derivational suffix (human)

There are also some short nasalized vowels in nonmonosyllabic words. Most nasalized vowels are in stem-final syllables. For nouns they may reflect original compounds with an L-toned initial followed by *-í:ⁿ ‘child’. Nasalized vowels in nonfinal syllables, in the absence of a nasal or nasalized consonant, are attested but uncommon.

Autonomous long nasalized vowels in monosyllabics are in (13).

(13) Long nasalized vowels (autonomous) in monosyllabics

form	gloss
a. verb stems	
<i>(for a list see §10.1.3.1)</i>	
b. noun stems: all known examples	
<i>é:ⁿ</i>	‘soda ash’
<i>í:ⁿ</i>	‘child’
<i>gó:ⁿ</i>	‘griot (caste)’
<i>gí:ⁿ</i>	‘theft’
<i>ké:ⁿ</i>	‘inheritance’
<i>gó:ⁿ</i>	‘vestibule’
<i>dě:ⁿ</i>	‘elder same-sex sibling’
c. compound initials and finals	
<i>jà sá:ⁿ</i>	‘light (illumination)’
<i>iⁿ-tá:ⁿ</i>	‘friend’
d. adjective and numeral stems	
<i>(no known example)</i>	
e. grammatical morphemes	
<i>hó:ⁿ</i>	‘here! take (this)!’
<i>gí:ⁿ</i>	‘like, similar to’
f. other	
<i>jâ:ⁿ</i>	‘what is right’ (adverbial)

Final nasalized vowels in nonmonosyllabic stems are in (14). Those in (14b) are probably frozen diminutives. For the human nouns in (14c), the nasalization may be a vestige of a former suffix, compare Jamsay human singular *-n* and human plural *-m*.

(14) Final nasalized vowels

a. nonhuman	
<i>hà:rěⁿ</i>	‘Muslim holy day associated with cousins’
<i>dùwɔlɛⁿ</i>	‘mirror’
<i>dèbéⁿ</i>	‘(modern) mat’
<i>sùsùlēⁿ</i>	‘whip (branch)’
<i>úsúláⁿ</i>	‘incense’
<i>sàrīⁿ</i>	‘plow’
b. frozen diminutive	
<i>mɔrīⁿ</i>	‘small amulet’
<i>gàrīⁿ</i>	‘kidney’
<i>àni^L-gò:gíⁿ</i>	‘soft spot above collarbone’
<i>lègíⁿ</i>	‘rolling pin for cotton’
<i>kò-kòrīⁿ</i>	‘shuttle in loom’

c. human

<i>dògɔ̃n</i>	‘Dogon (person)’
<i>ɔgɔ̃n</i>	‘Hogon, chief’
<i>télé̃n</i>	‘Tellem (person)’
<i>dégé̃n</i>	‘short person’
<i>hó:rɔ̃n</i>	‘noble, freeborn person’
<i>yérĩn</i>	‘visitor, guest’
<i>wálí̃n</i>	‘seer’

The stems in (15) have a nonfinal nasalized vowel. Those in (15b) also have a final nasalized vowel. Nonfinal nasals are not common.

(15) Nonfinal nasalized vowels

a. nonfinal nasalized vowel only

<i>tá̃tú</i>	‘tent’
<i>málé̃nkẽ</i>	‘angel’
<i>ĩnsír̃í</i>	‘urine’

b. nonfinal and final nasalized vowels

<i>sí:̃nkãn</i>	‘a match, an equivalent’
<i>ɔ̃sà̃n</i>	‘cemetery’
<i>gù̃nsá̃n</i>	‘full outback’
<i>sí̃n-sí̃.n</i>	‘childhood’

3.4.3 Phonetically nasalized vowels next to nasal consonants

There are also many stems with syllables like *na* or *rɔ̃i*, where a nasal or nasalized consonant is followed by a vowel. The vowel is phonetically nasalized, but except in special cases involving morpheme breaks there is no phonological opposition between oral and nasalized vowels in this position. The same phonetic nasalization applies to vowels preceding a nasalized consonant, as in sequences like *ana*.

My assistant had a clear sense that such nasal-adjacent vowels are nasalized. For example, he would syllabify a sequence like *ana* as *aⁿ.naⁿ*, and would render the vowel of the second syllable (stripped of the preceding *n*) as [aⁿ]. He would correct me if I suggested pronunciations with oral vowels.

The vocalic nasalization in stems like *nă* ‘person’ can be strong enough to lead to optional pronunciations with (what sound like) homorganic nasal-stop sequences in e.g. plural *nă bĕ* ‘people’, i.e. [nămbĕ]. However, there is no productive process of the type /naga/ > *nanga* within stems. Note, for example, (causative) verb *súnú-gù* ‘take down’, not #*súnú-ŋgù*. Likewise *ámúgí* ‘hold against one’s chest’ and *mánúgú* ‘thought’. Having said this, a quick run through the working dictionary shows that most nonmonosyllabic stems (excluding recent loans) that begin with a nasal have other nasals in following syllables, so that stems like *nàŋúr̃ù* ‘next year’ with three consecutive *Nv* syllables (and therefore continuous phonetic nasalization from start to finish) are entirely typical.

Examples of nasal-plus-vowel combinations are in (16).

(16) Nasal or nasalized consonant (N) plus vowel

form	gloss
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a. *Nv*

verbs stems: only example

nú ‘go in’

noun stems: all known examples

nă ‘person’

jně ‘woman’ (in compounds also *yɛ-* etc., §5.1.8)

né ‘blood’

m᷑ ‘laughter’

m᷑ ‘gum arabic’

já ‘ground’

m᷑ ‘cut (wound)’

adjective stems: only example

mă ‘dry’

grammatical morphemes (sample)

mà 1Sg possessor

nî ‘here’

b. *Nv:*

verb stems

(for lists see §10.1.3.1-2)

noun stems: all known examples

nǔ: ‘death’

jnǎ: ‘meal’

mě: ‘salt’

jné: ‘fire’

jnú: ‘millet’

nǐ: ‘cow-pea’

nř: ‘father’s sister’

mă: ‘light metal’

adjective stems: all known examples

ná: ‘primary’

nú: ‘hot’

mř: ‘fine (powder)’

grammatical morphemes (sample)

n᷑: ‘that’ (demonstrative)

pílē-m-ɛ: ‘again’

c. bisyllabic and longer stems (sample)

CvNv

gìr"í ‘house’

pànjá ‘power’

CvNv: (uncommon)

sómé: ‘spices’ (Jamsay *sómŷn"*)

nùm᷑^L-diŋě: ‘thin bead bracelets’ (-*diŋě*: also occurs in other jewelry-type compounds, and is itself probably a frozen diminutive compound from **dìŋe-ŷn"*)

<i>Cv:Nv</i>		
<i>à:ŷá</i>	'how many?'	
<i>pó:nù</i>	'greet'	
<i>NvCv (uncommon)</i>		
<i>jùgú</i>	'herb (<i>Amaranthus dubius</i>)' (<Bambara)	
<i>mèré</i>	'having just one testicle'	
<i>Nv:Cv (uncommon)</i>		
<i>má:fé</i>	'red sauce'	
<i>NvNv (very common)</i>		
<i>màjá</i>	'honor(v)'	
<i>nàná</i>	'left (hand)'	
<i>jù-nù</i>	'cold weather'	
<i>Nv:Nv</i>		
<i>m᷑:ñ (< m᷑:nù)</i>	'assemble'	
<i>jí:pi</i>	'sharp (blade)'	

The suggestion that vowels next to nasal consonants are phonologically (not just phonetically) nasalized is pertinent to the analysis of *Cv-* reduplications from *TvNv...* stems, with oral consonant *T* and nasal *N*. For *Tvⁿ-TvNv...* as the reduplicated form, see the discussion of nouns such as *s᷑ⁿ-s᷑n᷑* 'sand' in §4.1.4, below.

3.4.4 Initial vowels

There are no restrictions on which vowels can occur initially. Initial vowels are found when the usual *C_i* position happens to be vacant. Some examples: *ó* 'give', *ú:-ñ* 'lay down', *é:ré* 'peanuts', *ɔjɔ* 'thing', *árá* 'suckle'.

3.4.5 Stem-final vowels

For monosyllabic words, a final vowel may be long or short. For unsegmentable nonmonosyllabics, final vowels are usually short, except in loanwords. However, some nonmonosyllabic stems do have a final long vowel, in some cases due historically to a contraction. See (11a-b) in §3.4.1 above.

3.4.6 Vocalic harmony

The vowel-harmonic sets are [+ATR] {*e o*} and [-ATR] {*e ɔ*}.

High vowels {*u i*} are extraharmonic and may co-occur with either vowel-harmonic set within the stem. Low vowel *a* is associated with [-ATR], to judge by verb forms like perfective *pág-è* (not #*pág-è*) 'tied' from stem *págá* 'tie'.

There are only a handful of known cases where different forms of the same word family, e.g. noun and verb, diverge in vowel-harmonic class (17).

(17) Harmonic divergences

- a. *dòŋó* ‘pound (to dislodge grain from spike)’
dòn^L-dóŋjñú ‘area at edge of village where women pound millet spikes in large mortars’
- b. *móm mòmό* ‘carry out second round of weeding’ (cognate noun plus verb)
- c. *éwé* ‘sell’
éwé ‘market(n)’
éw ‘(a) purchase’

3.4.7 Vowel symbolism

As in other Dogon languages, there are a few lexical families containing semantically and consonantly related stems that differ in vocalism in a manner suggesting a limited vowel-symbolic system. The sets in question are generally verbs and expressive adverbials.

For TgK, consider the set (18), which additionally involves consonantal repetition (reduplication is perhaps too strong a word). The form with *e*-vowels (hence with higher second formant) has diminutivizing sense, as often with *e* and *ɛ* in similar sets in other Dogon languages.

- (18) a. *gògó* ‘eat (soft fruit)’
 b. *gègé* ‘(grasshopper, mouse) nibble at (food)’
 c. *gùgó* ‘chew cud’; ‘spit up (food) into mouth’

Connecting the verbs in (18) further with *gògó* ‘say one’s beads (fingering the beads of a rosary)’ and ‘set (rifle cock)’ is more of a stretch.

See also the discussion of vowel sequences in nouns with full-stem iteration (§4.1.6), and the set of expressive adverbials meaning ‘flat’ (§4.5.3).

3.5 Segmental phonological rules

3.5.1 Trans-syllabic consonantal processes

3.5.1.1 Nasalization-Spreading

In many (but not all) stems, including suffixally derived verbs, a semivowel or rhotic consonant appears in nasalized form when preceded by a nasal syllable such as *nv*, *rⁿv*, or *Cvⁿ*. Among many examples are *rⁿ* in *báŋárⁿá* ‘shin’, *wⁿ* in *nòwⁿɔ́* ‘meat’, and *yⁿ* in *gàmù^L kàrⁿíyⁿá* ‘watermelon for cooking’. These forms reflect what was probably once a productive Nasalization-Spreading process.

However, there are a significant number of counterexamples where {*w y r*} remain unnasalized in a nasalizing context. These are generally cases where a nasal-stop cluster has simplified in TgK to just the nasal. Examples are *nèŋjèrè^L-kúⁿ* ‘knee’ (compare Perge *nìŋgø*) and *lémúrú* ‘citrus fruit’ (Perge *lémburù*, from Bambara). Since these forms seem to be stable, we cannot assert a synchronically productive Nasalization-Spreading process.

This is a phonological problem insofar as it applies to a verbal derivational suffix, namely reversive *-rv*. As shown in §9.1, below, this suffix nasalizes to *-rⁿv* after some but not all stems that end in a nasal syllable. For example, *óŋù-rⁿù* ‘uncrumple’ has a nasalized *rⁿ*, but *téŋì-rì* ‘un-hobble (animal)’ has oral *r*, reflecting an earlier form of the type **téŋgi-rì* whose **ŋg* cluster had no nasalizing effect on following suffixed segments. We are therefore stuck with a lexically arbitrary phonological rule by which some stems allow Nasalization-Spreading to a suffixed consonant while others do not.

In verbal inflectional morphology, the imperfective (positive) suffix *-jú* is nasalized to *-nú* after most stems ending in a nasal syllable, defined as either a syllable with a nasal or nasalized consonant as onset (e.g. *na*, *mo*, *wⁿe*), or a syllable with a nasalized vowel as in monosyllabic stems like *jǐ:ⁿ* ‘fart’. Thus *gǔŋjó-nú* ‘will take out’, *jí:ⁿ-nú* ‘will fart’.

This suffixed nasalization does not apply to a set of such verbs whose medial nasal consonant reflects an etymological nasal-stop sequence, i.e. *y* from **ŋg*, *n* from **nd*, or (in theory) *m* from **mb*. Thus *téŋé-jú* ‘will block’ or ‘will hobble (quadruped)’, *mìné-jú* ‘will roll up’, *dùŋjó-jú* ‘will stop up (hole)’, *bìné-jú* ‘will turn (e.g. pocket) inside out’, all with *-jú* instead of *-nú*. I cannot cite examples with *m* from **mb*, and in fact there are counterexamples like *témé-pú* ‘will encounter’, *śmós-pú* ‘will rot’, and *tímé-pú* ‘will cover (with a lid)’, whose *m*'s reflect **mb*.

In *CvC* syllables, a final {*y w*} is nasalized in most cases if *C₁* is nasal or nasalized, as in *nú-ýⁿ* ‘went in’.

Such nasalization-spreading as does exist synchronically in TgK is forward (progressive) rather than backward (regressive). However, backward nasalization-spreading has occurred diachronically in a handful of cases, where synchronic initial *j* reflects an earlier **yⁿ* that was nasalized under the influence of a following nasal. This has resulted in obscure alternations in two cases. For ‘woman’ and related forms (*pě*, *yě*, *yá*) see §4.1.1 and §5.1.8. For *ná-má* ‘let’s go!’ from *yě* ‘go’, see (285a) in §10.6.2.1. Another diachronic case, with no synchronic alternations, is *nàŋá* ‘take, pick up’, cf. Perge (Jamsay dialect) *yèŋgé*. The Dogon language with the most synchronic cases of backward nasalization-spreading is Toro Tegu.

3.5.1.2 Consonantal metathesis

Metathesis is not a common process. We see it on an isolated basis in the word-family with noun *bárⁿúwⁿá* ‘wound(n)’ and transitive verb *bàwⁿúrⁿù* ‘wound (someone)’. Here the verb has metathesized, cf. Jamsay *bármé* ‘wound (someone)’ and other related forms (probably from Fulfulde).

My assistant showed variation between *g/j* and *j/g* sequences in the verb *kójùgù ~ kógùjù* ‘cough’.

3.5.2 Vocalism of suffixally derived verbs

3.5.2.1 Suffixal Vowel-Spreading

Because derivational suffixes on verbs almost always result in heavy stems, derived verbs belong to the type with final short high vowel in the bare stem and perfective. In other inflected forms, the vowel of the derivational suffix is based on the vocalism of the stem. An exception is causative *-m*, which follows a different pattern. See chapter 9 *passim* for examples of derivational suffixes.

3.5.2.2 Presuffixal V₂-Raising

In *CvCv-Cv* verbs with some derivational suffixes (but not causative *-m̩*), the medial syllable raises its short vowel to a high vowel {u i} in the bare stem. This occurs with reversives (§9.1) and transitive derivatives (§9.3.1). An example is *págá* ‘tie’, reverative *págì-ri* ‘untie’.

3.5.3 Vocalic rules sensitive to syllabic or metrical structure

3.5.3.1 Epenthesis

I know of no vocalic epenthesis processes in TgK.

3.5.3.2 *rv*-Deletion

Some *CvCv* stems (chiefly verbs) ending in *rv* or *rⁿv*, where *v* is a short vowel, lose this syllable without compensatory lengthening in a metrically weak position before a consonant-initial suffix.

The process applies to several verb stems of the bimoraic bisyllabic shapes *CvrV* and *CvrⁿV*, before certain suffixes. Some stems of the same shapes fail to reduce. *gér-í:* ‘look’ is treated as /géré/ before suffixes (compare *géré* ‘harvest’), and it is affected, but other *Cvr-i:* and *Cvrⁿ-i:* mediopassives are not, presumably because of the long suffixal vowel.

(19) Verb stems undergoing *rv*-Deletion

gloss	stem	Ipfv	IpfvNeg	PfvNeg
a. <i>CvrV</i> stems subject to <i>rv</i> -Deletion				
‘get’	<i>béré</i>	<i>bě-jú</i>	<i>bě:-rò</i>	<i>bě-lí</i>
‘pass, go past’	<i>gárá</i>	<i>gǎ-jú</i>	<i>gǎ:-rò</i>	<i>gà-lí</i>
‘add’	<i>bárá</i>	<i>bǎ-jú</i>	<i>bǎ:-rò</i>	<i>bà-lí</i>
‘do’	<i>bíré</i>	<i>bǐ-jú</i>	<i>bǐ:-rò</i>	<i>bì-lí</i>
irregular <i>e</i> ~ <i>ɛ</i> alternation				
‘come’	<i>yéré</i>	<i>yě-jú</i>	<i>yě:-rò</i>	<i>yè-lí</i>
irregular (partial mediopassive morphology)				
‘look’	<i>gér-í:</i>	<i>gě-jú</i>	<i>gě:-rò</i>	<i>gè-lí</i>
irregular (imperative <i>pó-nó</i>)				
‘say’	<i>pórí</i>	<i>pó-jú</i>	<i>pō:-rò</i>	<i>pò-lí</i>
b. <i>CvrⁿV</i> stems subject to <i>rv</i> -Deletion				
‘be able’	<i>gðrⁿó</i>	<i>gðⁿpú</i>	<i>gðⁿ-rⁿò</i>	<i>gðⁿ-lí</i>
‘kill’	<i>dárⁿá</i>	<i>dǎ-jú</i>	<i>dǎ:-rⁿò</i>	<i>dàⁿ-lí</i>
‘beat drum’	<i>bárⁿá</i>	<i>bǎ-jú</i>	<i>bǎ:-rⁿò</i>	<i>bàⁿ-lí</i>
‘sell’	<i>dðrⁿó</i>	<i>dðⁿpú</i>	<i>dðⁿ-rⁿò</i>	<i>dðⁿ-lí</i>
c. Stems not subject to <i>rv</i> -Deletion <i>underived, with r</i>				
‘begin’	<i>tóró</i>	<i>tóró-jú</i>	<i>tóró:-rò</i>	<i>tòrò-lí</i>
‘suckle’	<i>árá</i>	<i>árá-jú</i>	<i>árá:-rò</i>	<i>àrà-lí</i>

'pound'	<i>téré</i>	<i>téré-jú</i>	<i>térê:-rò</i>	<i>tèrè-lí</i>
'be difficult'	<i>kíré</i>	<i>kíré-jú</i>	<i>kíré:-rò</i>	<i>kirè-lí</i>
'ripen'	<i>íré</i>	<i>íré-jú</i>	<i>íré:-rò</i>	<i>irè-lí</i>
<i>underived, with rⁿ</i>				
'cut in strips'	<i>sírní</i>	<i>sírní-pú</i>	<i>sírní:-rò</i>	<i>sírní-lí</i>
<i>mediopassive</i>				
'jump'	<i>kír-i:</i>	<i>kír-é:-jú</i>	<i>kírê:-rò</i>	<i>kír-è:-lí</i>

The verbal suffixes that do and do not trigger *rv*-Deletion for the relevant verb stems are listed in (20). Only suffixes beginning with a *Cv* syllable (whether or not the vowel is subject to Apocope) are included.

(20) Suffixes and *rv*-Deletion

trigger deletion	do not trigger deletion
a. derivational	
<i>-m</i> causative (rarely)	<i>-m</i> causative (usually)
<i>-rv</i> reversive (becomes <i>-lv</i>)	<i>-nv</i> inchoative
	<i>-gv</i> causative
b. inflectional	
<i>-jú</i> ~ <i>-pú</i> imperfective	<i>jê</i> recent perfect
<i>-rò</i> imperfective negative	
<i>-lí</i> perfective negative	
<i>=lá</i> stative negative (infrequently)	
<i>-té-jè</i> experiential perfect	
<i>-táŋà</i> progressive	
<i>-wò-ró</i> progressive negative	
<i>-lé</i> prohibitive	
<i>-má</i> hortative	
<i>-m-lé</i> hortative negative	
c. subordinating	
<i>-ní</i> different-subject 'while' (§15.2.1.2)	

Examples can be found in the relevant sections of chapters 9 and 10. From the array of suffixes in (20), it is not clear how a synchronic phonological analysis could neatly explain why some suffixes do and others do not allow *rv*-Deletion.

Regarding causative (and occasionally passive) *-m*, *rv*-Deletion is attested in a few high-frequency forms: *gě-m* 'cause to look', *gă-m* in *dágá gă-m* 'allow to go past', and *bě-m* 'be obtainable'. However, deletion is not productive before this suffix: *árá-m* 'nurse, give suck to', *wárá-m* 'have (animal) plow', (*kéné*) *párá-m* 'make (sb) angry'.

For the reversive (normally *-rv*), the phonology is non-transparent in *tárá* 'affix, glue' with reversive *tá-li* 'remove (sth affixed)', and *góró* 'cover (opening)' with reversive *gó-li* 'remove cover from (opening)'. Arguably the suffixal /r/ dissimilates, becoming *l*, before *rv*-Deletion applies to the second stem vowel.

For the minor derivational suffixes that do not trigger *rv*-Deletion, examples are *yðrú-gí* 'become soft' and *gúrú-ní* 'become long'.

rv-Deletion does not apply to most heavier (trimoraic and longer) stems, e.g. *Cv:r⁽ⁿ⁾v-* or *CvCvr⁽ⁿ⁾v-*. For example, (*săⁿ*) *ná:-rⁿi* ‘remember’ and *kígìrì* ‘return’ retain their full shapes before suffixes, e.g. (perfective negative *săⁿ ná:-rⁿà-lí*, *kígèrè-lí*). It does not affect mediopassive derivatives of the shape *Cvr⁽ⁿ⁾-i*, e.g. *kír-i:* ‘jump’ (perfective negative *kír-è:-lí*). There is, however, one irregular and high-frequency *Cv:rv* stem that does undergo *rv*-Deletion, namely *jě:ri* ‘bring’, which has forms like progressive *jě:-táŋjá*.

There are few opportunities for *rv*-Deletion to apply word-internally to stems other than verbs, because of very limited suffixation for those stems. However, there is an occasional compound or tightly-knit noun-adjective sequence that shows the deletion. *gírⁿi* ‘house’ is the initial in *gi-ná*: ‘extended family’. However, the bisyllabic form occurs in other common compounds with this initial such as *gírⁿi-dú* ‘courtyard (with its apartments)’, in more transparent compounds such as *lògò [gírⁿi tár-ú]* ‘earth for plastering’, and in sequences of ‘house’ with an adjective or numeral. *àrⁿú* ‘rain’ retains its segmental shape as compound initial: *àrⁿù-dúrú* ‘thunder’, *àrⁿù-dí*: ‘rainwater’. *àrⁿá* ‘man’ is also generally resistant to *rv*-Deletion, but I can cite one case of deletion, namely, *àⁿ kàná* ‘newlywed man’ (§5.1.8).

The derivational suffix *-ná* in deadjectival extent nouns (§4.2.2) does not trigger *rv*-Deletion: *gù-gùrù-ná* ‘length’, *wò-wòrù-ná* ‘depth’. Likewise characteristic *-gíⁿ* (§4.2.3), as in *nùrⁿù-gíⁿ* ‘sick person’.

As for numerals, *pérú* ‘10’ undergoes *rv*-Deletion to *pě-* before a single-digit numeral in compound numerals from ‘20’ to ‘90’, e.g. *pě-lóy* ‘20’ (§4.6.1.3).

3.5.4 Syncope

Syncope is deletion of a vowel medially in a word, i.e. of the second vowel in *CvCvCv*.

Syncope is not widespread in TgK, assuming that we treat it separately from *rv*-Deletion. However, a short high vowel {*i u*} in the environment *CvC_Cv* is deleted under certain conditions.

dàní-gì ~ *dànú-gù* ‘make (sth) good, fix’ (§9.2.2), irregular causative of *dàg-i*: ‘be good, turn out well’, is normally heard in unsyncopated form in the bare stem and perfective. The forms with *a* or *e* after the *g* are generally syncopated, e.g. imperative *dǎn-gá*, imperfective *dǎn-gá-jú*, and same-subject anterior *dǎn-g-è*; though careful pronunciations like *dànú-gá-jú* are also possible. The divergence within the paradigm suggests that a following high vowel disfavors Syncope, while a following *a* favors it.

Syncope was not observed in *jùnú-gù* ‘ruin’ or its paradigmatic forms such as imperative *jùnú-gó*. Since the *n...g* consonant sequence is the same as for ‘make good, fix’, this suggests that a following *o* vowel, like a following high vowel, disfavors Syncope.

káwá ‘become separated’ has an irregular causative *káw-gì*, imperative *káw-gá* (§9.2.2). Assuming underlying /kawu-gv/, we again have Syncope, this time throughout the paradigm. This suggests that the preceding homorganic *w* favors Syncope of *u*, regardless of the following vowel.

3.5.5 Apocope of final high vowels

Apocope is word-final deletion of a (short) vowel. As part of the general attrition of word-final segments, a final short high vowel {*i u*} is deleted under some conditions. Actual synchronic alternations are limited to verbs.

For some verbs, including all heavy stems (*Cv:Cv*, trisyllabic, or longer) and some *CvCv* stems, the important “bare stem” form ends in a short high vowel. This final vowel is usually

deleted after an unclustered {*m n y l*}, i.e. any sonorant other than a rhotic, semivowel, or *p*. There are, however, careful pronunciations with the final high vowel audible. Other forms of these verbs have a clear (nonhigh) vowel, for example in the imperative. Examples are in (21).

(21) Apocope in verb stems

bare stem	imperative	gloss
<i>gǔŋj</i>	<i>gǔŋjó</i>	'take out'
<i>bàgá-m̄</i>	<i>bàgá-mú</i>	'cause to fall'
<i>wán</i>	<i>wáná</i>	'shallow-fry'
<i>mǎ:-j̄</i>	<i>mǎ:-já</i>	'harden'
<i>pôl</i>	<i>pól</i>	'break up'

In addition to the bare stem, the same verbs allow Apocope in the perfective, e.g. *gǔŋj-Ø* 'took out', variant *gǔŋ-ì*.

Finally, verbal nouns in *-ú* of bisyllabic stems are typically apocopated, e.g. *wǎn-Ø* 'shallow-frying', alongside *wǎn-ú*.

3.5.6 Local consonant cluster rules

None.

3.5.7 Vowel-vowel and vowel-semivowel sequences

3.5.7.1 Hiatus between adjacent vowels in reduplications

The hiatus between the vowel of a *Cv-* reduplicant (in this case just *v-*) and a stem-initial vowel is filled by a glottal stop. See, for example, §4.1.4 for nouns, and §10.2.1.5 (among others) for verbs. An example is *ò-ʔó-è*, reduplicated perfective of 'give', from simple perfective *ó-è*.

3.5.7.2 *vv*-Contraction

There are relatively few situations where two vowels come together at a boundary and contract. Some vocalic sequences are tolerated, even aside from the reduplications with glottal-stop hiatus. Verbs often show uncontracted diphthong-like sequences like *oe* and *ae* in the perfective. Compound final *-í:n* 'child' is often uncontracted after an initial ending in a vowel, though various contracted forms also occur, especially in terms for juvenile livestock, see (96) in §5.1.7.

Some pronouns contract with quotative subject (*w*)à, hence 1Sg *má à*, pronounced [mâ:], and 3Sg *wó ð* from /wó wà/.

The imperfective negative of verbs is *-rò* after a form of the stem with lengthened final vowel that also shifts from H-tone to {HL} (falling) tone, e.g. *págâ:-rò* 'will not tie'. This is likely to have resulted from contraction of the stem with a bisyllabic suffix (complex).

3.5.8 Local vowel-consonant interactions

3.5.8.1 /i/ > u before labial

There is no productive process of this type, though short high vowels do fluctuate between *i* and *u* especially in verbs, and the consonantal environment probably plays a role in the phonetics.

The alternation of mediopassive *im-î*: ‘lie down’, stative *ù-ʔúmò* ‘be lying down’, and irregular causative *ú:-ñ* ‘lay (sb, sth) down’ (perhaps from *úmú-ñ) represents an isolated and archaic case.

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

Examples of this are perfective *ní-ÿⁿ* ‘ate (meal)’, pronounced [nî:], and verbal noun *búw-*Ø (apocopated from /búw-ú/), pronounced [bú:], cf. verb *búwñ* ‘scrub’.

3.6 Cliticization

There are no second-position (“special” or Wackernagel’s-position) clitics.

It is difficult to justify (on precise phonological grounds) a distinction between suffixes, clitics, and particles, and I cannot defend every orthographic decision I have made in this respect.

The best case for cliticization is when the putative clitic is reduced to a syllable-final consonant, pronounced with the final syllable of the preceding word. This is clearly the case with =y ‘it is’, which also acquires its tone from the preceding word (§11.2.1.1), and with the short allomorph =ñ of dative postposition *nì* (§8.1.1).

In verbal morphology, the boundary between suffixation and chaining is not clearcut, and some “suffixes” that follow the same form of the verb used in nonfinal position in chains could be reanalysed as (auxiliary) verbs. See §10.1.1 on this matter.

3.7 Tones

Lexical tone melodies are enclosed in slashes, e.g. /H/ or /LH/. Curly brackets {...} enclose tone overlays like {HL}, each of which consists of one or more tone elements H[igh] and L[ow], that are superimposed on stems of variable syllable and mora counts. {...} is also used when the difference between lexical and overlaid tone patterns is not relevant or not known. Syllable-by-syllable representations like L.<LH> use the period to mark syllable boundaries, and angled brackets to represent contoured (nonlevel) syllable tones. For example, an /LH/ melody or overlay can be mapped onto any type of stem, e.g. as <LH> on a monosyllabic. For bisyllabic and longer stems, how the mapping works must be specified. For example, /LH/ could in principle be mapped onto Cv.Cv.CvC as L.H.H, as L.L.H, or as L.L.<LH>, depending on the language and perhaps varying by construction. See the discussions on tone-break locations for lexical melodies (§3.7.1.5-7).

Superscripts like ^L and ^{HL} are used to index the presence of a tone overlay in NPs and in nominal compounds. Superscripts do not add phonetic information, as tones for each syllable in the target domains are already adjusted to their overt forms due to the overlay. See §3.7.2 for details.

Syllables in TgK are H, L, <LH> (rising), <HL> (falling), and <LHL> (bell-shaped). The tonal diacritics are, respectively, \acute{x} , \grave{x} , \check{x} , \hat{x} , and \breve{x} , where x is a variable over vowels. <LHL> is not a lexical melody for monosyllabic stems in TgK, but due to Apocope it does occur (in a predictable fashion) in the “bare form” and related perfectives of some verbs that have <LH> elsewhere. Example: *mɔ̄:n̄* ‘gather, assemble’ (apocopated from /mɔ̄:nù/). It also occurs in the imperfective negative of several verbs, e.g. *b̄i:-r̄ò* ‘will not do’. Among nouns, one can cite the archaic compound *n̄e-ŷⁿ* ‘girl; daughter’ (§5.1.8).

In Dogon languages, verbs generally have restrictive tonal (as well as vocalic) properties that do not apply to non-verb stem-classes. Typically verbs belong to either /H/ or /LH/ lexical classes, and the choice is often predictable from the initial consonant (C_1). If C_1 is a voiced obstruent (depressor consonant), we get /LH/, if C_1 is a voiceless obstruent (nondepressor) we get /H/. If there is no C_1 , or if C_1 is a sonorant, whether the stem is tonally /H/ or /LH/ is not predictable and must be learned verb by verb. By contrast, in these other Dogon languages, nouns, adjectives, and numerals have a broader range of lexically possible tone melodies, to wit /H/ /HL/ /LH/ /LHL/ and (in Toro Tegu and Ben Tey) /HLH/, and there is absolutely no correlation of lexical tone with features of the C_1 or with any other segmental property of the stem.

In TgK, verbs generally follow this widespread Dogon pattern. The basic lexical distinction for verbs is /H/ versus /LH/, and if C_1 is an obstruent we can predict the lexical tone (except in recent loanwords). However, there is an important class of verbs with a final high vowel {i u} in the “bare stem” and in some related forms. This class includes all stems of three or more moras (for example, all trisyllabics), as well as some bimoraic bisyllabics. See (242) in §10.1.3.5 and (246) in §10.1.3.9 for sample lists. In this class, the bare stem has a final L-tone, so the possibilities are /HL/ and /LHL/ allowing for the lexical distinction in the initial tone. Since the final L-tone in the bare stem is predictable, and since it is absent in the imperative and some other inflected forms, we could argue that the real lexical distinction for verbs of this class is /H/ versus /LH/, exactly as in other verbs.

Moreover, TgK non-verb stem-classes have inched closer to verbs. They still differ from verbs in showing no correlation of lexical melody with initial consonant type. However, they have replaced /HL/ by /H/ and /LHL/ by /LH/. The effect is to consolidate non-verb stem-class tone melodies around /H/ and /LH/, as in verbs.

Lexical melodies of all stem-classes (except expressive adverbials) are subject to partial modification or to full erasure, as syntactically or suffixally controlled tone overlays are applied to some or all syllables of the stem. For example, all stem-classes drop their tones to {L} in specified morphosyntactic contexts, and prosodically heavy nouns have an {HL} overlay when possessed.

3.7.1 Lexical tone patterns

3.7.1.1 At least one H-tone in each stem

All verb, noun, adjective, and numeral stems have at least one H-tone in their basic lexical form. There is no indication in the paradigms of monosyllabic verbs that any of them has a lexical /L/ melody. The important effect of this is that a morphosyntactically controlled {L} overlay on a stem is always audible. A partial exception is that /LH/-melody numerals are pronounced as L-toned in allegro speech when not phrased with a following word, e.g. *tà:nú* ‘3’ sometimes pronounced *tà:n̄ù*.

A real exception to the constraints is that a few expressive adverbials (EAs) have /L/ melody. Four examples are in (213f), joined by iterated *gòrùm-gàràm* in (216c), all in

§8.4.6.1. These /L/-toned EAs require H-toned variants of two following monosyllabic morphemes that are otherwise <HL>- or L-toned: *kó* for copula *kò* ‘be’, which makes EAs predicative, and *káⁿ* for *kàⁿ*, which follows some EAs in adverbial function. EAs, which have various phonological idiosyncracies, are somewhat autonomous prosodically. They are generally not subject to tonosyntactic operations.

3.7.1.2 Lexical tone melodies of verbs

In the bare stem and in the closely related perfective, the basic lexical melodies for verb stems are /H/ and /LH/, the choice being predictable if the stem begins with an obstruent (voiceless requires /H/, voiced requires /LH/) and lexical if it begins with a sonorant or no consonant. There are two complications to this. First, an archaic verb *jé* ‘take away, convey’, etymologically a two-verb chain, has /HL/ melody. Second, there is a large class of nonmonosyllabic verbs that end in a short high vowel i/u in the bare stem, and which add a final L-tone in this form, so /H/ becomes /HL/ and /LH/ becomes /LHL/. These verbs are prosodically heavy, or (in the case of *CvCv*) treated as though heavy, so the final L is semi-predictable. The final L-tone is also absent from the imperative, which ends in a nonhigh vowel.

The facts are summarized in (22).

(22) Syllabic shape and lexical tone melodies of verbs

melody	comment
a. Cv	
/H/	only <i>ó</i> ‘give’, <i>nú</i> ‘go in’, <i>tí</i> ‘send’, <i>gí</i> ‘say’
/LH/	only <i>đ</i> ‘see’ (treated as <i>đ</i> - in some inflections)
b. Ce/Cv: (irregular)	
/LH/	only <i>yě</i> ‘go’, presuffixal <i>yă:-</i>
/HL/	only <i>jé</i> ‘take away’, presuffixal <i>jâ:-</i>
c. Cv: also prosodically light <i>CvCv</i> with final nonhigh vowel in bare stem	
/H/	required with <i>C_I</i> = voiceless obstruent
	some with <i>C_I</i> = sonorant or zero
/LH/	required with <i>C_I</i> = voiced obstruent
	some with <i>C_I</i> = sonorant or zero
d. CvCv with final high vowel in bare stem	
<i>treated as light like (c), final i matches preceding i</i>	
/H/	e.g. <i>pír'í</i> ‘milk (a cow)’
<i>treated as heavy like (e), final high vowel unrelated to preceding vowels</i>	
/HL/	e.g. <i>póri</i> ‘say’
/LHL/	e.g. <i>gǔjì</i> </gǔjù/ ‘remove’
e. Cv:Cv and other heavy stems with final high vowel in bare stem	
/HL/	required with <i>C_I</i> = voiceless obstruent
	some with <i>C_I</i> = sonorant or zero
	a few loanwords with <i>C_I</i> = voiced obstruent

/LHL/	usual with <i>C_v</i> = voiced obstruent some with <i>C_v</i> = sonorant or zero
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The association of /H/ and heavy /HL/ melodies with initial voiceless obstruent, and conversely of /LH/ and heavy /LHL/ with initial voiced obstruent (depressor consonant), is robust for verbs at the lexical but not surface level. The lexical melody of a verb is regularly erased by morphotononological overlays controlled by suffixes, e.g. *biré* ‘do’ with initial voiced obstruent and the “correct” /LH/ melody, but imperative *bíré*. Nouns and other non-verb stems show no effects of depressor consonants at any level.

3.7.1.3 Lexical tone melodies for unsegmentable noun stems

For uncompounded and unpossessed common nouns, the normal lexical tone melodies are /H/ and /LH/. That is, final falling /HL/ and /LHL/ are virtually nonexistent in simple common nouns (see below for exceptions). This distinguishes common nouns from other word types that do include stems with final falling tone, including proper nouns, numerals, inflected verb forms, and particles (e.g. *nî* ‘here’). Most other Dogon languages including closely related Jamsay have plenty of nouns with /HL/ and /LHL/ melody. It is clear that TgK has flattened final */...HL/ to /...H/ in common nouns, though usually not elsewhere.

A difficulty in studying nominal tones is the thin line between being compounded and simple, and between being reduplicated and simple. Tonal patterns, notably the position of tone breaks, suggest that many nouns that only occur in one form are nonetheless analysed by native speakers as containing either a compound break or a reduplicant.

The lexical melodies are exemplified in (23).

(23) Lexical melodies for morphologically simple noun stems

a. /H/

<i>i:ⁿ</i>	‘child’
<i>togú</i>	‘shed’
<i>lásírf</i>	‘couscous’

b. /LH/

<i>pě</i>	‘woman’
<i>gírⁿí</i>	‘house’
<i>dè:rⁿé</i>	‘rest’
<i>púnáyⁿ</i>	‘flour’
<i>òsóró</i>	‘earth’

c. [for /HL/ and one case of /HLH/, see below]

There is no issue regarding the tone break in the /H/ stems, but the issue is problematic for the /LH/ stems; see §3.7.1.6-7, below.

Unlike common nouns (i.e. those that denote masses or sets of individuals), personal names and toponyms may have /HL/ melodies. There is considerable variation in the pronunciation of personal names like ‘Seydou’ and ‘Fanta’, which occur in all Malian languages in various tonal forms. In TgK they sometimes have melodies ending in H (like common nouns), and sometimes have final L (as in several neighboring languages). The list of local village names in §1.2 shows several with /HL/ and /LHL/ melodies. Among

morphologically complex common nouns, {LH}- {L} is notably present in *àrⁿá-ŷⁿ* ‘boy’ and *jié-ŷⁿ* ‘girl’, which end in a reduced form of ‘child’ as compound final (§4.1.2, §5.1.7).

In the infrequent /HL/ noun like *᷇sàⁿ* ‘cemetery’ that is not transparently compounded, one suspects nonetheless that it originated as a compound and is still treated prosodically as a compound. Compare Jamsay cognate *᷇wⁿ᷇-sáyⁿ*.

/HL/ and /LHL/ adverbs, including some that are rather noun-like, are well attested. For example, ‘last year’ is *nàŋúrⁿù*, and ‘day after tomorrow’ is *yògò^L-dérⁿè* (with *yògò* ‘tomorrow’).

I know of one partially /HLH/ noun that does not appear to be compounded. ‘(Non-boiling) kettle’ (used to carry water) is *sátálá* for some speakers, at least in the combination *sátálá mà* ‘my kettle’. However, the noun is also heard variously as *sátálá* or *sátálà*, i.e. with /H/ or /HL/ melody. With ‘it is’ clitic I recorded *sátálà =ŷ* ‘it is a kettle’. The noun is found in several languages in the region, including Bambara, and variant melodies may be due to multiple (re-)borrowing across language boundaries.

Overall, then, final-falling melodies /HL/ and /LHL/ are very restricted for unpossessed, uncompounded noun stems. However, the combination of an /H/-toned noun with the (generally atonal) ‘it is’ clitic *=y* appears with final-falling tone pattern under some conditions; see (313c-e) in §11.2.1.1.

3.7.1.4 Lexical tone melodies for adjectives and numerals

Uncompounded adjectives have the same lexical choice between /H/ and /LH/ as uncompounded common nouns. See §4.5.1, below, for a long list.

kùrújù functions as an adjective or compound final (the two categories are not always distinguishable) with rare /LHL/ melody. It denotes the occasional cow-pea or roselle seed that is too hard to use for food, e.g. for cow-peas *ni:^L kùrújù*. It may itself be composite at least historically, cf. adjective *kùrú* ‘thick (liquid, e.g. honey)’.

Numerals have a wider range of melodies than adjectives and common nouns. Attested melodies are /H/ (*pérú* ‘10’), /LH/ (*năy* ‘4’), /HL/ (*sô:* ‘7’), and /LHL/ (*silâ:* ‘8’).

3.7.1.5 Tone-Component location for verb stems

CvCvCv and *Cv:Cv* stems are the most useful for identifying tone-break locations.

/LH/ and /LHL/ stems, i.e. those with an initial L-tone segment, show the break from L to H as close as possible to the left edge. A trisyllabic example is /LHL/ bare stem *yòrú-gì* ‘slacken’ with {LH}-toned imperative *yòrú-gó*. A *Cv:Cv* example is /LHL/-toned *mɔ:ñ* ‘assemble’ and its {LH}-toned stem in imperfective *mɔ:nɔ:ñú*.

Aside from ‘take away’, most of whose forms are based on *jâ:-*, a final L-tone occurs only on the final syllable of stems ending in a short high vowel, and even for them only in the bare stem and perfective. This applies to heavy /LHL/-toned verb stems (*Cv:Cv*, *CvCvCv*), as seen just above in *yòrú-gì* and *mɔ:ñ*. In the other suffixed forms, and in the imperative, these verbs lose the final L-tone, shifting from /LHL/ to {LH}.

For /HL/-toned *CvCvCv* stems, which likewise lose the final L-tone in most inflected forms but show it in the bare stem and perfective, the tone break can be after the first or second syllable. The data in §10.1.3.9 show a strong correlation of *CíCíCí* with *C₃* = rhotic as in *píni-rⁿi* ‘open (door)’, and of *CíCíCíCí* with *C₃* = other than rhotic.

3.7.1.6 Tone-break location for bitonal noun stems

Here we focus on uncompounded, underived /LH/-toned common nouns. There is of course no tone break in the other common melody for such nouns, namely /H/. Angled brackets indicate contour tones in specific syllables, so *C˘CV˘*: is represented as L.<LH>.

For monosyllabic /LH/ nouns, the break is of course within the single syllable: *m˘o* ‘gum arabic’, *d˘en* ‘waterjar’, *d˘yn* ‘pestle’, *b˘in* ‘belly’. It should be noted that *CvC* is not a completely regular shape for nouns; *d˘yn* is probably an old compound ending in ‘child’, and *b˘in* still varies with bisyllabic *b˘iní*.

For nonmonosyllabic stems, it is advisable to begin by separating off apparent *Cv*-reduplications, or equivalently by disregarding the tone of the initial syllable. For example, rather than treating *C˘V-C˘VC˘* and *C˘V-C˘V-C˘* as L.H.H and L.L.H, respectively, with a lexical choice of tone-break location, it makes more sense to treat them as reduplicated derivatives of ordinary bisyllabic /H/ and /LH/ stems, respectively, i.e. as L-/H/ and L-/LH/ including the hyphen. The tone breaks then unproblematic phonologically. Examples are in (24). For a fuller list and more discussion, see §4.1.4.

(24) Nouns with L-toned reduplicant

a. *Cv-Cv*

L-H

<i>g<small>˘</small>e<small>-</small>g<small>˘</small>e</i>	‘jaundice’
<i>j<small>˘</small>u<small>-</small>j<small>˘</small>u</i>	‘cold weather’

b. *Cv-Cv:*

L-H

<i>d<small>˘</small>e<small>-</small>d<small>˘</small>e:</i>	‘father’ (dialectal variant <i>d<small>˘</small>e<small>-</small>d<small>˘</small>e:</i>)
<i>k<small>˘</small>o<small>-</small>k<small>˘</small>o:</i>	‘scab’; ‘slough(n)’ (Jamsay <i>k<small>˘</small>og<small>˘</small>o</i>)
<i>L-<LH></i>	
<i>k<small>˘</small>o<small>-</small>k<small>˘</small>o:</i>	‘(fish) scale; (tree) bark’ (Jamsay <i>k<small>˘</small>i-k<small>˘</small>o<small>w</small></i>)

c. *Cv-CvCv*

L-H.H

<i>k<small>˘</small>u<small>-</small>k<small>˘</small>úm<small>˘</small>o</i>	‘smoke’
<i>L-L.H</i>	

<i>k<small>˘</small>a<small>-</small>k<small>˘</small>ára</i>	‘armpit’
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Other bisyllabic and trisyllabic /LH/ nouns, including nominal compound finals, are illustrated in (25). Any longer (i.e. quadrisyllabic) stem is likely to behave tonally like a compound.

(25) Morphologically simple /LH/-toned nouns and compound finals

a. *CvCv*

L.H

<i>n<small>˘</small>àj<small>˘</small>á</i>	‘cow’
<i>d<small>˘</small>òn<small>˘</small>ó</i>	‘cat’
<i>g<small>˘</small>ìr<small>˘</small>n<small>˘</small>í</i>	‘house’
<i>àr<small>˘</small>n<small>˘</small>á</i>	‘man’

<i>gùjú</i>	‘skin’
<i>gùⁿsáⁿ</i>	‘plain (topography)’
<i>L.<LH></i>	
<i>final iⁿ</i>	
<i>mùniⁿ</i>	‘Mossi (person)’
<i>gùriⁿ</i>	‘Gourou (person)’
<i>other</i>	
[none]	

c. *Cv:Cv*

<i>L.H</i>	
<i>là:rá</i>	‘fields next to the village’
<i>tà:rá</i>	‘collective hunt’
<i>dè:ŋé</i>	‘earthenware pot’
<i>gè:jé</i>	‘thin cotton thread’
<i>gè:mé</i>	‘shard’
<i>wò:mi</i>	‘pancake-like cake’
<i>bà:pá</i>	‘eating bowl’
<i>bò:nó</i>	‘shoulderbag’
<i>sìgùrù^L-jè:lé</i>	‘earring’
<i>L.<LH></i>	
[none]	

d. *CvCvC, CvCv:*

<i>L.H</i>	
<i>bàsá:ⁿ</i>	‘bassam (fabric)’
<i>rásá:</i>	‘sneaker’ (<Rasta[farian])
<i>kèpí:</i>	‘cap’ (Fr <i>képi</i>)
<i>sápó:</i>	‘sailor’s hat’ (Fr <i>chapeau</i>)
<i>bùtó:ⁿ</i>	‘button’
<i>sìⁿgóm</i>	‘chewing gum’
<i>L.<LH></i>	
<i>pùnáyⁿ</i>	‘flour, powder’
<i>mòtám</i>	‘scorpion’

e. *CvCCv and Cv:CCv*

<i>L.H</i>	
<i>làmpáⁿ</i>	‘lamp’ (loanword)
<i>àndáⁿ</i>	‘tiny fly sp.’
<i>pàrní</i>	‘fritters’ (<Bambara)
<i>pòrsóⁿ</i>	‘poison’
<i>pà:ndé</i>	‘thick cotton thread’
<i>kògò^L-tò:ŋó</i>	‘chicken’s drinking trough’

f. *CvCvCv*

<i>L.H.H</i>	
<i>initial a(ⁿ) possibly segmentable (§4.1.7)</i>	
<i>àtégu</i>	‘wrestling’
<i>àségú</i>	‘sneeze’
<i>àlégú</i>	‘loincloth’

<i>àndájú</i>	‘soft millet cakes’
<i>other</i>	
<i>kùmúrⁿú</i>	‘baobab seed’
<i>kògújó</i>	‘cough’
<i>kàgújá</i>	‘drooling’
<i>nùmò^L-kàséré</i>	‘ring finger’
<i>kènè^L-pèrúgé</i>	‘hiccups’
<i>lémúrⁿú</i>	‘citrus fruit’
<i>sènjérⁿé</i>	‘sifting residue’
<i>dògóró</i>	‘mortar’
<i>kèpélú</i>	‘hot chili pepper’
<i>sùkórá</i>	‘sugar’
<i>gàmù^L kàrⁿýⁿá</i>	‘watermelon (cooking)’
<i>sàdíngé</i>	‘vegetable garden’
<i>òmóró</i>	‘small-mouthed waterskin’
<i>bùtélu</i>	‘bottle’
<i>L.L.H</i>	
<i>initial a(ⁿ) possibly segmentable (§4.1.7)</i>	
<i>àpàlá</i>	‘soft millet cakes’
<i>CvCùCú (like trisyllabic verbal noun)</i>	
<i>kèrùgú</i>	‘gap between front teeth’
<i>sèbùgú</i>	‘heart of palm’
<i>sémùrⁿú</i>	‘rags, tatters’
<i>pùsàrú</i>	‘crushed millet’
<i>jògùrⁿú</i>	‘short-handled pick-hoe’
<i>tògùrú</i>	‘basket with square base’
<i>other</i>	
<i>kàⁿ-kèrùwé</i>	‘sideburns’
<i>ìⁿsìrⁿí</i>	‘urine’
<i>tìgìrⁿí</i>	‘baobab fruit’
<i>pìrìgí</i>	‘wide-brimmed hat’
<i>bòlòsí</i>	‘cotton fabric’
<i>àrùkó</i>	‘boubou (robe)’
<i>pòrùké</i>	‘long boubou’
<i>nàmàsá</i>	‘banana’
<i>lè-lìgijí</i>	‘slashing earth (not in rows)’
<i>bàràdá</i>	‘tea keetle’
<i>L.L.<LH></i>	
<i>gònòsòⁿ</i>	‘slave-snatcher’

Observe that both L.L.H and L.H.H, and one case of L.L.<LH>, are present. This suggests that TgK does not favor separation of an /LH/ melody from the segmental representation of uncompounded, unreduplicated trisyllabic nouns. The issue of where the break would occur in /HL/ in trisyllabic common nouns is moot since this tone pattern is confined to prosodically heavy possessed nouns (and to personal and place names).

3.7.1.7 Tone-break location for tritonal noun stems

Because the {HL} sequence is restricted to prosodically heavy possessed nouns, and to personal and place names, the melody /LHL/ is largely absent. The other tripartite pattern, /HLH/, is rare even in other Dogon languages (a few examples in Toro Tegu and Ben Tey).

In the frozen expression *kǎwrù bè*: ‘excuse me!’, also found in e.g. Jamsay, the initial word is /LHL/ but its status as a noun is not completely transparent. In any event, it has only three moras so there is no suspense as to where the tones will occur.

3.7.2 Grammatical tone patterns

The lexical tone melodies of verbs, nouns, adjectives, numerals, and even demonstratives are frequently erased by superimposed tone overlays in specifical grammatical contexts. For verbs, the relevant contexts are morphological (word-level), as tone overlays are controlled by certain suffixes. For nouns, adjectives, and numerals, the most significant contexts are syntactic, as words to the left or right (not always adjacent) control tones on targeted words.

Word- or phrase-level tonosyntactic superscripts ^L, ^{HL}, and ^H are placed at the left or right edge of the targeted word, or of the (bracketed) targeted phrase, “pointing” in the direction od the controller (C). So, if T is the target, I write C^LT and T^LC for left-to-right controllers (possessors) and right-to-left controllers of {L} overlays, respectively. If a noun is arguably targeted from both the left and the right, and we cannot determine which controller is active, double superscripts can be used: C₁^LT^LC₂. A local tone component that is realized only at the phonological edge of the target (e.g. its final mora) is indicated by a + mark in the superscript, so that T^{L+H}C indicates that the target has word- or phrase-level {L} overlay plus a final H-tone component.

As an example, in *[[sǎⁿ bè]^{HL}ínà:]* ‘their (own) mother’ from (64), *ínà:* ‘mother’ shows an {HL} overlay controlled by the preceding possessor, erasing the lexical tone, so the superscript is on the left of the target. In *[isì gèⁿ]^Lmár^{ná}* ‘(a) big black dog’ (137d), the final adjective *már^{ná}* controls tone-dropping on the bracketed two-word target domain, so the superscript is on the right.

Superscripts are also used in nominal compounds, though here the notion of “controller” is less clearly applicable. For example, in *[pàrà-[gò:-rò]]^L-bíré* ‘harvest-work’, *pàrà-[gó:-rò]* ‘harvest season’ is tone-dropped to {L} as compound initial. To avoid clutter, such word-internal superscripts are often omitted from text transcriptions. This is even more so for suffix-stem tonomorphology in verbs.

Tonosyntactic superscripts are not phonetic diacritics (like downstep marks). The tones on the syllables of the targeted word(s) are already marked as H, L, or whatever, by the usual accent diacritics. The superscripts are simply there to help the reader identify the tonosyntactic processes that have applied to produce these surface tones.

3.7.2.1 Grammatical tones for verb stems

Tone overlays on verb stems are generally morphological (word-level) rather than syntactic in nature.

The imperfective negative does not cast an overlay over the entire verb stem, instead it merely lengthens the final vowel and adds a final L-tone element to it (to give it a falling tone). Thus *págâ:-rò* ‘will not tie’ from *págá*, but *dágâ:-rò* ‘will not leave’ from *dágá*, preserving the distinction between verbs with initial H- and initial L-tones.

The perfective negative suffix *-lí*, on the other hand, controls stem-wide tone-dropping on the verb, so the lexical melody is erased. Thus *pàgà-lí* ‘did not tie’ and *dàgà-lí* ‘did not leave’, with no difference in stem tones.

The perfective (positive) preserves lexical tones.

In the imperative, lexically /LH/-toned prosodically light (*CV:* and *CVCV*) stems become {H}-toned, merging with lexical *CV:* and *CVCV*.

Further tonal changes occur in focalized clauses and in relative clauses.

3.7.2.2 Grammatical tones for noun stems

Nouns are subject to three morphosyntactically controlled tone overlays.

The first is tone-dropping to {L} controlled by a following modifying adjective or demonstrative, or due to function as head NP of a relative. Tone-dropping is phonologically simple: all H-tones drop to L. See chapter 6 for interactions of nouns with adjectives and demonstratives, and chapter 14 for head NPs in relative clauses.

The second is a possessed-noun overlay that is controlled by a preceding (but not following) possessor. The preceding possessor may be a pronoun (other than 1Sg) or a nonpronominal NP. The lexical melody of the possessed noun is erased, replaced by {H} if the stem is light and {HL} if it is heavy (three or more moras). Two high-frequency monosyllabic nouns have {L} as possessed-noun contour. See §6.2.1 for details.

The possessed-noun overlay and tone-dropping do not conflict in relative clauses, since possessors of a relative head NP are restructured into appositional forms that do not interact with the head NP tonally. However, the possessed-noun overlay and tone-dropping do potentially conflict in combinations like [possessor [noun adjective]], where the noun is in theory subject to an {H} or {HL} possessed-noun overlay from the possessor to the left, but to tone-dropping controlled by the adjective to the right. In this case, the possessor wins out; indeed, the adjective as well as the noun are subject to the possessed-noun overlay, which is always {HL} in this case (§6.2.2).

For the {L}+H pattern on certain types of NP including a numeral, see §3.7.2.4 below.

The third context where a noun is subject to tonal overlays is in compounds. For the most part, this involves either tone-dropping the initial to {L}, or an {H} or {HL} overlay on the final like that of possessed nouns.

3.7.2.3 Grammatical tones for adjectives

Adjectives undergo the same tonal processes as nouns, insofar as they can occur in word strings that can be targeted by tonosyntactic controllers.

3.7.2.4 Grammatical tones for numerals

Word-internal tone-dropping occurs on numeral stems before ordinal suffix *-nirní* (§4.6.2.2).

There are some unusual tonal changes on numerals as parts of composite numeral expressions. First, numerals modifying a preceding ‘hundred’ or ‘million’ are tone-dropped, see §4.6.1.4. Second, decimal terms ('20', etc') involve contracted forms of *pérú* '10' as initial. This appears as <LH>-toned *pě-* before an L-tone and in *pě-lóy* '20'), and as L-toned *pè-* before other H-tones (§4.6.1.3).

In the sequence [noun (adjective) numeral], the numeral (like the preceding words) is subject to tone-dropping controlled by a preceding possessor NP, or by a following demonstrative or relative-clause verb. This tone-dropping fits the pattern seen in several other Dogon languages.

However, TgK also shows an {L}+H overlay on target domains that include a numeral when the target domain is combined with certain additional elements (possessor, demonstrative, ‘all’). This takes the form of {L} spread over the target domain, except for a single final-syllable or final-mora H-tone. See §6.2.1.5 and §6.6.1 for details.

3.7.2.5 Grammatical tones for demonstratives

The two basic demonstrative stems, proximate *nɔ:* ‘this’ and near-distant *yɔ:* ‘that (near you)’ are lexically /H/-toned (§4.4.1.2). This is how they appear in isolation, and in the combination N-Dem, e.g. *gìrⁿi*^L *yɔ:* ‘that house’ (where the demonstrative controls tone-dropping on the noun).

However, when the NP that includes the demonstrative is more complex (i.e. morphosyntactically heavier), the demonstrative drops to L-tone. The tonosyntactic treatment of the NP as a whole depends on whether a numeral and/or a possessor are present, since these elements can require an {L}+H tone pattern preceding a tone-dropped demonstrative. For details and examples see §3.7.3.5 and §6.1.4. With a prenominal possessor, Poss-N-Dem appears with the regular possessed-noun overlay on the noun, and with tone-dropped demonstrative. An example is (128b) in §6.2.2. However, this could be marked up tonosyntactically either as Poss^{HL}N^LDem, with {H} overlay on prosodically light possessed noun and with separately tone-dropped demonstrative, or as Poss^{HL}[N Dem], with the demonstrative as part of the possessor’s target domain, triggering the {HL} overlay for prosodically heavy possessed NP.

3.7.3 Tonal morphophonology

Having discussed lexical tone melodies, and grammatical (mostly stem-wide) tone overlays, we now consider the more purely phonological side of tonology, including tone sandhi.

3.7.3.1 Autosegmental tone association

It is possible in some Dogon languages to consider stem-level tone patterns (lexical melodies or overlays) to be ontologically separate from segmental strings. In this analysis, a stem would consist of a string of consonants and vowels, organized into syllables and moras, plus a melody or overlay like {H}, {L}, {LH}, or {HL}. This will work if there is a mechanical way to associate the elements of the bitonal patterns {LH} and {HL} onto the segmental strings.

For nouns, this will not work cleanly because, as shown in §3.7.1.6 above, both L.L.H and L.H.H occur as tone sequences for trisyllabic stems. Some of the relevant cases can be explained away as e.g. *Cv-CvCv* reduplications or compounds, taking the final element as an /H/- or /LH/-toned bisyllabic. However, there remains a residue of unsegmentable trisyllabics of both L.L.H and L.H.H types.

For verbs too, separation of tones from segmental strings is problematic. The very fact that verbal melodies /H/, /LH/, /HL/, and /LHL/ correlate fairly well with the heaviness of

stems, and with their initial consonants (§3.7.1.2, above), points to a deep rather than superficial integration of their segmental and tonal structures.

In Jamsay, the entire melody of a verb stem, /H/ or /LH/, is reapplied to its suffixal derivatives. In TgK, the onset (H or L) is preserved under suffixal derivation, but the derived stems are prosodically heavy and so fall into the class with final high vowel {*i u*}. These stems have a final L-tone, so /H/ and /LH/ input stems have {HL} and {LHL} outputs, respectively. See especially the reverative derivatives in §9.1.

3.7.3.2 Phonology of H(H...)L and H(L...)L tone overlays

H.(L...)L is favored over H.(H...)L in {HL} tone overlays.

The possessed noun overlay is H.L.L rather than H.H.L for trisyllabic stems, as in *tógòròj* ‘X’s namesake’, see §6.2.1.2. With quadrисyllabic nouns, {HL} is manifested as H.H.L.L, but I think this is because the default prosodic treatment of quadrисyllabics is as compounds of two bisyllabic stems; see (124) in §6.2.1.2.

Verbs with final high vowel, including suffixal derivatives of CvCv stems, have H.L-L rather than H.H-L patterns when the stem is lexically /H/, as in *págá* ‘tie’, reverative *págì-rì* ‘untie’, see §9.1.

Bahuvrihi compounds are not relevant here since their second elements do not have {HL} tone in TgK.

3.7.3.3 Atonal-Morpheme Tone-Spreading

Most affixes, clitics, and subordinating particles have intrinsic tones, so there is limited scope for a rule accounting for the tones of intrinsically atonal morphemes.

However, verbal derivational suffixes like reverative *-rv-* get their tone (high in most inflected forms) by spreading from the preceding verb stem, subject to possible erasure by tone overlays controlled by inflectional categories.

The postvocalic allomorph =y of the ‘it is’ clitic (§11.2.1.1) is atonal, acquiring its tone by spreading from the syllable that it forms part of. Thus *fántà=y* ‘it’s Fanta’, *ú=y* ‘it’s you-Sg’. See also Contour-Tone Stretching (§3.7.4.2).

3.7.3.4 Tone polarization

Tonal dissimilation of two morphemes, by which one adopts the tone opposite to that of the adjacent morpheme, is not a regular process in TgK. However, the copulas *kò* (nonhuman), *wò* (human singular), and *wè* (human plural) shift to H-tone when preceded by an all-{L}-toned expressive adverbial, such as those listed in (213f) in §8.4.6.1. Example: *sòy kò* ‘it is oily’. Since expressive adverbials are the only word-class that allow /L/ as a lexical melody, this tonal polarization is rather limited.

The other place in the grammar where a kind of tonal polarization occurs is in decimal numerals. These all begin in a form of *pérú* ‘10’ that has undergone *rv*-Deletion to *pe-*. The tone is <LH>, hence *pe-*, in *pe-lóy* ‘20’ and whenever followed by an L-tone, as in *pe-tà:nù* ‘30’. (Cognates of *lóy* ‘2’ are mostly /LH/-toned, so ‘20’ was originally not exceptional.) However, the tone seemingly polarizes to L before an H-tone, as in *pe-kúré*: ‘60’. This could, however, be analysed as merger of the final H-tone of *pe-* with the following H-tone.

3.7.3.5 Postnominal-Determiner Tone-Lowering

A demonstrative (*yð:*, *nð:*) is dropped to L-tone (^L*yð:*, ^L*nð:*) in certain types of NP. Under more limited conditions, a postnominal pronominal possessor of the type [Pron *kè*] drops its tones, e.g. 2Sg *ú kè* becoming ^L[*ù kè*]. A key analytical issue is whether the tone-lowering is triggered by the presence of a tonal definite (§4.4.1.1), overt or covert, on the preceding word.

Postnominal-Determiner Tone-Lowering affects both demonstratives and [Pron *kè*] possessors when the preceding string ends in a numeral and has {L}+H overlay. Demonstratives are also tone-lowered in the combination Poss-N-(Adj-)Dem with a prenominal possessor, in the combination N-(Adj-)Poss-Dem with a postposed pronominal possessor, and optionally in the combination N-Adj-Dem (or [N-N]-Dem with a compound noun). Demonstratives are also tone-lowered at the end of a relative clause. I will illustrate with demonstratives and return to postposed pronominal possessors in (30) below.

An example with a numeral adjacent to the demonstrative, but with no possessor, is (26). The overlay {L}+H is applied to the N-Adj-Num sequence, with only the final syllable H-toned. The demonstrative is tone-dropped. For more examples of this type see (152a-d).

- (26) [gìrⁿi màrⁿà kùré:]^{L+H} ^Lyɔ:
 [house big six]^{L+H} ^LNearDist
 'those six big houses'

The same tonal structure is present even when the noun is omitted: *kùré:*^{L+H} *L yò:* ‘those six’ (compare *kúré:* ‘six’). Such omission is rare (§6.1.2).

There is an alternative output with {L}-toned preceding string ending with the numeral, plus H-toned (not tone-dropped) *yɔ:* or *nɔ:*. See [*nàpè lɔy*]^L *yɔ:* ‘those two uses (just described)’ in (153) in §6.5.2. An interesting speculation is that the more common tone-dropped version, as in (26), occurs when the numeral is marked by the tonal definite (final L-tone). Even when the tonal definite is itself otherwise covert, it could trigger Postnominal-Determiner Tone-Lowering. Conversely, The idea would be that the L-tone of the tonal locative spreads rightward into the demonstrative, replacing its H-tone. Conversely, if the tonal definite is absent, the final determiner remains H-toned in this model

There is evidence both for and against this analysis. On the positive side, it gives us a simple, direct way to account for the tonal differences between (26) and (153). When the pre-demonstrative word is a lexically /H/-toned adjective, as in (28b) below, the second syllable of the adjective drops to L-tone before L-toned demonstrative. In (28b), *már^{ná}* ‘big’ surfaces as *már^{ná}^{+L}* ‘big’, the correct form for a tonal definite, before demonstrative ^L*yðɔ:*. See also (29b) where the final element is *sâ:ⁿ* ‘all’.

On the neutral side, there are many examples where the tonal locative that supposedly triggers Postnominal-Determiner Tone-Lowering is covert, including all cases where the pre-demonstrative word is a numeral. Phonological explanations can be given for its covertness, but it does make the analysis less than transparent.

On the negative side, I can find no independent evidence that e.g. (26) is semantically definite while e.g. (153) is semantically indefinite. A definiteness opposition would be at best subtle, at worst completely redundant, in an NP containing a demonstrative. Secondly, when the demonstrative is plural (*nó: nà, yó: nà*), tone-lowering is noticeably less common than when it is singular. This suggests that the prosodic weight of the demonstrative is one of the conditioning factors, further weakening the correlation with definiteness. Finally, in some examples the demonstrative is tone-dropped but a preceding H-toned word does not show the expected final-syllable tone-dropping, even in phonological contexts that would allow it. This

happens when the pre-demonstrative word is a possessed noun with {H} overlay, like ^H*gírní* ‘house’ in (27a) below.

I am fairly sure that the tonal definite (or its predecessor, an overt L-toned definite morpheme, cf. Jamsay *kùñ*) played some role historically in Postnominal-Determiner Tone-Lowering. However, the fact that the tonal definite is now often covert in pre-demonstrative position has muddied the waters, and there are signs that Postnominal-Determiner Tone-Lowering is in the process of decoupling from definite marking. So I will sit on the fence regarding this issue as this section proceeds.

Examples with a prenominal possessor but without a numeral are (27a-b, d-e). In (27a), the noun is realized with bisyllabic H.H tones (^H*gírní*), so there is clearly no tonal definite (terminal L-tone). The fuller version of (27c) does have a numeral, but due to Adjective-Numeral Inversion it is not adjacent to the demonstrative. The two variants of (27d) could be explained by presence versus absence of the tonal definite as described above, although the tonal definite itself is not overt. One can likewise argue for a covert tonal locative in (27e).

- (27) a. *sè:dú* ^H*gírní* ^L*yò:*
 S ^Hhouse ^LNearDist
 ‘that house of Seydou’s’
- b. *sè:dú* ^{HL}*kégérè* ^L*yò:*
 S ^{HL}saddle ^LNearDist
 ‘that saddle of Seydou’s’
- c. *sè:dú* ^{HL}[*gírní* (*kùrè:*) *màrñà*] ^(L)*yò:*
 S ^{HL}[house (six) big] ^(L)NearDist
 ‘those (six) big houses of Seydou’
 (after Adjective-Numeral Inversion)
- d. *[ú* ^L*kè]* *kégérè*^{+L} / *gírní* ^L*nò:*
 or: *[ú* ^L*kè]* *kégérè*^L / *gírní*^L ^(L)*nò:*
 [2SgPoss ^LPoss] saddle^{+L}/house^(L) ^(L)Prox
 ‘this saddle of yours-Sg’
- e. *[ú* ^L*kè]* [*gírní*^L *gàrá*] ^L*nò:*
 [2SgPoss Poss] [house^L big] ^LProx
 ‘this big house of yours-Sg’

In (27a-b), the possessor clearly controls the overlay on the noun, so the tonosyntactic formula is Poss^{H(L)}N^LDem. However, the adjective ‘big’ and, if present, the inverted numeral ‘six’ in (27c) show the {L}+H overlay, i.e. broad {L} overlay plus a single final-syllable H-tone. We cannot determine where the L-tone portion of the possessor-controlled {HL} overlay ends and where the demonstrative-controlled {L}+H begins. When a preposed possessor contains possessive *kè*, there is no possessor-controlled overlay (27d-e), but the presence of the possessor allows the noun to surface with its lexical tones before a tone-dropped demonstrative.

(28a) below has a possessor at the beginning and a numeral that is adjacent to the demonstrative. The {HL} overlay controlled by the possessor and the {L}+H overlay controlled by the demonstrative target the same intervening N-Adj-Num. Presumably the {H} tone on ‘house’ is due to the possessor, and the {L}+H on the numeral is due to the demonstrative, but we cannot determine which element controls the {L}-tone on the adjective

‘big’. This is arguably a case of double control. (28b) has a preposed possessor with *kè* and an inverted numeral that is separated from the demonstrative by an adjective. The adjective preserves its lexical melody and controls tone-dropping on the preceding string.

- (28) a. *sè:dú* ^{HL}*[gírⁿi]* *màrⁿà* *kùré:j*^{L+H} ^L*yò:*
 S ^{HL}[house big six]^{L+H} ^LNearDist
 ‘those six big houses of Seydou’
- b. *[ú* ^L*kè]* *[gírⁿi]* *kùré:j*^L *márná*^{+L} ^L*yò:* *nà*
 [2SgPoss ^LPoss] [house six]^L big^{+L} ^LNearDist Pl
 ‘those six big houses of yours-Sg’

A demonstrative is also tone-lowered after a postposed possessor. The set of postposed possessors consists of 1Sg *mà* on the one hand, and pronominal possessors of the form [Pron *kè*]. All of these postposed possessors end in an L-tone, so if there is a tonal locative it is covert. An example is *gírⁿi mà* ^L*yò:* ‘that house of mine’, (132b) in §6.2.3, where the final demonstrative is tone-dropped after 1Sg *mà*.

Universal quantifier *sâ:n* does not undergo tone-lowering. In (29a) and other examples of the sequence [N-...-Num]^{L+H}-‘all’, ‘all’ requires an {L}+H overlay on the numeral-final string, just as demonstratives do. One could argue that a covert tonal definite occurs at the end of the numeral, and that this rather than ‘all’ is what controls {L}+H, but in this combination the tonal locative is otherwise covert. (29b), with an adjective rather than a numeral preceding ‘all’, does have a tonal definite, audible with /H/-melody adjectives like *márná* ‘big’. *sâ:n* ‘all’ maintains its tones throughout (29a-c), which weakens the tonosyntactic parallelism between ‘all’ and the final demonstratives in (28a-b).

- (29) a. *[sè:dú* ^L*kè]* *[gírⁿi]* *kùré:j*^{L+H} *sâ:n*
 [S ^LPoss] [house six]^{L+H} all
 ‘all six houses of Seydou’
- b. *[ú* ^L*kè]* *gírⁿi*^L *márná*^{+L} *sâ:n*
 [2SgPoss ^LPoss] house^L big^{+L} all
 ‘all six of your big houses’ = ‘all six big houses of yours’
- c. *ú* ^{HL}*kégerè* *sâ:n*
 2SgPoss ^{HL}saddle all
 ‘all of your saddles’

When the demonstrative occurs after an unpossessed compound noun or an unpossessed N-Adj sequence, these forms may keep their regular tones. In this case, the demonstrative is tone-dropped: *gírⁿi* ^L *márná* ‘big house’, *gírⁿi* ^L *márná* ^L*yò:* ‘that big house’; *nù: L-[kí-kíjí]* ‘millet grain spike’, *nù: L-[kí-kíjí]* ^L*yò:* ‘that millet grain spike’. In alternative pronunciations like *[gírⁿi màrná]* ^L*yò:* ‘that big house’, the demonstrative keeps its H-tone, and controls {L} on the preceding sequence.

A demonstrative that follows the verb of a relative clause (a type of heavy NP) is tone-dropped, see §14.1.12.

Tone-dropping also applies to pronominal possessors following a numeral or numeral-adjective string, cf. §3.7.3.7. In (30a), the possessor (elsewhere *ú Lkè*, *émé Lkè*) drops tones, compare the parallel version with a demonstrative in (30b). The tones of *márná*^{+L} suggest that the tonal definite is present in both examples; see discussion of (147b-c) in §6.4.2.

- (30) a. [pèjù kùrè:^L már^{nà}^{+L} ^L[ù / èmè kè]
 [sheep six]^L big^{+L} ^L[2SgPoss/ 1PIPoss Poss]
 'your/our six big sheep'
- b. [pèjù kùrè:^L már^{nà}^{+L} ^Lyò:
 [sheep six]^L big^{+L} ^LNearDist
 'those six big sheep'

3.7.3.6 Numeral as tonosyntactic catalyst for postnominal possessor

In the preceding section, many of the examples show not only the tone-dropping of the demonstrative, but also the appearance of an H-tone on the final syllable of an otherwise {L}-toned postnominal modifier (adjective or numeral) or modifier string.

Since these two phenomena often go together, it is tempting to think that the underlying H-tone of the demonstrative jumps to the preceding syllable. If so, we would need a morphophonological tone-displacement rule.

This is rejected here as a synchronic analysis. First, when the demonstrative drops its tone when directly following a noun, there is no change in the noun's tones. This is true even when the noun ends in an L-tone, as in *sè:dú* ^{HL}*kégoré* ^L*yò:* ‘that saddle of Seydou’s’, (27b) in the preceding section. The same is true when the tone-dropped demonstrative follows L-toned 1Sg possessor *mà*, as in *gir^{ní} mà* ^L*yò:* ‘that house of mine’, (132b) in §6.2.3. A second reason is that H-tone movement rules at word boundaries in languages of this zone (e.g. Songhay) generally work left-to-right and generally take the form of spreading rather than displacement, e.g. HLL becomes HHL, not LHL.

I show in §6.2.3 that all pronominal possessors, postnominal 1Sg *mà* as well as the various preposed possessors, are optionally restructured as postnominal possessors of the form [Pron ^L*kè*], when this is licensed by a postnominal modifier (adjective or numeral). If the last postnominal modifier preceding any such postnominal possessor is a numeral, we get an {L}+H overlay on the string including the noun and numeral; see the following section for this type of overlay.

The postposed possessor does not control tones when the final postnominal modifier is an adjective instead of a numeral. In this case, the possessor has no effect on the internal tonosyntax of the N-Adj combination. The schema is therefore [[N^L Adj] Poss], where the adjective is tonally free, but (as usual) controls {L} on the noun. See (133a-b) in §6.2.3 for examples involving adjectives *gàrá* ‘big’ and *kélú* ‘cold’.

Since the postnominal possessor is a controller in [N (Adj)]^L Num^{L+H} Poss] but not in [[N^L Adj] Poss], I identify the numeral as a catalyst that allows the otherwise dormant possessor to control tones on the possessed NP.

(31) Numeral as catalyst for postnominal possessor

The presence of an immediately preceding numeral allows a following postnominal pronominal possessor, whether 1Sg *mà* or any [Pron ^L*kè*] combination, to target the numeral itself and any preceding words in the NP (noun, adjective).

The notion of catalyst implies that a) the postnominal possessor has a natural tendency to function as tonosyntactic controller, but b) it is prevented from doing so in other contexts. (a) is reasonable, since preposed possessors do control tone overlays on following possessed NPs, and more generally because tonosyntactic control is correlated with reference restriction.

All possessors, regardless of linear position, are reference restrictors. (b) is reasonable since postnominal possessors, unlike preposed possessors, was originally appositional: X [Pron ^L*kè*] meant “X, Pron’s thing.” Appositionally juxtaposed elements are not tightly linked prosodically, so there could have been no tonosyntactic interaction between them. As they gradually become more tightly linked, the latent, semantically-grounded tendency for [Pron ^L*kè*] to control tone overlays on the preceding words only needed a catalyst to be activated.

The question remains as to why numerals, but not adjectives, became capable of catalysing the tonosyntactic power of postnominal possessors. The existence of a similar {L}+H overlay, with numerals as catalysts, in Donno So and Toro So indicates that this overlay developed long ago, and probably first in N-(Adj-)Num-Dem combinations, later spreading to N-(Adj-)Num-Poss combinations. If the unmarked linear order at that time was adjective before numeral, an {L}+H overlay with the final H just before the demonstrative would have been primarily associated with numerals, not adjectives, and could have generalized from there.

However, how current native speakers “understand” these tonosyntactic constructions is unclear.

3.7.3.7 {L}+H overlay on numeral-final string

When any NP ending in a numeral is successfully targeted by a following controller, the resulting overlay is {L} throughout the target domain, except for a single H-tone that appears on the final syllable of the adjective or numeral. This {L}+H overlay is a constructional tonosyntactic pattern that cannot be modeled compositionally, i.e. by applying any set of one-on-one controller-target formulae in any order or subject to any reasonable hierarchical constraints. Not only is the {L}+H overlay *sui generis*, some elements that can (jointly) control it do not show tonosyntactic control power elsewhere. This is the case with universal (‘all’) quantifiers, see (154c) in §6.6.1, and with postposed pronominal possessors.

Examples involving a numeral and a possessor are in (32). Because the numeral also licenses optional restructuring of all pronominal possessives into a type ending in [Pron *kè*], there are two alternative ways to express any phrase like ‘my six houses’ (32a-b) or ‘your-Sg six houses’ (32c-d). Whenever a postnominal possessor (1Sg *mà*, or any [Pron *kè*] combination) follows a numeral (32a-b,d), the entire phrase is subject to {L}+H, with just a final-syllable H-tone. If the possessor would normally begin with an H-tone, it is tone-dropped, e.g. *ú kè* ‘your(s)’ becoming ^L[*ù kè*] in (32d). When the possessor precedes the noun (always possible except for 1Sg possessor), we get the usual possessor-controlled overlay, with {H} or {HL} on the noun depending on its weight (mora count), and with {L} on any following words (32c).

- (32) a. *[gírní kùré:]^{L+H} ^L[*ñ*ⁿ kè]*
 [house six]^{L+H} ^L[1SgPoss Poss]
 ‘my six houses’ (restructured)
- b. *[gírní kùré:]^{L+H} mà*
 [house six]^{L+H} 1SgPoss
 [= (a)] (unrestructured)
- c. *ú 2SgPoss ^{HL}[gírní kùré:]*
 ^{HL}[house six]
 ‘your-Sg six houses’ (unrestructured)

- d. [gírⁿi] kùré:^{L+H} ^L[ù] kè
 [house] six]^{L+H} [2SgPoss Poss]
 [= (c)] (restructured)

We also observe the {L}+H overlay when a demonstrative follows a numeral (with or without a possessor) (33a-b), or when a demonstrative follows a possessed NP ending in an adjective (33c). The demonstrative itself undergoes Postnominal-Determiner Tone-Lowering (§3.7.3.5 above). This combination of {L}+H overlay plus Postnominal-Determiner Tone-Lowering occurs when the demonstrative is not followed by plural *nà*. When this plural morpheme is present, the output is (non-tone-dropped) *y᷑: nà* and the final H-tone on the numeral is absent; see (144a-b) in §6.4.2. In (33a), where there is also a preposed possessor, the sequence N-Adj-Num is targeted by both the possessor and the demonstrative, at its left and right edges, respectively. In particular, in (33a) ‘house’ has the {H} overlay controlled by the possessor, ‘six’ has the {L}+H overlay controlled by the demonstrative, and the intervening {L}-toned adjective ‘big’ could be analysed as part of either the {HL} overlay controlled by the possessor (on a multi-word target) or the {L}+H controlled by the demonstrative. In effect, ‘big’ is doubly condemned to drop its tones.

- (33) a. sè:dú ^{HL}[gírⁿí] màrⁿà kùré:^{L+H} ^Ly᷑:
 S ^{HL}[house] big six]^{L+H} NearDist
 ‘those six big houses of Seydou’
- b. [gírⁿi] màrⁿà kùré:^{L+H} ^Ly᷑:
 /house big six]^{L+H} NearDist
 ‘those six big houses’
- c. sè:dú ^{HL}[gírⁿí] (kùré:) màrⁿá^{L+H} ^Ly᷑:
 S ^{HL}[house] (six) big]^{L+H} Dem
 ‘those (six) big houses of Seydou’
 (numeral shown in position after Adjective-Numeral Inversion)

More subtly, the {L}+H overlay occurs when the definite marker is added. However, the definite marker in question is itself just a final tone element L, so the combination ends up as {L}+H+L, realized syllabically as L.(L...).<HL> with a final falling tone. See (58) in §4.4.1.1 and discussion there.

The semantic aspect of the analysis is clouded by the fact that the universal quantifier *sâ:n* ‘all’ also controls the {L}+H overlay on a preceding numeral-final sequence, but *sâ:n* does not drop its own tones; see (29a) above. This is a TgK innovation, to judge by the fact that, in Donno So, only determiners (not ‘all’) control the {L}+H overlay. In TgK, {L}+H is no longer strictly associated with determiners. It may be in the process of generalizing to NPs of the formal type N-...-Num-X, where X is not tightly restricted semantically. The diachronic catalyst for the generalization to ‘all’ may have been the tonal definite (floating L-tone), which is covert (inaudible) after a rising tone, facilitating reanalysis.

Under limited conditions, the {L}+H overlay can occur on a numeral-final string with a possessor in the form [X *kè*] that appears before rather than after this string. [X *kè*] form is typical of restructured possessed NPs, arguably derived transformationally from underlying regular possessed NPs with postnominal pronominal possessor. The restructuring occurs when the possessum is the head of a relative, but it also happens in main clauses when the possessor is a reflexive (pro-)noun, see [*sâ:n*^L*kè*] *fürⁿi: lṣy*^{L+H} ‘(Seydou saw) his own two children’ (644b) in §18.1.3.1. The explanation for this is that a preposed [X *kè*] possessor

does not control the usual {H} or {HL} overlay on the possessum, so the {L}+H overlay applies to the numeral-final string, as though it were followed by a determiner or postposed possessor.

The facts can be summarized as (34).

(34) Constructional tonosyntax of numeral-final strings

- a) a string ending in a numeral (Num, N-Num, N-Adj-Num) is subject to an {L}+H overlay when followed directly by a possessor, by an unpluralized demonstrative, by the tonal definite, or by *sâ:n* ‘all’, or when preceded by an [X *ké*] possessor and not subject to any other tone overlay;
- b) if the {L}+H overlay is applied, a post-numeral possessor or (unpluralized) demonstrative, but not *sâ:n* ‘all’, drops its own tones if not already L-toned (like 1Sg *mà*);
- c) in the sequence Poss-N-(Adj-)Num-Dem, the {L}+H overlay controlled by the (unpluralized) demonstrative combines with the {H} or {HL} overlay controlled by the preposed possessor, so the noun is targeted by the possessor, the numeral is targeted by the demonstrative, and an adjective (if present) is ambiguously or doubly targeted.

For the interaction of {L}+H with Adjective-Numeral Inversion, see also §6.4.2.

The combination of tone-dropping of the pronominal possessor and the appearance of a final H-tone on the otherwise {L}-toned numeral-final string could appear to reflect the simple phonological jumping of the H-tone onto the right edge of the preceding word, e.g. /...kùrè: yó:/ becoming ...*kùré: yó:* in (33a) above. This is very likely the diachronic source of the {L}+H pattern, but it does not work synchronically. Specifically, 1Sg postposed possessor *mà* is always L-toned, but it controls the same {L}+H pattern on preceding numeral-final strings as do H-toned possessors, as seen in (32b) above.

3.7.4 Low-level tone rules

3.7.4.1 Contour-Tone Mora-Addition

This process does not occur in TgK, where vowels are not lengthened to accommodate contour tones. There are many *CV* stems with short vowels and <LH> tone; see §3.7.1-2. A functional element of this shape is reflexive object *să:n* (§18.1.1). It is harder to find *CV* stems, but this is only because {HL}-toned stems of any length are generally disallowed among verbs, common nouns, and adjectives. There is one *CV* verb (*jé* ‘take away’), and some functional elements like plural-subject perfective suffix *-sê:n* (§10.2.1.1), recent perfect *jê* (§10.2.1.3), and postpositions *kû:n* ‘on’, *kâ:n* ‘at the edge of’, and *bû:n* ‘beside’ (§8.2.3-4,7).

3.7.4.2 Contour-Tone Stretching

This rule, more visible in other Dogon languages such as Jamsay, takes inputs of the shape *CV* or *CV* plus an atonal suffixed or encliticized *-C* (a sonorant), and stretches the arc of the contour tone so that the terminal rise or fall is mainly heard on the final sonorant. In TgK most final sonorants have been lost, either in stems or including consonantal suffixes and clitics. So there is not much need for this rule.

However, the (atonal) ‘it is’ clitic allomorph *=y* can be added to a monosyllabic noun with <LH> tone, e.g. *kɔ̃n* ‘daba (hoe)’. I write the result as *kɔ̃n=y^n* for purposes of structural clarity, but a phonetically more accurate transcription would be *kɔ̃n=y^n*, with the arc of the <LH> tone spread out over the syllable.

3.7.4.3 Rightward H-Spreading

The spreading of an H-tone element to subsequent syllables, erasing or displacing prior L-tones, is not a common process in TgK. For example, the {HL} overlay on heavy nouns controlled by a preceding possessor is realized as H.L.L on a trisyllabic noun and as H.L on a heavy bisyllabic noun, and remains so even when the noun is followed by an {L}-toned postposition. Thus noun *sí:né* ‘knife’, {HL} possessed form ^{HL}*sí:nè* in e.g. *émé* ^{HL}*sí:nè* ‘our knife’, and no further tonal change in PP [*émé* ^{HL}*sí:nè*] *bè* ‘with our knife’.

There is some apparent H-tone spreading in phonologically similar environments in relative clauses, where a verb that otherwise ends in an H.L syllable sequence shifts this to H.H before a terminal element (usually L-toned) such as plural *nà*. For example, imperfective relatives have L-toned suffix *-jù* (versus main-clause H-toned *-jú*), but the suffix goes back to *-jú* when followed by a terminal element: *jùnú-gó-jú* ‘ruins’ in main clause, in relative clause *jùnú-gó-jù* when clause-final but e.g. plural *jùnú-gó-jú* *nà*. This looks superficially like Rightward H-Spreading in other African languages, where H.L.L shifts to H.H.L as the H-tone pushes as far to the right as it can without eliminating the L-tone.

However, this phonological pattern is not matched elsewhere in TgK morphology, and I am dubious about positing a morphologically restricted rule of this type that would apply only to relative-clause predicates. TgK has a number of other constructions where a final H-toned syllable of a word drops to L-tone to indicate a grammatical category: the tonal locative of some nouns (§8.2.1), the tonal definite of many nouns and other non-verb stems (§4.4.1.1), and tonal topical nouns (§19.1.1). Since relative clauses in Dogon languages are semantically restrictive, a specific connection with the tonal definite is likely. In this interpretation, there is no Rightward H-Spreading process. Rather, the alternation involves presence versus absence of definite marking.

The postposition *kû^n* ‘on’ or ‘over’ is related to the noun *kú^n* ‘head’ (historically it may be a tonal locative). The 1Sg form is *kú^n mà*, identical to ‘my head’. Similarly *gírè* ‘in front of’ but *gírè mà* ‘in front of me’ and so forth for some other /HL/-toned postpositions. However, it may be that the 1Sg form is added, not to the /HL/-toned postposition, but to an /H/-toned noun related to the postposition (*kú^n* ‘head’, *gírè* ‘front’). Evidence for this comes from the /HL/-toned postposition *dògò* ‘behind’, whose 1Sg form *dògò mà* has the /LH/ melody of the related noun *dògó* ‘rear (area)’. So it may be that the relevant postpositions get their {HL} overlay only when following a (possessor-like) NP or pronoun, i.e. when final within a PP. Again, the evidence for positing Rightward H-Spreading is weak.

3.7.4.4 Stranded-Tone Re-Linking

A tone may be stranded due to the deletion of the vowel it was previously associated with. The processes that can strand a tone are Apocope and Syncope (vowel-deletion rules affecting short high vowels in some medial and some final positions), and *rv*-Deletion which deletes the second syllable of some *CvCv* stems (mostly verbs) before a suffix.

The stranded tone re-links to the left. When the tone of the deleted vowel is identical to that of the preceding syllable, no audible change occurs. For example, from *pórì* ‘say’ we

expect imperfective *póró-jú*, but since this stem is subject to *rv*-Deletion the actual result is *pó-jú*. We could laboriously derive this from /póró-jú/, becoming /póH-jú/ with H = unlinked H-tone, becoming *pó-jú* by merger of the first two H-tones. Or we could just take *póró* as having a single stem-level H-tonal autosegment, with no relocation required on the deletion of the second syllable. However, when the stem is /LH/-toned, as in *gàrá* ‘pass’, the H-tone element does re-link to the left when the second syllable is deleted, resulting in an <LH> tone in e.g. imperfective *gă-jú*.

Similar examples involving Apocope of a word-final /u/ are bare stem *wáñ* ‘shallow-fry’ from /wánù/, and verbal noun *dòw-Ø* ‘going up’ from /dòw-ú/.

Syncope is less common in TgK, but in cases like imperative *dăñ-gá* ‘fix, make good’ from /dăñú-gá/ we get the same leftward re-linking.

3.7.4.5 Nonfinal Contour-Tone Simplification (*Cv̄* or *Cv̄* to *Cv̄*)

Nonfinal *Cv* syllables within a word cannot carry a contour tone (except for initial-syllable <LH>, see below). In TgK the simplification is from either *Cv̄* or *Cv̄* to *Cv̄*.

A *Cv̄C* word is occasionally followed by the ‘it is’ clitic (§11.2.1) in the form =i:. This clitic is atonal, getting its tone in part by spreading from the left. It is difficult to find such combinations, given the absence of lexically /HL/-toned common nouns. However, an /HL/-toned postposition like *bîn* ‘in’ can be followed by the clitic, in an abstract sense indicating the topic of discourse (not the location of a specific object). In (35b), we see that the /HL/ melody of *bîn* is split, with the H-tone remaining on the postpositional vowel and the L-tone realized on the clitic. This is because *bîn=i:* is initially (re-)syllabified as /bî.nì:/. While the syllable *bîn* can easily accomodate an {HL} overlay, a nonfinal *Cv* syllable cannot, so the syllable simplifies its tone to H. There is no loss of lexical tone-melody information, since the clitic has acquired the L-tone part of /HL/ by spreading.

- (35) a. *gîr̄í bîn* ‘in the house’
 b. *[gîr̄í bîn]=i:*
 [house in]=it.is ‘in the house’
 ‘It is (i.e. we are talking about) in the house’

<LH> tones are allowed on initial syllables of nonmonosyllabic words, as in *gă-jú* cited in §3.7.4.4 above. So for <LH> tones the disallowed position is not “nonfinal” but “medial” (i.e. neither initial nor final).

A final <LH> tone on a short vowel is possible for a stem (other than a verb) in isolation (36a). Addition of a suffix and/or clitic to a noun may reposition the stem-final *Cv̄* syllable as word-medial, which triggers a corrective tone change. The relevant combination is that with the ‘it is’ clitic, which (for certain nouns) is preceded by singular suffix -n. In (36b), /dògɔní:/ has been tonally reshaped as *dògɔní:*, with the disallowed medial *Cv̄* syllable simplified from <LH> to H-tone.

- (36) a. *dògɔn̄* ‘Dogon person’
 b. *nɔ:* *dògɔ-n=i:*
 Prox Dogon-Sg=it.is
 ‘(He/She) is a Dogon’

The tonal simplification does not apply to combinations involving plural *bè* or postpositions: *dɔgɔ̄n bè* ‘Dogon people’, *dùwɔ̄lɛ̄n bè* ‘with a mirror’.

Monosyllabic stems retain, though subtly, the full /LH/ melody in this construction: *jɔ̄n* ‘dye-er, member of dye-er caste’, *jɔ̄-n=í*: ‘(he/she) is a dye-er’. The initial L-tone segment is difficult to hear, but is (subtly) audible when an H-tone precedes, as in *wó jɔ̄-n=í*: ‘he/she is a dye-er’ with 3Sg subject *wó*. The difference between *dɔgɔ̄n* and *jɔ̄n* is that shifting the <LH> tone to H-tone would completely erase the L-tone in the lexical melody in *jɔ̄n*, but not in *dɔgɔ̄n*.

In cases where a *CvrV* or *CvrⁿV* verb stem with lexical /LH/ melody undergoes *rv*-Deletion before a suffix, the /LH/ tone is reconstituted on the surviving *Cv* syllable, as the delinked H-tone element joins the L-tone element to its left (see the previous section). For example, *gàrá* ‘pass, go past’ forms imperfective *gă-jú*. In this context, my assistant did normally articulate the <LH> tone, in spite of the phonetic difficulty in doing so. Again, the simplification of <LH> tone to H fails to apply when it would totally erase part of the lexical melody.

There are also a few (underlyingly) nonmonosyllabic verbs like *gǔñ* (for /gǔñù/) ‘take out, remove’, an archaic causative of *gō*: ‘go out’, that retain the <LH> tone on the first syllable. An example is imperfective *gǔñó-nú*.

3.7.4.6 Downstep (*H⁴H*)

In TgK, downstep (symbol ⁴ before the affected word) is not the result of compressing underlying HLH into H⁴H, as in some other languages of the area. It is used opportunistically to differentiate the pitches of two adjacent {H}-toned words, and it helps mark certain constructions. In both respects, it facilitates the listener’s parsing of the speech signal. However, it is unclear whether downstep is a full-fledged phonological phenomenon in TgK.

Phonetically, a downstepped H-tone is a mid tone. The phonation type is the same as for a normal H-tone, so it still sounds like singing, unlike the case with L-tones. A downstepped bisyllabic ‘HH has level pitch; the entire stem is lowered. A subsequent {H}-toned word or particle, as in H ‘HH H, can revert to a higher pitch level.

Downstep is most conspicuous when the two words in question are lexical stems (nouns, adjectives, verbs). It is less common, or less conspicuous, when one of the elements is a monosyllabic functional element (pronoun, particle, etc.). Downstep is of particular importance in connection with the constructions in (37), though it applies to other combinations of {H}-toned words.

- (37) a. bahuvrihi compound
 b. possessor plus possessed noun

In the most common subtype of bahuvrihi (“Blackbeard”) compound, the initial is a noun with its lexical tones (i.e. usually /H/ or /LH/), and the final is an adjective with {H} overlay (§5.2.1.1). The tables are perfectly set for downstep. Consider the four-way tonal opposition in (38); the bahuvrihi is (38d).

- (38) a. *giré má*
 eye ReflPoss
 ‘(one’s) own eye’ (as in ‘He sold his own eye’)

- b. *gìré* *má*
eye 1SgPoss
'my eye'
- c. *gìré^L* *má*
eye^L dry/hard
'hard eye'
- d. *gìré-⁴H má*
eye-^Hdry/hard
'stubborn' ("hard-eyed"), bahuvrihi compound

In (38a), the /LH-toned noun 'eye' is followed by an H-toned monosyllabic functional morpheme, which is unaffected by downstep. The result is L.H-H. In (38b), the same noun is followed by an L-toned 1Sg possessor morpheme, resulting in L.H-L. In (38c), the noun drops tones before the adjective, which happens to be <LH>-toned, so L.L-<LH>. The bahuvrihi in (38d) uses the same lexical stems as in (38c), but changes the tones to L.H-H, which becomes L.H-⁴H by downstep.

Nouns preceded by a possessor are subject to a possessor-controlled overlay, which is {H} for prosodically light stems (one or two vocalic moras) and {HL} for heavy stems (three or more moras), except for two nouns that exceptionally become {L}-toned. Since common nouns and adjectives end in an H-tone, there are abundant opportunities for downstep. It is most consistent when the possessed noun has the {H} overlay and is preceded by an H-final nonpronominal possessor (39a). Downstepping may occur after an H-toned pronominal possessor, but it is not consistent (39b). Downstepping is not regular on a heavy possessed noun that carries the {HL} possessor-controlled overlay (39c). It is also not usual when an otherwise {H}-toned stem (39a) adds a local L-tone at the right margin (to mark definiteness or location) (39d).

- (39)
- a. *sè:dú* ⁴H *gírní*
S ^Hhouse
'Seydou's house'
 - b. *ú* (⁴) ^H *gírní*
2SgPoss ^Hhouse
'your-Sg house'
 - c. *sè:dú* ^{HL} *túŋùrⁿù*
S ^{HL}stool
'Seydou's stool'
 - d. *sè:dú* ^H *gírní* +L
S ^Hhouse.Loc +L
'at Seydou's house' (compare (a))

These data suggest that downstep is not a fully grammaticalized process of the sort typically considered to be tonosyntax. Were it systematic, we would expect double downstep in recursive (stacked) possessives, as the higher of two downstepped possessed nouns resets the pitch ceiling against which the pitch of the lower possessed noun is calculated, resulting in a descending arpeggio. What actually happens is that downstep is preferentially realized on the

last possessed noun in the string. So ‘uncle’ is clearly downstepped in (40a), spoken in isolation, but not in (40b), where the downstep is reserved for the following possessed noun (‘house’).

- (40) a. *sè:dú* ^{4H}*nípjí*
 S ^Huncle
 ‘Seydou’s maternal uncle’
- b. *[sè:dú* ^H*nípjí]* ^{4H}*gírní*
 [S ^Huncle] ^Hhouse
 ‘Seydou’s uncle’s house’

When the higher possessed noun is heavy and therefore has {HL} overlay (described in the next section below), or when the higher possessed NP otherwise ends in an L-tone (NP ending in plural *bè*), the lower possessed noun is still downstepped in comparison to the earlier H-tone. Example: *ú*^{HL}*ínà:* ‘your-Sg mother’ (from *ínà:* ‘mother’), *[ú*^{HL}*ínà:]* ^{4H}*nípjí* ‘your-Sg mother’s maternal uncle’. The pitch of the downstepped H-toned ^{4H}*nípjí* is higher than that of the L-toned preceding syllable. The pitch of ^{4H}*nípjí* is also higher than that of a following L-tone (41a), and lower than that of a following H-tone (41b). The phonetic transcriptions use the mid-tone diacritic [˘] to represent the intermediate pitch of the downstepped H.

- (41) a. *[[ú* ^{HL}*ínà:]* ^{4H}*nípjí* *bàg-ɛ̂*
 [[2SgPoss ^{HL}mother]] ^Huncle] fall-Pfv
 ‘Your-Sg mother’s maternal uncle saw me.’
 (phonetic [*úínà:nípjíbàgɛ̂*])
- b. *[[ú* ^{HL}*ínà:]* ^{4H}*nípjí]* *má* ^L*ð-ɛ̂*
 [[2SgPoss ^{HL}mother]] ^Huncle] 1SgObj ^Lsee-Pfv
 ‘Your-Sg mother’s maternal uncle saw me.’
 (phonetic [*úínà:nípjímáðɛ̂*])

It is not always possible to hear a downstepped H-tone, in either an {H}- or an {HL}-toned word, after an L-tone, as with ‘uncle’ in (41a-b). In recorded texts, the downstepped word sometimes sounds {L}-toned to my ear. However, in more deliberate speech it is clear that the downstepped H (with its “sung” phonation) is distinct from L-tone even in this context.

Another kind of downstep, akin to clause-level downdrift, is seen with *sáⁿ*. This morpheme occurs after the verb in perfective subject relatives, and is therefore usually at the end of a full clause. The H-tone is clear after /H/-toned verbs, but when *sáⁿ* follows a verb that has the L-toned -ɛ̂ extension, I hear the combination as -ɛ̂: ^L*sáⁿ* when it is not closely followed by another element. However, the H-tone reappears (-ɛ̂: *sáⁿ*) when such an element is present, as in plural-subject -ɛ̂: *sáⁿ nà* (§14.1.9.1).

3.8 Intonation contours

3.8.1 Phrase and clause-final terminal contours (→)

Like other Dogon languages, speakers of TgK make extensive use of pitch and duration modifications on the final syllable of clauses and other intonation groups. This is most typical

on the nonfinal clause (or other constituent) in a parallelistic sequence. Prolongation of the final syllable (represented by →) is particularly common in narrative and in the more enthusiastic segments of conversation.

Morphemes that are often (but not obligatorily) prolonged in this way include *bè* ‘and’ used in serial conjunctions, as in open-ended lists (§7.1.3), *mà* yes-no question particle (§13.2.1.1) or disjunctive ‘or’ §7.2.1), and imperfective *-jō:*, the form used in parallel imperfective constructions (§10.2.2.3). *fú*→ ‘all’ is usually prolonged.

3.8.2 Clause-final tone-dropping of predicates (downdrift, defocalization)

Verbs and other predicates tend to drop to {L} tones, or at least to a pitch level otherwise typical of {L}-toned words, when preceded by other constituents (other than just pronominal clitics). This is a reflection of the natural downdrift of pitch over an intonation group, favored by the defocalization of the predicate when preceded by other overt constituents. This tone-dropping is not obligatory, and is often blocked when a particle follows the verb or other main predicate.

In texts, I have transcribed such words as {L}-toned when I hear no H-toned syllables. However, it is possible that the “tone-dropping” in this case is not complete, and that subtle distinctions in pitch or even phonation can alert native listeners to phonological tone. The basic point is that tone distinctions are greatly weakened at the end of a normal clause.

Details will be given in the chapters on verbs and other predicates.

3.8.3 Adverbs and particles with lexically specified prolongation (→)

Intonational prolongation of the final syllable is baked into certain adverbial and grammatical lexical items.

This includes expressive adverbials such as *déwⁿ*→ ‘straight’ and *déyⁿ*→ ‘separate, apart, distinct’. In these two cases, the final semivowel is prolonged. Many expressive adverbials are presented in §8.4.6.

Adjectives can be made into expressive adverbials by prolonging a final vowel, sometimes alongside a segmental change. This is typical of adjectival predicates (§11.4.1.2).

3.8.4 Dying-quail intonational effect :.

Both conjuncts (‘X and Y’), or just the first, in a conjoined NP are characterized by the dying-quail intonation, involving prolongation and (if ending on an H-tone) slow pitch decline. See §7.1.1 and §15.2.2.4.

4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 Simple nouns and plural *bè* ~ *mbè*

There is no affixal marking of intrinsic nominal categories (human/animate versus inanimate, singular versus plural). A NP consisting of a bare noun stem can be interpreted as singular, or as indefinite plural. A (specific) plural is expressed by a particle *bè*, sometimes heard as *mbè* after a nasal syllable. Prost writes this as “*be*” alternating with “*we*”. Homophones of plural *bè* are conjunction particle *bè* which follows each conjoined NP (§7.1.3) and instrumental-comitative postposition *bè* (§8.1.2).

(42)	gloss	unmarked	(specific) plural
a.	‘sheep’	<i>péjú</i>	<i>péjú bè</i>
	‘dog’	<i>isí</i>	<i>isí bè</i>
	‘snake’	<i>lú:ró</i>	<i>lú:ró bè</i>
	‘thing’	<i>ðjó</i>	<i>ðjó bè</i>
b.	‘man’	<i>àrⁿá</i>	<i>àrⁿá bè</i>
	‘woman’	<i>je</i>	<i>je bè</i>
	‘blacksmith’	<i>jémé</i>	<i>jémé bè</i>
	‘house’	<i>gírⁿí</i>	<i>gírⁿí bè</i>
	‘person’	<i>ná</i>	<i>ná bè</i>
	‘cow’	<i>nàjá</i>	<i>nàjá bè</i>
c.	‘Dogon person’	<i>dògɔ̃ⁿ</i>	<i>dògɔ̃ⁿ bè</i>
	‘Fulbe person’	<i>púlé:ⁿ</i>	<i>púlé:ⁿ bè</i>

Although there is no synchronic suffixation for number or human/animate category, there are many nouns with human reference that end in a nasalized vowel that probably reflects an original suffix, compare Jamsay singular *-n* and plural *-m* for ordinary human nouns (except kin terms). In addition to ‘Dogon person’ and ‘Fulbe person’ in (42c) above, further examples are *gùrinⁿ* ‘Gourou person’, *téleⁿ* ‘Tellem person’, and *sé:giⁿ* ‘Segem person (carpenter caste)’. The nasalization can no longer be easily segmented, and it is questionably audible in the presence of a preceding nasal, as with *tèŋjíⁿ* ‘Tengou person’. It is also subject to possible confusion with reduced forms of *áfⁿ* ‘child’ as compound final (§5.1.7). See §3.4.2 for more examples and discussion.

A vestigial human singular suffix *-n* does survive when followed by the ‘it is’ clitic, see (315) in §11.2.1.1. However, it is optional, has no obvious function, it seems to function somewhat as a linker, and it has spread to some other combinations involving the ‘it is’ clitic, for example *jaŋ-n-i*: ‘it is how?’ (417c) in §13.2.6. Another, indirect vestige of nasal suffixes is the synchronically opaque *p/y* alternation in ‘woman’ and related forms (§4.1.2, §5.1.8). The difference between *je* ‘woman’ as simple noun, and the variant *yé* in some compounds and other constructions, makes sense diachronically only if the noun is assumed

to have formerly ended in a nasal suffix. Compare Jamsay noun *jé-n* ‘woman’ and compound initial *yà*. The diachronic evolution of ‘woman’ was something like **yè-nú* → **yⁿè-nú* (backward nasalization-spreading, cf. Toro Tegu *yⁿà-rⁿù*) → *jé-n* (as in Jamsay) → *jé* (TgK).

As noted in §3.4.1, short-voweled *Cv* and long-voweled *Cv*: are clearly distinguished in TgK noun stems. *Cv* noun stems are quite numerous, and include some original verbal nouns of the type that appears as *Cv-y* in e.g. Jamsay.

Some kin terms still show alternations including a form with final nasalized *éⁿ*. With ‘(man’s) sister’, for example, my assistant (inconsistently) replaced the post-possessor form *lárá* with *láré:ⁿ* in the plural, see ‘Seydou’s sisters’ in (43c).

- (43) ‘(man’s) sister’

a. unpossessed

<i>lárá</i>	‘a sister’
<i>lárá</i>	‘sisters’

b. with 1Sg possessor (postposed)

<i>lárá mà</i>	‘my sister’
<i>lárá mà bè</i>	‘my sisters’

c. with preposed possessor

<i>sè:dú</i> ^H <i>lárá</i>	‘Seydou’s sister’
<i>sè:dú</i> ^H <i>láré:ⁿ bè</i>	‘Seydou’s sisters’
<i>sè:dú</i> ^H <i>lárá bè</i>	”

With *ègé* ‘husband’, on the other hand, nasalized ^H*égé:ⁿ* is the regular post-possessor form, singular as well as plural: *wó* ^H*égé:ⁿ* ‘her husband’, compare *ègé mà* ‘my husband’ with postposed possessor.

4.1.2 Irregular nouns (‘woman’, ‘child’, ‘person’, ‘thing’)

‘Woman’ (*jé*), ‘man’ (*àrⁿâ*), ‘thing’ (*ðjð*), and ‘person’ (*ná*), see the preceding section), present no synchronic irregularities as nouns. However, ‘child’ along with its human derivatives has a suppletive plural form.

- (44) gloss singular plural

a. ‘child’	<i>i:ⁿ</i>	<i>úrⁿi:</i>
b. ‘boy’	<i>àrⁿá-ŷⁿ</i>	<i>àrⁿá-^Lùrⁿù (bè)</i>
‘girl’	<i>jé-ŷⁿ</i>	<i>jé-^Lùrⁿù (bè)</i>

Singular ‘child’ *i:ⁿ* is distinguished by vowel length from the 1Sg pronoun *iⁿ*. ‘Child’ is desyllabified to *-ŷⁿ* in (44b). In other compounds, *-íⁿ* is sometimes pronounced in unreduced form, and sometimes contracts with a stem-final vowel (§5.1.7, below).

jé ‘woman’ shows the effect of diachronic backward nasalization-spreading from original suffixed forms (cf. Jamsay singular *jé-n* ‘woman’, plural *jé-m*), compare *yè-* as compound initial (§5.1.8). Another case of **y* → *j* before another nasal is *já-má* ‘let’s go!’ (285a) in §10.6.2.1, hortative of *yé* ‘go’.

4.1.3 ‘So-and-so’ (*àmá:n*)

àmá:n ‘is used as a variable over personal names in generalized contexts, cf. English *So-and-so*, French *un tel*, Arabic *fulaan-*, and the like. For the possibility of segmenting it as *à-má:n*, see §4.1.7 below.

4.1.4 Initial *Cv-* reduplication in nouns

A number of nouns (and adverbs) appear to have an initial *Cv-* reduplication, with both the consonant and the vowel quality (and, usually, tone) copied from the stem. The vowel of the reduplicant is short, even when based on a long vowel in the stem. In the great majority of cases, the stem does not occur elsewhere (to my knowledge) in unreduplicated form, so the segmentability of the reduplicant is not transparent.

In a couple of examples, there is in fact language-internal evidence for segmenting the reduplicant. For *nù-nùnjú* ‘sun’, the comparison is with *nùnjù ná:* ‘daybreak’. For *pú-púgó* ‘out of shape(adj)’, the related verb *pú:gù* ‘get out of shape’ hints at segmentability. For *dù-dùgr* ‘sorceror’, the comparison is with verb *dùgó* and its cognate nominal *dúgó*, which co-occur in the combination *dúgó dùgó* ‘cast spells’. Tones are commented on below.

(45) *Cv*-reduplicated nouns (except *CvCv*)

a. noun stems

H-toned reduplicant and /H-toned base

<i>gó-góró</i>	‘padlock’
<i>gú-gúrú</i>	‘grass, herbaceous plants’
<i>kí-kíjí</i>	‘grain spike’ (usually a compound final)
<i>wó-wóró</i>	‘outhouse for bathing’
<i>né-nér"é</i>	‘air, breeze’
<i>nó-nó:r"ó</i>	‘scar(n)’

L-toned reduplicant and /LH-toned base

<i>kò-kò:</i>	‘scale (of fish)’; ‘tree bark’ (Jamsay <i>kì-kòw</i>)
<i>kò-kò:</i>	‘scab’; ‘slough(n)’ (Jamsay <i>kògò</i>)
<i>ù-?ùgó</i>	‘steam; hot weather’
<i>nè-nèŋé</i>	‘groin’
<i>kà-kàrá</i>	‘armpit’
<i>dè-dègú</i>	‘patience’
<i>gù-gùnjú</i>	‘giant pouched rat’
<i>kò-kòjú</i>	‘viper’
<i>tò-tòjú</i>	‘calf (of leg)’
<i>bò-bòrú</i>	‘sediments (in liquid)’
<i>kì-kìyé</i>	‘edible winged termite’
<i>kà-kàlá</i>	‘secrecy, stealth’
<i>kà-kàrá"</i>	‘noisy bustard sp.’ (onomatopoeic)
<i>sù-sùlé"</i>	‘branch used as whip’
<i>nò-nò:r"ó</i>	‘spider’s web’
<i>tù-tù:rú</i>	‘young man’s horn’

as above, with nasalized vowel in reduplicant

sɔ̄n-sɔ̄nó	‘sand’
tɔ̄n-tɔ̄nē	‘bell’
kèn-kèr̄nē	‘courser (bird)’

L-toned reduplicant and /H/-toned base

dè-dé:	‘father’ (dialectal variant <i>dè-dě:</i>)
bà-bá:	‘grandfather’
nà-ná:	‘grandmother’
tè-té:	‘kite (hawk)’
tò-tó:	‘tin can’; ‘jewelry box’
kè-ké:	‘craziness’
kè-ké:	‘beetle’
tà-tágá	‘joking, kidding(n)’
kì-kíjí	‘bat (mammal)’
kù-kúmó	‘smoke’
tò-tágú	‘gecko’
pì-pírí	‘butterfly’
tì-tírí	‘errand, mission’

as above, with nasalized vowel in reduplicant

kèn-kéw̄nē	‘mosquito’
gò̄n-gór̄nó	‘honey ant (<i>Camponotus</i>)’

H-toned reduplicant, L-toned onset of base

base is {L}

té-tèr̄è:	‘miracle’
té̄n-tèŋè	‘zorilla (mammal)’, variant of <i>téŋé</i>

b. nominal compound initials and finals

H-toned reduplicant and /H/-toned base

lù:rò ^L -[kú-kúrá]	‘puff adder’ (<i>lú:ró</i> ‘snake’)
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L-toned reduplicant and /LH/-toned base

kènè ^L -[là-làgá]	‘spleen’ (cf. <i>kéné</i> ‘heart/liver’)
nùmò ^L -[sà-sàgá]	‘small bracelet’ (“hand-jewel”)

L-toned reduplicant and /H/-toned base

mò ^L -[kà-kárá]	‘loud laughter’ (“laugh-[onomatopoeia]”)
nùmò ^L -[tò-tágú]	‘elbow’ (“hand-...”)
kà: ^L -[tò-tágó]	‘praying mantis’ (“grasshopper ...”)
pùnày ^{nL} -[sò-sòr̄ó]	‘flour that sticks to mortar’ (“flour-...”)

compound initial (tones dropped)

àrùkò ^L -[nè-nèr̄è] ^L -já	‘type of boubou (robe)’
[dì-dì] ^L -ké:dú	‘tickling(n)’

compound final (tones dropped)

ò:gú ^L pò-pòrò	‘outbreak of watery sores’ (“sweat ...”)
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c. adjective stems

H-toned reduplicant and /H/-toned base

wó-wórú	‘fast (in action)’
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L-toned reduplicant and /H/-toned base

pò-pò:	‘innocent’
jò-jó:	‘much, many’

d. other stem-class

kà:ná sà-sày ‘right now’ (*kà:ná* ‘now’)

In the list above, two further phonological points arise. First, when the stem begins with a vowel, the reduplicant is limited to a copy of this vowel, the two being separated by a hiatus-marking glottal stop: *ù-?ùgó* ‘steam’.

Secondly, when the stem is of the type *TvNv* with an initial nonnasal consonant *T* and a medial nasal consonant *N*, the vowel of the reduplicant is nasalized in some cases, resulting in *Tvⁿ-TvNv*. Nasalization was heard in *sòⁿ-sònó* ‘sand’, *tòⁿ-tòrⁿé* ‘bell’, *gòⁿ-górⁿó* ‘honey ant’, *kèⁿ-kéwⁿé* ‘mosquito’, and *kèⁿ-kérⁿé* ‘courser’. However, *kù-kúmó* ‘smoke’ was heard without reduplicant nasalization. Based on this fragmentary information, it is possible that labial *m* behaves differently from coronal nasals in this respect.

Of the nouns in (45) above, *té-térè*: ‘miracle’ has the most puzzling tonal pattern. Cognates (e.g. Jamsay and Najamba *té:ré*, Yanda-Dom *térè*) suggest an unreduplicated proto-form like **té(:r)é*. It is possible that TgK *té-térè*: reflects a fully iterated immediate proto-form **téré-téré*, with the second syllable lost by *rv*-Deletion (§3.5.3.2).

Reduplicated nouns consisting of two *Cv* syllables are problematic because it may be impossible to determine whether they represent *Cv-* reduplication or full-stem iteration (on which see below, §4.1.6). Indeed, since *CvCv* is the most basic stem-shape in the language, while short-voweled *Cv* is marginal, the *CvCv* cases could also be interpreted (by native speakers) as unsegmentable.

The *CvCv* stems that are candidates for reduplicative status are in (46).

(46) *CvCv* reduplicated stems

stem	possessed	gloss
a. L(-)<LH>		
<i>nù-nú</i>	^{HL} <i>nú-nú</i>	‘cold weather’
<i>yà-yá</i> ^L <i>nà:</i>	^{HL} <i>yá-yá</i> ^L <i>nà:</i>	‘woman who has just given birth’
<i>compound finals</i>		
<i>pòŋò</i> ^L -[<i>jà-já</i>] —		‘fonio greens’
<i>tùwò</i> ^L -[<i>tà-tá</i>] —		‘stone shelf’
b. L(-)H		
<i>bòbó</i>	^H <i>bóbó</i>	‘Bobo (ethnicity)’
<i>nònó</i>	^H <i>nónó</i>	‘Guinea worm’
<i>gègé</i>	^H <i>gégé</i>	‘jaundice’
<i>pùⁿ-púⁿ</i>	^{HL} <i>púⁿ-pùⁿ</i>	‘shrub (<i>Calotropis</i>)’
<i>mè-méⁿ</i>	^{HL} <i>mé-mèⁿ</i>	‘ant’
<i>compound final</i>		
<i>àrⁿù</i> ^L - <i>kèⁿkéⁿ</i> —		‘ant sp. (<i>Messor</i>)’, cf. <i>àrⁿú</i> ‘rain’
c. H(-)H		
<i>tété</i>	^H <i>tétér</i>	‘arrogance’
<i>néné</i>	^H <i>nénér</i>	‘person of low caste’; ‘latch’
<i>tété</i>	—	‘bland-tasting, lightly sugared or salted’
<i>jú-jú</i>	^{HL} <i>jú-jú</i>	‘judge’ (French <i>juge</i>)
<i>júⁿ-júⁿ</i>	^{HL} <i>júⁿ-júⁿ</i>	‘mud-dauber wasp’

The most interesting feature in this list is the L-<LH> tone pattern of *pù-pú* ‘cold weather’ and similar forms, including the final in *pòŋò^L-[já-já]* ‘fonio greens’. Such a tone pattern is unattested with unreduplicated bimoraic CvCv nouns, see (24) in §3.7.1.6. This suggests a reduplication, e.g. *pù-pú*, where the base *-pú* has an /LH/ melody that must be realized on its single mora, as with many unreduplicated monomoraic nouns like *mɔ* ‘gum arabic’ and *dɛⁿ* ‘waterjar’. If this analysis is accepted, its conclusion might be extrapolated to the other cases.

As shown in §6.2.1, unsegmentable CvCv stems have an {H} overlay controlled by a preceding possessor. By contrast, morphologically composite stems beginning with *Cv-Cv...* or *Cv Cv...* have an {HL} overlay with the H-tone on the initial syllable. This suggests that the tone of possessed forms of arguably reduplicated CvCv stems might show how native speakers analyse these forms. This does not work for compound finals or for adjectives, which cannot occur at the left edge of the possessed noun, but it does work for simple nouns. As (46) indicates, we get an {HL} possessed-noun overlay for the two testable cases with L.<LH> pattern (‘cold weather’, ‘woman who has ...’), for the two testable nouns with final nasalized vowel (‘ant’, ‘mud-dauber wasp’), and for ‘judge’, but not for the other testable cases.

pipálá ‘square fan’ is a regional word, probably from Bambara (with *f* replaced by *p*), and does not fit the vocalism of the TgK *Cv-* reduplicative pattern.

4.1.5 Final reduplication in nouns

This pattern is not well represented in TgK, but I can cite *kà:^L pògòrò-pò* ‘grasshopper sp. (*Oedaleus*)’, with *kà:* ‘grasshopper’. There are final-reduplicated cognates of various forms denoting the same species in other Dogon languages.

kàŋkà: ‘louse’ may have originated as a noun with final reduplication (cf. Nanga *kɔrɔŋ-kɔŋ*). However, it is now probably segmented by native speakers, if at all, as {L}-toned compound initial form of *káⁿ* ‘mouth’ plus *kà:* ‘grasshopper’.

For final multiple reduplications in expressive adverbials, as in *dòrⁿónón* ‘foul-smelling’, see (219) in §8.4.6.1 and cross-references there.

4.1.6 Nouns with full-stem iteration

A fair number of nouns have a frozen iterative form, i.e. with two parts that are more or less identical segmentally and metrically, aside from possible changes in vowel quality and/or tone. In some cases the base occurs elsewhere in simple form with a related but distinct sense. This full-iteration type is distinguishable from the *Cv-* reduplications discussed above (§4.1.4) when both base and reduplicant are at least bisyllabic, but the two converge and are indistinguishable in the case of *C_iV_iC_iV_i* nouns or compound finals such as *sùⁿsíⁿ* and *jà^Ldéⁿ-dèⁿ* in (47b).

(47) Fully iterated nouns (and compound elements)

a. no tonal or vocalic difference

[none]

b. tonal difference but no vocalic difference

{L} then {H}

bòmbóⁿ

‘candy’ (French *bombon*)

<i>sùⁿsúⁿ</i>	‘worm, grub’
<i>ò:jiò^L-pùⁿpúⁿ</i>	‘whirlwind’ (with <i>ó:jió</i> ‘wind’)
<i>kùrsà-kúrsá</i>	‘itchy skin disease’
<i>yùgù-yúgú</i>	‘used clothing market’ (regional word)
<i>pùsù-púsú</i>	‘push-cart’ (French <i>pousse-pousse</i>)
<i>wèrè-wéré</i>	‘swift (bird)’
<i>gòdò-gódò</i>	‘wood-hoopoe (bird)’
{L} then {LH}	
<i>gàŋ-gǎn</i>	‘crack, gap’ (cf <i>gân</i> ‘between’)
{H} then {L}	
<i>jà^L déⁿ-dèⁿ</i>	‘empty lot’ (with <i>já</i> ‘ground’)

c. vocalic difference but no tonal difference

<i>bírigì-bárùgù</i>	‘bric-à-brac’
<i>pú:jù-pá:jù</i>	‘lung(s)’

d. vocalic and tonal differences

{H} then {L}	
<i>tígí-tàgù</i>	‘shoulderblade’
<i>kírí-kòrò</i>	‘mussel shell’
{L} then {H}	
<i>àrùkò^L yìlè-yálá</i>	‘type of boubou (robe)’
<i>tèŋè-táŋá</i>	‘dancers on stilts’
<i>gùrùmà^L-[dìŋè-dáŋá]</i>	‘hoopoe (bird)’

The vocalic differences, where they exist, involve the sequences *i...a* (*bírigì-bárùgù*), *i...o* (*kírí-kòrò*), *e...a* (*tèŋè-táŋá*), *u...a* (*pú:jù-pá:jù*), *i/i...a/u* (*tígí-tàgù*), and *i/e...a/a* (*dìŋè-dáŋá*). The basic principle, as in English freezes based on nonsense syllables (*ping-pong, rifraff*), is that a perceptually light vowel quality on the left corresponds to a perceptually heavier vowel quality on the right, with perceived weight based primarily on the second formant as seen in spectrograms. *i* has the highest F2, while vowels in the *u-o-e-a* belt have low F2. See also the comments on occasional vowel symbolism in sets of related verbs (§3.4.7).

More questionable cases are *gòŋú-góŋórⁿá* ‘giant millipede’, where the *u* in the second syllable is difficult to account for, and the apparently reduplicated final in the bird name *búrgú-tútù* ‘coucal’, which could be onomatopoeic.

The frozen iterated stems in (47) above should be distinguished from look-alike agentive compounds, each consisting of an {L}-toned form of the cognate nominal plus the {H}-toned form of the verb stem, e.g. *jìŋ^L-jíŋé* ‘protector’; see §5.1.5. However, the iterated stems with {L} then {H} tone in (47b,d) could possibly be interpreted by native speakers as frozen agentives, at least where the noun denotes a human agent of an activity, as with ‘dancers on stilts’.

kú:kúbú ‘machete blade’ (French *coupe-coupe*) has likely mutated from **kùbù-kúbù* (cf. Jamsay *kùbù-kúbù* and similar quadrisyllabic counterparts in other Dogon languages) but is no longer transparently reduplicated.

Full iteration is also common in onomatopoeias (§8.4.7.1), in adjectival intensifiers, in other expressive adverbials, see (216) in §8.4.6.1, and in derived distributives especially from numerals (§8.4.7.2).

4.1.7 Frozen initial *à-* or *àN-* in nouns

As in some other Dogon languages, TgK has a number of nouns that arguably begin with a prefix-like element *à-* or *àN-* (with an underspecified nasal that assimilates to the position of a following consonant, or is heard as nasalization of the *a*). In some cases there is some actual evidence for segmentation, as when a word-family includes both prefixed and unprefixed forms. In other cases the segmentation is speculative. Even in the clearer cases, the function of the prefix cannot be determined.

The relevant forms are grouped together as (48), with brief comments about related forms.

(48) Prefix *à-* or *àN-*

a. word-family has forms with and without prefix

à-tégu tégué ‘stand on tiptoes; (goat) stand on hind legs’ (cognate nominal plus verb)

àn-dájú dàjá ‘fry large soft millet cakes’

à-mámú màmá ‘bite one’s lower lip’

bà:gà^L *à-gógú* and *bà:gà*^L *gógú* (containing *bá:gá* ‘stick’); the terms denote two types of shepherd’s staff, each having a hooked or curved end, while *à-gógú* also has a fork for easy gripping at the other end)

àŋ-gò:níⁿ and *gò:níⁿ* (two types of poles for knocking fruits off trees, *àŋ-gò:níⁿ* having a metal hook at the end)

àm-béyú ‘hide-and-seek (game)’, obscurely related to *báŋ* ‘secret(adj)’ and related forms

b. other possible cases

fauna terms

àŋgùŋùrⁿú ‘giant tortoise’

àndāⁿ ‘tiny fly sp.’

pèlè^L *-ásé:nú* ‘namaqua dove (*Oena*)’, cf. *pélé* ‘dove’

other cultural vocabulary

àlégú ‘loincloth’

àpàlá (synonym *àn-dájú*) ‘meal with large, soft millet cakes’

àtému ‘customary rite’

àtí: ‘bird trap’

àpà:ré ‘mechanism (of musket)’

àjíri ‘traditional wrestling’

other

à"só:yó ‘bowlegged person’

àségú ‘sneeze(n)’

Perhaps *àmá:n* ‘So-and-so’ (§4.1.3) belongs here. *à"sá:rá* ‘white person’ does not, at least etymologically, as it derives from **ànàsá:rá* by syncope. It is ultimately from the Arabic word for ‘Nazarene’.

It is not clear whether *ŋkúrá* ‘mouse’, beginning with a (weakly) syllabic nasal (§3.3.8.1), is segmentable.

4.1.8 Vocatives of kin terms

A noun (especially a personal name or kin term), or a second person pronoun, can function as a vocative.

For ‘father’, the usual tone is *dè-dé:* (dialectally also *dè-dě:*) when not preceded by a possessor, and ^{HL}*dé-dè:* with the regular {HL} tone overlay when preceded by a possessor. A special vocative pronunciation was observed: *dè-dē:* ‘hey father!’, with falling tone on the second syllable.

The other examples of this vocative tone pattern were similar reduplicative kin terms: *bà-bá:* ‘grandfather’ with vocative *bà-bâ:*; and *nà-ná:* ‘grandmother’ with vocative *nà-nâ:*.

‘Mother’ has no tonally distinctive vocative. *ìnă:* is both the unpossessed form of the noun and the vocative.

4.2 Derived nominals

4.2.1 Suffix *-gú* or *-ní* with {H} overlay

A handful of deverbal nominals have a suffix *-gú* and a stem-wide {H} overlay. The known examples are in (49). They form a fairly natural class semantically (transitions between presence/visibility and absence/invisibility).

(49) Suffix *-gú*

form	gloss	related verb
a. celestial bodies		
<i>númú-gú</i>	‘sunset’	<i>nùmó</i> ‘(sun) set’
<i>túmú-gú</i>	‘(sun/moon-)rise’	<i>túmó</i> ‘(sun, moon) rise’
b. other		
<i>tórú-gú</i>	‘beginning’	<i>tóró</i> ‘begin’
<i>yá:-gú</i>	‘going (departure)’	<i>yě(yă:-)</i> ‘go’
<i>yérú-gú</i>	‘coming (arrival)’	<i>yéré</i> ‘come’
<i>gó:-gú</i>	‘going out’	<i>gō:</i> ‘go out, exit’

This minor deverbal nominal is distinct tonally and semantically from the (nonhuman) characteristic derivative in *-gú* with {L}-toned stem (§4.2.3).

In the introduction to §5.1, a compound including the archaic nominal *ní:-ní* ‘eating’, from verb *ní:* ‘eat (meal)’, is mentioned. The relationship, if any, between this *-ní* and other nominalizations (such as that with *-gú*) is unclear.

4.2.2 Deadjectival extent nominals with reduplication and suffix *-ná*

A number of adjectives, notably those relating to measurable (scalar) spatiotemporal properties, have a nominal derivative with a suffix *-ná* following an {L}-toned form of the adjective (with final *u* in the case of two or three relevant bisyllabic stems) including an initial *Cv-* reduplication. The known forms are in (50).

(50) Extent nominals

form	gloss	related adjective
wà-wàgù-ná	'distance'	wàgá 'distant'
wò-wòrù-ná	'depth'	wóró 'deep'
gù-gùrù-ná	'length'	gùrú 'long' (also 'tall')
wà-wà:-ná	'width; thickness'	wá: 'wide, thick'
tè-tèrè-ná	'speed'	téré 'speedy'

tè-tèrè-ná 'speed' (and 'speediness') is unusual in not shifting the final stem-vowel to *u*.

For 'tallness, height' I recorded an underived noun *géné*. It is at best distantly and obscurely related to the adjective *gùrú*, compare English *stature* or French *taille*.

4.2.3 Characteristic denominal derivative (-gú, -gíⁿ after {L} overlay)

In this derivation, which functions as a noun or adjective, a noun denoting a characteristic of certain objects or people, such as a personality trait or a medical condition, is followed by a suffix *-gú* (nonhuman) or *-gíⁿ* (human). The noun drops its tones. The construction is fairly productive. The characteristic derivatives gleaned from the working dictionary are in (51).

(51) Characteristic derivative

a. nonhuman

bà:gá ^L kírè ^L -gú	'staff (<i>bá:gá</i>) with one forked end (<i>kírè</i>)'
siyè ^L -gú	'plump (animal)', cf. <i>síyé</i> '(animal) fat'

b. human

bàrè: ^L -gí ⁿ	'left-handed person' (unrelated to adjective for 'left (hand/foot)')
pànjà ^L -gí ⁿ	'authority, government', cf. <i>pànjá</i> 'power'
nùr ⁿ ú ^L -gí ⁿ	'sick person', cf. <i>nùrⁿú</i> 'disease'
ò:rò ^L -gí ⁿ	'cripple, paraplegic', cf. ó:ró 'being crippled'
jòŋjò ^L -gí ⁿ	'leper', cf. <i>jóŋjó</i> 'leprosy'
nàm ^L -gí ⁿ	'impoverished person', cf. verb <i>nám-gì-</i> 'become poor'
bò:mò ^L -gí ⁿ	'idiot, stupid person', cf. <i>bò:mó</i> 'stupidity'
lìwè ^L -gí ⁿ	'cowardly (person)', cf. <i>lìwé</i> 'fear(n)'
wàlà ^L -gí ⁿ	'lazy', cf. <i>wàlá</i> 'laziness'
[àmà-sògò] ^L -gí ⁿ	'pitiable (person)', cf. <i>àmà</i> -sògò 'pity' (compound with <i>àmá</i> 'God')
kòr ⁿ i: ^L -gí ⁿ	'glutton', cf. <i>kòrⁿi:</i> 'intestine'
pùgà:rù ^L -gí ⁿ	'poorly behaved (person)' (<i>púgá:rú</i>)

The (denominal) nonhuman characteristic *-gú* with an {L}-toned stem should be distinguished from a minor deverbal nominalization with *-gú* after an {H}-toned stem (§4.2.1).

4.2.4 Verbal nouns (-ú ~ -í ~ -Ø)

The productive verbal noun formation replaces the stem-final vowel of a nonmonosyllabic verb stem by **-ú**, with the remainder of the verb stem {L}-toned. We get **-í** instead of **-ú** when the preceding syllable has an **i**-vowel.

Monosyllabic stems instead have **-Ø**, with <LH> tone on the stem vowel. The monosyllabic verbal noun **Cv-Ø** corresponds to the Jamsay type **Cv-y**, reflecting the usual TgK loss of final semivowels.

The /u/ for nonmonosyllabics is usually deleted (apocopated) after an unclustered semivowel or nasal {w wⁿ y m n j y} in bimoraic **CvCv** stems whose penult has a non-high vowel. Apocope is optional in **Cùw-ú**, but it is hard to hear the difference between bisyllabic and apocopated monosyllabic in this case. When the /u/ is deleted, its H-tone is stranded, and re-links to the left (3.7.4.4), resulting in an <LH> tone on the surviving syllable. Where typographically possible, I write this with a separate acute accent on the sonorant, for example **Cvm-Ø** rather than **Cvm-Ø**. This is not (mainly) for phonetic reasons, rather to clarify the morphology by indicating that the H-tone has re-linked from the right. For **I**, the accented form **I** exists but creates problems of recognition and linespacing, so I write **CvI-Ø**.

Mediopassive suffix **-î** is reduced to **-í** which may then be zeroed by apocope (52d).

(52) Verbal nouns

stem	verbal noun	gloss
a. monosyllabic		
ó	ó-Ø	'give'
yě	yě-Ø	'go'
jé	jé-Ø	'take away'
pí:	pí-Ø	'eat meal'
gő:	gő-Ø	'go out'
ká: ⁿ	ká ⁿ -Ø	'shave'
b. nonmonosyllabic (without Apocope)		
<i>CiC-í from CiCv</i>		
sígé	síg-í	'remain'
tíŋé	tíŋ-í	'speak"
kígíri	kígír-í	'go back'
<i>CùC-ú from CuCv</i>		
núŋó	núŋ-ú	'sing'
kúwó	kúw-ú	'eat meat'
	~ kúw-Ø	
<i>C<small>v</small>C-ú from other CvCv with medial obstruent/liquid</i>		
bágá	bág-ú	'fall'
béré	bér-ú	'get'
pál	pál-ú	'pick (fruit)'
súnú-gí	súnú-g-ú	'take down'

c. nonmonosyllabic (with Apocope)

medial semivowel

<i>dòwá</i>	<i>dòw-</i> Ø	‘go up’
<i>téwⁿé</i>	<i>téwⁿ-</i> Ø	‘eat (by crunching)’
<i>bìyé</i>	<i>bìy-</i> Ø	‘bury’

medial nasal

<i>pémé</i>	<i>pém-</i> Ø	‘slurp’
<i>n᷑:-m̄</i>	<i>n᷑:-m̄-</i> Ø	‘cause to drink’
<i>b᷑:n̄</i>	<i>b᷑:n̄-</i> Ø	‘pamper’
<i>d᷑n᷑</i>	<i>d᷑n-</i> Ø	‘butt with head’
<i>s᷑:ŋ̄i</i>	<i>s᷑:ŋ̄-</i> Ø	‘settle down’

d. Mediopassive

final short i after CiC-

<i>dìg-î:</i>	<i>dìg-í</i>	‘follow’
<i>ìm-î:</i>	<i>ìm-í</i>	‘lie down’
<i>dìw-î:</i>	<i>dìw-í</i>	‘lean on’

final short u after CuC- other than Cuw-

<i>túŋ-í:</i>	<i>tùŋ-ú</i>	‘kneel’
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final zero after other CvC- with final semivowel/nasal

<i>bòm-î:</i>	<i>bòm-</i> Ø	‘carry on back’
<i>dèŋ-î:</i>	<i>dèŋ-</i> Ø	‘sit’
<i>nèŋ-î:</i>	<i>nèŋ-</i> Ø	‘circulate’
<i>sóŋ-î:</i>	<i>sóŋ-</i> Ø	‘carry on shoulder’
<i>yày-î:</i>	<i>yày-</i> Ø	‘play (board game)’
<i>dùw-î:</i>	<i>dùw-</i> Ø	‘carry’

A variant of *-ú* used in parallelistic passages is *-í→*, with intonational prolongation.

- (53) [y᷑: w᷑ⁿ] *sàjù^L-[dìg-í→]*, *jù:^L-[pòr-í→]*
 [NearDist Top] bird^L-[drive.out-VblN], millet^L-[grow.spike-VblN]
éme [y᷑: nà sâ:ⁿ] *pór-è:-sêⁿ*
 1PlSbj [NearDist Pl all] say-Pfv-PlSbj
 ‘As for that, we have talked both (about) driving birds out and about the development of millet grain spikes.’ (2011.1a.08)

A suffix *-lé* used in one type of verb iteration (§11.6.5) is a possible vestige of an older verbal noun formation, cf. Najamba and Yanda Dom *-lé*.

4.2.5 Instrument nominals

There is no widely used instrumental-nominal derivation, to judge by the absence of candidates in my working lexicon. The tool ‘file’ is *dì:sí*, unrelated to the corresponding action verb *nérⁿé* ‘file, scrape with a file’ (also ‘hone [blade]’). Likewise, ‘bellows (blacksmith’s blower)’ is *ìjú*, unrelated to verb *píyé* ‘blow’. New expressions can be created for modern functional appliances and tools, using verbal nouns with incorporated object as adjectives, as in *màsù^L jù:^L-n᷑wⁿ-Ø* ‘machine^L millet^L-grind-VblN’, denoting a modern grinding device (‘mill’).

‘Scrubber (for bathing)’ is *pǔ:* which oddly seems to have diverged phonologically from the cognate verb *bùwó* ‘scrub (one’s body, in bathing)’. The noun has a variant pronunciation *fǔ:*, whose *f* suggests loanword status. The verbal noun of *bùwó* is *bùw-Ø*, phonetic [bǔ:]. The cognate noun and verb in some other Dogon languages are more transparently related (e.g. Perge *pǔw* and verb *púwɔ*).

See also the compounds in §5.1.11.

4.2.6 Uncompounded agentives

I know of no uncompounded agentive nominals, with the possible exception of *dáná* ‘hunter’, cf. verb *dàná* ‘hunt’. See the agentive compounds, typically including a generic object as the initial, in §5.1.5.

4.3 Pronouns

4.3.1 Basic personal pronouns

The pronominal categories are first person (1Sg and 1Pl), second person (2Sg and 2Pl), third human (3Sg and 3Pl), nonhuman (with no obligatory number distinction), and logophoric (LogoSg and LogoPl). The logophoric “pronoun” is the most nounlike of these forms. Antecedents for logophorics are third person referents, less often second person (§18.2.1). There are also transpersonal reflexive markers for nonsubject categories (§18.1), but they are bound morphemes outside of the regular pronominal system.

The independent, accusative, and preverbal subject pronouns are identical in form, except that 1Sg has a special accusative *má*. This category also has other forms of the shape *mv* with variable vowel, including postnominal possessor *mà* (§6.2.3) and *mí-* in the ‘it’s me’ form.

Subject-pronominal suffixation on the verb (or other predicate) is very limited. In all AMN (aspect-mood-negation) categories the singular-subject category is unmarked. Depending on the particular AMN category, the plural-subject category is either unmarked (converging with the singular) or has a marked suffix used equally for 1Pl, 2Pl, and 3Pl. Subject-pronominal suffixation is therefore limited to at most a singular/plural opposition, with no marking of person (first, second, third). Because of this, either clause-initial independent pronouns in subject function (in main clauses) or preverbal subject pronouns (in non-subject relative clauses) are needed to determine the pronominal-subject category.

(54) Personal pronouns

		subject				
		indep.	accusative	preverbal	suffixed	‘it’s __’
1Sg	<i>iⁿ</i>	<i>má</i> [!]	<i>iⁿ</i>	<i>-Ø</i>	<i>mí=yⁿ</i>	
					(for <i>mí=y</i> see below)	
1Pl	<i>émé</i>	<i>émé</i>	<i>émé</i>	[marked]	<i>émé=:</i>	
2Sg	<i>ú</i>	<i>ú</i>	<i>ú</i>	<i>-Ø</i>	<i>ú=y</i>	
2Pl	<i>é</i>	<i>é</i>	<i>é</i>	[marked]	<i>é=y</i>	

3HumSg	wó	wó	wó	-∅	wó=ý
3HumPl	bé	bé	bé	[marked]	bé=ý ~ bé=:
Nonh	kó	kó	kó	-∅	kó=ý
LogoSg	èná	èná	èná	-∅	èná=:
LogoPl	èná bè	èná bè	èná bè	[marked]	èná bè=ý (~ èná bè=:))

‘It’s me [focus]’ is phonetic [mí:] and could be transcribed as *mí=ýⁿ* parallel to 2Sg *ú=ý* etc. or as *mí=:* parallel to 1Pl *émé=:*. It could also be taken as unsegmentable *mí:* on the grounds that it is the only irregular focused pronoun, i.e. it is not directly derived from the corresponding independent (and preverbal subject) form. See discussion of (317c) in §11.2.1.1 for possible evidence in favor of *mí:*.

In possessives (for kin terms as well as alienable nouns), a pronominal possessor normally precedes the possessed NP and takes the same form as in the independent, accusative, and preverbal-subject series just illustrated. The exception is 1Sg alienable possessor, which is L-toned *mà* following (not preceding) the possessed NP, see §6.2.3 below. If the noun has an additional modifier, any pronominal possessor can be postnominal, in combination with particle *kè* (originally ‘thing’ in apposition to the possessed noun X), as in *X [ú kè]* ‘your-Sg X’, see (133-4) in §6.2.3.

4.3.2 Personal pronouns as complements of postpositions

For all categories except 1Sg, the form of a pronoun used before a postposition is the same as in independent, accusative, and preverbal subject functions as detailed just above.

For 1Sg, we have dative *má=ñ* ‘to/for me’ (§8.1.1). The more noun-like spatial postpositions show 1Sg possessor *mà* following the noun-like element, as in *kúⁿ mà* ‘on me, over me, on my head’ (§8.2.3) and several similar examples. The morpheme *gí:ⁿ ~ gí:ⁿ* ‘like’, which does not pattern as a true postposition, has 1Sg *má gí:ⁿ* ‘like me’ (§8.4.1). Similarly, purposive ‘because of me’ is *má gê:* (§8.3.1.1).

4.4 Demonstratives

4.4.1 Demonstrative pronouns and definite morphemes

The resources in TgK for expressing discourse definiteness are these:

- (55) a. tonal definiteness marking (final L-tone on noun)
- b. preposed *kó* (§4.4.1.3) ‘that (same)’
- c. postponed near-distant demonstrative *yó:* ‘that (just mentioned)’ (§4.4.1.2)

kó and *yó:* are stronger discourse deictics and are usually best translated by ‘that’ in the discourse-internal sense. Of the two, *yó:* is appropriate when the referent in question has just been mentioned, while *kó* can dredge up an older discourse referent.

4.4.1.1 Tonal definite (final L-tone)

Weak discourse definiteness, as when an entity is referred to several times after its initial introduction, is typically expressed tonally. However, a noun or NP that already ends in an L- or <HL>-toned syllable) cannot audibly distinguish definite from indefinite in this fashion. This applies to heavy possessed nouns with {HL} overlay, to NPs with plural *bè*, and to a few numerals with /HL/ or /LHL/ melody.

Examples of tonal definites are in (56). Recall that all uncompounded common nouns and adjectives (as opposed to proper nouns), and some numerals, are lexically /H/- or /LH/-toned, i.e. their melodies end in an H-tone. This makes it possible to audibly distinguish the definite form by adding a final L-tone element at the right edge. In (56a), we see that a final H-toned *Cv* syllable becomes L-toned if there is at least one preceding H-toned syllable, but <HL>-toned if there is no preceding H-tone. We also see that a final <LH>-toned syllable becomes <LHL> regardless of how many syllables the stem has. In the transcription, superscript ^{+L} indicates a local (not word-level) tone at the right edge. This superscript is not a phonetic diacritic and can be disregarded in pronunciation; it merely indicates that the final L-tone is a morphological add-on.

(56)	noun/NP	definite	gloss
a. bisyllabic and longer stems			
<i>H.(H...).H to H.(H...).L</i>			
sí:né	sí:nè	^{+L}	'knife'
tújúr ⁿ ú	tújúr ⁿ ù	^{+L}	'stool'
hákílé	hákílè	^{+L}	'mind, attention'
úr ⁿ i:	úr ⁿ i:	^{+L}	'children'
<i>L.(L...).H to L.(L...).<HL></i>			
nùmós	nùmò̄s	^{+L}	'arm, hand'
wòrú	wòrù	^{+L}	'field'
nàjá	nàjâ	^{+L}	'cow'
gír ⁿ í	gír ⁿ î	^{+L}	'house'
là:rá	là:rá	^{+L}	'area near village'
tòŋòr ⁿ ó	tòŋòr ⁿ ò̄	^{+L}	'truth'
<i>L.(L...).<LH> to L.(L...).<LHL></i>			
ògò ⁿ	ògò ⁿ	^{+L}	'chief, Hogon'
òtè:	òtè:	^{+L}	'well'
ìná:	ìná:	^{+L}	'mother'
sírìwé	sírìwè	^{+L}	'folding knife'
<i>L.(L...).<HL> unchanged</i>			
àr ⁿ á-ỳ ⁿ	àr ⁿ á-ỳ ⁿ	^{+L}	'boy'
b. monosyllabic stems			
<H> to <HL>			
é: ⁿ	é: ⁿ	^{+L}	'soda ash'
í: ⁿ	í: ⁿ	^{+L}	'child'
dí:	dí:	^{+L}	'water'
<LH> to <LHL>			
jé	jé	^{+L}	'woman'
ná	ná	^{+L}	'person'

c. compounds and noun-adjective sequences

<i>bàrà-nòwⁿɔ̄</i>	<i>bàrà-nòwⁿɔ̄</i>	^{+L}	'wild animal'
<i>yè ná:</i>	<i>yè nâ:</i>	^{+L}	'old (=adult) woman'
<i>X^L pěⁿ</i>	<i>X^L pěⁿ</i>	^{+L}	'old X'
<i>gìrⁿi pírí</i>	<i>gìrⁿi pírí</i>	^{+L}	'big (=adult) person'
<i>nà gárá</i>	<i>nà gárá</i>	^{+L}	'white house'

d. noun-numeral sequences (see discussion below)

<i>X^L túnɔ̄</i>	<i>[X^L túnɔ̄]</i>	^{L+H+L}	'one X' (adjective)
<i>X^L túrú</i>	<i>[X^L túrú]</i>	^{L+H+L}	'one X' (numeral) (< <i>túrú</i>)
<i>X^L tà:nú</i>	<i>[X^L tà:nú]</i>	^{L+H+L}	'three X's' (< <i>tà:nú</i>)
<i>X^L kúré:</i>	<i>[X^L kúré:]</i>	^{L+H+L}	'six X's' (< <i>kúré:</i>)

e. prosodically light possessed nouns with {H} overlay

<i>X^H kíné</i>	<i>X^H kínè</i>	^{+L}	'X's soul, shadow' (<i>kíné</i>)
<i>X^H áná</i>	<i>X^H ánà</i>	^{+L}	'X's village' (<i>áná</i>)

Although *àrⁿá-ỳⁿ* 'boy' does not audibly change in isolation, the distinction between unmarked and definite forms is audible when a demonstrative is added: unmarked *àrⁿà-ỳⁿ* *yɔ̄*: 'that (near-distant) child' (demonstrative controls tone-dropping on noun), definite *àrⁿá-ỳⁿ* *yɔ̄*: 'that child' (demonstrative is tone-dropped).

The local attachment of L-tone to the right edge is quite distinct from, say, a word-level {HL} overlay. For example, lexically /H/-toned *túŋúrⁿú* 'stool' has definite form *túŋúrⁿù*^{+L} (56a), which happens to end up as H.H.L, but as a possessed noun with true {HL} overlay it is *[X^{HL} túŋúrⁿù]* 'X's stool' with H.L.L.

The subtlety lurking in these data is the tones of the noun X and the numeral in the noun-numeral sequences in (56d) above. Although the definiteness-marking local L-tone is added at the end of the numeral, the noun is also tone-dropped in that example. Moreover, the numeral itself is {L}+H-toned, as it is before a demonstrative (§6.5.2). This is therefore the {L}+H overlay (§3.7.3.7), controlled by the definite marker (as it is by demonstratives). To this is added a terminal L-tone (tonal definite), resulting in {L}+H+L. Syllabically, the output is L.(L...).<HL> for nonmonosyllabics with the falling tone realized on the final syllable, and <LHL> for monosyllabics. Examples are in (57).

(57)	unmarked	definite	gloss
a.	<i>jě tà:nú</i>	<i>[jě tà:nú]</i> ^{L+H+L}	'(the) three women'
b.	<i>jě kúré:</i>	<i>[jě kúré:]</i> ^{L+H+L}	'(the) six women'
c.	<i>jě sɔ̄:</i>	<i>[jě sɔ̄:]</i> ^{L+H+L}	'(the) seven women'
d.	<i>jé témdérè</i>	<i>[jé témdérè]</i> ^{L+H+L}	'a/the hundred women'

While adjectives and common nouns always end lexically in an H-tone, there are a few numerals that end in an L-tone (e.g. '7', 'hundred'). If tonal definite marking had applied to N-Num in the same manner as N-Adj, i.e. with just an incremental final L-tone, there would have been no audible difference between unmarked and definite forms in (57c-d). Indeed, there is no difference (audible to me) between unmarked and definite forms of {HL}-toned

possessed nouns (no great loss since possession usually implies definiteness), or of the tonally unusual frozen compounds *àr^{ná}-yⁿ* ‘boy’ and *ně-yⁿ* ‘girl’.

A textual passage illustrating the use of this definite marking is (58). Here a new discourse referent is introduced as unmarked (indefinite) *yè^L ná:* ‘an old woman’. Subsequent references to her, of which only one is included in this excerpt, are in the definite form *yè^L ná:^{+L}* ‘the old woman’.

- (58) [y᷑-ŋ] wó gé-è]
 [like.that 3SgSbj say-and.SS]
[yè^L ná:] kékèrè-kékèrè mà,
 [woman^L old] listen-listen (§11.6.7) and.then,
 i: [i.ⁿ+L] L[nò:] jágà nù-nù:-lí wà,
 hey! [child.Def^{+L}] [this] lo! Rdp-die-PfvNeg Quot,
 jágà wó n᷑-ŋ wó=ñ H^Lbír-è mà→ wà,
 lo! 3SgSbj like.this 3Sg=Dat H^Ldo-Pfv Q Quot,
[yè^L ná:^{+L}] gó-é:→
 [woman^L old.Def^{+L}] go.out-and.SS

‘When she (=spirit of dead girl) said (= sang) like that, **an old woman** was listening. She (=old woman) said, “wow, this child indeed did not die (naturally).” She (=old woman) asked (=wondered), had she (=the girl’s stepmother) [focus] done this to her? **The old woman** went out.’ (2011.1b.01)

The “definiteness” (i.e. ready identifiability) of a conspicuous or sole member of a set (the sun, one’s home, one’s village, etc.) does not count as discourse definiteness, even when the listener is assumed to understand the reference, and is not marked tonally as definite.

- (59) a. *iⁿ gín^{ní} L yá:-jù*
 1SgSbj house Lgo-Ipfv
 ‘I am going home (=to the house).’
 (can also mean ‘I am going to the village.’)
- b. *nù-nùñú ú L tégè-jù*
 sun 2SgObj Lburn-Ipfv
 ‘The sun will burn you-Sg.’

A difficulty in parsing TgK is that the same local right-edge L-tone element can also mark tonal locatives (§8.2.1) and, less importantly, the tonal topic marker (§19.1.1). For *túnó* ‘one’ (adjective), there is an audible tonal distinction between tonal definite and tonal locative. For purposes of definite marking, *túnó* is treated tonosyntactically as a numeral, so the phrase gets the {L}+H overlay preceding the definite L-tone: definite *[pè túnó]^{L+H+L}* ‘the one woman’. The tonal locative treats *túnó* as an adjective, so the definite L-tone only affects the final syllable: *pà^L túnó^{+L}* ‘in one (=the same) place’. For other nouns and adjectives, there is no overt difference between definite and locative tonal forms. See §8.2.1 for discussion of how the two can be identified in texts. There are some textual examples that could be parsed either way.

4.4.1.2 ‘This/that’ deictic demonstrative pronouns (*nó:*, *yó:*, *érú kó~é kó*)

Proximate *nó:* ‘this’ and near-distant *yó:* ‘that (over there)’ are the primary deictic categories, i.e. they can be accompanied by pointing. (For L-toned versions *L nò:* and *L yò:*, see below.)

Each has distinct singular and plural forms. ^L*bàŋà*, a special variant possessed form of *bàŋá* ‘owner’ (not the usual possessed form, see the end of this section) follows the demonstrative if the referent is human singular. The human plural counterpart is *nà* (compare Jamsay *nám*). I do not mark it as tone-dropped since it is always L-toned. Plural particle *bè* is usually not added to an already plural-marked demonstrative with *nà*.

For the far-distant/definite category, a structurally distinct form *érú kó* is basic. It looks morphologically like a relative clause with nonhuman head (‘... that is over there’), but it is somewhat frozen and can be used with a human referent. In the far-distant sense, a human referent can be expressed by a more transparent copular relative (ending in singular *wó* ^L*bàŋà*, plural *wé* *nà*), cf. (465a,e) in §14.1.9.6. In the discourse-definite sense, ‘that (same) one’ (i.e. that we were talking about before), only *érú kó* has been observed even for human referents. The discourse-definite sense appears to be rare and did not occur in recorded texts. The usual definite markers in NPs are the tonal definite (weak discourse-definite), and prenominal *kó* (strong discourse-definite).

(60)	category	singular nonhuman	plural human
a. simple			
Proximate	<i>nó:</i>	<i>nó</i> ^L <i>bàŋà</i>	<i>nó: nà</i>
Near-Distant	<i>yó:</i>	<i>yó</i> ^L <i>bàŋà</i>	<i>yó: nà</i>
b. relative-clause type (far-distant or definite)			
either sense:	<i>érú kó</i>	<i>érú kó</i> ^L <i>bàŋà</i>	<i>érú kó nà</i>
Far-Distant sense also:		<i>érú wó</i> ^L <i>bàŋà</i>	<i>érú wé nà</i>

In allegro speech, *érú kó* may reduce to *é kó*. For postnominal *kō:*, which functions like the more common prenominal discourse-definite *kó*, see the end of §4.4.1.3 below.

Combinations of the proximate demonstratives with nouns are in (61).

(61)	gloss	noun singular	‘this/that ...’	‘these/those ...’
‘stick’	<i>bá:gá</i>	<i>bá:gá bē</i>	<i>bà:gá</i> ^L <i>nó:</i>	<i>bà:gá</i> ^L <i>nó: nà</i>
			<i>bà:gá</i> ^L <i>yó:</i>	<i>bà:gá</i> ^L <i>yó: nà</i>
‘sheep’	<i>péjú</i>	<i>pégú bē</i>	<i>pèjú</i> ^L <i>nó:</i>	<i>pèjú</i> ^L <i>nó: nà</i>
			<i>pèjú</i> ^L <i>yó:</i>	<i>pèjú</i> ^L <i>yó: nà</i>
‘person’	<i>nă</i>	<i>nă bē</i>	<i>nă</i> ^L <i>nó</i> ^L <i>bàŋà</i>	<i>nă</i> ^L <i>nó: nà</i>
			<i>nă</i> ^L <i>yó</i> ^L <i>bàŋà</i>	<i>nă</i> ^L <i>yó: nà</i>

The proximate and near-distant demonstratives can also be added to nouns (with or without modifiers) that are already marked for definiteness by a final L-tone added to the right edge. In this case, the noun otherwise surfaces with its lexical tones, but the demonstrative is tone-dropped. This is illustrated in (62), where the nouns are *bá:gá* ‘stick’ and *nă* ‘person’, whose lexical melodies appear in the definite column. See also ‘this child’ in (58) above.

(62)	unmarked	definite	gloss
a.	<i>bà:gà</i> ^L <i>nɔ:</i>	<i>bá:gà</i> ^{+L} ^L <i>nò:</i>	'this stick'
	<i>bà:gà</i> ^L <i>yɔ:</i>	<i>bá:gà</i> ^{+L} ^L <i>yò:</i>	'that (near-distant) stick'
b.	<i>nà</i> ^L <i>nɔ</i> ^L <i>bàŋà</i>	<i>nà</i> ^{+L} ^L <i>nò</i> ^L <i>bàŋà</i>	'this person'
	<i>nà</i> ^L <i>yɔ</i> ^L <i>bàŋà</i>	<i>nà</i> ^{+L} ^L <i>yò</i> ^L <i>bàŋà</i>	'that (near-distant) person'

L-toned ^L*nò:* and ^L*yò:* also occur in certain other combinations including a numeral or a possessor. The string preceding the demonstrative takes {L}+H tonal form in this case. The likely historical origin is that the H-tone of the demonstrative jumped leftward onto the final syllable or mora of the preceding string. However, this does not work clearly as a synchronic analysis. See §3.7.3.5 for details.

Demonstratives like *nɔ:* may be used absolutely, as in 'take this!'. As modifiers, they follow NPs consisting of a noun plus any modifying adjectives and/or a numeral. In a sequence N-Adj-Num-Dem, the demonstrative licenses optional Adjective-Numeral Inversion (§6.4.2), to N-Num-Adj-Dem, and this has implications for the tonosyntax. For more on the linear and tonal structure of the combinations, see §6.5.

The L-toned ^L*bàŋà* in human singular demonstratives like *nɔ* ^L*bàŋà* 'this one' is striking. One would have expected #*nɔ:* ^H*báŋá*, since the regular possessed form of *báŋá* 'owner' is {H}-toned ^H*báŋá*, and since there are many possessive-type compounds ending in ^H*báŋá* (§5.1.9). The same unexpected L-toned following element occurs in *yɔ:* ^L*tògù* 'that kind of thing' and in *yɔ:=y* 'it is that' with final 'it is' clitic, for expected #*yɔ:* ^H*tógú* (perhaps downstepped) and #*yɔ:=y*. Demonstrative-based manner adverbs such as *yɔ-n* 'like that' also have a final L-tone.

However, these tone patterns are isolated. There is no productive tone-dropping of post-demonstrative words or clitics. For example, *yɔ:* *sí:n-kà:n* 'the equivalent of that' (i.e. 'something like that') has no tone-dropping or even downstep on H-toned syllable *sí:n*. Therefore the irregular tone patterns in the preceding paragraph (*nɔ* ^L*bàŋà*, *yɔ:* ^L*tògù*, *yɔ:=y*, *yɔ-n*) should be viewed as synchronic vestiges of an older /HL/-toned form of the demonstrative stem. This would also allow a direct equation of *nɔ:* and *yɔ:* with Jamsay *núŋò* 'this that' and variant *yúŋò* 'this/that'.

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

kó before a noun is ostensibly a nonhuman possessor pronoun. As in several other Dogon languages, however, this construction often marks the NP as strongly discourse definite ('that [same]'), with at best an abstract, impersonal "possessor" denoting the situation, the discourse, or the like. This was observed by Prost (p. 17): "On peut parfois employer le pronom *ko* placé avant le substantif pour marquer qu'il s'agit de celui dont il est question, dont on a déjà parlé."

The noun does take its regular possessed-noun overlay, so there is no overt difference between nonhuman possessor and discourse-definite marker. An {H}-toned possessed noun after *kó* is usually slightly downstepped, as it is following other possessors.

(63)	a. human		
	<i>kó</i> ^L <i>ì:n</i>	'the child'	
	<i>kó</i> ^L <i>jè</i>	'the woman'	
	<i>kó</i> ^H <i>ár'ná</i>	'the man'	

b. nonhuman

<i>kó</i>	^H <i>gírⁿí</i>	‘the house’
<i>kó</i>	^H <i>érⁿé</i>	‘the goat’
<i>kó</i>	^H <i>tónjùrⁿù</i>	‘the stool’

My assistant also produced another construction, with {L}-toned noun as head of a relative clause whose other part is *kô:*, as in *gírⁿí*^L *kô:* ‘that (same) house’. The tonosyntax suggests that *kô:* is treated like postnominal demonstratives *nó:* and *yó:* (§4.4.1.2).

4.4.1.4 Anaphoric/logophoric demonstrative pronouns

No Jamsay-type anaphoric (e.g. logophoric) demonstrative pronoun forms occur in TgK.

4.4.1.5 *kùn* with definite locations

A morpheme *kùn* occurred twice in about an hour of recorded texts from Koporò-Pen (64a), and I was able to elicit additional examples. It seems to involve discourse definiteness, but only with respect to allative locations. (64a) occurred in the middle of a tale about a pair of twins who had been abandoned by their mother in the relevant village, but had been brought up else where (by God) and were now trying to find their mother. In (64b), ‘house’ (the home of the quoted speaker and the listener, i.e. his wife) is introduced in the main quotation and then referred to in the embedded quotation, which is to be spoken by the wife to the animals (who by that point will be at the couple’s house).

- (64) a. *[[[sǎⁿ bè] HL ínà:] dènē-nú gè:]*
 [[[ReflPoss Pl] HL mother] seek-Ipfv for]
[àná kùn] yèr-é:] [bé kēⁿ]
 [village at.Def] come-and.SS] [3PlSbj when.DS]
 ‘when they came upon that (same) village in order to look for their mother, ...’
 (2011.1b.04)
- b. *bé ènē dùw-î: gírⁿí jé-∅ dè,*
 3PlSbj LogoObj carry-MP house take.away-Pfv if,
[fàrⁿá kà:ⁿ] [yé tè] isí dènē-dènē-dènē-dènē
 [man too] [there.Def around] dog look.for-(iterated)
[[sǎⁿ ¹kè] H gírⁿí] kùn] mō:-n-è: mà
 [[ReflPoss ¹Poss] H house] at.Def] assemble-Caus-and.SS and.then,
 ‘(He said to his wife:) When they (=wild animals) have carried and taken me to
the house, (tell them) “the man for his part was seeking (=collecting) dogs
 around there and has assembled them at **his (afore-mentioned) house**, and ...” ’
 (2011.1b.05)
- c. *[káñè kùn] dž:-séⁿ*
 [gold at.Def] arrive-Pfv.PlSbj
 ‘They (=miners) reached the gold (that they were digging for).’

If indeed *kùn* is specifically a discourse-definiteness marker, it might be cognate to e.g. Jamsay definite *kùⁿ*. However, it might also be related to *kúñ* ‘put’, cf. Jamsay stative *kùn* ‘be (put) in’. Or it could be a fusion from **kù* plus dative *=ñ*.

4.4.1.6 Possible dialectal definite morpheme

Prost (p. 17) states that the “pudyugu” dialect in the far north of the TgK zone has a postnominal determiner “*ù*”, i.e. *uⁿ*. The reference is presumably to the Worou Kan language/dialect, which belongs to the same language/dialect group as TgK, and is spoken by people with the surname Poudiougou.

Whether this morpheme is related to *kùn*, or to the Jamsay definite morpheme *kùⁿ*, is unclear. In any case it may reflect the original morpheme that became the TgK tonal definite.

4.4.2 Demonstrative adverbs

4.4.2.1 Locative adverbs

The main locative adverbs are in (65). The alternation of proximate *n* and near-distant *y* in simple demonstratives recurs here in *nî* versus *yî*.

(65)	form	gloss
a. basic locational adverbs		
<i>nî</i>	‘here’	
<i>yî</i>	‘over there’ (deictic)	
<i>yê</i>	‘there’ (discourse-definite)	
b. forms with <i>tò</i> ~ <i>tè</i> , location less precise		
<i>fⁿ tò</i>	‘(over) here’ (as opposed to ‘over there’)	
<i>yí tò</i>	‘over there, around there’	
<i>yé tè</i>	‘there’ (discourse-definite, nonspecific)	

Discourse-definite *yê* should be distinguished from existential *yé* ~ *yó* (§11.2.2.1). They are likely two divergent reflexes of an original ‘there’. The existential particle is followed by L-toned variants of quasi-verbs ‘be’ and ‘have’, which may indicate that *yé* ~ *yó* originally had a falling tone. Synchronously, *yê* and *yé* ~ *yó* are distinct morphemes and may co-occur; see (328) and discussion in §11.2.2.1.

4.4.2.2 Emphatic and approximative modifiers of adverbs

The expressive adverbial *té→* ‘precisely’ is added to spatial and temporal adverbials to emphasize precise location. For example, ‘right here’ is *nî té→*, and *íyé té→* is ‘precisely today’ (French *aujourd’hui même*).

tò ‘toward’ (§8.2.14) can be added to demonstrative adverbs to indicate approximate or nonspecific location: *nî tò* ‘around here (somewhere)’.

4.4.2.3 ‘Like this/that’ (, ,)

In addition to combining a demonstrative with *gi·n* ‘like’, as in *nō: gi·n* ‘like this’, there are some specialized demonstrative manner adverbs. The alternation of proximate *n* and near-distant *y* recurs in (66a).

(66)	form	gloss
a.	deictic (or discourse-deictic)	
	<i>nō-ŋ</i>	‘like this’
	<i>yō-ŋ</i>	‘like that’ (e.g. as just described)
b.	definite	
	<i>kú-n</i>	‘thus’ (definite)

kú-n is also very common clause-initially in the sense ‘(only) then (did...)’. This happens when the preceding clause denotes a necessarily prior (perhaps causal) eventuality.

For other ‘like X’ expressions, see §8.4.1.

4.4.3 Presentatives (*ùŋjōy*, *ùŋjò* ~ *ùŋjó*, *yògò*, *ègè*)

As predicate, *ùŋjōy* has presentative force ('here's ...'). It also occurs in the form *ùŋjò* with a following copula like *wō* or *kō* (§11.2.2.2) or a following locational quasi-verb *sō* (§11.2.3), all of which begin with an H-tone (67a-d). The same segmental form, but with rising tone pattern, is *ùŋjó* in (67e) before an L-tone. This suggests the possibility that *ùŋjōy* may be segmentable as *ùŋjò=ý* with an H-toned form of the ‘it is’ clitic. The final *y* is not fully nasalized, probably because the *y* is from *ng, preserved in some cognates like Ben Tey *úŋgòy*.

ùŋjōy occurs most often when the speaker is literally holding something out (a bag, a baby) to the addressee, i.e. in a clearly proximate context (67a). The shorter forms are normal when the referent object is not being held by the speaker.

- (67) a. [ú *HL sá:gù*] *ùŋjōy* —
 [" "] *ùŋjò* *kō*
 [2SgPoss *HL* sack] **here's** be.NonhSbj
 ‘Here's your-Sg bag.’
- b. [ú *HL dé-dè:*] *ùŋjò* *wō*
 [2SgPoss *HL* Rdp-father] **here's** be.HumSgSbj
 ‘Here's your-Sg father.’
- c. *émé* *ùŋjò* *wō*
 1PlSbj **here's** be.HumPlSbj
 ‘Here we are.’
- d. *péjú* [*gìr'í* *bîn*] *ùŋjò* *sō*
 sheep [house in] **here's** be
 ‘Here's a sheep in the house.’

- e. [wó wà] ùŋó [bàrá tò] nú: ^Lyè-Ø→
 [3Sg QuotSbj] here's [outback at] die ^Lgo.Pfv
 '(She said:) "Look, he has died out (here) in the bush." ' (2011.1b.05)

Another form with similar sense, used with a following copula, is *yògò*. The spatial position in this case is near-distant, perhaps being near or in the custody of the addressee.

- (68) a. bígí [[ú ^Hjúwó] bîn] yògò só
 pen [[2SgPoss ^Hpocket] in] there's.NearDist be
 'There's the pen, in your pocket.'
- b. [nù:^L-tè:ré wòⁿ] yògò kâ
 [millet^L-heap Top] there's.NearDist be.NonhSbj
 '(suppose that) there's a millet heap (over there)' (2011.1a.13)

The far-distant counterpart is *ègè*, again with a copula or locational.

- (69) nàŋá ègè kâ
 cow there's.FarDist be.NonhSbj
 'There's the cow (over there).'

When they are combined with an overt predicate, these presentative morphemes are not themselves predicative. In this case, they function as simple adverbs. They have lexical /LH/ melody (*ùŋó*, *yògò*, *ègè*) before a verb beginning with an L-tone (70a-b). They have {L} tone (*ùŋò*, *yògò*, *ègè*) before a verb beginning with an H-tone (70c), or before another preverbal constituent such as a direct object regardless of its initial tone (70d).

- (70) a. *Iⁿ* ùŋó *yě-táŋà*
 1SgSbj here's come-Prog
 'I'm coming!' (said when one is called, cf. French *j'arrive!*)
- b. *yògó* *bí-táŋà*
 there's.NearDist do-Prog
 'There he/she is (nearby), working.' (French *le\la voilà qui travaille*)
- c. *ègè* *pí:-táŋà*
 there's.FarDist eat-Prog
 'There he/she is (distant), eating.'
- d. *yògò* *nɔwⁿó* *jé:-táŋà*
 there's.NearDist meat bring-Prog
 'There he/she is (nearby), bringing the meat.'

4.5 Adjectives

As with nouns, there is no affixal marking of intrinsic categories (humanness, number) on adjectives.

4.5.1 Types of adjectives

(71) provides a fairly complete inventory of ordinary adjectives, in their postnominal modifying form. They are grouped here by segmental phonological shape. As with common noun stems, the lexical melodies are /H/ and /LH/. There is a significant set of stems ending in *u* (71a). A few adjectives have a reduplicative look (71h). *ðrⁿónón* ‘smooth, sleek’ (71j) is syntactically an expressive adverbial, see (219d) and discussion following. This is also likely for ‘full’ (71l), in view of its intonational lengthening. The remaining adjectives have shapes similar to those of nouns and verbs, with vowel-harmonic constraints applying if there are two or more syllables. The loanword *kákî* (71g) does not respect the vocalism rules applicable to native adjectives. For rhotic-medial *CvCv* stems, the parenthesized stative negative shows whether or not the stem is subject to *rv*-Deletion. In this sample, only *gàrá* ‘big’ undergoes this process (as does the verb *gàrá* ‘go past’).

(71) Adjectives

stem	gloss
a. bisyllabic with final <i>u</i>	
<i>CvCu</i>	
<i>kélú</i>	‘cold’
<i>ùjú</i>	‘small, slender’
<i>ùjíⁿ</i>	‘small’
<i>ógú</i>	‘fast’
<i>dòŋú</i>	‘skinny, lean’
<i>mòŋú</i>	‘bad, nasty’
<i>kùŋú</i>	‘rough’
<i>ðmú</i>	‘rotten’
<i>yérú</i>	‘blue’ (stative negative <i>yérú^L = lá</i>)
<i>yòrú</i>	‘soft’ (stative negative <i>yòrú^L = lá</i>)
<i>ðrú</i>	‘wet’ (stative negative <i>ðrú^L = lá</i>)
<i>dùmú</i>	‘blunt (blade)’
<i>nérⁿú</i>	‘lightweight’ (stative negative <i>nérⁿú^L = lá</i>)
<i>gùrú</i>	‘long’ (stative negative <i>gùrú^L = lá</i>)
<i>élú</i>	‘sweet’
<i>dògú</i>	‘thick’
<i>CvCu</i>	
<i>yù:gu</i>	‘slow’
<i>lɔ:jú</i>	‘over-ripe’
b. <i>Cv</i> and <i>Cvⁿ</i>	
<i>kš</i>	‘decayed (wood)’
<i>mă</i>	‘dry’
<i>děⁿ</i>	‘ripe but poorly-developed’
<i>pěⁿ</i>	‘old’
<i>gěⁿ</i>	‘black’
<i>sěⁿ</i>	‘good’
<i>báⁿ</i>	‘red’

c. *Cv:*

<i>nú:</i>	‘hot’
<i>sí:</i>	‘pointed’
<i>ě:</i>	‘tight (rope)’
<i>kő:</i>	‘empty’
<i>wá:</i>	‘wide, spacious’

d. *CvC*

<i>ěm</i>	‘crowded’
<i>ăwⁿ</i>	‘(animal) in good condition’
<i>káj</i>	‘big, fat’
<i>nőwⁿ</i>	‘ruined’

e. *CvCv*

<i>dìní</i>	‘well-fed’
<i>pírí</i>	‘white’ (stative negative <i>pìrì</i> ^L = <i>lā</i>)
<i>kíré</i>	‘difficult’ (stative negative <i>kírè</i> = <i>lā</i>)
<i>iré</i>	‘ripe; cooked’ (negated by verb: <i>irè-lí</i>)
<i>dègé</i>	‘short; narrow’
<i>séré</i>	‘diluted’ (stative negative <i>sérè</i> ^L = <i>lā</i>)
<i>kòró</i>	‘unripe; raw; fresh (milk)’ (stative negative <i>kòrò</i> ^L = <i>lā</i>)
<i>wóró</i>	‘deep’
<i>kàjá</i>	‘fresh; undiluted’
<i>márⁿá</i>	‘big, massive’ (stative negative <i>márⁿà</i> ^L = <i>lā</i>)
<i>gàrá</i>	‘big, adult’ (contracted stative negative <i>gá</i> ^L = <i>lā</i>)
<i>dágá</i>	‘small, young’
<i>kàná</i>	‘new’

f. *Cv:Cv*

<i>nà:rⁿá</i>	‘easy’
<i>kó:ró</i>	‘useless, shiftless’

g. *CvCv:*

<i>kákî:</i>	‘off-white’ (French <i>khaki</i>)
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h. bisyllabic with reduplicated appearance

CvCv

<i>tété</i>	‘bland’
<i>jéné</i>	‘alive’
<i>CvⁿCvⁿ</i>	
<i>tőⁿtőⁿ</i>	‘sour; salty’
<i>CvⁿCv:ⁿ</i>	
<i>síⁿ-sí:ⁿ</i>	‘small’
<i>Cv:Cv</i>	
<i>pí:pí</i>	‘sharp’

i. trisyllabic

<i>sémérⁿé</i>	‘tattered’
<i>bórólú</i>	‘viscous’
<i>kágárá</i>	‘bitter’

<i>sògòrò</i>	‘multicolored’
<i>déméré</i>	‘fat’
<i>kúrúgú</i>	‘dense’
<i>yùgùjú</i>	‘short, runty’

j. quadrisyllabic, with apparent final reduplication

<i>òr"ónónò</i>	‘smooth, sleek’
	(perhaps an expressive adverbial, cf. (219) in §8.4.6.1)

k. noun-adjective sequence, using exemplars for color categories

<i>bèrù-òrú</i>	‘green’ (lit. “fresh grass”)
<i>yòrò-pùr"ú</i>	‘yellow’ (lit. “néré-tree [<i>Parkia</i>] flour”)

l. expressive adverbial

<i>jó→ káⁿ</i>	‘full (container)’, cf. <i>káⁿ</i> ‘mouth; opening (of container)’
	(<i>jó→</i> perhaps an expressive adverbial, cf. (214) in §8.4.6.1)

4.5.2 Distributive adjective iteration with {H}-{L} overlay

This construction has an {H}-toned first iteration of the adjectival stem, while the second and optional subsequent iterations drop to {L}, erasing the lexical melody. In the attested examples, all of which involve the adjective *dágá* ‘small’, the iterated sequence is chained to a noncognate following verb.

- (72) a. [dèrⁿè^L dágá^{H-L} dágà] [kó bíni] páná-jé:
 [crops^L small^{H-L}small] [Nonh in] cross.plant-Ipfv
 ‘they will intersperse minor crops (among the millet)’ (2011.1a.03)
- b. [nùmò bè] [wàgà-tùmò^L dágá^{H-L} dágà-^L dágà] [màjá-séⁿ dè]
 [mound^L small^{H-L}small-^Lsmall] shape-Pfv.Plsbj if
 ‘they used to shape small round mounds (in rows) by hand and...’ 2011.1a.01

A tonally and semantically similar, but lexically frozen, iteration is *kéwéré-kéwérè* ‘minor, secondary, miscellaneous (things)’.

4.5.3 Expressive adverbials with adjectival sense ‘flat’ (*pvtv→*)

A set of expressive adverbials of the shape *pvtv→* with the basic sense ‘flat and wide’ and with sound-symbolic vocalism (§3.4.7) and /HL/ melody is found in TgK (73).

- (73) ‘flat (and wide)’

<i>pótò→</i>	‘flat and wide and moderately thick, e.g. tortoise, nose’
<i>pátà→</i>	‘flat and wide (feet)’
<i>pétè→</i>	‘flat and small (e.g. hand, fan)’

4.6 Numerals

4.6.1 Cardinal numerals

4.6.1.1 ‘1’ (*túrú*, *túnɔ̄*), ‘same (one)’, and ‘other’ (*pèré*)

‘1’ after a noun (or core NP) is *túrú* or *túnɔ̄*. They differ in stem-class. *túrú* does not control tone-dropping on the preceding word(s), in other words it behaves like numerals ‘2’ and up. *túnɔ̄* does control tone-dropping, so it functions as an adjective. Observe the tones of *péjú* ‘sheep’ in *péjú túrú* ‘one sheep’ and *pèjù^L túnɔ̄* ‘one sheep, a sheep’. Likewise note the tones of *ně* ‘woman’ in *ně túrú* ‘one woman’ and *nè^L túnɔ̄* ‘one woman, a woman’.

Consistent with its stem-class, *túrú* is semantically a pure numeral—‘one’ as opposed to ‘two’ or ‘three’, perhaps answering a ‘how many?’ question. By contrast, *túnɔ̄* is often used when a discourse referent is introduced, as at the beginning of a tale (‘there once was a little girl’). Both can also mean ‘(one and) the same’, predicating the identity of two ostensibly distinct referents: *kó túrú* ‘the same one’, *nà^L túnɔ̄* ‘the same person, a single person’.

-túnɔ̄ is attested in bahuvrihi compounds: [*gìrè:-yⁿ*]-*túnɔ̄* ‘one-eyed’.

My assistant rejected plurals #*túrú bè* and #*túnɔ̄ bè*.

In recited counting sequences (‘1, 2, 3, 4, …’), the form is *tî→*.

The phrase: *nă: túrú*, *bɔ: túrú*, literally ‘mother one, father one’ (the other order is also common), means that the children in question are full siblings.

‘Other’ as adjective is *pèré*. Unlike *túrú*, but like *túnɔ̄*, it functions as a modifying adjective. It therefore induces tone-dropping on a preceding noun or adjective: *pèjù^L pèré* ‘another sheep’ (*péjú*). The plural is *pèjù^L pèré bè* ‘other sheep-Pl’. *pèré* is also common as an adverb ‘otherwise’, ‘aside from that’, ‘elsewhere’.

4.6.1.2 ‘2’ to ‘10’

The numerals from ‘2’ to ‘10’ are in (74). For ‘2’ and ‘5’ there are slight differences between the form used after a noun and the form used in counting sequences (‘1, 2, 3, 4, …’). For ‘2’ the difference is that the vowel is lengthened in the counting form, but not after a noun or in isolation. This may reflect the influence of the preceding *tî→* ‘1’ in the counting sequence. For ‘5’ the difference is in the initial-syllable tone, which is low after a noun but high in counting or in isolation.

(74)	gloss	all-purpose	after noun	counting	isolation
‘2’			<i>lɔ́y</i>	<i>lɔ́:y</i>	<i>lɔ́y</i>
‘3’		<i>tà:nú</i>			
‘4’		<i>năyⁿ</i>			
‘5’			<i>nùnér:</i>	<i>núnér:</i>	<i>núnér:</i>
‘6’		<i>kúré:</i>			
‘7’		<i>sɔ̄:</i>			
‘8’		<i>sìlā:</i>			
‘9’		<i>tùwâ:</i>			
‘10’		<i>pérú</i>			

‘2’ also has a reduced variant *lɔ̄:* used when phrased with pronouns: *kó lɔ̄:* ‘the two of them (nonhuman)’, *émé lɔ̄:* ‘the two of us’. H-toned *lɔ́y* and L-toned *lɔ̄:* are both mutations from an

original <LH>-toned *lɔy, cf. *X lɔ: ságà* ‘X-two’ in compound numerals of the type ‘22’ (§4.6.1.3).

The final H-tone in ‘3’, ‘4’, and (postnominal) ‘5’ is likewise often dropped to L-tone in allegro speech, but the H-tone is heard in careful pronunciations or when phrased with a following element (such as a postposition).

A cardinal numeral has no tonal effect on preceding nouns (or adjectives), which therefore have the same tonal (and segmental) form as they have without the numeral.

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

The multiples of ‘10’ are given in (75). Those from ‘20’ up consist of a reduced form *pě-* of ‘10’, see *rv*-Deletion §3.5.3.2, plus the relevant single-digit numeral. The single-digit numerals that elsewhere have /LH/ melody, including ‘5’ as well as ‘3’ and ‘4’, become {L}-toned in this combination, even in careful pronunciation. The tone of *pě-* dissimilates to that of the following syllable except in ‘20’. The effect is that we have L-toned *pè-* in ‘60’ and ‘70’ and <LH>-toned *pě-* in the other combinations.

(75)	gloss	form
‘10’		<i>pérú</i>
‘20’		<i>pě-lóy</i>
‘30’		<i>pě-tà:nù</i>
‘40’		<i>pě-nàyⁿ</i>
‘50’		<i>pě-nùnè:</i>
‘60’		<i>pè-kúré:</i>
‘70’		<i>pè-sô:</i>
‘80’		<i>pě-sìlâ:</i>
‘90’		<i>pě-tùwâ:</i>

The archaic alternative for ‘80’ is *sùnjú*. From this an archaic combination for ‘90’ is produced: *sùnjú-pérú*.

Combinations from ‘11’ to ‘19’, ‘21’ to ‘29’, and so forth up to ‘99’ consist of the numeral for the decimal unit, then the corresponding single-digit numeral, then a final ‘-teen’ morpheme *ságà*. For ‘11’ to ‘19’, the ‘10’ stem has a variant *pérè:*. Examples: *pérè: túrú ságà* ‘11’, *pérè: tâ:nú ságà* ‘13’, and *pérè: núné: ságà* ‘15’. Before *ságà*, ‘2’ has a slightly irregular form *lɔ:*, hence *pérè: lɔ: ságà* ‘12’.

‘25’ is *pě-lóy núné: ságà*. This shows that ‘5’ has its {H}-toned form following a decimal numeral. ‘57’ is *pě-nùnè: sô: ságà*.

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

The stems in (76) are usually noun-like morphosyntactically.

(76)	gloss	form	comment
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- a. 'hundred' *témdérè* < Fulfulde
[heard as *témdérè* before a modifying numeral]
- b. 'thousand' *mùpnú*
- c. 'million' *míly᷑n* < French

These can be followed by numerals that quantify over these larger units. The numerals '2' and '5' have their postnominal pronunciations, showing that 'hundred', 'thousand', and 'million' are morphosyntactically nouns. In the absence of a further demonstrative, *témdérè* and *míly᷑n* (but not *mùpnú*) induce tone-dropping on a following simple numeral.

(77)	a.	<i>péjú</i>	<i>témdérè</i>	^L <i>kùrè:</i>
		sheep	hundred	^L six
				'six hundred sheep'
	b.	<i>péjú</i>	<i>míly᷑n</i>	^L <i>s᷑:</i>
		sheep	million	^L seven
				'seven million sheep'
	c.	<i>péjú</i>	<i>mùpnú</i>	<i>kúré:</i>
		sheep	thousand	six
				'six thousand sheep'

This difference between 'thousand' and the two other large numerals in tone-dropping on the following numeral is neutralized when a demonstrative is added. Now the common noun and the 'hundred' or 'thousand' term are tone-dropped (by the demonstrative), while the numeral has its normal tones.

(78)	a.	<i>[pèjù témdérè]^L</i>	<i>kúré:</i>	<i>y᷑:</i>	<i>nà</i>
		[sheep hundred] ^L	six	Dist	Pl
					'those six hundred sheep'
	b.	<i>[pèjù mùpnù]^L</i>	<i>tà:nú</i>	<i>y᷑:</i>	<i>nà</i>
		[sheep thousand] ^L	three	Dist	Pl
					'those three thousand sheep'

A large numeral involving hundreds or larger units can be followed by lesser numerals. The relevant common noun is often (but not always) repeated before a noninitial numeral on the order of thousands, hundreds, or '1-99'. This repetition can prevent confusion between e.g. '3210 sheep' as in (79) and '3000 sheep (for) 210 (currency units)'.

- (79) [péjú mùpú tā:nú] [(péjú) témdéré ^L*lɔ́y*] [(péjú) pérú]
 [sheep thousand 3] [(sheep) hundred ^L₂] [(sheep) 10]
 ‘3210 sheep’

4.6.1.5 Currency

As elsewhere in the region, the unit of currency corresponds to 5 CFA francs. It is called *bú:dú* (cf. Fulfulde *buudu*). Some of the more common combinations are often contracted, especially *bú:túrú* ‘one 5-CFA unit’. The unit *bú:dú* is used up to the million FCFA level, at which point *million* takes over (in the sense ‘one million FCFA’, not ‘5 million FCFA’).

4.6.1.6 Distributive iteration of numerals

A numeral from ‘1’ up can be iterated in distributive sense. For example, *ló-lóy* ‘two-two’ can mean ‘two at a time’, ‘by twos’, or ‘two each’.

- (80) a. éwè^{+L} [ná tú-túrú] yě-táŋà
 market.Loc^{+L} [person one-one] come-Prog
 ‘People come to the market one at a time.’
 [i.e. ‘People dribble into the market.’]
- b. bé bòmbóⁿ nùné:-nùné: ó-jú
 3PlSbj candy five-five give-Ipfv
 ‘They will give five candies each (=to each person).’

/túrú-túrú/ ‘one-one’ is reduced to *tú-túrú* by *rv*-Deletion (§3.5.3.2). This form is often used to suggest infrequency or wide scattering of individuals, cf. English *once in a while*. A syllable-final semivowel is dropped in the first iteration in *ló-lóy* ‘two-two’ and *ná-náyⁿ* ‘four-four’ (accidentally homophonous with *ná náyⁿ* ‘four people’).

Full pronunciations like *túrú-túrú* are also possible, especially in transparently distributive contexts (‘one each’) as opposed to more lexicalized functions (‘scattered, infrequent’). An example is (161a) in §6.6.3. The same section includes an example of adjective *túnó-túnó* ‘one each’ in distributive function.

‘Eleven-eleven’ is *pérè: túrú ságà túrú ságà*. The decimal term (‘10’, ‘20’, etc.) is not repeated if there is a following single-digit expression.

4.6.2 Ordinal adjectives

Ordinals are adjectives. They follow the relevant noun (or core NP) and control tone-dropping on it, like other modifying adjectives.

For ordinal ‘how-many-eth?’ (French *quantième*) à:*ŋà*^L-*nírnyí*, see §13.2.7.

4.6.2.1 ‘First’ (*kò-ké:*) and ‘last’ (*dùnɔ̄*)

The ordinal ‘first’ is *kò-ké:*. It has no phonological resemblance to a cardinal numeral ‘1’. I have hyphenated it since the two vowels are disharmonic.

The ordinal ‘last’ (i.e. final in a series) is *dùn5*.

Both ‘first’ and ‘last’ are normal modifying adjectives, controlling tone-dropping on the noun.

- (81) a. *nìŋjìr^{n̩i}* *kò-kě:*
 day^L first
 ‘the first day’

b. *nìŋjìr^{n̩i}* *dùn^s*
 day^L last
 ‘the last day’

An expression like *gír^ŋi*^L *kò-kě:* ‘(the) first house’ can have a range of temporal interpretations, as in ‘after the bridge, it’s the first house on the left’, and in ‘that was the first (=oldest) house ever built in the village’. It is not, however, used in contexts like ‘I am first (in my class) in English’; this is expressed as ‘I [focus] have the front in English’ (*gíré mí: sō*).

4.6.2.2 Other ordinals (suffix *-nìrⁿi*)

Other ordinals are formed by adding *-nìr^{ní}*) to the numeral, whose tones are dropped. There are irregular contractions of the base numeral to *Cv-* shape in ‘second’, ‘third’, and ‘fourth’ (82). Other forms are regular, e.g. *nùnè:*^L *-nìr^{ní}*‘fifth’ and *pèrù*^L *-nìr^{ní}*‘tenth’.

- (82) Irregular ordinals ‘2nd’ to ‘4th’

simple numeral	ordinal	gloss of ordinal
<i>lóy</i>	<i>lò^L-nìr^{ní}</i>	'second'
<i>tà:nú</i>	<i>tà^L-nìr^{ní}</i>	'third'
<i>návⁿ</i>	<i>nà^L-nìr^{ní}</i>	'fourth'

Ordinals of numerals for larger quantities are illustrated in (83). All tones are dropped before *-nìr^{n̄}*.

- (83) More ordinals

decimal [pè-lòy] ^L-nìr'nyí ‘twentieth’

decimal plus single-digit numeral
[pèrè-tùrù-sàgà]^L-nìr'í ‘eleventh’

hundred	<i>t̪emdeṛə^L-nɪr^{n̪i}</i>	'hundredth'
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hundred plus decimal numeral (two levels)
[t̥ɛmđèr̥è nɛ-lɔy̥]^L-nır̥ní ‘hundred and twentieth’

4.6.2.3 Unsuffixed ordinal with ‘month’

Alongside the regular combination $\text{ɔ}:^{\text{L}} \text{tùwà}:^{\text{L}} -\text{nìr}^{\text{H}}\text{i}$ ‘ninth month’ (e.g. of a job), from $\text{ɔ}:$ ‘month’, there is a special form $\text{ɔ}:^{\text{L}} \text{túwá}:^{\text{L}}$ with the same literal sense but that specifically denotes ‘August’, i.e. a period just before the harvest when the granaries are often running low. The tones are different from those of the cardinal numeral combination $\text{ɔ}: \text{tùwâ}:^{\text{L}}$ ‘nine months’.

4.6.3 Fractions and portions

‘Half’ is *péjéré* or *sâm*. With a possessor they are *[X péjérè]* and *[X sâm]*, i.e. ‘half of X’. They are not exact fractions and may denote any significant subpart.

5 Nominal and adjectival compounds

Compounds functioning as nouns or adjectives are covered in this chapter. The word-classes of the components (the initial and the final) may be n[noun], a[jective], v[erb], num[eral], or a variable word-class (“x”). The initial and/or the final usually undergoes a tonal change versus its independent form. If “x” is a word-class type, the notation \bar{x} means that it keeps its independent tones, \dot{x} that it drops tones to {L}, \acute{x} that it raises tones to {H}, and \hat{x} that it becomes {HL}-toned. For example, the (\bar{n} \bar{n}) compound type consists of an initial noun with overlaid {L} followed by a noun with its regular tones. The notation P_x means that the form has possessed-noun overlay, which is {H} or {HL} depending on the prosodic weight of the noun.

5.1 Nominal compounds

Nominal compounds contain (at least) two stems, usually one functioning as head and the other as modifier. Complex compounds with three or more stems can be broken down into two-part compounds in the usual hierarchical fashion; I try to bring this out using internal bracketing.

One of the longest compounds in the current lexicon is (84). The (\bar{n} \bar{n}) compound *dà:gà^L-pàná* ‘supper’ consists of *dà:gá* ‘night’ (in tone-dropped form) plus *pàná* ‘food’. The compound functions (with its remaining H-tones dropped) as the initial of an (\bar{n} \bar{n}) compound whose final is *ṇí:-ṇí*, an archaic nominalization of *ṇí:* ‘eat (meal)’, cf. the end of §4.2.1. This compound then functions as the initial in a possessive-type (\bar{n} P_n) compound whose final is *tèŋé* ‘time’, which gets an {H} overlay as a bimoraic “possessed” noun.

- (84) $\text{[[dà:gà-pànà]]}^{\text{L-H}} \text{[ṇí:-ṇí]}^{\text{H}} \text{tèŋé}$
 [[night-food]]-^{L-H}[eat-Nom]-^Htime
 ‘dinner time’

5.1.1 Compounds of type (\bar{n} \bar{n})

In this type, both the initial and the final preserve their regular tones. I have no clear examples of this type in TgK.

5.1.2 Compounds of type (\bar{n} \dot{n})

In this type, the final drops its tones while the initial has regular tones.

This is not a productive compound-formation pattern, but there are many multisyllabic nouns with compound-like appearance that end in an L-toned sequence like *CvCv*. In some cases, the initial and the final are more or less recognizable so the segmentation is clearcut (85).

(85) Transparent (**ñ** **ñ**) compounds with possessive-like sense

compound	gloss	components
<i>púlé:ⁿ-^Ltèrè</i>	'puffball'	<i>púlé:ⁿ</i> 'Fulbe', <i>térè</i> 'penis'
<i>wírí-^Lpɔ́rù</i>	'wild sesame'	<i>wírí</i> 'gazelle', <i>pɔ́rù</i> 'sesame'
<i>[gè:-gíⁿ]-^Lkòrù</i>	'vine (<i>Ipomoea</i>)'	<i>gè:-gíⁿ</i> 'hungry person', <i>kórá</i> 'hang (over a line)'
<i>ðgëⁿ-^Lsàjì:ⁿ</i>	'colorful finch spp.'	<i>ðgëⁿ</i> <i>-í:ⁿ</i> 'wealthy person', <i>sàjú</i> 'bird'

These are interpretable semantically as a possessor followed by a possessed noun, e.g. the tongue-in-cheek ‘Fulbe (person)’s penis’ denoting a vaguely phallic puffball (*Podaxis*) that emerges vertically from the earth. It is possible that these compounds preserve an archaic {L} possessed-noun overlay of the sort found in several Dogon languages.

However, *àpní-^Lkò:rò* ‘roselle variety’ is a variety of the cultivated plant *àpní* ‘roselle’. *sáⁿ-^Lgònò* ‘area where the community prays (on major religious holidays)’ consists of *sáⁿ* ‘prayer’ and *gònò* ‘pen, enclosure’.

In a number of other cases the initial and final are not recognizable, but the stem has the segmental and prosodic structure of a compound (86).

(86) Semantically opaque (**ñ** **ñ**) compounds

compound	gloss
<i>é:ⁿ-pùlò</i>	‘bush (<i>Pergularia</i>)’
<i>kélé-gùgùrù</i>	‘herb (<i>Commelina</i>)’
<i>bùgú-tòrò</i>	‘gray-headed sparrow’
<i>sá:-jìnè</i>	‘blister beetle’
<i>dùmí-^Ltè:rè</i>	‘grasshopper (<i>Acorypha</i>)’
<i>kórú-kàjà</i>	‘tree locust’
<i>bádá-kùrò</i>	‘gunpowder horn’

5.1.3 Compounds of type (**ñ** **ñ**)

In this type, the final is a noun stem that keeps its regular tones, and functions semantically as the head. The initial drops its tones to {L} and functions as a modifier. This type is productive, though it gets competition from the possessive-type compound to be described below. In (87a), the tonal form of the noun corresponding to the initial is in parentheses in the comment.

(87) (**ñ** **ñ**) compounds

compound	gloss	comment
a. simple (two stems)		
<i>ìrì-^Lkáⁿ</i>	‘nipple’	“breast-mouth” (<i>írí</i>)
<i>dògò-^Lkéné</i>	‘back (body)’	“back(ward)-heart” (<i>dògò</i>)
<i>nènèŋè-^Ltárú</i>	‘ganglion’	“groin-egg” (<i>nènèŋé</i>)
<i>màrùpà:^L-tùwó</i>	‘rifle flint’	“rifle-stone” (<i>màrùpá:</i>)

nì:^L-tòló ‘cow-pea pod’ “cow.pea-pod” (*nǐ:*)

b. composite (three or more stems)

[nèŋèrè-kùⁿ]^L-tímé ‘kneecap’ “[knee-head]-cover”
[àrⁿà-kùⁿ]^L-gìrⁿí ‘man’s bedroom’ “[man-unmarried]-house”

In some compounds, one or both of the elements is semantically obscure, at least at the current stage of TgK lexicography.

(88) Partially obscure (*ñ ñ*) compounds

compound	gloss	comment
<i>[dògò-kènè]^L-pórⁿí</i>	‘upper back’	“[back]-...”
<i>à:gà^L-yégú</i>	‘morning’	

A recurring issue in the study of Dogon nominal compounds is the fact that noun-adjective sequences and noun-noun compounds of the (*ñ ñ*) type have the same tonal pattern and are difficult to distinguish, especially when the final element occurs in only one or two combinations.

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

5.1.4.1 Verbal nouns with incorporated object

Noun-VblN compounds are a special case of the (*ñ ñ*) type just described, above. The initial is a noun denoting a typical or generic object, or one whose reference is understood in context (and whose specificity is therefore backgrounded). The compound as a whole denotes a type of eventuality, or the result of an action.

(89) Compounds with abstractive verbal noun final

compound	gloss	comment
<i>kàⁿ^L-[jɔ-Ø]</i>	‘promise’	“mouth-give.VblN” (<i>káⁿ</i>)
<i>gìnè^L-[jùŋ-ú]</i>	‘dozing’	“sleep-...VblN” (<i>gìnè</i>)
<i>gìnè^L-[ã-Ø]</i>	‘sleepiness’	“sleep-catch.VblN” (<i>gìnè</i>)

In some cases, like ‘dozing’, it is not entirely clear what syntactic function the incorporated noun (here *gìnè*) plays in the associated full clause type. As long as the noun is conventionally associated with the verb, it can be incorporated. This applies even to (defective) subjects in fixed subject-verb collocations like *dà:gá dě:* ‘night fall’ (§11.1.4), with verbal noun *dà:gà^L-[dě-Ø]*.

5.1.4.2 Noun plus deverbal adjective

There are also cases where the “verbal noun” functions as an adjective modifying the noun. The modifier denotes an action that was involved in the making or modification of the object

(compare English *pulled pork*, *roast beef*, *sliced bread*), and the preceding noun is the semantic head of the combination. The boundary between this and the abstractive type illustrated above is not always clear. However, to the extent possible I distinguish the adjectival examples by using a space rather than a hyphen.

(90) Compounds with adjective-like verbal noun final

compound	gloss	comment
<i>tùwò^L kàr-ú</i>	'rock fracture'	"stone rip.VblN" (<i>tùwó</i>)
<i>pùrⁿù^L jàŋ-ú</i>	'cream of millet type'	"cream.of.millet pound.with.water.VblN"
<i>nòwⁿò sìm-í</i>	'grilled meat'	"meat grill.VblN"
<i>pòrù yògòrò-m-ú</i>	'ground sesame balls'	"sesame be.cooked-Caus-VblN"

5.1.5 Agentive and verbal-noun compounds of type (x v)

In these compounds, the verb appears in {H}-toned form as the compound final, and a representative noun (normally a typical direct object) appears in {L}-toned form as the initial. When this initial is based on a cognate nominal related to the verb, the compound superficially mimics a reduplication or iterative construction. The compound as a whole functions as an agentive. As noted in §4.2.6, above, uncompounded agentive derivatives are nonexistent.

(91) Agentive compounds

a. with cognate nominal as initial

<i>gò:^L_H gò:</i>	'dancer'
<i>gì:ⁿL_H gí:ⁿ</i>	'thief'
<i>pì:ⁿí^L_H pí:</i>	'assessor of fines'
<i>sàⁿL_H sárⁿá</i>	'pray-er, devout Muslim'
<i>nùŋù^L_H núŋó</i>	'singer'
<i>jòŋù^L_H jójó</i>	'healer'
<i>sípè^L_H sípé</i>	'noisy, talkative, blabbermouth'
<i>jà:gù^L_H já:gá</i>	'merchant'
<i>mànùgù^L_H mágá</i>	'thinker; introspective person'
<i>[tà-tágà]^L_H tágá</i>	'jokester'

b. with noncognate nominal as initial

<i>pù:^L_H tó:</i>	'millet-harvester (who uproots stems)'
<i>[tì-tìrì]^L_H yá:</i>	'emissary'
<i>pègù^L_H bíré</i>	'day-laborer'
<i>ipàrⁿà^L_H pí:</i>	'dandy, show-off'
<i>kènè^L_H árá</i>	'(millet-)beer brewer'
<i>sàjù^L_H dígé</i>	'one who drives off (chases away) birds'
<i>ìwè^L_H dímé</i>	'ladies' man'
<i>dí:^L_H géré</i>	'diviner of guilt who conjures images in water'
<i>nùmò^I_H géré</i>	'palmist (fortune-teller)'
<i>màlà^L_H bíré</i>	'badly-behaved person'
<i>bù:dù^L_H dá:ná</i>	'treasurer' ("holder of money")

tùrà:bù^{L-H}lágá ‘Muslim fortune-teller’

c. with compound as initial

<i>[kùⁿ-sɔ:^{L-H}sɔ:</i>	‘seer’
<i>[nùmɔ-sijè]^{L-H}síjé</i>	‘one who draws lines in sand’
<i>[bin-kèjè]^{L-H}kéjé</i>	‘liar’

d. final includes derivational suffix

causative

kèdùrù^{L-H}[kíwⁿí-m] ‘diviner whose biceps quiver’

transitive

kèrù^{L-H}[dígé-ré] ‘diviner who uses twigs’

mediopassive

kèkè:^L bè:^{L-H}[dúw-é:] ‘dung beetle’
 (“beetle^L excrement^L-[carry-MP]”)

These agentive compounds are distinct from verbal-noun compounds whose initial is an {L}-toned cognate nominal (or other fixed object) and whose final is a verbal noun (suffix *-ú ~ -í ~ -Ø*), exemplified in the preceding section. The initial has the same {L}-toned form in both, but the finals differ both in vocalism and tones. For example, *nùŋù-núŋó* ‘singer’ is distinct from verbal noun *nùŋù-[nùŋ-ú]* ‘song singing’. The latter can also function adjectivally in the NP, as in (92).

- (92) *[è:ⁿ-[tè-tè:]]^L nùŋù^L-[nùŋ-ú]*
 [soda.ash-pot]^L song^L-[sing-VblN]
 ‘(a/the) singing soda ash filtering pot’ (2011.1b.01)

To further complicate the situation, the form that functions as the agentive compound can also serve as a compound verbal noun, though its final lacks the normal verbal-noun suffix and tones. *jù:^{L-H}[dúw-é:]* is a compound agentive ‘millet-carriers’, but in (93a) it is the complement of ‘begin’, and therefore functions as a synonym of compound verbal noun *jù:^{L-H}[dúw-Ø-Ø]* ‘millet-carrying’. (93b) is another example of an apparent compound agentive that functions as a compound verbal noun.

- (93) a. *jù:^{L-H}[dúw-é:] tɔ́rɔ-séⁿ] ú s-é*
 millet^{L-H}[carry-MP.VblN] begin-Pfv.Plsbj] 2SgSbj see-Pfv
 ‘when you-Sg saw (=noticed) that they had begun the millet-carrying’
 (2011.1a.15)
- b. *[kó wà] [pɔ́ŋɔ^{L-H}kéjé dɔ-è] wà*
 [Nonh QuotSbj] [fonio^{L-H}cut.VblN arrive-Pfv] Quot
 ‘(they) say “(the time for) fonio-cutting (=harvesting) has arrived.”’ (2011.1a.25)

If the nominal initial of an agentive compound is itself possessed (or otherwise separately determined), it takes its independent (non-compound) form, and the otherwise {H}-toned verbal final appears with a possessed overlay, for example H.L.L if trisyllabic. So, in text 2011.1b.02, the (x v) agentive compound *sɔ:-kájúwá* ‘affair-supervisor’, i.e. ‘(house/business) manager’ appears alongside the stacked possessor construction *[sáⁿ sɔ:^{L-H}] kájùwà* ‘(the) supervisor of her (own) affairs’.

5.1.6 Possessive-type compounds (ñ Pn)

In some compounds, the tone patterns are the same as those of a possessive construction (cf. English *childs play*, *menswear*). The “possessor” precedes the “possessed” element and has its regular tones. As described in §6.2.1, the possessed nouns is subject to tonal changes (Pn). In TgK, there are two productive possessor-controlled overlays, {HL} for heavy (trimoraic or longer) stems and {H} for light stems.

(94) Possessive-type compounds

cpd	gloss	components
a. light compound final, with {H}-tone		
dí: ^H pá	‘low ground’	“water ground”
búgu: ^H é: ⁿ	‘gunpowder soda ash’	“gunpowder soda.ash”
jé: ^H aw ⁿ á	‘bush (<i>Waltheria</i>)’	“fire parent-in-law”
kónú ^H ségú	‘cotton basket’	“cotton basket”
b. heavy compound final, with {HL}-tone		
já ^{HL} sá:gù	‘burlap’	“fibre sack”
gùjú ^{HL} yó:wò	‘goatskin waterbag’	“skin waterbag”
máná ^{HL} yó:wò	‘rubber waterbag’	“plastic waterbag”
kónú ^{HL} tógorù	‘cotton basket’	“cotton basket”
púlé: ⁿ ^{HL} súgúrú-jé:lè	‘spiral earring’	“Fulbe’s ear-...”

5.1.7 Compounds with *I:n* ‘child’ and variants

-í:ⁿ ‘child’ is a transparent final, pronounced without contraction, in (ñ ñ) compounds like those in (95). In this form it is common with human and inanimate reference. It is also used in this form with terms for juvenile animals (but not for the most common livestock animals). The human compounds are pluralized, as expected, with the suppletive -úrⁿi: ‘children’. The semantic nuance is indicated by italicized subheadings in (95). For the inanimates, the common feature is that the entity denoted by the compound is a small object associated in some way with a larger one. *timè-í:n* occurs twice with different senses (‘fruit of tree’, ‘sapling’).

(95)	compound	gloss	initial
a. human			
<i>literal ‘child of X’</i>			
lárà ^L -í: ⁿ	‘sister’s child’	<i>lárá</i> ‘sister’	
ògò ^L -í: ⁿ	‘rich person’	<i>ògò</i> ⁿ ‘chief’, <i>ògò</i> ‘chiefhood’	
<i>member of a set</i>			
sótòrò ^L -í: ⁿ	‘man in his prime’	<i>sótóró</i> ‘set of men in their prime’	
jèŋè ^L -í: ⁿ	‘twin’	<i>jèŋé</i> ‘pair of twins’	
b. animal			
sɔ̄ ⁿ L-í: ⁿ	‘colt’	<i>sɔ̄</i> ⁿ ‘horse’	
tòrù ^L -í: ⁿ	‘piglet’	<i>tórú</i> ‘pig’	

jòⁿtùrù^L-í:ⁿ ‘young donkey’ *jòⁿtúrú* ‘donkey’

c. inanimate

unit

<i>sèwè^L-í:ⁿ</i>	‘sheet of paper’	<i>séwé</i> ‘paper’
<i>small but significant part of an object or assemblage</i>		
<i>ðⁿsà^L-í:ⁿ</i>	‘small burial pit’	<i>ðⁿsàⁿ</i> ‘cemetery’
<i>nùmɔ^L-í:ⁿ</i>	‘finger’	<i>nùmɔ</i> ‘hand, arm’
<i>gìrè^L-í:ⁿ</i>	‘eyeball’	<i>gìrè</i> ‘eye(s)’
<i>kàrà^L-í:ⁿ</i>	‘spinning whorl’	<i>kárà</i> ‘spinning gear’
<i>dìŋè:^L-í:ⁿ</i>	‘necklace jewel’	cf. <i>kòrò-dìŋè:</i> ‘necklace’
<i>kòⁿ^L-í:ⁿ</i>	‘daba blade’	<i>kòⁿ</i> ‘daba (hoe)’
<i>small but significant adjunct to larger object</i>		
<i>[jù:-nà:]^L-í:ⁿ</i>	‘round grindstone’	<i>jù:^L-ná:</i> ‘flat stone to grind on’
<i>àrⁿù^L-í:ⁿ</i>	‘lightning jolt’	<i>àrⁿú</i> ‘rain’

plant product

<i>kènè^L-í:ⁿ</i>	‘pit (of any fruit)’	<i>kéné</i> ‘heart’
<i>kònù^L-í:ⁿ</i>	‘cotton seed’	<i>kónú</i> ‘cotton’
<i>jòwò^L-í:ⁿ</i>	‘onion bulb’	<i>jòwò</i> ‘onion’
<i>jù:^L-í:ⁿ</i>	‘millet grain’	<i>jú:</i> ‘millet’
<i>ùmùrⁿù^L-í:ⁿ</i>	‘tamarind seed’	<i>ùmùrⁿú</i> ‘tamarind’
<i>òrùwò^L-í:ⁿ</i>	‘jujube pit’	<i>òrùwò</i> ‘jujube’
<i>tímè^L-í:ⁿ</i>	‘fruit of tree’	<i>tímé</i> ‘tree’

diminutive

<i>dèⁿ^L-í:ⁿ</i>	‘small waterjar’	<i>děⁿ</i> ‘waterjar’
<i>tímè^L-í:ⁿ</i>	‘sapling’	<i>tímé</i> ‘tree’

In some cases, a stem-final short vowel does vanish, by vv-Contraction (§3.5.7.2). This happens with several of the most common livestock terms (96a), but also with a few plant-product terms (96b).

(96) compound gloss initial

a. animal

<i>nàŋ^L-í:ⁿ</i>	‘calf’	<i>nàŋá</i> ‘cow’
<i>èrⁿ^L-í:ⁿ</i>	‘goat kid’	<i>èrⁿé</i> ‘goat’
<i>pèj^L-í:ⁿ</i>	‘lamb’	<i>péjú</i> ‘sheep’
<i>kòg^L-í:ⁿ</i>	‘chick’	<i>kògó</i> ‘chicken’

b. plant

<i>pòr^L-í:ⁿ</i>	‘sesame seed’	<i>pòrú</i> ‘sesame’
<i>è:r^L-í:ⁿ</i>	‘(a) peanut’	<i>é:ré</i> ‘peanut(s)’
<i>mè:n^L-í:ⁿ</i>	‘wild date pit’	<i>mé:né</i> ‘wild date (<i>Balanites</i>)’

Some other nouns look like frozen compounds of the type illustrated above, where the initial element does not occur separately. Examples: *kòrⁿí:* ‘small intestine’, *gérⁿí:* ‘gear, equipment’.

All of the preceding cases end in a long *í:ⁿ*, making the connection with the noun *í:ⁿ* ‘child’ obvious, even if a final short vowel has been lost. However, there are also many nouns

that end in *yⁿ*, *iⁿ*, or some other short nasalized vowel, in descending order of transparent segmentability.

(97)	compound	gloss	initial
a. human			
	<i>jě-yⁿ</i>	‘girl, daughter’	<i>jě</i> ‘woman’
	<i>àrⁿá-yⁿ</i>	‘boy, son’	<i>àrⁿá</i> ‘man’
(tonally distinct from)			
b. inanimate			
	<i>tùwě-yⁿ ~ tūwě:ⁿ</i>	‘small stone’	<i>tùwó</i> ‘stone’
	<i>gìrě-yⁿ ~ gìrè^L-í:ⁿ</i>	‘eyeball’	<i>gìré</i> ‘(two) eyes’
[further reduced in <i>gìrèⁿ-túnó bájà</i> ‘one-eyed person’]			

Some further nouns that may contain a trace of a frozen *-yⁿ, or which may have become secondarily associated with the current compound type, include *gàriⁿ* ‘kidney’, *dùwòlèⁿ* ‘eyeglasses’, *iⁿL-báyⁿ* ‘newborn baby’, *pùnáyⁿ* ‘flour, powder’, *dǒyⁿ* ‘pestle’, *tà:lé:ⁿ* ‘proverb’. The situation is complicated by a phonological convergence with nouns ending in a nasalized vowel that reflects an original human number suffix, see §4.1.1.

5.1.8 ‘Man’ (*àrⁿá*), ‘woman’ (*jě*, *yǎ:*, *yè*)

The uncompounded terms are *àrⁿá* ‘man’ and *jě* ‘woman’. As adjectives, for ‘male’ we get *àrⁿá* ‘male’, while for ‘female’ we get *yǎ:* for nonhuman or abstract referents and *jě* for humans. The latter also appears as final in some compounds.

jě ‘woman’ takes variant forms as a compound initial, and as a noun in some fixed noun-adjective collocations. A recurrent form is *yè* (98b). The *j/y* alternation is due to (diachronic) backward nasalization-spreading, see discussion in §4.1.2.

(98) Compounds with ‘woman’

a.	<i>yà:^L kúⁿ</i>	‘unmarried (or divorced) woman’
	<i>ègè^L-yǎ:</i>	‘(woman’s) co-wife’ (<i>ègé</i> ‘husband’)
	<i>tìrè^L yǎ:</i>	‘kin on mother’s side’
b.		
b.	<i>yè^L kàná</i>	‘newlywed woman’ (“new woman”)
	<i>yè^L ná:</i>	‘old woman’
	<i>yè^L gárá</i>	‘oldest woman’, ‘senior co-wife’
	<i>yè^L dágá</i>	‘junior co-wife’
	<i>yè^L lǎ</i>	‘betrothal (of a girl, at birth)’
c.		
c.	<i>jè^L-nì:ní</i>	‘act of taking bride to her husband’
	<i>jè^L-gòrú</i>	‘wedding’
	<i>jě-yⁿ</i>	‘girl’ (“woman-child”)
	<i>àwà^L jě</i>	‘mother-in-law’ (i.e. female in-law)
	<i>gùnò^L jě</i>	‘female slave’

Cf. also *yà:jú* ‘religious marriage’.

‘Man’ is more regular in compounds and noun-adjective combinations. However, *àrⁿá* reduces in form in the combination *àⁿL kàná* ‘newlywed man’. ‘Boy’ is *àrⁿá-ŷⁿ*.

5.1.9 Compounds with ‘owner’ (*ñ^Hbájá*)

bànjá ‘owner (of possession), master (of slave)’, in {H}-toned “possessed” form, occurs in many compounds with preceding NPs simple and complex. The initial has its usual tones. The sense may be fairly literal, as in (99a). The construction is also used to describe the physical or personality type of a person (99b), or to define a person by reference to an affliction or other characteristic (99c).

(99) ‘Owner’ compounds

compound	gloss
a. possession	
<i>gìrⁿí^Hbájá</i>	‘house-owner, head of house(hold)’, hence (with a possessor) ‘spouse’
<i>tó:ró^Hbájá</i>	‘fetish (idol) owner’
b. physical or personality type	
<i>jám^Hbájá</i>	‘dynamic one (in sports)’
<i>hákílé^Hbájá</i>	‘quick learner’
<i>té té^Hbájá</i>	‘arrogant person’
<i>[gìrè^L mǎ]^Hbájá</i>	‘nosy person’
c. affliction or other defining characteristic	
<i>sùkòrò-nùrⁿú^Hbájá</i>	‘diabetic person’
<i>kùⁿ-lérú^Hbájá</i>	‘mildly crazy person’
<i>[tòⁿ bájú]^Hbájá</i>	‘hunchback’

For {L}-toned *Lbànjá* in singular demonstratives (*nó Lbànjá*, *yó Lbànjá*), likely reflecting original falling-toned forms of the demonstrative, see (60) in §4.4.1.2.

5.1.10 Loose and tight compounds with *ná:* (‘authentic’, ‘entire’)

One can think of *ná:* as either a modifying adjective, or as a final in an {ñ ñ} compound; the two constructions are tonally indistinguishable. I will write it with a space, as for noun-adjective combinations. In (100) the main semantic patterns are represented. The sense ‘mother’ may underlie some of these senses, especially (100b).

(100) Combinations with *ná:*

- a. ‘old (person)’, especially female
- | | |
|---------------------------|--|
| <i>yè^L ná:</i> | ‘old woman’ |
| <i>àn^L ná:</i> | ‘old man’ (synonym <i>àrⁿà^L gàrà</i>) |

b. ‘adult female (domestic animal)’

<i>nàŋà</i> ^L	<i>ná:</i>	‘(female) cow’
<i>èr"ɛ</i> ^L	<i>ná:</i>	‘nanny-goat’
<i>pèjù</i> ^L	<i>ná:</i>	‘ewe’

c. ‘entire plant’ (for any tree, shrub, or herb)

<i>òrò</i> ^L	<i>ná:</i>	‘baobab tree’
<i>màŋgòrò</i> ^L	<i>ná:</i>	‘mango tree’

d. primary, prototypical, or large member of a set

<i>àrùkò</i> ^L	<i>ná:</i>	‘large boubou’
<i>pònù</i> ^L	<i>ná:</i>	‘baggy pants (to knees)’
<i>è:rè</i> ^L	<i>ná:</i>	‘groundnut’ (<i>é:ré</i> ‘peanut or groundnut’)
<i>tògù</i> ^L	<i>ná:</i>	‘main palaver shed (of a village)’
<i>gi</i> ^L	<i>ná:</i>	‘extended family’ (<i>gir”i</i> ‘house’)
<i>dùŋù</i> ^L	<i>ná:</i>	‘elephant’ (cf. <i>dùŋ</i> ^L - <i>yàrā</i> ‘lion’)
<i>lù:rò</i> ^L	<i>ná:</i>	‘rock python’ (prototypical snake)

e. larger of two paired objects

<i>jù:</i> ^L	<i>ná:</i>	‘flat stone for grinding on’
-------------------------	------------	------------------------------

Occasionally a noun lends itself to two of these senses. In (100e), *jù:*^L *ná:* denotes a flattish, slightly concave stone on which one grinds millet (*jú:*) holding a small round stone in one’s hand. This smaller stone is called [*jù:-ná:*]^L-*í:n*, literally ‘child of *jù:*^L *ná:*’, see §5.1.7. *jù:*^L *ná:* has a second sense, denoting the prototypical cultivar of millet, in contrast to various other cultivars. A special combination *jù:*^L *gɔ:n* is used in the sense ‘(entire) millet plant’, avoiding additional ambiguity of *jù:*^L *ná:*.

For nonprototypical or nonuseful species closely associated with an important or useful species (‘false jujube’, etc.), a miscellany of ad hoc devices are used. Examples are in (101).

(101)	term	gloss	literal sense
a.	<i>tă:</i> ^{HL} <i>órùwò</i>	‘false jujube’	“hyena’s jujube”
b.	<i>àpnù-bàlèmbá</i>	‘wild roselle’	“roselle-???”
c.	<i>è:rè-múpúr"ú</i>	‘peanut’	“peanut/groundnut-???”

(101a) illustrates the use of a nonhuman animal possessor. “Hyena’s jujube” is the tree *Ziziphus mucronata*, whose fruits resemble those of true jujube (*Ziziphus mauritiana*) but are not eaten. ‘Wild roselle’ is *Hibiscus cannabinus* (including the former *H. asper*), which resembles the cultivated food plant roselle (*H. sabdariffa*) but is used, if at all, only for cordage fiber. In (101c), unmodified *é:ré* subsumes peanut (*Arachis hypogaea*) and groundnut (*Vigna subterranea*), with the latter still treated as primary. The endings *-bàlèmbá* and *-múpúr"ú* in (101b-c) are opaque to a native speaker. *-bàlèmbá* improbably resembles *bálém̩bá* ‘champion’. *-múpúr"ú* may be a variant of *mùnji:n* ‘Mossi’ (ethnic group of central Burkina Faso), perhaps crossed with the final of *jà:-múpúr"ú* ‘dream(n)’. For the Mossi connection compare Jamsay *mùnù-é:ré* ‘peanut’, literally “Mossi-peanut/groundnut”.

5.1.11 Natural-species compounds with medial *-nà:-*

The attested examples are in (102), in descending order of analysability. The tonal sequence is consistently *᷊-nà:-᷊*.

(102)	compound	gloss	related form
	<i>tògù-nà:-tógu</i>	'woodpecker'	verb <i>tógu</i> '(woodpecker) peck deeply (wood)'
	<i>bàjù-nà:-bájú</i>	'wind scorpion'	verb <i>bàjú</i> 'pull' (said to drag its testicles)
	<i>kém-nà:-kém</i>	'earwig (insect)'	<i>kégn</i> 'pointed instrument (e.g. awl)' (insect has a forked tail)
	<i>kà: sérù-nà:-sérú</i>	'grasshopper (<i>Acrida</i>)'	

Of possible relevance is *nì:-kùmàkúⁿ* 'black-and-white cow-pea', with *ní:* 'cow-pea'. The final element might be segmented as *kùⁿ-mà-kúⁿ*. In fact, my assistant volunteered a connection with *kúⁿ* 'unmarried'. One could alternatively connect it with *kúⁿ* 'head', thinking of the respective black and white tips.

5.1.12 Instrumental relative compounds ('oil for rubbing')

In a construction that has some resemblance to a relative clause, the head noun is {L}-toned and is followed by an imperfective relative verb form. This verb has the same stem tones as in ordinary imperfective relatives (when clause-final tone-dropping has not applied), except that the imperfective suffix is H-toned (indicated by ^{+H} superscript). /LH/-toned verb stems do not drop tones, as they often (but not always) do in ordinary imperfective relatives. Prosodically light /LH/-toned verbs (*Cv*, *Cv̄* and *Cv̄Cv̄*) are raised to {H}.

Unlike the Jamsay counterpart, which includes a generic 3Pl subject, TgK has no pronominal subject. If the head noun is not the logical direct object of the verb, the direct object may be specified, with its lexical tones, as with *pú:* 'millet' in (103b).

(103)	compound	gloss	verb
a. without a separate object			
<i>bimoraic lexically /LH/-toned verb</i>			
	<i>dì:^L nò:-pú^{+H}</i>	'drinking water'	<i>nò:</i> 'drink'
	<i>kòrò^L bá:pú^{+H}</i>	'trough for tapping'	<i>bárá</i> 'beat (tomtom)'
	<i>nà^L gó:-jú^{+H}</i>	'exit, place to go out'	<i>gó:</i> 'go out' (2011.1b.05)
	<i>[sò: pérè]^L bí:-jí^{+H}</i>	'something else to do'	<i>bíré</i> 'do' (2011.1a.02)
<i>mediopassive /LH/-toned verb</i>			
	<i>dì:^L in-é:-pú^{+H}</i>	'water for bathing'	<i>(dí:) in-i:</i> 'bathe'
	<i>ংjò:^L dòm-é:-pú^{+H}</i>	'thing to wait for'	<i>dòm-i:</i> 'wait for' (2011.1a.04)
b. with a separate object			
	<i>gò:^L pú: kúnó:pú^{+H}</i>	'granary for storing millet'	<i>kún</i> 'put' (2011.1a.16)

The construction is productive and is not limited to a few lexicalized combinations.

- (104) a. *bàⁿL jùgó-má-nú^{+H}*
manner^L know-Caus-Ipfv.Rel^{+H}
‘the way (=so that) (they) make it known’ (2011.1a.23)
- b. *[[sò:^L pèrè]^L bí-jí^{+H}] kò:-rò*
[[thing^L other]^L do-Ipfv.Rel^{+H}] be.NonhSbj-Neg
‘there is nothing else to do’ (2011.1a.02) (*bìrè*)

In another construction, which involves a direct object distinct from the head of the compound along with a transitive verb, the head is {L}-toned and is followed by a compound adjective consisting of an {L}-toned direct-object noun and a verbal noun with suffix *-ú* or variant (§4.2.4). In effect, the object/VblN combination functions as a compound adjective modifying the initial {L}-toned noun.

(105)	compound	gloss	components
	<i>lògò^L [gìrⁿI tár-ú]</i>	‘earth for replastering’	<i>gìrⁿI</i> ‘house’, <i>tárá</i> ‘replacer’
	<i>lògò^L [pàrⁿè:^L těw-Ø]</i>	‘earth for bricks’	<i>pàrⁿé:</i> ‘mud brick’, <i>téwé</i> ‘shape, mold (bricks)’

There is, finally, an archaic pattern with *nɔ:* ‘drink’ as compound final in bare-stem form (106). This pattern has not been found with other verbs.

(106)	compound	gloss	components
	<i>kàjù^L-nɔ:</i>	‘calabash for drinking’	<i>kàjú</i> ‘calabash’
	<i>dɔ^L-nɔ:</i>	‘waterjar for drinking’	<i>dɛⁿ</i> ‘waterjar’

5.1.13 Other phrasal compounds

[*bò:-yⁿ*]-[*kó:-rò*] ‘grasshopper sp. (*Diabolocatantops*)’ is so named because a person whose father is still alive should not eat it. It contains a contracted variant of *bò:-fⁿ* ‘father’s child’ and a variant of *kò:-rò* ‘doesn’t eat (meat)’.

pùrⁿí:-mà:-pǎ: ‘click beetle (family Elateridae)’ is based on the phrase *pùrⁿí: mà→ pǎ:* ‘cream of millet or (grain-based) meal’. The insect is said to inform people who are outside the village what they will find for dinner on returning home. The medial *-mà:-* is derived from the ‘or’ disjunction and should not be confused with *-nà:-* in iterated flora-fauna terms (§5.1.11).

àntànú-má-gòrò-múñúrⁿú ‘grasshopper sp. with humped pronotum (*Humbe*)’ is understood to contain *àntànú* ‘name of third son’, a variant of *gòrò mà* ‘my nape’, and a form related to the verb *mùñúrⁿI* ‘(bump) develop (on head)’.

5.1.14 Unclassified nominal compounds

The Prophet Muhammad is referred to as *àmá [tì-tírì]^{L-H}yá:* ‘God’s envoy’. The second word, [*tì-tírì]^{L-H}yá:* ‘emissary’, is based on *tì-tírì* ‘important errand, mission’ and the verb *yě* (*yá:-*) ‘go’. Oddly, [*tì-tírì]^{L-H}yá:* does not have possessed-noun overlay after *àmá*.

5.2 Adjectival compounds

5.2.1 Bahuvrihi (“Blackbeard”) compounds

Bahuvrihi compounds are like English *two-headed* or *redhead* (*red-headed*). They describe an entity, often a person or animal, by reference to an attribute that consists of a noun (such as a body part) and either a modifying adjective or a numeral. Bahuvrihis can be nouns (*redhead*) or adjectives (*red-headed*).

5.2.1.1 With adjectival compound final (ñ á) or (ñ ā)

These bahuvrihis are of the type [*head-red*], where the final is an adjective directly modifying the referent of the initial, and the combination describes a salient or defining feature of the overall referent.

In one subtype, illustrated in (107), the initial has its regular tones, so (as always with common nouns) it ends in an H-tone. The final has overlaid {H} tone whether it is lexically /H/ or /LH/, but it is downstepped. I show downstep in (107), symbol ⁴, but usually omit the symbol in textual transcriptions since it is not phonemic. For more nuances on downstep in bahuvrihis and elsewhere see §3.7.4.6.

(107) Initial with regular tones

a. final {H} from lexical /H/

<i>kògòrɔ^L dùrɛ^{n-4^H}</i>	“fish tail-red” (<i>Hydrocynus</i>)
<i>gùjú-^{4^H}</i> gé ⁿ	“skin-black” (‘African’)
<i>nà^L kéné-^{4^H}</i> gé ⁿ	“person heart-black” (‘evil person’)
<i>kírⁿí-^{4^H}</i> sí:	“nose-pointed” (‘with pointed tip/nose’)
<i>nà^L bín-^{4^H}</i> már ⁿ á	“person belly-big”
<i>nà^L giyé-^{4^H}</i> kágájú	“person body-rough” (‘rough-skinned’)
<i>jè-ýⁿ^L gíré-^{4^H}</i> má	“girl eye-dry/hard” (i.e. ‘stubborn’)

b. final {H} from lexical /LH/ (*yòrú*, *é:*, *dégé*)

<i>giyé-^{4^H}</i> yórú	“body-soft” (‘person with soft skin’)
<i>giyé-^{4^H}</i> é:	“body-hard”
<i>nùmò-^{4^H}</i> dégé	“hand-short” (‘short-armed’)

In another type, somewhat less common, an {L}-toned noun is followed by a lexical-toned adjective (108). We could take these to be (ñ ñ) compounds with the adjective as head. They also have the same tones as the underlying noun-adjective sequence would have, with the noun tone-dropped before a modifying adjective.

(108) Initial tone-dropped

a. final with lexical /LH/

<i>kùwò^L-gònú</i>	“foot-crooked” (‘knock-kneed’)
<i>kùwò^L-yù:gú</i>	“foot-slow” (‘slow-moving’)

- b. final with lexical /H/

<i>kùwɔ^L-ɔgú</i>	“foot-fast” (‘fleet-footed’)
<i>kà^{nL}-nérⁿú</i>	“mouth-lightweight” (‘person who can’t keep a secret’)

5.2.1.2 With numeral compound final (**n num**)

When the compound final in a bahuvrihi is a numeral, the compound has the same tone that it would have as an independent noun-numeral sequence. For ‘2’ through ‘10’ this means that both the noun and the numeral show lexical tones. For ‘1’, the adjectival *túnɔ* is used, so the noun drops tones. The compound as a whole usually functions as an adjective, with a preceding tone-dropped noun. (109) illustrates the pattern using ‘person’ and ‘cow’ as the modified nouns.

(109) Bahuvrihi with numeral as final

- a. initial is tone-dropped before adjectival numeral

<i>nà^L gírè^{nL}-túnɔ</i>	‘one-eyed person’
--	-------------------

- b. initial and numeral final have lexical tones

<i>nàŋà^L gíré-tà:nú</i>	‘three-eyed cow’
<i>nàŋà^L kúⁿ-lóy</i>	‘two-headed cow’
<i>nàŋà^L kúⁿ-kúré:</i>	‘six-headed cow’

6 Noun Phrase structure

6.1 Organization of NP constituents

The core NP consists of the noun (whether simple or compound) and any following modifying adjectives.

6.1.1 Linear order

The order of elements is shown schematically in (110).

- (110) possessor NP (except 1Sg pronoun)
core NP

noun
adjective(s)
 numeral [optionally inverts with adjective if possessed/determined]
 NP-final elements (determiners and non-numeral quantifiers)
postnominal pronominal possessor (pronoun plus *kè*, or 1Sg *mà*)
tonal definite
demonstrative
plural (*bè* or *nà*)
'all' (*sâ:n*)

Plural *bè* is generally omitted where redundant, i.e. with nonsingular numerals and with ‘all’. The schema omits *wò* → ‘each, all’, which follows a noun-adjective combination but does not readily co-occur with the following elements (except in special senses).

1Sg possessor *mà* normally follows a numeral (N-Num-*mà*). My assistant accepted as grammatical an alternative order N-*mà*-Num, but indicated that it was dispreferred. The two have quite different tonosyntactic implications; see (126a-b) in §6.2.1.5.

Examples showing the regular linear ordering are in (111).

(111) NP	gloss	components
<i>péjú</i>	‘sheep-Sg’	N
<i>péjú bè</i>	‘sheep-Pl’	N Pl
<i>pèjù</i> ^L <i>már:ná</i>	‘big sheep-Sg’	N Adj
<i>sè:dú</i> ^{HL} [<i>péjú mår:nà</i>]	‘Seydou’s big sheep-Sg’	Poss N Adj
[<i>pèjù mår:nà</i>] ^L <i>gé:n</i>	‘big black sheep-Sg’	N Adj1 Adj2
[<i>pèjù mår:nà</i>] ^L <i>gé:n bè</i>	‘big black sheep-Pl’	N Adj1 Adj2 Pl
<i>pèjù</i> ^L <i>már:ná kúré:</i>	‘6 big sheep’	N Adj Num
[<i>pèjù mår:nà kúré:</i>] ^{L+H} <i>mà</i>	‘my 6 big sheep’	N Adj Num Poss
[<i>pèjù kúré:</i>] ^L <i>már:ná mà</i>	“ ” (inverted)	N Num Adj Poss
<i>pèjù</i> ^L <i>már:ná</i> ^{+L} <i>sâ:n</i>	‘all the big sheep’	N Adj ‘all’
[<i>pèjù mår:nà</i>] ^L <i>yó: nà</i>	‘those big sheep’	N Adj Dem Pl
[<i>pèjù mår:nà</i>] ^{+L L} <i>yó: nà</i>	“ ”	N Adj (Def?) Dem Pl

<i>péjú mà</i>	^L <i>yò:</i>	'that sheep-Sg of mine'	N Poss Dem
[<i>péjù mà</i> ⁿ <i>à kùré:</i>] ^{L+H}	^L <i>yò:</i> <i>nà</i>	'those 6 big sheep'	N Adj Num Dem
[<i>péjù kùré: mà</i> ⁿ <i>à</i>] ^L	<i>yò:</i> <i>nà</i>	" " (inverted)	"
[<i>péjù mà</i> ⁿ <i>à kùré:</i>] ^{L+H}	^L <i>yò:</i> <i>nà sâ:</i> ⁿ	'all those 6 big sheep'	N Adj Num Dem 'all'
<i>sè:dú</i> ^{HL} [<i>péjú mà</i> ⁿ <i>à kùré:</i>]		'Seydou's 6 big sheep'	Poss N Adj Num
or: <i>sè:dú</i> ^{HL} [<i>péjú kùré: mà</i> ⁿ <i>à</i>]	" "	(inverted)	Poss N Num Adj

Parenthesized "(inverted)" in the gloss column, after ditto marks, means that optional Adjective-Numeral Inversion (§6.4.2) has applied.

In addition to linear order, the morphosyntax of NP also involves tonosyntactic processes and the apparent "bifurcation" break point for NPs functioning as relative-clause heads. In TgK there is no suffixal marking of humanness or animacy of the sort found in e.g. Jamsay or Najamba.

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

Demonstratives and the universal quantifier 'all' readily occur in absolute function, without a preceding noun (112a-b).

Cardinal numerals are elicitable without a noun, as in *kùré:*^{L+H} ^L*yò:* 'those six'. However, in texts they normally co-occur with at least a semantically light noun, e.g. *ná* 'person', or with nonhuman pronoun *kó* in possessor function (112c-d).

- (112) a. *iⁿ* *nó:* ^L*èw-è*
 1SgSbj Prox ^Lbuy-Pfv
 'I bought this.'
- b. *iⁿ* *sâ:*ⁿ (*fú→*) ^L*èw-è*
 1SgSbj all (all) ^Lbuy-Pfv
 'I bought all (=everything).'
- c. *iⁿ* [*kó* ^{HL}*kúré:*]^L ^L*èw-è*
 1SgSbj [NonhPoss ^{HL}six] ^Lbuy-Pfv
 'I bought six (of them).'
- d. [*kó* *témdérè*] ^L*ònò*
 [NonhPoss hundred] ^Lgive.Imprt
 'Give me one hundred (of them).'

Modifying adjectives may be used absolutely when the noun is understood or indeterminate. As with numerals, this is not common.

- (113) *wó* *bá:*ⁿ ^L*èw-è*
 3SgSbj red ^Lbuy-Pfv
 'He/She bought (a/the) red one.'

For a textual example see 'red' and 'white' in (668) in §19.1.2.

6.1.3 Apparent bifurcation (in relatives)

When a NP functions as head of a relative clause, it (seemingly) divides into two parts. The noun along with a possessor, an adjective, and/or a numeral (if present) remains intact inside the relative clause. In TgK, unlike most Dogon languages, a possessor changes its form in this combination.

The apparent bifurcation point is between the inner string Poss-N-Adj-Num and the set of late-NP elements that follow the verb of the relative clause: demonstrative pronouns, plural *bè* or *nà*, universal quantifiers ('all'), and discourse-functional (DF) elements. These late-NP elements can be referred to collectively as the coda of the relative construction.

A more revealing analysis is that the relative clause is really just part of a NP of the type Poss-N-Adj-Num-Poss-Rel-Det-'all'-DF, and that the string to the left of the relative moves into the relativization site, leaving the final elements (determiners, 'all', discourse-function elements) in their original position. For the details, see chapter 14.

6.1.4 Internal bracketing and tone-dropping (unpossessed NP)

This section considers tonosyntactic effects relevant to the internal structure of unpossessed NPs in functions other than relative-clause head. Certain elements (possessors, adjectives, demonstratives, relative clauses) are reference restrictors, and impose a tone overlay on the noun and on any intervening words. Of these, all except possessors are postnominal, so they target a domain (including the noun) to their left. Addition of a possessor significantly complicates both the "regular" morphosyntax and the tonosyntax. Possessors may be prenominal or postnominal, and they may be simple (identical in form to an ordinary NP) or they may be followed by a possessive morpheme *kè*. These choices have consequences for the tonosyntax.

This section considers unpossessed NPs, and works from the inside out. At the center is the core NP consisting of the noun (simple or compound) and any modifying adjectives. An NP may consist entirely of a core NP with no further material (N, N-Adj, or N-Adj1-Adj2). In this case, the final word in the core NP preserves its lexical tones, while preceding words beginning with the noun are tone-dropped to {L}. Recall that the lexical melody of a noun or adjective must contain an H-tone (§3.7.1.3-4), so tone-dropping is always audible.

(114) Core NP

a. N (with lexical tones)

<i>péjú</i>	'sheep'
<i>àr"á</i>	'man'

b. N^L Adj

<i>pèjù</i> ^L <i>már"á</i>	'big sheep'
<i>pèjù</i> ^L <i>gé"</i>	'black sheep'
<i>àr"á</i> ^L <i>mòpnú</i>	'bad man'
<i>àr"á</i> ^L <i>gàrà</i>	'old man'

c. [N Adj1]^L Adj2

<i>[pèjù mår"à]</i> ^L <i>gé"</i>	'big black sheep' (or: <i>[pèjù gé"]^L mår"à</i>)
<i>[àr"á gàrà]</i> ^L <i>mòpnú</i>	'bad old man'

In (114c), it cannot be scientifically proven whether the final adjective controls tone dropping on both preceding words, or whether tone-dropping applies cyclically, each time affecting only the word immediately to the left of the controlling word. My tonosyntactic notation is based on the noncyclical interpretation: [N Adj1]^L Adj2. The cyclical version might be represented schematically as [\cancel{N} Adj1]^L Adj2, with strikethrough on the leftmost superscript, reflecting an initial cycle with [N^L Adj1].

The core NP may be extended by adding a cardinal numeral (this is sometimes called “NumP”). The core NP and the numeral are tonosyntactically autonomous, each keeping its own tones. Therefore the core NP preceding the numeral (115a-c) has exactly the same form it had in (114) above.

(115) numeral plus core NP

a. N Num

péjú kúré: ‘six sheep’

b. N^L Adj Num

[pèjù^L már^{ná}] kúré: ‘six big sheep;

c. [N Adj1]^L Adj2 Num

[pèjù mär^{nà}]^L géⁿ kúré: ‘six big black sheep’

The NP-coda elements are determiners (demonstratives, definite), plural, ‘all’, and DF markers like Topic (‘as for’) and ‘only’. Of these, only demonstratives (§4.4.1.2) are full-fledged tonosyntactic controllers, imposing obligatory tone-dropping on a preceding noun (116a). However, when certain other elements are combined with the N-Dem combination, a more complex tonosyntactic processes take place. If the demonstrative is immediately preceded by an adjective (116b), the output appears to depend on whether the tonal definite is present.

If the demonstrative stem is *nɔ:* (proximate) or *yɔ:* (near-distant), the demonstrative is “optionally” tone-dropped. Arguably the floating L-tone of the tonal definite is the trigger for the tone-dropping, but the tonal definite itself is not always independently audible. In (116b), *pèjù^L mär^{nà}^{+L}^L nɔ:* ‘this big sheep’ does have an L-tone on the final syllable of ‘big’ (otherwise *mär^{ná}*), which can be taken as the tonal definite. However, if we replace *mär^{ná}* ‘big’ with an /LH/-melody adjective like *dògú* ‘heavy’, the result is *pèjù^L dògú^L nɔ:* ‘this heavy sheep’. One can argue that this is underlyingly /dògú+L/, and that the floating L is inaudible on the adjective for phonological reasons (no <HL>-toned syllable can occur in this position), but that this covert L-tone is responsible for the L-toned demonstrative *nɔ:*, as is the overt L-tone in *pèjù^L mär^{nà}^{+L}^L nɔ:*.

In the alternative versions in (116b), *[pèjù mär^{nà} / dògù]^L nɔ:*, the final demonstrative retains its lexical H-tone, the preceding N-Adj string is tone-dropped en bloc, and there is no sign (direct or indirect) of the tonal definite.

When the string preceding the demonstrative ends in a numeral, a special constructional {L}+H tone overlay occurs on the N-...-Num string, and the demonstrative is again tone-dropped, this time with no evidence that the tonal definite is involved (16c-d). This is schematized as [(N) Num]^{L+H}^L Dem.

(116) core NP (and numeral) plus demonstrative

a. N^L Dem

<i>pèjù</i> ^L <i>nɔ:</i>	‘this sheep’
<i>àr"à</i> ^L [iŋɔ:] <i>bàŋà</i>	‘this man’

b. N^L Adj^{+L} Dem, or [N Adj]^L Dem

<i>pèjù</i> ^L <i>már"à</i> ^{+L} / <i>dògú</i> ^L <i>nɔ:</i>	‘this big/heavy sheep’
---	------------------------

or:

[<i>pèjù</i> <i>már"à</i> / <i>dògù</i>] ^L <i>nɔ:</i>	‘this big/heavy sheep’
--	------------------------

c. Num^{L+H} Dem

proximate and near-distant

<i>kùré:</i> ^{L+H} <i>nɔ:</i>	‘these six’ (< <i>kúré:</i> , <i>nɔ:</i>)
<i>pèrú</i> ^{L+H} <i>yɔ:</i>	‘those ten over there’ (< <i>pérú</i> , <i>yɔ:</i>)

far-distant

<i>pèrú</i> ^{L+H} <i>éru</i> <i>kɔ</i> <i>nà</i>	‘those three sheep’ (far-distant)
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d. [...Num]^{L+H} Dem

proximate and near-distant

[<i>pèjù</i> <i>kùré:</i>] ^{L+H} <i>nɔ:</i>	‘these six sheep’
--	-------------------

far-distant

[<i>pèjù</i> <i>pèrú</i>] ^{L+H} <i>éru</i> <i>kɔ</i> <i>nà</i>	‘those three sheep’ (far-distant)
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The far-distant demonstrative, which has quite distinct morphology and is not included in (116), is not tone-dropped.

The plural morpheme is *bè* when added to a core NP. It is generally omitted, because redundant, in NPs that include a nonsingular numeral or an ‘all’ quantifier. Demonstratives (and relative clauses) have a distinct plural marker *nà*. Plural morphemes *bè* and *nà* have no tonal effect on preceding words in the NP. Since both *bè* and *nà* are L-toned, we would not be able to hear tone-dropping were it to occur on them.

(117) NP with plural morpheme

a. N Pl

<i>péjú</i> <i>bè</i>	‘sheep-Pl’
<i>àr"à</i> <i>bè</i>	‘men’

b. Dem Pl

<i>nɔ:</i> <i>nà</i>	‘these’
<i>éru</i> <i>wé</i> <i>nà</i>	‘those’ (human, far-distant)

c. N Dem Pl

<i>pèjù</i> ^L <i>nɔ:</i> <i>nà</i>	‘these sheep’
<i>àr"à</i> ^L <i>éru</i> <i>wé</i> <i>nà</i>	‘those men’ (far-distant)

Universal quantifiers (‘all’) follow demonstratives and (if present) a plural morpheme. The common ‘all’ form is *sâ:n*. When added to a core NP with no intervening numeral, it is tonosyntactically inert; neither the ‘all’ word nor the core NP changes its tones. However,

when a numeral precedes *sâ:n* (118c), we get a constructional tone overlay similar to that schematized in (116d) above. Though *sâ:n* itself keeps its tones, the preceding numeral and any preceding words beginning with the noun have the {L}+H overlay. Tone-dropping also applies to the nonhuman pronoun *kó* that is often used as a default complement when the numeral is not accompanied by a noun.

(118) NP with universal quantifier

- a. N ‘all’
péjú sâ:n ‘all of the sheep’
- b. N^L Adj ‘all’
pèjù^L márná sâ:n ‘all the big sheep’
- c. [... Num]^{L+H} ‘all’
 $[kò kùré:]^{\text{L+H}} sâ:n$ ‘all six (of them)’
 $[pèjù kùré:]^{\text{L+H}} sâ:n$ ‘all six sheep’

The {L}+H overlay is also found when a string ending in a numeral is followed by a pronominal possessor such as 1Sg *mà*, see (126a-b) in §6.2.1.5 below.

For *wò*→‘each’, see §6.6.3, below.

6.2 Possessives

A nonpronominal NP possessor always precedes the possessum. A pronominal possessor precedes the possessed NP in some cases, and follows it in others. There is no genitive linker between possessor and possessum.

For pronominal possessors, there are two constructions. In the most common type, a pronoun with no special possessive marker directly precedes the possessed noun, except that the 1Sg possessor form is *mà* after the possessed noun and any modifying adjective or numeral. I refer to this mix of postposed 1Sg *mà* and various preposed pronominal possessors as the nonappositional possession construction. It is found with alienably as well as inalienably possessed nouns. In the other type, which is generally optional but fairly common with alienably possessed nouns (especially those of complex structure, for example including a numeral), the possessed noun and any modifying adjective or numeral is followed by the sequence of a pronominal possessor and *kè* ‘possession, (sb’s) thing’. Since *kè* is in apposition to the possessed noun, e.g. ‘house [my thing]’ for ‘my house’, I refer to this as the appositional possession construction, even though the original appositional character has been partially eroded over time. To summarize so far, we have nonappositional [PronP X] except for [X 1SgPoss], and appositional [X [Pron *kè*]], where X is the possessed noun and any modifying adjective or numeral.

When the possessor precedes the possessum (as with all nonpronominal possessors, and with pronouns other than 1Sg in the nonappositional construction), the possessor controls a tonal overlay, {HL} on a heavy or composite possessum or {H} on a light uncompounded possessum. The possessor itself retains its regular tonal form. When the possessor follows the possessum, the latter keeps its regular tones.

6.2.1 Tonal changes on possessed NPs after a possessor

I refer to the tone overlay controlled by a preceding possessor as the possessed-noun or possessor-controlled overlay. However, the target domain of the overlay is not limited to a word, rather it comprises the (possessed) noun plus any modifying adjectives and numerals. I begin here, however, with the possessed forms of ordinary nouns and of noun-noun compounds.

Prosodically light (one or two moras) unsegmentable nouns have {H} as the possessed overlay, while prosodically heavy and all morphologically composite nouns have {HL} as the overlay, with the H limited to the first syllable. {L} as possessed-noun overlay is attested with two monosyllabic stems. In all cases, the possessed-noun overlay erases the lexical melody.

Downstep is usual when the possessor-controlled overlay is {H} but not {HL}. Downstep can be removed under certain conditions, and it does not appear to be a matter of phonological tone.

6.2.1.1 Possessed-noun {H} for prosodically light simple nouns

Prosodically light noun stems are those of one or two moras, i.e. *Cv*, *Cv:*, and *CvCv* stems. If the stem is already lexically /H/-toned, there is no phonological change, but (phonetic) downstep is common (119a). If the stem is lexically /LH/-toned, the change to a flat {H} overlay is audible (119b). I therefore attribute {H} to both lexically /H/- and /LH/-toned nouns when possessed.

- (119) {H} overlay for unsegmentable, prosodically light possessed noun

noun	possessed	gloss
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a. stem of 1-2 moras, lexically /H/-toned, no audible change

<i>káⁿ</i>	^H <i>káⁿ</i>	‘mouth’
<i>kúⁿ</i>	^H <i>kúⁿ</i>	‘head’
<i>pá</i>	^H <i>pá</i>	‘area, zone’
<i>bé:</i>	^H <i>bé:</i>	‘excrement’
<i>tém</i>	^H <i>tém</i>	‘strap’
<i>nípí</i>	^H <i>nípí</i>	‘maternal uncle’
<i>péjú</i>	^H <i>péjú</i>	‘sheep’
<i>kéné</i>	^H <i>kéné</i>	‘liver’

b. stem of 1-2 moras, lexically /LH/-toned

<i>Cv</i>		
<i>nă</i>	^H <i>ná</i>	‘person’
<i>bě</i>	^H <i>bé</i>	‘beard’
<i>sđⁿ</i>	^H <i>sđⁿ</i>	‘horse’
<i>dřⁿ</i>	^H <i>díⁿ</i>	‘hip’
<i>pě</i>	^H <i>pé</i>	‘wife, woman’
<i>Cv:</i>		
<i>nř:</i>	^H <i>ní:</i>	‘paternal aunt’ (variant)
<i>tě:</i>	^H <i>té:</i>	‘honey’
<i>dě:ⁿ</i>	^H <i>dé:ⁿ</i>	‘elder same-sex sibling’
<i>èrⁿé</i>	^H <i>érⁿé</i>	‘goat’

<i>CvCv</i>		
àwá	^H áw ⁿ á	‘in-law’
tɔgú	^H tɔgú	‘race, category’
gírní	^H gírní	‘house’
tùwó	^H túwó	‘stone’
nòw ⁿ ó	^H nòw ⁿ ó	‘meat’

One kin term with *CvCv:ⁿ* shape (including a frozen diminutive morpheme) is also {H}-toned when possessed (120a). It has three moras, but is treated as though *CvCv*, suggesting that the length of the final vowel is disregarded for purposes of weighing. For another kin term, the possessed form has a slight segmental change, adding a contracted form of the diminutive morpheme (120b).

(120) {H} overlay for *CvCv:ⁿ* kin terms

noun	possessed	gloss
a. <i>CvCv:ⁿ</i>		
	^H súgé: ⁿ	‘younger same-sex sibling’
b. with segmental change (diminutive ending)		
	^H égé: ⁿ	‘husband’

{H}-toned possessed nouns are usually downstepped after a nonpronominal possessor ending in an H-tone. For more on downstep, see §3.7.4.6. Because it is a somewhat elusive phenomenon, I am reluctant to treat it as fully grammatical, and usually I do not mark it in phonological transcriptions.

Possessed nouns, like other nouns, are subject to the addition of a final L-tone to mark weak discourse-definiteness (tonal definites, §4.4.1.1) or location (tonal locatives, §8.2.1). Since the nouns considered in this section are prosodically light, the resulting {H}+L mimics a true /HL/ melody, i.e. bisyllabic H.L and monosyllabic <HL>. Downstep does not usually apply to {H}+L-toned definite possessed nouns. Example: ú ^H gírní ‘your-Sg house’ (with downstep), but tonal definite or tonal locative ú ^H gírní +L (without downstep).

The ‘it is’ clitic =y requires the {HL} pattern on a preceding possessum. Again, this results in removal of downstep on the onset. For a monosyllabic vowel-final stem, the only syllable is <HL>-toned, as in ú ^H káⁿ ‘your-Sg mouth’ becoming [ú ^H káⁿ] = yⁿ ‘it is your mouth’. Bisyllabic stems shift from H.H to H.L, as in ú ^H gírní ‘your-Sg house’ becoming [ú ^H gírní] = yⁿ ‘it is your house’. It is possible that this tonal pattern reflects the presence of the tonal definite (final L-tone) before the clitic.

6.2.1.2 Possessed-noun {HL} for heavy and complex nouns

Prosodically heavy nouns are those of three or more vocalic moras, specifically including *Cv:Cv* and *CvCvCv*. The lexical distinction between /H/ and /LH/ melodies is erased, but this time the overlay is {HL}, with the tone break at the first syllable boundary. This is shown in (121), using nouns that are not treated as composite (morphemically or prosodically). There is usually no downstep with the {HL} overlay.

(121) {HL} overlay for prosodically heavy possessed noun

noun	possessed	gloss
a. stem of 3 moras, /H/-toned		
<i>Cv:Cv</i>		
<i>á:ju</i>	^{HL} <i>á:ju</i>	‘vein’
<i>bá:gá</i>	^{HL} <i>bá:gá</i>	‘stick’
<i>yó:wó</i>	^{HL} <i>yó:wó</i>	‘well bag’
<i>CvCvCv</i>		
<i>tógóró</i>	^{HL} <i>tógóró</i>	‘person with the same name’
<i>kégéré</i>	^{HL} <i>kégéré</i>	‘saddle’
<i>bájár"á</i>	^{HL} <i>bájár"á</i>	‘shin’
b. stem of 3 moras, /LH/-toned		
<i>Cv:Cv</i>		
<i>gě:w</i>	^{HL} <i>gě:w</i>	‘belch(ing)’ (</gě:wú/)
<i>CvCv:</i>		
<i>òtě:</i>	^{HL} <i>òtě:</i>	‘well (for water)’
<i>pòlí:</i>	^{HL} <i>pòlí:</i>	‘pulley’
<i>pàr"é:</i>	^{HL} <i>pàr"é:</i>	‘brick’
<i>ìná:</i>	^{HL} <i>ìná:</i>	‘mother’
<i>CvCvC</i>		
<i>mòtám</i>	^{HL} <i>mótám</i>	‘scorpion’
<i>Cv:CvC</i>		
<i>tà:bál</i>	^{HL} <i>tá:bál</i>	‘table (selling stand)’
<i>CvCvCv</i>		
<i>sérùwé</i>	^{HL} <i>sérùwé</i>	‘spur’
<i>ì"sìr"í</i>	^{HL} <i>ì"sìr"í</i>	‘urine’
<i>kògújó</i>	^{HL} <i>kógújó</i>	‘cough’

Of course, many prosodically heavy stems are composite in one sense or other: a) one can identify at least one of the composite morphemes; b) the noun appears to contain an initial *Cv*-reduplication; or c) the noun can be divided into two segments each of a shape like *CvC* or *CvCv* and has a tone pattern compatible with noun-noun compound status. There are also a very small number of *CvCv* nouns that are arguably composite.

Reduplicated nouns are in (122). Most are *Cv-Cv*: kin terms (122b) and *Cv-CvCv* or similar nouns (122c). They have the {HL} possessed-noun overlay characteristic of heavy stems. More interestingly, there are a handful of reduplicated *C_IV_IC_IV_I* stems that also have {HL}, diverging from the morphologically simple *CvCv* nouns in (119) in the preceding section, which have {H} after a possessor. In fact, the possessed overlay can be used as a test for reduplicated status of *C_IV_IC_IV_I* nouns. There are a number of such nouns that fail this test and can therefore be taken as morphologically unreduplicated (the repetition of syllables being accidental); contrast (122a) with (46b) in §4.1.4, above.

(122) {HL} overlay for nouns with initial *Cv*-reduplication

noun	possessed	gloss
a. behave like <i>Cv-Cv</i> (all known examples)		
<i>nù-nù</i>	^{HL} <i>nú-nù</i>	'cold weather'
<i>yà-yà nà:</i>	^{HL} <i>yá-yá</i> ^L <i>nà:</i>	'woman who has just given birth'
<i>jú-jú</i>	^{HL} <i>jú-jú</i>	'judge' (French <i>juge</i>)
b. <i>Cv-Cv</i> :		
<i>dè-dé:</i>	^{HL} <i>dé-dè:</i>	'father'
<i>nà-ná:</i>	^{HL} <i>ná-ná:</i>	'grandmother'
<i>bà-bá:</i>	^{HL} <i>bá-bá:</i>	'grandfather'
c. <i>Cv-CvCv</i>		
<i>gú-gúrú</i>	^{HL} <i>gú-gúrù</i>	'grass'
<i>nè-nèŋé</i>	^{HL} <i>né-nèŋè</i>	'groin'

Composite noun stems of the more classic type also have the {HL} overlay when possessed, but the position of the tone break depends on the prosodic structure as well as on the compound break. If the initial is prosodically light, i.e. *Cv-*, *Cv:-*, or *CvCv-*, the H-tone component of {HL} continues to the end of the initial, while the final is {L}-toned (123a-c). If the initial is prosodically heavy, the tone break occurs at the first syllable boundary, as it would without the final (123d-f). In both types, the initial gets {H} or {HL} overlay in the usual way based on its weight, and the final is {L}-toned.

(123) {HL} overlay for compound nouns

noun	possessed	gloss
a. <i>Cv-</i> initial		
<i>bè-sé:</i>	^{HL} <i>bé-sè:</i>	'father's younger brother'
<i>kà"-gòŋùr"ú</i>	^{HL} <i>ká"-gòŋùr"ù</i>	'rim'
<i>jè gàrá</i>	^{HL} <i>jé gárá</i>	'old(est) woman' (fused N-Adj)
<i>gù"sá"</i>	^{HL} <i>gú"sá"</i>	'full outback'
b. <i>Cv:-</i> initial		
<i>bè:-gèré</i>	^{HL} <i>bé:-gèré</i>	'side'
<i>i:"n sónjúr"ú</i>	^{HL} <i>i:"n sónjúr"ù</i>	'elder of two young children'
c. <i>CvCv-</i> initial		
<i>tírí-wé</i>	^{HL} <i>tírí-wé</i>	'grandchild'
<i>nípí-w"é</i>	^{HL} <i>nípí-w"é</i>	'sister's child'
<i>lárà-í:"n</i>	^{HL} <i>lárá-í:"n</i>	'sister's child'
<i>jéŋé-í:"n</i>	^{HL} <i>jéŋé-í:"n</i>	'twin sibling'
<i>ògò-pò</i>	^{HL} <i>ògó-pò</i>	'camel'
<i>gír"í-dú</i>	^{HL} <i>gír"í-dú</i>	'courtyard', 'family'
<i>pélè-gúmò</i>	^{HL} <i>pélè-gúmò</i>	'pigeon'

- d. *Cv:Cv-* initial
 $pú:jù-pá:jù$ ^{HL}*pú:jù-pá:jù* ‘lungs’
- e. *CvCv:-* initial
 $òtè:-ká^n$ ^{HL}*ótè:-kà^n* ‘edge of well’
 $òtè:-sùŋú$ ^{HL}*ótè:-sùŋú* ‘well rope’
- f. *CvCvCv-* initial
 $i^n sìr^n-i-jógó$ ^{HL}*i^n sìr^n-i-jògó* ‘bladder’
 $bírigì-tímé$ ^{HL}*bírigì-tímé* ‘omasum’

There are a number of stems that cannot be segmented into recognizable initial and final stems, but that have prosodic shapes and/or other phonological features consistent with compounds. It appears that they are treated as compounds for purposes of determining the possessed-noun overlay. The segmentation is clear in the case of ‘harvesting knife’ (124c) because of ATR disharmony. However, compound-like tonal patterning seems to apply even to *kúnúgóró* ‘head’ (124c). Its unpossessed L.H.H.H tone pattern, and comparison with synonym *kù^L-kéné*, point to a segmentation as *kù^L-núgóró*, whose regular possessed form should then be #^{HL}*kú-núgòrò*, compare (123a) above. Instead, its possessed form is ^{HL}*kúnúgòrò*, which is consistent with a compound break in the middle (unpossessed *kúnú-góró*). I conclude that the default prosodic treatment of quadrисyllabics is as compounds of two bisyllabic stems. This is suggested by the bracketing in the “possessed” column in (124a-c). The alternative would be to revise the model for phonological realization of {HL} overlay (§3.7.3.2), so that quadrисyllabics with this overlay appear in H.H.L.L form, instead of having the break as close as possible to the left edge.

(124) Multisyllabic nouns arguably treated prosodically as compounds

noun	possessed	gloss
a. <i>CvCCV</i> with unusual CC cluster		
$òmjó^n$	^{HL} <i>ómjò^n</i>	‘low ground’
b. <i>CvCvCv:</i>		
$màràpá:$	^{HL} <i>[márú]pá:</i>	‘rifle, musket’
c. <i>CvCvCvCv</i>		
$àrùségé$	^{HL} <i>[árú]sègè</i>	‘animal’
$wògótóró$	^{HL} <i>[wógó]tòrò</i>	‘cart’
$dògótóró$	^{HL} <i>[dógó]tòrò</i>	‘doctor’
$kúnúgóró$	^{HL} <i>[kúnú]gòrò</i>	‘head’
$kárábárá$	^{HL} <i>[kárá]bàrà</i>	‘calabash box’
<i>disharmonic vocalism</i>		
$pòrùkéwé$	^{HL} <i>[pórú]kèwè</i>	‘harvesting knife’

The restriction of the {HL} overlay to prosodically heavy possessed nouns, specifically not including lighter *Cv:* and *CvCv* stems, is unusual from a comparative Dogon perspective. However, the {HL} pattern does appear on light stems that function as postpositions (particularly spatial ones), as in postposition *bórò* ‘under’ from noun *bòrò* ‘rear’, and on some toponyms like the village name *báwⁿà* ‘Bawa’. However, one might argue that such forms

contain the final L-tone of the tonal locative. The historical connection between possessed-noun overlays, postpositional tones, and tonal locatives of ordinary nouns, remains to be worked out.

6.2.1.3 Possessed-noun {L} for two monosyllabic nouns

Finally, there are two important monosyllabic noun stems that have {L} overlay after a possessor (125). Both are human nouns that have kinship senses when possessed.

- (125) {L} possessed-noun overlay

noun	possessed	gloss
a. stem /H/-toned <i>i:ⁿ</i>	^L <i>i:ⁿ</i>	'child'
b. stem /LH/-toned <i>pɛ</i>	^L <i>pɛ</i>	'woman, wife'

Contrast *ú^Li:ⁿ* 'your-Sg child' and *ú^Lpɛ* 'your wife', showing {L}-toned possessed nouns, with the {H}-toned possessed nouns in e.g. *ú^Ldɛⁿ* 'your waterjar' (lexical *dɛⁿ*), *ú^Lló* 'your medication' (*lɔ*), *ú^Lbɔⁿ* 'your-Sg tomtom' (*bɔⁿ*), and *ú^Lté* 'your-Sg tea' (*té*).

Historically, *kè* in pronominal possessives like *ú kè* 'your(s)', originated as an L-toned possessed form of the noun 'thing' (cognates still mean 'thing' in several Dogon languages). However, this is opaque synchronically, since *ɔjɔ* is the current word for 'thing, object', and I gloss *kè* simply as 'Poss'.

Another likely vestige of an originally more widespread possessor-controlled {L} overlay is the small set of {L}-toned terminal elements found at the end of certain relative clauses. Some of these are tone-dropped forms of common nouns, used in resumptive fashion at the end of relative clauses (§14.1.7).

6.2.1.4 Downstep in possessed noun

In most cases the possessor itself (e.g. noun, noun-adjective, pronoun) ends in an H-tone. As noted above, most possessed nouns begin with an H-tone, and may be entirely {H}-toned. Phonetically, the final H of the possessor and the H of the possessed can approximate a tonal terrace, in the sense that there is no sharp pitch discontinuity at the word boundary. This is typical with pronominal possessors, which are monosyllabic and H-toned. Therefore *ú^Hgírⁿí* 'your-Sg house' (*gírⁿí*) and *wó^Hnú:* 'his/her death' (*nú:*) show at most a slight divergence in pitch between the possessor and the possessed noun, so the {H} overlay of the possessed noun is clearly heard. The best frame for identifying the few nouns with {L}-toned possessed-noun overlay is therefore following a pronominal possessor. The sharp pitch break in *ú^Li:ⁿ* 'your-Sg child' or in *wó^Lpɛ* 'his wife' show that these possessed nouns are genuinely {L}-toned.

However, with nonpronominal possessors, there is a noticeable pitch drop between the final H of the possessor and the H of the possessed noun, as in *ámírⁿí^Hgírⁿí* '(a/the) chief's house' and *pɛ^Hnú:* 'a woman's death'. I have been taking this to be a matter of phonetic

realization, but one could argue that it should be formally reflected in the transcription as downstep, e.g. *ámírⁿÍ ^HgírⁿÍ*.

6.2.1.5 {L}+H tone pattern for possessor-numeral combinations

In §6.1.4 above I showed that strings ending in a numeral have an {L}+H overlay when followed by a demonstrative or by the ‘all’ quantifier within the same NP; see (116c-d) and (118c). The targeted string is entirely {L}-toned except for a single H-tone on the final syllable (or, for monosyllabic numerals, the final mora).

The same {L}+H overlay applies to N-(Adj-)Num strings in combination with a postposed possessor. The only possessor that is regularly postnominal is the 1Sg possessor form *mà*. In (126a), the 1Sg possessor immediately follows the noun and precedes the numeral, which is grammatical but dispreferred. In this ordering, there are no tonosyntactic interactions, so the noun and the numeral show lexical tone melodies. By contrast, in (126b), the same clause is rephrased with the preferred N-Num-Poss linear order, and the {L}+H pattern is observed, applying to the entire N-Num string. Therefore ‘children’ is L-toned and the numerals have rising tone in (126b).

- (126) a. *ú [úrⁿÍ mà lóy / kúré: / ső:] ^Lđ-ɛ*
 2SgSbj [children 1SgPoss two / six / seven] ^Lsee-Pfv
 ‘You-Sg saw my two / six / seven children.’ (dispreferred linear order)
- b. *ú [[ùrⁿÍ: lóy / kúré: / ső:]^{L+H} mà ^Lđ-ɛ*
 2SgSbj [children two / six / seven]^{L+H} 1SgPoss] ^Lsee-Pfv
 [= (a)]

See also (644c-d) in §18.1.3.1, and (32a-b) in §3.7.3.7.

6.2.2 Treatment of modifiers following the possessed noun

When an adjective modifies the possessed noun, the noun-adjective combination (i.e. the core NP) is subjected, as a unit, to the {HL} possessed-noun overlay. As shown in (127), the possessed noun itself appears with its regular possessed-noun overlay, {H} or for heavy stems {HL}, and the following adjective is tone-dropped. In other words, the overlay is always {HL} for a N-Adj possessum, but the break from H to L occurs no later than the word boundary.

- (127) a. *sè:dú ^{HL}[gírⁿÍ gára]*
 S ^{HL}[house big]
 ‘Seydou’s big house’ (*gírⁿÍ, gára*)
- b. *sè:dú ^{HL}[ná mɔnù]*
 S ^{HL}[person bad]
 ‘Seydou’s bad person (=kinsman)’ (*ná, mɔnú*)
- c. *sè:dú ^{HL}[túŋùrⁿù dágà]*
 S ^{HL}[stool small]
 ‘Seydou’s small stool’ (*túŋúrⁿú, dágá*)

A numeral following the noun (or the core NP) is also normally included in the domain of the {HL} overlay, and therefore appears in tone-dropped form, as in (128a) with *kúré:* ‘six’. The same tonal pattern occurs when a demonstrative follows the noun, as in (128b), with L-toned form of *yò:* ‘that’ (near-distant). However, it is unclear whether the demonstrative drops its tones because it is part of the target domain of the possessor-controlled {HL} overlay, as suggested by the bracketing in (128b), or because of Postnominal-Determiner Tone-Lowering (§3.7.3.5), which would call for a revised bracketing. The ‘all’ quantifier does not drop its tones in this position and is therefore clearly not part of the domain targeted by the possessor (128c).

- (128) a. *sè:dú* ^{HL}[*gírní*] *kùré:*
Seydou ^{HL}[house] six
'Seydou's six houses'
- b. *sè:dú* ^{HL}[*gírní*] *yò:*
Seydou ^{HL}[house] NearDist
'that house of Seydou's'
[alternative mark-up *sè:dú* ^{HL}*gírní* ^L*yò:* with separately tone-dropped Dem]
- c. *sè:dú* ^H*gírní* *sâ:n*
Seydou ^Hhouse all
'all Seydou's houses'

However, when the numeral has scope over a compound-like possessor-possessed combination that functions like a common noun, the numeral is not subject to tonosyntactic control of the possessor. In (129), *si:nká:n* ‘equivalent’ gets the {HL} possessor-controlled overlay, but *lóy* ‘two’ does not.

- (129) *[[[gɔ:^L yǎ:]* ^{HL}*sí:n-kà:n]* *lóy* *bà→]* ^L*bè:jù*
[[[granary^L female]] ^{HL}equivalent] two up.to] put-Ipfv
'They put (=build) (the male granary) (as) two female granary equivalents (=twice the size of the female granary).' (2011.1a.17)

6.2.3 Pronominal possessors

We begin with possessed NPs not containing a quantifier. In the 1Sg only, the possessor is expressed by a postnominal morpheme *má* (for H-toned *má* see below). The possessed noun has its regular tones, as in unpossessed contexts. For the other pronominal categories, the possessor precedes the possessed noun and controls the same {HL} or {H} possessed-noun overlay that was illustrated above for nonpronominal possessor NPs. Thus *gírní* ‘house’ has its lexical tone in (130a) but has {H} overlay, optionally with a further final L-tone to mark definiteness, in (130b). There is no genitive morpheme after such preposed possessors.

- (130) a. possessor follows possessed noun
1Sg *gírní* *má*
- b. possessor precedes possessed noun
1Pl *émé* ^H*gírní* (definite *émé* ^H*gírní*^{+L}, etc.)
2Sg *ú* ^H*gírní*

2Pl	<i>é</i>	^H <i>gírní</i>
3Sg	<i>wó</i>	^H <i>gírní</i>
3Pl	<i>bé</i>	^H <i>gírní</i>

The same constructions are used with all possessed nouns, alienable or inalienable. Thus *péjú* ‘sheep’ in *péjú mà* ‘my sheep-Sg’ and *wó* ^H*péjú* ‘his/her sheep-Sg’ is treated like *dè-dé*: ‘father’ in *dè-dé*: *mà* ‘my father’ and *wó* ^{HL}*dé-dé*: ‘his/her father’.

1Sg possessor *mà* follows the core NP, which may include a postnominal adjective (131a). It precedes the universal quantifiers *sâ:n* and *fú→*, which are NP-final here as elsewhere. For its position relative to cardinal numerals, see (134) below and accompanying discussion.

- (131) a. *gírní*^L *márná* *mà*
 house^L big 1SgPoss
 ‘my big house’
- b. *gírní* *mà* *sâ:n*
 " " *fú→*
 house 1SgPoss all
 ‘all (of) my houses’

Before instrumental-comitative postposition *bè*, but not before plural *bè*, the 1Sg possessor form shifts to H-tone: *[ně má] bè* ‘with my wife’, contrast *ně mà bè* ‘my wives’ (lit. “my women”). I did not observe this tone shift before other postpositions: *[ně mà] gíri* ‘in front of my wife’, dative *[ně mà]=ñ* ‘to my wife’.

When a demonstrative modifies a possessed noun, Postnominal-Determiner Tone-Lowering (§3.7.3.5) applies. The demonstrative undergoes tone-dropping and does not control tones on the possessed noun or its modifiers. This applies whether the possessor precedes or follows the possessed noun. For example, near-distant *yð:* drops tones in (32a-b). The H.H tones of ‘house’ in (132a) show that there is no tonal definite.

- (132) a. *ú* ^H*gírní* ^L*yð:*
 2SgPoss ^Hhouse ^LNearDist
 ‘that house of yours-Sg’
- b. *gírní* *mà* ^L*yð:*
 house 1SgPoss ^LNearDist
 ‘that house of mine’

If the pronominally possessed noun is directly followed by a modifier (adjective or cardinal numeral), the modifier licenses an optional restructuring. In the restructured version, all pronominal possessors are expressed by postnominal [Pron *kè*], where *kè* derives from a noun meaning ‘thing’ still found in several other Dogon languages. This was originally an appositional construction of the type [house [your thing]] ‘your house’, with ‘thing’ in apposition to ‘house’. The L-tone of *kè* was attributable then to a possessor-controlled overlay, while ‘house’ was unaffected tonosyntactically by the possessor. The appositional nature of the construction has been weakened, and under some conditions (see below) the postnominal possessor can control overlays on the preceding noun (and its immediate modifiers). *kè* will be glossed simply as “Poss” in interlinears.

If the licensing modifier is an adjective, the sequence begins with the regular [N^L Adj] pattern found in unpossessed core NPs. The adjective controls {L} on the noun. The only clearly constructional change is that the pronominal drops its tones. If the adjective is /H-toned, it shows a final L-tone in this construction, arguably the tonal definite, as in *kélù*^{+L} from *kélú* ‘cold’ in (133a). I do not hear any tonal change in /LH/-toned adjectives, but this is probably because the expected final falling tone in the definite (*gàrà*^{+L} ‘the big one’) is flattened in the middle of an NP as an H-tone while its final L-toned element is absorbed by the L-toned possessor.

- (133) a. *dì*^L *kélù*^{+L} ^L[*ù*] *kè*
 water^L cold^{+L} ^L[2SgPoss] Poss]
 ‘your-Sg cold water’
- b. *gìrni*^L *gàrà* ^L[*ù*] *kè*
 house^L big ^L[2SgPoss] Poss]
 ‘your-Sg big house’

When the licensing modifier is a numeral, with or without a preceding adjective, the constructional {L}+H overlay applies to the string ending in the numeral before [Pron *kè*] possessors. The numeral functions as the catalyst (§3.7.3.6) that unleashes the tonosyntactic control power of the possessor. The possessor itself drops to L-toned, by Postnominal-Determiner Tone-Lowering. (134) shows the unrestructured and restructured options for pronominally possessed N(-Adj)-Num. All of the restructured forms are in the central column.

- (134) possessor prenominal possessor postnominal possessor

- a. possessor always follows [N Num]
 [N Num]^{L+H} ^L[*iⁿ kè*] 1Sg
 or [N Num]^{L+H} *mà*
- b. possessor precedes or follows [N Num]
 ú ^{HL}[N Num] or [N Num]^{L+H} ^L[*ù kè*] 2Sg
 wó ^{HL}[N Num] or [N Num]^{L+H} ^L[*wò kè*] 3Sg
 émé ^{HL}[N Num] or [N Num]^{L+H} ^L[*èmè kè*] 1Pl
 é ^{HL}[N Num] or [N Num]^{L+H} ^L[*è kè*] 2Pl
 bé ^{HL}[N Num] or [N Num]^{L+H} ^L[*bè kè*] 3Pl

The schema [N Num]^{L+H} ^L[Pron *kè*] in (134a-b) is exemplified in (135e) below and in (32a,d) in §3.7.3.7 above. Adding an adjective, the slightly more elaborate [N Adj Num]^{L+H} ^L[Pron *kè*] is exemplified in (147a) below.

The construction with postposed pronominal plus *kè* is also occasionally attested with simple possessed nouns, as in ‘my sleep’ in (591) in §17.3.2 and ‘my child’ in (624b) in §17.6.1.1.

Infrequently, a pronominal possessor with *kè* precedes rather than follows the possessed noun. This happens mainly with nonhuman *kó*^L*kè* ‘its’ as in [*kó*^L*kè*]^{HL} *sójòrò* ‘its (i.e. that) cleverness’ in (637) in §17.6.5 and as in [*kó*^L*kè*]^{HL} *téjé-bò*ⁿ ‘the name of its time (season)’ in (136) in §6.2.5. It is also fairly common with reflexive possessor *să*ⁿ^L*kè*, as in (644a,c).

However, preposed $[X^L kè]$ is regular, for nonpronominal as well as pronominal possessor X, when the possessed noun functions as head of a relative (§14.1.3).

6.2.4 Inalienable possession (kin terms)

There is no systematic morphosyntactic distinction between possessed forms of kinship terms and body parts on the one hand, and possessed forms of ordinary (alienable) nouns on the other.

For example, $dè-dé:$ ‘father’ occurs in $dè-dé: mà$ ‘my father’ and $wó^H dè-dé:$ ‘his/her father’, parallel to alienable $gírní mà$ ‘my house’ and $wó^H gírní$ ‘his/her house’.

Prost (p. 27) states that the 1Sg possessor form for three kin terms is of the type $[f^n X]$ in the dialect that he described (that of Pel). The stems involved are glossed ‘elder brother’, ‘younger brother’, and ‘comrades’. My assistant (from Koporo Pe) gave the regular $[X mà]$ 1Sg possessor form for these nouns (‘my X’).

6.2.5 Recursive possession

A possessed NP may itself function as a possessor. The internal structure of the possessor has no systematic effect on the form (including tones) of the possessed NP. Therefore ‘house’ and ‘mother’ in (135a-e) have the same overlay they would have after any other preposed possessor.

- (135) a. $[dè-dé: mà]^{H \text{gírní}}$
 [Rdp-father 1SgPoss] H_{house}
 ‘my father’s house’
- b. $[ú]^{H \text{gírní}}$
 $[\text{2SgPoss } ^H \text{Rdp-father}]$ H_{house}
 ‘your-Sg father’s house’
- c. $[dè-dé: mà]^{H \text{ínà:}}$
 [Rdp-father 1SgPoss] H_{mother}
 ‘my father’s mother’
- d. $[sè:dú]^{H \text{ínà:}}$
 [S $^H \text{Rdp-father}]$ H_{mother}
 ‘Seydou’s father’s mother’
- e. $[\bar{ùr}^nì: ^L l̪y]^{L+H} [i^n kè]^{L+H} [\text{1SgPoss } \text{Poss}]^{H \text{gírní}}$
 [children^L two]^{L+H} $\text{L}_{[1\text{SgPoss Poss}]}$ H_{house}
 ‘the house of my two children’

In some cases where the logic points to recursive possession, TgK prefers to treat the two final elements as a compound. In (136a), the logical sense is [the name of [the time of [that one]], but it is realized as [[that one(‘s)] time-name].

- (136) *ou bien* *lɛ* *pàŋ-ɛ* *dè*, *[wáru]* ^L*dɔ:*]
 or else planting take-Pfv if, [weeding ^Larrive]
[[kó ^L*kè]* ^{HL}*téŋé-bɔŋ]* *pàŋ* ^L*gì-jù*
 [[Nonh ^LPoss] ^{HL}time-name] how? ^Lsay-Ipfv
 ‘Or from the planting to the first weeding, what do they call the name of that time (=season)?’ (2011.1a.32)

6.3 Noun plus adjective

6.3.1 Noun plus regular adjective (core NP)

Nouns may be followed by one or more modifying adjectives. In the sequences [N Adj] and [N Adj1 Adj2], only the final word retains lexical tones. The preceding words are tone-dropped (137b-d).

- (137) a. *ìsí*
 ‘dog’
- b. *ìsì*^L *márⁿá*
 dog^L big
 ‘(a) big dog’
- c. *ìsì*^L *géⁿ*
 dog^L black
 ‘(a) black dog’
- d. *[ìsì* *gèⁿ]*^L *márⁿá*
 [dog black]^L big
 ‘(a) big black dog’

túru ‘one’ is not treated as a modifying adjective. Like other cardinal numerals, it has no tonal effect on a preceding noun: *ìsí túru* ‘one dog’.

A noun, with any following modifying adjectives, constitutes the core NP. Plural *bè* ~ *mbè* (§4.1.1) is added to the end of the core NP (138b).

- (138) a. *ìsí*
 ‘dog’
- b. *ìsì*^L *márⁿá* *mbè*
 dog^L big Pl
 ‘big dogs’
- c. *[ìsì* *gèⁿ]*^L *márⁿá*
 [dog black]^L big
 ‘a big black dog’

6.3.2 Adjective *gàmá* ‘certain (ones)’, ‘some’

The adjective *gàmá* is used in generalized contexts to denote a subset or an individual belonging to a common category. In its singular form it can also be used to denote a portion of a mass. Like other adjectives, it controls tone-dropping on a preceding noun.

The plural is *gǎm ná* (pointing to earlier **gàmá ná*) or *gàmà ná*. It may be used with human and nonhuman referents. It is probably cognate to Jamsay *gàmà-nám*, which, however, is strictly human. A similar morpheme has plural function in *érú kó ná* ‘the others’. A construction with parallel clauses is typical. The noun is optionally omitted in the second of two parallel clauses.

- (139) a. [nè^L *gǎm* *ná*] *músóró* *págá-jù*,
[woman^L certain Pl] shawl tie-Ipfv,
[*gǎm* *ná*] *músóró* *págâ:-rè*
[certain Pl] shawl tie-Ipfv.PlSbj
‘Some women wear shawls, some do not.’
- b. [*gírní*^L *gǎm* *ná*] *wòr-ê*,
[house^L certain Pl] collapse-Pfv
[*gǎm* *ná*] *wòrò-lí*
[certain Pl] collapse-PfvNeg
‘Some houses collapsed, others did not.’
- c. [*sùkòrò*^L *gàmá*] *yùw-ê*, *gàmá* *yùwò-lí*
[sugar^L some] spill-Pfv, some spill-PerfNeg
‘Some sugar spilled, some did not.’

See also (366c), (503), (617b), and (685).

gàmá or *gǎm-ná* can also mean ‘maybe’ or ‘sometimes’ in adverbial function, as in (153), (197c), and (261). The fuller combination *tèŋè*^L *gàmá* ‘some time(s)’ is also possible. The sequence *gàmá:* *dè* with the ‘if’ particle means ‘it may be that ...’ or ‘it sometimes happens that ...’.

6.3.3 Expansions of adjective

6.3.3.1 Adjective sequences

There is considerable freedom in the ordering of two or more adjectives. Thus *géⁿ* ‘black’ and *márⁿá* ‘big’ can occur in either order: [*gírní* *géⁿ*]^L *márⁿá* or [*gírní* *márⁿá*]^L *géⁿ* ‘big black house’. From texts I can cite a few examples like [*tímè ná:*]^L *gàrá* ‘big tree’, from *tímé* ‘tree, wood’, *ná:* ‘main, principal’, and *gàrá* ‘big’.

6.3.3.2 Adjectival and other intensifiers

Intensifiers are used, often in conjunction with an ordinary adjective (or noun, or verb), to intensify or exaggerate. They may or may not correspond one-to-one to ordinary stems. Compare lexicalized collocations like *brand new* and *dead drunk* in English. Most of the TgK intensifiers are unrelated phonologically to the corresponding ordinary term, or to other

vocabulary, but there are a few exceptions. Many intensifiers are iterated, and many morphologically simple ones show the final prolongation (→). These features are typical of expressive adverbials, and most intensifiers belong to this word class.

In (140), the “normal word” in the middle column is the adjective, noun, or verb that is closest in meaning to the intensifier.

(140) Intensifiers

intensifier	normal word	gloss
a. denoting abundance		
<i>púnówⁿ→</i>	<i>pìré</i>	‘(having) flowers’
<i>túy→</i>	<i>pùrùgⁿ</i>	‘dust’
<i>túy→</i>	<i>jà^L-púrúgú</i>	‘mist, fog’
b. denoting extremity of a quality (derived from a normal word)		
<i>final -i→</i>	<i>dòj-í</i>	‘emaciated’
<i>final reduplication (discussion and more forms in (219) in §8.4.6.1)</i>		
<i>kérélélé</i>	<i>kélú</i>	‘cold’
<i>yágájájá</i>	<i>kágájú</i>	‘coarse, rough’
c. denoting extremity of a quality (noncognate to normal words)		
<i>iterated</i>		
<i>/H/-/H/</i>		
<i>dáy-dáy</i>	<i>máⁿá</i>	‘stocky’
<i>jéy-jéy</i>	<i>bèrù-ðrú</i>	‘green’
“	<i>yérú</i>	‘blue’
<i>jáy-jáy</i>	<i>bò:mó</i>	‘stupid’
<i>kán-kán</i>	<i>mă</i>	‘hard’
<i>pán-pán</i>	<i>tóⁿ-tóⁿ</i>	‘sour’
<i>tén-tén</i>	<i>jó→</i>	‘full (container)’
“	<i>ě:</i>	‘tight (tomtom hide)’
<i>táyⁿ-táyⁿ</i>	<i>dògú</i>	‘heavy’
<i>béré-béré</i>	<i>kàná</i>	‘new’
<i>bódó-bódó</i>	<i>yòrú</i>	‘soft’, ‘supple’
<i>jótó-jótó</i>	<i>ðrú</i>	‘wet’
<i>déré-déré</i>	<i>sí:</i>	‘pointed’
<i>jájá-jájá</i>	<i>nú:</i>	‘hot’
<i>kúdú-kúdú</i>	<i>dègé</i>	‘short, not long (object)’
<i>kédú-kédú</i>	<i>dègé</i>	‘short, not tall (person)’
<i>púgó-púgó</i>	<i>néⁿú</i>	‘lightweight’
<i>sóng-sóng</i>	<i>kúrúgú</i>	‘dense (forest)’
<i>yégé-yégé</i>	<i>dúwó</i>	‘overloaded’
<i>térⁿéwⁿ-térrⁿéwⁿ</i>	<i>ě:</i>	‘tight (rope)’
<i>térⁿéwⁿ-térrⁿéwⁿ</i>	<i>jó→</i>	‘full (container)’
<i>ló:rúy-ló:rúy</i>	<i>ðmú</i>	‘rotten, spoiled’
<i>/LH/-/L/</i>		
<i>séy-séy</i>	<i>súmó</i>	‘cleaned up completely’
<i>lóy-lóy</i>	<i>ká:ⁿ</i>	‘clean-shaven (head)’

<i>tègú-tègù</i>	<i>kíwⁿí</i>	‘shivering’
<i>tègé-tègè</i>	<i>pírí</i>	‘white’
<i>sìlēⁿ-sìlēⁿ</i>	<i>géⁿ</i>	‘black’
/LH/-/LH/		
<i>wàjá-wàjá</i>	<i>téŋ-ì:</i>	‘clear, pure (liquid)’
/H/-/L/		
<i>jóyⁿ-jòyⁿ</i>	<i>báⁿ</i>	‘red’
<i>táy-tày</i>	<i>dògó</i>	‘used up, depleted’
<i>non-iterated</i>		
/H/		
<i>péw</i>	<i>dògó</i>	‘finished’
<i>pén</i>	<i>kòró</i>	‘unripe’
<i>kó:rⁿó</i>	<i>ìⁿ-báyⁿ</i>	‘(newborn) baby’
/LH/		
<i>pèrú</i>	<i>kágárá</i>	‘bitter’ (<i>pèrú</i> = tree <i>Khaya senegalensis</i> , has bitter-tasting medicinal bark)
<i>non-iterated, with final prolongation</i>		
/H/		
<i>kóyⁿ→</i>	<i>márⁿá</i>	‘oversized (teeth)’
<i>kéwⁿ→</i>	<i>ùjú</i>	‘tiny (eyes)’
<i>kéyⁿ→</i>	<i>ùjú</i>	‘tiny (moon)’
<i>pórí→</i>	<i>ɛ:</i>	‘tight (garment)’
<i>sólów→</i>	<i>gúrú</i>	‘long’, ‘tall’
<i>kópnýⁿ→</i>	<i>dòŋó</i>	‘emaciated’
/LH/		
<i>táyⁿ→</i>	<i>élú</i>	‘sweet (sugary)’
“	<i>tóⁿ-tóⁿ</i>	‘salty’
<i>búrí→</i>	<i>márⁿá</i>	‘oversized (eyes)’
<i>yù:rí→</i>	<i>yòrú</i>	‘loose-fitting (garment)’
/L/		
<i>bàⁿ→</i>	<i>òmú</i>	‘rotten (smelling)’

Adverbial *séyⁿ* ‘a lot, very, well’ is related in form to *séⁿ* ‘good’, but now has a wide range of abstract senses.

Adjective *séy-séy* ‘clean’ has the same form as some of the intensifiers in (140c), but it can directly modify a noun: *òjò séy-séy* ‘clean thing’.

See also *léwⁿ* ‘(exactly/just) one’ (§19.4.2).

6.3.3.3 ‘Good to eat’ (*má*)

A morpheme *má* is added to an {L}-toned form of a verb to form a complement to predicative ‘be good’. Segmentally, but not tonally, the combination with *má* is identical to the (singular) hortative form of the verb, since the hortative suffix does not control tone-dropping on the verb stem (§10.6.2.1, below).

In (141b), the topic-like subject (‘meat’, ‘hairdo’) of the higher sentence functions as direct object of the subordinated verb (‘eat’, ‘look at’). There are no further constituents. In (141c), however, the topical NP (‘ax’) is marked as instrumental, and the ‘good to VP’ expression includes a distinct incorporated direct object as compound initial (‘tree’).

- (141) a. *nòwⁿ’* [kùwò^L] má] séⁿ kɔ̄
 meat [eat.meat^L] for] good be.NonhSbj
 ‘Meat is good to eat.’
- b. *[ně* ^{HL}*kúⁿ-mùn]* [gè^L má] séⁿ kɔ̄
 [woman ^{HL}head-braiding] [look^L for] good be.NonhSbj
 ‘The woman’s hairdo is good to look at (=is pretty).’ (*gèri*)
- c. *[gùró bè]* [tìmè-kèjè^L] má] séⁿ kɔ̄
 [ax with] [tree-cut^L for] good be.NonhSbj
 ‘An ax is good for cutting wood with.’

An embedded agent (‘Meat is good for men to eat’) is not possible. A dative PP can be preposed to the entire construction to translate such sequences.

The *má* in the ‘good to eat’ construction is somewhat comparable to the *má* morpheme in nonsubject relative clauses that have the same subject as the main clause (§18.1.3.2). This analysis would make sense if e.g. ‘meat’ in (141a) were treated syntactically as the subject (not the object) of the lower-clause. Since the ‘good to eat’ construction does not allow the expression of specific agents (‘meat is good for us to eat’), there is some hope that a connection can be justified. However, the ‘good to eat’ construction does not have relative-clause form.

6.4 Core NP plus cardinal numeral

6.4.1 Ordinary N-(Adj-)Num sequences

A cardinal numeral follows the core NP, i.e. a noun with or without modifying adjectives. The numeral does not interact tonally with the core NP, except that the lexically /LH/-toned numerals ‘3’ through ‘5’ may omit the final pitch rise and surface with apparent /L/ tones, see §4.6.1.2. I do not consider this to be tonosyntactic as such. Examples with ‘dog’ are in (142). ‘3’ is lexically *tà:nú*.

- (142) a. *ìsí* *tà:nù*
 dog three
 ‘dog’
- b. *[ìsì^L* *márⁿá]* *tà:nù*
 [dog^L] big three
 ‘three big dogs’

Inanimates and human nouns have the same pattern: *gìrⁿí* *tà:nù* ‘three houses’, *ně* *tà:nù* ‘three women’, *púlé:ⁿ* *tà:nù* ‘three Fulbe (people)’.

Cardinal numerals may be followed by determiners, pronominal possessors, or *sâ:ⁿ* ‘all’, triggering an {L}+H overlay.

6.4.2 Adjective-Numeral Inversion

A sequence N-Adj-Num is optionally inverted to N-Num-Adj in the presence of another NP-internal modifier. The modifier in question may be one of the usual reference restrictors that also trigger tonosyntactic operations (possessor, demonstrative, relative clause). It may also be the tonal definite or the universal quantifier *sâ:n* ‘all’. In the presence of any such modifier, the inverted construction is common and is spontaneously produced in elicitation from French cues. However, inversion is not obligatory, and every inverted example has an uninverted counterpart that is at least accepted by informants. In the absence of any such modifier, a plain N-Adj-Num sequence is not inverted; inverted examples are not spontaneously produced and are not readily accepted by informants.

When inversion does occur, its tonosyntactic consequences are masked in cases where the entire sequence is subject to a tone overlay imposed by an external (“higher”) controller. This is the case with relative head NPs, since the relative clause equally tone-drops an N-Adj-Num or an N-Num-Adj sequence (143a-b). The lexical forms of the bracketed stems are *péjú* ‘sheep’, *már:ná* ‘big’, and *kúré:* ‘six’. The numeral is bolded in the interlinears.

- (143) a. [pèjù **màr:nà** kùré:]^L íⁿ ^Hdárⁿ-é
 [sheep big six]^L 1SgSbj ^Hkill-Pfv.Rel
 ‘the six big sheep that I killed (slaughtered).’
- b. [pèjù kùré: **màr:nà**]^L íⁿ ^Hdárⁿ-é
 [sheep six big]^L 1SgSbj ^Hkill-Pfv.Rel
 [= (a)]

A plural demonstrative can likewise tone-drop N-Adj-Num and N-Num-Adj equally (144a-b).

- (144) a. [pèjù **màr:nà** kùré:]^L yó:ⁿ nà
 [sheep big six]^L NearDist Pl
 ‘those six big sheep.’
- b. [pèjù kùré: **màr:nà**]^L yó:ⁿ nà
 [sheep six big]^L NearDist Pl
 [= (a)]

For alternative tonal treatments of such combinations, see (148a-b) below.

Similarly, a preposed possessor controls {HL} on both N-Adj-Num or N-Num-Adj sequence (145a-b), so again the internal tonosyntactic structure of the three-word sequence is masked.

- (145) a. sè:dú ^{HL}[péjú **màr:nà** kùré:]
 Seuydou ^{HL}[sheep big six]
 ‘Seydou’s six big sheep.’
- b. sè:dú ^{HL}[péjú kùré: **màr:nà**]
 Seydou ^{HL}[sheep six big]
 ‘the six big sheep-Sg that I killed (slaughtered).’

However, a postposed possessor like 1Sg *mà* does not control a tone overlay on preceding words other than numeral-final strings. In (146a-b), addition of the final *mà* has no tonal

effects; the noun is tone-dropped by the adjective in (146a). (146c) shows the N-Adj-Num pattern which is required in the absence of an external reference restrictor. When 1Sg possessor *mà* is added to (146c), the output is either the uninverted (146d) or the (preferred) inverted (146e), and these two do not show the same tonosyntactic pattern. In (146d), the N-Adj-Num sequence as a whole shows an {L}+H overlay. This suggests that the presence of an immediately preceding numeral allows the postposed possessor to control a tone overlay on the entire preceding string. In other words, the numeral functions as a tonosyntactic catalyst (§3.7.3.6). By contrast, in the (preferred) inverted version (146e), *mà* has no tonal effect; the adjective controls tone-dropping on the preceding words, but the adjective itself is tonally free.

- (146) a. *pèjù*^L *márⁿá* (*mà*)
sheep^L big (1SgPoss)
'(my) big sheep-Sg'
- b. *péjú* *kúré:* (*mà*)
sheep six (1SgPoss)
'(my) six sheep'
- c. *pèjù*^L *márⁿá* *kúré:*
sheep big six
'six big sheep'
- d. *[pèjù* *màrⁿà* *kùré:]*^{L+H} *mà*
[sheep big six]^{L+H} 1SgPoss
'my six big sheep.'
- e. *[pèjù* *kùré:]*^L *márⁿá* *mà*
[sheep six]^L big 1SgPoss
[= (d)]

A pronominal possessor other than 1Sg usually precedes the possessed NP. However, when the possessed NP is N-Adj-Num, the pronominal possessor optionally follows the string, in a different form including a morpheme *kè*. In this case, inversion is optional (but frequent), the {L}+H overlay applies to uninverted [N Adj Num]^{L+H} (147a), the possessor has no tonal effect on inverted [N Num]^L Adj (147b), and the possessor (elsewhere 1Sg *ú kè*, 1Pl *émé kè*, etc.) is tone-dropped. When the adjective follows the numeral, a lexically /H/-toned adjective usually shows the final L-tone characteristic of the tonal definite (147b). An /LH/-toned adjective does not (147c), but this is arguably for phonological reasons. Examples with *sá:n* 'all' usually lack a tonal definite and bring out more clearly the tonosyntactic interaction between numeral and adjective. (147d) shows inverted N-Num-Adj-'all' and is the preferred ordering. It shows tonosyntactic control by the adjective of the N-Num sequence. Uninverted (147e) with N-Adj-Num-'all' is also acceptable. It shows the {L}+H overlay typical of numeral-final strings.

- (147) a. *[pèjù* *màrⁿà* *kùré:]*^{L+H} ^L*[ù / èmè* *kè]*
[sheep big six]^{L+H} [2SgPoss / 1PlPoss Poss
'your-Sg/our six big sheep.'

- b. [pèjù kùrè:]^L mārⁿà^{+L} / démérè^{+L} ^L[ù / èmè kè]
[sheep six]^L big^{+L}/fat^{+L} ^L[2SgPoss/ 1PlPoss Poss]
‘your/our six big/fat sheep’ (in part repeated from 30a)
- c. [pèjù kùrè:]^L dòjú / sògòrò ^L[ù / èmè kè]
[sheep six]^L heavy/multicolored ^L[2SgPoss/ 1PlPoss Poss]
‘your-Sg/our six heavy/multicolored sheep’
- d. [pèjù kùrè:]^L mārⁿá / dòjú sâ:ⁿ
[sheep six]^L big / heavy all
‘all six big/heavy sheep’
- e. [pèjù mārⁿà / dòjù kùré:]^{L+H} sâ:ⁿ
[sheep big / heavy six]^{L+H} all
[=(d)]

Furthermore, the examples with final plural demonstrative given above as (144a-b) are optionally modified by omitting the plural morpheme *nà* following the demonstrative. In this case, the unpluralized demonstrative is tone-dropped and {L}+H overlay appears on the [N Adj Num]^{L+H} sequence (148a) but not on inverted [N Num]^L Adj (148b). In the latter example, the final L-tone on the adjective, pointing to the tonal definite, follows the pattern seen in (147b).

- (148) a. [pèjù mārⁿà kùré:]^{L+H} ^Lyò:
[sheep big six]^{L+H} ^LNearDist
‘those six big sheep.’
- b. [pèjù kùrè:]^L mārⁿà^{+L} ^Lyò:
[sheep six]^L big ^LNearDist
[= (a)]

The tonal definite (a final L-tone) by itself also requires {L}+H overlay on a numeral-final string. The combination of this {L}+H with the L of the tonal definite itself results in a rather complex {L}+H+L, expressed with a final <HL>-toned syllable (149a). If the adjective is final in the (uninverted) string, the tonal definite merely adds a final L-tone on the adjective (149b).

- (149) a. [pèjù mārⁿà kùré:]^{L+H+L}
[sheep big six]^{L+H+L}
‘the six big sheep.’
- b. [pèjù kùrè:]^L mārⁿà^{+L}
[sheep six]^L big-Def^{+L}
[= (a)]

6.5 Noun plus determiner

6.5.1 Prenominal discourse-definite *kó*

On this construction, see §4.4.1.3.

6.5.2 Postnominal demonstrative pronouns

The demonstrative pronouns, which can be used absolutely as complete NPs (150a) or can follow a noun, core NP, core NP plus numeral, were described in §4.4.1.2.

- (150) *nɔ:* *yɔ:*
 Prox receive.Imprt
 ‘Take this!’

Demonstratives occur in the positional slot following that of cardinal numerals. A demonstrative may follow a core NP (noun, or noun plus adjective) plus any numeral. When a demonstrative follows a core NP, the noun and any adjective are tone-dropped (151a-b). In the combination N-Adj-Dem, an alternative is to keep the lexical tone on the adjective, except that an /H/-toned adjective ('big') shows a final L-tone (likely the tonal definite), and drop the tone of the demonstrative (151c). A /LH/-toned adjective ('heavy') does not show the final L-tone, but a final L-tone element (as in */dògù^{+L}/*) might have been absorbed by the following L-toned demonstrative.

- (151) a. *bà:gà^L* *nɔ:*
 stick^L Prox
 ‘this stick’ (*bá:gá*)
- b. *[bà:gà mārⁿà / dògù]^L* *nɔ:*
 [stick big / heavy]^L Prox
 ‘this big/heavy stick’ (*bà:gà^L mārⁿá, bà:gà^L dògú*)
- c. *[bà:gà mārⁿà^{+L} / dògú]^L* *nɔ:*
 [stick big^{+L} / heavy]^L Prox
 (=b)

When demonstrative *nɔ:* ‘this’ or *yɔ:* ‘that’ follows a string ending in a numeral, the constructional {L}+H overlay (§3.7.3.5) is usually applied to that string, in which case the demonstrative itself undergoes Postnominal-Determine Tone-Lowering (*^Lnɔ:, ^Lyɔ:*).

- (152) a. *kùré:^{L+H}* *^Lnɔ:*
 six^{L+H} ^LProx
 ‘these six sticks’ (*kúré:*)
- b. *[bà:gà kùré:^{L+H}]^L* *^Lnɔ:*
 [stick six]^{L+H} ^LProx
 ‘these six sticks’ (*bá:gá kúré:*)

- c. [bà:gà mārⁿà kùré:]^{L+H} ^Lnò:
 [stick big six]^{L+H} ^LProx
 ‘these six big sticks’ (bà:gà^L mārⁿá kúré:)
- d. [sɔ: lɔy]^{L+H} ^Lyɔ:
 [thing two]^{L+H} ^LNearDist
 ‘those two things (=techniques)’ (2011.1a.21) (sɔ: lɔy)

Forms of other numerals in this {L}+H overlay include *tùrú*^{L+H} ‘1’, *sɔ:*^{L+H} ‘7’, *silá:*^{L+H} ‘8’, *tèmdèré*^{L+H} ‘100’, and *mùnú*^{L+H} ‘1000’, all of which can be substituted for *kùré:*^{L+H} in (152a-c) and for *lɔy*^{L+H} in (152d).

The tonal definite also triggers the {L}+H overlay; see (56d) in §4.4.1.1.

I have one textual example where the {L}+H overlay fails to apply, and we get [N Num]^L Dem. The preceding *kó kà:*ⁿ ‘it too’, perhaps treated as a possessor, may have influenced this output.

- (153) *háyè* *gàmá* [kó] *kà:*ⁿ
 well some [Nonh too]
 [[nàpè lɔy]^L yɔ:] kó=n yɔ kò
 [[use two]^L NearDist] Nonh=Dat Exist be.NonhSbj
 ‘Well, sometimes, that too (=cow-peas), those two uses (just described) exist for them (cow-peas).’ (2011.1a.30)

An alternative analysis, likely correct historically but debatable synchronically, is that the L-toned final demonstratives in (152a-d) reflect an (otherwise inaudible) tonal definite attached after the numeral, and that the tonal definite is absent in (153).

6.6 Universal and distributive quantifiers

6.6.1 ‘All’ (*sâ:*ⁿ, *fú→*)

As in many Dogon languages, there are multiple options for the universal quantifier ‘all’. The two main forms in TgK are *sâ:*ⁿ and *fú→*, which are added to mass nouns (154a), to quantifiable nouns with plural reference (154b), to NPs ending in a numeral (154c), and to NPs containing a determiner (154d). *sâ:*ⁿ is more common and stylistically neutral, while *fú→*, which can be prolonged intonationally, is more emphatic.

- (154) a. nòwⁿ sâ:ⁿ
 nòwⁿ fú→
 meat all
 ‘all (of) the meat’
- b. [ně bè] sâ:ⁿ
 [ně bè] fú→
 [woman Pl] all
 ‘all (of) the women’

- c. [pèjù *kùré:*^{L+H} *sâ:n*
 [pèjù *kùré:*^{L+H} *fú→*
 [sheep six]^{L+H} all
 ‘all six sheep’
- d. [gìr'í *kùré:*^{L+H} ^L*yɔ:* *sâ:n*
 [gìr'í *kùré:*^{L+H} ^L*yɔ:* *fú→*
 [house six]^{L+H} ^LDistSg all
 ‘all six of these houses’

Two tonosyntactic issues arise in (154). In (154c), the N-Num string gets the {L}+H overlay; see also (644c-d) in §18.1.3.1. This suggests that the ‘all’ quantifier has the same latent tonosyntactic control power as determiners and postnominal possessors, and that the latest power is activated by the numeral as catalyst. Alternatively, we could posit an otherwise inaudible tonal definite attached to the numeral, in which case the ‘all’ quantifier has nothing to do with the {L}+H overlay.

In (154d), the demonstrative (elsewhere H-toned *yɔ:*; §4.4.1.2) has dropped its tones in tandem with the {L}+H overlay on the preceding numeral, as it would without the final ‘all’ quantifier. Again, one might alternatively posit a tonal definite attached to the numeral and argue that this triggers tone-lowering of the demonstrative.

With plural pronouns (1Pl *émé*, 2Pl *é*, 3Pl *bé*), both *fú→* and *sâ:n* are again possible. However, the common ‘all’ form for pronouns is *wò→* (for whose other functions see §6.6.3). When *fú→* is used with a pronoun, it follows *wò* (not prolonged), showing that *fú→* is really an intensifying adverbial. However, the more prosaic *sâ:n* can be added directly to the pronoun.

- (155) a. *émé* *wò→*
 1Pl all/each
 ‘all of us’
- b. *émé* *wò* *fú→*
 1Pl all all
 [=(a), emphatic]
- c. *émé* *sâ:n*
 1Pl all
 [=(a)]

If the plural pronoun is quantified by a cardinal numeral, the pronoun functions as possessor of the numeral, as in English *all three of us*. The numeral therefore appears with {HL} or {H} possessed-noun overlay.

- (156) *[bé* ^{HL}*tá:nù]* *sâ:n*
 [bé ^{HL}*tá:nù]* *fú→*
 [3PlPoss ^{HL}three] all
 ‘all three (of them)’

6.6.2 ‘All’ (^L*dàyⁿ*)

L-toned ^L*dàyⁿ* ‘all’ occurs at the end of a NP. This is a special use of the noun *dàyⁿ* ‘outer limit’, hence ‘maximum’. The tones suggest that ^L*dàyⁿ* was originally a possessum in this construction, presumably back when {L} was a viable possessor-controlled overlay.

- (157) [jù:^L ógú ^L*dàyⁿ*] sàjú ^L*jògò-jù*,
 [millet^L fast ^Llimit] bird ^Lpeck-Ipfv
 ‘On the other hand, birds will peck (=eat) fast all the (=early) millet.’ (2011.1a.07)

The various ‘all’ quantifiers frequently co-occur. *dàyⁿ* is followed by *sâ:n* ‘all’ in (158). The co-occurrence is evidence that there isn’t much difference in meaning.

- (158) *jù:^L-tě:* *kún-è:-sêⁿ* *dè*,
 millet^L-big.heap put-Pfv-PlSbj if,
 [[wòrù^L ú *sá* ^L*dàyⁿ* *sâ:n*]
 [[field^L 2SgSbj have ^Llimit all]
kólóm-è:ⁿ *géré-sêⁿ* *dè*
 go.around-and.SS harvest-Pfv.PlSbj if
 ‘When (you) had made the big heap, you-Sg would go around all of the fields that you had and cut off the grain spikes.’ (2011.1a.09)

As an NP-final L-toned element, ^L*dàyⁿ* is well-suited to occur as a terminal element in relative clauses (§14.1.13) and in conjunctions (§7.1.4).

6.6.3 ‘Each, every, all’ (*wò→*)

The distributive quantifier *wò→* is L-toned. It follows a noun (or core NP) in the latter’s usual tonal form: *nă wò→* ‘each person’, *gírⁿí wò→* ‘each house’. It is used in classic distributive contexts like (159a), where individuals from one set are paired with a quantity from another set. In other cases, like (159b), there is no sharp semantic distinction between distributive ‘each’ and universal ‘all’.

- (159) a. [árⁿá *wò→*] *jú:* [sà:gù^L túnⁿ] ^L*bér-è*
 [man each] millet [sack^L one] ^Lget-Pfv
 ‘Each man received one sack of millet.’
- b. *gámúrⁿú* [nă *wò→* kùⁿ] *tàŋà-lí*
 distribution [person each on] pass-PfvNeg
 ‘The distribution didn’t get to each (=all) of them.’

wò→ has a more partitive sense in (160), since it is attached to a pronoun denoting the entire set.

- (160) [émé *wò→*] [sà:gù^L túnⁿ-túnⁿ] ^L*bè-jù*
 [1Pl each] [sack^L one-one] ^Lget-Ipfv
 ‘Each of us will get one sack.’

Further examples are in (161). In (161b) the complement of ‘each’ contains a nonsingular numeral.

- (161) a. *[gìrⁿI^L-dú túrú wò→]=ñ*
 [household one each]=Dat
 [nù:^L-sá:gú túrú-túrú] L ò-jù
 [millet^L-sack one-one] L give-Ipfv
 ‘(We) will give one sack of millet to each household.’
- b. *[gìrⁿI^L-dú lóy wò→]=ñ*
 [household two each]=Dat
 [sá:gú túrú] L ò-jù
 [millet-sack one-one] L give-Ipfv
 ‘(We) will give one sack of millet to each two households.’

wò→ also has other functions. It can sometimes be translated as adverbial ‘together’ (§18.3.2).

6.6.4 ‘Any’ (*pɔ̄n*)

The adjective *pɔ̄n* controls tone-dropping on a preceding noun. It is most common in negative and irrealis contexts, where it can be translated as ‘(not) any’. Typical combinations include *nà^L pɔ̄n* ‘(not) any person, no-one’, *òjò^L pɔ̄n* ‘(not) any thing, nothing’, and *nà^L pɔ̄n* ‘(not) any place, nowhere’, but *pɔ̄n* can be added to any countable common noun.

- (162) a. *[nà^L pɔ̄n] [[tògù^L ná:] kàⁿ] kɔ:-rɔ́*
 [person^L any] [[shelter^L main] in.front] be.NonhSbj-Neg
 ‘There is no-one in front of the main palaver shelter.’
- b. *[[bìrè pèrè]^L pɔ̄n] kɔ:-rɔ́*
 [[work(n) other]^L any] be.NonhSbj-Neg
 ‘There is no other work.’ (2011.1a.04)

pɔ̄n is not the common ‘all’ quantifier in positive clauses, but it does occur occasionally in texts (163).

- (163) *hé:-hà:-hé: [nà^L pɔ̄n] bé pó-jù^{+L}*
 [person^L all] 3Pl|Sbj say-Ipfv.Rel^{+L}
 ‘he-ha-he, all the people said (=made a hubbub).’ (2011.1b.01)

6.6.5 Universal and distributive quantifiers with negation

In (164), it is implied that some of the people did come. That is, the negation has wide scope, including the quantifier. Schematically it is [not [$\forall x$ [x came]]].

- (164) *[nă sâ:ⁿ] yè-lâ:*
 [person all] come-PfvNeg.PlSbj
 ‘Not all of the people came.’

To reverse the scope relationship, a form of the NP directly incorporating (emphatic) negation is used, compare English *nobody*.

- (165) [nà^L pə̂n] yè-lâ:
[person^L not.any] come-PfvNeg.Plsbj
'None of the people came.'

Similar negative NPs include ɔjɔ^L pə̂n 'nothing' and nà^L pə̂n 'nowhere'.

6.7 Accusative absent (except for 1Sg object)

There is no accusative marker for nouns functioning as direct objects. 'Dog' and 'woman' are not case-marked in (166).

- (166) a. fⁿ [iši^L yó:] lág-ɛ
1SgSbj [dog^L NearDist] hit-PerfSg
'I hit (=struck) that dog (over there).'
- b. fⁿ nê ɔ-ɛ
1SgSbj woman see-PerfSg
'I saw the woman.'

The 1Sg pronoun has two stems, *fⁿ* in subject and prenominal possessor functions, otherwise *má* with some allomorphic variation depending on the precise function (postnominal possessor *mà*, focus form *mí-*, *má* before postpositions). *má* without a postposition functions, for practical purposes, as an accusative form for this pronoun, as in (41b) and (189a). Other pronominal categories have no special accusatives (§4.3.1).

7 Coordination

7.1 NP coordination

7.1.1 NP conjunction ('X and Y) by final dying-quail intonation (.:)

The dying-quail intonational effect, consisting of variable prolongation of the final syllable combined with pitch fall (audible when the word in question ends in a high tone), is expressed by symbol .., with ".&" in interlinear glosses. In TgK the prolongation is usually briefer than its counterpart in Jamsay. The intonational effect may apply to both conjuncts, or it may be limited to the first conjunct.

- (167) a. ú.: mí.:
2Sg.& 1Sg.&
'you-Sg and I' (ú, mí)
- b. [àrⁿá bè.:] [nɛ bè]
[man Pl.&] [woman Pl(.&)]
'men and women' (Pl bè)
- c. wó [nú.: èmé.:] ní-yⁿ
3SgSbj [millet.& sorghum.&] eat.meal-Pfv
'He/She ate the millet and sorghum'
- d. àrⁿá.: [wó ^Hné.:]
man.& [3SgPoss ^Hwoman.&]
'a man_x and his_x wife' (2011.1b.05)

In (167d), 'man' does not bind a reflexive possessor in 'his wife', so the coindexation is not explicitly marked (§18.4).

Plural conjuncts ending in plural bè usually show little or no audible dying-quail effect, at least in common phrases like [nɛ bè] [àrⁿá bè] 'women and men'. This combination is sometimes difficult to distinguish from the [X bè] [Y bè] conjunction construction (§7.1.3).

For the occasional use of dying-quail intonation to conjoin two (backgrounded) clauses, see §15.2.2.4.

7.1.2 kùⁿ.: in NP conjunctions

One or more of the NPs in a conjunction may be followed by kùⁿ.:, heard as a protracted [kû:(ⁿ)] or low-pitched [kù:(ⁿ)], instead of adding .. directly to the NP conjunct. This is a stylistic device, used especially in long lists with an incantational flavor.

- (168) a. *péjú* *kùⁿ:. , nàjá* *kùⁿ:. , èrⁿé* *kùⁿ:. ,*
sheep and.&, cow and.&, goat and.&,
[*sâ:ⁿ* *fú→]* *jé-è:-sèⁿ*
[all all] bring-Pfv.PlSbj
‘They brought the sheep, the cows, the goats—everything.’
- b. *gérⁿi* [*wó* ^L*kè],* *sérⁿèndé* *kùⁿ:. , kárábáráⁿ:. ,*
baggage [3SgPoss ^LPoss], jewel and.&, calabash.box.&
[*kó* *wò* *pú→]* *yê* ^L*dàg-è*
[Nonh all all] there.Def ^Lleave-Pfv
‘(They) had left her baggage, (such as) the jewel and the calabash box.’
(2011.1b.03, excerpt from a longer list of things left)

7.1.3 Serial NP conjunction of type *[X bè] [Y bè]*

A construction with parallel final *bè* (arguably related to plural *bè*, but cf. also instrumental *bè*) is also found in conjunctions. In (169a) the conjoined NPs define the beginning and ending points of a time range. In English we would just say *fifteen or twenty days after ...*, but the Togo Kan construction emphasizes the existence of the two possibilities. (169b) is a more typical example involving a potentially open-ended list of entities (here, activities) that exist or are possible. Intonational prolongation (→) is typical but not required.

- (169) a. *[nú: né:]* [[[*nìjìrⁿi* [*pérè:* *[nú:né: ságà]]]] *bè*],
[millet now] [[[[day [ten [five plus]]]] and],
[[*nìjìrⁿi* *pé-lóy*] *bè]]* *dō-è* *dè*
[[day ten-two] and]]] arrive-Pfv if
‘When the millet reaches (somewhere) between fifteen and twenty days (after sprouting), ...’ (2011.1a.03)*
- b. *[nùnjù-bárⁿá bínì],*
[dry.season in]
gìrⁿi^L-[tár-ú] *bè→,*
house^L-[replacer-VblN] and,
gò:^L-[ùj-ú] *bè→,*
granary^L-[build-VblN] and,
háyè *gìrⁿi^L-[ùj-ú]* *bè→,*
well house^L-[build.VblN] and,
sò: *[tògú* *déyⁿ-déyⁿ-déyⁿ]*
thing [kind apart-apart-apart]
‘In the dry season, there is replastering walls, and there is building granaries, and there is building houses, many different kinds of things (=activities).’
(2011.1a.33)

7.1.4 ^L*dàyⁿ* ‘limit’ in conjunctions

^L*dàyⁿ*, an L-toned form of *dàyⁿ* ‘(outer) boundary, limit’, can be added after the final conjunct. It has something of the flavor of English *along with* or *as well as* as an alternative to *and*. For ^L*dàyⁿ* in the sense ‘all’ see §6.6.2 above.

- (170) [pɔŋɔ̄.: [gù-gùrù^L síg-é] ^Ldàyⁿ]
 [fonio.& [Rdp-grass^L remain-Pfv] ^Llimit]
 [kó yě-ɛ: sǎⁿ gòjó-jú]
 [NonS go-and.SS ReflObj distinguish-Ipfv]
 ‘The fonio (a grain crop) as well as the weeds that remain have gone and become
 distinguishable.’ (2011.1a.24)

7.2 Disjunction

7.2.1 ‘Or’ (*mà→*) as disjunctive particle with NPs

As generally in Dogon languages (and other languages in the region), there is no clear difference between the disjunction ‘or’ and the polar interrogative morpheme, which requires a choice between positive and negative assertions. In TgK, both the disjunction and the interrogative have the form *mà→*, frequently with intonational prolongation.

In a disjunction, both coordinands are overt, and both are followed by the ‘or’ morpheme.

- (171) [láyé bè] [péjú mà→] [èrⁿé mà→] dárⁿá
 [Feast.of.Ram with] [sheep or] [goat or] kill.Imprt
 ‘At the Feast of the Ram, slaughter-2Sg (either) a sheep or a goat!’

7.2.2 Clause-level disjunction

It is possible to use the disjunction with clauses, though it is difficult to construct contexts where the interrogative reading of *mà→* is ruled out.

- (172) [*I*ⁿ bàmkó yá:-jú mà→]
 [1SgSbj B go-Ipfv or]
 [*nî* sígé-jú mà→]
 [here stay-Ipfv or]
 dòŋðrⁿò mó:tì yá:-rò
 on.other.hand M go-IpfvNeg
 ‘Either I will go to Bamako or (I will) stay here, on the other hand I won’t go to
 Mopti.’

As expected, it was not possible to elicit a disjunction of two imperatives. The cue ‘work, or leave!’ was rendered as (173), with only an implied disjunction.

- (173) [bíré bǐ-jí dè bíré,
 [work(n) do-Ipfv if] work.Imprt,
 [bǐ:-rò dè yá:]
 [work-IpfvNeg if] go.Imprt
 ‘If (you) are going to work, (then) work! If (you) are not going to work, go!’

8 Postpositions and adverbials

Postpositions include dedicated morphemes used only as postpositions, with L-toned *CV* shapes (*nì*, *bè*), and a number of noun-like postpositions with /HL/ tones, in most cases still transparently relatable to nouns that have /H/ or /LH/ melody.

I have found a few tonal locatives in the form of {HL}-toned nouns, but the pattern is not productive (§8.2.1). In effect, the pattern is largely limited to spatial postpositions themselves.

Dative, instrumental, and (basic) locative postpositions are distinct forms.

8.1 Dative and instrumental

8.1.1 Dative (*nì*, *=n̄*)

Dative postposition *nì* is often reduced to a cliticized *=n̄* after a noun ending in a vowel. The irregular 1Sg dative is *má nì* or cliticized *má=n̄*. There are no other morphological irregularities.

A homophonous clitic *=n̄* is occasionally found in clause-initial pronouns in topic-switching function. The 1Sg form for that clitic is *I^{n̄}=n̄* (§19.1.8), showing that the two clitics are distinct.

The dative is standard for the indirect object of ‘give’, ‘show’, and ‘say’, see (298-9) in §11.1.1.2 for examples. The dative can also be used for a range of other indirect objects and beneficiaries.

- (174) a. *X [Y nì] sàgú kún-i*
X [Y Dat] trust(n) put.Pfv-3SgSbj
'X entrusted (something) to Y.'
- b. *àr^{n̄}ú má=n̄ sé^{n̄} kò*
rain 1Sg=Dat good NonhSbj
'Rain is good for me (e.g. as a farmer).'
or: 'Rain pleases me.'

8.1.2 Instrumental-comitative (*bè*)

The postposition *bè* has instrumental sense ('by means of, using'), and can also be used (e.g. with human complement) in comitative sense. A common combination is *pànjá bè* 'by (means of) force'. For *ijé bè* 'by means of what?', i.e. 'how?', see §13.2.3. Examples involving instruments are in (175a-c). In (175d), a transporting vehicle is treated as an instrument. The 1Sg form is *má bè* 'with me', in comitative sense (175e).

- (175) a. *I^{n̄} nòw^{n̄} [sí:né bè] ^Lkèj-è*
1SgSbj meat [knife with] ^Lcut-Pfv
'I cut-Past (the) meat with a knife.'

- b. *bé dá:gól [sómúrⁿú bè] ^Lsèm-è*
 3PlSbj courtyard [broom with] ^Lsweep-Pfv
 ‘They swept the courtyard with a broom.’
- c. *fⁿ pú: [k᷑n bè] ^Lwàr-è*
 1SgSbj millet [daba with] ^Ldo.farm.work-Pfv
 ‘I farmed millet using a daba (=hoe).’
- d. *wó bàmàkó [ká:rú bè] ^Lyè-y*
 3SgSbj B [bus with] ^Lgo-Pfv
 ‘He/She went to Bamako with (=in) the bus.’
- e. *ú [[má bè] àjírí á:] bě-jú*
 2SgSbj [[1Sg with] wrestling catch] get-Ipfv
 ‘Can you-Sg wrestle with me?’

Homophones of postposition *bè* are the plural particle *bè* in NPs (§4.1.1) and the conjunction particle *bè* which follows both/all conjoined NPs (§7.1.3).

1Sg possessor *mà* (following the possessum) raises its tone in instrumental or comitative [*X mà*] *bè* ‘with my X’, but not before plural *bè*, where we get *X mà bè* ‘my Xs’. Thus [*pě má*] *bè* ‘with my wife’ versus *pě mà bè* ‘my wives’.

8.2 Locational postpositions

8.2.1 Tonal locatives

There is no locative form expressed solely by a tonal change for e.g. unpossessed ‘house/home’ (*gírní*), ‘field’ (*wòrú*), ‘well’ (*òtè:*) or ‘village’ (*àná*). These nouns have rising tone melodies, with an H- or <LH>-toned final syllable. They are common complements of motion verbs like ‘go’, with no further morphology, and take regular postpositions like *bínì* ‘in, inside’ in other constructions.

By contrast, *éwé* ‘market’, *dá:rá* ‘area outside (a home)’, *gírní-ká* ‘doorway’ (“house-mouth”), *tògù ná* ‘main palaver shelter’, *géne* ‘height’, and the possessed nouns *X^Háná* ‘X’s village’, *X^Hgáná* ‘X’s country’, and *X^Hgírní* ‘X’s house’ do have a tonal locative somewhat like that in Jamsay. A local L-tone is added to the right edge, leaving the tones of previous syllables unaffected. This is best seen in transparent compounds like ‘doorway’, and in noun-adjective combinations like ‘main palaver shelter’. Superscripted ^{+L} indicates addition of a local L-tone at the right edge (176a-b), in some cases (176c-d) on top of a possessor-controlled {H} overlay.

- (176) a. *fⁿ éwé^{+L} yǎ:jú*
 1SgSbj market.**Loc^{+L}** go-Ipfv
 ‘I am going to (the) market.’
- b. *wó móto gírní^L-kâ^{n+L} ^Ligì-rì*
 3SgSbj motorcycle house^L-mouth.**Loc^{+L}** ^Lstop-Tr.Pfv
 ‘He/She stopped the motorcycle in front of the house.’

- c. *wó* [émé ^Hánà^{+L}] ^Lyè-y
 3SgSbj [1PIPoss ^Hvillage.**Loc^{+L}**] ^Lgo-Pfv
 ‘He/She went to our village.’
- d. *wó* [săⁿ ^Hgírní^{+L}] ^Lyè-y
 3SgSbj [ReflPoss ^Hhouse.**Loc^{+L}**] ^Lgo-Pfv
 ‘He/She went home.’

The form of *gírní^L-kâⁿ^{+L}* in (176b) is different from that of e.g. *tùwó kâⁿ* ‘at the edge of the rock (=mountain)’. The {L} overlay shows that *gírní^L* - is a compound initial, so *gírní^L-kâⁿ^{+L}* must be the tonal locative of the compound *gírní^L-kâⁿ*. By contrast, the lexical tone of *tùwó* is heard in *tùwó kâⁿ*, so this has to be analysed as postposition *kâⁿ* ‘at the mouth of’ following the noun *tùwó*.

The adjective *túnó* ‘one’ (§4.6.1.1) has a tonal locative in the combination *nâ^L túnó^{+L}* ‘in one place, in a single (=the same) place’.

A difficulty in parsing texts in TgK, unlike Jamsay, is that the same local addition of an L-tone at the end of a noun (or NP) can also mark definiteness (§4.4.1.1). There is also a similar final tone (or pitch) drop on one type of topical NP, §19.1.1. These are probably all cases where an original L-toned morpheme *Cv̄ has been segmentally deleted, leaving behind a floating tone that has docked on the noun. In certain textual occurrences, it is difficult or impossible to determine whether location or definiteness is marked. I identify tonal locatives by the general context, including the absence of mentions of the referent in the immediately preceding discourse (so it can’t be construed as discourse-definite), and by the absence of a spatiotemporal postposition that would have been used with other nouns that lack a tonal locative.

- (177) a. *wó bă:ri* [yè^L nâ:^{+L}]
 3SgSbj go.around [woman^L old.Def^{+L}]
[èné ^Hgírní^{+L}] ^Lyéré pám-é: ^Lwà
 [LogoPoss ^Hhouse.**Loc^{+L}**] come lie.low-MP.Imprt Quot
 ‘(She said to him:) (Just) circle around and come and stay out of sight at my, (i.e.)
 at the old woman’s, house!’ (2011.1b.01)
- b. *[àná* ^Hná sâ:ⁿ] è:ⁿ^L-[tè-té:]
 [village ^Hperson all] soda.ash-[filtering.pot]
[tògù^L ^Hnâ:^{+L}] ^Lmɔ:-nó ^Lwà
 [shelter^L main.**Loc^{+L}**] gather-Caus.Imprt Quot
 ‘(He) said: “all people of the village, gather the soda-ash filtering pots in the main
 palaver shelter!” ’ (2011.1b.01)
- c. *[èné* [nă ^Hgíyé^{+L}] nó-nó:rⁿó yé sò dè]
 [LogoSbj [person ^Hbody.**Loc^{+L}**] Rdp-scar Exist be.on if]
[[[kó ^Lbànjà] ^Hgírní^{+L}] ^Lwà
 [[[Def ^Lowner] ^Hhouse.**Loc^{+L}**]
èné ègé yă:-rò] ^Lwà
 LogoSbj husband go-IpfvNeg] Quot
 ‘(She) said: “if there are any scars in (=on) a person’s (=man’s) body, I won’t go
 to the fellow’s house in marriage (=I won’t marry him).” ’ (2011.1b.02)

8.2.2 ‘In, on’ (basic locative) (*bîn* ~ *bíni*)

The common locative postposition is *bîn* ~ *bíni* ‘in, inside’, following a noun or pronoun denoting an enclosing container or area (waterjar, house, field). It is related to the noun *bîní* ~ *bîn* ‘belly’.

- (178) a. *wó* [gîrⁿí *bîn*] *yé* ^L*ùmò*
 3SgSbj [house in] Exist ^Llie.down.Stat
 ‘He/She is lying down in the house.’
- b. *iⁿ* *dí:* [děⁿ *bîn*] *kún-ì*
 1SgSbj water [waterjar in] put-Pfv
 ‘I put (=poured) the water in the waterjar.’
- c. *bé* [[[săⁿ *bè*] ^H*wórú*] *bîn*]
 3PlSbj [[[ReflPoss Pl] field] in]
wárú *wá-téjè*
 farming do.farm.work-Prog.PlSbj
 ‘They do farm work in their field.’

As with all locationals, allative or ablative directionality is expressed by an accompanying directional verb like ‘go out’ or ‘go in’. However, ‘go to X’ is expressed with no postposition on X (even in cases like ‘house’), since X functions here as a destination rather than as an enclosing space (179d).

- (179) a. *wó* [gîrⁿí *bîn*] *nú-yⁿ*
 3SgSbj [house in] go.in-Pfv
 ‘He/She went into the house.’
- b. *wó* [àná *bîn*] ^L*gò-è*
 3SgSbj [village in] ^Lgo.out-Pfv
 ‘He/She went out of (=left) the village.’
- c. *wó* [*dí:* *bîn*] *bágá* ^L*nù-yⁿ*
 3SgSbj [water in] fall ^Lgo.in-Pfv
 ‘He/She fell into the water.’
- d. *wó* *gîrⁿí* ^L*yè-ỳ*
 3SgSbj house ^Lgo-Pfv
 ‘He/She went home.’

bîn can be used with certain temporal expressions, though they are most often uttered without a postposition since their function in the clause is usually obvious. *bîn* is optional in (180a), but would sound awkward in (180b-c).

- (180) a. *émé* [*dà:gá* (*bîn*)] *dàná* *dàná-jú*
 1PlSbj [night (in)] hunt(n) hunt-Ipfv
 ‘We will go on a hunt at night.’

- b. *bé* *èwè^L-níjír^{ní}* *^Lyè-jì*
 3PlSbj market^L-day ^Lcome-Ipfv
 ‘They will come (on) market day.’
- c. *nùgù^L-bár^{ná}* *émé* *[sáⁿ* *bè]* *dék:rⁿé-mí-jí*
 dry.season 1PlSbj [ReflObj Pl] rest-Caus-Ipfv
 ‘In the dry season, we rest (ourselves)’.

Likewise, an overt locative adposition is not used with place names.

- (181) *iⁿ* *kòmpéⁿ* *wɔ̄*
 1SgSbj Koporo-Pen be.HumSgSbj
 ‘I am in Koporo-Pen (village).’

8.2.3 ‘On X’ and ‘over X’ (*kûⁿ*)

The postposition *kûⁿ* ‘on’ or ‘over’ is related to the noun *kúⁿ* ‘head’. The 1Sg form is *kúⁿ mà*, identical to ‘my head’.

The postposition can indicate position on a supporting surface (‘on X’), including vertical surfaces where appropriate (a lizard or insect clinging to a wall). This postposition often co-occurs with verbs that add nuances to the topography, such as *nàŋà* ‘be up on (a horizontal surface)’, *wàwà* ‘be lying on one’s belly (on a horizontal or vertical surface)’, and their transitive counterparts (182a-c). The senses ‘on (a surface)’ and ‘on the head of (a person)’ may converge in cases like (182d), where ‘on me’ is normally understood to mean ‘on my head’, but ‘on me’ can also be used when the stone fell on some other part of the body (e.g. while the referent was lying down). The semantic extension to an abstract burden in (182e) is unsurprising.

- (182) a. *kùⁿ^L-kúwó* *[tà:bál* *kûⁿ]* *^Lnàŋà*
 hat [table on] ^Lbe.up.on.Stat
 ‘The hat is on the table.’
- b. *kè:ŋú* *[gó:* *kûⁿ]* *^Lwàwà*
 agama [wall on] ^Llie.on.belly.Stat
 ‘The agama lizard is on (the vertical surface of) the wall.’
- c. *iⁿ* *bàràdá* *[n:é: kûⁿ]* *ná:n-ì*
 1SgSbj tea.kettle [fire on] put.up.on-Pfv
 ‘I put-Past the tea kettle (up) on the fire (=on the burner).’
- d. *tùwó* *[kúⁿ* *mà]* *bág-è*
 stone [on 1Sg] fall-Pfv
 ‘The stone fell on me.’
- e. *[gírⁿí* ^H*dúwó]* *[ú* *kûⁿ]* *^Lnàŋà*
 [house ^Hload] [2Sg on] ^Lbe.up.on.Stat
 ‘The burden of (financial responsibility for) the household is on you-Sg.’

The postposition is also used in the sense ‘over, above’, indicating a vertical relationship to a reference object over an intervening space.

- (183) a. *sàjú* [àná *kûⁿ*] *kír-é:-táŋà*
 bird [village over] fly-MP-Prog
 ‘The bird is flying over the village.’
- b. *sùŋú* [*lògó* *kûⁿ*] *bàjá* *tánú-gá*
 rope [mud over] pull pass-Caus.Imprt
 ‘Stretch-2Sg out the rope above the mud!’

Finally, *kûⁿ* can mean ‘about, on the subject of X’, with reference to speech or thought.

- (184) [é *né:*] [*lě* *kûⁿ*] *pèré*
 [2Pl now] [slashing on] otherwise
 [[*sò:* *pèrè*]^L *tíŋé* é [*bè-jù*]^L *y᷑* *kò* *mà*]
 [[thing other]^L speak 2PlSbj [*get.Ipfv.Rel*]] Exist be.NonhSbj Q
 ‘You-Pl now, concerning planting, is there additionally another topic that you-Pl can talk (about), aside from all those things (already said)?’ (2011.1a.01)

8.2.4 ‘At the edge of X’ (*kâⁿ*)

The noun *kâⁿ* ‘mouth’ (also ‘rim’ e.g. of a waterjar, well, etc.) corresponds to postposition *kâⁿ* ‘at the edge of’. Typical complements are ‘mountain’, ‘water (pond)’, ‘well’, and ‘village’.

- (185) a. *émé* [*tùwó* *kâⁿ*] *y᷑-Ø* *dè*,
 1PlSbj [rock at.edge.of] go-Pfv if,
 [*sǎⁿ* *bè*]^L [*dè:rⁿ᷑-mì-jù*]^L
 [ReflObj Pl] rest-Caus-Ipfv
 ‘We’ll go to the edge of the mountain, then we’ll rest.’
- b. *dí:* *kâⁿ*
 water at.edge.of
 ‘at the edge of the water (pond, etc.)’

8.2.5 ‘On top of X’ (*árà*)

This postposition means ‘on top of X, on the highest part of X’. The reference object is something of considerable height that requires climbing or mounting: roof, tree, donkey, cart. The related noun *árá* occurs in the adverbial phrase *árá kûⁿ* ‘up on top’, ‘up above’.

- (186) a. *íⁿ* [*kùmòrú* *árà*] *dòwó-jú*
 1SgSbj [roof on.top.of] go.up-Ipfv
 ‘I will go up on (top of) the roof.’
- b. [*gérⁿí:* *íⁿ* [*kè*]] [*wògòtóró* *árà*] *ná:ná*
 [gear [1SgPoss Poss]] [cart on.top.of] put.up.on.Imprt
 ‘Put-2Sg my baggage up on the cart!'

8.2.6 ‘Beside X’ (*bé:-gèrè*)

One postposition meaning ‘beside, next to’ is *bé:-gèrè*. It indicates proximity, normally on a horizontal plane. The 1Sg form is *bè:^L-gèrè mà* ‘next to me’. The postposition is related to the noun *bè:^L-gèrè* ‘side, flank’, also ‘zone, vicinity’. *bè:-gèrè* can also be used adverbially in the sense ‘at/to the side’ with unspecified reference object.

- (187) a. *Iⁿ* [wògòtóró] *bé:-gèrè* *wò*
1SgSbj [cart **beside**] be.Hum
'I am next to the cart.'
- b. *túnjúrⁿú* [*děⁿ*] *bé:-gèrè* *bé:*
stool [waterjar **beside**] put.Imprt
'Put-2Sg the stool next to the waterjar!'

Cf. noun *bèrè-gèrè* ‘side of body (at ribs), flank’.

8.2.7 ‘Beside X’ (*bûⁿ*)

Another ‘beside X’ expression is *[X bûⁿ]*. X denotes one or more persons or objects (e.g. a tree) that define a space that another entity can be in. The 2Sg combination is *ú bûⁿ*, while 1Sg is *bûⁿ mà* with <LH> tone.

- (188) a. *háyè* *ámírⁿí* [[*gɔ:ⁿ* *bè*] *bùⁿ*] *yɛ-ɛ:*
well chief [[griot Pl] **beside**] go-and.SS
'Well, the chief went in among the griots (bards) (and ...).' (2011.1b.01)
- b. *wó* [[*timé* ^L*yɔ:ⁿ*] *bùⁿ*] *wò*
3SgSbj [[tree ^LNearDist] **beside**] be.HumSgSbj
'He/She is next to that tree.'
(variant: [[*timè yɔ:ⁿ*] *bùⁿ*])

8.2.8 ‘In front of’ (*gírè*)

The postposition ‘in front of’ is *gírè*. The 1Sg form is *gíré mà*. The postposition is related to the noun *gíré* ‘front’, as in adverbial *gíré tɔ* ‘in front, ahead’. The stem can be a compound final, as in *irⁿi-gíré* ‘incisor’ (“front tooth”).

Prototypical uses of the postposition are spatial. The reference object should have a front side (face), such as a person, animal, or vehicle.

- (189) a. *wó* [*ná* *wò→*] *gírè* *má* ^L*dɔ-ɛ*
3SgSbj [person all] **in.front.of** 1SgObj ^Linsult-Pfv
'He/She insulted me in front of all the people.'
- b. *wó* [*mòbílí* *gírè*] ^L*ùmò*
3SgSbj [vehicle **in.front.of**] ^Llie.down.Stat
'He/She is lying down in front of the (motor) vehicle.'

gírè is not used in contexts like ‘He’s sitting in front of (=on the near side of) that tree’ (from a given vantage point). The usual way to express this would be with *bé:-gèrè* ‘beside, next to’, disregarding the speaker’s visual line.

‘In front of the house’ is expressed as ‘at the doorway’, see tonal locative *gìrnì^L-kâⁿ* in §8.2.1, above.

8.2.9 ‘Behind X’ (*dógo*), ‘after X’ (^H*dógo* *ní:*)

‘Behind X’ in the spatial sense is *X dógo*. The 1Sg form is *dógo mà* ‘behind me’. The noun *dògo* ‘rear (area)’ occurs in e.g. adverbial *dògo tò* ‘in the rear, in back’ with *tò* (§8.2.14). It is also possible to use [*X* ^H*dógo*] *tò* as a PP, instead of *X dógo*, in the sense ‘behind X, at the rear of X’ or ‘after X’. [*X* ^H*dógo*] *tò* treats *dògo* as possessed noun and therefore requires its {H}-toned form.

- (190) a. [éme ^Hgírní] [éwé *dógo*] kò
[1PlPoss ^Hhouse] [market behind] be.NonhSbj
‘Our house is behind the market.’
- b. *mòtám* [ú *dógo*] yó kò
scorpion [2Sg behind] Exist be.NonhSbj
‘There’s a scorpion behind you-Sg.’
- c. [tímé *dógo*] báy-é:
[tree behind] hid-MP.Imprt
‘Hide-2Sg (yourself) behind a tree!'
- d. [[pùrⁿú ^Hdógo] tò] [já:n-Ø dè]
[[cream.of.millet ^Hafter] at] [boil-Pfv if]
[nǐ-Ø kà:ⁿ] [bír-è:-jù]
[eat-VblN also] [do-MP-Ipfv]
‘After (=in addition to) cream of millet, boiling and eating (bissap roselle fruits)
is also possible.’ (2011.1a.27)

Temporal ‘after X’ is expressed by a related construction [*X* ^H*dógo* *ní:*]. Here ^H*dógo* can be analysed as the possessed form of noun *dògo* ‘rear’. The 1Sg form is [*dógo mà*] *ní:* ‘after me’. This leaves *ní:* as the real postposition here, but it does not have the /HL/ tone of other *Cv:* postpositions, and the syntax is nontransparent.

- (191) a. *fⁿ* [ú ^Hdógo] *ní:*] *já:* *jí:-jí*
1SgSbj [2Sg ^Hrear after] meal eat.meal-Ipfv
‘I will eat after you-Sg.’
- b. *fⁿ* àná [kéré ^Hdógo] *ní:*] *yá:-jú*
1SgSbj village [festivity ^Hrear after] go-Ipfv
‘I will travel after the festivities.’

8.2.10 ‘Under X, at the base of X’ (*bórò*)

‘Under’ or ‘at the base of’ as postposition is *bórò*, related to a noun *bórò* ‘rear end’ (which has a range of vaguely obscene senses rather like *ass* in English). *bórò* is also adverbial ‘below’. As compound final, *-bórò* means ‘lower or rear (part of)’, as in *sùgùrù^L-bórò* (“lower ear”) ‘earlobe’, *kàⁿ^L-bórò* (“lower mouth”) ‘lower lip’, *ìrⁿi^L-bórò* ‘lower teeth’, and *màrùpà^L-bórò* ‘butt end of rifle’.

The 1Sg form is *bórò mà* ‘under me’, identical to ‘my rear end’.

- (192) a. *tágá [tà:bál bórò] sò*
shoe [table under] be
‘The shoes are under the table.’
- b. *émé [máñgóró bórò] dèŋ-é:-má-ŷn*
1PlSbj [mango under] sit-MP-Hort-PlSbj
‘Let’s sit under the mango (tree).’
- c. *jòwó [děⁿ bórò] bé:*
onion [waterjar under] put.down.Imprt
‘Put-2Sg the onions down under the waterjar!’
- d. *[gàmà^L ^Hná] [jòŋùrⁿú bë] [kó bórò]
[some^L ^Hperson] [hoe Inst] [Nonh under]
tò-tó:-lé tó:-jú*
Rdp-slash-Iter slash-IPfv
‘Some people keep slashing (lightly) around its base (underside and roots of peanut plants).’ (2011.1a.21) (for verb iteration see §11.6.5)

A different ‘under’ postposition, *jō:*, is said to occur in some other TgK dialects (e.g. Pel, Koporo-Na).

8.2.11 ‘Between’ (*gân*)

The ‘between’ postposition is *gân*. It is added to a NP or pronoun denoting a plurality, so there is no 1Sg form as such, though the 1Sg pronoun may occur in a conjoined NP that serves in its entirety as the complement of the postposition (193c).

- (193) a. *émé gân*
1Pl between
‘between us’
- b. *[[àrⁿá bë.:] [në bë.:]] gân*
[[man Pl.&] [woman Pl.&]] between
‘between men and women’
- c. *ú.: mí.:] gân*
[2Sg.& 1Sg.&] between
‘between you-Sg and me’

There is an adverb *gàn-nôñ* ‘somewhere (in the area)’.

8.2.12 ‘Among X’ (*kénè*)

kénè is related to the noun *kéné* ‘liver (and heart)’, which can be used abstractly to denote the seat of the emotions. As a postposition, it translates as ‘among X’, where X denotes some collectivity. There is no 1Sg form. In some contexts, *kénè* functions as a partitive, for example in sentences like ‘Among my cows, how many (cows) died?’, see §13.2.7, below.

- (194) a. [éme kénè] wó gá:rá ^{HL} ògù
 [1Pl among] 3SgSbj more ^{HL} fast
 ‘He/She is the fastest (person) among us.’
- b. [[é ^{HL} gér'ñi:] kénè] dène géré
 [[2PIPoss ^{HL} gear] among] look.for look.Imprt
 ‘Search among (=through) your-Pl baggage (=bags)!’

8.2.13 ‘From X to Y’ (*bà→*, *fó→*)

There are no ablative or allative postpositions in a strict sense, since directionality is expressed by verbs. The slightly emphatic postposition-like particle *bà→* ‘all the way’ (with L-tone) can follow a term denoting either the starting point, with verb ‘go out’ as in (195a), or the endpoint, with a verb like ‘go’ or ‘come’.

bà→ competes in part with preposed *fó→* ‘all the way to, until’, but the latter has a mainly temporal sense.

- (195) a. bé [mó:tì bà→] jòwó ^Ly-è-è:
 3PlSbj [Mopti all.the.way] run ^Lgo-Pfv.PlSbj
 ‘They ran all the way to Mopti.’
- b. [bé [mó:tì bà→] gò-é:]
 [3PlSbj [Mopti all.the.way] go.out-and]
 [jòwó bàngàrá ^Ly-è-è:]
 [run Bandiagara ^Lgo-Pfv.PlSbj]
 ‘They ran all the way from Mopti to Bandiagara.’
- c. yé éme yá:-jú [fó→ dà:gá ^Ldè-è]
 going 1PlSbj go-Ipfv [until night ^Lnight.fall-Pfv]
 ‘We kept walking until night fell.’

8.2.14 Combinations with *tò* ~ *tè* ‘toward’ (*síyé tè*, *ágá tò*)

For most nouns, ‘towards X’ is expressed as *[[X síyé] tè]*, variant *[[X síwé] tè]*, with an {H}-toned possessed form of *síyé* ~ *síwé* ‘side’ followed by a postposition *tè*.

Similarly, ‘about X, concerning X’ (as in the context of the subject of a discussion) can be expressed as *[X ^Hágá] tò*, where *ágá* is again {H}-toned as a possessed noun, and is slightly contracted segmentally from noun *àrgá* ‘side, zone’.

There are a number of high-frequency expressions where *tò* ~ *tè* is added to a simple noun, without *síyé*, producing an adverbial phrase (generally spatial). The known cases are in (196). Overall *tò* is the less marked of the two allomorphs, while *tè* is used only after a form ending in *e*. Note especially *gíré tò* ‘ahead’.

(196) Noun plus

form	gloss	based on
a. after noun		
<i>kúⁿ tò</i>	‘on top’	<i>kúⁿ</i> ‘head’
<i>dògó tò</i>	‘in the rear’	<i>dògó</i> ‘rear’
<i>gíré tò</i>	‘ahead’	<i>gíré</i> ‘front’
<i>dá:rá tò</i>	‘outside’	<i>dá:rá</i> ‘area outside’
b. after demonstrative		
<i>ní tò</i>	‘this way, around here’	<i>nî</i> ‘here’
<i>yí tò</i>	‘that way, over there’	<i>yî</i> ‘over there’
<i>yé tè</i>	‘around there (definite)’	<i>yê</i> ‘there (definite)’
<i>é tè</i>	”	
c. after pronoun		
<i>Iⁿ tò</i>	‘over here’	<i>Iⁿ</i> 1Sg pronoun

For *yă: tò* ‘whereabouts?, around where?’ see §13.2.4.

Some combinations with *tò* can also be used as complex postpositions. In this case, the noun-like element preceding *tò* is treated tonally as possessed by the preceding NP. For example, from adverbial phrase *dògó tò* ‘in the rear’ we get [*gírní* ^H*dògó*] *tò* ‘behind (=at the rear of) the house.’

8.3 Complex relational postpositions

8.3.1 Purposive and causal postpositions

8.3.1.1 Purposive ‘for’ (*gê:*, *gì*, *gà*)

In a prospective purposive sense, both *dógò* ‘after’ (§8.2.9, above) and true purposive *gê:* ~ *gì* can be used (197a). *gê:* ~ *gì* also occurs in retrospective causal sense (197b). Of the two variants, *gê:* is more common in texts.

- (197) a. *émé* [t̪é:] *dógò* ^L*yèr-è*
 " [" *gê:J* ^L" ^Lcome-Pfv
 1PlSbj [honey for] come-Pfv
 ‘We came for (the) honey.’
- b. *bé* [àrⁿú *gê:J* ^L*jòw-è*
 3PlSbj [rain for] run-Pfv
 ‘They fled because of the rain.’

- c. *háyè* [è:rè^L] *ná:* *gàmá* [yó:] *gì* ^L*lè:-jù*
 well [peanut^L] main] some [NearDist for] ^Lslash-Ipfv
 ‘Well, that [as just described] is why (they) sometimes slash (=plant)
 groundnuts.’ (2011.1a.19)

The 1Sg form is *má gê*: ‘because of me’.

The phrase ‘for God’, in the sense ‘in the name of God’ (i.e. as an act of charity, without recompense) is expressed by *àmá gê*: ~ *àmá gì*.

- (198) *Iⁿ* [*àmá* *gê:*] *ú* *bă-jú*
 " [" *gì*] " "
 1SgSbj [God for] 2SgObj help-Ipfv
 ‘I will help you-Sg for (=in the name of) God.’

Another, rather isolated form *ámà gà* is used in requests made in desperation (‘For God’s sake, help me!’).

gê: and *gì* are related to quotative verb *gí* ‘say’ (§11.3.1.2). *gê*: can be analysed as a variant of the original combination of *gí* with same-subject anterior subordinator (§15.2.2.1). The regular form of this combination is *gí-è*: (as in ‘he said ..., and then left’), but a variant *gé-è*: (often reduced to *gé-è*) is the only form observed in texts. The only phonologically similar form that I know of is *té-è*: (often shortened to *té-è*) related to a specialized chaining verb *tí* ‘do first’ (§15.2.2.5, (§15.1.6.3)).

For *gê*:; *gì*, and *g-i dè* in purposive clauses, see §17.6.1.

8.3.1.2 Causal ‘because of’ (*sógo*)

[*X sógo*] means ‘because of X’. The attested examples involve motivation rather than inference or impersonal physical causation. *kó sógo* ‘because of that’, hence ‘so, therefore’, typically describes the motives of human action. A gloss ‘considering X’ or ‘in view of X’ could also work. A textual example is (199).

- (199) *Iⁿ* [*wòⁿ*] [*kiré* *sógo*]
 [1Sg Top] [hardship because.of]
Iⁿ [*kó:* *bë:-rò*]
 [child raise get-IpfvNeg]
 ‘As for me, because of hardship (=neediness), (I) can’t raise a child.’ (2011.1b.04)

For causal *sógo* after a clause, see §17.6.5. For [*X sógo*] ‘than X’, i.e. ‘in comparison to X’, in adjectival comparatives, see §12.1.2.2.

8.3.2 Source (*númò*)

Related to the noun *nùmò* ‘hand, arm’ is an /HL/-toned postposition *númò*, compare English *at the hand(s) of*. It forms PPs that express the (human) source of something transferred. Typical verbs associated with this PP type include ‘receive’, ‘buy’, and ‘request’.

- (200) a. *iⁿ* *nàjá* [ú] *númò* ^L*yòw-è*
 1SgSbj cow [2Sg source] receive-Pfv
 ‘I received a cow from you-Sg.’
- b. *iⁿ* *wògòtórò* [sè:dú] *númò* ^L*èw-è*
 1SgSbj cart [S source] buy-Pfv
 ‘I bought a cart from Seydou.’
- c. *iⁿ* [sè:dú *númò*] *bú:dú* *gèy-è*
 1SgSbj [S source] money request-Pfv
 ‘I asked Seydou for some money.’
 [=‘I requested some money from Seydou.’]

In (200c), one can also use dative *ni* with Seydou.

8.4 Other adverbs (or equivalents)

8.4.1 Similarity (*gí:ⁿ* ~ *gì:ⁿ* ‘like’, *gá*: ‘something like’, *sì:ⁿ-káⁿ* ‘equal’)

gí:ⁿ ‘like, similar to’ can follow and have scope over a complement (NP or adverb). It is H-toned, except as indicated below. The 1Sg form is *má gí:ⁿ* ‘like me’. The 1Sg form and the H-tone suggest that the ‘like’ morpheme is not a typical postposition.

- (201) a. *wó* [*má* *gí:ⁿ*] *tìyé* *tíyé-pú*
 3Sg [1Sg like] talk(n) speak-Ipfv
 ‘He/She speaks like me.’
- b. *[nòwⁿɔ* *gí:ⁿ*] *kò*
 [meat like] be.NonhSbj
 ‘It’s like meat.’
- c. *íyé* [*yá:* *gí:ⁿ*] *ké:-jú*
 today [yesterday like] be.NonhSbj-Ipfv
 ‘Today will be like yesterday.’

In *nò: L gí:ⁿ* ‘like this’, the particle is L-toned. I also hear it as L-toned clause-finally, with the clause as its complement. One could argue that examples like (202), and others like it in chapter 14, consist of a headless relative clause (with omitted head *bàⁿ L* ‘way, manner’) followed by ^L*gí:ⁿ* in the role of an L-toned terminal noun functioning as a synonym of the head (§14.1.7).

- (202) *kó* *dág-à→—*, *ómó-pú* ^L*gí:ⁿ*
 NonhSbj a.little—, rot-Ipfv.Rel like
 ‘(It’s) like it rots a little.’ (2011.1a.25)

For ‘like this/that’ using demonstrative stems, see §4.4.2.3.

The possessed noun *gá*: after a noun X means ‘something like X’, ‘something along the lines of X’, ‘X or something similar’, etc.

- (203) é [gìrⁿí bîn] [jòŋùrⁿú ^Hgá:] yé sò mà→
 2PlSbj [house in] [hoe ^Hlike] Exist have Q
 ‘Do you-Pl have anything like a hoe at home?’

It is possible, but uncertain, that this *gá:* is connected with optional *gá:* sandwiched between verb iterations (§11.6.5), and with *gá:* in the second part of parallel constructions (§19.2.2).

There is a noun *sì:ⁿ-káⁿ* ‘match, equal, equivalent’, often possessed: [*X*^{HL}*sí:ⁿ-káⁿ*] ‘a match for X, an equivalent to X’. For the sense ‘approximately’ see §9.4.3.1 below. A possessive [*X*^{HL}*gí:ⁿ-káⁿ*] is also attested, meaning ‘something similar to X, the likes of X’.

8.4.2 Extent (*gàr-á→* or *séyⁿ* ‘a lot’, *jò-jó→* or *jó:* ‘many’, *dág-à→* ‘a little’)

Adverbial ‘a lot, considerably, to a great extent’ is *gàr-á→* or *séyⁿ*.

One form of the quantifier ‘much, many’ (also used absolutely without an overt noun) is an optionally reduplicated (or iterated) expressive adverbial (*jò-jó→*). In this form, it is not an adjective and does not induce tone-dropping even when it follows a noun that it apparently has scope over: *péjú jó→* ‘lots of sheep’. Compare the verb *jó:* ‘be numerous, abound’.

An adjectival variant *jó:* without exaggerated lengthening, and with tone-dropping of the noun, is attested in *tèŋè^L jó:* ‘many times, often’, *nìŋìrⁿi^L jó:* ‘many days, often’, and *dèŋ^L jó:* ‘many spots, places’, *ŋà^L jó:* ‘many areas, many lands’. The nouns here are *tèŋé*, *nìŋìrⁿí*, *děŋ*, and *ŋá*.

For ‘a little’, *dág-à→* is used adverbially (‘to a limited extent’ or ‘somewhat’). The NP ‘a little’ (as in ‘they gave me a little’) is either the same *dág-à→* or a related form *dàg-îⁿ→* (frozen compound with diminutive ending, §5.1.7).

For the morphology of *gàr-á→* and *dág-à→*, see (351d-e) in §11.4.1.2.

8.4.3 Specificity

8.4.3.1 ‘Approximately’ (^{HL}*sí:ⁿ-káⁿ*, *mâ:*)

To express an approximate numerical count, possessed noun ^{HL}*sí:ⁿ-káⁿ* can be used (204). The unpossessed form is *sí:ⁿ-káⁿ* ‘match, equivalent’, mentioned above at the end of §8.4.1.

- (204) *iⁿ* [[péjú pě-nùnè:]] ^{HL}*sí:ⁿ-káⁿ* *sà*
 1SgSbj [[sheep fifty]] ^{HL}equivalent have
 ‘I have roughly fifty sheep.’

For an approximate time, whether time of day or seasonal, the construction [*X téŋé*] *bè* is used. *téŋé* is the possessed form of *tèŋé* ‘time’, so the construction translates literally as ‘with the time of X’.

- (205) *[mìdí: ^Htéŋé] bè*
 [noon ^Htime] with
 ‘around noon’ (French *midi*)

mâ: (with long vowel, but no exaggerated prolongation as with interrogative or disjunctive *mà→*) is used with quantities.

- (206) a. [kó [[nìŋìr'í nǎyⁿ] mâ:] dò:] [kó tó:-jú]
 [Nonh [[day four] approx] arrive] [NonhSbj sprout-Ipfv]
 ‘Then (when) roughly four days have arrived (=elapsed), it (=fonio) will sprout.’
 (2011.1a.23)
- b. émé [[kilométrí túrá] mâ:] yé yà:-jù
 1PlSbj [[kilometer one] approx] walking go-Ipfv
 ‘We will walk (=hike) around one kilometer.’

For approximate location, see also §4.4.2.2, above.

8.4.3.2 ‘Exactly’ (*té→, já:tì*)

With a preceding quantity expression or an NP identifying an individual, the expressive adverbial *té→* means ‘exactly, precisely’.

dây is used with numbers and locations. In (207) it indicates that the time frame is more or less the minimum for groundnuts to bear fruit. *dây* and iterated *dây-dây-dây* can also mean ‘right up against, flush against (e.g. a wall).’

- (207) [[nìŋìr'í pè-sâ: dây] dò:-lí dè] [í:ⁿ kúnâ:-rò]
 [[day ten-seventeen exactly] arrive-PfvNeg if] [child put-IpfvNeg]
 ‘Unless exactly seventy days have arrived, they (=groundnuts) won’t put out children (fruits)?’

For adverb *já:tì* see §19.5.2.

8.4.4 Evaluation

8.4.4.1 ‘Well’ and ‘badly’

Adverbial senses ‘well’ and ‘badly’ are often expressed by adding a modifying adjective ‘good’ or ‘bad’ to an object, such as a cognate nominal. Thus ‘X sings well’ is expressed as ‘X sings good song(s)’. However, there is an expressive adverbial *séyⁿ→* (with falling pitch) ‘well’, compare adjective *séyⁿ* ‘good’.

‘Bad’ and ‘badly’ are usually translated as negations of ‘good’ and ‘well’. *mɔŋú* ‘bad’ can also be used, but it tends to have more specific senses like ‘nasty, evil (person)’.

- (208) a. wó séyⁿ→ bíré bř-jú
 3SgSbj well work(n) do-Ipfv
 ‘He/She works well.’
- b. wó [bírè^L séⁿ] ^Lbř:-rò
 3SgSbj [work(n)^L good] ^Ldo-IpfvNeg
 ‘He/She works badly.’ (lit. “... does bad work”)

8.4.4.2 ‘Proper, right’ (*jâ:n*)

jâ:n kò means ‘it is right, proper’, in the context of social norms.

8.4.5 Spatiotemporal adverbs

8.4.5.1 Temporal adverbs

Some of the major temporal adverbs are in (209).

- (209) a. *íyé* ‘today; nowadays’
íyé=ñ ‘again’ (§19.3.1)
pílé-m-è: ‘again’ (§19.3.1)
yá: ‘yesterday’
íyé tâ:-né ‘day before yesterday’
kà:ná ‘now, at present’
né: wɔ:n ‘now’ (discourse marker)
- b. *yògò* ‘tomorrow’
yògò-dérñè ‘day after tomorrow’
yògò-dè:n-tí: ‘second day after tomorrow’ (third from today)
- c. *gà:ru* ‘last year’
nàŋúrñù, yògò ^{HL}*náŋùrñù* ‘next year’
nó:wñ ‘this year’

8.4.5.2 ‘First’ (*lá:, tí→*)

Adverbial *lá:* ‘first(ly)’, implying a following eventuality even if it is not overtly expressed, is exemplified in (210).

- (210) *mí lá: yë-Ø dè, [ú Lkè] dògò Lyerè*
1Sg first go-Pfv if, [2Sg LTop] behind Lcome.Imprt
‘I will go first, then as for you-Sg, come-2Sg behind!'

Adverbial *tí→* ‘to begin with, to start off, first off, first of all, firstly’ has a similar sense, and often co-occurs with *lá:*.

- (211) *maintenant émé tí→, [lë kùn] lá: tóró-jú*
now 1PISbj firstly, [planting on] first begin-Ipfv
‘Now to start off, we’ll begin first (talking) about planting.’ (2011.1a.01)

A number of clause subordinators also emphasize the chronological sequence of an eventuality with respect to another. This includes the pseudo-conditional *dè* in (210).

8.4.5.3 Spatial adverbs

Some of the key spatial adverbs are in (212).

- (212) a. *árá kûⁿ* ‘on top, above, up’
bòrɔ̄ ‘below, down’
- b. *dù-dágá* ‘east’
tèŋ-dágá ‘west’ (cf. Tengou, Dogon group)
nòŋjò-digí ‘south’
tɔ́rɔ̄-digí ‘north’ (cf. *tɔ́rɔ̄* ‘mountain’ in other Dogon languages)
- c. *dògó kûⁿ* ‘back, backward’
dògó tò, dògó ‘in the rear’
gíré tò ‘forward; in front’

gíré in *gíré tò* ‘in front, ahead’ is distinct tonally from *gíré* ‘eye’.

Adjectives ‘left’ (*nànâ*) and ‘right’ (*pă:*) can be added to body-part terms ('arm/hand', 'leg/foot'), but do not seem to have been traditionally used for abstract directions. *pă:* is distinct in form from *pí:* ‘eat (meal)’.

8.4.6 Expressive adverbials

Expressive adverbials are a class of stems that function as adverbs with various verbs ('go', 'fall', etc.), as predicates with a copula 'be X' (positive *kɔ̄* etc., negative *kɔ̄-rɔ̄* etc.), or as predicates with an active copula (e.g. *ké:* 'become.Nonhuman'). Except for stem-iteration they typically have no morphology and do not participate in derivational or compounding morphology. They are not subject to overlays controlled by other words. They cannot function directly as postnominal adjectival modifiers, but a relative clause can be formed with the adverbial plus a copula in relative-clause form. Most expressive adverbials are not related phonologically to stems in regular classes (nouns, verbs, adjectives), but there are exceptions.

A large sample of expressive adverbials is presented in this section, organized mainly by phonological form. Most intensifiers for adjectives and other stems listed in §6.3.3.2 also belong to the class of expressive adverbials and are not re-listed here. A few important adverbials have their own subsections below.

8.4.6.1 Types of expressive adverbial

The adverbials in (213) are not iterated and do not show intonational prolongation of the final syllable. Of interest is the existence of some entirely {L}-toned adverbials (213f), given that every noun, verb, adjective, and numeral stem has at least one H-tone element (§3.7.1.1).

A predicative element that often combines with each EA, either a copula (nonhuman *kɔ̄* or human singular *wɔ̄*) or a verb ('go', 'put', 'fall', etc.), is included in parentheses after the gloss, but the forms given do not exclude other possibilities.

(213) Expressive adverbials (non-iterated, not prolonged)

a. /H/, onomatopoeic

<i>póp</i>	‘landing powerfully’ (<i>bàgá</i> ‘fall’)
<i>tótú</i>	‘plopping (sth soft landing)’ (<i>bàgá</i> ‘fall’)

b. /H/, not onomatopoeic

<i>sí:</i>	‘(sharply) pointed’ (<i>kɔ̂</i>)
<i>gúnéyⁿ</i>	‘(walk) with a swagger, with elbows out’ (<i>yě</i> ‘go’)
<i>páyáw</i>	‘well-lit’ (<i>kɔ̂</i>)
<i>kólówⁿ</i>	‘in a circle’ (<i>kɔ̂</i>)
<i>kánáwⁿ</i>	‘shriveled (calabash)’ (<i>kɔ̂</i>)
<i>bólów</i>	‘brick-shaped; long-necked’ (<i>kɔ̂</i>)
<i>sérⁿéné</i>	‘long and thin, tall and thin’ (<i>kɔ̂</i> , <i>wɔ̂</i>)
<i>with final -í:</i>	
<i>sónúg-í:</i>	‘smelling like raw meat or fish’ (<i>kɔ̂</i>)

c. /HL/

<i>dûm</i>	‘(land) with a thud’ (<i>súgó</i> ‘go down’)
<i>púré:y</i>	‘(go out) suddenly’ (<i>gō:</i> ‘go out’, <i>kír-ì:</i> ‘fly away’)

d. /LH/

<i>píṁ</i>	‘(pass by, run away) in a flash’, cf. iterated variant below (<i>gàrá</i> ‘pass’)
<i>púy</i>	‘(sth) shoot out’ (<i>gō:</i>)
<i>súy</i>	‘bursting in, (entering) abruptly’ (<i>nú</i> ‘go in’)

e. /LHL/

<i>dùrō:</i>	‘backwards’ (many combinations)
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f. {L}, with H-toned *kó*

<i>sòy</i>	‘oily’ (<i>kɔ̂</i>)
<i>wùrùjá</i>	‘(tree) having many fruits (heavy with fruits)’ (<i>kɔ̂</i>)
<i>kùbàw</i>	‘dominant, towering (tree)’ (<i>kó</i>)
<i>gìyàw</i>	‘shady (tree)’ (<i>kɔ̂</i>)

The EAs in (214) show intonational prolongation, or at least a final long vowel.

(214) Expressive adverbials (intonationally prolonged)

a. /H/

onomatopoeic

<i>sé→</i>	‘(grain) pouring out noisily’
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other

<i>séⁿ→</i>	‘(staring) wide-eyed’ (<i>gèr-î:</i> ‘look’)
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<i>pó→</i>	‘gaping, wide open (door)’ (<i>kɔ̂</i>)
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<i>sáⁿ→</i>	‘clear (sky)’ (<i>kɔ̂</i>)
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<i>kéwⁿ→</i>	‘silent (person), calm (place)’ (also iterated <i>kéⁿ-kéwⁿ</i>) (<i>kɔ̂</i> , <i>wɔ̂</i>)
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<i>léwⁿ→</i>	‘placed on top (e.g. on one’s head or on a rock)’ (<i>kɔ̂</i>)
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<i>sáy</i> →	‘conspicuously visible’ (<i>kɔ̂</i>)
<i>gúní</i> →	‘globular, ball-shaped’ (<i>kɔ̂</i>)
<i>jéwgé</i> →	‘teetering’, ‘badly placed’ (<i>kɔ̂</i>)

b. /LH/

with final i→ (sometimes segmentable)

<i>gègí</i> →	‘tilted’ (<i>kɔ̂</i>)
<i>sérí</i> →	‘sticking out (e.g. leg)’ (<i>kɔ̂</i>)
<i>bàmí</i> →	‘rickety, shakily positioned’ (<i>kɔ̂</i>)
”	‘tilted’ (<i>kɔ̂</i>)
<i>yùgùjí</i> →	‘disheveled, furry’ (<i>kɔ̂</i>), from adjective <i>yùgùjú</i>

other

<i>kǒ:</i> →	‘empty’ (<i>kɔ̂</i>)
<i>kɔ̂y</i> →	‘(e.g. teeth, horn) sticking out’ (<i>kɔ̂</i>)
<i>yěw</i> →	‘(eyes) slightly open’ (<i>kɔ̂</i>)
<i>sěy</i> →	‘(head, tip) sticking out (a little)’ (<i>kɔ̂</i>)
<i>sǔy</i> →	‘(e.g. lips) projecting out’ (<i>kɔ̂</i>)

c. /HL/

<i>sû</i> →	‘pointing downward’ (<i>kɔ̂</i>)
<i>bódò</i> →	‘fat and clumsy’ (<i>wɔ̂</i>)

d. /LHL/

<i>kú</i> → <i>dō</i> →	‘(walking) with head high’ (with <i>kú</i> ‘head’) (<i>wɔ̂</i>)
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e. two-part

/H/-/H/

<i>yó</i> → <i>gó</i> →	‘ajar, slightly open (door)’ (<i>píné</i> ‘shut’)
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Related to this prolongation type is a set of EAs that are derived from adjectives by adding *-í*→ or an allomorph such as lengthening of the final vowel, along with tonal changes in some cases: *dòg-í*→ ‘heavy’, *wàg-á*→ ‘far (away)’. See §11.4.1.2 for examples and discussion. There are also a few similar adverbials derived from verbs (215). These are essentially identical to the corresponding same-subject anterior subordinating form in *-e:* ~ *-e:* ~ *-i:* (§15.2.2.1), but they can be used predicatively with copulas.

(215) Expressive adverbials derived from verbs

<i>bìn-é</i> →	‘inverted’ (verb <i>bìnē</i>) (<i>kɔ̂</i>)
<i>gòm-é</i> →	‘(eyes) wide open’ (verb <i>gòmɔ̂</i>) (<i>kɔ̂</i>)
<i>wàr-n-é</i> →	‘(tree roots, vine) spreading on ground’ (verb <i>wàr-n-î</i>) (<i>kɔ̂</i>)

Finally, the EAs in (216) involve stem iteration. In most cases the stem is not attested elsewhere. (216) is organized around the phonological relationship (vocalism, tone pattern) between the two (or three) parts of the iteration.

(216) Iterated expressive adverbials

a. no vocalic or tonal change

<i>ké-ké</i>	‘(e.g. door) flush (with frame)’ (short stem makes segmentation questionable) (<i>kɔ̩</i>)
<i>déⁿ-déⁿ</i>	‘rebalanced’ (<i>kɔ̩</i>)
<i>tá:ⁿ-tá:ⁿ</i>	‘(walking) with legs separated’ (<i>kɔ̩</i>)
<i>dáŋ-dáŋ</i>	‘side by side’ (<i>kɔ̩</i>)
<i>kán-kán</i>	‘motionless, playing dead’ (<i>kɔ̩</i>)
<i>léw-léw</i>	‘dripping’ (verb <i>léwé</i>)
<i>yél-yél</i>	‘flapping in the wind’ (<i>kɔ̩</i>)
<i>sáyⁿ-sáyⁿ</i>	‘blazing (sun)’ (<i>kɔ̩</i>)
<i>tóŋ-tóŋ</i>	‘dotted, spotted’ (<i>kɔ̩</i>)
<i>kéw-kéw ~ ké-kéw</i>	‘equal’ (<i>kɔ̩</i>)
<i>dégé-dégé</i>	‘slowly, gently’ (cf. <i>dègé</i> ‘short’) (many combinations)
<i>káná-káná</i>	‘feeling fine’
<i>séwè-séwè</i>	‘(walk) silently’ (<i>yé</i> ‘go’)
<i>mùnó-mùnó</i>	‘hastily, unceremoniously’
<i>sùrɔ́-sùrɔ́</i>	‘in a heap’
<i>tóŋù-tóŋù</i>	‘dotted, spotted’
<i>wàlgá-wàlgá</i>	‘bouncing’ (<i>bíré</i> ‘do’)
<i>sóròy-sóròy</i>	‘slippery (hard to hold)’ (<i>kɔ̩</i>)
<i>túgɔ́wⁿ-túgɔ́wⁿ</i>	‘lukewarm’
<i>pádà:w-pádà:w</i>	‘galloping (fast)’ (<i>jòwɔ́</i> ‘run’)
<i>tábàrà-tábàrà</i>	‘blotched, with large spots’ (<i>kɔ̩</i>)

b. tonal change only

<i>/H/-{L}</i>	
<i>dó:ró-dò:rò</i>	‘shining, gleaming’ (<i>kɔ̩</i>)
<i>/LH/-{L}</i>	
<i>pím-pím</i>	‘running at top speed’ (iteration of <i>pím</i>) (<i>jòwɔ́</i> ‘run’)
<i>hál-hál</i>	‘quivering (like dog’s tongue)’ (<i>bíré</i> ‘do’)
<i>běy-bèy</i>	‘flickering (light)’ (<i>kɔ̩</i>)
<i>{L}/-LH/</i>	
<i>bàlà-bàlá</i>	‘(cook) hastily’ (<i>bíré</i> ‘do’)

c. vocalic change only

high or mid-height vowel to a

<i>tí:ⁿ-tâ:ⁿ</i>	‘holding, restraining’, in (617c)
<i>séwè-sáwà</i>	‘groping along’ (<i>yé</i> ‘go’)
<i>wíré-wàrá</i>	‘staggering, stumbling’ (<i>yé</i> ‘go’)
<i>sólù-sálù</i>	‘walking stiffly’ (<i>yé</i> ‘go’)
<i>tígì-tágù(-tígi)</i>	‘(walking) clumsily (like an infant)’ (<i>yé</i> ‘go’)

as above, but all L-toned, with kɔ̩

<i>górum-gàràm</i>	‘crooked (with sharp bends)’ (<i>kɔ̩</i>)
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d. vocalic and tonal change

{L}-/H/, mid-height vowel to a

jèlè-jálá ‘dangling, waving’ (*kâ*)

/H/-{L}, high vowel to a

jùgú-jágù ‘swaying (like elephant)’ (*bíré* ‘do’)

jígí-jágù ‘fidgeting’, ‘lumbering along’ (*bíré* ‘do’)

e. based on uniterated adjective

ógú-ógú ‘fast, quickly’, cf. adjective *ógú* ‘fast’

See also the somewhat similar iterated onomatopoeias in §8.4.7.1 below.

These iterated EAs, mostly unrelated to simple stems, should be distinguished from distributive iterations of common nouns, which have a different grammar. A distributive sense can be expressed by repeating the cognate verb (217).

- (217) *iⁿ tĩⁿ sùr^ò súr-è:*
 1SgSbj firewood pile(n) pile.up-SS.Ant pile.up-SS.Ant
dág-è
 leave-Pfv
 ‘I put the firewood in (several) piles and left (it).’

Or a plural NP, rather than the simple noun, can be repeated in a conjoined NP construction (218).

- (218) *[àrùsègé bè] [[kùrós bè] [kùrós bè]] yǎ:-téŋè*
 [animal Pl] [[herd Pl] [herd Pl]] go-Prog.PlSbj
 ‘The (wild) animals travel in herds.’

The EA *ógú-ógú* ‘rapidly, quickly’ is transparently related to the adjective *ógú* ‘rapid, speedy’.

There are a small number of EAs formed by multiple final *Cv* reduplication. They are given in (219), which includes repeats of two adjectival intensifiers from (140b) in §6.3.3.2. Note the alternations of *g* with *j*, *r* with *l*, and *rⁿ* with *n*, where in each case the first consonant occurs in *C₂* (once in *C₃*) position and is followed by at least two repetitions switching to the related second consonant.

- (219) a. *C₂* and later *C*’s = *j*
kùjújújú ‘dragging forcefully’ (*kâ*)
- b. *C₂* = *g*, repeated as *j*
yàgájájá ‘very coarse, rough’ (*kágájú* ‘coarse’)
- c. *C₂* (or *C₃*) = *r*, repeated as *l*
yègérélélé ‘blinding (light)’ (*kâ*)
kérélélé ‘very cold’ (*kélú* ‘cold’)
- d. *C₂* = *rⁿ*, repeated as *n*
nàrⁿánáná ‘lean (meat); gooey (meat, as from an old cow)’ (*kâ*)
dòrⁿónónó ‘foul-smelling (urine, dirty clothes)’ (*kâ*)
òrⁿónónó ‘smooth, sleek’

Like most pure adjectives, and unlike most EAs, *ðrⁿónónó* ‘smooth, sleek’ has a paired inchoative verb *ðrⁿíni*. However, *ðrⁿónónó* is syntactically an adverbial rather than an adjective, as shown by its negative predicate, *ðrⁿónónó kð:^{-r}ó* ‘it isn’t smooth’, and by its relative-clause form as a modifier, *gùjù^L ðrⁿónónó kð* ‘smooth skin, skin that is smooth’.

These iterative EAs should be distinguished, at least in principle, from look-alike compound agentives including a cognate nominal. Some examples of these agentives are in (91a) in §5.1.5. For example, *síjè-síjé* ‘noisy’ is simply an agentive compound based on *síjé* ‘make noise’ consisting of a verb and preceding cognate nominal.

It is not easy to distinguish adverbs (including EAs) from verb stems that are specialized to occur only nonfinally in direct verb chains, in the bare-stem form. For example, *báná* in *báná gó:* ‘get out of the way, dodge’ (*gó:* ‘go out’), and *tóró* in e.g. *tóró dő:* ‘move over’ (*dő:* ‘arrive’), can be taken either as adverbs or as specialized verb stems based on current data.

Adverbial *jé-sé* ‘breaking into a run’, which can be used with verb *jòwɔ́* ‘run’, contains the noun *jé* ‘running, race’.

tóⁿ-tóⁿ-tóⁿ ‘foul-smelling (e.g. fart, fox secretion)’ is tentatively taken to be an iterated EA, but the base *tóⁿ-tóⁿ*, which is attested in senses like ‘salty’ and ‘sour’) is already iterated (or a *Cv-* reduplication).

Other elements showing final prolongation (as for EAs) that are discussed elsewhere in the grammar are: *fú*→ ‘all’ (§6.6.1), *wò*→ ‘each, all’ (§6.6.3), (*jò*-*jó*)→ ‘many’ (§8.4.2), *té*→ ‘exactly’ (§8.4.3.2), *pó*→ ~ *fó*→ ‘all the way to’ and *bà*→ ‘all the way to/from’ (§8.2.13), *tāŋ-tāŋ* ‘here and there, scattered’ (§8.4.7.3), and ‘flat’ adverbials like *pátà*→ (§4.5.3).

A morpheme *kàⁿ* is attested after certain EAs. Like copula *kɔ̄*, it shifts to H-tone after a completely {L}-toned adverbial. Examples: *pétè*→ *kàⁿ* ‘squared, having flat sides’, *kúrɔ́ ságú-ságú* *kàⁿ* ‘(tree) with dense foliage’, *déwⁿ* *kàⁿ* ‘straight (road)’, *gòrùm-gàràm* ^H*káⁿ* ‘crooked (stick)’, *yùgùj-í*→ *kàⁿ* ‘woolly, furry’. The form with *kàⁿ*(^H*káⁿ*) functions as an NP-internal modifier rather than as a predicate.

- (220) *bà:gà*^L [pétè→] *kàⁿ* *má=ìn* *jè:rè*^L
 stick^L [flat.sided] Adj 1Sg=Dat bring.Imprt
 'Bring-2Sg me a flat-sided (rectangular) stick!'

8.4.6.2 Expressive adverbial plus {H}-toned perfective

An expressive adverbial (EA) or onomatopoeic interjection can occur in a construction of the type [EA Subj ^HPerf], with a subject pronominal and an {H}-toned perfective verb. Cf. English *plop went the duck*. The verbs in (221a-b) elsewhere appear as *ùŋúr-ì* ‘got up’ and *bàg-ê* ‘fell’, or they occur clause-finally in {L}-toned form.

- (221) a. *pám* *wó* ^H*úŋúr-í*
 up.abruptly 3SgSbj ^Hget.up-Pfv
 'He got up abruptly' (= 'he shot up') (2011.1b.03)

b. *póp* *wó* ^H*bág-é*
 thud 3SgSbj ^Hfall-Pfv
 'He fell down with a thud.'

8.4.6.3 ‘Straight’ (*déwⁿ→*)

The expressive adverbial *déwⁿ→* is used to denote straight, direct, unmediated trajectories (motion, path, line of sight). It can be used predicately with a copula (222b); in this case, the intonational prolongation is reduced and may be absent.

- (222) a. *émé [íyé nî gõ:] déwⁿ→ bàmàkó ^Lyà:-jù*
 1PlSbj [today here leave] straight B ^Lgo-Ipfv
 ‘We’ll go today straight from here to Bamako.’
- b. *ójú déwⁿ(→) kɔ̄*
 road straight be.NonhSbj
 ‘The road is straight (direct).’

This EA has an iterated variant *déⁿ-déwⁿ~déwⁿ-déwⁿ* ‘straight (direction)’.

8.4.6.4 ‘Apart, separate’ (*déyⁿ→*)

This expressive adverbial means ‘apart, separate’ in a physical sense, or ‘distinct, not the same’ more abstractly. Since there is generally a parallelistic context, with two or more individuals or groups distinguished or separated, a reduplicated form is common (223b).

- (223) a. *[émé wò] déyⁿ→*
 [1Pl all] apart
 ‘We are not all the same.’
- b. *[nɛ-ùrⁿù bè] [àrⁿá-ùrⁿù bè] déⁿ-déyⁿ bé:*
 [woman-children Pl] [man-children Pl] Rdp-apart put.Imprt
 ‘Place-2Sg the girls and the boys apart (separated)!’

8.4.6.5 ‘Always’ (*já-wò→*), ‘never’ (*nánà*)

The ‘always’ or ‘every day’ adverb is *já-wò→*. It is apparently constructed from an otherwise unattested noun *já* presumably meaning ‘time’ or ‘day’, plus *wò→* ‘each, every’.

The ‘never’ adverb is *nánà*, used with a negative predicate. However, experiential perfect ‘never’ as in ‘I have never seen an elephant’ can be expressed directly by the experiential perfect negative verb form, see §10.2.3.2, below.

- (224) a. *iⁿ já-wò→ nî yɔ̄ wò*
 1SgSbj always here Exist be.HumSgSbj
 ‘I will always be here.’
- b. *iⁿ nánà té nɔ̄:-rò*
 1SgSbj never tea drink-IpfvNeg
 ‘I will never drink tea.’

8.4.7 Reduplicated (iterated) adverbials

8.4.7.1 Iterated (fully repeated) onomatopoeias

Iterated onomatopoeic forms are displayed in (225), arranged by syllabic shape and vocalic changes. They can be bi- or tripartite. They are usually made predicative by adding a verb like *biré* ‘do, make’.

(225) Iterated onomatopoeias

- a. *Cv-Cv(-Cv)*
 $k\acute{e}^n-k\acute{e}^n-k\acute{e}^n$ [ringing sound]
- b. *Cv:-Cv:*
shift to a in second iteration
 $c\hat{e}^n-c\acute{a}^n$ [chirping sound of small birds]
 $h\acute{o}:-h\acute{a}:-h\acute{o}$ ‘loud chatter’
- c. *CvCv-CvCv(-CvCv)*
shift to a in second iteration
 $k\grave{o}r\acute{o}-k\grave{a}r\acute{a}-k\grave{o}r\acute{o}$ [rattling or creaking sound]
- e. *Cv:C-Cv:C*
 $t\grave{a}:b-t\grave{a}:b$ [sound of walking through grass]
- f. *CvCv(.)C-CvCv(.)C*
 $k\acute{a}r\acute{a}:w-k\acute{a}r\acute{a}:w$ [sound of crunching bones]

8.4.7.2 Distributive adverbials from iterated numerals

Distributives are formed from numerals by iteration. The iteration is more or less complete for simple numerals, but the first iteration is subject to some phonological attrition. In *tă:n-tă:n* ‘three by three’, the first element looks rather like a *Cv-* reduplication rather than an iteration. In *lóy-lóy* ‘two by two’ and *nă-năyⁿ* we have a similar result, but the loss of stem-final *y* in the first iteration is also found in iterated adverbials. *tú-túrú* ‘one by one’ could reflect *rv-* Deletion from a full iteration, or it could be another *Cv-*reduplication. Most of the other stems are clearly iterated.

(226) Distributive of numerals

numeral	gloss	distributive (‘one by one’, etc.)
a. ‘1’ to ‘4’, possible <i>Cv</i> -reduplications		
<i>túrú</i>	‘	<i>tú-túrú</i>
<i>lóy</i>	‘	<i>lóy-lóy</i>
<i>tă:n</i>	‘	<i>tă:n-tă:n</i>
<i>năyⁿ</i>	‘	<i>nă-năyⁿ</i>

b. '5' to '10', clearly full iterations

<i>nùnē:</i>	'	<i>nùnē:-nùnē:</i>
<i>kúré:</i>	'	<i>kúré:-kúré:</i>
<i>sɔ̄:</i>	'	<i>sɔ̄:-sɔ̄:</i>
<i>sìlā:</i>	'	<i>sìlā:-sìlā:</i>
<i>tùwâ:</i>	'	<i>tùwâ:-tùwâ:</i>
<i>pérú</i>	'	<i>pérú-pérú</i>

Morphologically complex numerals iterate enough material to get the point across. From *pě-tà:nù* '30' we get *pě-tà:n* '30 by 30'. From *pérè: ló ságà* '12' we get *pérè: ló ságà ló ságà* '12 by 12'.

The distributive can be used in a range of contexts involving separation into units or clusters, or pairing members or subsets of one set with those of another.

- (227) a. *bé tú-túrú yèr-è*
 3PlSbj one-one come-Pfv
 'They came one by one.' (= 'They dribbled in.')
- b. *émé [nă wò→=n]* *sá:gú ló-lóy gámár"á-pú*
 1PlSbj [person each=Dat] sack two-two distribute-Ipfv
 'We'll distribute two sacks (of grain) to each person.'

8.4.7.3 'Scattered, here and there' (*tâŋ-tâŋ*)

This adverbial indicates scattered, low-density distribution.

- (228) *é:ré [émé ^Lkè] tâŋ-tâŋ kɔ̄*
 peanut [1SgPoss ^LPoss] here.and.there be.NonhSbj
 'Our peanut (plants) are scattered (not common).'

9 Verbal derivation

The productive suffixal derivations for deriving a verb from another verb are the reversive ('un-...') with suffix **-rv** and the causative with any of several suffixes (most productively **-mv**). “v” indicates a variable short vowel. Many verbs (e.g. of stance and of holding) occur in a suffixed mediopassive form (bare stem ends in suffix **-i:** or **-î:**) that may co-exist with a corresponding transitive form. Adjectives generally have an intransitive inchoative ('become ADJ') and a transitive factitive ('make something ADJ').

The only combinations of two derivational suffixes are those with a final causative suffix added to a reversive, a mediopassive, or an inchoative stem. Often, but not always, the factitive of adjectives is just the causative of the corresponding inchoative stem.

9.1 Reversive verbs (**-rv**, **-rⁿv**)

Reversive verbs, which are common in Dogon languages, have a semantics similar to *un-* verbs in English (*untie*, *unbend*). They presuppose that an initial action (tying, bending) previously took place, and the current action reverses the process, returning the object (theme) to its original position. Reversives generally preserve the valency of the corresponding underived verb. Among the more interesting simple/reflexive semantic pairings are ‘shut’/‘open’ and ‘forget’/‘remember’, though the latter is slightly obscured by a phonological irregularity.

The reversive is derived from the simple verb by a suffix **-rv**, which can be nasalized to **-rⁿv** after a nasal syllable (v represents a vowel). The distinction between /H(L)/ and /LH/ toned verb stems is respected. All clear reversives are of the (trimoraic) prosodic types **Cv:-rv** or **CvCv-rv**. By virtue of having these (heavy) shapes, all reversives belong to the class of verbs with final L-toned high vowel {*i u*} in the bare stem (and related perfective forms). This presupposes that the input simple stem is **Cv:** or **CvCv**.

All reversives from my working dictionary are listed in (229).

(229) Reversives

input	gloss	Reversive	gloss
a. Cv:-rv from Cv:			
	[none attested]		
b. like (a) but with nasalized -rⁿv			
<i>/H/-toned</i>			
<i>tɔ:ⁿ</i>	‘roll on (turban)’	<i>tɔ:-rⁿi</i>	‘unroll (turban)’
c. CvCv-rv from CvCv , second input syllable not nasal			
<i>/H/- and /HL/-toned</i>			
<i>pégé</i>	‘insert (blade)’	<i>pégì-rì</i>	‘remove (blade)’
<i>págá</i>	‘tie’	<i>págì-rì</i>	‘untie’
<i>sógɔ́</i>	‘lock’	<i>sógì-rì</i>	‘unlock’

<i>kíwé</i>	‘put hide cover on’	<i>kíwì-rì</i>	‘remove hide cover from’
<i>kól-ì:</i>	‘be caught (in tree)’	<i>kólì-rì</i>	‘become uncaught, get free’
<i>tág-ì:</i>	‘put on (shoe)’	<i>tágì-rì</i>	‘take off (shoe)’
<i>kúw-ì:</i>	‘put on (hat)’	<i>kùwì-rì</i>	‘take off (hat)’
<i>/LH/-toned</i>			
<i>dèwé</i>	‘cover up’	<i>dèwú-rù</i>	‘uncover, reveal’
<i>dígé</i>	‘join (objects)’	<i>dígí-rì</i>	‘de-couple (objects)’
<i>wòbó</i>	‘sag’	<i>wòbí-rì</i>	‘spring back up (after sagging)’

d. like (c), but with nasalized *-rⁿV* after a nasal syllable

<i>/H/-toned</i>			
<i>sónù</i>	‘comb’	<i>sónì-rⁿi</i>	‘undo (braids)’
<i>ójó</i>	‘crumple’	<i>ójù-rⁿù</i>	‘uncrumple’
<i>sájá</i>	‘put (fence)’	<i>sápì-rⁿi</i>	‘unfence’
<i>píné</i>	‘close (door)’	<i>pínì-rⁿi</i>	‘open (door)’
<i>kúwⁿ-ì:</i>	‘shut (eyes)’	<i>kúwⁿù-rⁿù</i>	‘open (eyes)’
<i>tímé</i>	‘cover with lid’	<i>tímì-rⁿi</i>	‘remove lid from’
<i>níj-ì:</i>	‘become tangled’	<i>níjì-rⁿi</i>	‘become untangled’
<i>/LH/-toned</i>			
<i>dòjó</i>	‘prop up’	<i>dòjí-rⁿi</i>	‘un-prop, remove prop from’

e. like (c-d), but with unnasalized *-rv* after nasal syllable

etymologically *CvNCv, see discussion below			
<i>téjé</i>	‘hobble (animal)’	<i>téjì-rì</i>	‘un-hobble (animal)’
<i>nój-ì:</i>	‘be stuck (in tree)’	<i>nójì-rì</i>	‘become unstuck, get free’
<i>bíné</i>	‘turn inside-out’	<i>bínì-rì</i>	‘put back on right (garment)’
<i>dùjó</i>	‘stop up (hole)’	<i>dùjú-rù</i>	‘re-open (stopped up hole)’
<i>míné</i>	‘roll up (mat), fold’	<i>mínì-rì</i>	‘unroll (mat), unfold’
<i>múnó</i>	‘bundle, rumple’	<i>múnú-rì</i>	‘unbundle’
etymologically *CvNv, perhaps reshaped by analogy to the preceding			
<i>mùjó</i>	‘tie (knot)’	<i>mùjú-rù</i>	‘untie (knot)’

f. Cvrv stem with reversive Cv-li (see rv-Deletion, §3.5.3.2)

<i>/H/-toned</i>			
<i>tárá</i>	‘affix, stick on’	<i>tá-li</i>	‘remove (sth affixed)’
<i>/LH/-toned</i>			
<i>góró</i>	‘cover (opening)’	<i>gó-li</i>	‘remove cover from (opening)’

g. irregular

change in vowel-harmonic class			
<i>tópó-</i>	‘pull up (pants)’	<i>tópnì-rⁿi</i>	‘let back down (pants)’
CvCv reduced to Cv- before suffix			
<i>nájá</i>	‘forget’	<i>ná:-rⁿi</i>	‘remember’
irregular from Cvyy			
<i>bíyé</i>	‘bury’	<i>bí-li</i>	‘disinter’
[Prost: “bille”]			

The cases in (229e), where the reversive suffix unexpectedly fails to nasalize even though it follows a nasal syllable, usually reflect proto-forms where the stem had a voiced homorganic nasal-stop cluster (*nd, *mb, *ŋg) that was later reduced to just the nasal. The reversive was

therefore originally of the type *CvNDv-rv*, so the suffix was not in a nasalizing environment. For *bìné* ‘turn inside-out’ compare Nanga *bìndé*. For *téjé* ‘hobble (animal, i.e. by tying a rope around its legs)’, compare Perge (dialect of Jamsay) *tóngó*. For *nóng-i:* ‘(e.g. stone, stick) be stuck in tree’, compare Nanga *nóngí-yé*. For *dùnjó* ‘stop up (hole)’, compare Najamba *dùngí* ‘fill up (pit, well)’. *mìné* ‘roll up (mat)’ and *mùnó* ‘bundle, rumple’ form a set with close semantic and phonological relationships (cf. the discussion of vowel symbolism in §3.4.7); relevant cognates include Nanga *mündó* ‘rumple’, and Bankan Tey *mbündó* ‘rumple’ and *mìndé* ‘roll up (mat)’. However, for *mùnjó* ‘tie (knot)’ the comparative data currently known to me point to an unclustered medial **ŋ*, and cognate reversives do have a nasalized suffix. Perhaps this reversible verb has been reshaped in TgK by analogy to one or more of the just-mentioned examples, notably the ‘roll up’ and ‘bundle, rumple’ forms, which also begin with *m* and have a medial nasal.

In (229f) we see that a *Cvrv* verb combines with reversible *-rv* as *Cv-Iv*, with *I* instead of *r*, perhaps reduced from an earlier **Cvl-lv*. Similar phenomena, reflecting difficulties in combining rhotics with laterals, occur in reversives in other Dogon languages.

A nominal based on a reversible is *kàⁿ-[págá-rá]* ‘Ramadan (fasting month)’, literally “mouth-[tie-Reversible]” with an overlaid compound overlay, cf. *káⁿ* ‘mouth’ and *págì-rì* ‘untie’ (*págá-rá*).

Simple (underived) stems that are not of *Cv:* or *CvCv* shapes do not have morphological reversives, but they can express the notion of reversal by being chained with a following verb *gǔñ* ‘take out, remove’. For example, *légìrì* ‘slide in, insert (into a crack, under a hat, etc.)’ is already a trisyllabic stem ending in *ri*, so the only way to express a reversible is by using the verb-verb chain *légìrì gǔñ* ‘slide back out, remove (something inserted)’.

Another syntactic mechanism, useful when the simple verb denotes a form of pressure rather than impact, is to chain it with *dàgá* ‘leave’ (in the sense ‘desist’). Example: *kóró dàgá* ‘un-surround’ (i.e. desist from surrounding something).

Since the reversible suffix is so productive, there are few underived verbs with reversible semantics, i.e. that function as suppletive reversives for phonologically unrelated verbs. *pó:rì* ‘(knot) become undone’ is compatible with reversible form, but the simple verb *pó:* has unrelated senses (‘scoop out’ etc.), so for practical purposes *pó:rì* is a lexical reversible. *sónì* ‘(braids) become undone’ is also semantically reversible. Ironically, it has an apparent reversible derivative *sónì-rⁿi* ‘untwist (fibers of a simple cord)’ that functions as suppletive reversible of the phonologically unrelated verb *nák:* ‘make (simple cord, by twisting fibers)’. This is an example of how a simple verb and its reversible can decouple semantically over time.

In addition to the verbs recognized here as reversives, TgK has dozens of other verbs with shapes like *Cv:rv* and *CvCvrv* (and nasalized *Cv:r'nv* and *CvCvr'nv*) that are compatible in form with the reversible derivation. A few of these may have originated as reversives. However, in many cases the final rhotic syllable cannot be segmented as a suffix. In other cases, it is segmentable, but the final *-rv* has a different function, opposing a transitive valency to a mediopassive; see §9.3.1.

9.2 Deverbal causative verbs

9.2.1 Productive suffixed causative (-mv)

The productive causative is with a suffix *-mv*, where “v” is a short high vowel. In the bare stem, the usual pronunciation is *-mì*, from /-mìv/, with the vowel apocopated and with its L-tone shifted onto the suffixal nasal. Before *-mì*, the input stem has its usual /H/ or /LH/ tone,

and the vocalism associated with the imperative, the imperfective, and other forms (other than the bare stem or its perfective).

Examples are in (230). Unless otherwise noted the sense of the derivative is within the standard range of causative senses, ranging from coercion (e.g. ‘X jump’ > ‘Y cause X to jump’) to facilitation (‘X spend the night’ > ‘Y have/let X spend the night’). The mediopassive suffix is realized as *-ɛ:-* before the causative suffix but is occasionally dropped (230f).

(230) Causative *-m̄*

input	gloss	causative	comment
a. from <i>Cv</i> and <i>Cv:</i>			
<i>/H/-toned</i>			
<i>nú</i>	‘go in’	<i>nú-m̄</i>	‘put inside’
<i>kó:ⁿ</i>	‘weep’	<i>kó:ⁿ-m̄</i>	also written <i>kó:-m̄</i> ; used with nominal <i>kóⁿ</i>
<i>pé:ⁿ</i>	‘get old’	<i>pé:ⁿ-m̄</i>	also written <i>pé:-m̄</i>
<i>pí:</i>	‘eat (meal)’	<i>pí:-m̄</i>	‘feed’; with noun <i>pá:</i>
<i>ná:</i>	‘spend night’	<i>ná:-m̄</i>	‘have (sb) spend the night’
<i>/LH/-toned</i>			
<i>bě:</i>	‘defecate’	<i>bě:-m̄</i>	used with nominal <i>bě:</i>
<i>n᷑:</i>	‘drink’	<i>n᷑:-m̄</i>	‘give drink to (sb), have (animals) drink’, formerly also ‘make a blood sacrifice to (a fetish)’
b. from <i>CvCv</i> , type with stable vocalism or mediopassive form			
<i>/H/-toned</i>			
<i>árá</i>	‘(baby) suckle’	<i>árá-m̄</i>	‘nurse, give suck to’
<i>kúwó</i>	‘eat (meat)’	<i>kúwó-m̄</i>	‘give meat to’
<i>/LH/-toned</i>			
<i>wàrá</i>	‘do farm work’	<i>wàrá-m̄</i>	e.g. ‘have (animal) plow’
<i>pàŋá</i>	‘pick up’	<i>pàŋá-m̄</i>	
<i>jùg᷑</i>	‘recognize’	<i>jùg᷑-m̄</i>	e.g. ‘X introduce (=present) Y to Z’
c. from <i>CvCv</i> , type with final L-toned { <i>i u</i> } in bare stem and perfective			
<i>/H/-toned</i>			
<i>kíwⁿí</i>	‘tremble’	<i>kíwⁿí-m̄</i>	
<i>/LH/-toned</i>			
<i>mírⁿí</i>	‘swallow’	<i>mírⁿí-m̄</i>	
<i>/LHL/-toned</i>			
<i>gǔŋ</i>	‘remove’	<i>gǔŋ-í-m̄</i>	
<i>CvrV stems subject to rv-Deletion</i>			
<i>pórì</i>	‘say’	<i>pó-m̄</i>	
<i>gèr-í:</i>	‘look’	<i>gě-í-m̄</i>	
<i>gàrá</i>	‘pass by, go past’	<i>gá-í-m̄</i>	in: <i>dàgá gă-m̄</i> ‘let through, allow to pass’, see also <i>gă:-n̄</i> (232e)
<i>biré</i>	‘do’	<i>bí-í-m̄</i>	‘cause to do’
<i>CvrV stems not subject to rv-Deletion</i>			
<i>árá</i>	‘suckle’	<i>árá-m̄</i>	‘(woman) nurse (baby)’

d. from *Cv:Cv*

/H-toned

<i>pá:ñ</i>	'understand'	<i>pá:má-ñ</i>	'advise'
<i>ná:-r̩i</i>	'remember'	<i>ná:-r̩á-ñ</i>	'remind' (reversive)
<i>wé:jú</i>	'be accustomed'	<i>wé:jé-ñ</i>	'accustom (sb, to sth)'
/LH-toned			
<i>yú:gi</i>	'be slow'	<i>yú:gó-ñ</i>	
<i>wó:ŋù</i>	'boil [intr]'	<i>wó:ŋó-ñ</i>	
<i>dě:r̩i</i>	'cease'	<i>dě:r̩é-ñ</i>	'let (sb) rest' (noun <i>dě:r̩é</i>)

e. from *CvCvCv*

/H-toned

<i>sémìr̩i</i>	'be in tatters'	<i>sémér̩é-ñ</i>	
<i>kígìrì</i>	'go back'	<i>kígéré-ñ</i>	
<i>kúrúgù</i>	'be dense'	<i>kúrúgó-ñ</i>	
/LH-toned			
<i>bùgújù</i>	'be muddied'	<i>bùgújó-ñ</i>	
<i>gèmíjì</i>	'become dirty'	<i>gémíjé-ñ</i>	
<i>yògúrì</i>	'become pulpy'	<i>yògóró-ñ</i>	
<i>mènjírì</i>	'be small balls'	<i>mènjéré-ñ</i>	

f. from mediopassive, cf. 'look' in (c) above

MP morpheme absent in causative (rare)

kír-ì: 'jump' *kíré-ñ*

MP morpheme present in causative (productive)

bàr̩-ì: 'become red' *bàr̩-é:-ñ*

g. irregular

<i>líwé</i>	'be afraid'	<i>lí:ré-ñ</i>	'frighten, scare'
<i>jòwó</i>	'run'	<i>jó-ñ</i>	'drive (vehicle)'

The final high vowel of the causative is audible in some suffixed forms. It is heard as *i* in imperfective *-mí-pú* (plural-subject *-mí-pí*) and perfective negative *-mì-lì*, but as *u* (lengthened to *u:u*) in imperfective negative *-mû:-rò* (plural-subject *-mû:-rè*). It is difficult to choose between /-mi/ and /-mu/ representations, since each of these forms has a biased phonological environment (palatoalveolar consonant, following syllable with *i* versus *o* in the primary singular-subject form, even the labial *m*). There may be dialectal variation; in a recorded tale (2011.1b.04), imperfective negative variant *-mâ:-rò* was heard. Other suffixed inflected forms, the imperative, and the agentive, apocopate or syncopate the vowel.

There are no apparent restrictions on the prosodic shape of the derived causative stem (unlike the case with the reversive). Causative suffix *-ñ* may be added to a reversive stem: *ná:r̩á-ñ* 'cause to remember, remind'. It may be added to a suffixally derived (or simple) deadjectival inchoative verb to produce a corresponding factitive: *érú-lé-ñ* 'cause to be happy'. (230f) shows that the suffix can be added to the mediopassive suffix.

As with other verbs, a verbal noun from a causative can be used as a compound final or modifying adjective specifying the manner of production. Thus *pðrú* 'sesame', *pðrù-[yògòrò-mú]* 'balls of cooked and pounded sesame seeds'.

Deadjectival factitives with the same causative suffix are illustrated in §9.5, below. Often the causative suffix follows an inchoative suffix in these forms.

9.2.2 Minor causative suffixes (-g̊v̊, -ŋ̊v̊, -n̊v̊)

A small number of verbs have an archaic causative in *-g̊v̊* ~ *-ŋ̊v̊*. For some, a productive causative with *-n̊* is also elicitable. The archaic causatives may have specialized meanings. The strange metathesis-like changes in *dàní-gì*, *súnú-gì*, and *pùnú-gù* have counterparts in their cognates in other Dogon languages and are undoubtedly ancient. The mediopassive suffix is not retained before *-g̊v̊* ~ *-ŋ̊v̊*. All known examples are in (231).

(231) Causative *-g̊v̊*, *-ŋ̊v̊*

input	gloss	causative	gloss/comment
a. <i>-g̊v̊</i>			
<i>consonantism preserved</i>			
<i>wòró</i>	'(well) cave in'	<i>wòrí-gì</i>	'cause to cave in'
<i>káwá</i>	'be separated'	<i>káw(ú)-gù</i>	'separate [tr]'
<i>mòr-â:</i>	'be lost'	<i>mòrí-gì</i>	'cause to be lost'
<i>lóró</i>	'be punctured'	<i>lórí-gì</i>	'puncture'
<i>Cvgv</i> becomes <i>Cvngv</i>			
<i>dàg-î:</i>	'be done well'	<i>dàní-gì</i>	'make/do (sth) well'; 'get ready [intr, tr]'
<i>súgó</i>	'go down'	<i>súnú-gì</i>	'take down; unload'
<i>Cvŋv</i> becomes <i>Cvngv</i>			
<i>tájá</i>	'X become Y'	<i>tánú-gù</i>	'Z transform X into Y'
<i>Cvww</i> becomes <i>Cvngv</i>			
<i>jòwⁿó</i>	'be ruined'	<i>pùnú-gù</i>	'ruin [tr]'
<i>Cv:</i> (< *Cvwo) becomes <i>Cvngv</i>			
<i>gìné jú:</i>	'wake up [intr]'	<i>pùnú-gù</i>	'wake (sb) up'
b. <i>-ŋ̊v̊</i>			
<i>regular</i>			
<i>sá:ⁿ</i>	'disperse'	<i>sá:ⁿ-ŋ̊jì</i>	'cause to disperse'; also written <i>sá:-ŋ̊jì</i>
<i>irregular (archaic)</i>			
<i>gō:</i>	'go out'	<i>gǔj̊ (gǔŋ̊ù)</i>	'take out, remove' (not clearly segmentable)

Perhaps of this type is *dɔ́rú-gù* 'bail out, ransom', compare the second element in the collocation *dògó dɔ́rɔ́* 'back up, retreat' (*dògó* 'back[ward]').

Some of the basic verbs of motion and stance have causative-like transitive counterparts with suffix *-n̊v̊*. Several verbs translatable as 'put, set, lay' are of this type. The known cases are in (232). The phonological relationships are often nontransparent.

(232) Causative *-n̊v̊*

input	gloss	causative	gloss/comment
a. phonologically regular			
<i>dō:</i>	'arrive'	<i>dō:-n̊</i>	'take to the endpoint'
<i>bā:</i>	'learn'	<i>bā:-n̊</i>	'teach, instruct'

- b. minor consonantal irregularity
 $t\ddot{o}:n\ddot{u}$ ‘melt [intr]’ $t\ddot{o}:r^n\ddot{u}-n\ddot{i}$ ‘melt [tr]’
- c. (*C*)*vmv* becoming (*C*)*u:-n(i)*
 $\grave{im}\text{-}\hat{i}\colon$ ‘lie down’ $\acute{u}\text{-}\grave{n}$ ‘lay, put down (large object)’
- d. *Cvgv* becoming *Cv:-n(i)*
 $d\grave{e}\eta\text{-}\hat{i}\colon$ ‘sit’ $d\ddot{a}\text{-}\grave{n}$ ‘put down, set (e.g. container)’
 $nájá$ ‘be on (wall)’ $ná\text{-}\grave{n}$ ‘put up on (wall)’
- e. *Crv* becoming *Cv:-nì*
 $gárá$ ‘pass by, go past’ $g\ddot{a}\text{-}\grave{n}$ ‘take past’, cf. *gá-m* (230c)
 $m\grave{ö}r^n\text{-}\hat{i}\colon$ ‘assemble [intr]’ $m\ddot{o}\text{-}\grave{n}$ ‘assemble [tr]’
- f. irregular (phonology very obscure)
 $d\grave{ö}w\acute{s}$ ‘go up’ $d\grave{a}n$ ‘cause to go up’

For transitive suffix *-rv*, which is sometimes causative-like in sense, see §9.3.1, just below.

9.3 Passive and transitive

9.3.1 Mediopassive *-i:* ~ *-e:-* versus transitive *-rv* ~ *-rⁿv*

A number of verb stems occur in a contrasting pair of suffixed forms. One has mediopassive *-i:*, which is realized word-finally as *-i:* after L-toned *CVC-* and as *-i:* after H-toned *CVC-*. It becomes *-e:-* before another suffix, and in the imperative. The paired form has transitive suffix *-rv*, with nasalized variant *-rⁿv* after a nasal syllable. These labels are rough; most morphological mediopassives are intransitive but some are transitive, in which case the corresponding morphological transitive is doubly transitive. However, in all cases the mediopassive denotes some kind of state.

Typical semantic categories of verbs with this distinction are a) stance verbs like ‘sit’; b) verbs of holding and carrying; c) verbs of donning and wearing garments; and d) deadjectival verbs. The latter are covered in §9.5, below.

Mediopassive/transitive pairs are illustrated in (233).

(233) Mediopassive *-i:* and paired transitive *-rv* ~ *-rⁿv*

form	gloss	comment
a. stance, position		
<i>túŋ-i:</i>	‘X kneel’	
<i>túŋi-rⁿi</i>	‘Y cause X to kneel’	
<i>ig-i:</i>	‘X stand; X stop’	
<i>igí-ri</i>	‘Z erect X; Z stop X’	
<i>wàw-i:</i>	‘(bird, quadruped) lie down on belly’	
<i>wàwí-ri</i>	‘carry (child) with its belly on one’s shoulder’	

b. holding/carrying

- | | |
|----------------|---|
| <i>bòm-î:</i> | ‘X carry (child) on back’ |
| <i>bòmí-rì</i> | ‘Z help X carry (child) on back’ |
| <i>dìw-î:</i> | ‘lean (on sth)’, ‘be up close to (sth)’ |
| <i>dìwí-rì</i> | ‘carry at one’s side or at one’s abdomen’ |
| <i>dùw-î:</i> | ‘X carry Y on head’ |
| <i>dǔ:-rì</i> | ‘Z load X’, ‘Z have X carry Y on head’ |

c. wearing garments

- | | |
|----------------|--|
| <i>dùg-î:</i> | ‘X (woman) gird oneself (with a wrap)’ |
| <i>dùgí-rì</i> | ‘Y gird X (with a wrap)’ |
| <i>tág-î:</i> | ‘X put on shoes’ |
| <i>tágì-rì</i> | ‘Y put shoes on X’ |
| <i>kúw-î:</i> | ‘X put on a hat’ |
| <i>kúwì-rì</i> | ‘Y put a hat on X’ |

d. other

- | | |
|----------------------------|--|
| <i>ìn-î:</i> | ‘X bathe’ (with noun <i>dí:</i> ‘water’) |
| <i>ìnì-rì</i> | ‘Y bathe X’ (with the same noun <i>dí:</i>) |
| <i>bàŋ-î:</i> | ‘X hide (self)’ |
| <i>bàŋú-rⁿù</i> | ‘Y hide X’ |
| <i>lég-î:</i> | ‘X slip itself into (narrow space)’ |
| <i>légì-rì</i> | ‘Y slip X into (narrow space)’ |

In (234), the unsuffixed stem functions as the transitive counterpart to the suffixed mediopassive. In the last two sets there is also a transitive form with *-ri* suffix.

(234) Unsuffixed stem versus mediopassive *-i:*

- | | |
|----------------|---------------------------------------|
| <i>góro</i> | ‘X cover Y (with blanket)’ |
| <i>gó̄r-î:</i> | ‘Y cover self (with blanket)’ |
| <i>jéré</i> | ‘X hang Y (on a hook or nail)’ |
| <i>jér-î:</i> | ‘Y be hanging; Y cling to’ |
| <i>míné</i> | ‘X fold Y, X roll up Y’ |
| <i>mín-î:</i> | ‘X be rolled up’ |
| <i>bára</i> | ‘X expand Y’ |
| <i>bár-î:</i> | ‘Y expand’ |
| <i>dígé</i> | ‘join, link (objects)’ |
| <i>díg-î:</i> | ‘(objects) be joined’; ‘follow’ |
| <i>dígí-rì</i> | ‘cause to follow; arrange (in order)’ |

<i>tíwé</i>	‘(sb) support oneself on (e.g. walking cane)’
<i>tíw-ì:</i>	‘X (e.g. stick) be leaning against (e.g. wall)’
<i>tíwì-ri</i>	‘Y lean X (against sth)’

Some of these mediopassives have a corresponding causative that obviates the need for a transitive with *-rv* ~ *-rⁿv*.

Examples of mediopassives that are (to judge from present lexicographical data) without a paired transitive are in (235). Further lexical study may remove some of them from the list.

(235) Unpaired mediopassives

form	gloss
a. /H/-toned	
<i>tó̄rⁿ-ì:</i>	‘squat’; ‘(bird) alight’
<i>pón-ì:</i>	‘put on one’s pants’
<i>síw-ì:</i>	‘put on (boubou)’
<i>túw-ì:</i>	‘freeze’ ‘(milk) form a film’
<i>tár-ì:</i>	‘endure, be able to stand’
<i>téŋ-ì:</i>	‘(water) become clear’
<i>téw-ì:</i>	‘bow and place hands on knee’
<i>téŋ-ì:</i>	‘balance (load) on head’
<i>ér-ì:</i>	‘escape’
<i>hámp-ì:</i>	‘chew (tobacco)’
<i>kír-ì:</i>	‘jump’ (with noun <i>kírì</i>)
<i>síy-ì:</i>	‘wear (garment)’ (variant <i>síw-ì:</i>)
<i>sárⁿ-ì:</i>	‘become lost’
<i>kíj-ì:</i>	‘X encounter, meet Y’
<i>nón-ì:</i>	‘(stone, stick) be caught (in tree)’
<i>kól-ì:</i>	‘(garment) be hooked or caught (in tree)’
<i>níŋ-ì:</i>	‘become tangled’
<i>pár-ì:</i>	‘rub in (oil, lotion)’
<i>nówⁿ-ì:</i>	‘go to sleep’ (with noun <i>gìnē</i>)
<i>sóŋ-ì:</i>	‘carry (child) on both shoulders’
<i>tár-ì:</i>	‘(e.g. lizard) be on wall’
<i>tón-ì:</i>	‘calm down’
<i>níŋ-ì:</i>	‘become tangled’
<i>kór-ì:</i>	‘sort by category’
<i>sáwⁿ-ì:</i>	‘be in oversupply’
b. /LH/-toned	
<i>dèŋ-î:</i>	‘sit’
<i>wàrⁿ-î:</i>	‘(vine) spread out’
<i>wðrⁿ-î:</i>	‘(vine) twist itself around’
<i>dág-î:</i>	‘become good, turn out well’
<i>bðr-î:</i>	‘(wedding, festival) be held’
<i>dín-î:</i>	‘hold (in hands)’
<i>jèŋ-î:</i>	‘circulate [intr]’
<i>dàr-î:</i>	‘carry Y on shoulder’
<i>mðrⁿ-î:</i>	‘assemble [intr]’ (cf. causative <i>mð:-ñ</i>)

<i>dòm-î:</i>	‘wait for’
<i>dìm-î:</i>	‘worship’
<i>yày-î:</i>	‘play (board game)’, with noun <i>kòrò</i>

There are also many trisyllabic stems ending in a syllable *rv* that is possibly segmentable, but in the absence of a paired mediopassive we cannot clearly determine the function of the ending. An example is *gègí-rì* ‘(bowl) tilt to the side’, compare adverbial *gègí*→ ‘tilting’. Another is seen in the phrase (cognate nominal plus verb) *tigé tígirì* ‘(griot) call out the names of ancestors’. In a transitive pair like *yìgé* ‘shake (off)’ and *yìgí-rì* ‘jiggle, shake’, the absence of a valency change makes analysis difficult.

Representative singular- and plural-subject inflected forms of a mediopassive verb are in (236). Note the variation between *-i:* and presuffixal (and imperative) *-e:-*.

(236) Inflected forms of mediopassive ‘sit’

	Sg	Pl
perfective	<i>dèŋ-î:</i>	<i>dèŋ-ê:-sêⁿ</i>
perfective negative	<i>dèŋ-è:-lí</i>	<i>dèŋ-è:-lâ:</i>
imperfective	<i>dèŋ-é:-nú</i>	<i>dèŋ-é:-nú</i>
imperfective negative	<i>dèŋ-ê:-ró</i>	<i>dèŋ-ê:-ré</i>
imperative	<i>dèŋ-é:</i>	<i>dèŋ-é:-y</i>

9.3.2 Passive suffix (*-m̩v*)

The only morphological passives recorded are *bě-m̩* ‘be obtainable, available’ from transitive *běré* ‘get, obtain’, and *đ-m̩* ‘be seen, be (easily) visible’ from *đ*: ‘see’.

The suffix is phonologically indistinguishable from the productive causative suffix, but it is sharply limited lexically. The application of *rv*-Deletion in *bě-m̩* is regular (§3.5.3.2).

There is a more general construction meaning ‘be VERB-able’ using mediopassive *bír-î:* ‘be done’, see §17.3.12.

9.4 Ambi-valent verbs without suffixal derivation

Given its rich derivational morphology (including mediopassive/transitive pairs), and the very frequent use of default objects (cognate nominals or other conventional objects), ambi-valent verbs are not typical of TgK. In general, one doesn’t ‘sweep’, one ‘sweeps the ground’; one doesn’t ‘eat’, one ‘eats a meal’, and so forth.

9.5 Deadjectival inchoative and factitive verbs

Adjectival concepts like ‘sweet’ and ‘red’ constitute word-families including an adjective (used in modifying and predicative function), an inchoative verb ‘X become ADJ’, and a factitive (causative) verb ‘Y make X ADJ’. The factitive is often a morphological causative of the inchoative; in other cases the factitive is identical in form to the inchoative.

This section describes the morphological relationship between the adjective and the inchoative verb. This relationship varies from case to case, and it is usually not possible to show that either is derived morphologically from the other. This is probably because inchoative verbs are (for the most part) subject to the usual phonological constraints on verb-stem shapes, while adjectives are not. An interesting exception to this is that when the adjective has an initial voiced obstruent and begins with an H-tone, this tone is carried over into the inchoative, although verbs otherwise require an L-initial melody on stems beginning in voiced obstruents. The examples of this are *gé-ñ* ‘become black’ and *déméré-ñ* ‘become fat’.

(237) Adjectives and their inchoatives

ADJ	‘become ADJ’	‘make ADJ’	gloss
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a. Inchoative unsuffixed

<i>factitive -n̄v</i>			
<i>jó→</i>	<i>jō:</i>	<i>jō:-ñ</i>	‘full’
<i>ě:</i>	<i>é:</i>	<i>é:-ñ</i>	‘tight’
<i>factitive -gv̄</i>			
<i>yòrú</i>	<i>yòrɔ́</i>	<i>yòrú-gì</i>	‘soft, supple’
<i>gònú</i>	<i>gònɔ́</i>	<i>gònú-gù</i>	‘bent, curved’
<i>factitive -m̄v̄</i>			
<i>ěm</i>	<i>émé</i>	<i>émé-m̄</i>	‘cramped’
<i>káŋ</i>	<i>káŋá</i>	<i>káŋá-m̄</i>	‘big’
<i>ăwⁿ</i>	<i>áwⁿá</i>	<i>áwⁿá-m̄</i>	‘in good condition’
<i>yù:gú</i>	<i>yǔ:gì</i>	<i>yǔ:gó-m̄</i>	‘slow’
<i>factitive also unsuffixed</i>			
<i>pò:nú</i>	<i>pó:ñ</i>	<i>pó:ñ</i>	‘fermenting (earth)’
<i>factitive unattested</i>			
<i>kúrígú</i>	<i>kúrígù</i>	—	‘dense (forest)’

b. Inchoative *-n̄v*

<i>factitive -n̄v-m̄v̄</i>			
<i>wá:</i>	<i>wá:-n̄i</i>	<i>wá:-ná-m̄</i>	‘wide’
<i>dègé</i>	<i>dègí-n̄i</i>	<i>dègí-né-m̄</i>	‘short; narrow’
<i>dògú</i>	<i>dògú-n̄i</i>	<i>dògú-nó-m̄</i>	‘heavy’
<i>géⁿ</i>	<i>gé-ñ</i>	<i>gé-né-m̄</i>	‘black’
<i>ùjú</i>	<i>újú-n̄i</i>	<i>újú-nó-m̄</i>	‘small; slender’
<i>pírí</i>	<i>pírí-n̄i</i>	<i>pírí-né-m̄</i>	‘white’
<i>wóró</i>	<i>wórú-n̄i</i>	<i>wórú-nó-m̄</i>	‘deep’
<i>jérⁿú</i>	<i>jérⁿí-n̄i</i>	<i>jérⁿí-né-m̄</i>	‘lightweight’
<i>mòpnú</i>	<i>mòpnú-n̄i</i>	<i>mòpnú-nó-m̄</i>	‘bad’
<i>factitive also -n̄v̄-</i>			
<i>élú</i>	<i>élí-ní</i>	<i>élí-ní</i>	‘sweet, good-tasting’
<i>déméré</i>	<i>déméré-ñ</i>	<i>déméré-ñ</i>	‘fat’
<i>factitive unattested</i>			
<i>é:ŋú</i>	<i>éŋ-n̄i</i>	—	‘near’ (verb: ‘approach’)
<i>gàrá</i>	<i>gàrí-n̄i</i>	—	‘big; thick’
<i>márⁿá</i>	<i>márⁿi-n̄i</i>	—	‘massive, stout’
<i>gùrú</i>	<i>gùrú-n̄i</i>	—	‘tall’

<i>inchoative unattested</i>			
wàgá	—	wàgí-nì	‘distant’

c. Inchoative *-ŋv̩*

mă	mă:-ŋ̩	mă:-ŋá-ñ̩	‘dry; hard’
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d. Inchoative *-l̩v̩* (after rhotic), *-rv̩*

ógú	ógù-rù	—	‘fast’
àpná	ápnì-r̩ñ̩	ápná-r̩á-ñ̩	‘almost ripe’
kélú	kérì-lì	kérí-lé-ñ̩	‘cold’

e. Inchoative with mediopassive *-i:* (§9.3.1)

bá ⁿ	bár ⁿ -é:	bár ⁿ -é:-ñ̩	‘red’
nú:	núw ⁿ -é:	núw ⁿ -é:-ñ̩	‘hot’
òrú	óri-i:	óri-gí	‘wet’

The adjective ‘good’ is *séⁿ*. It has a suppletive inchoative *dág-î* ‘be good, be suitable’, with factitive *dání-gì* ‘make good; repair’.

Inchoatives with *-gì*, arguably denominal (cf. the following section), are *bò:mí-gì* ‘become stupid’ from *bò:mó* ‘stupid’ (also noun ‘stupidity’), and *nám-gì* ‘become poor (indigent)’ from noun or adjective *nàm-gíⁿ* ‘impoverished (person)’.

No morphological inchoative or factitive verb was elicitable for *kàná* ‘new’. The construction used is with ‘become’ and ‘transform, cause to become’ verbs: *kàná tájá* ‘become new’ and *kàná tání-gì* ‘make (sth) new’. Similarly with *pèré* ‘other’.

9.6 Denominal verbs

There are no productive processes for converting nouns into verbs. There are many word families including both a noun and a verb; see the list of cognate nominals in §11.1.5.2. However, it is usually not possible to derive one from the other, except when the nominal has the form of a verbal noun.

Verb *pó:-ñ̩ ~ pó:-nù* is related to noun *pó:* ‘greeting’, which also occurs in the collocation *pó: kún* ‘put (=make) a greeting’.

Noun *dúwó* ‘load, burden’ is related to verb *dùw-î* ‘carry (sth) on one’s head’.

Noun *tígé* ‘family name’ is relate to verb *tígì-rì* ‘(griot) call out names of ancestors’.

Verb *báwⁿúrⁿù* ‘wound’ and noun *bárⁿúwⁿá* ‘wound, injury’ are related. Most languages in the zone have *barme* (omitting any tones).

9.7 Obscure verb-verb relationships

ná: ‘spend night’ is obscurely related to *ná:-wⁿá* ‘greet in the morning’, see §19.7.

10 Verbal inflection

10.1 Inflection of regular indicative verbs

Inflected indicative verbs are followed by an aspect-mood-negation (AMN) suffix, which (minimally) distinguishes perfective/imperfective and positive/negative. There is only very limited pronominal-subject inflection on verbs; some categories have only one form used for all subject categories, while the others express a binary distinction between singular and plural subject forms; see summary in §10.3.1, below.

Especially for nonmonosyllabic stems, the AMN suffixes have a slightly different morphophonology for a) stems ending in a high vowel {i u}, and b) stems ending in any nonhigh vowel.

Imperatives and hortatives are treated separately, see §10.6.

10.1.1 Suffixes versus chained auxiliary verbs

Because verbs have the same phonological form before certain inflectional suffixes that they have in nonfinal position in chains, the question arises whether the inflectional suffixes in question are treated morphosyntactically as (auxiliary) verbs, rather than suffixes. In the morphology, we want to see to what extent the verb stem interacts phonologically with the inflectional morpheme. In the syntax, we want to see if any other element can intervene between the two.

The imperfective suffix *-jú* nasalizes to *-njú* after a nasal syllable in the stem, so this suffix is not a candidate for separate verb status. The imperfective negative interacts phonologically with the stem, lengthening its final vowel and giving it a falling tone. The perfective negative suffix controls tone-dropping on the stem. Several rhotic-medial *CvCv* stems reduce to *Cv-* in all three of these categories by *rv*-Deletion (§3.5.3.2). So there is good evidence that these are suffixal rather than auxiliary categories.

Therefore the only real candidates for auxiliary-verb status are recent perfect *jê* and experiential perfect *-té-jê*. A reasonable case can be made for a word boundary between at least *jê* and the verb stem.

Before recent perfect *jê*, the verb either has its bare stem form (as in direct chains), or a form with intervening *-è:*, depending on the phonological shape of the verb stem. Thus *págá jê* ‘has finished tying’, and *nú-è: jê* ‘has finished going in’. Since there is a same-subject anterior subordinator *-è:* (of variable tone) used in chain-like constructions, overall there is a clear affinity between the recent perfect and two major types of verb chain. Furthermore, *rv*-Deletion does not apply to the stem in this combination: *biré jê* ‘has finished doing’, compare e.g. imperfective *bí-jú* ‘will do’.

Since experiential perfect *-té-jê* arguably includes a variant of the recent perfect morpheme *jê*, compare experiential perfect negative *té-lí* (but see below for conflicting evidence), *-té-jê* has the look of an auxiliary verb. However, unlike *jê* by itself, *-té-jê* does induce *rv*-Deletion of the stem, as in *ná-té-jê* ‘has given birth’ from *nárá*. So the morphological tests suggest that *jê* might be a separate word while *-té-jê* is a suffix complex, and I will hyphenate (or not) accordingly.

The syntactic test of whether an inflectional suffix is treated like an ordinary chain-final verb is in nonsubject relatives and other subordinated clauses that allow or require a pronominal subject immediately before the final verb. If the inflectional morpheme counts as the final verb of a chain, the subject pronoun should intervene between the verb stem and the inflectional morpheme. The data show that the latter is the case. (238a) illustrates this for the recent perfect, (238b) for the experiential perfect.

- (238) a. *nà:^L jí:^L fⁿ ^Hjé*
 meal^L eat.meal 1SgSbj ^HRecPf.Rel
 ‘the meal that I have finished eating.’
- b. *ànà^L yá:^L fⁿ ^Hté-jé*
 village^L go 1SgSbj ^HExpPf-RecPf.Rel
 ‘(a/the) village that I have (once) gone to’

So if we prioritize syntactic evidence over morphological, we must conclude that both *jé* and *té-jé* are auxiliary verbs, unlike the other inflectional categories. In the case of *té-jé*, the contraction of a preceding *Cvrv* stem to *Cv-* suggests that it is subsequently fused into a single word with the stem, justifying the initial hyphen in *-té-jé*.

Incidentally, (238b) provides evidence against interpreting the *-jé* formative in experiential perfect *té-jé* as identical to the recent perfect morpheme. If *té-jé* were itself a chain ending in auxiliary *jé*, the preverbal 1Sg subject pronoun in (238b) would have been placed between *té* and *jé* (the latter in H-toned relative-clause form). Instead, the pronoun precedes the undivided relative form *té-jé*.

10.1.2 Overview of indicative categories

The basic inflectional categories for active indicative verbs are those in (239).

- (239) a. perfective positive system
 simple perfective
 recent perfect
 experiential perfect
- b. imperfective positive system
 imperfective
 progressive
- c. perfective negative system
 perfective negative
 experiential perfect negative
- d. imperfective negative system
 imperfective negative
 progressive negative

Statives do not distinguish perfective from imperfective and are therefore treated separately (§10.4).

10.1.3 Verb stem shapes

The **bare stem** is used here as a citation form and might be taken as the “psychologically real” lexical form, though this could be contested in view of the modifications undergone by stems before AMN suffixes.

For native Dogon verb stems beginning with a voiced stop {*b d g*}, the lexical melody is /LH/ (monosyllabic *CV̄*, bisyllabic *CVCV̄*, etc.). For those beginning with a voiceless obstruent {*p t k s*}, the lexical melody is /H/ (monosyllabic *CV̄*; bisyllabic *CVCV̄*, etc.). Stems with initial sonorant, and vowel-initial stems, have a lexical choice between /LH/ and /H/. The lexical melody is observed in the bare stem and in some AMN inflections. The correlation of initial consonant with lexical melody applies only to verbs (i.e. not to nouns or adjectives), and even for verbs it is overridden by overlays controlled by some AMN suffixes (and in the unsuffixed imperative category).

It is useful to distinguish verbs whose bare stem ends in a high vowel {*i u*} from those whose bare stem ends in any nonhigh vowel {*e ε a ɔ o*}. However, the high-final-vowel verbs have allomorphs with a final nonhigh vowel, the choice of form depending on the morphological environment. The distinction between the two types of verbs is less useful for monosyllabic verbs (*Cv*, *Cv̄*), most of which show no vowel-quality alternations.

See chapter 9 for discussion of verb-stem derivation (causative, reversive, inchoative, factitive). For purposes of this chapter on verbal inflection, derived and underived verbs can be treated alike unless otherwise noted.

10.1.3.1 *Cv* and *Cv̄*: verb stems

The following is a complete inventory of known monosyllabic verb stems. The lexical melody may be /H/ or /LH/, and for irregular ‘take away’ (240d) it is /HL/. The lexical tone is often overridden by suffixally controlled overlays. Stative quasi-verbs like *wò* ‘be (somewhere)’ are excluded from the list. Note the vowel-length pair *nú* ‘go in’ versus *nú:* ‘die’, and the tonal minimal pair *ná:* ‘spend night’ versus *nă:* ‘make rope’.

(240)	stem	gloss	comment
a. short oral vowel; see also (d) below			
	<i>ó</i>	‘give’	imperative <i>ó-nó</i>
	<i>nú</i>	‘go in’	simple perfective <i>nú-ŷn</i>
	<i>tí</i>	‘send’, ‘do first’	see §15.1.6.3, §15.2.2.5
b. long nasal vowel			
<i>/H-toned</i>			
	<i>ká:n</i>	‘shave’	
	<i>sá:n</i>	‘disperse [intr]’	
	<i>pá:n</i>	‘(pond, well) dry up’	
	<i>té:n</i>	‘fold up (rope)’	
	<i>é:n</i>	‘(woman) get married to (man)’	
	<i>pé:n</i>	‘get old’	
	<i>sí:n</i>	‘urinate’	with noun <i>i:n-sír:ní</i>
	<i>kó:n</i>	‘weep’	with noun <i>kó:n</i>
	<i>kó:n</i>	‘(gun) fire’	
	<i>tó:n</i>	‘(milk, urine) fill up’	

<i>tó:ⁿ</i>	‘coil up’; ‘roll up’
<i>sú:ⁿ</i>	‘douse (fire)’
<i>tú:ⁿ</i>	‘measure’
<i>/LH/-toned</i>	
<i>wǎ:ⁿ</i>	‘brandish’
<i>gǎ:ⁿ</i>	‘twist’
<i>dě:ⁿ</i>	‘get tired’
<i>jǐ:ⁿ</i>	‘fart’
<i>gǐ:ⁿ</i>	‘steal’

c. long oral vowel (regular)

<i>/H/-toned</i>	
<i>á:</i>	‘catch’
<i>ná:</i>	‘spend the night’
<i>ká:</i>	‘hone, sharpen (blade)’
<i>ká:</i>	‘harvest (after main harvest)’
	with noun <i>kèrù-ká</i>
<i>lá:</i>	‘step on (slime)’
<i>lá:</i>	‘(parents) engage (girl) to be married’
<i>lá:</i>	‘lay claim to (land)’
<i>sá:</i>	‘sneeze’
	with noun <i>àségú</i>
<i>tá:</i>	‘avoid, respect (a taboo)’
<i>tá:</i>	‘taste’
<i>tá:</i>	‘(bone) be fractured’
<i>tá:</i>	‘shoot (arrow)’; ‘snap (finger) against’; ‘(wasp) sting’
<i>tá:</i>	‘wage (war)’
<i>wá:</i>	‘(tool handle) be broken’
<i>é:</i>	‘become tight’
<i>ké:</i>	‘pick out (lice)’
<i>lé:</i>	‘make slash in earth (to sow)’
<i>té:</i>	‘weave’
<i>sé:</i>	‘trim’
<i>pí:</i>	‘eat (meal)’
<i>pí:</i>	‘fine (someone)’
<i>mí:</i>	‘become fine (powdery)’
<i>š:</i>	‘see’
<i>pš:</i>	‘inform on’
	with noun <i>pò-pš:</i>
<i>pó:</i>	‘strip off’
<i>kó:</i>	‘(larva) bore through (stem)’; ‘(wood) be worm-eaten’
<i>kó:</i>	‘scoop (with ladle)’
<i>kó:</i>	‘raise (young)’
<i>sš:</i>	‘take a handful’
<i>tš:</i>	‘(plant) sprout’
<i>tš:</i>	‘uproot (millet)’
<i>tš:</i>	‘snap finger’
	with noun <i>kárú</i>
<i>tš:</i>	‘set (date)’
<i>tš:</i>	‘take out (daily provisions)’
<i>tš:</i>	‘quarrel, squabble’
	with noun <i>àrⁿâ^L-tš:</i>
<i>tó:</i>	‘turn one’s back’
	with noun <i>dògó</i>
<i>tó:</i>	‘break (with hammer)’

<i>só:</i>	‘dip (briefly)’
<i>só:</i>	‘(wind) come up’
<i>pó:</i>	‘remove (sediment)’
<i>nú:</i>	‘die’
<i>/LH/-toned</i>	
<i>já:</i>	‘dig’
<i>bá:</i>	‘learn’
<i>bă:</i>	‘be enough’, ‘be equal to’
<i>bă:</i>	‘heal, recuperate’
<i>dă:</i>	‘tell (proverb)’
<i>dă:</i>	‘signal to stop’ with noun <i>nùmò</i> ^L - <i>dá</i>
<i>mă:</i>	‘shape (pottery)’
<i>já:</i>	‘dig’
<i>nă:</i>	‘make rope (with rolling motion)’
<i>bě:</i>	‘put down, lay’
<i>bě:</i>	‘defecate’ with noun <i>bé:</i>
<i>jě:</i>	‘scoop (with shovel)’; ‘lift out (coals)’
<i>mě:</i>	‘be ground’
<i>bǒ:</i>	‘unsheathe’
<i>nǒ:</i>	‘drink’; ‘smoke (tobacco)’
<i>mǒ:</i>	‘laugh’ with noun <i>mó</i>
<i>dǒ:</i>	‘arrive’
<i>jō:</i>	‘overflow’, ‘become full’
<i>gō:</i>	‘go out’
<i>wō:</i>	‘eat (crushed millet with water)’
<i>jǔ:</i>	‘wake up’ with noun <i>gìné</i>

d. long oral vowel except *Ce* in bare stem and simple perfective

<i>yě</i>	‘go’	<i>yá:-</i> in other forms
<i>jē</i>	‘take away’	<i>jâ:-</i> in other forms

nú ‘go in’ and *nú:* ‘die’ have partially homophonous paradigms, namely in inflectional categories where *Cv* is lengthened to *Cv:*. As shown by these verbs, along with *ni:* ‘eat (meal)’, there is no prohibition of high vowels, and for these monosyllabic stems the high vowel is stable throughout the AMN paradigm.

10.1.3.2 Irregular *Cv* and *Cv:* stems

ó ‘give’ has irregular imperative *ó-nó* but is otherwise regular.

nú ‘go in’ has simple perfective *nú-ŷn* but is otherwise regular.

The most important irregularities among monosyllabics are those with ‘go’ and ‘take away’ (*yéré* ‘come’ and *jě:rì* ‘bring’ are bisyllabic). For ‘go’ the bare stem is *yě* and the simple perfective is *yě-ŷ*, while other forms are based on a stem-variant *yá:-* subject to regular modifications (imperative *yá:*, imperfective *yá:-jú*, imperfective negative *yá:-rò*, perfective negative *yá:-lí*).

For ‘take away’, the short gloss I use for the verb that expresses ‘convey (sth, somewhere)’ or ‘remove (sth, from here)’, the bare stem is *jê*, with a lexical falling tone not otherwise found in monosyllabic bare stems, and the simple perfective is *jé-ŷ*. Other forms are based on *jâ:-* (imperative *jâ:*, imperfective *jâ:-jù*, imperfective negative *jâ:-rò*, perfective

negative *jà:-li*). This verb is irregular in many Dogon languages. It began as a verb-verb chain with a transitive verb ‘take’ followed by intransitive ‘go’. ‘Bring’ (TgK *jě:ri*) had a similar chain structure (‘take’ plus ‘come’). The original combinations are best preserved in Donno So.

10.1.3.3 Bisyllabic stems

All non-monosyllabic stems end in a short vowel. Bisyllabics may be *CvCv*, *CvCCv*, or *Cv:Cv*. The initial *C* position may be unfilled (*vCv*, etc.).

The basic division is between stems that end in a high vowel (in the bare stem) and those that end in a nonhigh vowel. However, the high-final-vowel stems do have a form ending in a mid-height vowel {*e e o o*} before several of the AMN suffixes.

10.1.3.4 Bisyllabic stems with final nonhigh vowel

For the nonhigh-final-vowel verbs, the attested vocalic sequences are illustrated in (241). Any nonhigh vowel quality may be repeated (241a). If the first vowel is high, the following vowel must be harmonic to it with respect to front/back and rounded/unrounded features and must be mid-height, not *a* (241b). These restrictions apply to native Dogon vocabulary, not necessarily to recent loanwords.

(241) *CvCv* stem with final nonhigh vowel

stem	gloss
a. identical non-high vowels	
<i>téwé</i>	‘shoot’
<i>téré</i>	‘pound (in mortar)’
<i>áŋá</i>	‘cross (arms)’
<i>dòwɔ</i>	‘go up’
<i>bògó</i>	‘(dog) bark’
b. high vowel followed by mid-height vowel	
<i>pídé</i>	‘swell’
<i>dígé</i>	‘drive out’
<i>újá</i>	‘build’
<i>súgó</i>	‘go down’

10.1.3.5 Bisyllabic stems with final high vowel

The other major class of bisyllabic verbs is characterized by a final L-toned high vowel /í/ or (if the verb has a rounded vowel) /ù/ in the bare stem, and by a simple perfective suffix -i. The short high vowel can apocope after /l/ and after nasals. In other AMN categories, these verbs have a **presuffixal stem** that is indistinguishable from the stem shape of a nonhigh-final-vowel verb, including the vowel-sequence restrictions. In particular, stems with initial-syllable *u* have a lexical choice between *o* and *ɔ* for the final vowel, and those with initial-syllable *i* have a lexical choice between *e* and *ɛ* for the final vowel. It is therefore not always

possible to predict the presuffixal form from the bare stem, or vice versa, which forces us to use double citation forms, e.g. *kún**kúnó-* ‘put’ (bare stem *kún*, presuffixal *kúnó-*), especially in the lexicon. Note in particular the opposition between *sí:ré-* ‘cook (meal)’ and *sí:ré-* ‘point at’ in (242a), which merge as *sí:ri* in the bare stem.

(242) Bisyllabic stem with final high vowel (in bare stem)

bare stem	presuffixal	gloss
a. high vowels, final vowel shifting to mid-height		
<i>kún</i>	<i>kúnó-</i>	‘put’
<i>wírì</i>	<i>wíré-</i>	‘whistle’ (with noun <i>wírë̥n</i>)
<i>kírì</i>	<i>kíré-</i>	‘jump’
<i>kílì</i>	<i>kílé-</i>	‘be resolved’
<i>pí:ri</i>	<i>pí:ré-</i>	‘puff up (cheek)’
<i>sí:ri</i>	<i>sí:ré-</i>	‘cook (meal)’
<i>sí:ri</i>	<i>sí:ré-</i>	‘point at’
<i>sú:rù</i>	<i>sú:ró-</i>	‘lower (head)’
<i>ú:-n</i>	<i>ú:-nó-</i>	‘make lie down’
b. high vowels, no shifts		
<i>kíwⁿí</i>	<i>kíwⁿí-</i>	‘tremble’
<i>sírⁿí</i>	<i>sírⁿí-</i>	‘cut off (strip)’
<i>pírⁿí</i>	<i>pírⁿí-</i>	‘pinch’, ‘milk (a cow)’
<i>mírⁿí</i>	<i>mírⁿí-</i>	‘swallow’
c. initial nonhigh vowel		
<i>pál</i> (</pálù/)	<i>pálá-</i>	‘pick (fruit)’
<i>pôl</i>	<i>póló-</i>	‘break up (bread)’
<i>sá:ŋì</i>	<i>sá:ŋá-</i>	‘let out (a yawn)’
<i>bă:ri</i>	<i>bă:rá-</i>	‘send’
<i>mă:-n</i>	<i>mă:nó-</i>	‘assemble’
<i>pé:gù</i>	<i>pé:gé-</i>	‘break apart’
<i>gě:ri</i>	<i>gě:ré-</i>	‘whisper’ (with <i>gé:ru</i>)

10.1.3.6 Contracting and non-contracting *Crv* and *CvrⁿV* stems

A further complication is that a number of important bisyllabic verbs ending in a rhotic {*r r^m*} plus short vowel undergo contraction before several AMN suffixes, resulting in the deletion of the rhotic and the stem-final vowel. The stem’s melody is reapplied to the remaining syllable. The stems in question are a subset of *Crv* and *CvrⁿV* stems, plus one *Cv:rv* verb (‘bring’). Other verbs of the same shapes do not contract. Contraction does not apply to any trisyllabic or longer stem. The split between contracting and noncontracting bisyllabic stems cuts across the division between high-final-vowel and nonhigh-final-vowel verbs. The imperfective form illustrates the difference in contraction (243).

(243) Contracting and noncontracting rhotic-medial bisyllabic verbs

bare stem	imperfective	gloss
a. noncontracting		
íré	íré-jú	'ripen'
kéré	kéré-jú	'bite'
tóró	tóró-jú	'begin'
téré	téré-jú	'pound (in mortar)'
túró	túró-jú	'gather up'
túró	túró-jú	'emit (spit)'
kírì	kíré-jú	'jump'
lórì	lóré-jú	'become pregnant'
bákì	báká-jú	'send'
b. contracting (all known examples)		
bíré	bí-jú	'do'
nár'á	nár'-jú	'give birth'
dár'á	dár'-jú	'kill'
yéré	yér'-jú	'come' [irregular]
bárá	bár'-jú	'help'
bárá	bár'-jú	'gather (into pile)'
gárá	gár'-jú	'go past'
béré	bér'-jú	'get'
pórù	pór'-jú	'say'
jékì	jék'-jú	'bring' [irregular]

For contracting verbs, the contraction occurs before (underlyingly) syllabic suffixes beginning with a consonant, of which {*t j l m n w*} can be cited. The main ones are the imperfective (shown above), experiential perfect (-té-jè), progressive (-táŋà), perfective negative (-lí), prohibitive (-lé), causative -m̩ (underlying -m̩v with an underspecified high vowel), different-subject 'while' subordinator -nì ~ -ñ, and progressive negative -wò-ró. From *bárá* 'gather', typical forms are *bák-té-jé* 'has (once) gathered', *bák-táŋà* 'is gathering', *bák-lí* 'did not gather', *bák-lé* 'don't gather!', *bák-m̩* 'cause to gather', *bák-nì* 'while (DS) gathers', *bák-wò-ró* 'is not gathering'. Imperfective negative -rò induces contraction but then applies its vowel-lengthening power to the remaining Cv- of the stem: *bák-rò* 'does/will not gather'.

Contraction does not occur in bare stem *bárá*, perfective *bár-ê* 'gathered', imperative (positive) *bárá* (plural-subject *bárá-ỳ*), verbal noun *bár-ú*, or agentive *tí'-bárá* 'firewood-gatherer', none of which fit the phonological conditions for contraction (following syllabic C-initial suffix).

10.1.3.7 Verbs with -i: in bare stem and perfective only

The irregularity of *gér-î*: 'look' is that the bare stem and the simple perfective consist of what looks like a suffixed mediopassive form *gér-î*, while other suffixed forms are based on /géré/, showing the same morphophonology as e.g. *béré* 'get'. All of the forms with /géré/ are subject to *rv*-Deletion (§3.5.3.2).

(244) ‘look’

- | | | |
|----|----------------|-----------------------|
| a. | <i>gèr-î:</i> | bare stem |
| | <i>gèr-í-i</i> | perfective |
| | <i>gèr-í-Ø</i> | verbal noun |
| b. | <i>gè-lí</i> | perfective negative |
| | <i>gě-jú</i> | imperfective |
| | <i>gĚ:-rò</i> | imperfective negative |

I know of two other verbs with a similar limited distribution of the mediopassive suffix: *bɔr-î:* ‘(event) take place’ (§11.2.5.3) and *lÍw-î:* ~ *lÍy-î:* ‘fear, be afraid’ (§11.2.5.4).

10.1.3.8 Verbs with *-ɛ:* except in bare stem and perfective

The paradigm of the verb in (245) is structurally the inverse of that for ‘look’ (preceding section). That is, the mediopassive (MP) suffix is present in forms other than the bare stem and perfective. This is the only verb known to me that has this paradigm.

(245) ‘be courageous/energetic’

- | | | |
|----|-----------------------------|-----------------------|
| a. | <i>mǎn</i> | bare stem |
| | <i>mǎn-ì</i> ~ <i>mǎn-Ø</i> | perfective |
| b. | <i>mǎn-ɛ:-lí</i> | perfective negative |
| | <i>mán-é:-pú</i> | imperfective |
| | <i>mán-ɛ:-rò</i> | imperfective negative |

10.1.3.9 Trisyllabic stems

All known trisyllabic stems end in a high vowel in the bare stem. They therefore pattern morphophonologically with the high-final-vowel bisyllabics described in the preceding section. Specifically, they have a shape *CvCuCu CvCuCi* in the bare stem (to which *-i* is added to form the simple perfective).

The main tonal division, as for other verb shapes, is between those with initial H-tone and those with initial L-tone. In the bare stem, the *CvCvCv* sequence is heard with H.L.L or H.H.L tone, for the H-initial type. The choice between H.L.L and H.H.L correlates almost perfectly with another split in these verbs, concerning whether the medial vowel remains high in the presuffixal stem, or shifts to the same vowel as in the final syllable in this stem (246a). The L-initial type, corresponding to /LH/ verbs with shorter shapes, is realized as L.H.L in the bare stem.

As usual, an initial voiceless obstruent requires one of the H-initial melodies, an initial voiced obstruent requires L-initial melody, and other stems (those beginning with a sonorant, or with no vowel) are split lexically into H-initial and L-initial types.

There are two subtypes with regard to vocalism of the presuffixal stem, cutting across the tonal opposition. In one, the medial and final vowels are identical and non-high. My examples of this subtype involve a rhotic consonant in the final syllable (*CvCvrV*, *CvCvrⁿV*), one case with *I* after metathesis of *lv-r* to *rv-l*, and one case of *CvCvnV*. In the other subtype, the medial

vowel remains high in the presuffixal form, while the final vowel appears as one of the mid-height vowels. My examples of this subtype have a final syllable beginning with a non-rhotic consonant; the attested consonants are {*g j n p l w*} with *g* and *j* accounting for a sizeable percentage. The consonant of the final syllable is indicated (“with *g*” etc.) in (246).

(246) Trisyllabic verb with final high vowel in bare stem

bare stem	presuffixal	gloss
a. H.L.L and H.H.L tone patterns		
H.L.L, identical non-high medial and final <i>v</i> 's before suffixes		
with <i>r</i>		
<i>kígiřì</i>	<i>kígéré-</i>	‘return’
<i>pégìřì</i>	<i>pégéré-</i>	‘remove (blade)’
<i>áwìřì</i>	<i>áwárá-</i>	‘lay out (mat)’
<i>sáwùřù</i>	<i>sáwárá-</i>	‘lay (brick mortar)’
<i>pógiřù</i>	<i>pógró-</i>	‘(hair) be disheveled’
<i>sógiř-rù</i>	<i>sógró-</i>	‘unlock’
<i>pówiřù</i>	<i>pówró-</i>	‘wave (torch)’
<i>úgiřù</i>	<i>úgró-</i>	‘bake’
with <i>rⁿ</i>		
<i>sánùřⁿù</i>	<i>sánárⁿá-</i>	‘replaster (wall)’
<i>ságířⁿi</i>	<i>ságárⁿá-</i>	‘(lightning) flash’
<i>sájiřⁿi</i>	<i>sájá-rⁿá-</i>	‘un-fence’
<i>kúmùřⁿi</i>	<i>kumžírⁿá-</i>	‘be rekindled’
<i>kúwⁿù-rⁿù</i>	<i>kúwⁿó-rⁿó-</i>	‘open (eyes)’
<i>símìřⁿi</i>	<i>símérⁿé-</i>	‘go back down (slope)’
<i>pínìřⁿi</i>	<i>píné-rⁿé-</i>	‘open (door)’
H.H.L, identical non-high medial and final <i>v</i> 's before suffixes		
with <i>n</i>		
<i>íwíni</i>	<i>íwéné-</i>	‘like, love’
H.H.L, medial vowel remains high before suffixes		
with <i>g</i>		
<i>píriřì</i>	<i>pírigé-</i>	‘be near death’
<i>tánú-gù</i>	<i>tánú-gá-</i>	‘transform’
<i>súnú-gù</i>	<i>súnú-gó-</i>	‘take down’
<i>óri-gì</i>	<i>óru-gó-</i>	‘soften’
<i>kúrúgù</i>	<i>kúrúgó-</i>	‘be dense’
<i>ámúgù</i>	<i>ámúgá-</i>	‘hold on chest’
<i>pójúgù</i>	<i>pójúgó-</i>	‘crush’
with <i>j</i>		
<i>lígiřì</i>	<i>lígiřé-</i>	‘mix (by stirring)’
<i>lúgiřjù</i>	<i>lúgiřjó-</i>	‘poke around’
<i>púgiřjù</i>	<i>púgiřjó-</i>	‘mash’
<i>kógiřjù</i>	<i>kógiřjó-</i>	‘cough’
with a nasal		
<i>kúmúňù</i>	<i>kúmúňá-</i>	‘blink’
<i>píri-nì</i>	<i>píri-né</i>	‘become white’
<i>óříní</i>	<i>óříúná-</i>	‘become smooth’
<i>nérní-nì</i>	<i>nérní-né-</i>	‘become lightweight’

<i>with a semivowel</i>		
<i>kájúwù</i>	<i>kájúwá-</i>	'pay attention'
<i>with a lateral</i>		
<i>súrúlù</i>	<i>súrúló-</i>	'pour back and forth'
<i>with l (after metathesis)</i>		
<i>kérí-lí</i>	<i>kérí-lé-</i>	'become cold' (<i>kélú</i>)

b. L.H.L tone pattern

L.H.L, identical non-high medial and final v's before suffixes

with r

<i>yùgúrì</i>	<i>yùgóró-</i>	'foam up'
<i>wògúrù</i>	<i>wògóró-</i>	'take (sth) out or off'
<i>ùŋúrì</i>	<i>ùŋóró-</i>	'get up, arise'
<i>bògúrù</i>	<i>bògóró-</i>	'turn over (earth)'
<i>wègúrì</i>	<i>wègéré-</i>	'rub (eye)'
<i>gègúrì</i>	<i>gègéré-</i>	'tilt (sth)'
<i>ìgírì</i>	<i>ìgéré-</i>	'stop (sb)'
<i>bìní-rì</i>	<i>bìné-ré</i>	'put (garment) on right'
<i>dògúrù</i>	<i>dògóró-</i>	'face upward'

with rⁿ

<i>jòŋírⁿi</i>	<i>jòŋírⁿó-</i>	'do spot-sowing'
<i>wàpúrⁿù</i>	<i>wàpárⁿá-</i>	'bubble up'

L.H.L, medial vowel remains high before suffixes

with g

<i>jùnú-gù</i>	<i>jùnú-gó-</i>	'ruin'
<i>jùnú-gù</i>	<i>jùnú-gó-</i>	'awaken' [note homonymy]
<i>bùrúgù</i>	<i>bùrúgó-</i>	'revive'
<i>wòrúgù</i>	<i>wòrúgó-</i>	'unbuild, take apart'
<i>bìlígì</i>	<i>bìlígé-</i>	'do magic tricks'
<i>jàrígì</i>	<i>jàrígá-</i>	'criticize'
<i>gònú-gù</i>	<i>gònú-gó-</i>	'make crooked'

with j

<i>bùgújù</i>	<i>bùgújó-</i>	'shake off'
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with a nasal

<i>dògí-nì</i>	<i>dògú-nó-</i>	'become heavy'
<i>gàrí-nì</i>	<i>gàrú-ná-</i>	'become thick, big'
<i>dègí-nì</i>	<i>dègí-né-</i>	'become narrow'
<i>mòŋú-nù</i>	<i>mòŋú-nó-</i>	'be bad'

10.2 Positive indicative AMN categories

10.2.1 Perfective positive system (including perfect)

There is an unsuffixed simple perfective (§10.2.1.1), a suffixed recent perfect (§10.2.1.3), and a suffixed experiential perfect (§10.2.1.2). The “suffixes” are arguably auxiliary verbs. That the latter two belong in the perfective system is shown by their negatives, which include the perfective negative; see §10.2.3.1, below. The simple perfective has a reduplicated variant (§10.2.1.5). There is also a periphrastic combination that I call the perfect of continuing possession (§10.2.1.4).

10.2.1.1 Simple perfective (-*e/-e/-i*, -*sɛ̂n*, -*ɛ̂:-sɛ̂n*)

The transcribed forms below show the tones heard in isolation or in very simple sentences with only a pronominal subject preceding. At the end of longer clauses, these simple perfectives (like other inflected verb forms) are often heard with {L} tones.

For plural subjects (1PI, 2PI, and especially with human reference 3PI), the simple perfective optionally adds a suffix *-sɛ̂n* to the stem. If the stem-final vowel of a nonmonosyllabic stem is lexically high, it is replaced by an augment *-ɛ̂:-*. The same vowel quality may extend to a preceding vowel (if medial in a trisyllabic stem).

For singular subjects (nonhuman plurals are treated as singular for this purpose), the simple perfective ends in *-e ~ -e* for verbs whose bare stem (otherwise) ends in a non-high vowel, and in *-i* for stems ending in a high vowel {*u i*} (or *-Ø* after Apocope of a high vowel). Plural subjects also optionally use this form when a plural pronoun or NP occurs in subject position.

Stems ending lexically in a non-high vowel are exemplified in (247). Singular *-e ~ -e* replaces a final non-high vowel {*o o a e e*} for nonmonosyllabics, and forms a kind of diphthong with the final non-high vowel of a monosyllabic (which is shortened). The choice between *-e* and *-e* depends on the vowel-harmonic class of the stem, whereby {*o a e*} stem vocalism requires *-e*, {*o e*} stem vocalism requires *-e*, and high vowels are neutral (§3.4.6). Since {*e o a*} vocalism is more common than {*e o*} vocalism in lexical verb stems, the suffix allomorph *-e* is more common than *-e*.

Verb stems ending lexically in a non-high vowel have the shapes (*Cv* ('give'), *Cv:*, and *CvCv*). If the stem is /H/-toned, *-e ~ -e* is L-toned. If the stem is /LH/-toned, *-e ~ -e* is <HL>-toned.

The plural suffix *-sɛ̂n* is added directly to the bare stem for these verbs, except in *č-ɛ̂:-sɛ̂n* 'they give' (the only *Cv* stem in the set), which has the *-ɛ̂:-* augment.

(247) Simple perfective of verbs with final nonhigh vowel, except *Ce-*

bare stem	simple perfective	gloss
singular	plural	
a. /H/ toned monosyllabics, <i>Cv</i> (only known example)		
ó	ó-ɛ̂	č-ɛ̂:-sɛ̂n 'give' [irregular]
[ó-ɛ̂ shortens to ó-Ø before dè 'if']		
b. /H/ toned monosyllabics, long-voweled <i>Cv:</i> (all known examples)		
á:	á-ɛ̂	á:-sɛ̂n 'catch'
ná:	ná-ɛ̂	ná:-sɛ̂n 'spend night'
kó: ⁿ	kó:-ɛ̂n	kó:-sɛ̂n 'weep'
pé: ⁿ	pé:-ɛ̂n	pé:-sɛ̂n 'get old'
c. /LH/ toned monosyllabics, <i>Cv:</i> (all known examples)		
singular perfective <LHL> toned		
č:	č-ɛ̂	č:-sɛ̂n 'see'
singular perfective <LH> toned		
já:	já-ɛ̂	já:-sɛ̂n 'dig'
nč:	nč-ɛ̂	nč:-sɛ̂n 'drink'
dč:	dč-ɛ̂	dč:-sɛ̂n 'arrive'
bč:	bč-ɛ̂	bč:-sɛ̂n 'learn'

<i>bă:</i>	<i>bă-è</i>	<i>bă:-ŝēⁿ</i>	‘be enough’
<i>gō:</i>	<i>gō-è</i>	<i>gō:-ŝēⁿ</i>	‘go out’
singular perfective <LH> toned, <i>e</i> to <i>ɛ</i> in plural			
<i>bě:</i>	<i>bě-è</i>	<i>bě:-ŝēⁿ</i>	‘put down’
[<i>bě:-ŝēⁿ</i> homophonous with ‘(they) defecated’]			

d. /H/ toned bisyllabics, *CvCv*

<i>téré</i>	<i>tér-è</i>	<i>téré-ŝēⁿ</i>	‘pound’
<i>págá</i>	<i>pág-è</i>	<i>págá-ŝēⁿ</i>	‘tie’
<i>újó</i>	<i>új-è</i>	<i>újó-ŝēⁿ</i>	‘build’
<i>téwé</i>	<i>téw-è</i>	<i>téwé-ŝēⁿ</i>	‘shoot’
<i>súgó</i>	<i>súg-è</i>	<i>súgó-ŝēⁿ</i>	‘go down’

e. /LH/ toned bisyllabics, *CvCv*

<i>dòwó</i>	<i>dòw-è</i>	<i>dòwó-ŝēⁿ</i>	‘go up’
<i>yèré</i>	<i>yèr-è</i>	<i>yèré-ŝēⁿ</i>	‘come’
<i>yòwó</i>	<i>yòw-è</i>	<i>yòwó-ŝēⁿ</i>	‘accept’
<i>jànjá</i>	<i>jànj-è</i>	<i>jànjá-ŝēⁿ</i>	‘pick up’
<i>dígé</i>	<i>díg-è</i>	<i>dígé-ŝēⁿ</i>	‘drive out’
<i>bògó</i>	<i>bòg-è</i>	<i>bògó-ŝēⁿ</i>	‘(dog) bark’

Occasional segmental homophony between the 3Sg simple perfective and the bare stem, viz., among /LH/ toned nonmonosyllabics ending lexically in {*e e*} such as ‘drive out’ in (247e), is resolved by tones and by position (the bare stem occurring nonfinally in a verb chain).

The two somewhat irregular *Ce-* verbs (§10.1.3.1) are in (248).

(248) Simple perfective of *Ce* stems

bare stem	perfective		gloss
	singular	plural	
<i>jê</i> (<i>jâ:-</i>)	<i>jé-ỳ</i>	<i>jé-è:-ŝēⁿ</i>	‘take away’
<i>yě</i> (<i>yâ:-</i>)	<i>yě-ỳ</i>	<i>yě-è:-ŝēⁿ</i>	‘go’
[<i>jé-ỳ</i> and <i>yě-ỳ</i> shorten to <i>jê-Ø</i> and <i>yě-Ø</i> before <i>dè</i> ‘if’]			

Monosyllabic stems with high vowel, and *CiCi* bisyllabics, are illustrated in (249). These verbs have a final high vowel that does not shift to a mid-height vowel before suffixes such as the imperfective. They have a perfective -*ỳ* (monosyllabic) or -*í ~ i* (bisyllabic), so in the perfective they have morphological affinities to the (mostly heavier) stems with changeable final high vowel to be described later. This is especially so with the *Cv* stems in (249a), which show the -*è:-* augment before the plural suffix.

(249) Simple perfective of stems with fixed final high vowel

	bare stem singular	perfective plural	gloss
a. /H/ toned Cv			
		[-ᷟ dropped before dè ‘if’, e.g. nû-∅ dè]	
nú	nú-ᷟ ⁿ	nú-᷑-s᷑ ⁿ	‘go in’
tí	tí-ᷟ	tí-᷑-s᷑ ⁿ	‘do first’
gí	gí-ᷟ	gí-᷑-s᷑ ⁿ	‘say’
b. /H/ toned monosyllabics, long vowelled (all known examples)			
		[-ᷟ not dropped before dè ‘if’, e.g. nú-ᷟ ⁿ dè]	
jí:	jí-ᷟ ⁿ	jí-᷑-s᷑ ⁿ	‘eat’
nú:	nú-ᷟ ⁿ	nú-᷑-s᷑ ⁿ	‘die’
c. CiCi stems			
CíCí with -ì			
pír ⁿ í	pír ⁿ -ì	pír ⁿ í-s᷑ ⁿ	‘milk (a cow)’
CíCí with -í			
mír ⁿ í	mír ⁿ -í	mír ⁿ í-s᷑ ⁿ	‘swallow’

‘Go in’ and ‘die’, whose bare stems differ in vowel length, have the same (singular-subject) nú-ᷟⁿ but differ in the plural-subject form. Before dè ‘if’, nú-ᷟⁿ ‘went in’ shortens to nû-∅, but nú-ᷟⁿ ‘died’ does not shorten.

The remaining large class of verbs is those of CvCv or heavier shapes with a changeable final high vowel. The final high vowel is heard in the bare stem and in the perfective (singular-subject). The perfective always ends in -ì, while the bare stem may end in ù or i, with variation between the two for some stems. Since /u/ is more prone to Apocope than /i/, sometimes the alternation is heard as final zero (i.e. final consonant) in the bare stem versus -ì in the perfective.

All heavy stems (three vocalic moras or more) belong to this class. Also belonging to this class are CvCi stems with an initial-syllable vowel other than i.

(250) Simple perfective of stems with changeable final high vowel

	bare stem Sg	Perfective Pl	gloss
a. CvCv (not CiCi)			
		[-ì may apocope before dè ‘if’, e.g. kún-∅ dè]	
/HL/-toned			
pál	pál-ì	pál-᷑-s᷑ ⁿ	‘pick (fruit)’
kún	kún-ì	kún-᷑-s᷑ ⁿ	‘put’
pórù	pór-ì	pór-᷑-s᷑ ⁿ	‘say’
/LHL/-toned			
gǔñ	gǔñ-ì	gǔñ-᷑-s᷑ ⁿ	‘take out’
[gǔñ-᷑-s᷑ ⁿ can be realized as [gǔñ᷑-s᷑ ⁿ]]			

b. *Cv:Cv*

[*-ì* may apocope before *dè* ‘if’, e.g. *bă:ṛ-Ø dè*]

/HL/-toned

<i>pó:ñ</i>	<i>pó:n-ì</i>	<i>pó:n-è:-sêⁿ</i>	‘greet’
<i>/LH/-toned</i>			
<i>bă:ṛ</i>	<i>bă:r-ì</i>	<i>bă:r-è:-sêⁿ</i>	‘send’
<i>jă:nì</i>	<i>jă:n-ì</i>	<i>jă:n-è:-sêⁿ</i>	‘cook in pot’
<i>m᷑:-n(ù)</i>	<i>m᷑:n-ì</i>	<i>m᷑:n-è:-sêⁿ</i>	‘assemble’
<i>jě:ṛ</i>	<i>jě:r-ì</i>	<i>jě:r-è:-sêⁿ</i>	‘bring’

c. trisyllabic

with changeable final and medial vowels (in other categories)

<i>ùŋúrù</i>	<i>ùŋúr-ì</i>	<i>ùŋúr-è:-sêⁿ</i>	‘get up’
<i>kígìrì</i>	<i>kígìr-ì</i>	<i>kígìr-è:-sêⁿ</i>	‘return’
<i>áwìrì</i>	<i>áwìr-ì</i>	<i>áwìr-è:-sêⁿ</i>	‘lay out (mat)’
<i>pówùrù</i>	<i>pówìr-ì</i>	<i>pówìr-è:-sêⁿ</i>	‘(hair) be disheveled’

with fixed medial high vowel and changeable final vowel

<i>kógùjù</i>	<i>kógúj-ì</i>	<i>kógúj-è:-sêⁿ</i>	‘cough’
<i>pírigì</i>	<i>pírig-ì</i>	<i>pírig-è:-sêⁿ</i>	‘be near death’
<i>súnù-gù</i>	<i>súnú-g-ì</i>	<i>súnú-g-è:-sêⁿ</i>	‘take down’

d. Mediopassive *-i*: [note the orthography]

<i>ig-î:</i>	<i>ig-í-ì</i>	<i>ig-é-è:-sêⁿ</i>	‘stand’
<i>tág-ì:</i>	<i>tág-ì-ì</i>	<i>tág-è-è:-sêⁿ</i>	‘put on shoes’

[bare stem *-i*: and perfective *-i-i* are homophonous]

All of these verbs take the extended plural-subject form *-è:-sêⁿ*, as do *Cv* stems with high vowel, see (249a) above.

Plural-subject suffix *-sêⁿ* is optional. Verbs that do not take the augment *-è:-* before *-sêⁿ* therefore have two forms, a grammatically unmarked form (required for singular subject and optional for plural subject), and an optional, grammatically marked plural-subject form. Verbs that take the augment *-è:-*, on the other hand, have three forms. The grammatically unmarked form is required for singular subject. For plural subject, the optional fully marked form is *-è:-sêⁿ*, but when the plural-subject suffix *-sêⁿ* is omitted, the augment *-è:* often remains. It therefore can itself function as a (perfective positive) plural-subject marker. For example, perfective ‘got up’ is *ùŋúr-ì* for singular (occasionally plural) subject, and either *ùŋúr-è:-sêⁿ* or just *ùŋúr-è:* for plural subject.

The distinction in (250c) between trisyllabic stems whose medial vowel is subject to shift between high and nonhigh (from one category to another), and those with fixed medial high vowel, is irrelevant to the perfective.

Mediopassive verbs have a perfective *-i-i*, homophonous to (but here orthographically distinguished from) the bare stem with suffix *-i*, as in *já jày-i-i* ‘he/she had a fight’ (with cognate nominal *já*). The plural-subject form is *já jày-è:-sêⁿ* ‘they had a fight’.

Sample paradigms including the preverbal subject pronouns are in (251).

(251) Pronominal paradigm (simple perfective)

category	‘go down’	‘pick (fruit)’
1Sg	<i>iⁿ súg-è</i>	<i>iⁿ pál-ì</i>
1Pl	<i>émé súgó-séⁿ</i>	<i>émé pál-è:-séⁿ</i>
2Sg	<i>ú súg-è</i>	<i>ú pál-ì</i>
2Pl	<i>é súgó-séⁿ</i>	<i>é pál-è:-séⁿ</i>
3Sg	<i>wó súg-è</i>	<i>wó pál-ì</i>
3Pl	<i>bé súgó-séⁿ</i>	<i>bé pál-è:-séⁿ</i>
Nonh	<i>kó súg-è</i>	<i>kó pál-ì</i>

The plural-subject form *-séⁿ*, like perfective participial *sáⁿ* in relative clauses, undoubtedly reflects an original perfective suffix *-so- or *-sa- (perhaps combined with another morpheme). This category is called perfective-2 or resultative in some of my other Dogon grammars. The suffix is related to the ‘have’ quasi-verb that appears in TgK as *sà* (§11.5.1).

Prost describes a “passé composé” which has singular-subject “sa” corresponding to plural-subject *-seⁿ*, e.g. “*wo yere sa*” ‘he has come’. For Prost, this category is distinct from the unsuffixed perfective (“passé simple”). However, he also notes that the common singular-subject form is that of the passé simple, while the common plural-subject form is that of the passé composé, so the difference between Prost’s description (pp. 40, 49, 59) and mine is less great than initially appears.

10.2.1.2 Experiential perfect ‘have ever’ (-té-jè)

The (positive) experiential perfect is expressed by adding *-té-jè* (invariant for subject number). There is syntactic evidence that this is an auxiliary verb that can be separated from the preceding verb (by a preverbal subject pronominal in a nonsubject relative); see §10.1.1. However, this conflicts with morphophonological evidence that it is suffixal rather than a separate word; namely, rhotic-medial *CvCv* stems undergo *rv*-Deletion (§3.5.3.2) before *-té-jè*, but not in verb-chains: *biré* ‘do’, experiential negative *bí-té-jè* ‘has (ever) done’. One can reconcile the two findings by suggesting that it starts out as a separate word (auxiliary) but then merges with the verb as a suffix (complex).

With one minor exception (‘see’), the stem before *-té-jè* has the same segmental and tonal form as before imperfective *-jú*. Thus *nú-té-jè* ‘has (ever) gone in’, *kígeré-té-jè* ‘has (ever) gone back’ (from *kígori*), *núnú-gó-té-jè* ‘has (ever) ruined’. ‘See’ is <LH> toned in *ó-té-jè* ‘has (ever) seen’, but H-toned in imperfective *ó-jú* ‘sees, will see’.

- (252) a. *iⁿ* *íⁿ* *ná-té-jè*
 1SgSbj child give.birth-ExpPf-RefPf
 ‘I have (at least once) given birth.’ (*nárⁿá*)
- b. *émé* *yí* *kó* *kúnó-té-jè*
 1PlSbj there NonhObj put-ExpPf-RecPf
 ‘We have (at least once) put it in there.’

This category can be translated as ‘have (ever) VERB-ed’. It is especially common with ‘see’ (i.e. something unusual), ‘go’ (i.e. to a distant place) and similar verbs denoting events that create a permanent state (such as a memory).

The (positive) form is *-té-jè*, invariant for subject number. It is tempting to interpret this as the combination of a stem-like element *(-)té* plus recent perfect *jè*, rather than as a perfective *téj-è* (from a putative stem *téjé*), since *té-jè* agrees with recent perfect *-jè* in not distinguishing singular from plural subject, whereas a stem *téjé* should have a plural-subject form *#téjé-sèⁿ*, compare *téwé-sèⁿ* ‘they shot’. However, the syntactic evidence (from nonsubject relative clauses) fails to confirm the analysis of *(-)té-jè* as *(-)té* plus the recent perfect auxiliary, since no other element can intervene between them; see §10.1.1, above.

- (253) a. *iⁿ* [dùŋù^L ná:] ɔ-té-jè
1SgSbj [elephant] see-ExpPf-RecPf
'I have (in my life) seen an elephant.'
- b. *émé* [dùŋù^L ná:] ɔ-té-jè
1PlSbj [elephant] see-ExpPf-RecPf
'We have (in our lives) seen an elephant.'

The category is common in questions ('have you ever ...?'). It is also common with negation ('have never ...'), see §10.2.3.2, below.

10.2.1.3 Recent perfect (*jè*)

The auxiliary verb (see below) *jè* added to the main verb produces a recent perfect translatable as ‘already/just VERB-ed’ or as ‘have (just) finished VERB-ing’. There is no morphological distinction between singular and plural subjects.

The form taken by the verb before *jè* is either the bare stem (as in direct verb chains), or a form with suffix *-è:* (as in same-subject anterior chains), depending on the form of the stem. The suffix *-è:* is found with the few *Cv* stems, and with verbs whose bare stem ends in a high vowel, including all stems heavier than bimoraic *CvCv* (254). This morphology suggests that *jè* could be interpreted as an auxiliary verb, to which a preceding VP can be chained. The syntactic evidence in §10.1.1, above, also supports the auxiliary-verb analysis.

(254) Recent perfect of stems with lexical stem-final high vowel

bare stem	recent perfect	gloss
a. <i>Cv</i> stems		
ó	ɔ-è: jè	'give'
nú	nú-è: jè	'go in'
b. stem-final fixed vowel <i>final nonhigh vowel</i>		
á:	á: jè	'catch'
ɔ:	ɔ: jè	'see'
nɔ̄:	nɔ̄: jè	'drink'
bìré	bìré jè	'do'
yèré	yèré jè	'come'

<i>págá</i>	<i>págá jê</i>	‘tie’
<i>súgó</i>	<i>súgó jê</i>	‘go down’
<i>CiCi</i>		
<i>pírní</i>	<i>pírní jê</i>	‘milk (a cow)’
<i>mírní</i>	<i>mírní jê</i>	‘swallow’

c. *Ce/Ca:* stems (irregular)

<i>jé (jâ:-)</i>	<i>jé-è: jê</i>	‘take away’
<i>yě (yâ:-)</i>	<i>yě-è: jê</i>	‘go’

d. stem-final high vowel, *Cv:*

<i>ní:</i>	<i>ní: jê</i>	‘eat’
<i>nú:</i>	<i>nú: jê</i>	‘die’

e. stem-final changeable high vowel (including all heavy stems)

<i>pâl</i>	<i>pál-è: jê</i>	‘pick (fruit)’
<i>jé:rì</i>	<i>jé:r-è: jê</i>	‘bring’
<i>gǔñ</i>	<i>gǔñ-è: jê</i>	‘take out’
<i>mɔ:-n</i>	<i>mɔ:n-è: jê</i>	‘assemble’

trisyllabic with changeable medial and final vowels

<i>kígirì</i>	<i>kígér-è: jê</i>	‘return’
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trisyllabic with fixed medial high vowel

<i>súnúgù</i>	<i>súnúg-è: jê</i>	‘take down’
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jê has a vowel and tone that are compatible with perfective morphology. It could therefore be transcribed as *j-è*, though I do not do this in practice. One argument against this analysis is that the usual plural-subject perfective form with *-sɛn* is not used.

A typical perfective-like example is (255a). The imperfective *jé-jú* ‘will have finished (doing), will have already (done)’ is less common, but attested in clause-final {L}-toned form (255b).

- (255) a. [wàrù^L g̪ɛ^{n+L}] wàrá jê dè, kó kà:ⁿ
 [farming^L black.Def^{+L}] do.farming RecPerf if, Nonh too
 ‘When (you) have finished doing the black farming, (there is) that (other) one too.’ (2011.1a.04)

- b. ú wá: [kó kûⁿ] tò-tó: bàⁿ-lí dè,
 2SgSbj be.early [Nonh on] tin.can beat-PfvNeg if,
 né:, sàjú sâ:ⁿ jògó L jé-jù
 now, bird all peck ^LRecPf-Ipfv
 ‘If you-Sg don’t beat (=bang) tin cans at them (=birds) early, the birds will have already finished pecking (=eating) all (of the fast millet).’ (2011.1a.07)

Pronominal-subject categories are distinguished by clause-initial pronouns (256). There is no distinct plural-subject suffixed form of the verb.

(256) Pronominal paradigm (recent perfect)

category	'go down'	'pick (fruit)'
1Sg	<i>iⁿ súgó jê</i>	<i>iⁿ pál-è: jê</i>
1Pl	<i>émé súgó jê</i>	<i>émé pál-è: jê</i>
2Sg	<i>ú súgó jê</i>	<i>ú pál-è: jê</i>
2Pl	<i>é súgó jê</i>	<i>é pál-è: jê</i>
3Sg	<i>wó súgó jê</i>	<i>wó pál-è: jê</i>
3Pl	<i>bé súgó jê</i>	<i>bé pál-è: jê</i>

10.2.1.4 Perfect of continuing possession (-e: ~ -e: ~ -i: plus *sâ*, plural *sê*)

Another perfect, attested once in a text, ends in a same-subject anterior subordinated verb with suffix -e: ~ -e: ~ -i: plus the ‘have’ quasi-verb *sá* in <HL>-toned form *sâ*. The plural-subject form is *sê*, the negation is *sà:-rá* (plural *sè:-ré*).

In (257), from an animal tale, Fly reports to his mistress the reason given by Crowned Crane as to why he has a strange cowry shell stuck on his forehead. The perfect sense seems rather literal: ‘stuck it on and (still) has it’.

(257)	<i>[[[dímé Lkè] yɔ:] ènè [ipàrⁿá gè:]</i>
	<i>[[[forehead LPoss] NearDist] LogoSbj [elegance for]</i>
	<i>tár-é: sâ] wà</i>
	<i>affix-and.SS have] Quot</i>
	‘(It) said, (he says) he has stuck that of (=on) his forehead for showing off.’
	(2011.1b.02)

10.2.1.5 Reduplicated perfective (*Cv-...-è/è/i*)

A form consisting of the simple perfective with overlaid {HL} stem tone, plus initial L-toned *Cv-* reduplication, e.g. *dà-dág-è* from *dág-ê* ‘left (sth)’, was elicited. My assistant suggested that the reduplicated form was used in contexts of factual uncertainty. For example, hearing a child outside the house who has begun to weep, one might say *là-lág-è* ‘(someone) hit him/her’, hypothesizing something that may have happened.

Further examples of the form are in (258). Vowel-initial stems have a phonetic glottal stop at the hiatus point between the reduplicant vowel and the initial base vowel.

(258) Reduplicated perfective

regular	redup PfV	bare stem	gloss
a. <i>Cv</i>			
<i>lexically /H/</i>			
<i>ó-è</i> <i>nú-ŷⁿ</i>	<i>ò-?ó-è</i> <i>nù-nú-ŷⁿ</i>	<i>ó</i> <i>nú</i>	‘give’ ‘go in’

<i>lexically /HL/</i>			
<i>jé-ỳ</i>	<i>jè-jé-ỳ</i>	<i>jé</i>	‘take away’
<i>lexically /LH/</i>			
<i>᷉-᷈</i>	<i>᷃-᷉᷈</i>	<i>᷉:</i>	‘see’

yě-ỳ *yè-yé-ỳ* *yě* ‘go’

b. *Cv:*

<i>lexically /H/</i>			
<i>ní-ỳⁿ</i>	<i>nì-ní-ỳⁿ</i>	<i>ní:</i>	‘eat (meal)’
<i>᷉-᷈</i>	<i>᷃-᷉᷈</i>	<i>᷉:</i>	‘catch’
<i>lexically /LH/</i>			

n᷉-᷈ *n᷃-n᷉-᷈* *n᷉:* ‘drink’

c. bisyllabic ending in fixed vowel

<i>lexically /H/</i>			
<i>pág-᷈</i>	<i>pà-pág-᷈</i>	<i>págá</i>	‘tie’
<i>pírⁿ-᷄</i>	<i>pì-pírⁿ-᷄</i>	<i>pírⁿí</i>	‘milk (a cow)’
<i>lexically /LH/</i>			

dàg-᷈ *dà-dág-᷈* *dàgá* ‘leave’

mírⁿ-᷄ *mì-mírⁿ-᷄* *mírⁿí* ‘swallow’

d. bisyllabic ending in changeable high vowel

<i>lexically /H/</i>			
<i>pór-᷄</i>	<i>pò-pór-᷄</i>	<i>pórù</i>	‘say’
<i>lexically /LH/</i>			

gǔŋ-᷄ *gù-gúŋ-᷄* *gǔŋ* ‘take out’

bǎ:r-᷄ *bà-bá:r-᷄* *bǎ:rì* ‘send’

c. trisyllabic

<i>lexically /H/</i>			
<i>súnú-g-᷄</i>	<i>sù-súnú-g-᷄</i>	<i>súnú-gì</i>	‘take down’
<i>lexically /LH/</i>			

jùnú-g-᷄ *jù-júnú-g-᷄* *jùnú-gì* ‘ruin’

10.2.2 Imperfective positive system

There is a basic imperfective used in habitual-present and in future contexts, and a progressive that denotes actions that are in progress at the moment of speaking (or other reference point).

10.2.2.1 Imperfective (positive) (-jú ~ -jú, -jí ~ -ji)

The unmarked imperfective form is characterized by a suffix whose basic form is *-jú*. It is normally H-toned but is L-toned in *jâ:-jù* ‘takes away’ with the only lexically /HL/-toned verb. (L-toned *-ju* also occurs in relative clauses, §14.1.9.2.)

There is an optional plural-subject form *-jí*, so it is possible to distinguish e.g. *yě-jú* (singular) from *yě-jí* (plural) ‘come(s)’. However, the distinction between singular and plural is even less reliably marked in this category than elsewhere, due to the lax articulation of

word-final short high vowels combined with the fronting effect of alveopalatal *j*. Readers of my Togo Kan texts should not rely on the transcriptional distinction between *-jú* and *-jí*. Prost gives the plural-subject form as “*dye*,” i.e. *-jé*.

The suffix nasalizes to *-nú ~ -ní* after a nasal syllable. In *ní:-ní* ‘eat (meal)’, the suffixal vowel is regularly heard as *i* even for singular subject. This particular type of Nasalization-Spreading (§3.5.1.1) is distinctive to the imperfective suffix, and does not apply to other *j*-initial verb suffixes. There are some synchronically nasal syllables that etymologically were nonnasal, and these do not shift the suffix from *-jú ~ -jí* a to *-nú ~ -ní*. An example is *téŋé-jú* ‘blocks, cuts off’ or ‘hobbles (an animal)’, whose stem reconstructs as **téŋé* (Ben Tey and Pergue *téŋé*).

This category is used for the habitual present (‘every year he gives me a sheep’) and for the future (‘he will give me a sheep tomorrow’), but not (specifically) for progressive aspect.

The suffix preserves lexical tones of the stem. For stems ending in final high vowel in the bare stem and perfective, except for lexical *CiCi*, the stem takes its usual presuffixal form with final nonhigh vowel.

For stems ending lexically in a nonhigh vowel, and for monosyllabic stems, the suffix is added to the bare stem. This is also the case for lexical *CiCi*, see ‘milk [a cow]’ in (259c). For other bisyllabic stems with final lexical high vowel, the suffix is added to a form of the stem ending in a nonhigh vowel that harmonizes with the first stem vowel. If the first vowel is nonhigh, its quality is copied, but if the first vowel is high, we get final *o* corresponding to *u* and final *e* corresponding to *i* (259d). Trisyllabic stems ending lexically in a high vowel, with H.L.L tone pattern, harmonize both the medial and final vowels with the first vowel in the same fashion (259e).

Rhotic-medial bisyllabic stems divide into contracting and non-contracting types. The latter are grouped with other regular *CvCv* stems. The contracting stems form *Cv-jú* (*Cv-nú*) for /H/ toned stems, *Cv-jú* (*Cv-nú*) for /LH/ toned stems (259f).

(259) Imperfective of stems with lexical stem-final high vowel

bare stem	imperfective	gloss
a. short-voweled <i>Cv</i> stems		
<i>lexically /H/-toned</i>		
ó	ó- <i>jú</i>	‘give’
<i>nú</i>	<i>nú-<i>nú</i></i>	‘go in’
<i>tí</i>	<i>tí-<i>jú</i></i>	‘send’
<i>lexically /LH/-toned shift to {H}</i>		
š:	š- <i>jú</i>	‘see’
b. long-voweled <i>Cv:</i> stems		
<i>lexically /H/-toned</i>		
á:	á- <i>jú</i>	‘catch’
<i>ní:</i>	<i>ní:-<i>nú</i>, ní:-<i>ní</i></i>	‘eat’
<i>nú:</i>	<i>nú:-<i>nú</i></i>	‘die’
<i>lexically /LH/-toned shift to {H}</i>		
nš:	nš- <i>nú</i>	‘drink’
yě (yǎ:-)	yá:- <i>jú</i>	‘go’
jí: ⁿ	jí: ⁿ - <i>nú</i>	‘fart’
<i>lexically /HL/, only example</i>		
<i>jé</i> (<i>já:-</i>)	<i>já:-<i>jú</i></i>	‘take away’ [irregular]

c. bisyllabic stems with fixed final vowel (including *CiCi*)

lexically /H/-toned

págá	págá-jú	'tie'
súgó	súgó-jú	'go down'
pír ⁿ í	pír ⁿ í-jú	'milk (a cow)'

lexically /LH/-toned

dágá	dágá-jú	'leave'
bágá	bágá-jú	'fall'
mír ⁿ í	mír ⁿ í-jú	'swallow'

d. bisyllabic stems with changeable high vowel

lexically /HL/-toned, CéCé and Cé:Cé

pál	pálá-jú	'pick (fruit)'
kírì	kíré-jú	'jump'
kún	kúnó-jú	'put'
pó:ñ	pó:nó-jú	'greet'

lexically /LHL/-toned, CéCé and Cé:Cé

gǚj	güzó-jú	'take out'
mɔ:-ñ	mɔ:-nɔ-jú	'assemble'

e. trisyllabic stems

lexically /H/-toned, changeable medial and final vowels

kígírì	kígéré-jú	'return'
áwùrù	áwárá-jú	'lay out'

lexically /LH/-toned, changeable medial and final vowels

súnú-gù	súnú-gó-jú	'take down'
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lexically /LH/-toned, fixed medial high vowel

jùnú-gù	jùnú-gó-jú	'ruin'
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f. contracting rhotic-medial stems

regular

bíré	bí-jú	'do'
gàrá	gá-jú	'go past'
dàr ⁿ á	dá-jú	'kill'
béré	bé-jú	'get'
pórù	pó-jú	'say'

irregular

yéré	yé-jú	'come'
jé:ri	jé:-jú	'bring'

Paradigms are in (260).

(260) Pronominal paradigm (imperfective)

category 'go down' 'pick (fruit)'

1Sg	i ⁿ súgó-jú	i ⁿ pálá-jú
1Pl	émé súgó-jú (-jí)	émé pálá-jú (-jí)

2Sg	ú sígó-jú	ú pálá-jú
2Pl	é sígó-jú (-jí)	é pálá-jú (-jí)
3Sg	wó ságó-jú	wó pálá-jú
3Pl	bé ságó-jú (-jí)	bé pálá-jú (-jí)
Nonh	kó ságó-jú	kó pálá-jú

10.2.2.2 Reduplicated imperfective (*CVN-...-jú*)

The imperfective with suffix *-jú* (*-nū*) can co-occur with an initial L-toned reduplication. There is no change in the tones of the stem itself when the reduplicant is added. The reduplicated form is used only with future time reference ('I will go down', 'I intend to go down'), while the unreduplicated form can be used in either present or future time contexts. Further study may show that verb-focalization is part of the sense.

Examples with verbs that have an initial lexical L-tone element that is preserved in this form: *nù-nùnú-gó-jú* 'will ruin', *dà-dàgá-jú* 'will leave (sth)'. Examples with verbs that have an initial lexical H-tone element: *pà-págá-jú* 'will tie', *ò-ò-ò-jú* 'will give'.

10.2.2.3 Paired alternative imperfective (*-jō:*, *-jē:*)

A form with suffix *-jō:*, plural-subject *-jē:*, occurs frequently in the first of two parallel imperfective clauses denoting alternative possibilities (e.g. 'sometimes we do it this way, sometimes we do it that way'). Both clauses are therefore somewhat irrealis, and translations with 'might VP' are often appropriate. Adverb *gàmá* 'sometimes' may be present.

The suffix *-jō:* can be added directly to a verb stem, or to a verb-chain ending *béré* 'get, obtain' in the sense 'be able to' (§17.5.1.1), forming *bě-jō:*, plural-subject *bě-jē:*. The form of the stem is the same as before imperfective *-jú* and allomorphs (§10.2.2.1 above). Thus *bě-jō:* 'can do', *áwárá-jō:* 'can lay out', *pír"í-jō:* 'can milk (a cow)', mediopassive *kíj-é:-jō* 'can coincide (with)'.

A good example of paired imperfectives is (261). The first imperfective has *-jō:* and the second has *-jú*. One could also translate loosely with 'might' instead of 'sometimes'.

- (261) é→ kéké kéké gámá [káⁿ] túrú wò→],
 yes cut cut sometimes [row one each],
gámá [[nù:^L-jüró túrú] bě] kíj-é:-jō:,
sometimes [[millet^L-pile one] Inst] coincide-MP-Ipfv,
gámá [[nù:^L-jüró lóy] bě] kíj-é:-jú
sometimes [[millet^L-pile two] Inst] coincide-MP-Ipfv
 'Yes, (they) keep cutting (millet grain spikes), sometimes each row, sometimes it (=each row) coincides with (=corresponds to) one millet pile, sometimes it coincides with two millet piles.' (2011.1a.12)

In (262), the verb (*dùw-é:*) of the second clause looks vaguely perfective in form, but this is because the second of two paired imperfectives optionally omits imperfective *-jú*.

- (262) *[jnà^L túnd^{+L}] wó-ní:] dùw-é:-jô:,
 [[place^L one.Loc^{+L}] be.HumSgSbj-while.SS] carry-MP-**Ipfv**,
kó-kòlò-mì bá-bàrà jě:r-ì dè] dùw-é:
 Rdp-go.around Rdp-gather bring-Pfv if] carry-MP
 '(You) carry (it) (from) one place (in one method), (and) you carry (it) after (you)
 have gone all over and gathered it (from the small piles) and brought it (in the other
 method).' (2011.1a.12)*

It is possible to have more than one nonfinal *-jô:* (plural *-jê:*) clause, plus a final simple imperfective clause. In (263), the speaker is describing the various crops that can be planted in millet fields after the millet sprouts.

- (263) *[bìrè^L péré] yá kò,*
 [work^L other] Exist be.NonhSbj,
pòŋó wǎ-jé:-→, [è:rè^L ná:] lé:-jé:-→,
 fonio do.farm.work-**Ipfv.Plsbj**, [nut^L primary] plant-**Ipfv.Plsbj**,
[è:rè^L múnúr'ú] lè:-jù
 [nut^L Mossi] ^Lplant-**Ipfv**
 'There is other work. (The people) grow fonio [a grain], they plant groundnuts, and/or
 they plant peanuts.' (2011.1a.18)

It is also possible for the first of the parallel imperfective clauses to be positive while the second is negative (264).

- (264) *[gàmà^L ^Hná] bǐ-jé:,*
 [certain^L ^Hperson] do-**Ipfv.Plsbj**,
[gàmà^L ^Hná] bǐ:-ré
 [certain^L ^Hperson] do-**IpfvNeg.Plsbj**
 'Some people might do (them), some (other) people might not do (them).' (2011.1a.31)

10.2.2.4 Delayed future (*-jà sâ*)

Prost (p. 50) described a distant future ("futur éloigné"), e.g. "lagadyasa" 'he will hit', including the 'have' quasi-verb. This was recognized by my assistant, who explained that it involves an action that is due to be carried out but that is delayed (for example, by other business). A free translation with 'eventually' or with 'sooner or later' seems to work for most examples.

The 'have' quasi-verb, *sá* or plural-subject *sé*, is <HL>-toned in this construction (*sâ*, *sê*). It is preceded by an entirely {L}-toned word consisting of the verb stem and *-jà*. Segmentally, the verb form with *-jà* is identical to that used in the 'before VP-ing' construction (*rv*-Deletion is applicable to relevant stems in both). However, in the 'before' construction the *-jà* suffix requires an {H}- rather than an {L}-toned stem (§15.4.2). For example, *dɔ̄r'ó* 'sell' has delayed future *dɔ̄n-jà sâ*, but in the 'before' construction its subordinated form is *dɔ̄n-jà*.

- (265) a. *iⁿ gír'í ùjò-jà^L ^{HL}sâ*
 1SgSbj house build-Fut^L ^{HL}have
 'I will eventually build a house.'

- b. *àrⁿú* *yè-jà^L* ^{HL}*sâ*
 rain come-Fut^L ^{HL}**have**
 ‘Rain will eventually come.’
- c. *Iⁿ* *gìrⁿí* *bè-jà^L* ^{HL}*sâ*
 1SgSbj house get-Fut^L ^{HL}**have**
 ‘I will eventually get a house.’
 (said by someone who has so far searched in vain)
- d. *[gàm^L ^Hná] = ñ* *[kìrè^L dágá]* *yè-jà^L* ^{HL}*sâ*
 [certain^L ^Hperson]=Dat [hardship^L small] come.Fut^L ^{HL}**have**
 ‘a small crisis (i.e. food shortage) will eventually come for some people.’
 (2011.1a.19)

10.2.2.5 Progressive (-táŋà, -téŋè)

Suffix *-táŋà* creates a progressive form for singular subject ('I am working'), though it also competes with the imperfective for habitual present. It is added to the bare stem of monosyllabic verbs (266a) and of longer stems ending in a lexical nonhigh vowel (266b). *ɔ:* ‘see’ is H-toned and short: *ɔ-táŋà*. However, *CV:* stems do not shift to {H}. For nonmonosyllabic stems ending in a lexical high vowel, the final vowel harmonizes with the first stem vowel (266c), and if the latter is non-high this change extends to the medial vowel in trisyllabics (266d). *rv*-Deletion applies to the relevant bisyllabic stems (266e).

The optional (but frequent) plural-subject form is *-téŋè*.

(266) Progressive

	bare stem	progressive	gloss
a. monosyllabic			
<i>CV</i>			
<i>ó</i>	<i>ó-táŋà</i>		‘give’
<i>nú</i>	<i>nú-táŋà</i>		‘go in’
<i>CV:</i>			
<i>á:</i>	<i>á:-táŋà</i>		‘catch’
<i>pí:</i>	<i>pí:-táŋà</i>		‘eat’
<i>nú:</i>	<i>nú:-táŋà</i>		‘die’
<i>CV:</i>			
<i>ɔ:</i>	<i>ɔ-táŋà</i> [!]		‘see’
<i>nɔ:</i>	<i>nɔ:-táŋà</i>		‘drink’
<i>já:</i>	<i>já-táŋà</i>		‘dig’
<i>irregular</i>			
<i>jé (já:-)</i>	<i>já:-táŋà</i> [!]		‘take away’ [irregular]
[for <i>jé:-táŋà</i> see ‘bring’, below]			
b. nonmonosyllabic stems with fixed final vowel			
<i>/H-toned</i>			
<i>págá</i>	<i>págá-táŋà</i>		‘tie’
<i>súgó</i>	<i>súgó-táŋà</i>		‘go down’

<i>pírⁿí</i>	<i>pírⁿí-táŋà</i>	‘milk (a cow)’
/LH/-toned		
<i>dòwó</i>	<i>dòwó-táŋà</i>	‘go up’

<i>mìrⁿí</i>	<i>mìrⁿí-táŋà</i>	‘swallow’
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c. bisyllabic stems with changeable final high vowel

<i>pâl</i>	<i>pálá-táŋà</i>	‘pick (fruit)’
<i>kún</i>	<i>kúnó-táŋà</i>	‘put’
<i>gǔŋ</i>	<i>gǔŋó-táŋà</i>	‘take out’
<i>mđ:-nâ</i>	<i>mđ:nó-táŋà</i>	‘assemble’

d. trisyllabic stems with final lexical high vowel

with variable medial and final vowels

<i>kígirì</i>	<i>kígéré-táŋà</i>	‘return’
<i>áwùrù</i>	<i>áwárá-táŋà</i>	‘lay out’

with fixed medial high vowel

<i>súnú-gù</i>	<i>súnú-gó-táŋà</i>	‘take down’
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e. rhotic-medial stems subject to *rv*-Deletion

<i>yèré</i>	<i>yě-táŋà</i> [!]	‘come’ [irregular]
	[expandible as <i>yé yě-táŋà</i>]	
<i>jě:rì</i>	<i>jé:-táŋà</i> [!]	‘bring’ [irregular]
<i>pórù</i>	<i>pó-táŋà</i>	‘say’
<i>bíré</i>	<i>bí-táŋà</i>	‘do’
<i>gàrá</i>	<i>gă-táŋà</i>	‘go past’
<i>dàrⁿá</i>	<i>dăⁿ-táŋà</i>	‘kill’
<i>béré</i>	<i>bě-táŋà</i>	‘get’

f. Mediopassive

<i>kír-i:</i>	<i>kír-é:-táŋà</i>	‘jump’
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The progressive is unusual among suffixally marked inflections in that it can be combined with the otherwise defective locational-existential ‘be’ quasi-verbs (§11.2.2.2): *wó-táŋà* (human singular), *wé-téŋè* (human plural). These quasi-verbs are otherwise stative (aspectless), but can be made progressive (durative) in this manner.

The paradigm is (267). The pronouns are clause-initial.

(267) Pronominal paradigm (progressive)

category	‘go down’	‘pick (fruit)’
1Sg	<i>íⁿ súgó-táŋà</i>	<i>íⁿ pálá-táŋà</i>
1Pl	<i>émé súgó-téŋè</i>	<i>émé pálá-téŋè</i>
2Sg	<i>ú súgó-táŋà</i>	<i>ú pálá-táŋà</i>
2Pl	<i>é súgó-téŋè</i>	<i>é pálá-téŋè</i>
3Sg	<i>wó súgó-táŋà</i>	<i>wó pálá-táŋà</i>
3Pl	<i>bé súgó-téŋè</i>	<i>bé pálá-téŋè</i>

Nonh

kó súgó-táŋà

kó pálá-táŋà

10.2.2.6 Reduplicated progressive (*Cv-...-táŋà*)

A reduplicated form of the progressive was elicited, with the usual L-toned reduplicant and with no change in the form of the regular progressive. Examples: *sù-súgó-táŋà* ‘is going down’, *dò-dòwɔ́-táŋà* ‘is going up’. There seems to be no systematic difference in sense between the regular and reduplicated forms.

10.2.3 Negation of active indicative verbs

Morphologically distinct negative forms are found for the perfective, the experiential perfect, the recent perfect, the imperfective, and the progressive.

Stative verbs, and defective (stative) quasi-verbs, have their own negative clitics, singular-subject =*lá* and plural-subject =*lâ*, with no aspectual distinction. See §10.4 and §11.4.2, below.

10.2.3.1 Perfective negative (-*lí*, -*lâ*)

The perfective negative is formed by adding singular-subject *-lí* or plural-subject *-lâ*: to a tone-dropped form of the verb stem. There are no exceptions to the tone-dropping feature for this category. The perfective negative suffixes are also added to the experiential perfect and recent perfect suffixes, demonstrating that these latter categories belong to the larger perfective system.

Nonmonosyllabic stems ending in a lexical high vowel harmonize noninitial stem vowels with the first stem vowel (268d-e). Contracting rhotic-medial stems undergo the contraction (268f).

(268) Perfective negative

bare stem	perfective negative singular	perfective negative plural	gloss
a. short-voweled monosyllabics (all known examples)			
ó	ò- <i>lí</i>	ò- <i>lâ</i> :	‘give’
nú	nù- <i>lí</i>	nù- <i>lâ</i> :	‘go in’
b. long-voweled monosyllabics			
á:	à:- <i>lí</i>	à:- <i>lâ</i> :	‘catch’
ná:	nà:- <i>lí</i>	nà:- <i>lâ</i> :	‘spend night’
nɔ̄:	nɔ̄:- <i>lí</i>	nɔ̄:- <i>lâ</i> :	‘drink’
gó:	gó:- <i>lí</i>	gó:- <i>lâ</i> :	‘go out’
kó: ⁿ	kò: ⁿ - <i>lí</i>	kò: ⁿ - <i>lâ</i> :	‘weep’
jí:	jí:- <i>lí</i>	jí:- <i>lâ</i> :	‘eat’
nú:	nù:- <i>lí</i>	nù:- <i>lâ</i> :	‘die’
jê (jâ:-)	jà:- <i>lí</i>	jà:- <i>lâ</i> :	‘take away’ (irregular)

c. nonmonosyllabic stems with fixed final vowel

<i>píné</i>	<i>pìnè-lí</i>	<i>pìnè-lâ:</i>	‘shut (door)’
<i>págá</i>	<i>pàgà-lí</i>	<i>pàgà-lâ:</i>	‘tie’
<i>dígé</i>	<i>digè-lí</i>	<i>digè-lâ:</i>	‘drive out’
<i>pírⁿí</i>	<i>pírⁿi-lí</i>	<i>pírⁿi-lâ:</i>	‘milk (a cow)’
<i>mírⁿí</i>	<i>mírⁿi-lí</i>	<i>mírⁿi-lâ:</i>	‘swallow’

d. bisyllabic stems with changeable final high vowel

<i>pâl</i>	<i>pàlâ-lí</i>	<i>pàlâ-lâ:</i>	‘pick (fruit)’
<i>kúnâ</i>	<i>kùnò-lí</i>	<i>kùnò-lâ:</i>	‘put’
<i>m᷑:-nâ</i>	<i>m᷑:nò-lí</i>	<i>m᷑:nò-lâ:</i>	‘assemble’

e. /HL/-toned trisyllabics, H.L.L and H.H.L types

with changeable medial and final vowels

<i>kígìrì</i>	<i>kigèrè-lí</i>	<i>kigèrè-lâ:</i>	‘return’
<i>áwùrù</i>	<i>àwàrà-lí</i>	<i>àwàrà-lâ:</i>	‘lay out (mat)’
<i>súnúgù</i>	<i>sùnùgò-lí</i>	<i>sùnùgò-lâ:</i>	‘take down’

f. contracting rhotic-medial stems

<i>yéré</i>	<i>yè-lí</i>	<i>yè-lâ:</i>	‘come’ [irregular]
<i>jě:rì</i>	<i>jè-lí</i>	<i>jè-lâ:</i>	‘bring’ [irregular]
<i>bíré</i>	<i>bì-lí</i>	<i>bì-lâ:</i>	‘do’
<i>gàrá</i>	<i>gà-lí</i>	<i>gà-lâ:</i>	‘go past’
<i>dàrⁿá</i>	<i>dàⁿ-lí</i>	<i>dàⁿ-lâ:</i>	‘kill’
<i>béré</i>	<i>bè-lí</i>	<i>bè-lâ:</i>	‘get’
<i>pórù</i>	<i>pò-lí</i>	<i>pò-lâ:</i>	‘say’

Sample paradigms are (269).

(269) Pronominal paradigm (perfective negative)

category	‘go down’	‘pick (fruit)’
1Sg	<i>íⁿ sùgò-lí</i>	<i>íⁿ pàlâ-lí</i>
1Pl	<i>émé súgó-lâ:</i>	<i>émé pàlâ-lâ:</i>
2Sg	<i>ú sùgò-lí</i>	<i>ú pàlâ-lí</i>
2Pl	<i>é súgó-lâ:</i>	<i>é pàlâ-lâ:</i>
3Sg	<i>wó sùgò-lí</i>	<i>wó pàlâ-lí</i>
3Pl	<i>bé súgó-lâ:</i>	<i>bé pàlâ-lâ:</i>
Nonh	<i>kó sùgò-lí</i>	<i>kó pàlâ-lí</i>

For a reversed tone pattern with H-toned verb and L-toned perfective negative suffix in focalized clauses, see (403) in §13.1.1.

10.2.3.2 Experiential perfect negative (*tè-lí*, *tè-lâ:*)

The experiential perfect (*té-*), see §10.2.1.2 above, has a common negative counterpart with regular perfective negative suffixal morphology. The forms are *tè-lí* for singular subject, *tè-lâ:* for plural subject. The preceding verb also drops its tones to {L}, which does not occur with ordinary verb chains when the final verb is negated (§15.1.4).

- (270) a. *Iⁿ* [dùŋù^L] *ná:* *đ:^L* *tè-lí*
1SgSbj [elephant] see^L ExpPf-PfvNeg
'I have never seen an elephant.'
- b. *émé* [dùŋù^L] *ná:* *đ:^L* *tè-lâ:*
1PlSbj [elephant] see ExpPf-PfvNeg.PlSbj
'We have never seen an elephant.'

10.2.3.3 Recent perfect negative (*jè-lí*, *jè-lâ:*)

The negative counterpart of recent perfect *jê* is formed by adding the regular perfective negative suffixes *-lí* and plural-subject *-lâ:* to it. The preceding verb is not tone-dropped. These details strengthen the argument for taking *jê* as a chained auxiliary verb (rather than as a suffix).

Negation is generally found in the sense 'have finished VP-ing'.

- (271) a. *Iⁿ* *pá:* *pí:* *jè-lí*
1SgSbj meal eat RecPf-PfvNeg
'I haven't finished eating the meal.'
- b. *émé* *pá:* *pí:* *jè-lâ:*
1PlSbk meal eat RecPf-PfvNeg.PlSbj
'We haven't finished eating the meal.'
- c. *émé* *té* *nđ:* *jè-lâ:*
1PlSbj tea drink RecPfRecPf-PfvNeg.PlSbj
'We haven't finished drinking the tea.'
- d. *pá* [*né:* *wòⁿ*] *gàr-á→ mă:-ŋ-è:* *jè-lí*
place [now Top] a.lot dry-Inch-and.SS RecPf-PfvNeg
'the earth hasn't (yet) completely finished drying'

10.2.3.4 Imperfective negative (*-rò*, *-rè*)

The imperfective negative is expressed by suffixing *-rò* for singular subject, *-rè* for plural subject. The rhotic is not nasalized after a nasal syllable. The suffixes are added to a form of the verb ending in a long <HL>-toned vowel. Otherwise the lexical tone is preserved, and *CV:* (i.e. <LH>) stems appear as *CCV:-rò* with bell-shaped <LHL> toned stem. 'See' has *đ:-rò* instead of #*đ:-rò*, based on /đ-/ as in imperfective *đ-jú* and some other inflected forms, rather than on the bare stem *đ*.

Nonmonosyllabic stems (other than causatives) ending in a lexical high vowel harmonize medial vowels with the first stem vowel (272c-d). Contracting rhotic-medial verbs contract (272e). Causative **-m̩**, which does not alter the vocalism of the preceding stem, becomes **-m̩u:-rò** (272e), parallel to monosyllabic **n̩u:-rò** ‘doesn’t go in’ or ‘doesn’t die’.

(272) Imperfective negative

bare stem	imperfective negative	gloss
a. monosyllabic		
ó	ó:-rò	‘give’
nú	n̩u:-rò	‘go in’
š:	š:-rò [!]	‘see’
á:	â:-rò	‘catch’
n̩:	n̩d:-rò	‘drink’
jí:	jî:-rò	‘eat’
nú:	nû:-rò	‘die’
yě (yă:-)	yă:-rò	‘go’ [irregular]
jê (jâ:-)	jâ:-rò	‘take away’ [irregular]
b. bisyllabic stems with fixed final vowel		
págá	págâ:-rò	‘tie’
súgó	súgô:-rò	‘go down’
dàgá	dàgâ:-rò	‘leave’
pír ⁿ í	pír ⁿ î:-rò	‘milk (a cow)’
mír ⁿ í	mír ⁿ î:-rò	‘milk (a cow)’
c. bisyllabic stems with final changeable high vowel		
pál	pálâ:-rò	‘pick (fruit)’
kírì	kírê:-rò	‘jump’
kúnâ	kúnô:-rò	‘put’
gúñ	gúñô:-rò	‘take out’
mđ:-n	mđ:nô:-rò	‘assemble’
d. trisyllabic stems		
with changeable medial and final vowels		
kígírì	kígérê:-rò	‘return’
áwùrù	áwárâ:-rò	‘lay out’
with fixed medial high vowel		
súnúgù	súnúgô:-rò	‘take down’
e. rhotic-medial stems subject to rv -Deletion		
yéré	yě:-rò	‘come’ [irregular]
jě:rì	jê:-rò	‘bring’ [irregular]
pórù	pô:-rò	‘say’
bíré	bî:-rò	‘do’
gárá	gâ:-rò	‘go past’
dâr ⁿ á	dâ: ⁿ -rò	‘kill’
béré	bê:-rò	‘get’

f. causative

jùgɔ̄-m̄

jùgɔ̄-m̄-rò

‘inform’, ‘distinguish’

Sample paradigms are in (273).

(273) Pronominal paradigm (imperfective negative)

category	‘go down’	‘pick (fruit)’
1Sg	<i>i^m súgô:-rò</i>	<i>i^m pálâ:-rò</i>
1Pl	<i>émé súgô:-rè</i>	<i>émé pálâ:-rè</i>
2Sg	<i>ú úgô:-rò</i>	<i>ú pálâ:-rò</i>
2Pl	<i>é súgô:-rè</i>	<i>é pálâ:-rè</i>
3Sg	<i>wó súgô:-rò</i>	<i>wó pálâ:-rò</i>
3Pl	<i>bé súgô:-rè</i>	<i>bé pálâ:-rè</i>
Nonh	<i>kó súgô:-rò</i>	<i>kó pálâ:-rò</i>

The imperfective negative likely reflects contraction of an original suffix or suffix complex **-(C)vro* with the stem. Compare progressive negative *-wɔ̄-rɔ̄*, discussed below.

10.2.3.5 Variant imperfective negative (*-jă:*, *-já:*)

Prost (p. 50) described another category that he describes as “négatif intentionnel,” giving as example “lagadyaa” ‘il n’est pas pour frapper’ with plural-subject variant “lagadjee,” cf. verb *lágá* ‘hit’.

My assistant recognized the form after some reflection. One relevant construction is that with parallel positive and negative imperfective verbs, with *-jă:* or plural-subject *-jě:* expressing the negation (instead of the usual imperfective negative *-rò*). The juxtaposition indicates uncertainty as the agent hesitates. That is, the positive and negative events are in the mind of the agent (274).

- (274) a. *wó lágá-jú lágà-jă:*
 3SgSbj hit-Ipfv hit-IpfvNeg
 ‘He/She is undecided (hesitant) whether to hit.’
- b. *bé lágá-jú lágà-jě:*
 3PlSbj hit-Ipfv hit.IpfvNeg.Plsbj
 ‘They are undecided (hesitant) whether to hit.’

By itself, a similar form with H-toned *-já:* or plural-subject *-jě:* can be used in cases like (275), where the speaker in effect expresses surprise at the addressee’s hesitation in carrying out an action.

- (275) *ú má lágà-já:*
 2SgSbj 1SgObj hit-IpfvNeg
 ‘(How come) you-Sg don’t hit me?’

10.2.3.6 Progressive negative (-wò-ró~, -wè-ré)

A negative version of the progressive is expressed by *-wò(·)-ró* for singular subject and *-wè(·)-ré* for plural subject. At the end of a noninterrogative clause they are pronounced with L-tones, i.e. as *-wò(·)-rò* and *-wè(·)-rè*. The shortened {L}-toned forms *-wò-rò* and *-wè-rè* are common.

These forms are based on *wò-ró* ‘is not (somewhere)’ and its plural *wè:-ré* ‘are not (somewhere)’, i.e., the (stative) negative forms of locational quasi-verb *wò* (plural *wè*) ‘be (somewhere)’ (§11.2.2.2). I have occasionally heard the long vowel in the progressive negative, but only in elicitation.

The stem preserves its lexical melody. Nonmonosyllabic stems ending in a high vowel harmonize the medial vowels with the initial vowel (276c-d). Contracting rhotic-medial stems contract (276e).

(276) Progressive negative

bare stem	progressive negative singular	progressive negative plural	gloss
a. monosyllabic			
ó	ó-wò-ró	ó-wè-ré	‘give’
nú	nú-wò-ró	nú-wè-ré	‘go in’
đ:	đ-wò-ró	đ-wè-ré	‘see’
á:	á:-wò-ró	á:-wè-ré	‘catch’
nđ:	nđ:-wò-ró	nđ:-wè-ré	‘drink’
jí:	jí:-wò-ró	jí:-wè-ré	‘eat’
nú:	nú:-wò-ró	nú:-wè-ré	‘die’
yě (yă:-)	yă:-wò-ró	yă:-wè-ré	‘go’ (irregular)
jê (jâ:-)	jâ:-wò-ró	jâ:-wè-ré	‘take away’ (irregular)
b. bisyllabic stems with fixed final vowel			
págá	págá-wò-ró	págá-wè-ré	‘tie’
súgó	súgó-wò-ró	súgó-wè-ré	‘go down’
dàgá	dàgá-wò-ró	dàgá-wè-ré	‘leave’
pír ⁿ í	pír ⁿ í-wò-ró	pír ⁿ í-wè-ré	‘milk (a cow)’
mír ⁿ í	mír ⁿ í-wò-ró	mír ⁿ í-wè-ré	‘swallow’
c. bisyllabic stems with changeable final high vowel			
pál	pálá-wò-ró	pálá-wè-ré	‘pick (fruit)’
kún	kúnó-wò-ró	kúnó-wè-ré	‘put’
gǚñ	gǚñó-wò-ró	gǚñó-wè-ré	‘take out’
mđ:-n	mđ:nó-wò-ró	mđ:nó-wè-ré	‘assemble’
d. trisyllabic stems			
with changeable medial and final vowels			
kígirì	kígéré-wò-ró	kígéré-wè-ré	‘return’
áwùrù	áwárá-wò-ró	áwárá-wè-ré	‘lay out’
with fixed medial high vowel			
súnúgù	súnúgó-wò-ró	súnúgó-wè-ré	‘take down’

e. rhotic-medial stems subject to *rv*-Deletion

irregular verbs

<i>yèré</i>	<i>yé-wò-ró</i>	<i>yé-wè-ré</i>	‘come’
<i>jé:rì</i>	<i>jé-wò-ró</i>	<i>jé-wè-ré</i>	‘bring’
<i>other</i>			
<i>pórù</i>	<i>pó-wò-ró</i>	<i>pó-wè-ré</i>	‘say’
<i>bíré</i>	<i>bí-wò-ró</i>	<i>bí-wè-ré</i>	‘do’
<i>gàrá</i>	<i>gă-wò-ró</i>	<i>gă-wè-ré</i>	‘go past’
<i>dàrⁿá</i>	<i>dăⁿ-wò-ró</i>	<i>dăⁿ-wè-ré</i>	‘kill’
<i>béré</i>	<i>bĕ-wò-ró</i>	<i>bĕ-wè-ré</i>	‘get’

f. mediopassive

<i>kír-i:</i>	<i>kír-é:-wò-ró</i>	<i>kír-é:-wè-ré</i>	‘jump’
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There is a suffixal distinction between singular and plural subject (277). Since the suffixes are based on ‘not be’ quasi-verbs, there is also a human/nonhuman distinction.

(277) Pronominal paradigm (progressive negative)

category	‘go down’	‘pick (fruit)’
1Sg	<i>iⁿ súgó-wò-ró</i>	<i>iⁿ pálá-wò-ró</i>
1Pl	<i>émé súgó-wè-ré</i>	<i>émé pálá-wè-ré</i>
2Sg	<i>ú úgó-wò-ró</i>	<i>ú pálá-wò-ró</i>
2Pl	<i>é súgó-wè-ré</i>	<i>é pálá-wè-ré</i>
3Sg	<i>wó súgó-wò-ró</i>	<i>wó pálá-wò-ró</i>
3Pl	<i>bé súgó-wè-ré</i>	<i>bé pálá-wè-ré</i>
Nonh	<i>kó súgó-kòrò</i>	<i>kó pálá-kòrò</i>

10.2.3.7 Reduplicated progressive negative (*Cv-...-wò-ró*)

It was possible to elicit a reduplicated form of the progressive negative. The reduplicant is the usual L-toned *Cv-*, and there is no change in the form of the imperfective negative stem or suffix. The limited data do not suggest a systematic difference in meaning. Example: *sù-súgó-wò-ró* ‘is not going down’.

10.3 Pronominal paradigms for non-imperative verbs

10.3.1 Subject pronominal suffixes

There are no full suffixal paradigms for pronominal subject of verbs. Some verbal inflectional categories have a binary distinction between an unmarked singular-subject form (1Sg, 2Sg, 3Sg) and a marked plural-subject form (1Pl, 2Pl, and especially human 3Pl). Even this binary distinction is not rigorous, as the unmarked form is often heard when a plural subject NP is expressed earlier in the clause.

The relevant data for the inflectional categories are summarized in (278), repeating information given in the relevant sections above.

(278)	category	singular	plural	Sg = Pl
a. perfective system (positive)				
simple perfective	-è ~ -è	-sɛ̂n		
recent perfect	—	—	jɛ̂	
experiential perfect	—	—	-té-jè	
b. imperfective system (positive)				
imperfective	-jú ~ -nú	-jí ~ -ní		
progressive	-táŋà	-téŋè		
c. negative				
perfective negative	-lí	-lâ:		
experiential perfect negative	tè-lí	tè-lâ:		
imperfective negative	-rò	-rè		
progressive negative	-wò-ró	-wè-ré		

The distinctively plural-subject suffixes are idiosyncratic to each category. Historically, *-sɛ̂n* is probably an old 3Pl form of a perfective or resultative suffixal category based on the quasi-verb ‘have’. In the perfective negative, *-lâ:* reflects an old 3Pl form of *-lí*, but segmentation is no longer transparent in Togo Kan. The progressive negative forms are parasitic on negative forms of stative quasi-verb ‘be (somewhere)’.

10.3.2 Nonhuman versus 3Sg subject

In most verbal inflectional categories, the verb form used with nonhuman pronoun *kó*, and with nonhuman subject NPs, is the same as the 3Sg form used for humans.

In the progressive negative, the fact that forms of ‘not be (somewhere)’ are used means that nonhuman and (human) 3Sg are distinct; see §11.2.2.2.

10.4 Derived stative form of verbs (reduplicated and unreduplicated)

Some verbs additionally have a derived stative form that does not mark aspectual categories. The verbs in question also occur in the full range of (active) AMN categories with mediopassive suffix *-i: ~ -e:-* (§9.3.1). The stative form denotes a static position or other state, rather than the event of taking that position. The mediopassive suffix is absent in the stative.

The stative verb has an initial *Cv-* reduplication in simple positive utterances that have no preceding element that could be interpreted as focalized. In practice, any locational expression counts as “focalized” for this purpose, and is therefore followed by the unreduplicated form of the stative. In the absence of a focalized constituent, the stative is either reduplicated or provided with existential proclitic *yé* (§11.2.2.1), but not both.

All attested statives are of *(C)vCv* shape omitting the reduplicant. The final vowel in the stative is a non-high vowel, either copying the first vowel quality (in the cases of *a* and mid-height vowels) or at least harmonizing with it in backness and rounding (in the cases of high vowels). In the reduplicated form, the initial syllable of the stem is H-toned, while the

reduplicant and the final syllable are L-toned. In the defocalized form following a locational, and before the stative negative, the stem is {L}-toned.

The reduplicant takes the form *Cv-* with a copy of the first two stem segments if the stem is of the shape *CvTv* with nonnasal consonant *T* (*Cv-CvTv*). If the initial consonant position is unfilled and the medial consonant is oral, the reduplicant takes the form *v-*, with a glottal stop separating the two vowels (*v-?vTv*). The reduplicant vowel is nasalized if the stem begins with no consonant or with a nonnasal consonant, but has a medial nasal. Specifically, *TvNv* becomes *Tvⁿ-TvNv*, and *vNv* becomes *vⁿ-?vNv*.

Negation is by stative negative *=lá* (plural-subject *=lə*) added to the tone-dropped, unreduplicated stative form.

The forms in (279) show representative singular-subject forms. Verbs with *CeC-i:* mediopassive vocalism shift to *CaCa* in the stative ('circulate', 'sit'). 'Lie down' shifts from *im-î:* to *umo* (279d); for the vocalism compare archaic causative *ú:-ñ* 'lay, put down (large object)' (232c).

(279) Derived stative form of verbs (singular subject)

stem	gloss	stative		
		reduplicated	unreduplicated	negative
a. <i>Cv-</i> reduplicant				
<i>jèŋ-î:</i>	'circulate'	<i>jà-páŋà</i>	<i>X jàŋà</i>	<i>jàŋà = lá</i>
<i>wìw-î:</i>	'flip [intr]'	<i>wì-wíyè</i>	<i>X wìyè</i>	<i>wìyè = lá</i>
<i>kór-ì:</i>	'hang [intr]'	<i>kò-kórò</i>	<i>X kòrò</i>	<i>kòrò = lá</i>
<i>mòrⁿ-í:</i>	'be together'	<i>mò-móřⁿò</i>	<i>X móřⁿò</i>	<i>mòřⁿò = lá</i>
b. <i>v-</i> reduplicant				
<i>ìg-î:</i>	'stand'	<i>i-?ígè</i>	<i>X ìgè</i>	<i>ìgè = lá</i>
c. <i>CvN-</i> reduplicant				
<i>dèŋ-î:</i>	'sit'	<i>dàⁿ-dáŋà</i>	<i>X dàŋà</i>	<i>dàŋà = lá</i>
<i>pìn-í:</i>	'be shut'	<i>pìⁿ-pínè</i>	<i>X pìnè</i>	<i>pìnè = lá</i>
<i>bàŋ-î:</i>	'hide [intr]'	<i>bàⁿ-báŋà</i>	<i>X bàŋà</i>	<i>bàŋà = lá</i>
<i>túŋ-ì:</i>	'kneel'	<i>tùⁿ-túŋò</i>	<i>X túŋò</i>	<i>túŋò = lá</i>
d. <i>vⁿ-</i> reduplicant				
<i>ìm-î:</i>	'lie down'	<i>ùⁿ-?úmò</i>	<i>X úmò</i>	<i>ùmò = lá</i>

The corresponding plural-subject form has *e* replacing the final vowel of the singular stative. For some stems the vocalic difference from singular to plural extends to the first stem syllable, and (therefore) to the reduplicant. Specifically, the mutations described above for verbs like 'sit' and 'lie down' in the singular-subject stative are undone in the plural, which is therefore directly based on the (nonstative) stem. Only reduplicated forms are shown in (280), but the unreduplicated and negative plural-subject forms have the same vocalism as the singular. Some stems do not usually take human subjects for semantic reasons and are omitted.

(280) Stative form of verbs (singular versus plural subject)

stem	gloss	stative	
		singular	plural
a. final vowel to <i>e</i> , no other difference			
<i>bàŋ-î:</i>	'hide [intr]'	<i>bàⁿ-báŋà</i>	<i>bàⁿ-báŋè</i>
<i>ìg-î:</i>	'stand'	<i>ì-ɿígè</i>	<i>ì-ɿígè</i>
<i>túŋ-ì:</i>	'kneel'	<i>tùⁿ-túŋò</i>	<i>tùⁿ-túŋè</i>
b. first vowel also different			
<i>dèŋ-î:</i>	'sit'	<i>dàⁿ-dáŋà</i>	<i>dèⁿ-déŋè</i>
<i>nèŋ-î:</i>	'be restless'	<i>nà-náŋà</i>	<i>nè-néŋè</i>
<i>ìm-î:</i>	'lie down'	<i>ùⁿ-ɿúmò</i>	<i>ìⁿ-ɿímè</i>

10.5 Post-verbal temporal particles

10.5.1 Past clitic absent

There is no past clitic or suffix comparable to *=be-* and similar forms in other Dogon languages.

10.6 Imperatives and hortatives

10.6.1 Imperatives and prohibitives

The sections below focus on morphology. Imperatives, prohibitives, and hortatives mark addressee plurality on the verbs. For the syntax see §10.6.3.

10.6.1.1 Positive imperatives (imperative stem, plural addressee *-ȳ*)

The imperative stem is used without further suffixation as the singular-addressee positive imperative ('go!'). Adding a suffix *-ȳ* (note the low tone) to the same stem produces the plural-addressee positive imperative.

The imperative stem is sometimes identical to the bare stem, but this is not systematic. Nonmonosyllabic verbs whose bare stem ends in a high vowel show the non-high vowel variant in the imperative. In addition, prosodically light (up to two vocalic moras) /LH/- and /LHL/-toned verbs shift to {H} tone in the imperative stem. The exception is *yě* 'go', which has imperative *yǎ:*. The vowel shift *e* → *a* also occurs in the semantically corresponding transfer verb *jē* 'take away', which has imperative *jâ:*. There is no vowel shift for 'come' or 'bring'. Prosodically heavy /LH/-toned verbs preserve the initial L-tone. Two verbs, *ó* 'give' and *póri* 'say', have irregular imperative stems with a *-nó* formative.

(281) Imperative (singular addressee)

bare stem	imperative	gloss
a. monosyllabics, /H/ and /HL/ toned		
<i>/H/-toned</i>		
<i>nú</i>	<i>nú</i>	'go in'
<i>á:</i>	<i>á:</i>	'catch'
<i>jí:</i>	<i>jí:</i>	'eat'
<i>/HL/-toned (only example, irregular)</i>		
<i>jé (já:-)</i>	<i>já:</i>	'take away' [irregular]
<i>irregular</i>		
<i>yě (yǎ:-)</i>	<i>yǎ:</i>	'go'
b. nonmonosyllabic stems with fixed final vowel, /H/-toned		
<i>págá</i>	<i>págá</i>	'tie'
<i>sígó</i>	<i>sígó</i>	'go down'
<i>pírⁿí</i>	<i>pírⁿí</i>	'milk (a cow)'
c. nonmonosyllabics with changeable final vowel		
<i>bisyllabic</i>		
<i>pál</i>	<i>pálá</i>	'pick (fruit)'
<i>kírì</i>	<i>kíré</i>	'jump'
<i>kún</i>	<i>kúnó</i>	'put'
<i>gǚŋ</i>	<i>gǚŋj</i>	'take out'
<i>trisyllabic, with changeable medial and final vowels</i>		
<i>kígírì</i>	<i>kígéré</i>	'return'
<i>áwùrù</i>	<i>áwárá</i>	'lay out'
<i>trisyllabic, with fixed medial high vowel</i>		
<i>súnú-gù</i>	<i>súnú-gó</i>	'take down'
<i>jùnú-gù</i>	<i>jùnú-gó</i>	'ruin'
<i>mediopassive</i>		
<i>ìg-í:</i>	<i>ìg-é:</i>	'stand up; stop'
<i>kír-í:</i>	<i>kír-é:</i>	'fly'
<i>irregular (partial mediopassive morphology)</i>		
<i>gèr-í:</i>	<i>gèré</i>	'look'
<i>causative</i>		
<i>jìgé-mì</i>	<i>jìgé-m(ú)</i>	'churn (butter)'
d. /LH/-toned stems shift to {H}		
<i>n᷑:</i>	<i>n᷑:</i>	'drink'
<i>gó:</i>	<i>gó:</i>	'go out'
<i>yéré</i>	<i>yéré</i>	'come'
<i>bíré</i>	<i>bíré</i>	'do'
<i>dàrⁿá</i>	<i>dárⁿá</i>	'kill'
<i>gàrá</i>	<i>gárá</i>	'go past'
<i>béré</i>	<i>béré</i>	'get'
<i>mírⁿí</i>	<i>mírⁿí</i>	'swallow'

e. /LHL/-toned stems shift to {LH}

<i>gǔj</i>	<i>gǔjó</i>	‘take out’
<i>m᷑:-n</i>	<i>m᷑:-nó</i>	‘assemble’
<i>y᷑:rù</i>	<i>y᷑:ró</i>	‘roast on fire’
<i>j᷑:rì</i>	<i>j᷑:ré</i>	‘bring’
<i>jùnú-gù</i>	<i>jùnú-gó</i>	‘ruin’
<i>w᷑gúrù</i>	<i>w᷑góró</i>	‘take (sth) out or off’

f. irregular imperatives with final *-n̄v*

<i>ó</i>	<i>ó-n̄</i>	‘give’
<i>pórù</i>	<i>pó-n̄</i>	‘say’
<i>gí</i>	<i>gí-n̄é</i>	‘say’

The plural-addressee form is phonologically unremarkable. Examples of singular/plural pairs are in (282).

(282)	gloss	imperative (positive)	
		singular addressee	plural addressee
‘go’	<i>yă:</i>	<i>yă:-ȳ</i>	
‘come’	<i>yéré</i>		<i>yéré-ȳ</i>

Since the 1Sg pronoun is the only NP with accusative marking in direct objects function, the syntactic issue of the case-marking of imperative direct object NPs is usually moot. However, 1Sg accusative *má* is found in imperatives: *má págá* ‘tie me up!’.

10.6.1.2 Prohibitives (-l̄é, plural addressee -l̄é-ȳ)

The negative of the imperative, i.e. the prohibitive, is characterized by a suffix *-l̄é*. The same plural-subject *-ȳ* seen above with imperatives is added to this to produce plural-addressee prohibitive *-l̄é-ȳ*.

The stem takes the same form segmentally as in the imperative (and some other inflections), except for a few verbs with irregular imperative and/or irregular prohibitive. /LH/-toned stems preserve the initial L-tone.

Contracting *Cvr* and *Cvrⁿv* stems contract to *Cv-* before the prohibitive suffix. Vowel shifts occur in stems of basic motion/transfer verbs, *e* → *a* for ‘go’ and ‘take away’ (283a), and *e* → *e* for ‘come’ and ‘bring’. *j᷑:rì* ‘bring’ and *y᷑éré* ‘come’ also undergo *rv*-Deletion, resulting in *j᷑:-l̄é* and *y᷑-l̄é* in (283e). Because of the vowel shifts, *y᷑-l̄é* is the prohibitive of *y᷑éré* ‘come’, not of *y᷑* ‘go’.

(283) Prohibitive

bare stem	prohibitive	gloss
a. monosyllabics, /H/ and /HL/ toned		
<i>/H/-toned</i>		
<i>nú</i>	<i>nú-l̄é</i>	‘go in’
<i>ó</i>	<i>ó-l̄é</i>	‘give’
<i>á:</i>	<i>á:-l̄é</i>	‘catch’

<i>jí:</i>	<i>jí:-lé</i>	‘eat’
<i>/HL/-toned (only example), vowel shift</i>		
<i>jé (já:-)</i>	<i>já:-lè</i>	‘take away’
<i>irregular</i>		
<i>yě (yá:-)</i>	<i>yá:-lé</i>	‘go’

b. nonmonosyllabic stems with fixed final vowel, /H/-toned

<i>págá</i>	<i>págá-lé</i>	‘tie’
<i>súgó</i>	<i>súgó-lé</i>	‘go down’
<i>pírⁿí</i>	<i>pírⁿí-lé</i>	‘milk (a cow)’

c. bisyllabic and heavy stems with changeable final vowel

bisyllabic

<i>pál</i>	<i>pálá-lé</i>	‘pick (fruit)’
<i>kírì</i>	<i>kíré-lé</i>	‘jump’
<i>kún</i>	<i>kúnó-lé</i>	‘put’
<i>gǔj</i>	<i>gǔjó-lé</i>	‘take out’

trisyllabic with changeable medial and final vowels

<i>kígírì</i>	<i>kígéré-lé</i>	‘return’
<i>áwùrù</i>	<i>áwárá-lé</i>	‘lay out’

trisyllabic with fixed medial high vowel

<i>súnú-gù</i>	<i>súnú-gó-lé</i>	‘take down’
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d. /LH/-toned mono- and bisyllabics

<i>n᷑:</i>	<i>n᷑:-lé</i>	‘drink’
<i>g᷑:</i>	<i>g᷑:-lé</i>	‘go out’
<i>bágá</i>	<i>bágá-lé</i>	‘fall’
<i>mírⁿí</i>	<i>mírⁿí-lé</i>	‘swallow’
<i>m᷑:-n</i>	<i>m᷑:n᷑-lé</i>	‘assemble’

e. rhotic-medial bisyllabics subject to *rv*-Deletion

regular

<i>bíré</i>	<i>bí-lé</i>	‘do’
<i>gàrá</i>	<i>gá-lé</i>	‘go past’
<i>béré</i>	<i>bé-lé</i>	‘get’
<i>pórù</i>	<i>pó-lé</i>	‘say’
<i>dárⁿá</i>	<i>dáⁿ-lé</i>	‘kill’

with irregular vowel shift

<i>yéré</i>	<i>yé-lé</i>	‘come’
<i>jé:rì</i>	<i>jé:-lè</i>	‘bring’

f. trisyllabic and longer /LH/ or /LHL/ stems

with fixed medial high vowel

<i>jùnú-gù</i>	<i>jùnú-gó-lé</i>	‘ruin’
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with changeable medial and final vowels

<i>wògúrù</i>	<i>wògóró-lé</i>	‘take (sth) out or off’
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Examples of singular/plural-addressee pairs are in (284).

(284)	gloss	bare stem	prohibitive singular addressee	prohibitive plural addressee
	'drink'	<i>nɔ:</i>	<i>nɔ:-lē</i>	<i>nɔ:-lē-ŷ</i>
	'take out/off'	<i>wɔgúrù</i>	<i>wɔgóró-lé</i>	<i>wɔgóró-lé-ŷ</i>

For the prohibitive verb form in ‘lest’ clauses, a kind of negative purposive clause, see (625a-b) in §17.6.1.1, below.

Prohibitive *-lē* is grammatically and morphophonologically distinct from the *-lē* used in a verb-iteration construction, see §11.6.5. The latter controls an {H} overlay on the verb stem, and does not show the segmental contractions (*rv*-Deletion, contracted forms for ‘come’, ‘bring’, and ‘take away’) that occur in the prohibitive.

10.6.2 Hortatives

10.6.2.1 Positive hortatives (*-má*, plural addressee *-má-ŷⁿ*)

First-person (inclusive) hortatives are structured morphologically like imperatives, as though addressed only to the listener. There is accordingly a morphological distinction between a singular-addressee first-person hortative, as in ‘let’s (me and you-Sg) go!’, and a plural-addressee first-person hortative, as in ‘let’s (all three of us) go!’. The hortative suffix is *-má*, used without further affixes for singular addressee. Unlike the morpheme *má* used in ‘good to eat’ type expressions (§6.3.3.3), hortative *-má* does not control tone-dropping on the verb stem.

The plural-addressee counterpart is *-má-ŷⁿ*, with the same plural-addressee suffix seen in imperative and prohibitive forms.

The morphophonology including tonology is similar to that described just above for the prohibitive, including the vowel shifts for basic motion/transfer verbs (285a). ‘Bring’ also adopts the tonal form of its antonym ‘take away’. ‘Go’ additionally shifts initial *y* to *p*, resulting in *pá-má*, likely from **yá-má* via **yⁿá-má* by (diachronic) backward nasalization-spreading.

(285) Hortative (positive)

bare stem	hortative	gloss
a. monosyllabics, /H/ and /HL/ toned		
<i>/H/-toned</i>		
<i>ó</i>	<i>ó-má</i>	‘give’
<i>nú</i>	<i>nú-má</i>	‘go in’
<i>á:</i>	<i>á:-má</i>	‘catch’
<i>pí:</i>	<i>pí:-má</i>	‘eat’
<i>/HL/-toned (only examples)</i>		
<i>jé (já:-)</i>	<i>jâ:-má</i>	‘take away’
<i>jě:rì (jé:-)</i>	<i>jé:-má</i>	‘bring’
<i>irregular</i>		
<i>yě (yá:-)</i>	<i>pá-má</i>	‘go’

b. *CvCv* with fixed final vowel, /H/-toned

<i>págá</i>	<i>págá-má</i>	'tie'
<i>súgó</i>	<i>súgó-má</i>	'go down'
<i>pírní</i>	<i>pírní-má</i>	'milk (a cow)'

c. stems with changeable final vowel

bisyllabic

<i>pál</i>	<i>pálá-má</i>	'pick (fruit)'
<i>kírì</i>	<i>kíré-má</i>	'jump'
<i>kún</i>	<i>kúnó-má</i>	'put'
<i>gǔj</i>	<i>gǔnjó-má</i>	'take out'

trisyllabic with changeable medial and final vowels

<i>kígírì</i>	<i>kígéré-má</i>	'return'
<i>áwùrù</i>	<i>áwárá-má</i>	'lay out'

trisyllabic with fixed medial high vowel

<i>súnú-gù</i>	<i>súnú-gó-má</i>	'take down'
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d. /LH/-toned mono- and bisyllabics

<i>n<small>š</small>:</i>	<i>n<small>š</small>:-má</i>	'drink'
<i>g<small>o</small>:</i>	<i>g<small>o</small>:-má</i>	'go out'
<i>dòw<small>á</small></i>	<i>dòw<small>á</small>-má</i>	'go up'
<i>mírní</i>	<i>mírní-má</i>	'swallow'

e. rhotic-medial bisyllabics subject to *rv*-Deletion

regular

<i>bíré</i>	<i>bí-má</i>	'do'
<i>dàr<small>n</small>á</i>	<i>dă-má</i>	'kill'
<i>gàrá</i>	<i>gă-má</i>	'go past'
<i>béré</i>	<i>bě-má</i>	'get'
<i>pórù</i>	<i>pó-má</i>	'say'

irregular rhotic-syllable truncation and vowel shift

<i>yéré</i>	<i>yě-má</i>	'come'
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f. trimoraic and longer /LH/ or /LHL/ stems preserve lexical tone

<i>m<small>š</small>: -n</i>	<i>m<small>š</small>:nó-má</i>	'assemble'
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trisyllabic with fixed medial high vowel

<i>jùnú-gù</i>	<i>jùnú-gó-má</i>	'ruin'
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trisyllabic with changeable medial and final vowels

<i>wògúrù</i>	<i>wògóró-má</i>	'take (sth) out or off'
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In (286), the interviewer suggests moving to another topic. There is only one addressee, so *-má* rather than *-má-ŷ* is used.

- (286) *né: kà:ná yó: [pú: ^Lkè=:] là: mà,*
 now now NearDist [millet ^LPoss]=it.is tagQ Q,
maintenant émé dágà→ [é:ré ^Lkè kà:n] dágà→ tíjé-má
 now 1PlSbj a.little [peanut ^LPoss also] a.little speak-Hort
 '(Up to) now, that (=what we have discussed) is for millet, right? Now let's talk a little about peanuts.' (2011.1a.18)

10.6.2.2 Hortative negative (-m-lé, plural addressee -m-lé-ŷ)

The negation of the hortative is by a suffix complex *-m-lé*, presumably containing prohibitive suffix *-lé*. The stem vocalism is as in the positive hortative. Again the plural-addressee form adds a suffix *-ŷ*.

(287) Hortative negative

bare stem	hortative negative	gloss
a. monosyllabics, /H/ and /HL/ toned		
<i>/H/-toned</i>		
ó	ó- <i>m-lé</i>	'give'
nú	nú- <i>m-lé</i>	'go in'
á:	á:- <i>m-lé</i>	'catch'
jí:	jí:- <i>m-lé</i>	'eat'
<i>/HL/-toned (only examples)</i>		
jê (jâ:-)	jâ:- <i>m-lé</i>	'take away'
jé:rì (jê:-)	jê:- <i>m-lé</i>	'bring'
<i>irregular</i>		
yě (yă:-)	yă:- <i>m-lé</i>	'go'
b. <i>CvCv</i> with fixed final vowel, /H/-toned		
págá	págá- <i>m-lé</i>	'tie'
súgó	súgó- <i>m-lé</i>	'go down'
pír ⁿ í	pír ⁿ í- <i>m-lé</i>	'milk (a cow)'
c. stems with changeable final vowel		
<i>bisyllabic</i>		
pál	pálá- <i>m-lé</i>	'pick (fruit)'
kún	kúnó- <i>m-lé</i>	'put'
gǔñ	gǔñó- <i>m-lé</i>	'take out'
<i>trisyllabic with changeable medial and final vowels</i>		
kígírì	kígéré- <i>m-lé</i>	'return'
áwùrù	áwárá- <i>m-lé</i>	'lay out'
<i>trisyllabic with fixed medial high vowel</i>		
súnú-gù	súnú-gó- <i>m-lé</i>	'take down'
d. /LH/-toned monosyllabics and <i>CvCv</i>		
n᷑:	n᷑:- <i>m-lé</i>	'drink'
g᷑:	g᷑:- <i>m-lé</i>	'go out'
dòwá	dòwó- <i>m-lé</i>	'go up'
mìr ⁿ í	mìr ⁿ í- <i>m-lé</i>	'swallow'
e. rhotic-medial stems subject to <i>rv</i> -Deletion		
<i>regular</i>		
bíré	bí- <i>m-lé</i>	'do'
dàr ⁿ á	dá- <i>m-lé</i>	'kill'
gàrá	gá- <i>m-lé</i>	'go past'
bèré	bé- <i>m-lé</i>	'get'

<i>pórù</i>	<i>pó-m-lé</i>	‘say’
<i>irregular rhotic-syllable truncation and vowel shift</i>		
<i>yèré</i>	<i>yě-m-lé</i>	‘come’

- f. heavy /LH/ or /LHL/ stems preserve lexical tone
- | | | |
|-------------|-------------------|------------|
| <i>m᷑:ñ</i> | <i>m᷑:n᷑-m-lé</i> | ‘assemble’ |
|-------------|-------------------|------------|
- trisyllabic with fixed medial high vowel*
- | | | |
|----------------|---------------------|--------|
| <i>jùnú-gù</i> | <i>jùnú-gó-m-lé</i> | ‘ruin’ |
|----------------|---------------------|--------|
- trisyllabic with changeable medial and final vowels*
- | | | |
|---------------|--------------------|-------------------------|
| <i>w᷑gúrù</i> | <i>w᷑góró-m-lé</i> | ‘take (sth) out or off’ |
|---------------|--------------------|-------------------------|
- g. mediopassive
- | | | |
|---------------|--------------------|--------|
| <i>kír-ì:</i> | <i>kír-é:-m-lé</i> | ‘jump’ |
|---------------|--------------------|--------|

10.6.3 Syntactic status of second-person subject in imperatives

The “subject” of a regular second person imperative is covert, except for the plural *-y* in the imperative verb itself. The fact that such agreement occurs could be taken as evidence that the presence of a 2Sg or 2Pl subject in imperative clauses is recognized by the morphosyntax.

When the imperative verb is chained to another verb or VP (in which case it is understood that the imperative force applies to the entire chain), the nonfinal verb appears either in bare-stem form (to create a direct chain) or in a pseudo-conditional clause with *dè* ‘if’. Both direct chains and pseudo-conditionals elsewhere (i.e. with indicative final verb) require same subjects in the two clauses. This suggests that the interclausal syntax can detect imperative subjects and verify the sameness (i.e. coindexation), or at least non-disjointness, of the subjects of two chained verbs. Examples with imperatives are in (288).

- (288) a. *d᷑wó súgó*
 go.up go.down.Imprt
 ‘Go up and come-2Sg (back) down!’
 (direct chain)
- b. *[d᷑w-ê dè] súgó*
 [go.up-Pfv if] go.down.Imprt
 ‘Go up and come-2Sg (back) down!’
 (pseudo-conditional)

Likewise for plural subject imperative: *d᷑wó súgó-y* or *[d᷑w-ê dè] súgó-y*.

However, there is a glaring syntactic difference between imperative subjects and other subjects, viz., the inability of imperative subjects to serve as antecedents for anaphors, specifically reflexives. In indicative (289a), a second person subject (like any subject) requires that a coindexed clausemate object appear as the reflexive morpheme *săⁿ*. The imperative version, however, shows a regular 2Sg object pronominal, as one would get with a referentially disjoint subject.

- (289) a. *ú săⁿ kék-è*
 2SgSbj Refl cut-Pfv
 ‘You-Sg cut-Past yourself.’

- b. *ú kéké*
 2SgObj cut.Imprt
 ‘Cut-2Sg yourself!’

- c. *ú kéké-lé*
 2SgObj cut-Proh
 ‘Don’t-2Sg cut yourself!’

Likewise for plural subject: indicative *é [săⁿ bè] kéké-sêⁿ* ‘you-Pl (have) cut yourselves’ but imperative *é kéké-ŷ* ‘cut yourselves!’.

So, on the one hand, the morphology of the imperative verb itself recognizes the difference between singular and plural addressee, and (arguably) the interclausal syntax can detect imperative subjects and verify their referential identity. On the other hand, the (mostly) clause-internal anaphora system is unable to recognize an imperative subject.

In addition to reflexive *săⁿ*, there is a same-subject subordinating connector *má* in relative clauses, functioning as another anaphoric element. This too is disallowed in imperatives, showing again that the imperative addressee does not function as a referential subject in anaphora. The crucial examples are non-imperative (471b) versus imperative (471c-d) in §14.1.10.

The syntax of hortative subjects differs from that of imperatives. Hortatives agree with imperatives in the morphology of the verb itself, and in the use of same-subject bare stems (direct chains and pseudo-conditionals). However, hortatives normally show a clause-initial 1Pl subject *émé* (290a-b), which is omitted under the same conditions as in indicatives, whereas imperatives cannot have an initial 2Sg or 2Pl pronoun except in vocative function. In addition, hortative subjects (1Pl) are perfectly good antecedents for reflexives (290c).

- (290) a. *émé dòwó súgó-má-ŷⁿ*
1PlSbj go.up go.down-Hort-PlSbj
 ‘Let’s (three or more) go up and come (back) down!’
 (direct chain)
- b. *émé [dòwé dè] súgó-má-ŷⁿ*
1PlSbj [go.up-Pfv if] go.down-Hort-PlSbj
 [= (a)]
 (pseudo-conditional)
- c. *émé [săⁿ bè] kéké-má-ŷⁿ*
1PlSbj [ReflObj Pl] cut-Hort-PlSbj
 ‘Let’s (three or more) cut ourselves!’
 (reflexive object)

The conclusion is that imperative and hortative verbs index addressee number, that indicatives and hortatives have full-fledged referential subjects, but imperatives are treated as lacking referential subjects.

The shaky syntactic status of imperative subjects may be compared with that of (pseudo-)subjects in fixed subject-verb collocations of the ‘night fell’ type (§11.1.4).

10.6.4 Imperative and hortative verbs with non-second person subject

10.6.4.1 Imperative with third person subject

This construction is used in wishes and imprecations of the type ‘may God VERB X’. The verb is in imperative form.

- (291) a. *àmá ú bárá*
God 2SgObj help.**Imprt**
‘May God assist you.’
- b. *àmá bá:sí pógó*
God trouble brush.off.**Imprt**
‘May God brush off any trouble!’ (2011.1a.01)

The imperative verb here is invariant in unmarked (elsewhere singular-subject) form, though the preverbal subject NP may be plural (292). This restriction was also noted by Prost, who called the non-second person imperative the “subjonctif” (p. 56).

- (292) *[àr'á^L gàrá bè] ú bárá*
[man^L big Pl 2SgObj help.**Imprt**
‘May the old people assist you.’

A similar construction is used in jussives of the type ‘Tell them to come!’ (§17.1.5.1, below).

10.6.4.2 Imperative with implied first person singular subject

The imperative verb form is also used in utterances expressing uncertainty whether the addressee (or someone else who sent the addressee) wants the speaker to do something. For 1Sg subject, the usually accusative form *má* is used; for other nouns and pronouns there is no difference between subject and object morphology.

- (293) *má yéré má*
1SgAcc come.**Imprt** Q
‘(Do you want) me to come?’

10.6.4.3 Hortative with second or third person subject

The hortative can occur with a third person subject (294a) in wishes. With a second person subject, it gives the addressee permission to do something that he/she wishes. For example, (294b) could be used in a context where the speaker knows that the addressee is anxious to go.

- (294) a. *[pèré y᷑ k᷑ d᷑] [k᷑ Ljà-mà]*
[other Exist be.NonhSbj if] [NonhSbj Lgo-**Hort**]
‘If there is another (tale), may it go (=proceed)!’

- b. [ú ^L*kè]* *pá-má*
[2Sg ^LTopic] go-Hort
'You-Sg may go (now).'

11 VP and predicate structure

11.1 Regular verbs and VP structure

11.1.1 Verb types (valency)

There is no overt case-marking of nonpronominal subjects or objects (§6.7), but the distinction between them is clear. There is a clause-initial subject position, especially for nonpronominal subject NPs including pronouns. There is optional subject-number agreement on verbs (§10.3.1). In nonsubject relatives, a preverbal pronominal proclitic expressing the subject is required (§14.1.8). However, not all subjects and not all objects are created equal.

11.1.1.1 Defective or absent subjects

Covert (virtual) second person subjects of imperatives constitute an analytical problem. Morphologically, the presence of a (covert) subject appears to be indexed by the distinction between singular and plural subject forms on the verb itself: *yéré* ‘come-2Sg!’, *yéré-ŷ* ‘come-2Pl!’. Likewise, the interclausal syntax seems to recognize imperative subjects as being coindexed (“same subject”) or at least non-disjoint in verb/VP chains, allowing the use of direct chains (§15.1) and of pseudo-conditionals (§15.2.2.6). However, the clause-internal syntax fails to recognize the imperative subject as an antecedent for reflexives, unlike (referential) subjects in indicative clauses (including first and second person pronouns), and even unlike hortative subjects. So there is an apparent mismatch between the imperative-verb morphology and the clausal and interclausal syntax. The solution is that imperative and hortative verbs mark addressee (rather than subject) number. Imperatives have no true subjects, while indicatives and hortatives do have 1Pl subjects (as well as singular or plural addressee). See §10.6.3 for examples and discussion.

In indicative sentences, true subject NPs are clause-initial. However, there is a construction with a fixed collocation of a noun and a verb, including meteorological expressions similar to English *day broke* or *night fell*, along with emotional expressions involving *kéné* ‘heart’. Here the apparent subject (‘night’, ‘heart’) does not display full subject qualities and follows rather than precedes adverbs. This raises the possibility that these clauses may be subjectless. There are also cases (‘get angry’, ‘have a bloody nose’) that have both a fixed noun (‘heart’ or ‘nosebleed’) with defective subject properties and a true subject. These defective subjects, like imperative subjects, take the “same-subject” subordinator in chains, though this may simply mean that the two subjects are not disjoint. It is not possible to test them for anaphoric-antecedent properties. See §11.1.4 for examples and discussion.

11.1.1.2 Objects

In main clauses, object NPs follow subject NPs and some adverbial elements. Subjects, but not objects, have limited agreement in the verb, in the form of an optional marking of

plurality of subject (295a). Because this agreement does not distinguish pronominal person categories, independent pronouns in subject position are common (295b).

- (295) a. *[àrⁿá bè] [éwé bîn] jé* *᷑:-sêⁿ*
 [man Pl] [market in] woman see-Pfv.Plsbj
 ‘The men saw the woman in the market.’
- b. *émé yá: bú:dú béré-sêⁿ*
 1PlSbj yesterday money get-Pfv.Plsbj
 ‘We got the money yesterday.’

The simple transitive construction exemplified in (295) is typical for impact transitives like ‘hit’ and perception verbs like ‘see’. It is also valid for verbs of carrying and holding, although they are morphologically mediopassive in form, like *bòm-î*: ‘carry (child, on back)’, which occurs in stative form in (296).

- (296) *iⁿ [săⁿ ^Li:ⁿ] bómò*
 1SgSbj [ReflPoss ^Lchild] carry.on.back.Stat
 ‘I am carrying my child (on my back).’

As in other Dogon languages there are many conventionalized objects, including cognate nominals, that have limited independent reference. For examples see §11.1.5.1-2, below.

Motion verbs like ‘go’ have locational complements, typically expressed by spatial adverbial phrases or by place names. In (297), the destination is expressed by a tonal locative.

- (297) *iⁿ éwè^{+L} yá:-jú*
 1SgSbj market.Loc^{+L} go-Ipfv
 ‘I am going to (the) market.’

‘Give’ and ‘show’ each have a direct object (theme) without case-marking, and a dative indirect object (298).

- (298) a. *wó má=ñ [témdéré lɔy] ^L᷑-è*
 3SgSbj 1Sg=Dat [hundred two] ^Lgive-Pfv
 ‘He/She gave me 200.’
- b. *iⁿ ú ^Hsúgé:ⁿ=ñ [pèjù^L máná] tó:ró-jú*
 1SgSbj [2SgPoss ^Hyounger.sib]=Dat [sheep^L big] show-Ipfv
 ‘I will show a big sheep to your-Sg younger (same-sex) sibling.’

‘Say’ also has a direct-object (theme) when the quotation is resumed as a noun, pronoun, or ‘what?’ interrogative. In any case, the original addressee is expressed as a dative indirect object.

- (299) *ú=ñ iŋé ^Lpòr-ì*
 2Sg=Dat what? ^Lsay-Pfv
 ‘What did he/she say to you-Sg?’

‘Put’ and ‘take out’ verbs have a direct-object (theme) and a locational expression denoting the relevant container or containing space. The locational expression does not indicate

directionality ('to X', 'from X'), which is the responsibility of the verb. Therefore both (300a) and (300a) have static locative 'in the house' as locationals.

- (300) a. *émé dɛⁿ [gìrⁿí bîn] kún-è:-sɛⁿ*
 1PlSbj waterjar [house in] put-Pfv.PlSbj
 'We put-Past the waterjar in the house.'
- b. *émé dɛⁿ [gìrⁿí bîn] gúŋ-è:-sɛⁿ*
 1PlSbj waterjar [house in] take.out-Pfv.PlSbj
 'We took the waterjar out of the house.'

11.1.2 Valency of causatives

With the productive causative in *-m̄*, the embedded subject appears in dative form. This applies to embedded intransitive as well as transitive clauses. If the embedded clause is transitive, its direct object undergoes no change as part of causative clause union. (301e) is an example of a causative based on a transitive verb, with both a surface direct object and a dative.

- (301) a. *wó àrⁿá=ñ dèŋ-é:-m̄-Ø*
 3SgSbj man=Dat sit-MP-Caus-Pfv
 'He/She had/made/let the man sit.'
- b. *wó má=ñ jǎ: ní:-m-ì*
 3SgSbj 1Sg=Dat meal eat.meal-Caus-Pfv
 'He/She had/made/let me eat (a meal).'
- c. *wó má=ñ í:ⁿ píné-m̄-Ø*
 3SgSbj 1Sg=Dat child shut-Caus-Pfv
 'He/She made me shut up (=imprison) the child.'
- d. *fⁿ ú=ñ gő:-mí-jú*
 1SgSbj 2Sg=Dat go.out-Caus-Ipfv
 'I will make you-Sg go out.'
- e. *[bàrá ^Lyè] kérú wó=nì túró-m̄-Ø dè*
 [outback ^Lgo] stem 3Sg=Dat gather.up-Caus-Pfv if
 '((step-)mother) would go into the bush, making her (=girl) go into the bush to
 collect (millet) stalks, (then...).' (2011.1b.01)
 [for ^Lyè see §15.1.6.1]

This valency does not apply to frozen and irregular causatives, which are treated like ordinary transitives. Thus *jùnú-gì* 'damage (sth)', *súnú-gì* 'take down', *gǔŋ* 'take out', and *ú:-ñ* 'lay, put down' take simple NP and pronominal objects, including 1Sg accusative *má*.

11.1.3 Verb Phrase

The notion of VP is most useful in the grammar in connection with chaining, especially same-subject loose chaining with a subordinator like *-ní*: ‘while.SS’ (§15.2.1.4). The concept of VP is also useful in connection with anaphoric pronouns that have clausemate subjects as antecedents (chapter 18).

11.1.4 Fixed subject-verb collocations

Tightly-knit subject-verb collocations are not widespread, but are fairly typical of temporal expressions (in a broad sense: time of day, weather, seasons), and emotional expressions. Some collocations whose first element has subject-like qualities are in (302).

(302) Subject-verb collocations

a. temporal

<i>dà:gá dě:</i>	‘night fall(s)’ (only known use of verb <i>dě:</i>)
<i>pàrá gó:</i>	‘cloudy weather go out’ (= ‘be autumn’)
<i>jù-nú nú</i>	‘cold season enter’ (= ‘... begin’)
<i>ár"ú lówó</i>	‘rain fall’ (<i>lówó</i> elsewhere ‘carve, chop out’)

b. emotional

<i>[X ^Hkéné] kó:</i> ⁿ	‘X’s heart weep’ (=‘be sad’)
<i>X kéné párá</i>	‘X heart rub on [lotion]’ (=‘be angry’)

c. body function

<i>X kir"í^L-né gó:</i>	‘[X’s nose] bleed, X have a bloody nose’
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However, the “subject” status of the nominals here is not full-fledged. True subjects are clause-initial in normal main clauses, preceding adverbials. By contrast, the fixed subject-like nominals in (302a) follow setting adverbials. Compare (303a-b) with true subjects to (303c), which has a subject-like nominal, showing different linear orders in spite of sharing an adverb and a verb.

- (303) a. *Iⁿ [né: wòⁿ] ^Lgò-è*
 1SgSbj [now Top] ^Lgo.out-Pfv
 ‘I have gone out now.’

- b. *péjú [né: wòⁿ] ^Lgò-è*
 sheep [now Top] ^Lgo.out-Pfv
 ‘The sheep-Sg has gone out now.’

- c. *[né: wòⁿ] ^Lgò-è*
 [now Top] cloudy.weather ^Lgo.out-Pfv
 ‘The cloudy weather has gone out (=it is autumn).’

The situation is particularly striking for ‘X’s nose bleed(s)’, which appears to have two distinct subjects. *[kir"í-né] gó:* by itself makes sense as a subject plus intransitive verb: ‘[nose-blood] go out’. However, there can also be another subject NP denoting the person (or

animal), and the two are separated if an adverb is present. In (304), ‘nose-blood’ is what ‘goes out’, but the human is the full-fledged subject, even to the extent of determining plural-subject agreement on the verb ‘go out’ (304b). See also the ‘get angry’ construction in (306b) below.

- (304) a. *sè:dú yá: kírⁿi^L-né ^Lgò-è*
 S yesterday nose^L-blood go.out-Pfv
 ‘Seydou had a bloody nose yesterday.’
- b. *émé yá: kírⁿi^L-né gō:-sēⁿ*
 1PlSbj yesterday nose^L-blood go.out.Pfv.1PlSbj
 ‘We had bloody noses yesterday.’

If ‘nosebleed’ in (304) is a pseudo-subject, ending up in an adverb-like position, one could extrapolate this to cases like ‘cloudy weather’ in (303c). From this perspective, (303c) has no true subject NP.

To be sure, same-subject past anterior subordinator *-ε:* (§15.2.2.1) can be used in two-clause sequences like (305) with fixed subject *pàrá*, but it could be debated whether *-ε:* requires true referential coindexation or whether it is an unmarked subordinator used whenever the two subjects are not clearly disjoint.

- (305) *pàrá nú-è: ^Lgò-è*
 cloudy.weather go.in-SS ^Lgo.out-Pfv
 ‘Cloudy weather (=rainy season) came in and went out.’

Regarding the emotion expressions with *kéné* ‘heart’ (more accurately ‘liver-heart complex’) in (302b), there is a structural difference between ‘heart weep’ and ‘heart rub.on’. In the first, ‘heart’ is a possessed noun, as seen clearly in the 1Sg combination *kéné mà* ‘my heart’. However, it still follows setting adverbs (306a). In ‘heart rub.on’, if indeed *párá* in this collocation is the verb ‘rub on (e.g. lotion)’, ‘heart’ is not treated as a possessed noun. Instead, there is a separate subject denoting the person (306b), as in the ‘nosebleed’ examples above. If the subject is plural, the verb may agree with it (306c).

- (306) a. *íyé [kéné mà] kóⁿ-è*
 today [heart 1SgPoss] weep-Pfv
 ‘My heart wept.’ (=‘I was sad.)
- b. *Iⁿ íyé kéné pár-è*
 1SgSbj today heart rub.on-Pfv
 ‘I got angry today.’
- c. *émé íyé kéné párá-sēⁿ*
 1PlSbj today heart rub.on-Pfv.1PlSbj
 ‘We got angry today.’

11.1.5 Fixed verb-object combinations

11.1.5.1 Verb and noncognate noun

Examples of fixed phrases consisting of a verb and a noncognate object verb are in (307).

(307) Verb-object combinations

- a. noun carries main activity sense, verb is semantically light

<i>àségú sá:</i>	‘sneeze’ (<i>sá:</i> ‘answer, speak up’)
<i>kòmó tá:</i>	‘wage war’ (<i>tá:</i> ‘shoot’)
<i>sáⁿ-ligì á:</i>	‘perform ablutions’ (<i>á:</i> ‘catch’)
<i>óyó sá:ŋì</i>	‘yawn’ (<i>sá:ŋì</i> ‘stretch, spread’)
<i>óyó dákì</i>	‘yawn’ (cf. <i>dákì</i> ‘dare’)
<i>ò:gú tóró</i>	‘sweat’ (<i>tóró</i> ‘hatch’ or ‘begin’)

- b. noun carries main activity sense, verb not attested elsewhere

<i>gìné nówⁿ-ì:</i>	‘go to sleep’
<i>iⁿsírⁿí sí:ⁿ</i>	‘urinate’
<i>tákì: dákì:</i>	‘say a proverb’

- c. verb carries main activity sense

<i>gíré kúmùnù</i>	‘blink’ (<i>gíré</i> ‘eyes’)
<i>káⁿ lúgó</i>	‘rinse out one’s mouth’ (<i>káⁿ</i> ‘mouth’)
<i>dákì: in-í:</i>	‘bathe, take a bath’ (<i>dákì:</i> ‘water’)

11.1.5.2 Formal relationships between cognate nominal and verb

The collocations in this section are between a verb and a cognate nominal that functions as default direct object. In some cases the verb seems to be lexically primary and the cognate nominal adds little to the meaning. In other cases the noun has an independent meaning and the verb appears to be parasitic on it.

As an example, consider the data in (308). The collocation with cognate nominal in (308a) is the common expression for the act by which a farmer turns over a little earth with a slash of the pick-hoe (French *pioche*), after which a second person (often a child or woman) drops seeds into the disturbed earth and tamps it down with his/her feet. The pick-hoe slashing is the central action in planting seeds, and the phrase in (308a) is the loose translation of ‘plant, sow’ (French *semier*). There are, however, some more specialized planting techniques that are described by noncognate collocations (308b).

- (308) a. *léké:* ‘slash earth in field to sow’
- b. *lék^L-ligjíjí lék:* ‘make slashes irregularly (not in rows)’
[bínígí bë] lék: ‘sow (seeds) in a pit with manure’
lék^L-lónírⁿí lék: ‘oversow (seeds) widely’

The collocations in (308) involve underived nouns and verbs of closely similar segmental shapes, generally differing (if at all) only in tones and/or (for nonmonosyllabics) in final vowel (even after factoring out mediopassive *-i:* on some verbs). These differences are

partially ascribable to the very strict constraints on lexical tones and on vocalism that apply to verb stems but not to nouns. For example, initial voiced obstruents force an /LH/ melody on verbs but not on nouns, and nonmonosyllabic verbs have tight restrictions on vowel sequences.

However, there are also a number of cases where the noun has one of the shapes *CˇV*, *CˇVC* with final sonorant, or *CˇVCú*, which are segmentally and tonally identical to the corresponding verbal noun with suffix *-ú* or (monosyllabic) *-Ø* (§4.2.4, above). On the other hand, there are also many cognate nominals that have the segmental form of a verbal noun, but that (unlike verbal nouns) are /H/-toned, namely *CˇV*, *CˇVC* with final sonorant, *CˇVCú*, *Cˇ:Cú*, and *CˇVCˇCú*.

(309) Verbs and simple cognate nominals

a. verb and noun monosyllabic

noun CˇV with short vowel (verbal noun?)

kˇɔ:n kˇɔ:n ‘weep’

noun CˇV with short vowel

mˇó mˇɔ: ‘laugh’

noun with long vowel

bé: bˇe: ‘defecate’

gí:ⁿ gˇi:ⁿ ‘commit theft’

gó: gˇɔ: ‘dance a dance’

jí:ⁿ jˇi:ⁿ ‘fart’

dˇɔ: dˇɔ: ‘make an insult’

noun with long vowel, vowel-quality shift

já:ⁿ jˇí:ⁿ ‘eat meal’

b. verb bisyllabic, noun monosyllabic

noun CˇV (divergent in vocalism from verbal noun)

sˇo sówá [!] ‘give an injection’

noun CˇV, verb CvCv with medial {y r rⁿ}

já jày-î: ‘have a fight’

sáⁿ sárⁿá ‘pray’

tíⁿ túní ‘go get firewood’

bóⁿ bòrⁿó ‘convoke, send out a summons’

noun CˇVC with final sonorant (verbal noun?)

bén béné ‘go swimming’

noun CˇVC with final sonorant

jéw jéwé ‘utter a curse’ (cf. *sáⁿ jéwé* ‘take an oath’)

móm mómó ‘carry out second round of weeding’

géŋ géŋé ‘beg, do pleading’

c. verb and noun bisyllabic

CvCv with noun CˇVCú (verbal noun?)

dàbú dàbá ‘tell fortunes’

mùŋú mùŋó ‘tie a knot’

játú játá ‘do a calculation’

gérú géré ‘do the harvest’

nòŋú nòŋó ‘copulate’

bàdú bàdá ‘hold a meeting’

jàmú jàmá	'betray, break a promise'
tôŋú tóŋjó	'do writing'
ìmú ìm-î:	'lie down, go to bed'
<i>CvCv with noun CýCú</i>	
énú éné	'tell a story'
néŋú nèŋé	'squeeze out'
jáŋú jáŋá	'engage in studies'
tóŋgú tóŋgó	'have a chat', cf. <i>dà:gà</i> ^L - <i>tóŋgú tóŋgó</i> 'have a night-chat'
séŋgú séŋé	'pay dues, ante'
núŋú núŋjó	'sing a song'
térú téré	'clear (a field, with an axe)'
jóŋgú jóŋgó	'(bird) eat by pecking'
wárú wárá	'do farm work' (cf. <i>wòrú</i> 'field')
dúrú dúrō	'let out a groan'; 'thunder'
bóŋgú bóŋgó	'(dog) bark'
jóŋgú jóŋjó	'perform healing'
<i>CvCv with noun CvCi</i>	
kíří kíř-ì:	'take a jump'
íří íré	'stutter'
íjí íjé	'(quadruped) buck'
jíŋí jíŋé	'take sides, support one side'
jíŋí jíŋé	'emit an odor'
jíní jíné	'breathe'
<i>CvCv with noun ending in nonhigh vowel</i>	
tíŋé tíŋé	'speak', cf. [<i>tíŋgè</i> ^L <i>báŋgú</i>] <i>tíŋé</i> 'speak secret words', <i>tíŋgè</i> ^L - <i>kéřú</i> <i>tíŋé</i> 'tell a joke'
bířé bířé	'do work'
síŋé síŋé	'make noise'
pár ⁿ é pár ⁿ ì	'tell a riddle'
síjé síjé	'draw lines'
gúřó gúřó	'vomit'
súřó súřó	'make a heap'
kéřé kén-ì: [!]	'have fun'
túnó túnó	'compete'
dúwó dúw-î:	'bear a burden, take responsibility for'
dúwó dúwó	'(blacksmith) do forging'
súw ⁿ ó súw ⁿ ó	'(skin of dates) become wrinkled'
dúgó dúgó	'cast spells'
lúgó lúgó	'count (numbers)'
tágá tág-ì:	'put on shoes'
<i>CvCv with noun ending in mid-height nasalized vowel</i>	
wíře ⁿ wíří	'give out a whistle'
síjé ⁿ síjé	'blow a horn (or a whistle)'
<i>CvCCv</i>	
jánté jántí	'be kidding'
<i>Cv:Cv with noun Cý:Cú</i>	
wá:jú wá:jù	'preach, give a sermon'
já:gú já:gù	'do business'
gá:nú gá:n	'pester'
gé:rú gé:rí	'whisper'

Cv:Cv with noun *Cí:Cí*

jí:rí jí:rí ‘have a discussion or debate’

Cv:Cv with noun ending in non-high vowel

tí:ré tí:rí ‘make small bunches’

sí:ŋé sí:ŋì ‘sob’

d. verb and noun trisyllabic

CvCvCv with noun *CíCíCí* or syncopated *CíCCú*

dáwru dàwíri ‘cast spells’

bógrú bògíri ‘(male animal in rut) bellow’

járugú jàrigí ‘make a criticism’

gónúr"ú gòŋúr"ù ‘take a stroll’

CvCvCv with noun ending in non-high vowel

kágújá kágújì ‘clear one’s throat’

sílígá sílígì ‘make an exchange’

bílígá bílígì ‘do magic tricks’

dùgòró dùgíri ‘mock, poke fun’

jónór"ó jònýr"ì ‘do spot-sowing’, ‘oversow’

kòjúgó kójúgù ‘cough’ (variant *kòjúgó kóngújù*)

A few of the forms in (309) above have additional irregularities, flagged by “[!]” after the collocation. An irregular shift between [+ATR] and [-ATR] is found in *sō sówó* ‘give an injection’ (compare *sów-Ø*, regular verbal noun of *sówó*). An irregular consonantal shift occurs in *kéré kén-ì*: ‘have fun’.

In a significant number of further cognate collocations, the noun and verb differ morphologically. In *tigé tígíri* ‘(griot) call out the names of ancestors’, the verb probably has (or originally had) a derivational suffix *-rv* (§9.1, §9.3.1). In most cases, however, the verb is morphologically simple while the noun is morphologically complex in one of the following ways: a) it begins with an arguably segmentable *à(N)-* morpheme of unclear function (§4.1.7); b) it has an initial reduplication (§4.1.4); or c) the noun is compound (or is a noun-adjective combination) and the verb is cognate to only one of the stems (usually the final). The data in (310) are organized around these morphological categories.

(310) Verbs and morphologically complex cognate nominals

a. noun with initial *à-* or *àN-*

noun à(N)CíCú

à-n-dáŋú dàŋá ‘fry large soft millet cakes’

à-tégú tége ‘stand on tiptoes’

à-mámú màmá ‘bite one’s lower lip’

b. noun with apparent initial *Cv-* reduplication

pò-pò: pò: ‘accuse’

c. only the final element of compound noun is cognate to the verb

compound final -Cí

kérù^L-ká ká: ‘harvest millet (after the main harvest)’

nùmò-dá dák: ‘signal to stop’

compound final -Cv:

kù^{nL}-ð: ð: ‘see (foretell) the future’

<i>kìnè</i> ^L - <i>ጀ: ጋ:</i>	'tell fortunes in a seance'
<i>är"à</i> ^L - <i>tጀ: tጀ:</i>	'have a fight (verbally)'
<i>dògò</i> ^L - <i>tጀ: tጀ:</i>	'take down (wrestler) by tripping from outside'
<i>nìjìr"i</i> ^L - <i>tጀ: tጀ:</i>	'set a date/deadline'
<i>nùmጀ</i> ^L - <i>jጀ: jጀ:</i>	'take handful (of food) in hand'
compound final -C <small>VC</small> with final sonorant (verbal noun?)	
<i>ìmì-kám kámá</i>	'take down (wrestler) by falling backward'
compound final -C <small>V</small> C with final sonorant	
<i>kùwጀ</i> - <i>séw séwé</i>	'walk on tiptoes'
compound final -C <small>V</small> C <small>ú</small>	
<i>à:gà</i> ^L - <i>yégú yégé</i>	'(herder) get up early'
<i>tòrò</i> ^L - <i>bájú bájá</i>	'tie a sliding knot'
<i>mጀ</i> ^L - <i>kérú kéré</i>	'smile broadly'
<i>gìrè</i> ^L - <i>bémú bémé</i>	'frown'
compound final -C <small>V</small> C <small>í</small>	
<i>kùwጀ</i> ^L - <i>díní díné</i>	'take down (wrestler) by tripping from inside'
<i>gònò</i> ^L - <i>díní díné</i>	'(wrestlers) hold each other chest to chest'
[<i>nà:</i> ^L <i>pírí</i>] <i>píré</i>	'cook meal with flour dumplings' (<i>pírí</i> 'white')
compound final -C <small>v</small> C <small>v</small> with final non-high vowel	
<i>bìn</i> ^L - <i>kéjé kéké</i>	'say sth false'
<i>jù:</i> ^L - <i>sìwé sìwé</i>	'lay the second layer of millet spikes'
<i>nùmጀ</i> ^L - <i>sijé sijé</i>	'draw lines (in sand)'
<i>kà</i> ^{nL} - <i>tìŋé tìŋé</i>	'utter magic spells'
<i>kù</i> ^{nL} - <i>kúwó kúw-ì</i>	'put on hat'
<i>jù:</i> ^L - <i>sùró sùró</i>	'make small harvest pile'
<i>kùwጀ</i> ^L - <i>tàjá tájá</i>	'take a step'
compound final -C <small>V</small> C <small>V</small> C <small>ú</small>	
<i>jà:</i> ^L - <i>múpúr"ú múnúr"ù</i>	'have a dream'

d. only initial element of compound noun is cognate to verb

<i>tùrò</i> ^L - <i>dí: túró</i>	'spit' (<i>dí</i> 'water')
<i>jè</i> ^L - <i>tùnó jòwò</i>	'run a race' (<i>tùnó</i> 'comparison', <i>jé</i> 'act of running', <i>jòwò</i> 'run')

After factoring out the noncognate material on the noun, the verbs and cognate nominals in (310) are generally consistent with the phonological patterns noted in (309) above. For example, *àndáyú dànyá* 'fry large soft millet cakes' can be compared to collocations with CVCú nominala in (309c). One broad difference is that the collocations in (310), more so than those in (309), tend to have lexically dominant nominals. For example, the verb *tጀ:* occurs in three distinct collocations in (310c), essentially just repeating the respective compound finals without adding much to the meaning. One consequence of the independent status of the nouns in (310) is that very few have the rising tone and segmental form of true verbal nouns.

11.1.5.3 Grammatical status of cognate nominal

The relationship in form and sense between the verb and the cognate nominal often makes the latter redundant, essentially a pro-forma or default object, as in 'dance a dance'. In cases like 'dance', one can also have more specific objects ('dance a jig'), whereas with 'whistle (=give out) a whistle' or 'dream (=have) a dream' there may be no such alternatives.

In any event, the cognate nominal can function syntactically as a true object NP, and it can be modified. The collocations vary as to the propensity of the nominal to be directly modified by an adjective, numeral, or demonstrative. An example that only occasionally shows NP-internal modification is *gúró gúró* ‘vomit (=emit) vomit’. The adverb ‘a lot’ in (311a) and the adverbial phrase ‘three times’ in (311b) do not form part of the NP with *gúró*, although it would have been syntactically possible to say ‘... vomited [much vomit]’ or ‘... emitted [three vomits]’. However, *gúró* basically means ‘vomit(n)’, and it can be modified adjectivally, e.g. with ‘red (brown)’ in (311c).

- (311) a. *wó* *gúró* *gàr-á* → ^L*gúr-è*
 3SgSbj vomit(n) a.lot ^Lvomit-Pfv
 ‘He/She vomited a lot.’
- b. *wó* [*kúwó* *tǎ:n*] *gúró* ^L*gúr-è*
 3SgSbj [time three] vomit(n) ^Lvomit-Pfv
 ‘He/She vomited three times.’
- c. *wó* [*gúrò*^L *báⁿ*] ^L*gúr-è*
 3SgSbj [vomit(n)^L red] ^Lvomit-Pfv
 ‘He/She vomited red (or brown) vomit.’

On the other hand, in a collocation like *sijé sijé* ‘draw lines’, the nominal denotes a bounded unit and therefore lends itself to quantification as well as to other forms of modification (312).

- (312) a. *wó* [*sijé* *tǎ:n*] ^L*sij-è*
 3SgSbj [line three] ^Ldraw-Pfv
 ‘He/She drew three lines.’
- b. *wó* [*sijè*^L *gúrú*] ^L*sij-è*
 3SgSbj [line^L long] ^Ldraw-Pfv
 ‘He/She drew a long line.’

11.2 ‘Be’, ‘become’, and other statives

11.2.1 ‘It is’ clitics

11.2.1.1 Positive ‘it is’ (*=y*, *=ì*, *=:*, *=Ø*)

The ‘it is’ clitic may be added to a pronoun or any other NP, singular or plural, to create an identificational predicate. Its function is to identify a referent that is physically present, or that has been introduced into the discourse. This referent may appear as a topicalized NP just before the ‘it is’ clause, but it is often omitted by virtue of being mutually understood.

The segmental form of the clitic is *=y* after a vowel in most cases, and *=ì* after a consonant except *y*. The *=y* variant can be nasalized after a nasal syllable. The clitic is segmentally zero (*=Ø*) after *y*, as in *X sày=Ø* ‘it is X only’. The semivowel in the first variant is sometimes barely audible or is dropped entirely, reflecting the general tendency of TgK to delete word-final semivowels. It is regularly heard as simple vowel lengthening after front mid-height vowel in a few combinations: 1Pl pronoun *émé=:* ‘it is us’, *bè=:* with

plural marker. With rare exceptions, the consonant-final cases are human nouns. For an extra *-n* suffix, see (315) at the end of this section.

The tones are as follows for an unpossessed vowel-final stem. A short-voweled <LH>-toned monosyllabic (*Cv*) is raised to H-tone, hence *Cv=y* (313b). An /H/-toned nonmonosyllabic shifts to {HL}, realized on a trisyllabic as H.H.L, i.e. with only the final syllable L-toned, hence *CvCvCv=y* (313c). There no tonal change for a bimoraic or longer /LH/ stem (L.H, L.L.H, or long-voweled monosyllabic <LH>), hence *Cv(Cv)Cv=y* and so forth. A noun or NP already ending in an L-toned syllable (which can be a NP with plural *be*, an /HL/-toned proper noun, or a heavy possessed noun) likewise undergoes no change, hence ...*Cv=y* (313a).

The clitic itself is partially atonal, often getting its tone by spreading from that of the syllable it cliticizes to. However, it is L-toned after a long H-toned vowel (313d). It is also L-toned when directly added to any possessed noun stem. The regular possessor-controlled overlays are {H} for prosodically light stems and {HL} for heavy stems, so the L-tone on the enclitic is noticeable only after the {H}-toned type (§6.2.1.1). If X represents the prenominal possessor, monosyllabic possessed *[X Cv]* and *[X Cv:]* have ‘it is’ forms *[X Cv]=y* and *[X Cv:]=y*, respectively. Bimoraic bisyllabic possessed *[X CvCv]* has an ‘it is’ form *[X CvCv]=y*, whose entire second syllable is L-toned (313e).

(313) ‘It is’ clitic after vowel-final stems and NPs

noun or NP	gloss	‘it is ...’
a. no tone change		
<i>noun or NP with final L-toned syllable</i>		
<i>fántà</i>	(woman’s name)	<i>fántà=y</i>
<i>jě b<small>e</small></i>	‘women’	<i>[jě b<small>e</small>]=:</i>
<i>ú ^{HL}tógùrù</i>	‘your-Sg basket’	<i>ú ^{HL}tógùrì=y</i>
<i>/LH/-toned stem, bimoraic or longer</i>		
<i>g<small>o</small>:</i>	‘granary’	<i>g<small>o</small>:=y</i>
<i>àr<small>n</small>á</i>	‘male’	<i>àr<small>n</small>á=y<small>n</small></i>
	(differs tonally from <i>àr<small>n</small>á-y<small>n</small></i> ‘boy’, (97a) in §5.1.7)	
<i>tùwó</i>	‘stone’	<i>tùwó=y</i>
<i>tògùrú</i>	‘basket’	<i>tògùrí=y</i>
b. <i>C<small>v</small></i> to <i>C<small>v</small>=y</i>		
<i>jě</i>	‘female’	<i>jé=y<small>n</small></i>
<i>ná</i>	‘person’	<i>ná=y<small>n</small></i>
<i>jǎ</i>	‘flexible branch’	<i>já=y</i>
<i>m<small>o</small></i>	‘gum (resin)’	<i>mó=y<small>n</small></i>
c. /H/-toned nonmonosyllabic to {HL} =y		
<i>túŋúr<small>n</small>ú</i>	‘stool’	<i>túŋúr<small>n</small>i=y<small>n</small></i>
<i>lú:r<small>n</small>ó</i>	‘snake’	<i>lú:r<small>n</small>ò=y<small>n</small></i>
d. final H-toned long vowel (... <i>C<small>v</small>:</i>)		
<i>í:<small>n</small></i>	‘child’	<i>í:<small>n</small>=y<small>n</small></i>
<i>tò-tó:</i>	‘tin can’	<i>tò-tó:=y</i>

- e. {H}-toned possessed nouns ($X^H C\acute{V}$, $X^H C\acute{V}:$, $X^H C\acute{V}C\acute{V}$)
- | | | |
|--------------------------------------|---------------------|--|
| $\acute{u}^H k\acute{a}^n$ | ‘your-Sg mouth’ | $[\acute{u}^H k\acute{a}^n]=\grave{y}^n$ |
| $\acute{u}^H b\acute{e}:$ | ‘your-Sg excrement’ | $[\acute{u}^H b\acute{e}:]=\grave{y}$ |
| $\acute{u}^H g\acute{u}r^n\acute{i}$ | ‘your-Sg house’ | $[\acute{u}^H g\acute{u}r^n\acute{i}]=\grave{y}^n$ |

The clitic is common with pronouns. $k\acute{o}=\grave{y}$ ‘it is it’ is used like English *that’s it*, either as an identification with a discourse-definite object, or to mark the end of a time-limited activity or situation.

The semivowel y is audible after all 2nd and 3rd person pronouns. After 1Pl $\acute{e}m\acute{e}$ there is no y , just lengthening of the final vowel to $\acute{e}m\acute{e}=:$ (314c). 3Pl pronoun $b\acute{e}$ and the plural particle $b\grave{e}$ in nonpronominal NPs likewise just lengthen their final vowel. The 1Sg form is phonetic [mi:], which could be marked up as $m\acute{i}=\grave{y}^n$, as $m\acute{i}=:$, or as $m\acute{i}$; see discussion following (54) in §4.3.1 and discussion of (317c) below. The y is clear after u in the 2Sg pronoun (314a), but nonmonosyllabic nouns ending in Cu often combine with $=y$ as monophthongized $Ci=y$ (indistinguishable from $Ci=:$).

- (314) a. $\acute{u}=\grave{y}$
2Sg=it.is
‘It’s you-Sg.’
- b. $w\acute{o}=\grave{y}$
3Sg=it.is
‘It’s him/her.’
- c. $\acute{e}m\acute{e}=:$
1Pl=it.is
‘It’s us.’
- d. $m\acute{i}=\grave{y}^n$ (alternatively transcribable as $m\acute{i}=:$ or $m\acute{i}$)
1Sg=it.is
‘It’s me.’

Nonhuman $k\acute{o}=\grave{y}$ ‘it’s it’ is commonly used like English *that’s it!*, for example confirming the correctness of an interlocutor’s pronunciation.

If the predicate is a human singular noun other than a personal name like ‘Fanta’ (313a), a kin term, or the noun $n\acute{a}$ ‘person’, a human singular suffix $-n$ is often but not always present before the clitic. This suffix optionally appears after 1Sg possessor $m\grave{a}$ before the clitic. When $-n$ is present, the ‘it is’ clitic takes its postconsonantal form $=i$, whose tones are similar to those for postvocalic $=y$ (H-tone after a single H-toned syllable, L-tone after an L-tone or after two H-toned syllables). Historically, the suffix $-n$ is a vestige of the once general human singular suffix *-n(u). Its synchronic status is obscure, and one might argue that the n is now part of an allomorph of the clitic. Or one might write $-ni=:$, since the segmentation is not transparent.

- (315) a. $j\acute{e}m\acute{e}-n=i:$
blacksmith-HumSg=it.is
‘It’s (or: He/She is) a blacksmith.’ ($j\acute{e}m\acute{e}$)

- b. *gò:^L-^Hgó:-n=í:*
 dance(n)^{L-H}dance.Agent-HumSg=**it.is**
 ‘It’s (or: He/She is) a dancer.’
- c. *sùgë:ⁿ* *mà-n=í:*
mà=yⁿ
 younger.sib 1SgPoss(-HumSg)=**it.is**
 ‘It’s (or: He/She is) my younger same-sex sibling.’
- d. *í:ⁿ-n=í:*
 child-HumSg=**it.is**
 ‘It’s (or: He/She is) a child.’
- e. *ne^L* *dègé-n=í:*
 woman^L short-HumSg=**it.is**
 ‘It’s (or: He/She is) a short woman.’
- f. *nó:* *àⁿsá:rá-n=í:*
 Prox white.person-HumSg=**it.is**
 ‘This is a white person’

For the tonal adjustment in *dògó-n=í:* ‘(it’s) a Dogon’, from *dògɔ̃n* ‘Dogon (person)’, see §3.7.4.5.

Singular *-n* can be added to some but not all kin terms (most of which, in Jamsay, do not allow number-marking suffixes except in special contexts). ‘Mother’ and ‘father’ terms normally do not occur with *-n*.

- (316) *[ú* ^{HL}*ínà:] =yⁿ*
 [2SgPoss ^{HL}mother] =**it.is**
 ‘It’s (or: He/She is) your-Sg mother.’

NPs ending in *sày* ‘only’ have no audible ‘it is’ clitic, but a phonologically zero ‘it is’ is presumably present in examples like (317a). For any pronoun other than 1Sg, the ‘it is only you/us/him/her/them’ form has no ‘it is’ clitic on the pronoun, so it must be on the ‘only’ word, as in (317b). However, the 1Sg form is phonetic [*mí:*] with long vowel even in this construction (317c), which suggests that this may now be an unsegmentable form.

- (317) a. *dògɔ̃n* *bè* *sày=Ø*
 Dogon Pl only=**it.is**
 ‘It’s only the Dogon-Pl.’
- b. *ú* *sày=Ø*
 2Sg only=**it.is**
 ‘It’s only you-Sg.’
- c. *mí=yⁿ* *sày=Ø*
 1Sg=**it.is** only=**it.is**
 ‘It’s only me.’

The ‘it is’ predicate is not suffixally conjugated (to mark the “subject” that is being identified). A “subject” NP or pronoun may appear clause-initially. It is best considered to be a topical NP.

- (318) a. *iⁿ* *fántà = y*
 1Sg Fanta=it.is
 ‘I am Fanta.’
- b. *sè:dú* *dù-dùgiⁿ-n = i:*
 Seydou sorceror-Sg=it.is
 ‘Seydou is a sorceror.’

11.2.1.2 ‘It is not’ (=y=lò, =i:=lò)

By adding negative =lò to the positive ‘it is’ clitic, we get the negative counterpart.

- (319) a. *sè:dú = y = lò*
 Saydu=it.is=Neg
 ‘It isn’t Seydou.’
- c. *fántà = y = lò*
 Fanta=it.is=Neg
 ‘It isn’t Fanta.’
- c. *émé = : = lò*
 1Pl=it.is=Neg
 ‘It isn’t us.’
- d. *nó:* *tùwó = y = lò*
 ProxSg stone=it.is=Neg
 ‘This isn’t a stone.’
- e. *[nó: nà] [ně bè] = : = lò*
 [Prox Pl] [woman Pl]=it.is=Neg
 ‘These are not women.’

The postconsonantal allomorph =i: of the ‘it is’ clitic appears with H- rather than L-tone in this combination.

- (320) *gò: ^{L-H} gò:-n = i: = lò*
 dance^{L-H} dance.Agent-Sg=it.is=Neg
 ‘It isn’t (or: He/She is not) a dancer.’

To negate an NP ending in ‘only’ (*sày*), the combination *sày lò* is used.

- (321) *[dògòⁿ bè ^{sày}] = lò*
 [Dogon Pl only]=Neg
 ‘It isn’t only the Dogon-Pl.’

For *lò mà* as rhetorical tag question (*n'est-ce pas?*), see §13.2.1.2.

11.2.1.3 ‘It is’ clitic in complement of ‘become’ and ‘transform’

The verb *tájá* ‘become, turn into’ and its causative *tánú-gù* ‘transform, convert’ take complements consisting of a NP plus the ‘it is’ clitic (§11.2.5.2).

- (322) a. [sámá kà:ⁿ] péré né: ná=yⁿ táj-è
[S also] other now person=it.is become-Pfv
‘Sama too became a (full-grown) person.’ (2011.1b.02)
- b. ná=yⁿ tán-g-è: mà
person=it.is become-Caus-and.SS and.then
‘(God) made them into people (=adults).’ (2011.1b.04)
- c. dùwɔ́ sǎⁿ ná=yⁿ tán-g-è: mà
vulture ReflObj person=it.is become-Caus-and.SS and.then
‘Vulture turned itself into a human.’ (2011.1b.02)

11.2.2 Existential and locative quasi-verbs and particles

11.2.2.1 Existential (*yé* ~ *yó*)

A particle *yé* (for assimilated variant *yó*, see below) is used with the ‘have’ quasi-verb and other statives, including derived statives. It is disallowed in negative clauses (323b), in relative clauses (§14.1.9.6), after a focalized constituent (§13.1), and with reduplicated forms of verbs such as derived statives (§10.4).

With ‘have’ it is obligatory in positive main clauses without a focalized constituent (323a). Its absence from negative clauses is illustrated in (323b).

- (323) a. fⁿ [gìrⁿí] túrú] yé sà
1SgSbj [house one] Exist have
‘I have a house.’
- b. fⁿ gìrⁿí sà:-rá
1SgSbj house have-Neg
‘I don’t have a/any house.’

yó with (irregular) vocalic assimilation occurs before locational-existential ‘be’ quasi-verbs (with human *wò* or nonhuman *kò*, which are L-toned in this combination). It is required in an unfocalized positive sentence if no specific locational is given. If there is a locational, *yó* is optional, and when present it tends to emphasize existence (‘there is a bird in the house’) rather than simple localization (‘the bird is in the house’). For more on ‘be’ quasi-verbs, see the following section.

- (324) a. ú nî yó wò
2SgSbj here Exist be.HumSgSbj
‘You-Sg are here.’

- b. *ú nî wò:-rɔ*
 2SgSbj here be.HumSgSbj-Neg
 ‘You-Sg are not here.’

In addition to defective stative quasi-verbs like *sà* ‘have’ and *sò* ‘be in’, *yé* is also common with unreduplicated variants of positive **statives** derived from regular verbs (§10.4).

- (325) *né: [săⁿ] ^L[kè] yé ^Ltɔrⁿɔ*
 now [Refl ^LTop] Exist ^Lperch.Stat
 ‘Now as for him(-self), (he) was (still) perched (on the tree)’ (2011.1b.02)

The reduplicated variants of these statives omit *yé*.

Existential *yé* is also attested in texts twice with **progressive** verbs (suffix *-táŋà*, plural-subject *-téŋè*). The example in (326a) was part of the response to a question about which techniques for planting fonio (grain) are practiced in Togo country. The context for (326b) has more of a presentative (‘here’s ...’) flavor.

- (326) a. *[kó bîn] [lĕ lé:-jú kà:ⁿ] yé bì-téŋè*
 [Nonh in] [planting plant-Ipfv also] Exist do-Prog.Plsbj
 ‘They also (in fact) practice planting (fonio seeds) on that (disturbed earth surface).’ (2011.1a.01) (*biré* ‘do’)
- b. *iⁿtâyⁿ ìg-é: wà ìg-é: ìg-é:, [sɔ:^L túñó] [fⁿ tɔ] sɔ: yé pó-táŋà]*
 my.friend stand-MP.Imprt Quot (repeats)
 [[thing^L one] [here around] thing Exist say-Prog]
 ‘(He said:) “My friend, stand (=wait)! Something is saying something over here.”’ (2011.1b.)

A presentative context is also apparent in (327), with a regular imperfective verb, which is uttered (in a tale) as a warning of impending danger.

- (327) *[pě-ŷⁿ wà] [[[kó bórɔ] ^Lnù] wà]*
 [girl QuotSbj] [[[Nonh under] ^Lgo.in.Imprt] Quot]
[gɔ:nð-sɔⁿ] yé yé-jú gà]
 [raider Exist come-Ipfv beware]
 ‘She (=step-mother) told the girl, “go in (=hide) under it (=pile of stalks) quickly, (since) raiders are coming!”’ (2011.1b.01)

This highly grammaticalized existential particle is probably related historically to *yé* (§4.4.2.1), a discourse-definite ‘there’ adverb that typically occurs in immediate preverbal position. It is compatible with any verb, active or stative, positive or negative. It refers back to a location established in prior discourse. The falling tone of *yé* ‘there’ might even explain (historically) why the quasi-verbs are L-toned after existential *yé*. However, if the existential particle evolved out of a ‘there’ adverb, it did so long ago, since it occurs as a specialized existential particle with statives like ‘be’ and ‘have’ in many Dogon languages. In TgK, care must be taken to distinguish the two in texts. In (328), the two actually co-occur, with the ‘there’ adverb preceding the existential particle.

- (328) [àpí: kà:ⁿ], íyé=ñ[kó kénè] yê yé sò
 [roselle also], again [Nonh among] there Exist be.in
 ‘Roselle too, it is also (included) there among those.’ (2011.1a.18)

11.2.2.2 Locational(-existential) copula (*wɔ̂*, *kɔ̂*, negative *wɔ̂:-rɔ̂*, *kɔ̂:-rɔ̂*)

As in Jamsay and Yorno So, the locational (and existential) ‘be (somewhere)’ predicate distinguishes human from nonhuman forms. Both are phonologically related to pronouns (human 3Sg *wó*, human 3Pl *bé*, nonhuman *kó*). These forms can be used with or without an explicit locational expression. The human/nonhuman opposition is generally maintained in locational senses (‘be present’, ‘be here’), but the nonhuman form is generalized in existential contexts (‘there exists’, ‘there is none’). These copulas are also used as auxiliaries to make adjectives predicative (§11.4.1.1).

The forms are summarized in (329). Those in the ‘be present’ column include existential *yɔ̂ ~ yé*, which is used as a default complement in unfocalized positive utterances. Here the copula is L-toned, even e.g. before *dè* ‘if’ (*yɔ̂ wɔ̂ dè* ‘if he/she is present’). The vowel of the existential particle assimilates to the copula in the front/back feature (but not in ATR). The central ‘be at X’ column shows forms used after a marked locational expression (e.g. a postpositional phrase). Here the tone is falling, in careful speech styles. In allegro speech, the copula is often heard with low pitch. The second column from the right shows forms used after expressive adverbials, which again normally have a falling tone, reflecting the syntactic relationship between expressive adverbials and locational expressions. However, the copula becomes H-toned in relative clauses (rightmost column). It also becomes H-toned after an /L/-toned expressive adverbial, see (213f) in §8.4.6.1 and (332b) in §11.2.2.2.

- (329) Locational-existential copulas

	‘be present’	‘be at X’	‘be (adverbial)’	relative
Human Sg	<i>yɔ̂ wɔ̂</i>	<i>X wɔ̂</i>	<i>wɔ̂</i>	<i>wɔ̂</i>
Human Pl	<i>yé wè</i>	<i>X wê</i>	<i>wê</i>	<i>wé</i>
Nonhuman	<i>yɔ̂ kɔ̂</i>	<i>X kɔ̂</i>	<i>kɔ̂</i>	<i>kɔ̂</i>

Examples with existential *yɔ̂ ~ yé* are in (330).

- (330) a. *sè:dú yɔ̂ wɔ̂*
 Seydou Exist be.HumSgSbj
 ‘Seydou is present.’
- b. *péjú yɔ̂ kɔ̂*
 sheep Exist be.NonhSbj
 ‘(A) sheep is present.’
- c. *jé: yɔ̂ kɔ̂*
 fire Exist be.NonhSbj
 ‘(A) fire is present.’

- d. [n̊é b̊è] yé ẘé
 [woman Pl] Exist be.HumPlSbj
 '(Some) women are present.'

Either the ‘be present’ or the shorter ‘be (somewhere)’ forms are also used after explicit locationals. The ‘be present’ forms tend to have an existential flavor, establishing the existence of a discourse referent, as in ‘there is some money in the village’ as opposed to ‘the money is in the village’ (which specifies the location of an already understood referent). Examples are in (331a-c). Some common nouns denoting locations like *gírní* ‘house’ (= ‘at home’) and ‘village’ (‘in the village, in town’) may appear without explicit determiners or postpositions.

- (331) a. iⁿ àná ẘé
 iⁿ àná ẙé:
 1Sg village (Exist-)be.HumSgSbj
 ‘I am in (the) village.’ (ẙé: contracted from yó ẘé)
- b. [àrⁿá b̊è] gírní ẘé
 [àrⁿá b̊è] gírní yé ẘé
 [man Pl] house Exist be.HumPlSbj
 ‘(Some/The) men are in the house (= at home).’
- c. bú:dú àná k̊é
 bú:dú àná yó k̊é
 money village Exist be.NonhSbj
 ‘(Some/The) money is in the village.’

For the use of these copulas in adjectival predicates, see §11.4.1.1-2 below.

Copulas with expressive adverbials, most of which have no other way to become predicates, are in (332). A few EAs are /L/-toned, see (213f) and (216c), and these require H-toned *k̊é* (332b) by a minor Tone Polarization process (§3.7.3.4).

- (332) a. mǎ:-ŋ̊-ɛ: kápáwⁿ k̊é
 dry-Inch-SS.Ant shriveled be.NonhSbj
 ‘(The calabash) having dried, it is shriveled.’
- b. sǎⁿ nàrⁿ-ɛ: wùrùjá k̊é
 wild.grape give.birth-SS.Ant heavy.with.fruits be.NonhSbj
 ‘The wild-grape tree (*Lannea*), having borne (fruits), is heavy-laden with fruits.’

Negative counterparts are in (333). There is no morphological distinction between the forms used in the general sense ‘be absent, not exist’ and those used in ‘not be (in a place)’ with a locational, or ‘not be’ with an adverbial. This is because existential *yó* ~ *yé* is incompatible with negation. One can detect a negative element -r̊é with variable vowel (due to assimilation), cf. *sà:-rá* ‘not have’.

(333) ‘Be absent’, ‘not be (somewhere)’

Human Sg	<i>wò:-rò</i>
Human Pl	<i>wè:-ré</i>
Nonhuman	<i>kò:-rò</i>

Further examples of negative copulas are in (334).

- (334) a. *pé: kò:-rò*
fire **be.NonhSbj-Neg**
‘Fire is absent.’ = ‘There is no fire.’
- b. *pà àná wò:-rò*
1SgSbj village **be.HumSgSbj-Neg**
‘I am not in the village (= in town).’
- c. *[pè] bè wè:-ré*
[woman Pl] **be.HumPlSbj-Neg**
‘(The) women are absent (= not here).’ = ‘There are no women.’

Although *wò* and *kò* are stative quasi-verbs, and normally do not take aspectual marking, they can combine with progressive *-táŋà* when they are used to make an expressive adverbial conjugatable (335). Before *-táŋà* the copula is H-toned.

- (335) *àr"á-ŷ"n kéw"n → wó-táŋà*
man-child silent **be.HumSgSbj-Prog**
‘The young man was silent.’ (2011.1b.03)

11.2.2.3 Inchoative ‘become’ (*ké:*, *wé:*) related to ‘be (somewhere)’ quasi-verbs

The (stative) locational-existential copulas (*kò*, *wò*, *wè*) described above do not combine with aspectually marked inflectional categories and have no imperative or hortative.

There are, however, alternative stems, nonhuman *ké:* and human *wé:*, that are conjugated like ordinary active verbs. Representative forms, all quite regular, are in (336). There are also causative derivatives, e.g. *ké:-m* ‘cause (sth) to become (adverbial)’.

(336) Forms of active copulas

	HumSg	HumPl	NonhSg	NonhPl
perfective	<i>wé-è</i>	<i>wé-è:-sé"</i>	<i>ké-è</i>	<i>ké-è:-sé"</i>
perfective negative	<i>wè:-lí</i>	<i>wè:-lâ:</i>	<i>kè:-lí</i>	<i>kè:-lâ:</i>
imperfective	<i>wé:-jú</i>	<i>wé:-jí</i>	<i>ké:-jú</i>	<i>ké:-jí</i>
imperfective negative	<i>wè:-rò</i>	<i>wè:-rè</i>	<i>kè:-rò</i>	<i>kè:-rè</i>
imperative	<i>wé:</i>	<i>wé:-ŷ</i>	<i>ké:</i>	<i>ké:-ŷ</i>

The active copula forms are used to “conjugate” expressive adverbials, which have no other way to combine with AMN inflections. Most instances of active copulas in my data involve adverbials.

(337a) shows the (static) copula, and (337b) an aspectually marked active (i.e. dynamic) copula. The active copula is glossed ‘become’ in interlinears.

- (337) a. *tìmé* *gègí→* *kɔ̄*
 tree tilted be.NonhSbj
 ‘The tree is tilted.’
- b. *tìmé* *gègí→* *ké:-jú*
 tree tilted become.Nonh-Ipfv
 ‘The tree will tilt (become tilted).’

Active copulas can also be used with locational expressions (338b), which however are much more common with stative copulas (338a)

- (338) a. *wó* *gìrⁿí* *y᷑* *w᷑*
 3SgSbj house Exist be.HumSgSbj
 ‘He/She is at home.’
- b. *wó* *gìrⁿí* *wé:-jú*
 3SgSbj house become.HumSgSbj-Ipfv
 ‘He/She will be at home (e.g. tomorrow).’
 ‘He/She should be (=probably is) at home.’

ké: and *wé:* have no precise cognates in other Dogon languages known to me. An intransitive verb ‘stay, remain’ with forms like *bě:* (Jamsay), *bě:* (Yorno So), and *biyé* (Yanda Dom) is used in several of the languages to make EAs into dynamic (nonstative) predicates. I conjecture that TgK split **bě:* or **bě:* into human *wé:* and nonhuman *ké:* on the model of copulas *w᷑* and *kɔ̄*, which already function as (stative) auxiliaries with EAs in many Dogon languages. TgK does use *bě:* as an auxiliary, but in factitive (i.e. causative) sense with EAs derived from adjectives (§11.4.4).

11.2.2.4 Perfective copulas (*kí-i*, *wí-i*) ‘be’

The nonhuman active copula *ké:* can be used as a simple predicate without an adverbial to mean ‘(something) happen, take place’. In this sense, the perfective form *ké-è* given above is replaced by *kí-i* ‘it happened, it took place’. There is no change in other inflectional categories, as shown by perfective negative *ké:-Hí* ‘it didn’t happen’ and imperfective *ké:-jú* ‘it does/will happen’.

kí-i can also function as a nonfinal chained verb in the phrase *kí-i bě-jù* ‘it is possible, it can/could happen’. Imperfective *ké:-jú* seems to have a dubitative modal sense (‘might happen’ or ‘might be the case’). Thus [ú *kè*] *ké:-jù* ‘it might be yours-Sg’ versus [ú *kè*] *kí-i* ‘it’s (definitely) yours-Sg’.

The human counterpart of *kí-i* is *wí-i*. In (339) the sense is clearly ‘remain’.

- (339) *né:* *[g᷑:* *bínì]* *n᷑* *nû-Ø* *d᷑,*
 now [granary in] person go.in-Pfv if,
né: *[dá:rá* *tò]* *n᷑* *wí-i* *d᷑, ...*
 now [outside at] person be.HumSgSbj-Pfv if, ...

‘Now, someone goes inside the granary, now someone (else) remains outside, (and ...)’ (2011.1a.16)

Compare *sí-i* as a special form of *sà* ‘have’ (§11.5.2).

11.2.3 Positional statives (*sò* ‘be in’, *nàŋà* ‘be on’, *wàwà* ‘be on’)

The most important of the more specific positional statives are those in (340). The enclosed entity with *sò* may be dry (e.g. grain) or liquid.

(340) Positional statives

gloss	positive	negative
a. ‘be in (container)’	<i>yé sò</i>	<i>sò:-ró</i>
b. ‘be (put) up on (horizontal surface)’	<i>yé nàŋà</i>	<i>nàŋà = lá</i>
c. ‘be on (vertical surface)’ ‘be flat on one’s belly’	<i>yé wàwà</i>	<i>wàwà = lá</i>

nàŋà and *wàwà*, but not *sò*, are morphologically parallel to regular derived stative verbs (§10.4). They (therefore) also have reduplicated variants without *yé*, viz., *nà-nàŋà* and *wà-wàwà*, and they have {HL}-toned unreduplicated variants *náŋà* and *wáwà* after a locational. *wàwà* corresponds to a regular mediopassive verb *wàw-i*: ‘lie down on one’s belly’.

nàŋà is historically related to the archaic causative *ná:-ñ* ‘put up on (wall)’, (232d) in §9.2.2. *sò* ‘be in’ corresponds functionally to ‘be in’ quasi-verbs in related languages that have initial *t* (Tomo Kan and Toro So *tò*, Donno So *tò*; Tommo So *tô*), but whether TgK *sò* is a mutation from **tò* is unclear.

11.2.4 ‘Know’ and ‘want’

11.2.4.1 ‘Know’ (*í:ⁿ wɔ̄*, negative *íne*)

‘Know’ is a transitive predicate consisting of uninflected *í:ⁿ* (homophone of ‘child’) plus a copula: human singular *wɔ̄* or human plural *wē*. It translates French *savoir* and *connaître*. It can take an NP object, as in (341a-b). (341b) illustrates how a relative clause can be used to translate an English embedded interrogative.

- (341) a. *íⁿ sè:dú í:ⁿ wɔ̄*
 1SgSbj S know be.HumSgSbj
 ‘I know Seydou (man’s name).’
- b. *[nà^L wó ^Hí:ⁿ yé] í:ⁿ wɔ̄*
 [place^L 3SgSbj ^Hgo.Pfv.Rel] know be.HumSgSbj
 ‘I know the place (=I know where) he/she went.’

Prepausally, *wɔ̊* is heard with low pitch in this combination, but if another word follows in the same (prosodic) phrase the initial H-tone component is clear.

The negative counterpart is the irregular *íné* ‘not know’, with no copula and no plural-subject agreement.

- (342) *émé* *bàmàkɔ́* *íné*
 1PlSbj B **not.know**
 ‘We do not know (=are not familiar with) Bamako (city).’

For factive clausal complements of ‘know’ see §17.2.1, below.

A semantically similar regular verb *jùgɔ́* means ‘recognize (the identity of)’. The cognate noun *júgɔ́* means ‘knowledge’.

11.2.4.2 ‘Want’ (*iyé*)

In clause-final position after a NP object, the usual form of the positive ‘want’ predicate is an {L}-toned *iyè*. When pronounced in isolation, with a pronominal object, or before polar interrogative *mà*, fuller forms are heard: singular-subject *iyɔ̊:*; plural-subject form *iyé:*. These variants contain contracted versions of copulas *wɔ̊* and plural *wè*, suggesting that the lexically basic form of the predicate is *iyé*.

- (343) a. *ú* *iŋé* ^L*iyè*
 2SgSbj what? ^L**want**
 ‘What do you-Sg want?’
- b. *émé* *kògò*^L-*tárú* ^L*iyè*
 1PlSbj chicken^L-egg ^L**want**
 ‘We would like some (chicken) eggs.’
- c. *fⁿ* *kó* *iyɔ̊:*
 1SgSbj NonhObj **want**
 ‘I want it.’
- d. *fⁿ* *nɔ̊:* ^L*iyè*
 1SgSbj Dist ^L**want**
 ‘I want that (pointing).’

The negative counterpart is *iyè*^L=*ká* ‘not want’, optional plural-subject form *iyè*^L=*lé*. The noun from the same word-family is *iyé* ‘wanting, desire’.

For clausal complements of ‘want’, see §17.3.6, below.

A semantically closely related verb is *dènè* ‘seek, look for’ (cf. Jamsay *dènè* ‘want’).

11.2.5 Morphologically regular verbs

11.2.5.1 ‘Remain’ (*sígé-*)

‘Remain, stay’ is *sígé*, a regularly inflected verb. In relative clauses it is common in the sense ‘(the) remaining (ones)’. Unlike (noncognate) synonyms in other Dogon languages, ‘remain’

is not used in TgK to make expressive adverbials into dynamic predicates ('become ADV'). See §11.2.2.3.

11.2.5.2 'Become' (*táŋà*), 'transform' (*tánú-gù*)

'X become Y', where Y is a NP, is expressed by the verb *táŋá* following the relevant 'it is' predicate (§11.2.1.3). There is a transitive counterpart 'Z transform/convert X into Y' with the verb *tánú-gù* (§9.2.2).

- (344) a. *wó* *à"ná:rá-n=i:* ^L*táŋ-è*
 3SgSbj white.person-HumSg=it.is ^L**become-Pfv**
 'He/She has become a white person.'
- b. *I'* *à"ná:rá=y* *wó* ^L*tán(u)-g-i*
 1SgSbj white.person=it.is 3SgObj ^L**become-Caus-Pfv**
 'I transformed him/her into a white person.'

táŋá ^L*yè-*Ø *dè* 'if (it happens that)' in conditional antecedent clauses, following an inflected clause (§16.1.3.1), is historically related but is grammatically specialized. ^L*yè-*Ø is the perfective form of 'go' used before *dè* 'if'.

Progressive suffix *-táŋà* (§10.2.2.5) may or may not be related historically.

11.2.5.3 'Take place' (*bòr-î:*)

An event (concert, hunt, holiday) can be said to 'take place' using the verb *bòr-î:* (simple perfective). The *-î:* is the mediopassive suffix. Other inflected forms are based on /*bòrá-*/ without the mediopassive suffix, hence *bɔjú* 'will take place', *bɔ-lí* 'did not take place', and *bɔ:-rò* 'will not take place'. The morphology, only slightly irregular, is the same as that for *gér-î:* 'look' (§10.1.3.7) and *líw-î:* ~ *lý-î:* 'fear' (§11.2.5.4, just below).

11.2.5.4 'Fear, be afraid' (*líw-î:* ~ *lý-î:*)

The 'X fear Y' (i.e. 'X be afraid of Y') verb has a basically regular paradigm based on stem *líwé* ~ *lýé*, e.g. imperfective *líwé-jú* ~ *lýé-jú*. However, the bare stem and the simple perfective are *líw-î:*, with a variant *lý-î:* that is sometimes heard as *lî:*. This limitation of an apparent mediopassive suffix *-î:* to the bare stem and simple perfective is a feature shared with *gér-î:* 'look' (§10.1.3.7) and *bòr-î:* 'take place' (§11.2.5.3, above).

Stative forms of this verb have not been observed. Perfective forms are used with present reference: *I'* *líw-î:* 'I was afraid' or 'I am afraid (=have become afraid)'.

The noun 'fear' is *líwé*. The irregular causative 'X scare Y, X make Y afraid' is *lî:-ré-m*, including an apparent transitive suffix *-rv-* (§9.3.1) preceding the causative suffix.

- (345) a. *I'* *kì-kíjí* *líwé-jú*
 1SgSbj bat **fear-Ipfv**
 'I am afraid of bats.'

- b. **ú** **úrⁿí:** **lí:-ré-mí-pú**
 2SgSbj children fear-Caus-Pres
 ‘You-Sg frighten (the) children.’

For clausal complements of ‘be afraid (to VP)’, see §17.3.10.

11.3 Quotative verb

11.3.1 ‘Say’ verbs

These conjugatable verbs are often omitted in favor of quotative particle **wà**. This particle occurs at the end of a quoted clause, and also at the end of a subject or vocative NP; see §17.1.3-4.

11.3.1.1 **pórù** ‘say, speak’

One common verb meaning ‘say, speak’ is **pórù** (perfective **pór-i**). It is subject to **rv**-Deletion (§3.5.3.2) before most suffixes, e.g. imperfective **pó-jú**. The imperative is irregular: **pó-nó** ‘say!’. The **-nó** formative, see (281f) in §10.6.1.1, occurs elsewhere only in the imperatives of ‘give’ (**ó-nó**) and the other ‘say’ verb (§11.3.1.2 just below).

The basic meaning of **pórù** is ‘speak’. It can accompany a quotation (346c), but often it takes a nominal complement (‘that’, ‘anything’, ‘what?’) functioning as a pro-form resuming a quotation (346a-b), or describing a topic discussed (346d). It is also common in relative clauses (346e).

- (346) a. **wó** **[ú** **nì]** **ìnjé** **^Lpòr-i**
 3SgSbj [2Sg Dat] what? ^Lsay-Pfv
 ‘What did he/she say to you-Sg?’
- b. **[ðjò^L** **pòrù**] **pò-lí**
 [thing^L none] say-PfvNeg
 ‘He/She didn’t say anything.’
- c. **[bé** **wà],** **sàjú** **dígé** **pó-jé:**
 [3PlSbj QuotSbj], bird chase.Imprt say-Ipfv
 ‘They (=people) may tell them (=children) to drive away the birds, ...’
 (2011.1a.07)
- d. **jírⁿíjé** **pór-è:-sèⁿ,**
 rainy.season speak-Pfv-PlSbj,
émé **[nùŋù-bárⁿá** **^Lkè** **kà:ⁿ]** **dág-à→** **pór-è:-sèⁿ**
 1PlSbj [dry.season ^LPoss also] a.little speak-Pfv-PlSbj
 ‘(We) have spoken about the rainy season. We have also spoken a little about the dry season.’ (2011.1a.33)
- e. **[[á:rⁿé:** **iⁿ** **pó-jú^{+H}]** **gi:ⁿ]**
 [[previously 1SgSbj say-Ipfv.Rel^{+H}]] like]
 ‘as I was saying previously’ (2011.1a.06)

For perfective *pór-i* after a chained verb in the sense ‘immediately’, see §15.1.9.

11.3.1.2 *gí* ‘say’

Another ‘say’ verb is *gí* (perfective *g-i* and plural *gí-è:-sēⁿ*, imperfective *gí-jú*, irregular imperative *gí-né*). It is more of a pure quotative than *pórù*, and it typically follows a quoted segment. In (347a), the ‘say’ verb is itself embedded in a quotation, hence the following quotative particle.

- (347) a. *yó:* [|[ènē bē] HL ínà:] = *lò* *gí-è:* *wà*
 NearDist [[Logo Pl] HL mother]=not.be say-Pfv.3Pl Quot
 ‘(people said:) “they (=twins) said, that one is not their mother.”’ (2011.1b.04)
- b. *á:rⁿé:* *ú* [*pōⁿ-èⁿ* *dè]* ^L*gì-lì*
 previously 2SgSbj [decompose-Pfv if] ^Lsay-PfvNeg
 ‘Didn’t you-Sg say previously (=just now), “when it has decomposed”?’
 (2011.1a.25)
- c. *kó,* [*è:rè*^L - *wòrú* ^H*ápú]* ^L*gì-jí*
 Nonh, [peanut^L-field ^Hroselle] ^Lsay-Ipfv.Plsbj
 ‘that, (they) call (it) “peanut-field’s roselle.”’ (2011.1a.26)

The very common same-subject anterior form is normally pronounced *gé-è(:)*. The more regular *gí-è:* was also elicited, but it did not occur in this function in texts, perhaps because it is homophonous with the rather common plural-subject perfective form *gí-è:* ‘we/you-Pl/they said’ as in (347a) above. Examples of *gé-è(:)* are in (348).

- (348) a. *yō-ŋ* *wó* *gé-è*
 like.that 3SgSbj say-and.SS
 [after a song] ‘When she said (= sang) like that, …’ (2011.1b.01)
- b. *[[i:ⁿ+L* *HL ínà:]* *mōr-é-è:* ^L*yè-*Ø]
 [[child.Def^{+L} HL mother] be.lost-MP-and.SS ^Lgo-Pfv]
 gé-è, *wó* *yō-ŋ*
 say-and.SS, 3SgSbj like.that
 i:ⁿ+L [*bàrá* *jé-è:]* *té:r-è:* *mà*
 child.Def^{+L} [outback convey-and.SS] burn-and.SS and.then
 ‘(He said:) “on the grounds that the child’s mother was lost (=died), you took the child like that into the bush and burned it, …”’ (2011.1b.01)

This verb is also the source of purposive postpositions *gē:* and *gì* (§8.3.1.1), and of *gè:*, *gì*, and *g-i dè* in purposive clauses (§17.6.1). Purposives involve mental activity (planning), and since thought can be treated as though spoken out loud in quotatives, the connection between purposive morphemes and ‘say’ makes sense. For example, ‘he came here for the honey’ can be rephrased as ‘saying/thinking “honey” he came here’, and ‘he sat down in order to eat’ can be rephrased as ‘saying/thinking “I/he will eat” he sat down’.

For *gí-è dè* ‘when, after’ (different subject), see §15.2.2.10.

For the form of the quoted material, see §17.1.

11.4 Adjectival predicates

This section treats predicates consisting of an adjective stem (in more or less the same form as in modifying function) plus a copula or stative negative clitic.

For deadjectival inchoative and factitive verbs with senses like ‘become heavy’ and ‘make (sth) heavy’, and with regular verbal inflectional morphology, see §9.5.

11.4.1 Positive adjectival predicates

11.4.1.1 Simple adjective stem plus copula

An adjective can function as a positive predicate when combined with a locational-existential copula (§11.2.2.2). The copula is optionally omitted.

- (349) a. [sùŋú^L n̩ɔ:^J] gùrú (k̩)
 [rope^L Prox] long (be.NonhSbj)
 ‘This rope is long.’
- b. [ú ^Hdé:ⁿ] ógú (w̩)
 [2SgPoss ^Helder.sib] fast (be.HumSgSbj)
 ‘Your older (same-sex) sibling is fast.’
- c. [ú ^Hdé:ⁿ] b̩è] ógú (w̩)
 [2SgPoss ^Helder.sib Pl] fast (be.HumPl)
 ‘Your elder (same-sex) siblings are fast.’

11.4.1.2 Adverbial extension of adjective stem (e.g. *-í→*) plus copula

The predicative construction with overt copula favors the use of the adverbial extension *-í→* or allomorph thereof (interlinear gloss “-Adv”) with stems that allow it, like *dògú* ‘heavy’. The extension is absent when the adjective is an NP-internal modifier (350a). When the adjective is predicative, the form with the adverbial extension (350b) and that without the morpheme (350c) are grammatical. This syntactic behavior is typical of expressive adverbials (§8.4.6), as is the fact that the adverbial extension cannot be used before stative negative *=lá* (see the following section).

- (350) a. nà^L dògú
 person^L heavy
 ‘a heavy person’
- b. íⁿ dòg-í→ w̩
 1SgSbj heavy-Adv be.HumSgSbj
 ‘I am heavy.’
- c. íⁿ dògú w̩
 1SgSbj heavy be.HumSgSbj
 [= (b)]

Some adjectives do not allow the adverbial extension. For those that do, the form taken by the extension depends on the phonological form of the adjective. It was possible to elicit adverbial forms from the adjectives listed in the left-hand column of (351) below. Several adjectives with final high vowel {*u i*}, ranging from *CvCv* to longer shapes, allow the adverbial extension in the form *-i→*, and preserve the lexical tone (351a-b). Some monosyllabic stems with final nonhigh vowel add *-y→* (351c). Bisyllabic *CVCV* stems with final nonhigh vowel lengthen that vowel and keep the /LH/ melody (351d), but similar stems with lexical /H/ melody have an extended form with {HL} pattern (351e). Two stems with *a*-vowel have a final falling-tone (351f). One *C*-final stem is attested with *-i→* as the extension, keeping the lexical /LH/ melody but spreading it over the two syllables of the extended form (351g). All of the adverbial forms in (351) occur with a following stative or dynamic copula, positive or negative (e.g. nonhuman *kò* ‘be’, negative *kò:-rò* ‘not be’, dynamic *ké:* ‘become’). Some can also be used as nonpredicative adverbs ('far away' etc.).

(351) Adverbial extension of predicative adjective

a. stem ends in *u* or *i*, /LH/ melody

<i>dògú</i>	<i>dòg-í→</i>	‘heavy’
<i>òmú</i>	<i>òm-í→</i>	‘rotten’
<i>ùjú</i>	<i>ùj-í→</i>	‘slender’
<i>yù:gú</i>	<i>yù:g-í→</i>	‘slow’
<i>kúrígú</i>	<i>kúríg-í→</i>	‘dense’

b. stem ends in *u* or *i*, /H/ melody

<i>yérú</i>	<i>yér-í→</i>	‘blue’
<i>pírí</i>	<i>pír-í→</i>	‘white’

c. monosyllabic with final nonhigh vowel

<i>géⁿ</i>	<i>géⁿ-yⁿ→</i>	‘black’
<i>báⁿ</i>	<i>báⁿ-yⁿ→</i>	‘red’
<i>mă</i>	<i>mă-yⁿ→</i>	‘dry’
<i>ě:</i>	<i>ě:-y→</i>	‘tight’

d. *CVCV* stem with /LH/ melody and final non-high vowel

<i>gàrá</i>	<i>gàr-á→</i>	‘big’, also adverbial ‘a lot, greatly’ (§8.4.2)
<i>wàgá</i>	<i>wàg-á→</i>	‘far, distant’
<i>dègé</i>	<i>dèg-é→</i>	‘short’
<i>séré</i>	<i>sér-é→</i>	‘diluted’
<i>kíré</i>	<i>kír-é→</i>	‘difficult’

e. *CVCV* with final L-toned non-high vowel in extension

<i>dágá</i>	<i>dág-à→</i>	‘small’, also adverbial ‘a little’ (§8.4.2)
<i>márⁿá</i>	<i>márⁿ-à→</i>	‘big’
<i>wóró</i>	<i>wór-ò→</i>	‘deep’

f. others whose extension ends with falling tone

<i>wá:</i>	<i>wá-à→</i>	‘wide’
<i>nà:rⁿá</i>	<i>nà:rⁿ-â→</i>	‘easy’

g. CvC		
<i>ěm</i>	<i>ěm-i→</i>	‘crowded’

11.4.2 Negative adjectival and stative predicates (*=lá*, *=lē*)

The stative negative clitic *=lá* (plural subject *=lē*) is added to an {L}-toned form of the adjective to form a negative predicate. The adverbial extension described above does not occur before the stative negative. This is because the extensions are adverbials rather than adjectives syntactically, and can only be “inflected” via copulas.

- (352) a. *sùŋú* *gùrù^L* *=lá*
 rope long^L=StatNeg
 ‘The rope is not long.’
- b. *dògù^L* *=lá*
 heavy^L=StatNeg
 ‘He/She/It is not heavy.’ (#*dòg-i→ =lá* rejected)

11.4.3 Emphatic reduplicated adjectival predicate (Rdp^{L-HL}Adj)

An emphatic adjectival predicate (‘be very ADJ’, ‘be too ADJ’) is formed from the adjectival stem by superimposing an {HL} overlay, and adding an L-toned reduplicative syllable similar in form to reduplications of inflected verbs. The {HL} overlay suggests a connection with comparative forms of adjectives, which has the same overlay (*nà:rⁿá* ‘easy’, comparative *ná:rⁿà* ‘easier’).

- (353) *[[nùḿ bè] kè-^{HL}kégu]* *[bàj-ú gō:-rò]*
 [[hand Inst] Rdp-^{HL}hard] [pull-VblN go.out-IpfvNeg]
 ‘(The earth) is too hard for (uprooting peanut plants) by hand. Pulling (peanut plants) doesn’t come out (=doesn’t work).’ (2011.1a.21)

The form of the reduplication is further exemplified in (354).

- | (354) | gloss | adjective | reduplication |
|-----------------|-------------|--------------------------|-----------------------------|
| a. monosyllabic | | | |
| | ‘dry, hard’ | <i>mă</i> | <i>mà-mâyⁿ</i> |
| b. bisyllabic | | | |
| | ‘sweet’ | <i>élú</i> | <i>è-?élù</i> |
| | ‘heavy’ | <i>dògú</i> | <i>dò-dògù</i> |
| | ‘easy’ | <i>nà:rⁿá</i> | <i>nà-ná:rⁿà</i> |
| c. trisyllabic | | | |
| | ‘bitter’ | <i>kágárá</i> | <i>kà-kágàrà</i> |
| | ‘dense’ | <i>kúrúgú</i> | <i>kù-kúrùgù</i> |

A speaker rejected a (further) reduplication of already lexically reduplicated *tóⁿ-tóⁿ* ‘sour’ or *síⁿ-sí:ⁿ* ‘small’. Neither has the final falling tone pattern of the reduplications in (354).

11.4.4 Factitive adjectival predicates (*bě*):

Transitive verb *bě:*, also used elsewhere as a simple transitive ‘put (down)’, can be used as an auxiliary with EAs, both underived (355a) and those derived from adjectives (355b). The sense is factitive: ‘X cause Y to be EA/Adj’. With an ATR shift, *bě:* has plural-subject perfective form *bě:-sěⁿ*, which is homophonous to ‘(they) defecated’. Confusion is unlikely since ‘defecate’ always co-occurs with cognate nominal *bé:* ‘excrement’.

- (355) a. *kúwó* *sérí* → *bě-è*
 foot sticking.out.foot(EA) put-Pfv
 ‘It (patas monkey) held its foot out (showing the sole).’
 (thought to be a gesture of contempt)

b. *lé:-lé:-lé:-lé:* *káⁿ*,
 slash-slash-slash-slash narrowly,
 èm-í → *èm-í* → *bě:-séⁿ* *dè*, ...
 crowded-Adv crowded-Adv put-Pfv.PlSbj if, ...
 ‘They make slashes (with the daba), closely spaced, and make (them) crowded together.’ (2011.1a.18)

11.5 Possessive predicates

11.5.1 ‘Have’ (*sà*, *sè*)

This is another stative quasi-verb, allowing no perfective/imperfective distinctions. The forms are in (356). In the positive combinations, *yé* is the same existential morpheme found (with a phonological disguise) in the locational construction ‘be (somewhere)’, §11.2.2.2, above.

- | | singular subject | plural subject |
|------------|---|----------------|
| ‘have’ | <i>yé sà</i>
[for <i>sâ</i> , <i>sê</i> without <i>yé</i> , see below] | <i>yé sè</i> |
| ‘not have’ | <i>sà:-rá</i> | <i>sè:-ré</i> |

The existential morpheme *yé* is always present in positive ‘X has Y’ constructions in elicitation, but it is disallowed in negative counterparts. Examples are in (357).

- (357) a. *iⁿ* *gìrⁿI* *yé* *sà*
 1SgSbj house Exist have
 'I have a house.'

b. *éme* *nànjá* *jó→* *yé* *sè*
 1PlSbj cow many Exist have.PlSbj
 'We have lots of cows.'

- c. *iⁿ* *súgóró* *sà:-rá*
 1SgSbj sugar have-Neg
 ‘I don’t have any sugar.’
- d. *émé* *péjú* *sè:-ré*
 1PlSbj sheep have-Neg.PlSbj
 ‘We don’t have any sheep.’

These predicates may be used in past-time contexts.

- (358) *iⁿ* *kòké:* *gírⁿí* *yé* *sà*
 1SgSbj formerly house Exist have
 ‘I had a house (in the past).’

For relative clauses with positive *sá* or negative *sà:-rá*, see §14.1.9.6. The existential morpheme is absent in such relatives.

Under some conditions the existential particle is omitted even in positive main clauses, and in this case the quasi-verb takes <HL> tones (*sâ*, plural *sê*). This happens systematically in the delayed future construction with *-jà sâ* (§10.2.2.4). In the regular ‘have’ construction it is attested in texts (but not in elicitation) in examples with a heavy NP as object, as in (687a) in §19.4.1.

11.5.2 Special form of ‘have’ (*sí-i*)

§11.2.2.4 described special variants of the locational-existential quasi-verbs *wò* and *kò*, namely *wí-i* and *kí-i*. The special variants are used under limited conditions as perfectives, or chained to a following imperfective form of *béré* ‘get’ in the sense ‘it is possible, it could happen’.

There is a parallel form *sí-i* for the ‘have’ quasi-verb. It too is attested with ‘get’ (359).

- (359) *[kó* ^L*i:ⁿ]* *há:jè* *sí-i* *bë:-rò*
 [NonhPoss [child] need(n) have-Pfv get-IpfvNeg
 ‘There is no need (for) its fruits.’ (2011.1a.20)

11.5.3 ‘Belong to’ predicates (*[X kè]=:*)

Any alienably possessable noun may occur as the subject (or topic) of a ‘belong to’ predicate, which identifies the owner. The NP or pronoun denoting the owner is followed by possessive *kè=:*. It contains the ‘it is’ clitic and a noun-like element (etymologically ‘thing’) denoting the possessed item. The negation with *=lò* (360d) is shared with the ‘it is’ clitic.

- (360) a. *gírⁿí* *[ă:* ^L*kè]=:*
 house [who? [Poss]=it.is
 ‘(The) house belongs to whom?’
- b. *[iⁿ* ^L*kè]=:*
 [1SgPoss [Poss]=it.is
 ‘It (= house) is mine.’ = ‘It belongs to me.’

- c. *péjú* [sè:dú] ^L*kè*=^{:=}
sheep [Seydou] ^L**Poss**=it.is
'(The) sheep-Sg belongs to Seydou.'

d. [*l'*ⁿ] ^L*kè*=^{:=}*lò*
[1SgPoss] ^L**Poss**=it.is=Neg
'It isn't mine.'

11.6 Verb iteration

TgK is quite rich in verb-iteration patterns, found particularly in narratives and with expressive functions in conversation. In addition to the phrasally self-contained iterations in the sections below, see also §15.1.5 for a construction involving iterated {HL}-toned verbs followed by a motion verb.

11.6.1 Iteration of inflected verb forms

An inflected verb form may be iterated one or more times. This is typical of imperfective-system verbs (imperfective, progressive). It emphasizes duration, naturally enough. In narrative it indicates that a particular state continues for a long time (until the next dramatic event).

The subtype in (361a) with preverbal subject pronoun could be interpreted as a headless adverbial relative, or as a focus construction. This does not seem possible for the subtype in (361b) with omitted (though referentially specific) subject pronoun.

- (361) a. [y̪ɔ̡-ŋ wó ^Lbì-jù] [wó ^Lbì-jù] [wó ^Lbì-jù] [wó ^Lbì-jù]
 [like.that 3SgSbj ^Ldo-Ipfv] (iterations)
dùwǔ
 vulture
 ‘She went on doing like that (until) Vulture ...’ (2011.1b.02)

b. [bé ^Llɔ̡:] y̪ɔ̡-ŋ ^Lyè-jù,
 [3Pl ^Ltwo] like.that ^Lcome-Ipfv,
 y̪ɔ̡-ŋ bǐ-tájì bǐ-tájì [íyé ^Lkè] yě-è: mà
 like.that do-Prog do-Prog [today ^LTop] go-and.SS and.then
 ‘The two of them (girl and step-mother) were coming like that. (She) kept doing
 that. This time, ...’ (2011).

11.6.2 Simple iteration of bare verb stems (self-chaining)

Very often a verb stem is iterated in bare stem form. In other words, a verb is directly chained to itself.

In (362a-c), one or more iterations precede a final inflected form of the same verb. I usually hyphenate the iterations in bare-stem form, but separate a final inflected form.

- (362) a. *kéjé-kéjé-kéjé-kéjé-kéjé* *kéjé-séⁿ* *dè*
cut-cut-cut-cut-cut cut-Pfv.Plsbj if
‘when (they) have cut and cut’ (2011.1a.09)
- b. *kún-kún-kún* *kún-Ø* *dè*
put-put-put put-Pfv if
‘if/when he/she has put and put’ (*kún-Ø* is for *kún-i*)
- c. *n᷑:-n᷑:-n᷑:* *n᷑-è* *dè*
drink-drink-drink drink-Pfv if
‘if/when (he/she) has drunk and drunk’

In this case, when the final inflected form requires the augment *-è:-*, i.e. for certain types of verb stem before perfective plural-subject *-séⁿ*, the augment also appears on the otherwise uninflected nonfinal occurrences. Examples where this happens, like (363), mimic those with same-subject anterior subordinator, see the preceding section.

- (363) *kún-è:* *kún-è:* *kún-è:* *kún-è:-séⁿ* *dè*
put-Pfv **put-Pfv** **put-Pfv** **put-Pfv** if
‘if/when they have put and put’

Likewise, when the final iteration is itself in same-subject anterior subordinating form, with suffix *-è:* or allomorph (§15.2.2.1), the suffix can be repeated on the nonfinal iterations. This is sometimes used in narrative to denote extended duration of a state, before the narrator has formulated the following clause (so “same-subject” may not always turn out to be correct).

- (364) a. *jé* *jòw-é:* *jòw-é:* *[fó→ děⁿ-èⁿ]*
run(n) run-and.SS run-and.SS [until get.tired-Pfv]
‘He ran and ran until he was weary.’
- b. *bé* *ji:* *ji-í:* *ji-í:*
3PlSbj meal eat.meal-and.SS eat.meal-and.SS
[pá→ [[sǎⁿ bè Hbín] Ljò:-n-i]
[until [[ReflPoss Pl] Hbelly] Lbe.full-Caus-Pfv]
‘They ate and ate until they had filled their bellies (=were satisfied).’
- c. *[nù:^L-dúg᷑* *kà:ⁿ* *[ná* *wò→]*
[fly also] [place all]
t᷑rⁿ-è: *t᷑rⁿ-è:* *gàr-ē* *dè*
perch-and.SS **perch-and.SS** go.past-Pfv if
‘Fly too (=for his part) would perch all over (their bodies) and keep going, ...’
(2011.1b.02)
- d. *[kùⁿ^L-kénè^{+L} Ly᷑:]* *lágèr-è:* *lágèr-è:* *lágèr-è:,*
[head.Def^{+L} LNearDist] **shed-and.SS** (iterations)
[y᷑: j᷑érⁿé-táj᷑ mà]
[NearDist suffer-Prog and.then]
‘That head (of hers) was shedding its hair. That (woman) was suffering, ...’
(2011.1b.02)

The iterated verb may also be in bare stem form nonfinally in a chain. In this case all of the iterations can be in the bare stem form (365). See the sections below for more complex iteration constructions.

- (365) a. *émé* *gú-gúrù^{+L}* *dàr^{ná}-dàr^{ná}* ^L*dàgà-jù*
 1PlSbj grass.Def^{+L} kill-kill ^Lleave-Ipfv
 'we keep killing the weeds and (we) leave them' (2011.1a.02)
- b. *[dèr^{né}* *wàrā-wàrā-wàrā-wàrā-wàrā* *gàr-á→* *bé:]*
 [crops do.farming-do.farming-... a.lot put]
[bé *gí-nì* *dè]*
 [3Pl say-and.DS if]
 'after they had kept farming the crops a lot (=for a long time) and had let it
 (=field) rest' (2011.1b.05)

11.6.3 Verb iteration with initial reduced to one syllable (reduplication)

At several points in the recordings, the first member of a simple verb iteration (two tokens of the stem) is reduced in form, the result resembling *Cv*- reduplication.

In (366a-d), the second iteration has its lexical segmental and tonal form, e.g. *-kámá* in (366a), but an initial-syllable long vowel is shortened (366d). The first iteration is reduced to one syllable, heard with H-tone if the stem is /H/ (366a,d), and as <LH> if the stem is /LH/ (366b-c). The stems in question have a medial nasal or rhotic, and the forms in (366) are phonologically similar to iterative distributives that have undergone *rv*-Deletion (§3.5.3.2), like *tú-túrú* 'one (by) one' (§4.6.1.6).

- (366) a. *é* *káⁿ-kámá* ^L*dàgà-jù*
 2Pl toss-toss ^Lleave-Ipfv
 you-Pl keep tossing and leaving (them)' (2011.1a.19)
- b. *[[bìrē^L* ^H*síg-é]* *nà]*
 [[work(n)^L ^Hremain-Pfv.Rel] Pl]
bàⁿ *m᷑-[m᷑rⁿ-i:]*,
 manner assemble-[assemble-MP],
pú: ^L*kè,* *[báⁿL* *bé* ^H*bír-é]* *gi:ⁿ*
 millet ^LPoss, [manner^L 3PlSbj ^Hdo-Pfv.Rel]] like
 'the (same) way they (=people) kept getting together to do the jobs that remained
 (for) millet' (2011.1a.25)
- c. *[gàm^L* ^H*ná]* *[[kó* ^H*dóngó]* *tò]*
 [some^L ^Hperson] [[Nonh ^Hafter] around]
[gámá *kérú* *bá-bárá* *m᷑:-n-è:-s᷑ⁿ* *dè]*
 [some stem gather-gather assemble-Caus-Pfv-PlSbj if]
 'Some people, after that, they sometimes keep gathering the stems together, ...'
 (2011.1a.31)
- d. *té-téré* *té:ré-jú* *bè→*
 chop-chop burn-Ipfv and
 'there is chopping and burning the small bushes, (and)...' (2011.1a.01)

In (367), two verbs are iterated in a special prosodic pattern with H-toned *Cv-* first iteration and {L}-toned unreduced second iteration. Except for the syllabic reduction of the first iteration, this is reminiscent of a minor distributive iteration of adjectives (§4.5.2).

- (367) a. *[[pà^L túñò^{+L}] wó-ní:] dùw-é:-jô:,*
 [[place^L one.Loc^{+L}] be.HumSgSbj-while.SS] carry-MP-Ipfv
 [kó^H-[kólò-ìm]] bá^H-lòrà
 [go.around^{H-L}[go.around-Caus] gather^{H-L}gather
 jé:r-ì dè] dùw-é:
 bring-Pfv if] carry-MP
 ‘(You) carry (it) being in one place (in one method), (and) you carry (it) after
 (you) have gone all over and gathered it (from the small piles) and brought it (in
 the other method).’ (2011.1a.12) (*kólò-ìm, bárà*)
- b. *émé [[nú: kénè] gù-gùrù^L só]*
 1PlSbj [[millet among] grass^L ^Hbe.in.Rel]
 kó kó^H-lò:jù dǎⁿ-jé:
 NonhObj dig.up^{H-L}dig.up kill-Ipfv
 ‘We might keep digging up (with a daba) and killing the (old) weeds that are
 among the millet (sprouts), (and) ...’ (2011.1a.02) (*kó:jù*)
- c. *bé gǔñ-gǔñ sú^{H-L}sù:rù tí-táŋà*
 3PIObj take.out-take.out move.down^{H-L}move.down send-Prog
 ‘(from his perch on top of the tree he) kept sending them (=the children) down
 away from (there)’ (2011.1b.02) (*sú:rù*)

11.6.4 Iteration with presuffixal vocalism of verb stem

There is also an example in the texts involving iterated verbs that are chained to a different inflected verb ('gather'), and that have presuffixal vocalism (368). This vocalism is clear in *ú:-nò*, but ambiguous in *géré*.

- (368) *géré géré-séⁿ dè,*
 cut.off cut.off-Pfv.PlSbj if,
 jù:^L-jùrò ú:-nò ú:-nò ú:-nò gárá-séⁿ dè, ...
 millet^L-pile lay lay lay gather-Pfv.PlSbj if, ...
 ‘(you) will cut off grain spikes and gather and lay them in several small piles ...’
 (2011.1a.12)

My assistant suggested that the presuffixal vocalism may be an idiosyncrasy of certain speakers, and he preferred *ú:-ñ* (bare stem, or possibly perfective) instead of *ú:-nò*. Note that *ú:-nò* has the same tones as *ú:-ñ*, and that *ú:-nò* with these tones does not correspond to any normal inflected form (contrast imperative *ú:-nɔ*). So I take (368) to be a stylized expressive construction that has developed out of an original iterative chain.

11.6.5 Verb iteration of type [verb₁^H-*lé* (*gá:*) verb₁-(inflection)]

Another iteration type involves one instance of the verb stem with {H} overlay followed by suffix *-lé*, then optional *gá:*, then a second occurrence of the verb stem in whatever inflection is appropriate in the larger sentence. Additional iterations of the bare stem may be added between the two. It appears that some speakers use *gá:* while others do not.

This construction is attested in contexts involving demonstrations of how a continuous or repetitive action is performed (e.g. in teaching a child, or showing a foreigner, how to use a hoe). For *gá:* in constructions describing parallel alternative eventualities, see §19.2.2. More doubtful is a connection with possessed noun *gá:* meaning ‘something like X’ (with possessor X), see §8.4.1.

The suffix *-lé* in this construction is distinct from prohibitive suffix *-lé*, which does not impose an {H} overlay on the stem (§10.6.1.2). However, the two *-lé* forms are homophonous after lexically /H/-toned stems, e.g. *á:* ‘catch’. The idiosyncratic segmental changes (for ‘come’, ‘bring’, and ‘take away’) that apply to prohibitive suffix *-lé* (*yé-lé*, *jé:-lè*, *jâ:-lè*) do not occur in this construction, hence *yéré^H-lé* (*gá:*) *yéré* ‘keep coming (like this)’. These three verbs, however, do not appear to be widely used in this iterative construction. Verbs like *bíré* ‘do’ do not undergo *rv*-Deletion in the iterative construction; compare prohibitive *bí-lé* ‘don’t do!’ with iterative *bíré^H-lé* (*gá:*) *bíré* ‘do (like this)’.

- (369) a. *[nú: L yɔ:] tó-è dè, pílé-m̩ gè-géré-jú,*
 [millet L NearDist] sprout-Pfv if, again Rdp-cut.off-Ipfv,
[géré^H-lé L gérè-jù]
 [cut.off^H-Iter L cut.off-Ipfv]
[kó H bɔŋ] gér-ú gí-jí
 [NonhPoss H name] cut.off-VblN say-Ipfv.PlSbj
 ‘When (they) have hacked down that millet, they will also (=subsequently) cut off the grain spikes (with a knife). They keep cutting off the grain spikes. They call it “cutting off (the grain spikes).”’ (2011.1a.09)
- b. *[gàmà^L H ná] [mó mó^H-lé mòmò mòm-ê dè]*
 [some^L H person] [uproot^H-Iter uproot uproot-Pfv if]
[kámá-kámá L dàgà-jù]
 [throw-throw L leave-Ipfv]
 ‘Some people thoroughly uproot (all the weeds, by hand) and toss and leave (them).’ (2011.1a.20)

The *-lé* suffix in the iterative construction probably reflects an original verbal noun suffix (cognates in Najamba-Kindige and Yanda Dom).

11.6.6 Verb iteration of type [verb₁-Pfv *mà*→ *é*→ verb₁-Pfv]

In another type of iteration, expressing definitiveness (rather than repetition) of the denoted event, two identical perfective verbs are juxtaposed. The first is followed by *mà*→ (yes-no interrogative, also the ‘or’ disjunction), and this is separated from the second occurrence by *é*→ ‘yes’. The construction therefore contains a miniature question-answer sequence.

- (370) a. *gèré-séⁿ* *dè*, *gèr-é:*
 cut.off-Pfv.PlSbj if, cut.off-and.SS
 [*né:* *gèr-ú* *dòg-ê* *mà→ é→ dòg-ê* *dè*], ...
 [now cut.off-VblN end-Pfv Q yes end-Pfv if], ...
 ‘When (they) had cut off the grain spikes, they cut them off and then, when the
 cutting off was well and truly finished, ...’ (2011.1a.09)
- b. *kún-i* *mà→ é→ kún-i*
 put-Pfv Q yes put-Pfv
 ‘(he/she) (had) definitively put’
- c. *kún-è:-séⁿ* *mà→ é→* *kún-è:-^Lsèⁿ*
 put-Pfv-PlSbj Q yes put-Pfv-^LPlSbj
 ‘(they) (had) definitively put’

11.6.7 Verb iteration plus *mà*

In textual passage (371), the verb ‘listen’ is iterated and followed by *mà*. The vocalism of ‘listen’, elsewhere [+ATR] *kéjìri* (imperative *kéjérè*) but here mixed-ATR, suggests that this is an iterative variation on *kéjér-è: mà* ‘listened and ...’ (same subject anterior). For the non-iterative version see §15.2.2.2.

- (371) *[yɔ-ŋ* *wó* *gé-è]*
 [like.that 3SgSbj say-and.SS]
[yè^L *ná:]* *kéjérè-kéjérè* *mà,*
 [woman^L old] listen-listen and.then,
i: ... *wà,*
 hey! ... Quot,
 ‘When she (=spirit of dead girl) said (= sang) like that, an old woman was listening.
 She (=old woman) said, wow!...’ (2011.1b.01)

12 Comparatives

12.1 Asymmetrical comparatives

12.1.1 Asymmetrical comparatives without *gá:rá* ‘more’

12.1.1.1 Predicative adjective with *là* ‘than’ and comparandum

In positive adjectival predicates (‘be long’), the adjectival stem may be extended with adverbial *-i→* (or variant), and it is often followed by a copula. In negative adjectival predicates, the extension is absent and the adjective, in {L}-toned form, is followed by stative negative clitic *=lá*. See §11.4.1.2 for positive and §11.4.2 for negative predicates.

In one common positive comparative adjectival predicate construction (‘be longer than X’), the adjectival stem follows the comparandum (‘than X’), which has the form *X là*. There is no copula, and no final extension on adjectives like *dògú* ‘heavy’, so the construction is rather tight (almost compound-like) and is not merely a regular adjectival predicate plus a comparandum (372).

- (372) a. *wó [má là] gùrú*
3SgSbj [1Sg than] long
'He/She is longer (=taller) than I (am).'
- b. *tùwó [ú là dògú*
stone [2Sg than] heavy
#dògú k̩
#dòg-í: k̩
'The rock is heavier than you-Sg (are).'

The adjective may drop its tones (to *gùrù*, *dògù*, etc.), especially at the end of a fairly long clause with no following particle. This is parallel to tone-dropping in verbs in this position.

The negative counterpart is illustrated in (373). The adjective takes its usual negative predicative form, {L}-toned with following stative negative clitic. Here the only difference between the comparative and the regular construction is the addition of the comparandum.

- (373) *tùwó [ú là dògù^L=lá*
stone [2Sg than] heavy^L=StatNeg
'The rock is not heavier than you-Sg (are).'

A slightly different construction for positive adjectival comparatives involves the addition of *sígé* ~ *sigè* ‘more’. In this case, the predicate is identical to the regular (noncomparative) adjectival predicate. Specifically, a copula is often present, and adjectives like ‘heavy’ may take their extended adverbial form (374).

- (374) *tùwó [ú là sígé dòg-í: k̩*
stone [2Sg than] more heavy-Adj be.NonhSbj
'The rock is heavier than you-Sg (are).'

12.1.1.2 Verbal predicate plus *sìgé* ~ *sìgè* ‘more’ and *là* ‘than’

Any verb or other predicate can be expanded into an asymmetrical comparative by adding *sìgé* ‘more’, preceded by a comparandum phrase *X là* ‘than X’. *sìgé* is often heard as {L}-toned *sìgè*, especially (by tonal dissimilation) before a verb or other word beginning with an H-tone.

The syntax of *sìgé* ~ *sìgè* can be clarified by glossing it adverbially, i.e. as ‘to a greater extent (than X)’. However, it directly follows the comparandum and may be prosodically bracketed with it.

The verb (or quasi-verb) has exactly the same form as in clauses without *sìgé*. As usual when following one or more other nonpronominal constituents, the imperfective (positive) verbs in (375a-b) usually drop tones. Also as usual, the optional plural-subject form of the verb is allowed (375d).

- (375) a. *wó* [má *là*] *sìgè* *kènē* ^L*nò:-pù*
 3SgSbj [1Sg than] more millet.beer ^Ldrink-Ipfv
 ‘He/She drinks millet beer to a greater extent than me.’
 [= ‘... drinks more millet beer than I (do)’]
- b. *fⁿ* [ú *là*] *sìgé* ^L*bè-jù*
 1SgSbj [2Sg than] more ^Lget-Ipfv
 ‘I will get more than you-Sg (will).’
 [tone-dropped from *bě-jú*]
- c. *fⁿ* [ú *là*] *sìgé* *bě:-rō*
 1SgSbj [2Sg than] more get-IpfvNeg
 ‘I won’t get more than you-Sg (will).’
- d. *bé* [ú *là*] *sìgé* *bě:-rē*
 3PlSbj [2Sg than] more get-IpfvNeg.Plsbj
 ‘They won’t get more than you-Sg (will).’
- e. *fⁿ* [ú *là*] *sìgè* *péjú* *sà*
 1SgSbj [2Sg than] more sheep have
 ‘I have sheep to a greater extent than you-Sg.’
 [= ‘... have more sheep than you (do)’]

When *sìgé* is followed by a positive or negative perfective verb, as in (376a-b) below, the verb gets an {HL} overlay (for more examples of this overlay see the constructions with *gá:rá* ‘more’ in §12.1.2). The overlay is applied in the same way as the {HL} overlay on perfective verbs after a focalized subject (§13.1.1). For trisyllabics, the tone pattern is H.L.L for positive perfective verbs, as in *gégír-ì* ‘tilted’, *sìgé*^{HL}*gégír-ì* ‘tilted more (than...)’. A monosyllabic example is *gō-è* ‘went out’, *sìgé*^{HL}*gō-è* ‘went out more (than...)’. See (402) for further examples with focalized subjects. For negative perfective verbs, the tone break is at the stem-suffix boundary; for examples with focalized subjects see (403).

When *sìgé* is followed by an H-tone, as it always is when it precedes an {HL}-toned perfective verb, *sìgé* normally surfaces with {L} tones. Synchronously this could be analysed as an {HL} overlay on the verb, followed by a low-level tone dissimilation (*sìgé* → *sìgè* before H-tone). Diachronically, it could be that the final H-tone of *sìgé* shifted to the right in a subset of such constructions and generalized from there.

(376a) illustrates *sìgè* in a perfective positive clause. (376b) does the same for a perfective negative clause. Noncomparative clauses without *sìgè* show the normal tones of the verb, without the {HL} overlay (376c-d). In (376e) the two comparanda are non-subjects.

- (376) a. *iⁿ* [ú *là*] *sìgè*^L ^{HL}*bér-è*
 1SgSbj [2Sg than] more^L ^{HL}get-Pfv
 'I got (=obtained) more than you-Sg (did).'
- b. *iⁿ* [ú *là*] *sìgè*^L ^{HL}*bé-lì*
 1SgSbj [2Sg than] more^L ^{HL}get-PfvNeg
 'I did not get more than you-Sg (did).'
- c. *iⁿ* *isí* ^L*bèr-è*
 1SgSbj dog ^Lget-Pfv
 'I got a dog.'
 [< *bèr-è*]
- d. *iⁿ* *isí* *bè-lí*
 1SgSbj dog get^L-PfvNeg
 'I didn't get a dog.'
- e. *iⁿ* *péjú* [*èrⁿé* *là*] *sìgè* ^{HL}*lág-è*
 1Sg sheep [goat than] more ^{HL}hit-Pfv
 'I hit-Past (the) sheep more than (I hit) (the) goat.'

There is no positive construction directly expressing the sense ‘VP less than X’. This sense can be expressed using a negation of *bă:* ‘equal’ (§12.2.1, below).

12.1.2 Asymmetrical comparatives with *gá:rá* ‘more’

12.1.2.1 {HL}-toned predicative adjective with *gá:rá* ‘more’, *sógo* ‘than’

In another asymmetrical comparative construction with a predicative adjective, the adjective is preceded by *gá:rá* ‘more’. The adjective itself has {HL} overlay, suggesting that *gá:rá* (or some other preverbal constituent) is treated as focal. In textual examples, *gá:rá* is sometimes omitted, so the {HL} tone on the adjective is diagnostic of this construction, as opposed to that described in §12.1.1.1. The copula, e.g. *kâ* ‘be (nonhuman)’ as in (non-comparative) *nà:rⁿá kâ* ‘it is easy’, is absent. The comparandum (if overt) is expressed as [*X sógo*] ‘than X’, i.e. ‘in comparison to X’. *sógo* implies more conceptual effort by the person doing the comparison than does *là*, and one could translate [*X sógo*] as ‘in comparison to X’ or ‘with respect to X’. Elsewhere [*X sógo*] can also be translated ‘because of X’, again with emphasis on human reasoning.

The construction is exemplified in (377) with *nà:rⁿá* ‘easy’ and *gùrú* ‘long’. (377b) represents the type with *gá:rá* omitted. *sógo* ‘than’ is present in (377c).

- (377) a. [*lè-kⁿ bè*] *gá:rá* ^{HL}*ná:rⁿà*
 [pick.hoe with] more ^{HL}easy
 'It (=planting) is easier with a pick-hoe.'

- b. [kó bè] ^{HL}ná:rⁿà
 [Nonh with] ^{HL}easy
 'It (=planting) is easier with it (pick-hoe).' (2011.1a.01)
- c. [k᷑n sógò] lè-k᷑n gá:rá ^{HL}gúrù
 [daba than] pick.hoe more ^{HL}long
 'A pick-hoe is longer than a daba (short-handled hoe).'

Monosyllabic adjectives realize {HL} as falling tone: *wá:* 'wide, spacious', *gá:rá* ^{HL}*wâ:* 'wider'. Trisyllabic adjectives realize {HL} as H.L.L, i.e. with the tone break near the left edge: *déméré* 'fat', *gá:rá* ^{HL}*démèrè* 'fatter'; *yùgùjú* 'short, runty', *gá:rá* ^{HL}*yúgùjù* 'shorter, runtier'.

The [*X sógò*] comparandum is preclausal, unlike [*X là*] in the other comparative construction. This can be seen by the positions of the two 1Sg comparanda relative to the clause-initial subject pronouns in (378a-b), confirmed by the position of the nominal comparandum in (377c) above. Note also that different forms of the 1Sg pronoun are used in (378a) and (378b). Compare the difference in English between 'you are taller than I/me' and 'compared to me, you are taller'.

- (378) a. [mí: sógò] ú gá:rá ^{HL}gúrù
 [1Sg than] 2SgSbj more ^{HL}long
 'You-Sg are taller than I (am).'
- b. ú [má là] (sígé) gúrú
 2SgSbj [1Sg than] (more) long
 [= (a)]

Negation is expressed by an {H}-toned adjective followed by an L-toned form = *là* of the stative negative clitic. In effect, the {HL} overlay controlled by *gá:rá* is realized on the entire negative predicate, with the tone break at the stem-suffix boundary. This tone pattern matches that of perfective negative verbs when defocalized, see (403) in §13.1.1. Compare ^{HL}*ná:rⁿá* = *là* in (379) below with non-comparative *ná:rⁿà*^L = *là* 'it is not easy', where the H-toned form of the stative negative controls tone-dropping on the adjective *ná:rⁿá*.

- (379) kà:ná gá:rá ^{HL}ná:rⁿá = *là*
 now more ^{HL}easy=StatNeg
 'It is not easier now (than before).'

12.1.2.2 {HL}-toned verb plus *gá:rá* 'more' and *sóngò* 'than'

The combination of *gá:rá* 'more' and *sóngò* 'than' can also occur with verbs as predicates. If *gá:rá* precedes a (positive or negative) perfective verb, the verb gets the {HL} overlay (380a-b). This happens even when *gá:rá* is separated from the perfective verb by an object NP or other constituent (380c-d). In (380c), *s᷑n* 'horse(s)' is heard as {L}-toned *s᷑n* before the initial H-tone of the verb; this is another case of low-level tonal dissimilation, see §12.1.1.2 above for similar treatment of *sígé* 'more'. There is no tonal dissimilation with an /H/-toned noun like 'sheep' in (380d). In (380d) the two comparanda are non-subjects (temporal adverbs).

- (380) a. [ú sógò mí: gá:rá ^{HL}bér-è
 [2Sg than] ISg more ^{HL}get-Pfv
 'I got (=obtained) more than you-Sg (did).'
 [for *bér-è*, or tone-dropped *bér-è*]
- b. [ú sógò mí: gá:rá ^{HL}bé-lí
 [2Sg than] ISg more ^{HL}get-PfvNeg
 'I did not get more than you-Sg (did).'
 [for *bé-lí*]
- c. [ú sógò mí: gá:rá sɔⁿ ^{HL}bér-è
 [2Sg than] ISg more horse ^{HL}get-Pfv
 'I got more horses than you-Sg (did).' (*sɔⁿ* 'horse')
- d. [ú sógò mí: gá:rá péjú ^{HL}bér-è
 [2Sg than] ISg more sheep ^{HL}get-Pfv
 'I got more sheep than you-Sg (did).'
- e. Iⁿ [yá: sógò íyé gá:rá ðjó ^{HL}bér-è
 1Sg [yesterday than] today more thing ^{HL}get-Pfv
 'I earned more today than (I did) yesterday.'

The {HL}-toned form of the perfective verb used in these comparatives does not allow plural-subject marking. While elsewhere we find *bér-è* 'got' and optional plural-subject *bér-é-séⁿ*, the {HL} form in comparatives is always ^{HL}*bér-è* even with plural subject (381b). Correlated with this is the fact that a subject (minimally, a pronoun) is obligatory before *gá:rá*. So the plural-subject in non-comparative (381a) can be expressed either by a clause-initial pronoun (optional, and often omitted in textual passages) or by verbal suffixation. In comparative (381b), the 3Pl subject pronoun is obligatory and the verb, which now has the {HL} overlay, cannot mark plural subject.

- (381) a. (*bé*) *péjú* *bér-è* / *bér-é-séⁿ*
 (3PlSbj) sheep get-Pfv(-PlSbj)
 'They got a sheep.'
- b. [ú sógò] *bé* gá:rá ^{HL}bér-è (#-séⁿ)
 [2Sg than] 3PlSbj more ^{HL}get-Pfv
 'They got more than you-Sg (did).'

The {HL} tone does not appear on verbs other than perfective (positive and negative). The imperfective (positive) is therefore frequently subject to tone-dropping (382a), while the imperfective negative has its usual tonal shape (382b).

- (382) a. [ú sógò] mí: gá:rá ^L*bě-jù*
 [2Sg than] ISg more ^Lget-Ipfv
 'I will get more than you-Sg (will).'
 [tone-dropped from *bě-jù*]

- b. [ú sógò] mí: gá:rá bë:-rò
 [2Sg than] ISg more get-IpfvNeg
 'I will get more than you-Sg (will).'

12.1.3 {HL} overlay with other gradient quantifiers

The {HL} overlay on predicates (adjectives, perfective verbs) is found not only in comparative constructions, but also with adverbials *gàr-á→* and *séyⁿ* 'a lot, very much', adverbial *dág-à→* 'a little, somewhat', and with numerals. In other words, the {HL} overlay occurs in constructions where the quantity (degree) of the quality or eventuality is explicitly specified. However, the {HL} overlay is used with 'a lot' and 'a little' in a more restricted range of contexts than with asymmetrical comparatives. 'A lot' and 'a little' also normally directly precede the predicate, while *gá:rá* 'more' often precedes intervening constituents such as an object NP.

For perfective verbs, compare *dág-è* 'left, abandoned' in (383a) and plural-subject *dágá-sêⁿ* in (383b), where the quantity is not at issue, with invariant {HL}-toned *dág-è* after 'a lot' or 'a little' in (383c-e).

- (383) a. *iⁿ* *tùwó* *dág-è*
 1SgSbj stone leave-Pfv
 'I left a stone (there).'
- b. *bé* *tùwó* *dágá-sêⁿ*
 3PlSbj stone leave-Pfv.PlSbj
 'They left a stone (there).'
- c. *wó* *gàr-á→* ^{HL}*dág-è*
 3SgSbj a.lot ^{HL}leave-Pfv
 'He/She left a lot (there).'
- d. *bé* *gàr-á→* ^{HL}*dág-è* (#*dág-è:-sêⁿ*)
 3PlSbj a.lot ^{HL}leave-Pfv
 'They left a lot (there).'
- e. *iⁿ* *dágà→* ^{HL}*dág-è*
 1SgSbj a.little ^{HL}leave-Pfv
 'I left a little (there).'

The {HL} overlay also appears on the verb after object NPs ending in a numeral (384a-b). Again, explicit plural-subject marking is not allowed (384b). Verbs after object NPs ending in a noun, adjective, or 'all' quantifier have their regular forms, including optional plural-subject marking (384c-e).

- (384) a. *iⁿ* [*péjú*] *pérú* ^{HL}*dág-è*
 1SgSbj [sheep] ten ^{HL}leave-Pfv
 'I left ten sheep.'

- b. *bé* [péjú] *pérú* ^{HL}*dág-è* (#*dágà-sèⁿ*)
 3PlSbj [sheep] ten] ^{HL}**leave-Pfv**
 ‘They left ten sheep.’
- c. *bé* [pèjù^L] *márⁿá* *dágá-sèⁿ*
 3PlSbj [sheep^L] big] **leave.Pfv-PlSbj**
 ‘They left a big sheep.’
- d. *bé* *péjú* *dágá-sèⁿ*
 3PlSbj sheep **leave.Pfv-PlSbj**
 ‘They left a sheep.’
- e. *bé* [péjú] *sâ:ⁿ* *dágá-sèⁿ*
 3PlSbj [sheep all] **leave.Pfv-PlSbj**
 ‘They left all the sheep.’

My assistant did not apply {HL} to perfective negative verbs after ‘a lot’ or ‘a little’ or after a numeral. So *dágà-lí* has its regular tonal form in (385a-c), with tone-dropped stem and H-toned suffix, in contrast to the {HL} overlay in ^{HL}*dágà-lí* in a sentence with *gá:rá* ‘more’ (385d). Explicit plural-subject marking is allowed (385b,e). The direct object ‘sheep’ precedes ‘a lot’ (385a) but follows ‘more’ (385d).

- (385) a. *wó* *péjú* *gàr-á→* *dágà-lí*
 3SgSbj sheep a.lot leave-PfvNeg
 ‘He/She didn’t leave a lot of sheep (there).’
- b. *bé* *péjú* *gàr-á→* *dágà-lâ:*
 3PlSbj sheep a.lot leave-PfvNeg.PlSbj
 ‘They didn’t leave a lot of sheep (there).’
- c. *fⁿ* [péjú] *pérú* *dágà-lí*
 1SgSbj [sheep ten] leave-PfvNeg
 ‘I didn’t leave ten sheep (there).’
- d. [*mí:* *sógo*] *wó* *gá:rá* *péjú* ^{HL}*dágá-lí*
 [1Sg than] 3SgSbj more sheep ^{HL}leave-PfvNeg
 ‘He/She didn’t leave more sheep than I (did).’
- e. [*mí:* *sógo*] *bé* *gá:rá* *péjú* ^{HL}*dágá-lâ:*
 [1Sg than] 3PlSbj more sheep ^{HL}leave-PfvNeg
 ‘They didn’t leave more sheep than I (did).’

12.1.4 ‘Be better, more’ (*iré*)

iré is a stative quasi-verb meaning ‘be better’. The comparandum takes postposition *lâ* ‘than’ (386). In (386a-b), *iré* is heard with {L}-tones because it is preceded by other constituents. The rising melody is heard in (386c-d). I know of no special plural-subject suffixal form.

- (386) a. *iⁿ* [wó là] ^L*irè*
 1SgSbj [3Sg than] ^L**be.better**
 'I am better than he/she (is).'
- b. *mángoró* [bùyà:gú là] ^L*irè*
 mango [guava than] ^L**be.better**
 'Mangoes are better than guavas.'
- c. *wó* *iré*
 3SgSbj **be.better**
 'He/She is better (than someone).'
- d. *bé* *iré*
 3PlSbj **be.better**
 'They are better.'

The negative counterpart is with *i^L = lá* (reduced from /i^Lré = lá/), containing stative negative clitic = *lá*.

- (387) *iⁿ* [wó là] ^L*i = lá*
 1SgSbj [3Sg than] **be.better**^{L=StatNeg}
 'I am not better than he/she (is).'

The construction in (388) means '(sick person) be recovering, be (feeling) better'. Here *iré→* is an adverb, and requires a copula.

- (388) a. *bé* *iré→* *wê*
 3PlSbj **better** be.HumPlSbj
 'They are getting well.'
- b. *iⁿ* *iré→* *wâ*
 1SgSbj **better** be.HumSgSbj
 'I am feeling better.'
- c. *isí* *iré→* *kô*
 dog **better** be.NonhSbj
 'The dog is getting well.'
- d. *iⁿ* *iré→* *wô:-rô*
 1SgSbj **better** be.HumSgSbj-Neg
 'I'm not feeling any better.'

12.1.5 ‘Best’

Superlatives are just a special case of the regular comparative when the comparandum denotes the whole set, although this twists the logic a bit. (389) can be used whether ‘he/she’ is or is not a member of the set ‘us’.

- (389) *wó* [[émé] *wò*→] *là]* *iré*
 3SgSbj [1Pl all] than] be.better
 ‘He/She is better than all of us (=is the best of us).’

12.2 Symmetrical comparatives

12.2.1 ‘Be equal to’ (*bă:*)

The uninfectable predicative element *bă:* is used in contexts like ‘X is the same age as Y’ and ‘X is worth as much as Y’. It denotes a static equivalence rather than an event of closing the gap; contrast *dɔ:* ‘arrive, reach’ in the sense ‘become as good as’ (§12.2.4, below). *bă:* is followed by a copula that agrees with the subject. If the domain of comparison is specified, it takes the form of a possessed noun, like ‘price’ in (390c).

- (390) a. *sè:dú* *àmàdú* *bă:* *wɔ̄*
 S A equal be.HumSgSbj
 ‘Seydou is the same (age) as Amadou.’
- b. *bé* *má* *bă:* *wé*
 3PlSbj 1SgObj equal be.HumPlSbj
 ‘They are the same (age) as me.’
- c. *[[sà:gù^L túnɔ̄] ^Hdɔ̄n]* *[[èrⁿé này] ^Hdɔ̄n]* *bă:* *kɔ̄*
 [[sack^L one] ^Hprice] [[goat four] ^Hprice] equal be.NonhSbj
 ‘The price of one sack (of millet) equals the price of four goats.’
 [=‘One sack is worth four goats’]

Negation is expressed by perfective negative *bà:-lí* ‘is not equal to’ for singular subject, *bà:-lâ:* ‘for plural subject.

bă: can also be used with non-copula negative predicate to translate ‘less than’ (391a). My assistant prefers *gí:n* ‘like’ (§8.4.1) to *bă:* in corresponding positives that are not of the copula type (391b).

- (391) a. *wó* *[má* *bà:]* *bíré* *bì:-rò*
 3SgSbj [1Sg equal] work(n) do-IpfvNeg
 ‘He/She does not do work equal to me.’
 [=‘... does less work than I (do).’]
- b. *wó* *[má* *gí:n]* *bíré* ^L*bì-jù*
 3SgSbj [1Sg like] work(n) ^Ldo-Ipfv
 ‘He/She works like me (=as much as I do).’

12.2.2 ‘As much as’ (*bà*→)

A form related to the verb *bă:* ‘equal’ (preceding section), but L-toned and often intonationally prolonged (like expressive adverbials) occurs directly after the comparandum in symmetrical comparatives and their negations. More generally, *bà*→ means ‘up to (a limit)’; in (392b) I try to capture the nuance using ‘full’ in the free translation.

- (392) a. [kó né:] dág-à→ [[è:rè^L ná:] bà→]
 [Nonh now] a.little [[peanut^L main] as.much.as]
 ság-i→ bë:-rè
 dense-Adv become-IpfvNeg
 ‘That now (=peanuts), to some extent it can’t be as dense (closely-spaced) as groundnuts.’ (2011.1a.20)
- b. háyè [kó gì:] dágà→ nìjìrⁿi^L-lùgó
 well [Nonh for] a.little day^L-count(n)
 [[nìjìrⁿ] [pérè: [nú:né: ságà]]] bà→] dɔ-è dè,
 [[day [ten [five plus]]]] up.to arrive-Pfv if,
 kú:ⁿ tɔ́rɔ́-jú
 then begin-Ipfv
 ‘Well, for that (reason), (there is) counting days a little (=for a while), (anytime) once the full fifteen days have arrived (=elapsed), then they begin.’ (2011.1a.03)

In the context of time, **bà→** can (and often does) work in the opposite direction, hence a contextual reading ‘since’ or ‘(starting) as soon as’, cf. French *dès*.

- (393) háyè [kó sógò='], [nɔwⁿɔ] bà→]
 well [Nonh because]=it.is, [this.year since]
 ú kó gíré téŋ-è dè,
 2SgSbj NonhObj before block-Pfv if,
 né: [gú-gúrú kà:ⁿ] [wòrú bíni] [yògó HL nájìrⁿù]
 now [grass also] [field in] [tomorrow HL year]
 kó gá:rá HL írè ké:jô:, ...
 NonhSbj more HL be.better become.NonhSbj-Ipfv
 ‘Well, it’s because of that, as early as (=even) this year, if you-Sg block it in advance (=pre-empt it), now next year the weeds should become better (=less troublesome) in the fields than that (=than otherwise), ...’ (2011.1a.04)

12.2.3 ‘Same (equal)’ (**kéw-kéw**, **ké-kéw**)

‘(Exactly) equal’ (e.g. in height or some other dimension other than age) is expressed by the iterative adverb **kéw-kéw** or by its reduplicative variant **ké-kéw**. The comparanda are expressed by a conjoined NP ‘X and Y’ or some other plural NP. The domain of comparison is expressed by a noun such as ‘height’ with its lexical tones. Compare the predicate **kéw kò** ‘it (= garment) fits, it is the right size (= the same size as the wearer)’.

- (394) a. [àmàdú.: mí:] géné kéw-kéw
 [A.& 1Sg.&] height equal
 ‘Amadou and I are (of) the same height.’
- b. [lù:rò^L-ná: .: sùnjú.:] gù-gùrù-ná ké-kéw
 [python.& rope.&] length equal
 ‘A python and a rope are of equal length.’

Negation is with the usual stative negative, which controls tone-dropping: *kè-kèw=lá*. Unlike their Jamsay cognates, *kéw* and related forms in TgK do not also function as universal quantifiers ('all Xs').

12.2.4 ‘Attain, equal’ (*dɔ:*)

dɔ: ‘arrive at, reach, attain’ can be used in a more abstract comparative sense ‘attain the level of (someone, in some respect)’. Although it usually describes a situation, it presupposes a process of catching up rather than a permanent equality.

- (395) *kà:ná géné [săⁿ] ^Hdé:ⁿ] digé dɔ-è*
now height [ReflPoss ^Helder.sib] join arrive-Pfv
‘Now he has attained the same height as his older brother.’

For a special use of L-toned ^L*dɔ:* in a complex ‘from X to Y’ construction, see §15.5.4.

12.3 ‘A fortiori’ (*sɔ:*, *nè:*, *yè*, *sá:-gàrà*)

An element *sɔ:*, related to noun *sɔ:* ‘(abstract) thing, matter, issue’ but with falling tone, occurs as an ‘it is (not)’ predicate in two constructions that emphasize the impossibility of one eventuality by denying the possibility of an easier or more likely eventuality of the same type.

In one construction, the easier eventuality is negated, with *nè:* as a clause-linking form (not the same as *né:* ‘now’). I gloss it as ‘even’, but it is confined (to my knowledge) to this construction. The more unlikely or difficult eventuality follows, perhaps with some shared phrasing pruned, ending with *sɔ:=lò*, which contains a negative clitic *=lò* ‘it is not’ (§11.2.1.2). Compare English *not to mention* or *never mind* in similar contexts. In (396), it is presupposed that cows are much more expensive than goats.

- (396) *[èrⁿé bù:dù^L bé éwé-jú] sà:-rá nè:,
[goat money^L 3PLSbj buy-Ipfv] have-Neg even,
nàŋá (éwé-jú) ^{HL}sɔ:=lò
cow (buy-Ipfv) ^{HI}thing=it.is.not
‘I don’t (even) have the money to buy a goat with, never mind (the money) (to buy) a cow (with).’*

In the other attested construction, the easier eventuality is negated with *yè* (with optional intonational prolongation) as the clause-final linking element. Again, I gloss it as ‘even’, but it is not the usual ‘even’ particle (on which see §19.1.9). The *yè* clause is followed by *sá:-gàrà* ‘a fortiori’ at the beginning of the (perhaps pruned) more difficult eventuality. The final element is *sɔ:* with (positive) ‘it is’ clitic.

- (397) *íⁿ jú: bè-lí yè→,
1SgSbj millet get-PfvNeg even,
sá:-gàrà èmé ^{HL}sɔ:=y
a.fortiori sorghum ^{HI}thing=it.is
‘I didn’t even get (any) millet, never mind (any) sorghum.’*

The background of (397) is that sorghum requires more rain than millet, so a poor millet harvest normally entails an even worse sorghum harvest.

13 Focalization and interrogation

13.1 Focalization

A NP or adverb in a clause may be singled out for focus, as in answers to WH-questions. In free translations, I underline the focalized constituent and add “[focus]” after it, as in ‘It is you-Sg [focus] who will buy the sheep.’

Focalization is ordinarily not expressed by the form of the focalized constituent itself, except perhaps by extra prominence. As often in TgK grammar, the exception to this generalization is the 1Sg pronoun. In subject function, it is heard as [mí:] with long vowel as focalized subject, versus *Iⁿ* as subject in ordinary clauses. I analyse [mí:] as *mí=yⁿ* ‘it’s me’; for other options see §4.3.1 and §11.2.1.1. In the dialect described by Prost (p. 34ff.) the ‘it is’ clitic is added to other focalized pronouns and NPs, as in e.g. Jamsay.

Existential particle *yé* ~ *y᷑*, which is required or allowed in some stative predicates (§11.2.2.1), is systematically absent from focalized clauses. Compare (398a) with focalized (398b), and (398c) with focalized (398d). (398b,d) also illustrate the special 1Sg focalized form.

- (398) a. *Iⁿ nàŋá yé sà*
1SgSbj cow Exist have
'I have a cow.'
- b. *mí=yⁿ nàŋá sà*
1Sg=it.is cow have
'It is I [focus] who have a cow.'
(*nàŋá mí=yⁿ sà* is also grammatical in this sense)
- c. *sè:dú y᷑ w᷑*
S Exist be.HumSgSbj
'Seydou is present (here).'
- d. *mí=yⁿ w᷑*
1Sg=it.is be.HumSgSbj
'It is I [focus] who am here.'

Focalization is also expressed in part by linear position. In particular, a focalized subject follows, rather than precedes, a direct object (§13.1.1, below).

Finally, the presence of a focalized non-verb constituent (NP, PP, adverb) may be indexed indirectly by tonal changes and morphological restrictions on the clause-final verb. In effect, the verb is defocalized, reflecting the backgrounding of the remainder of the entire clause after the highlighted constituent is singled out. The difference in form between a normal and a defocalized verb is most audible in clauses whose verb is immediately preceded by a focalized subject pronoun. Details on the form of defocalized verbs are given in the section on subject focalization below, but to some extent they also apply to clauses with focalized constituents other than subjects.

A more distinct focalization construction is a cleft of the type ‘[the person who bought the sheep] is X’, with a relative clause followed by an identificational ‘it is’ expression. It is useful to have this construction available, since clause-internal focalization is not always easily recognized.

I know of no syntactic mechanism for focalizing a VP (‘sweeping the courtyard is what I’m doing’). The truth value of a complete proposition can be emphasized (focalized) by using a clause-final emphatic particle (§19.5).

13.1.1 Subject focalization

The distinction between unfocalized and focalized subjects is most easily seen in transitive clauses with a nonpronominal object. The linear order in an unfocalized clause is S-O-V (399a,c). When the subject is focalized, whether pronominal or nominal, it shifts to preverbal position (399b,d).

- (399) a. *ú írí yùw-è*
 2SgSbj milk ~ ^L*yùw-è*
 (L)spill-Pfv
 ‘You-Sg spilled the milk.’
- b. *írí ú HL yúw-è*
 milk 2SgSbj HLspill-Pfv
 ‘It was you-Sg [focus] who spilled the milk.’
- c. *[pě bě] é:ré téwⁿ-é-séⁿ*
 [woman Pl] peanut crunch-Pfv-PlSbj
 ‘The women ate the peanuts.’
- d. *é:ré [pě bě] HL téwⁿ-è*
 peanut [woman Pl] ~ ^L*téwⁿ-è*
 (H)Lcrunch-Pfv
 ‘It was the women [focus] who ate the peanuts.’

Specifically, the shifted focalized subject follows preverbal constituents except pronominal direct objects and datives, which behave like proclitics to the verb. The focalized constituent follows a spatial PP in (400a), a nonpronominal direct object in (400b,c), and a nonpronominal dative in (400c). It precedes a pronominal dative PP in (400b), and a pronominal direct object in (400d).

- (400) a. *[gírⁿí bîn] mí=yⁿ nú-pú*
 [house in] 1Sg=it.is go.in-Ipfv
 ‘It is I [focus] who will go into the house.’
- b. *bú:dú sè:dú [má nì] HL ó-è*
 money Seydou [1Sg Dat] HLgive-Pfv
 ‘It is Seydou [focus] who gave me the money.’

- c. *sè:dú=à bú:dú é ó-jú*
 S=Dat money 2PlSbj give-Ipfv
 'It is you-Pl [focus] who will give the money to Seydou.'
- d. *sè:dú ú ^{HL}lág-è*
 Seydou 2SgObj ^{HL}hit-Pfv
 'It is Seydou [focus] who hit you-Sg.'

If two or more verbs are more or less tightly chained (chapter 15), the focalized subject appears before the first verb (401-b).

- (401) a. *nàŋá mí=yⁿ dàrⁿ-é: ^{HL}dág-è*
 cow 1Sg=it.is kill-and.SS ^{HL}leave-Pfv
 'It is I [focus] who killed the cow and left it (there).'
- b. *gìrⁿí mí=yⁿ újó ^Lbè-jù*
 house 1Sg=it.is build ^Lget-Ipfv
 'It is I [focus] who can build houses.'

A perfective verb in a clause containing a preceding focalized subject has an {HL} overlay. It is realized as H.L.L on trisyllabics. It may be obscured by clause-final tone-dropping of the verb.

To begin with perfective examples just given, the {HL} overlay has applied to the defocalized verb in (399b,d) and (400b,d). The constraint against overt plural marking is evident in the comparison of (399d) with (399c).

The overlaid {HL} is not audible for verbs whose simple perfective already has this melody in the perfective. It is audible for verbs with lexical /LH/ melody, whose perfective otherwise begins with an L-tone. The tonal distinction is relatively easy to hear when the verb is preceded by only a focalized subject pronoun. Elsewhere, the {HL} overlay is perhaps virtually present, but it is difficult to hear or entirely inaudible because of clause-final tone-dropping. Some examples of the forms with {HL} overlay are in (402).

(402) Simple perfective under defocalization (subject focus)

gloss	simple perfective	
	ordinary	defocalized
a. monosyllabic		
<i>no reliably audible change</i>		
'give'	ó-è	^{HL} ó-è
'weep'	<i>kɔ̄n-ɛ̄n</i>	^{HL} <i>kɔ̄n-ɛ̄n</i>
'go in'	<i>nú-ŷ̄n</i>	^{HL} <i>nú-ŷ̄n</i>
<i>audible change</i>		
'drink'	<i>nɔ̄-ɛ̄</i>	^{HL} <i>nɔ̄-ɛ̄</i>
b. bisyllabic		
<i>no reliably audible change</i>		
'shoot'	<i>téw-ɛ̄</i>	^{HL} <i>téw-ɛ̄</i>
<i>audible change</i>		
'go up'	<i>dòw-ɛ̄</i>	^{HL} <i>dòw-ɛ̄</i>

c. trisyllabic		
<i>no reliably audible change</i>		
‘return’	<i>kígìr-ì</i>	^{HL} <i>kígìr-ì</i>
<i>audible change</i>		
‘ruin’	<i>jùnú-gì</i>	^{HL} <i>jùnú-g-ì</i>

The perfective negative also shows a tone-shift. Instead of {L}-toned stem followed by H-toned suffix, as in ordinary clauses, a defocalized perfective negative verb reverses this and has {H}-toned stem and L-toned suffix. The tonal difference illustrated in (403) is audible in short clauses, but as with the other categories it tends to be neutralized at the end of longer clauses. The same tone reversal occurs in perfective negative verbs in nonsubject relative clauses, see (475) in §14.1.9.3.

(403) Perfective negative under defocalization (subject focus)

gloss	perfective negative	
	ordinary	defocalized
a. monosyllabic		
‘give’	<i>ò-lí</i>	^{HL} <i>ó-lí</i>
‘go in’	<i>nù-Í</i>	^{HL} <i>nú-í</i>
‘weep’	<i>kò:ⁿ-lí</i>	^{HL} <i>kóⁿ-lí</i>
‘drink’	<i>nò:-lí</i>	^{HL} <i>nó:-lí</i>
b. bisyllabic		
‘shoot’	<i>tèwè-lí</i>	^{HL} <i>téwé-lí</i>
‘go up’	<i>dòwò-lí</i>	^{HL} <i>dówó-lí</i>
c. trisyllabic		
‘return’	<i>kígìrè-lí</i>	^{HL} <i>kígíré-lí</i>
‘ruin’	<i>jùnú-gò-lí</i>	^{HL} <i>júnú-gó-lí</i>

In the imperfective positive, the tonal difference between subject-focalized and unfocalized clauses is particularly hard to hear. In careful elicitation, my assistant drops the stem and suffixal tones to {L} in a defocalized imperfective. This potentially distinguishes it from the regular form, which has the lexical /H/ or /LH/ of the stem plus H-toned suffix, although the lexical tone is often obscured by clause-final tone-dropping. The best chance of hearing a distinction is with a lexically /LH/-toned stem when there is a minimum of preceding material within the clause. One can hear a tone break in the /LH/-toned stem in (404a), whereas the entire verb form in (404b) has flat pitch.

- (404) a. *ú dòwò-jú*
2SgSbj go.up-Ipfv
‘You-Sg will go up.’
- b. *ú ^Ldòwò-jù*
2SgSbj ^Lgo.up-Ipfv
‘It’s you-Sg [focus] who will go up.’

The remaining high-frequency indicative category is the imperfective negative. With a focalized subject, the stem has a tone pattern consisting of H-toned syllables ending with a terminal long <HL>-toned vowel. For lexically /H/-toned verbs, this is indistinguishable from the regular tone of the imperfective negative. For lexically /LH/-toned verbs, the absence of an initial L-tone signals that the verb is defocalized.

(405) Imperfective negative under defocalization

gloss	imperfective negative	
	ordinary	defocalized
a. monosyllabic		
<i>no audible change</i>		
‘give’	<i>ô:-rò</i>	^{HL} <i>ô:-rò</i>
‘go in’	<i>nû:-rò</i>	^{HL} <i>nû:-rò</i>
‘weep’	<i>kô:n-rò</i>	^{HL} <i>kô:n-rò</i>
<i>audible change</i>		
‘drink’	<i>nô:-rò</i>	^{HL} <i>nô:-rò</i>
b. bisyllabic		
<i>no audible change</i>		
‘shoot’	<i>téwê:-rò</i>	^{HL} <i>téwê:-rò</i>
<i>audible change</i>		
‘go up’	<i>dôwâ:-rò</i>	^{HL} <i>dôwâ:-rò</i>
c. trisyllabic		
<i>no audible change</i>		
‘return’	<i>kígrê:-rò</i>	^{HL} <i>kígrê:-rò</i>
<i>audible change</i>		
‘ruin’	<i>púnú-gô:-rò</i>	^{HL} <i>púnú-gô:-rò</i>

Examples of the distinction are in (406). As usual, the tonal distinction is most likely to be audible in short clauses like these.

- (406) a. *iⁿ* *dôwâ:-rò*
 1SgSbj go.up-IpfvNeg
 ‘I will not go up.’
- b. *mí=yⁿ* ^{HL}*dôwâ:-rò*
 1Sg=it.is ^{HL}go.up-IpfvNeg
 ‘It’s I [focus] who will not go up.’

13.1.2 Object focalization

Because main clauses already have SOV order, if we suppose that a focalized object moves into the same preverbal position as a focalized subject, this movement is not audible. There is also no difference between the focalized and unfocalized forms of the 1Sg pronoun, whose special accusative form *má* is used in both contexts.

This leaves the form of the verb as the best hope of detecting syntactic focalization (short of extraposition). In positive clauses, the verb is regularly tone-dropped after a focalized nonsubject), and otherwise optional plural-subject marking is usually absent. However, it doesn't take much emphasis on a preverbal constituent to count as "focus" for this purpose, so the difference between unfocalized and object-focalized clauses is less conspicuous than for subjects.

In (407a), the {L} tone pattern and the absence of perfective plural-subject suffix $-s\hat{e}^n$ favor a nonsubject focus reading. In isolation the verb would be $\check{\text{ɔ}}-\hat{\text{e}}$ or optional plural $\check{\text{ɔ}}:-s\hat{e}^n$. If the subject were singular, the distinction would be much subtler phonetically, with unfocalized $\check{\text{ɔ}}-\hat{\text{e}}$ versus defocalized ${}^L\check{\text{ɔ}}-\hat{\text{e}}$. (407b-c) are object-focus negative clauses. They have the same {HL} overlay, with the break at the stem-suffix boundary, as in negative subject relatives.

- (407) a. $\check{\text{é}} \quad \text{má} \quad {}^L\check{\text{ɔ}}-\hat{\text{e}}$
 2PlSbj 1SgObj ^Lsee-Pfv
 'It's me [focus] that you-Pl saw.'
- b. $\check{\text{ú}} \quad \text{má} \quad {}^{HL}\check{\text{ɔ}}:-\hat{\text{l}}\check{\text{i}}$
 2SgSbj 1SgObj ^{HL}see-PfvNeg
 'It's me [focus] that you-Sg did not see.'
- c. $\check{\text{émé}} \quad \check{\text{inyé}} \quad {}^{HL}súnógó-là:$
 1PlSbj what? ^{HL}go.down-Caus-PfvNeg.PlSbj
 'What didn't we take down (=unload)?'

13.1.3 Focalization of PP or other adverb

Focalized PPs, and adverbial adjuncts more generally, may be identifiable by linear position if there is a nonpronominal object NP. Position between such an object and the verb is compatible with focalized status (408b,d,f). Of course this test is of little use with intransitive verbs like 'come', but the frequency of default objects (including cognate nominals) is advantageous in this respect. As with other focalized constituents, the form of the verb may also be useful, but since PPs are prosodically heavy their presence favors clause-final tone-dropping anyway, leaving the verb with low pitch so that tonal distinctions are difficult to hear or inaudible.

- (408) a. $\check{\text{émé}} \quad [\text{dá:gólú} \quad b\hat{\text{i}}\text{n}] \quad \check{\text{ni}}: \quad {}^L\check{\text{ni}}:-\hat{\text{ni}}$
 1PlSbj [courtyard in] meal ^Leat.meal-Ipfv
 'We will eat the meal in the courtyard.'
- b. $\check{\text{émé}} \quad \check{\text{ni}}: \quad [\text{dá:gólú} \quad b\hat{\text{i}}\text{n}] \quad {}^L\check{\text{ni}}:-\hat{\text{ni}}$
 1PlSbj meal [courtyard in] ^Leat.meal-Ipfv
 'It's in the courtyard [focus] that we will eat the meal.'
- c. $\check{\text{émé}} \quad \check{\text{iyé}} \quad \text{dá:gólú} \quad {}^L\check{\text{sémè}}-\hat{\text{ni}}$
 1PlSbj today courtyard ^Lsweep-Ipfv
 'We'll sweep the courtyard today.'

- d. émé dá:gólú íyé ^Lsèmè-jù
 1PlSbj courtyard today ^Lsweep-Ipfv
 ‘It’s today [focus] that we will sweep the courtyard.’
- e. [kɔ̄n bɛ] wárú ^Lwà-jù
 [daba with] farming ^Ldo.farm.work-Ipfv
 ‘We do farm work with a daba (hoe).’
- f. wárú [kɔ̄n bɛ] ^Lwà-jù
 farming [daba with] ^Ldo.farm.work-Ipfv
 ‘It’s with a daba [focus] that we do farm work.’

13.1.4 Focalization of postpositional complement

In (408b,d) and other relevant examples, the entire PP (or adverbial phrase) is syntactically focalized. It is not possible to focalize just the NP complement of the postposition. In other words, in TgK one says the equivalent of ‘It’s in the courtyard [focus] that we will eat’, not ‘It’s the courtyard [focus] that we will eat in’.

13.2 Interrogatives

13.2.1 Polar (yes/no) interrogatives

13.2.1.1 Simple polar interrogatives (*mà*)

The particle *mà* at the end of an indicative sentence converts it into a polar question. “Q” is the interlinear gloss.

A polar question is always implicitly a disjunction of two propositions, one perhaps unstated. In TgK, the following alternative proposition is often stated at least in pruned-down form (e.g. with NPs not overtly repeated). *mà*→, L-toned and often with intonational prolongation, occurs at the end of the first proposition. The second, if overt, follows with or without a brief pause (comma).

- (409) a. ú yě-jú mà→ yě:-rò
 2SgSbj come-Ipfv Q come-Ipfv.Neg
 ‘Are you-Sg coming, or not?’
- b. émé n̄: jí:-ní mà→, kògó kúwó-jú
 1PlSbj cow.peas eat.meal-Ipfv Q, chicken eat.meat-Ipfv
 ‘Will we eat cow-peas, or chicken?’
- c. wó yě:-rò mà
 3SgSbj come-Ipfv.Neg Q
 ‘He/She isn’t coming?’

Examples like (409c) with the alternative proposition omitted may be interpreted as reductions of the fuller construction with parallel propositions in (409a-b). Therefore it is possible to equate polar interrogative *mà* with disjunctive particle *mà* ‘or’ (§7.2.1).

13.2.1.2 Rhetorical tag question with *lò mà*, *lò→*

lò mà after a statement functions as a rhetorical tag question, like French *n'est-ce pas?* Here *lò* can be identified with negative clitic *=lò* in *=y=lò* ‘it is not’ (§11.2.1.2). Interrogative *mà* is not intonationally prolonged or pitch-raised in this combination. There is also no pause or other notable prosodic break between the end of the statement and the *lò mà*, which has the flavor of a simple clause-final emphatic particle (cf. §19.5). In (410) I translate it (twice) as a tag question, but it could simply be disregarded in a free translation without distorting the conversational structure.

- (410) [né: wðⁿ] [yɔ: fú→] gár-ê dè,
 [now Top] [NearDist all] pass-Pfv if,
 [né: wðⁿ] jú: ír-è ɔ̄-m-∅ lò mà,
 [now Top] millet ripen-Pfv see-Pass-Pfv not.be Q,
 [né: wðⁿ] jú: ^L-sá: ɔ̄-m-∅ lò mà,
 [now Top] millet^L-grain see-Pass-Pfv not.be Q,
 [jú: ^L-sá: ɔ̄-m-∅ dè]
 [millet^L-grain see-Pass-Pfv if]
 ‘Now, when all of that is done, now is it not (true) that the millet is visibly (=clearly) ripe? Is it not true that the millet grains are visible? When the millet grains are visible, ...’ (2011.1a.06)

When *mà* is absent, *lò* is optionally prolonged intonationally as *lò→*.

13.2.1.3 Tag question with *là*; *là: mà*

là: at the end of a statement, with no pause or other marked prosodic break, functions as a tag question (‘you did the work, didn’t you?’). Interrogative particle *mà* is optionally added, especially when the speaker wishes to continue speaking. The statement itself may be positive (411a) or negative (411b). To a greater extent than with *lò mà*, here the questioner expects confirmation from the interlocutor, either overtly or tacitly.

- (411) a. B: [yɔ: wðⁿ] [lě kě] *là*:
 A: [yɔ: wðⁿ] [lě kě] sóⁿ-sóⁿ yá:-táŋà
 B: That is of (=for) planting, isn’t it?
 A: That is of (=for) planting, all together. (2011.1a.02)
- b. ú yá:-rò *là:* mà
 2SgSbj go-IpfvNeg tagQ Q
 ‘You-Sg aren’t going, are you?’

là: is likely related etymologically to negative morphemes, cf. ‘it is not’ clitic *=lò* (§11.2.1.2), and stative negative *=lá* in adjectival predicates and after stative verbs and quasi-verbs (§10.4, §11.4.2).

13.2.2 ‘Who?’ (*ă:*)

This interrogative is illustrated in (412).

- (412) a. *ă: =ŷ*
who?=it.is
‘Who is it?’
- b. *ú* *ă: =ŷ*
2SgSbj **who?**=it.is
‘Who are you-Sg?’
- c. *ă:* ^{HL}*bág-è*
who? ^{HL}fall-Pfv
‘Who fell?’
- d. *ú* *ă:* ^L*đ-è*
2SgSbj **who?** ^Lsee-Pfv
‘Who(m) did you-Sg see?’

A plural *ă: bè* ‘who-Pl?’ was elicited, but is sparingly used. It is optional in (413).

- (413) a. *é* *[ă: bè] =ŷ*
2PlSbj **[who? Pl]**=it.is
‘Who are you-Pl?’
- b. *é* *ă: =ŷ*
2PlSbj **who?** =it.is
[= (a)]

13.2.3 ‘What?’ (*iŋé*), ‘with what?’, ‘why?’

‘What?’ as simple NP is *iŋé*. It is unrelated in form to other content interrogatives. The expected plural *iŋé bè* is not used. If it were, it would be homophonous with the common interrogative ‘with what?’, see below. Instead, an iterated *iŋé-iŋé* is used when multiplicity is emphasized (414c). The *y* in *iŋé=ŷ* (414b) is not fully nasalized, probably because *iŋé* derives from **injé* with medial cluster (Pergue *iŋé*, etc.).

- (414) a. *ú* *iŋé* *đ-táŋà*
2SgSbj **what?** see-Prog
‘What do you-Sg see?’
- b. *nó:* *iŋé=ŷ*
Prox **what?** =it.is
‘What is that?’
- c. *émé* *iŋé-iŋé* *pí:-ní*
1PlSbj **what?-what?** eat.meal-Ipfv
‘What things will we eat?’

PPs based on ‘what?’ include purposive *iŋé gè*: ‘why?’ and instrumental *iŋé bè* ‘with (by means of) what?’

13.2.4 ‘Where?’ (*yǎ:* ~ *yā:*)

‘Where?’ and ‘whither?’ (= ‘to where?’) is *yǎ:*. It is pronounced *yǎ:* with <LHL> tones when adverbial, while *yā:* occurs with locational-existential quasi-verbs ('be'), or as possessor or compound initial. *yǎ: = y* ‘where is it?’ is compatible with underlying /yā:/ but probably also with /yǎ:/, which leads me to conclude that adverbial *yā:* is a tonal locative.

Following the usual Dogon pattern, locative ('at, in'), allative ('to'), and ablative ('from') senses are distinguished by accompanying verbs rather than by adpositions. In (415f), *yǎ:* is syntactically a possessor.

- (415) a. *ú yā: ^L*yà:-jù**
2SgSbj where? ^Lgo-Ipfv
‘Where are you-Sg going?’
- b. *[iⁿbàyⁿ-bòⁿ]^L-[kùn-ú] yā: kò*
[newborn-name]^L-[put-VblN] where? be.NonhSbj
‘Where is the name-giving ceremony?’
- c. *é yā: wè*
2PlSbj where? be.HumPlSbj
‘Where are you-Pl?’
- d. *yā: = y*
where?=it.is
‘Where is it?’
- e. *ú yā: ^L*gò-è**
2SgSbj where? ^Lgo.out-Pfv
‘Where did you come from?’
- f. *nó: [[yā: ^H*ná]* bè]=y*
Dist [[where? ^Hperson] Pl]=it.is
‘Those are people of (=from) where?’

‘Around where?’ or ‘whereabouts?’, inquiring about approximate location, can be expressed by *yǎ: tò*, cf. §8.2.14.

The morpheme *yǎ:* is also found as part of ‘which?’ and ‘when?’ interrogatives.

13.2.5 ‘When?’ (*yǎ: dógùrù*, *yǎ: téŋé bè*)

The interrogative morpheme *yǎ:* also found in the senses ‘where?’ and ‘which?’ combines with a noun denoting a time period to produce ‘when?’ interrogatives. *yǎ: ^{HL}dógùrù*, literally ‘(at) (the) time of which?’ is apparently preferred when the set of possible responses extends over a period of days. The alternative combination, which can be used in more constricted temporal contexts, is *[yǎ: ^Htéŋé] bè*, literally ‘by means of (the) time of which?’. The nouns *dógúrú* and *téŋé* both mean ‘(point in/period of) time’. Compound final *-dögùrú* occurs in season terms like *ò:gù-dögùrú* ‘hot season’.

- (416) a. ú [yǎ:] ^{HL}dógùrù ^Lyè-jù
 2SgSbj [which?] ^{HL}time] ^Lcome-Ipfv
 ‘When will you-Sg come?’
- b. láyé [yǎ:] ^{HL}dógùr] =i:
 Feast.of.Ram [which?] ^{HL}time]=it.is
 ‘When is the Feast of the Ram?’

13.2.6 ‘How?’ (*nǎj*)

The interrogative manner adverbial is *nǎj* ‘how?’ (i.e. ‘in what manner?’). It is unrelated in form to other content interrogatives. In predicative form, an additional *n* is added before the ‘it is’ clitic (417c). Compare the vestigial *-n-* suffix between some human singular nouns and the ‘it is’ clitic, cf. (315) in §11.2.1.1.

- (417) a. émé *nǎj* ^Lbì-jì
 1PlSbj how? ^Ldo-Ipfv.PlSbj
 ‘What (lit. “how”) will we do?’
- b. ú *tógú* *nǎj* ^Ltògò-jù
 2SgSbj shed how? ^Lbuild.shed-Ipfv
 ‘How are you-Sg going to build the shed?’
- c. *nǎj-n=i:*
 how?=it.is
 ‘How is it?’ (common greeting)

nǎj is frequently iterated as *nǎj-nǎj*. In this form, it leaves the door open for a complex answer denoting more than one manner or method. In allegro speech style it is heard as [nájnàj].

For ‘by means of what?’ see §13.2.3, above.

13.2.7 ‘How much/many?’ (*à:yá*)

The content interrogative for cardinal quantities is *à:yá*. It has no transparent relationship in form to other interrogatives, but it has a vague resemblance to ‘who?’ and ‘what?’ . Although *à:yá* directly follows the NP that it has scope over (when the latter is overt), it is syntactically adverbial rather than part of that NP. The distributive iteration is in (418d). The ordinal (§4.6.2.2) is *à:yá* ^L-nìrⁿi ‘how many-eth?’ (Fr *quantième*).

- (418) a. ú *súgóró* *à:yá* ^Lèw-è
 2SgSbj sugar how.much? ^Lbuy-Pfv
 ‘How much sugar did you-Sg buy?’
- b. bé *péjú* *à:yá* *s-è*
 3PlSbj sheep how.many? have-PlSbj
 ‘How many sheep do they have?’

- c. *úrⁿí: à:yá ^Lyè-jì*
 children how.many? ^Lcome-Ipfv.PlSbj
 ‘How many children will come?’
- d. *kógór^s à:yá-à:yá dɔⁿ-téŋè*
 fish how.much?-how.much? sell-Prog.PlSbj
 ‘How much (each) are they selling fish for?’
- e. *à:yá=ŷⁿ*
how.many?=it.is
 ‘How many (of them) are there?’
- f. *[nàjá [fⁿ ^Lkè]] kénè, nàjá à:yá ^Lnù-y*
 [cow [1SgPoss ^LPoss]] among, cow **how.many?** ^Ldie-Pfv
 ‘Among my cows, how many cows died?’

An optional extended variant *à:yá bà:* ends with an element that my assistant associates with plurality, cf. plural morpheme *bè* in NPs. For an example, see (421) in §13.2.10, below.

13.2.8 ‘Which?’ (*yǎ:-kò*)

The ‘which?’ interrogative adjective is *yǎ:-kò*. It is heard as *yǎ:-kò* in combination with the ‘it is’ clitic (419a). Compare *yǎ:* ‘where?’ and its derivative ‘when?’. *yǎ:-kò* can function predicatively (419a) or as a modifying adjective. In the latter case, a preceding noun drops tones as before other adjectives (419b). In (419d) *yǎ:-kò* becomes an {L}-toned compound initial.

- (419) a. *[gìrⁿí [ú ^Lkè]] yǎ:-kò=ŷ*
 [house [2SgPoss ^LPoss]] **which?**=it.is
 ‘Your-Sg house is which (one)?’
- b. *émé [[gìrⁿí^L yǎ:-kò] bín] ^Lnà:-ní*
 1PlSbj [[house^L **which?**] in] ^Lspend.night-Ipfv.PlSbj
 ‘Which house will we sleep in?’
- c. *[nàjá^L ú ^Ldò-pù] yǎ:-kò=ŷ*
 [cow^L 2SgSbj ^Lsell-Ipfv] **which?**=it.is
 ‘Which of your-Sg cows are you selling?’
 [lit. “The cow that you are selling, it is which?”]
- d. *kó [[yǎ:-kò]^L-tògí]=ŷ*
 NonhSbj [[**which?**]^L-type]=it.is
 ‘What type (of roselle) is it?’ (2011.1a.26)

With encliticized postposition *nì* (e.g. in dative function), the form is *yǎ:-kò=nì*.

13.2.9 ‘Whatchamacallit?’ (*ðjð→*)

ðjð→, an intonational modification of the noun *ðjð* ‘thing’, is used as a ‘whatchamacallit?’ form when the speaker is trying to recall a word or name.

When the word or phrase being searched for is a predicate, the phrasing is *ðjð^L-bírí bíré* ‘do whatchamacallit?’. This consists of noun *ðjð* ‘thing’, verb *bíré* ‘do’, and an alternative cognate nominal for the verb (compare the usual cognate nominal, *bíré* ‘work’).

13.2.10 Embedded interrogatives

The elicitation frame here is ‘I don’t know’ plus an embedded interrogative.

The favored construction replaces the interrogative content word (‘who?’, ‘what?’, ‘where?’, etc.) by the corresponding semantically light noun (‘person’, ‘thing’, ‘time’, etc.), as head of a relative clause. For example, ‘I don’t know who will go’ is expressed as ‘I don’t know the person who will go’ (420a).

- (420) a. *fⁿ* [nà^L yă:-jú] ^Linè
 1SgSbj [person^L] go-Ipfv] ^Lnot.know
 ‘I don’t know who will go.’
 [lit. “I don’t know [the person who will go].”]
- b. *fⁿ* [ðjð^L émé jí:-ní] ^Linè
 1SgSbj [thing^L] 1PlSbj eat.meal-Ipfv] ^Lnot.know
 ‘I don’t know what we will eat.’
- c. *fⁿ* [nà^L émé ná:-ní] ^Linè
 1SgSbj [place^L] 1PlSbj spend.night-Ipfv] ^Lnot.know
 ‘I don’t know where we will spend the night.’
- d. *fⁿ* [bàmàkó tèŋè^L émé yă:-jú] ^Linè
 1SgSbj [B time^L] 1PlSbj go-Ipfv] ^Lnot.know
 ‘I don’t know when we will go to Bamako.’
- e. *fⁿ* [tùwó árà bà^{nL} émé ^Ldòwò-jù] ^Linè
 1SgSbj [stone on.top.of] manner^L 1PlSbj go.up-Ipfv] ^Lnot.know
 ‘I don’t know how we will go up the mountain.’

This construction does not apply to polar (yes-no) interrogatives. It is also not available for ‘how many?’ in the absence of a corresponding abstract noun (‘quantity’). It is also awkward when the head NP is the complement of a postposition. In all these cases, the complement has the form of an unembedded interrogative clause, ending with interrogative particle *mà(→)* (421).

- (421) a. *fⁿ* [bé yér-é-sêⁿ mà→] ^Linè
 1SgSbj [3PlSbj come-Pfv.PlSbj Q] ^Lnot.know
 ‘I don’t know whether they have come.’

- b. *iⁿ* [[nǎ à:*ŋá* bà:] yǎ:-jú mà] ^L*ìnè*
 1SgSbj [person how.many Pl] go-Ipfv Q] ^Lnot.know
 'I don't know how many people will go.'
- c. *iⁿ* [émé [ànà^L yǎ:-kó=ñ] yǎ:-jú mà] ^L*ìnè*
 1SgSbj [1PlSbj [village^L which?=Dat] go-Ipfv Q] ^Lnot.know
 'I don't know which village we will go to.'
- d. *iⁿ* [bé [ìŋé gè:] yé-é: ma→] ^L*ìnè*
 1SgSbj [3PlSbj [what? for] go-Pfv.PlSbj Q] ^Lnot.know
 'I don't know why they went.'

14 Relativization

14.1 Basics of relative clauses

The following features characterize TgK relative clauses.

- the verb of the relative clause retains its basic inflectional category (aspect and negation);
- verbs in subject and nonsubject relatives are partially distinguished, primarily by tones;
- suffixal plural-subject marking (as in main clauses) is allowed in relatives wherever it is expressed by vocalic mutations in the regular suffix, but perfective plural-subject *-sɛⁿ* is not allowed in relatives;
- there are no participial or relative morphemes as such, except that a perfective relative morpheme *sáⁿ* follows the verb in perfective positive subject (and, less often, nonsubject) relatives;
- the inner portion of the head NP, maximally noun, adjective, and numeral, occurs inside the relative clause in the relativization site, where it can have any grammatical function, but both the noun-adjective sequence and the numeral are simultaneously tone-dropped;
- the linear order of adjective and numeral is optionally inverted in the head NP when both are present (§6.4.2);
- if the head NP contains a possessor, the possessor is restructured as an appositional possessive ('X's thing') preceding the head NP, which now has the same form as an unpossessed head NP;
- if the possessor itself is the head NP ('the man whose house collapsed'), both the possessor NP and the possessed NP are tone-dropped;
- if the NP complement of a postposition is the head NP, both the head NP and the postposition are tone-dropped;
- demonstratives, plural *bè*, and 'all' quantifiers that are logically part of the head NP are separated from it and are positioned after the verb (bifurcation);
- in nonsubject relatives, a subject that denotes a specific referent is obligatorily expressed as a pronoun immediately before the verb, even if the subject is also expressed as a full NP in clause-initial position;
- the relative clause proper may be followed by an {L}-toned form of a noun that resumes or agrees with the head NP, namely human singular *bàŋá* 'owner', plural *ná*, and spatiotemporal nouns like *nìŋírⁿí* 'day' and *děŋ* 'place';
- in the absence of such an {L}-toned terminal element, in some inflectional categories (but not perfective or stative positive), the inflectional suffix itself drops to L-tone if not already L-toned, and the preceding stem shifts from /LH/ to {H}-tone; this happens in the imperfective positive (subject and nonsubject relatives), and in the perfective and imperfective negative (nonsubject relatives only); one can argue that the suffixal L-tone is related to the L-tone of terminal elements described just above;
- there is a special same-subject morpheme *má* used when the subject of a nonsubject (e.g. object) relative is coindexed with the subject of the main clause.

14.1.1 Coordinated relatives with a shared head

It is not possible to conjoin two relative clauses with a shared head. Instead, the first clause is expressed in the appropriate chaining or subordinated form, so that only the final clause is relativized. For example, in (422) the initial ‘spend night’ clause has pseudo-conditional form, so only the ‘pass’ clause is relativized as such.

(422)	<i>Iⁿ</i>	<i>[yèrìⁿL]</i>	<i>[n̄i]</i>	<i>[dà:gá]</i>	<i>túrú]</i>	
	1SgSbj	[guest ^L	[here	[night	one]	
	_{HL} <i>ná-é</i>	_{HL} <i>dè]</i>	_{HL} <i>gă-jú]</i>	_{HL} <i>iyé</i>		
	spend.night-Pfv	if]	pass-Ipfv]	want		
	‘I love a visitor who spends (=stays for) one night, then moves on.’					

14.1.2 Tone-dropping in an unpossessed NP as head of relative clause

The NPs whose form in main clauses is shown in the left-hand column of (423) appear in the form shown in the middle column when they function as heads of relatives. Underlining in the middle column indicates tone-dropping that is specifically due to the relative clause, disregarding the tone-dropping of the noun in (423b) that already applies in the nonrelative form. In (423d), the order of the modifying adjective and the numeral is also optionally inverted.

(423) Tone-dropping in unpossessed head NP in relative clauses

	regular	relative head	gloss
a. noun			
	<i>péjú</i>	<i>pèjù^L</i>	‘(a/the) sheep’
b. noun plus adjective			
	<i>pèjù^L márⁿá</i>	<i>[pèjù <u>màrn</u>à]^L</i>	‘(a/the) big sheep’
c. noun plus numeral			
	<i>péjú kúré:</i>	<i>[pèjù <u>kùré:</u>]^L</i>	‘six sheep’
d. noun plus adjective plus numeral			
	<i>[pèjù^L márⁿá] kúré:</i>	<i>[pèjù <u>kùré:</u> <u>màrn</u>à]^L</i>	‘six big sheep’
		or: <i>[pèjù <u>màrn</u>à <u>kùré:</u>]^L</i>	

Examples of these NPs as relative heads are in (424). (424d) shows Adjective-Numeral Inversion (§6.4.2), which is common but not obligatory in relative-clause heads.

(424)	a.	<i>pèjù^L</i>	<i>Iⁿ</i>	^H <i>dárⁿ-é</i>
		sheep ^L	1SgSbj	^H kill-Pfv.Rel
		‘the sheep-Sg that I killed (slaughtered).’		
	b.	<i>[pèjù märⁿà]^L</i>	<i>Iⁿ</i>	^H <i>dárⁿ-é</i>
		[sheep big] ^L	1SgSbj	^H kill-Pfv.Rela
		‘the big sheep-Sg that I killed (slaughtered).’		

- c. [pèjù *kùrè:*^L *i^m* ^H*dárⁿ-é*
 [sheep six]^L 1SgSbj ^Hkill-Pfv.Rel
 ‘the six sheep-Sg that I killed (slaughtered).’
- d. [pèjù *kùrè:* *màrnà*^L *i^m* ^H*dárⁿ-é*
 [sheep six big]^L 1SgSbj ^Hkill-Pfv.Rel
 ‘the six big sheep-Sg that I killed (slaughtered).’

The tonosyntactic brackets and superscripts in (424) are based on the assumption that the relative clause enforces tone-dropping on the entire head NP. Alternatively, one could first allow regular tonosyntax to apply, as in the left-hand column of (423), then have the relative clause complete the tonosyntactic operation by tone-dropping those words that were not already tone-dropped.

14.1.3 Addition of a possessor NP to a relative-clause head NP

A possessed NP functioning as relative-clause head is restructured as an appositional possessive of the type *[X^L kè] Y* ‘(the) Y of X’, literally ‘[X’s thing] Y’ with Y in apposition to ‘thing’; see §14.1.3. This applies both to nonappositional possessed NPs, elsewhere *[X^{(H)L} Y]* except for 1Sg possessor *[Y mà]*, and to appositional possessed NPs of the form *[Y [X^L kè]]*. In other words, the distinction between appositional and nonappositional possessive constructions is neutralized in relative-clause head function. The restructuring also applies equally to possessed kin terms (classic inalienables) and to other possessed NPs. In relative-clause head NP function, the combination including ^L*kè* precedes rather than follows the main possessed NP.

Since *kè* is already L-toned we cannot determine if it would have been tone-dropped by the relative clause. The possessor NP itself (X in the formulae above) has its regular form (tonally and otherwise).

(425) Restructuring of possessed NP functioning as relative-clause head

regular	head NP	gloss
a. pronominal possessor		
<i>dě:ⁿ mà</i>	<i>[fⁿ L kè] dě:ⁿL</i>	‘my elder same-sex sib’
<i>gírⁿí mà</i>	<i>[fⁿ L kè] gírⁿí^L</i>	‘my house’
<i>gírⁿí^L [fⁿ kè]</i>	“ ”	“ ”
<i>ú^H ísí</i>	<i>[ú^L kè] ísí^L</i>	‘your-Sg dog’
b. nonpronominal possessor		
<i>sè:dú^H gírⁿí</i>	<i>[sè:dú^L kè] gírⁿí^L</i>	‘Seydou’s house’

The possessor in this appositional construction has no tonal effect on the possessum. That is, there are no tonosyntactic-island effects by which a possessor-possessum combination has its tones locked, so that a relative clause or a demonstrative cannot effect tone-dropping within the island.

Instead, in TgK the possessum as head of a relative undergoes tone-dropping (and optional reordering of adjective and numeral) in exactly the same way that it would have without the possessor. The relationship between regular and relative-head forms of

possessums, using ‘Seydou’ as possessor, is shown in (426). As before, underlining indexes tone-dropping due specifically to the relative clause (from the perspective of an unpossessed NP in its regular form). If we remove *[sè:dú^Lkè]* from the middle column, there would be no change in the possessum.

- (426) Tone-dropping in possessed head NP in relative clauses

regular	relative head	gloss
a. noun		
<i>sè:dú^Hpéjú</i>	<i>[sè:dú^Lkè] pèjù^L</i>	‘S’s sheep-Sg’
b. noun plus adjective		
<i>sè:dú^{HL}[péjú mārⁿà]</i>	<i>[sè:dú^Lkè] [pèjù mārⁿà]^L</i>	‘S’s big sheep-Sg’
c. noun plus numeral		
<i>sè:dú^{HL}[péjú kùrè:]</i>	<i>[sè:dú^Lkè] [pèjù kùrè:]^L</i>	‘S’s 6 sheep’
d. noun plus adjective plus numeral		
<i>sè:dú^{HL}[péjú mārⁿà kùrè:]</i>		‘S’s 6 big sheep’
	<i>[sè:dú^Lkè] [pèjù mārⁿà kùrè:]^L</i>	
or:	<i>[sè:dú^Lkè] [pèjù kùrè: mārⁿà]^L</i>	

While true (referential) possessors have not been found directly preceding relative heads, the definite morpheme *kó* (originally possessive ‘its’ and still controlling a possessive-type overlay on the following noun) is attested in a relative head. The phrase *kó^Hbájá*, originally ‘its (=that one’s) owner’ can mean ‘the fellow, the chap’, denoting a nonspecific discourse referent. Both words are tone-dropped as relative head in (427).

- (427) *[[kò bájá]^L s᷑: y᷑:-rò]*
 [[Def owner]^L thing accept-IpfvNeg.Rel]
 ‘the guy who wouldn’t accept the thing’ (2011.1a.15)

14.1.4 Restrictions on the head noun in a relative clause

A personal pronoun may not directly head a relative. Instead, we get an autonomous relative clause containing ‘person’ or ‘owner’, with the pronoun on the margins in apposition.

- (428) *émé [nà^L nî yèré sáⁿ nà]*
 1PlSbj [person^L here come Pfv.Rel Pl]
(émé) y᷑wɔ̡-lâ:
 (1PlSbj) accept-PfvNeg.PlSbj
 ‘We (the people) who have come here do not agree.’

14.1.5 Relative clause with conjoined NP as head

NPs are conjoined by juxtaposition, with dying-quail intonation (final syllable prolonged, with declining pitch unless already L-toned), see §7.1.1. It is possible for the conjoined NP as

a whole to function as head NP of a relative. In this case, both conjuncts are subject to tone-dropping (unlike the usual situation in Jamsay, for example). The dying-quail intonation persists, but since the nouns are now {L}-toned the only audible effect of this intonation is prolongation. The verb can be morphologically plural, and the relative-clause final plural morpheme *nà* is used, even in (429b) where the conjuncts are individually singular.

- (429) a. *[àrⁿá: nɛ:]* *já* *jày-é-è:-sêⁿ*
 [man.& woman.&] fight(n) fight-MP-Pfv-PlSbj
 ‘A man and a woman had a fight (squabble).’
- b. *[àrⁿà → nè →]^L* *já* *jày-é-è:* *sáⁿ* *nà*
 [man.& woman.&]^L fight(n) fight-MP Pfv.Rel Pl
 ‘the man and the woman who had the fight’

Expressions with double plural *bè* like ‘men and women’ in (430a) that usually do not have an audible dying-quail effect also undergo tone-dropping as relative head (430b). It is not possible to determine whether plural *bè*, which is already L-toned, would have undergone tone-dropping.

- (430) a. *[àrⁿá bè] [nɛ bè]* *já* *jày-é-è:-sêⁿ*
 [man Pl] [woman Pl] fight(n) fight-MP-Pfv-PlSbj
 ‘The men and the women had a squabble.’
- b. *[[àrⁿà bè] [nè bè]]^L*
 [[man Pl] [woman Pl]]^L
 já *jày-é-è:* *sáⁿ* *nà*
 fight(n) fight-MP-Pfv Pfv.Rel Pl
 ‘the men and the women who had a fight’

14.1.6 Headless relative clause

Elicitation attempts suggested that headless relatives are not readily allowed. At least a semantically light head noun ('person', 'thing', 'place', etc.) appeared in elicited examples, even in most adverbial relatives. However, a relative clause with no overt internal head is possible in adverbial clauses, see §15.5.3.

14.1.7 Resumptive {L}-toned element after relative

In this construction, which appears to occur chiefly in temporal, spatial, and manner adverbial clauses, the head NP ('time', 'place', 'manner' or the like) occurs as usual inside the relative clause, but a resumptive copy in {L}-toned form also appears after the relative clause (i.e. after the verb). The {L} tone pattern suggests that the copied noun may have originally been treated (tono-)syntactically as “possessed,” but synchronically this is less apparent in TgK than in the other Dogon languages that allow such resumptive copies, since the common possessor-controlled overlays in TgK are {H} and {HL}, with {L} limited to two common nouns (§6.2.1.3). So TgK native speakers are free to reanalyse the construction in other ways, possibly as a surface-y copying process (since the clause-internal head noun is also tone-dropped).

Examples with ‘day’ are in (431). For more examples of this general pattern see §15.3 (temporal adverbial clauses), §15.5.1 (spatial adverbial clauses), and §15.5.2 (manner adverbial clauses).

- (431) a. [nìŋìr^{n̄i}^L ú ^Hyéré] ^Lnìŋìr^{n̄i}
 [day^L 2SgSbj come.Pfv] ^Lday
 ‘(on) the day when you-Sg came’
- b. [nìŋìr^{n̄i}^L yéré ú ^Lbè-jù] ^Lnìŋìr^{n̄i}
 [day^L come 2SgSbj get-Ipfv] ^Lday
 ‘(on) the day when you-Sg can come’

I have one elicited example, (432), with the same meaning as (431b), where a **linking morpheme** *mà* appears between the verb and the resumptive copy.

- (432) [nìŋìr^{n̄i}^L yéré ú ^Lbè-jù] ^Lmà ^Lnìŋìr^{n̄i}
 [day^L come 2SgSbj get-Ipfv] (link) ^Lday
 ‘(on) the day when you-Sg can come’

In Jamsay, where *mà* is the alienable possessive morpheme, its regular presence before the resumptive copy confirms the synchronic nature of the construction as possessive: “(the) day of [the day when you can come].” In TgK, by contrast, it is difficult to assign a function to this infrequently occurring *mà*, or to determine its connection (if any) to the use of H-toned *má* connecting a nonsubject relative to a main clause with a shared subject (§14.1.10). It can hardly be directly equated to 1Sg possessor *mà*, unless the latter is taken as a default possessor.

The adverbial relative type with copied head noun is structurally parallel to a relative type with a postverbal {L}-toned noun or particle that agrees with, but is not lexically identical to or synonymous with, the internal head. This includes relatives with postverbal ^Lbàŋà ‘owner’ for singular human head, *nà* for plural head, or ^Ldàyⁿ ‘all’. Examples of all three are in (442b-d) in §14.1.9.1. Also belonging here are manner adverbial relatives ending in ^Lgì:ⁿ ‘like’, since *gí:ⁿ* ‘like’ is rather noun-like; see (202) in §8.4.1.

Postpositions can be added to the relative clause plus {L}-toned final element.

- (433) a. [nà^L yéré sáⁿ ^{bàŋà]=n̄}
 [person^L come Pfv.Rel owner]=Dat
 ‘to the person who came’
- b. [nà^L yéré sáⁿ ^{nà]=n̄}
 [person^L come Pfv.Rel Pl]=Dat
 ‘to the people who came’

However, in (450f) in §14.1.9.2, a postposition *bè* is added to the postverbal noun, and in this construction instead of {L}-toned ^Ltéŋè ‘time’ we find {H}-toned ^Htéŋé, which is the regular tone overlay for a possessed CvCv noun. This is an indication that this noun retains something of its original syntactic character as a possessed noun. Compare (205) in §8.4.3.1.

14.1.8 Preverbal subject pronominal in relative clause

When the head NP is other than the subject of the relative clause, the subject must be expressed by an immediately preverbal proclitic subject pronoun, provided that it denotes a specific referent (434b). It has the same form as a clause-initial subject pronoun in a main clause (434a). In particular, the 1Sg form is *iⁿ* in both cases. The subject pronoun is required even when a fuller subject NP has already appeared clause-initially (434c).

- (434) a. *iⁿ yá: péjú dàrⁿ-é*
 1SgSbj yesterday sheep kill-Pfv
 'I killed (=slaughtered) a sheep yesterday.'
- b. *yá: pèjù^L iⁿ ^Hdárⁿ-é*
 yesterday sheep^L 1SgSbj ^Hkill-Pfv
 'the sheep-Sg that I killed yesterday'
- c. *sè:dú yá: pèjù^L wó ^Hdárⁿ-é*
 S yesterday sheep^L 3SgSbj ^Hkill-Pfv
 'the sheep-Sg that Seydou killed yesterday'

In main clauses, verbs are optionally marked for plurality of subject. In relative clauses, it would seem to be unnecessary to mark plurality in the verb since this information is already given elsewhere in the clause. In nonsubject relatives, as just indicated, an overt subject proclitic is obligatory. In subject relatives, the subject normally appears as a tone-dropped overt head NP, and (for human heads) plurality is marked by clause-final particle *nà*. However, plural-subject marking within the verb itself does occur in relatives. This is clearly the case with (perfective and imperfective) negative verbs, and with the progressive, all of which express subject plurality by vocalic mutations. It may also be the case with the imperfective (positive), but the difficulty of distinguishing *-ju* from plural-subject *-ji* (with H- or L-tones) makes this less certain. On the other hand, in the perfective (positive), the plural-subject suffix *-sêⁿ* is not used in relatives, most likely because it occupies the same slot as the (perhaps historically related) perfective relative *sáⁿ* found chiefly in subject relatives. So main clause (435a) loses its *-sêⁿ* suffix in relatives (435b).

- (435) a. *bé yá: péjú dàrⁿá-sêⁿ*
 3PLSbj yesterday sheep kill-Pfv.PL Sbj
 'They killed (=slaughtered) a sheep.'
- b. *yá: pèjù^L bé ^Hdárⁿ-é (#dàrⁿá-sêⁿ)*
 yesterday sheep^L 3PLSbj ^Hkill-Pfv
 'the sheep-Sg that they killed yesterday'

14.1.9 Relative-clause verb

The following sections describe the form of the verb in relative clauses. The primary inflectional categories in main clauses (perfective/imperfective, positive/negative) are maintained in relative clauses. Given the general lack of suffixal morphology for nouns and pronouns in TgK, it is difficult to determine whether the verb in a relative clause is basically a verb or an adjective.

(436) is a brief summary of the data for the main inflectional categories that are given in more depth in the following sections. There are additional tonal changes on the stems from main clause to relative clause, except in the imperfective negative.

(436) Relative-clause verb (S = subject relative, NS = nonsubject relative)

category	relative clause	main clause
perfective	<i>sáⁿ</i> (S) - <i>e</i> ~ - <i>e</i> ~ - <i>i</i> (NS)	- <i>e</i> ~ - <i>e</i> ~ - <i>i</i> , plural <i>sé̂n</i> ~ <i>sé̂n</i>
imperfective	- <i>jú</i> ~ - <i>jù</i>	- <i>jú</i> , plural - <i>jé</i>
perfective negative	- <i>lí</i> , plural - <i>lâ:</i>	- <i>lí</i> , plural - <i>lâ:</i>
imperfective negative	- <i>rò</i> , plural - <i>rè</i>	- <i>rò</i> , plural - <i>rè</i>

14.1.9.1 Positive perfective-system verbs in relative clauses

The suffixed plural-subject perfective forms in (-*ɛ:*)-*sé̂n* that occur in main clauses are not possible in relative clauses.

In perfective nonsubject relatives, the perfective has its regular form segmentally, but with an {H} tone overlay. Nonsubject relatives from verbs whose perfectives end in {-*e* ~ -*e*} are exemplified in (437). The corresponding main-clause perfective form is shown in parentheses. Since the main-clause plural-subject suffix -*sé̂n* is not allowed in relatives, these verbs cannot be marked for plurality.

(437) Perfective nonsubject relatives with final -*e* ~ -*ɛ*

- a. *nà^L* *iⁿ* ^H*ó-ɛ* *nà*
person^L 1SgSbj ^Hsee-Pfv.Rel Pl
'the people that I saw' (*ɔ̄-ɛ̄*)
- b. *nàŋà^L* *iⁿ* ^H*pág-ɛ* *nàŋà*
cow^L 1SgSbj ^Htie-Pfv.Rel
'the cow that I tied' (*pág-ɛ̄*)
- c. *tùwò^L* *iⁿ* ^H*dág-ɛ* *tùwò*
stone^L 1SgSbj ^Hleave-Pfv.Rel
'the stone that I left' (*dág-ɛ̄*)
- d. *[ɔ̄jɔ̄* *gè:^L* *bé* ^H*dág-ɛ*
[thing for]^L 3PlSbj ^Hleave-Pfv.Rel
'the thing (=reason) for which they have abandoned (it)' (2011.1a.15) (*dág-ɛ̄*)
- e. *[úŋúrⁿú* *[ú* ^{HL}*hákilè],* *nà^L* ^H*dá-ɛ*
[question [2SgPoss ^{HL}mind], place^L ^Harrive-Pfv.Rel
'a question where your-Sg mind has arrived' (2011.1a.17) (*dá-ɛ̄*)
- f. *nà^L* *iⁿ* ^H*náj-ɛ* *kà:ⁿ*
place^L 1SgSbj ^Hforget.Pfv.Rel also
'any place (=topic) that I have forgotten' (2011.1a.17) (*náj-ɛ̄*)

- g. [bàⁿ^L bé ^Hbír-é] gì:ⁿ
 [manner^L 3PlSbj ^Hdo-Pfv.Rel] like
 ‘the (same) way they did’ (2011.1a.25) (*bíré*)
- h. [nújù jà^L kó ^Hgó-é kà:ⁿ] Lìnè
 [song place^L NonhSbj ^Hgo.out-Pfv.Rel even] Lnot.know
 ‘(They) didn’t even know where the song came from’ (2011.1b.03) (*gó-é*)

Nonsubject relatives with verbs whose perfective ends in a high vowel are in (438). Again, suffix *-séⁿ* is not allowed, but the augment *-é:* that in main clauses precedes *-séⁿ* can indicate subject plurality (438c).

(438) Perfective nonsubject relatives with final high vowel

- a. bàⁿ^L iⁿ ^Hpór-í
 manner^L 1SgSbj ^Hspeak-Pfv.Rel
 ‘the way I spoke’ (2011.1a.02) (*pór-i*)
- b. jó→ jà^L ú ^Hmó:-n-ú
 a.lot place^L 2SgSbj ^Hassemble-Caus-Pfv.Rel
 ‘the place where you-Sg have gathered together a lot (of it)’ (2011.1a.11) (*mó:-n-ú*)
- c. né: [sò: jò:]^L émé ^{HL}pór-é:
 now [thing many]^L 1PlSbj ^{HL}speak-Pfv.PlSbj.Rel
 ‘the many things that we have spoken of’ (2011.1a.32)

A more systematic presentation of the verb forms is (439).

(439) Verbs in perfective nonsubject relative clauses

main clause	nonsubject relative	gloss
a. monosyllabic with <i>-e/-é</i>		
/HL/ to {H}		
ó-é	^H ó-é	‘give’
á-é	^H á-é	‘catch’
/LHL/ to {H}		
đ-é	^H đ-é	‘see’
nđ-é	^H nđ-é	‘drink’
b. monosyllabic with <i>-y</i>		
/HL/ to {H}		
jí-ý ⁿ	^H jí-ý ⁿ	‘eat (meal)’
nú-ý ⁿ	^H nú-ý ⁿ	‘go in’
/HL/ to {H}, no <i>-y</i>		
jé-ý	^H jé	‘take away’
/LHL/ to {H}, no <i>-y</i>		
yě-ý	^H yé	‘go’

c. bisyllabic			
/HL/ to {H}			
pág-é	H pág-é		'tie'
/LHL/ to {H}			
dág-é	H dág-é		'leave'
/LHL/ to {H}			
gúŋ-í	H gúŋ-Ø		'take out'
bák-í	H bák-í		'send'

d. trisyllabic			
/HL/ to {H}			
súnú-g-í	H súnú-g-í		'take down'
/LHL/ to {H}			
júnú-g-í	H júnú-g-í		'ruin'

As shown just below, a morpheme *sáⁿ* is obligatory in perfective subject relatives. Rarely, a perfective nonsubject relative includes this morpheme after the verb, which has bare-stem form. The only nonsubject example I have, (440), occurred in elicitation, in a spatial adverbial clause (§15.5.1) with a following tone-dropped terminal noun ('place').

- (440) [[nàŋá *pà*^L bàgá *sáⁿ*] ^Ldèŋ] yǎ:
 [[cow place^L fall Pfv.Rel] place] go.Imprt
 'Go-2Sg to the place where the cow fell!'
 (also [nàŋá *pà*^L bàg-é] ^Ldèŋ])

In perfective subject relatives, the verb is followed by perfective relative *sáⁿ*. This and same-subject *má* are the only specifically relative morphemes in any inflectional category. *sáⁿ* is obscurely related to perfective plural-subject morpheme *-séⁿ*, and (even more distantly) to the 'have' quasi-verb *sà* (and variants). Care should be taken to distinguish perfective relative *sáⁿ* from universal quantifier *sâⁿ* 'all' (long vowel) and from reflexive *săⁿ* (<LH> tone).

Cv: and most *CvCv* stems add *sáⁿ* to the bare stem, which always ends in an H-tone. Lexical tones, /H/ versus /LH/, are respected.

- (441) Perfective subject relatives, *sáⁿ* added to bare stem

- a. *nà*^L *yéré* *sáⁿ*
 person^L come Pfv.Rel
 'the person who came'
 (less often extended as: *nà yéré sáⁿ bàŋà*)
- b. *nà*^L *yéré* *sáⁿ* *nà*
 person^L come Pfv.Rel Pl
 'the people who came'
- c. *tùwò*^L *bágá* *sáⁿ*
 stone^L fall Pfv.Rel
 'the stone that fell (off)'

- d. *kà:ná* [nù:^L kà:ná] yèr-é: émé témé sáⁿ
now [millet^L new] come-and.SS 1PlObj find Pfv.Rel
‘Now the new (kind of) millet that came and found us (=that was introduced recently)’ (2011.1a.07)
- e. àrⁿà-ùrⁿù^L pě jàŋá sáⁿ nà
boy^L woman take Pfv.Rel Pl
‘boys who have taken a woman’ (i.e. married men) (2011.1a.14)

For the plural *sáⁿ nà*, another speaker gave a variant *sé nà*, with *e*-vowel marking plurality, as in several verban inflectional suffixes.

Verbs whose bare stem and (main-clause) perfective end in a high vowel, including all heavy stems (trimoraic and longer) as well as some *CvCv* stems, plus all extra-short *Cv* stems, have -è: *sáⁿ* regardless of subject number (442a-e). Compare plural-subject perfective -è: *séⁿ* for the same verbs (with the same tones), and plural-subject -è: in perfective nonsubject relatives. Prepausally, -è: *sáⁿ* is heard as -è: *sàⁿ* with the L-tone extended into the particle (442a), but the H-tone is restored (-è: *sáⁿ*) when there is a following L-toned terminal element (442b-e).

(442) Perfective relatives, -è: *sàⁿ* (-è: *sáⁿ* before terminal element)

- a. nà^L kó pór-è: sàⁿ
person^L NonhObj say-Pfv Pfv.Rel
‘the person who said that’
- b. [sàjù^L kír-è: sáⁿ] dàyⁿ
[bird^L fly-Pfv Pfv.Rel all
‘all the birds that flew away’
- c. [nà gírⁿí jùnú-g-è: sáⁿ] ^Lbàŋà
[person^L house be.ruined-Caus-and.SS Pfv.Rel] ^Lowner
‘the person who ruined the house’
- d. [nà^L gírⁿí jùnú-g-è: sáⁿ] nà
[person^L house be.ruined-Caus-and.SS Pfv.Rel] Pl
‘the people who ruined the house’
- e. [nà^L y᷑: pór-è: sáⁿ] ^Lbàŋà
[person^L NearDist say-and.SS Pfv.Rel] ^Lowner
‘the person who said that’
(*pór-ì* rejected in this context)

Table (443) presents the verb forms more systematically.

(443) Verbs in perfective subject relative clauses

regular	in subject relative	bare stem	gloss
a. Cv with -è: sà ⁿ (~ sá ⁿ)			
lexically /H/			
ó-è	ó-è: sà ⁿ (~ sá ⁿ)	ó	'give'
nú-ỳ ⁿ	nú-è: sà ⁿ (~ sá ⁿ)	nú	'go in'
lexically /HL/			
jé-ỳ	jé-è: sà ⁿ (~ sá ⁿ)	jé	'take away'
lexically /LH/			
yě-ỳ	yě-è: sà ⁿ (~ sá ⁿ)	yě	'go'
b. Cv: with bare stem plus sá ⁿ			
lexically /H/			
jí-ỳ ⁿ	jí: sá ⁿ	jí:	'eat (meal)'
á-è	á: sá ⁿ	á:	'catch'
lexically /LH/			
њ-è	њ: sá ⁿ	њ:	'see'
nњ-è	nњ: sá ⁿ	nњ:	'drink'
c. bisyllabic ending in nonhigh vowel, with bare stem plus sá ⁿ			
lexically /H/			
pág-è	págá sá ⁿ	págá	'tie'
lexically /LH/			
dág-è	dágá sá ⁿ	dágá	'leave'
d. bisyllabic ending in high vowel, with -è: sà ⁿ (~ sá ⁿ)			
lexically /H/			
pór-ì	pór-è: sà ⁿ (~ sá ⁿ)	pórù	'say'
lexically /LH/			
gුŋ-ì	gුŋ-è: sà ⁿ (~ sá ⁿ)	gුŋ	'take out'
bා:r-ì	bා:r-è: sà ⁿ (~ sá ⁿ)	bා:rì	'send'
e. trisyllabic, with -è: sà ⁿ (~ sá ⁿ)			
lexically /H/			
súnú-g-ì	súnú-g-è: sà ⁿ (~ sá ⁿ)	súnú-gì	'take down'
lexically /LH/			
jùnú-g-ì	jùnú-g-è: sà ⁿ (~ sá ⁿ)	jùnú-gì	'ruin'
f. mediopassive			
kír-ì:	kír-è: sà ⁿ (~ sá ⁿ)	kír-ì:	'jump'

As in other inflectional categories, the verb of a perfective relative clause may be immediately followed by an {L}-toned terminal element. The common ones are human singular ^Lbàŋà, plural ^Lnà, ^Ldàyⁿ 'all', near-distant demonstrative ^Lyð:, and {L}-toned nouns ('day', 'place', etc.) in spatiotemporal and manner adverbial clauses. The one restriction is that human singular ^Lbàŋà is generally omitted after sáⁿ in subject relatives, see (441) above. An informant grudgingly accepted sáⁿ ^Lbàŋà as grammatical but I have no examples from

texts or free elicitation. However, its plural *sáⁿ nà* is regular. Examples with terminal elements are in (444).

- (444) a. *nà^L* *Iⁿ* ^H*súnú-g-í* *nà*
 person^L 1SgSbj go.down-Caus-Pfv.Rel Pl
 ‘the people that I brought down’
- b. *nà^L* *Iⁿ* ^H*súnú-g-í* ^L*yð:*
 person^L 1SgSbj go.down-Caus-Pfv.Rel ^LNearDist
 ‘that person that I brought down’
- c. *[nìŋìrⁿi^L* *Iⁿ* ^H*yér-é]* ^L*nìŋìrⁿi*
 [day^L] 1SgSbj come-Pfv.Rel] ^Lday
 ‘the day when I came’

Except in spatiotemporal and manner adverbials like (444c), there is no default terminal element after a nonsubject (e.g. object) relative with nonhuman head NP, though for such nouns plurality is optionally expressed by *nà* as for humans.

The experiential perfect (*-té-jè*) can also be relativized. A subject relative is in (445).

- (445) *[nà^L* *bàmàkó* *yǎ:-^Hté-jé]* ^L*bàŋà*
 [person^L] B go-^HExpPerf-RecPerf] ^Lowner
 ‘a person who has (ever) gone to Bamako’

For a nonsubject relative, see (238b) in §10.1.1, where the position of the preverbal subject pronoun immediately before *-té-jé* provides evidence that the latter is a chained auxiliary verb (*té-jé*), at least as far as the syntax is concerned.

Example (238a) in §10.1.1 is a relative based on the recent perfect with *jê* (which appears in relatives as *jé*). Again, the position of a subject pronoun shows that *jê* is a chained auxiliary verb. However, my assistant was generally reluctant to produce relatives including *jé*, preferring to express the relevant senses with the perfective.

14.1.9.2 Positive imperfective-system verbs in relative clauses

In texts, most imperfective relatives are nonsubject relatives. This is because imperfective subject relatives compete with simple and compounded agentives (§4.2.6, §5.1.5).

As in main clauses, it is difficult to consistently hear the distinction between singular-subject *-jú* ~ *-nú* and plural-subject *-jí* ~ *-ní*, so my transcriptions should not be relied on in this matter.

In imperfective nonsubject relatives, the verb has the same segmental form as in main clauses (except that no plural-subject marking is allowed). However, imperfective suffix *-jú* ~ *-nú* drops to L-toned form *-jù* ~ *-nù* in a relative clause, at least in lexically /H/-toned verbs, whose main-clause imperfectives (stem plus suffix) are entirely {H}-toned. In (446), note the L-toned suffix. Since this tone change is confined to the rightmost syllable, I indicate it by superscript ^{+L}.

(446) Nonsubject imperfective relatives, /H/-toned stem

- a. *è:rè^L-[biùgùj-ú]* *bé* *pó-jù^{+L}*
 peanut^L-[turn.over.earth-VblN] 3PlSbj say-**Ipfv.Rel^{+L}**
 ‘what they say (=call) “turning over (earth) for peanuts” ’(2012.1a.20)
- b. *jà^L* *iⁿ* *pó-jù^{+L}*
 place^L 1SgSbj speak-**Ipfv.Rel^{+L}**
 ‘the place (=topic) that I am speaking (=asking about) ‘ (2011.1a.02)
- c. *[[è:rè^L-wòrú bîn] bé páná-jù^{+L}]*
 [[peanut^L-field in] 3PlSbj cross.plant-**Ipfv.Rel^{+L}**]
[kó [iyà:-kɔ]-tògí]=:
 [NonhSbj [[which?]^L-type]=it.is]
 ‘What they cross-plant in the peanut field, what type (of roselle) is it?’
 (2011.1a.26)
- d. *tògùrú bîn] bé kúnó-jù^{+L}*
 [basket in] 3PlSbj put-**Ipfv.Rel^{+L}**
 ‘(the way) they put (millet) in a basket’ (2011.1a.13)
- e. *ú=ñ ùpùrⁿù^L* *iⁿ* *úpúrⁿɔ-jù^{+L}*
 2Sg=Dat question^L 1SgSbj inquire-**Ipfv.Rel^{+L}**
 ‘the question that I will ask of you-Sg’ (2011.1a.29)
- f. *né: pùrⁿú* *[kó bè]* *bé* *téré-jù^{+L}*
 now cream.of.millet [Nonh with] 3PlSbj pound-**Ipfv.Rel^{+L}**
 ‘(the type) such that they pound (and cook) cream of millet with it (they call it ...)’ (2011.1a.27)
- g. *ni^L* *[wòrú bîn]* *bé* *pájá-jù^{+L}*
 cow.pea^L [field in] 3PlSbj crossplant-**Ipfv.Rel^{+L}**
 ‘the cow-peas that they cross-plant in the field, ... ’ (2011.1a.29)

Clause-final word-level tone-dropping does not seem to be common in relative forms of /H/-toned verbs, but it does occur in (447), with a monosyllabic verb stem.

- (447) *[kě: bà→] [sòⁿ^L nă ^Là:jù] y᷑ k᷑*
 [formerly] [horse^L] person ^Lcatch-Ipfv] Exist be.NonhSbj
 ‘Formerly, there were horse(-men) who captured people.’ (2011.1b.01) (< *á:jú*)

When such an imperfective relative verb is followed by an {L}-toned terminal element, the suffix is raised to H-toned *-jú* ~ *-ju* (448). See also (450) below.

- (448) a. *[nà^L bé lágá-jú^{+H}]* ^L*bànjà*
 [person^L 3PlSbj hit-**Ipfv.Rel^{+H}**] ^Lowner
 ‘the person who(m) they will hit’

- b. [núŋú *nà*^L wó nút-pú^{+H}] *dèŋ*
 [song place^L 3SgSbj sing-Ipfv.Rel^{+H}] place
 ‘the place where he sings’
- c. [nú: báⁿ^L é lé:-jú^{+H}] gí:ⁿ
 [millet manner^L 2PlSbj slash.earth-Ipfv.Rel^{+H}] like
 ‘like the way you-Pl slash (=plant) millet’ (2011.1a.30)
- d. [báⁿ^L wó pó-jú^{+H}] gí:ⁿ
 [manner^L 3SgSbj say-Ipfv.Rel^{+H}] like
 ‘the way she was saying’ (2011.1b.03)

A possible historical explanation for the final-syllable tone alternations is that the final L-tones in (446) above were generalized from the tonal definite, and that the terminal elements in (448) were incompatible with such definite marking. But this cannot be extended to perfective positive relative verbs (which end in H-tones), or even to other imperfective forms (see below), so it will not work as a general synchronic analysis.

The tonal treatment of imperfective relative verbs from lexically /LH/-toned stems is more variable. There are two basic treatments, one of which is also subject to two further contingent modifications, for a total of four output possibilities.

The first treatment is to keep the /LH/ melody for verb stems of more than two moras, followed by an H-toned imperfective suffix regardless of syntactic context. Prosodically light /LH/-toned stems (*CV*, *CV:*, *CVCV*) get an {H} overlay, plus the same H-toned suffix. This pattern is consistently found with (subjectless) instrumental relative compounds with senses like ‘oil for rubbing’ and ‘something to do’, see §5.1.12 for examples.

The second treatment applies to ordinary imperfective relatives clauses, i.e. those with more or less referential subjects. This pattern differs from that just described for instrumental relative compounds only in that the imperfective suffix is L-toned. Prosodically light /LH/-toned stems (*CV*, *CV:*, *CVCV*) shift to /H/, as in instrumental relative compounds (and as in main-clause imperfectives), while heavier stems (three or more moras) have their lexical /LH/ melody.

In (449) we see the unmodified melody, with /LH/- or (prosodically light) {H}-toned stem plus L-toned suffix. This is the usual output for prosodically heavy verb stems in imperfective relatives not followed by an {L}-toned terminal element (449a-c). In my data, prosodically light (up to two moras) /LH/-toned stems are always tone-dropped except in very short relative clauses as in (449d-e) with just a head noun and a pronominal subject.

- (449) a. *nà*^L *yé* wògótóró *bé* *núnú-gó-jù*^{+L}
 place^L go cart 3PlSbj be.ruined-Caus-Ipfv.Rel^{+L}
 ‘the place where they ruin carts’
- b. *nà*^L *yé* é *mž:-nž-pù*^{+L}
 place^L go 2PlSbj assemble-Caus-Ipfv.Rel^{+L}
 ‘the place where you-Pl go and assemble (them)’ (2011.1a.12)
- c. *nà*^L [*nà*^L *túnž*^{+L}] *bé* *mž:-nž-pù*^{+L}
 place^L [place^L one.Loc^{+L}] 3PlSbj assemble-Caus-Ipfv.Rel^{+L}
 ‘the place where they collect (the roselle) in one spot’ (2011.1a.28)

- d. *nà^L* *bé* ^H*nó:-nù^{+L}*
 place^L 3PlSbj ^Hdrink-Ipfv.Rel^{+L}
 ‘the place where they drink’
- e. *lò:tu^L* *bé* ^H*dágá-jú^{+L}*
 hair.crest^L 3PlSbj ^Hleave-Ipfv.Rel^{+L}
 ‘the crest that they leave (in braiding hair)’ (2011.1b.03)

(448) above showed that a following {L}-toned terminal element induces the imperfective suffix to shift back to H-tone. Further examples of this are (450a-b). The same tone pattern occurs before a universal quantifier (450c), same-subject *má* (450d), or a postposition (450f).

- (450) a. *[gìrⁿí báⁿ^L kó ^Hyé-jú^{+H}] Ldàwìrà*
 [house manner^L NonhSbj ^Hcome-Ipfv.Rel^{+H}] Lsolution
 ‘the solution (=technique) by which it (=millet) will come to the houses’
 (2011.1a.13) (*yé-jú* from *yérē*)
- b. *[báⁿ^L ^Hwá-jú^{+H}] Ldàyⁿ*
 [manner^L ^Hdo.farming-Ipfv.Rel^{+H}] Llimit
 ‘the same way (you) farm groundnuts’ (2011.1a.20) (stem *wàra*)
- c. *dà:gà^L ^Hdé:-jú^{+H} wò→*
 night^L ^Hnight.fall-Ipfv.Rel^{+H} each
 ‘(on) each night that fell’ (2011.1a.15) (stem *dě:*)
- d. *[[ú gó-nú^{+H}] má] Ldàyⁿ]*
 [[2SgSbj be.able-Ipfv.Rel^{+H}] Rel.SS] Llimit
 ‘all that (=as much as) you-Sg could (carry) of it (=millet)’ (2011.1a.13) (for *má*,
 see §14.1.10) (stem *gòrⁿó*)
- e. *[é:ré báⁿ^L bùgújó-jú^{+H}] gì:ⁿ*
 [peanut/groundnut manner^L turn.over-Ipfv.Rel^{+H}] like
 ‘the (same) way (they) turn over (earth) (for) nuts’ (2011.1a.23)
- f. *[gú-gúrú bá mó:mó-jú^{+H}] ^Htéjé] bè*
 [grass 3PlSbj uproot-Ipfv.Rel^{+H}] ^Htime] with
 ‘at the time when they are uprooting the weeds’ (2011.1a.20)

On the other hand, an /LH/-toned verb often appears in imperfective relatives in tone-dropped form (451). This is the usual output for prosodically light /LH/-toned stems (*Cv;*, *CvCv*) in the absence of a terminal {L}-toned element, though it is also attested before *gì:ⁿ* ‘like’ and (possessed) *gí:ⁿkàⁿ* ‘something like’ (451e-f). Since clause-final tone-dropping of imperfective (and other) verbs also happens in main clauses, and since it is optional (though frequent) in both main and relative clauses, I regard this as a lower-level tone-dropping process.

(451) Nonsubject imperfective relative, {L}-toned from lexical /LH/

- a. *wáru* *bàⁿL* ^L*wà-jù*
farming manner^L ^Ldo.farming-Ipfv.Rel
'the way one does farming' (2011.1a.01) (*wǎ-jú* from *wàra*)
- b. *pú:* *[săⁿ* ^H*jám]* *bàⁿL* *kó* ^L*bè-jù*
millet [ReflPoss ^Hpeace] manner^L NonhSbj ^Lget-Ipfv.Rel
'Millet, the way it gets its well-being' (2011.1a.04) (*bě-jú* from *bèrē*)
- c. *pà^L* *úpùrⁿù* *ú* ^L*bè-jù*
place^L ask 2SgSbj ^Lget-Ipfv.Rel
'a place (=topic) that you can ask about' (2011.1a.17)
(*bě-jú* imperfective of *bèrē*)
- d. *sàjú* *bé* ^L*digè-jù*
bird 3PlSbj ^Lchase.out-Ipfv.Rel
'as they drive the birds away' (headless) (2011.1a.07) (*digé-jú*)
- e. *[ùrⁿi:^L* *dág-à→* *s̄:* ^L*jùgɔ̄-jù]* ^{HL}*gí:ⁿ-kàⁿ*
[children^L a.little thing ^Lknow-Ipfv.Rel] ^{HL}sth.like
'(those) children who have something like awareness (=maturity)' (2011.1a.07)
(*jùgɔ̄-jú*)
- f. *[ànù^L* *jǎ:ñ* *bé* ^L*nɔ̄:-nù]* *gì:ⁿ*
[roselle^L boil 3PlSbj ^Ldrink.Ipfv.Rel] like
'the roselle that they boil and drink' (2011.1a.27) (*nɔ̄:*)
- g. *[ɔ̄jɔ̄^L* *émé* ^L*dàgà-jù]* *kò:-rɔ̄*
[thing^L 1PlSbj ^Lleave-Ipfv.Rel] be.NonhSbj-Neg
'There is nothing that we are omitting.' (2011.1a.32)

Given this analysis, I conclude that the basic imperfective relative forms for /LH/-toned verb stems are {LH}-toned heavy stem and {H}-toned light stem, plus L-toned suffix. Representative examples for both /H/- and /LH/-toned verbs are in (452).

(452) Verbs in imperfective nonsubject relatives

bare	imperfective relative	gloss
a. monosyllabic		
<i>lexical /H/ to {H}+L</i>		
ó	ó- <i>jù</i> ^{+L}	'give'
á:	á- <i>jù</i> ^{+L}	'catch'
pí:	pí- <i>nù</i> ^{+L}	'eat (meal)'
<i>lexical /LH/ to {H}+L</i>		
š̄:	š̄- <i>jù</i> ^{+L}	'see'
nɔ̄:	nɔ̄- <i>nù</i> ^{+L}	'drink'
<i>lexical /HL/ to {HL}+L</i>		
jê (jâ:-)	jâ- <i>jù</i> ^{+L}	'take away'

b. bisyllabic

lexical /H/ to {H}+L

págá *págá-jù*^{+L} ‘tie’

lexical /HL/ to {H}+L

wánà *wáná-jù*^{+L} ‘fry in oil’

lexical /LH/ to {H}+L

dágá *dágá-jù*^{+L} ‘leave’

dàrⁿá *dá-jù*^{+L} ‘kill’ (*rv*-Deletion)

lexical /LHL/ to {LH}+L

gǔñ *gǔñó-jù*^{+L} ‘take out’

bǎ:ri *bǎ:rá-jù*^{+L} ‘send’

m᷑:ñ-Ø *m᷑:nó-jù*^{+L} ‘assemble [tr]’

c. trisyllabic

lexical /HL/ to {H}+L

súnú-gì *súnú-gó-jù*^{+L} ‘take down’

lexical /LHL/ to {LH}+L

jùnú-gì *jùnú-gó-jù*^{+L} ‘ruin’

An imperfective nonsubject relative can be followed by *wò→* ‘each, every’. The sense is ‘every time (that ...)’, i.e. ‘whenever ...’. Examples are (453a-b) and (450c) above. As in (450c), the L-toned final element induces a shift of the imperfective (relative) suffix back to H-tone.

- (453) a. *físí bàⁿL ú lágá-jú*^{+H} *wò→]*
 [dog manner^L 2SgSbj hit-**Ipfv.Rel**^{+H} each]
[ú ^Lkérè-jù]
 [2SgObj ^Lbite-Ipfv]
 ‘Every time you-Sg (will) hit the dog, it will bite you.’

- b. *ú yé-jú*^{+H} *wò→*
 2SgSbj come-**Ipfv.Rel**^{+H} each
 ‘each time that you-Sg come’ (2011.1a.12)

Examples of imperfective subject relatives are in (454). I can see no systematic difference in the form of verb between subject and nonsubject relatives. The basic form of the verb, with L-toned imperfective suffix and with prosodically light /LH/-toned verb stems raised to {H}, is exemplified in (454a-b). In (454c), the suffixal tone is obscured by the dying-quail conjunction intonation. The imperfective suffix shifts to H-tone before an {L}-toned terminal element in (454d), and before a tightly phrased main-clause verb in (454e). The verbs in (454f-h) are tone-dropped.

- (454) a. *gírⁿi*^L *bágá-jù*^{+L}
 house^L fall-**Ipfv.Rel**^{+L}
 ‘a house that will fall’
- b. *[nà^L nî ètě: já:-jú] nà*
 [person^L here well build-**Ipfv.Rel**^{+H}] Pl
 ‘the people who will build a well here’

- c. *dúwɔ́* *nà^L* *gó-pú^{+H}* :
load(n) person^L be.able-**Ipfv.Rel^{+H}**.&
‘(some) people who could handle the load, and ...’ (2011.1a.13)
- d. *[nà^L* *kó* *jùnú-gó-jú^{+H}*] *^Lbàjà*
[person^L] NonhObj be.ruined-Caus-**Ipfv.Rel^{+H}**] ^Lowner
‘a person who will ruin it’
- e. *ú* *[[sǎⁿ* *^Hdúwɔ́]* *bè*] *dàg-é:-jú^{+H}*]
2SgSbj [[[ReflPoss ^Hload] with] be.suited-MP-**Ipfv.Rel^{+H}**]
pág-è *dè*
tie-Pfv if
‘when you-Sg had tied up (the quantity) that was matched to your load’
(2011.1a.13)
- f. *[[nà^L* *[kó *bínì]* *bíré* *^Lbì-jù]* *tú-túrú]*
[[person^L [Nonh in] work(n) ^Ldo-**Ipfv.Rel**] one-one]
yó *kò*
Exist be.NonhSbj
‘There are a few people who work in that (way).’ (2011.1a.31)*
- g. *[nà^L* *yě* *^Lbè-jù]* *kò:-rò*,
[person^L go ^Lget-**Ipfv.Rel**] be.NonhSbj-Neg
‘there was no-one who could go (out)’ (2011.1b.05)
- h. *[sòⁿ* *nă* *^Là:-jù]* *yó* *kò*
[horse^L person ^Lcatch-**Ipfv.Rel**] Exist be.NonhSbj
‘There were horse(-men) who captured people.’ (2011.1b.01)
(< *á:-jú*)

My assistant did not approve of relatives based directly on the progressive (*-táŋà*). The imperfective relative examples given above are often used in the full range of imperfective, including progressive and habitual as well as future, contexts. However, it is possible to combine *-táŋà* with a following copula, which can be relativized, as in (455). In nonsubject relatives, a subject pronominal is required (455c-d).

- (455) a. *[nà^L* *súgó-táŋà]* *^Hwó*
[person^L go.down-Prog] ^Hbe.HumSgSbj.Rel
‘the person who is going down’
- b. *[[nà^L* *súgó-téŋè]* *^Hwé]* *nà*
[[person^L go.down-Prog ^Hbe.HumPlSbj.Rel] Pl
‘the people who are going down’
- c. *[nà^L* *súgó-táŋà]* *[wó ^Hwó]*
[place^L go.down-Prog] [3SgSbj ^Hbe.HumSgSbj.Rel]
‘the place where he is going down’

- d. [nà^L súgó-téŋè] [bé] [H wé]
 [place^L go.down-Prog.Plsbj] [3PlSbj] ^H**be.HumPlSbj.Rel]**
- ‘the place where they are going down’

14.1.9.3 Negative perfective-system verbs in relative clauses

The perfective negative in main clauses has an {L}-toned stem followed by H-toned suffix *-lì*. The form used in relatives is segmentally identical. The perfective negative, unlike positive categories, allows plural-subject marking (*-lâ*).

In subject relatives, the form of the verb is also tonally identical to the main-clause form. A plural-subject example is (456e).

- (456) a. [nà^L yè-lí] ^Lbàŋà
 [person^L come-PfvNeg.Rel] ^Lowner
 ‘(a/the) person who did not come’
- b. ìsì^L bógú bògò-lí
 dog^L barking bark-PfvNeg.Rel
 ‘the dog that didn’t bark’
- c. nà^L [sǎⁿ] ^Hnájá] págà-lí] ^Lbàŋà
 person^L [ReflPoss ^Hcow] tie-PfvNeg.Rel] ^Lowner
 ‘someone who didn’t tie up his cow’
- d. [nà^L [tù-tù:rû^{+L}] ^Lyɔ:
 [person^L [horn.Def^{+L}] ^LNearDist]
 ég-é:
 hear-and.SS yà:-lí] ^Lbàŋà
 go-PfvNeg.Rel] ^Lowner
 ‘a person who heard that horn and didn’t go (to the fields)’ (2011.1a.15)
- e. [nà^L [ðjɔ^L pɔⁿ] dàgà-lâ:] nà
 [person^L [thing^L any] leave-PfvNeg.Plsbj.Rel] Pl
 ‘people who didn’t leave anything’
- f. [séyⁿ bár'ùw'â-lí] ^Ldàyⁿ
 [very.well be.wounded-PfvNeg.Rel] ^Llimit
 ‘any (one) that were not (already) thoroughly (=badly) wounded’ (2011.1b.05)

In contrast to main clauses and to subject relatives, in a nonsubject perfective negative relative the stem is H-toned. The suffix is L-toned (*-lì*, plural *-lâ*) phrase-finally (457a-c). The tone reversal also occurs in perfective negative verbs with focalized subjects, see (403) in §13.1.1, and apparently with focalized nonsubjects, see (407b) in §13.1.2.

- (457) a. nàŋà^L fⁿ ^{HL}págá-lí
 cow^L 1SgSbj ^{HL}tie-PfvNeg.Rel
 ‘the cow that I didn’t tie up’

- c. *ðjð*^L *wó* ^{HL}*núnú-gó-lí*
thing^L 3SgSbj ^{HL}be.ruined-Caus-PfvNeg.Rel
'something that he/she didn't ruin'
- d. *ŋà*^L *[ðjð]*^L *pðn]* *éme* ^{HL}*dágá-là:*
place^L [thing^L any] 2PLSbj ^{HL}leave-PfvNeg.Rel
'a place where we didn't leave anything'

The tone of the suffix to *-lí*, plural *-lâ:*, before an L-toned terminal element (458).

- (458) a. *[àndi:]*^L *iⁿ* ^H*yá:-lí]* ^L*àndì:*
[year^L 1SgSbj ^Hgo-PfvNeg.Rel] ^Lyear
'the year when I didn't go'
- b. *[[jùgós* *mà]* *ŋà*^L ^H*dó:-lí]* ^L*dàyⁿ*
[[knowledge 1SgPoss] place^L ^Harrive.PfvNeg.Rel] ^Llimit
'wherever my knowledge has not reached' (2011.1a.31)
- b. *[fàrⁿú* *nìŋìrⁿi*^L ^H*lówó-lí]* ^L*nìŋìrⁿi*
[rain day^L ^Hrain.fall-PfvNeg.Rel] ^Lday
'the day when it didn't rain'

The experiential perfect negative, which includes the perfective negative suffix, can also be relativized.

- (459) *[ŋà*^L *bàmákó* *yà:^L-tè-lí]* ^L*bàŋà*
[person^L B go^L-ExpPerf-PfvNeg.Rel] ^Lowner
'(a/the) person who has never been to Bamako'

14.1.9.4 Negative imperfective-system verbs in relative clauses

The verb takes the same imperfective negative form segmentally as in main clauses, but undergoes a tonal change in nonsubject relatives. As in the perfective negative, plural-subject marking is allowed.

Subject relatives are in (460). The verb has the same tones as in main clauses. This construction is especially common in double negations with *kð:-rð* 'does not exist' like (460f). A plural-subject example is (460c).

- (460) a. *[ŋè*^L *nî* *yë:-rò]* ^L*bàŋà*
[woman^L here come-IpfvNeg.Rel] ^Lowner
'a woman who does not come here'
- b. *[ŋà*^L *ðjð* *núnú-gô:-rò]* ^L*bàŋà*
[person^L thing be.ruined-Caus-IpfvNeg.Rel] ^Lowner
'someone who doesn't ruin things'
- c. *[ŋà*^L *ðjð* *núnú-gô:-rè]* ^{Pl}*nà*
[person^L thing be.ruined-Caus-IpfvNeg.PISbj.Rel] Pl
'people who don't ruin things'

- d. [nà^L ðjɔ́ dàgâ:-rò] [person^L thing leave-**IpfvNeg.Rel**] ^Lbàŋà [owner]
 ‘someone who doesn’t abandon things’
- e. [nà^L sɔ́: yɔ́:-rò] [person^L thing accept-**IpfvNeg.Rel**] jò-jò:
 [Rdp-be.many.Stat]
 ‘The people who didn’t accept the thing (=consent) are many.’ (2011.1a.15)
- f. [sɔ́:^L [yèr-ê dè] gă:-rò] kò:-rò
 [thing^L [come-Pfv if] pass-**IpfvNeg.Rel**] be.NonhSbj-Neg
 ‘There is nothing (=no crisis) that comes and doesn’t pass.’ (2011.1b.03)
- g. [dúwɔ́ nà^L ^Hgɔ́-nú:]
 [load person^L ^Hbe.able-Ipfv.Rel.&]
 [gɔ́:-rò kà:n] yɔ́ kò
 [be.able-**IpfvNeg.Rel** also] Exist be.NonhSbj
 ‘There were (some) people who could handle the load and also (some) who could not handle (it).’ (2011.1a.13) (*gɔ́r”ɔ́*)

Nonsubject relatives are in (461). /LH/-toned verbs merge with /H/-toned verbs. The stem syllables are therefore H-toned except for the <HL>-toned long vowel before *-rò* (plural *-rè*).

- (461) a. nàŋà bé pír”î:-rò
 cow^L 3PlSbj milk-**IpfvNeg.Rel**
 ‘a cow that they do not milk’
- b. [niŋìr”î^L i” yâ:-rò] ^Lniŋìr”î
 [day^L 1SgSbj go-**IpfvNeg.Rel**] day
 ‘the day when I will not go.’
- c. [niŋìr”î^L [ðjɔ́^L pɔ́] wó júnú-gô:-rò]
 [day^L [thing^L any] 3SgSbj be.ruined-Caus-**IpfvNeg.Rel
^Lniŋìr”î
 day
 ‘the day when he/she will not ruin anything’**
- d. ðjɔ́ i” dágâ:-rò
 thing^L 1SgSbj leave-**IpfvNeg.Rel**
 ‘something that I will not leave’

14.1.9.5 Stative verbs (positive and negative) in relative clauses

In main clauses, a positive stative verb has a reduplicated form *Cጀ-ጀCጀ*, which is reduced to {L}-toned *CጀCጀ* following a locational or other nonpronominal constituent (§10.4). In a relative clause, the form is *CጀCጀ*.

Subject relatives are in (462).

- (462) a. [àrⁿà^L [é tè] Hígé] L^Hbàŋà
 [man^L [there.Def around] stand.Stat.Rel] owner
 'the man who is sitting there'
- b. [nè^L [é tè] Húmój] L^Hbàŋà
 [woman^L [there.Def around] lie.down.Stat.Rel] owner
 'the woman who is lying down over there'ⁿ
- c. [dèⁿ^L [tógu bórò]] Hdáŋá
 [waterjar^L [shelter under]] sit.Stat.Rel
 'the waterjar that is sitting under the shelter'

Nonsubject relatives are in (463).

- (463) a. àrⁿá nà^L wó Hdáŋá
 man place^L 3SgSbj sit.Stat.Rel
 '(there) where the man is sitting'
- b. tǔⁿ [gò:=n]^L Hkóró
 boubou [wall=Dat]^L be.hanging.Stat.Rel
 'the wall on which the boubou (garment) is hanging.'
- c. sàjú [tímè=n]^L Htórⁿɔ
 bird [tree=Dat]^L perch.Stat.Rel
 'the tree on which the bird is perched'

The regular stative negative is of the form *CVCV*^L = *lá* in main clauses. It can be used without change in subject relatives (464a-b), but the stem is {H}-toned in nonsubject relatives (464c). Plural-subject marking is allowed, as in other negative categories. Plurality is expressed by stem vocalism in (464b).

- (464) a. [àrⁿà^L dàŋà^L = lá] L^Hbàŋà
 [man^L sit.Stat=StatNeg.Rel] owner
 'the man who is not sitting'
- b. [nà^L dèŋè^L = lá] nà
 [person^L sit.Stat.PISbj=StatNeg.Rel] Pl
 'people who are not sitting'
- c. [ná nà^L wó dáŋá = lá]
 [person place 3SgSbj sit.Stat=StatNeg.Rel]
 'the place where the person is not sitting'

14.1.9.6 Other predicates ('be', 'have', 'be in', 'it is', adjective) in relatives

The locational-existential quasi-verb ('be [somewhere]') occurs in positive and negative forms in relative clauses. The human forms are generally followed by *bàŋà* 'owner' (singular) or by plural *nà*. The 'be' quasi-verb has H-tone in relatives. The negative quasi-verbs have their usual *CV:-rV* shape (465c).

- (465) a. [nà^L bámàkó ^Hwó] ^Lbàŋà
 [person^L B be.HumSgSbj.Rel] owner
 ‘the person who is in Bamako’
- b. tūwò^L bámàkó ^Hkó
 stone^L B be.NonhSbj.Rel
 ‘the stone that is in Bamako’
- c. [nà^L bámàkó wè:-ré] nà
 [person^L B be.HumPlSbj-Neg.Rel] Pl
 ‘the people who are not in Bamako’
- d. [[bìrè pèrè]^L ^Hkó] yá:-kò=ŷ
 [[work^L other]^L be.NonhSbj.Rel] which?=it.is
 ‘The other work that exists, which (=what) is it?’ (2011.1a.18)
- e. ùrⁿi.^L gírⁿí ^Hwé nà
 children^L house be.HumPlSbj.Rel Pl
 ‘children who are (staying) at home’ (2011.1a.07)

Relativization of ‘have’ clauses is illustrated in (466). The form of ‘have’ in relatives is *sá*, negative *sà:-rá*. Existential *yé* is absent from this construction.

- (466) a. àrⁿà^L nàŋá ^Hsá
 man^L cow have.Rel
 ‘a man who has a cow’
 (also: àrⁿà nàŋá sá bàŋà)
- b. jà^L pémú fⁿ ^Hsá
 place^L sheep 1SgSbj have.Rel
 ‘a place where I have a sheep’
- c. [nà^L bú:dú sà:-rá] ^Lbàŋà
 [person^L money have-Neg.Rel] owner
 ‘a person who has no money’
- d. [nà^L sà:-rá] kò:-rò
 [person^L have-Neg.Rel] be.NonhSbj-Neg
 ‘There is nobody who doesn’t have (a granary).’ (2011.1a.16)

The ‘be in’ quasi-verb can also be relativized on (467). It takes the form *só*. Subject relatives are common, as in (467a), but a nonsubject relative is also attested (467b).

- (467) a. [sâ:ⁿ fú→] [wòrû^{+L} bîn]
 [all all] [field.Def^{+L} in]
 jnù:^L ^Hsó ^Ldàyⁿ
 millet^L be.in.Rel limit
 ‘all the millet that was in the field’ (2011.1a.11)

- b. *bínígí* *nà^L* ^H*só*
manure place^L ^H**be.in.Rel**
‘a place where (some) manure is’ (2011.1a.29)

It is not normal to relativize on a positive ‘it is’ clitic form, since e.g. ‘a person who is a Dogon’ is always rephrased as ‘a Dogon’. However, it is possible to relativize on the corresponding negation (468).

- (468) *iⁿ* *[nà^L* *[dògón = i: lò]]* *dènē-táŋà*
1SgSbj [person^L] [Dogon=it.is Neg.Rel] look.for-Prog
‘I’m looking for someone who is not a Dogon.’

An adjectival predicate may also occur in a relative. Instead of a prolonged form of the adjective plus a ‘be’ quasi-verb, the adjective is bare and in {H}-toned form. It may be compared to the comparative form (‘be taller’ etc.), which however has {HL} overlay. Compare ^H*ná:rⁿá* (469a) with *nà:rⁿ-á→ k^á* ‘it is easy’ and with ^{HL}*ná:rⁿá* ‘(is) easier’ (stem *nà:rⁿá*). A negative adjectival predicate does not change its form from main clause to relative (469c).

- (469) a. *jù:^L-[dúw-Ø-Ø]* *bàⁿL* *dág-à→* ^H*ná:rⁿá*
millet^L-[carry-MP-VblN] manner^L a.little ^H**easy.Rel**
‘the way (=in such a way that) carrying the millet (to the houses) after that is fairly easy’ (2011.1a.12)
- b. *[jèŋè^L-úrⁿi:^{+L}* *bè* *bàⁿL* *bé* ^H*seⁿ*
[twin^L-children.Def^{+L}] Pl] manner^L 3PLSbj ^H**good.Rel**
‘(Because of) how handsome the twins were?’ (2011.1b.04)
- c. *bìrè^L* *kìrè^L = lá*
work^L difficult^L=**StatNeg.Rel**
‘a job that is not difficult’

14.1.10 Same-subject *má* connecting nonsubject relative to main clause

Consider the examples in (470). Here the subject of a nonsubject relative is coindexed to the subject of the main clause. The key morpheme is *má* following the verb, which has bare-stem form. There is no (other) pronominal subject pronoun in the relative clause. In effect, *má* is an anaphoric pronoun (requiring an antecedent) similar to reflexive *sáⁿ*. Like the reflexive, *má* is transpersonal, so it can be coindexed to any (nonimperative) subject, including first and second person pronouns. A similar *má* can occur as a transpersonal reflexive possessor (§18.1.3.2).

- (470) a. *iⁿ* *[pèjù^L* *éwé* *má]* *jê.-jù*
1SgSbj [sheep^L] buy Rel.SS] bring-Ipfv
‘I will bring the sheep-Sg that I bought.’
- b. *sè:dú* *[pèjù^L* *dàgá* *má]* *jê.-jù*
S [sheep^L] leave Rel.SS] bring-Ipfv
‘Seydou_x will bring the sheep-Sg that he_x left.’

- c. ú *[nìŋjìrⁿi]^L yèré má] ^L*nìŋjìrⁿi]* yǎ:-jú
 2SgSbj [[day^L go Rel.SS] ^Lday] go-Ipfv
 ‘You-Sg will go on the (same) day that you have come.’*

The ability of a higher-clause subject to bind a lower-clause subject in a relative clause with *má* (470a-c) is paralleled by the ability of a higher-clause subject to bind a lower-clause subject in a factive clause (as complement of ‘know’), using transpersonal reflexive *sǎ* (§18.1.4).

As usual, a supposed covert second person imperative subject fails to bind the anaphoric element. Compare indicative (471a-b), which have *má*, to the imperatives in (471c-d), which instead have a nonreflexive 2Sg preverbal pronoun in the relative clause.

- (471) a. *Iⁿ [sɔ:^L ^Híyé má] ^Lbì-jù*
 1SgSbj [thing^L ^Hwant.Rel Rel.SS] ^Ldo-Ipfv
 ‘I do what I want.’
- b. ú *[pèjù^L dàgá má] jě:r-ì mà*
 2SgSbj [sheep^L leave Rel.SS] bring-Pfv Q
 ‘Did you-Sg bring the sheep that you left?’
- c. *[pèjù^L ú ^{HL}dág-è] jě:ré*
 [sheep^L 2SgSbj ^{HL}leave-Pfv.Rel] bring.Imprt
 ‘Bring-2Sg the sheep that you left!’
- d. *[sɔ:^L ú ^Híyé] ^Lbìrè*
 [thing^L 2SgSbj ^Hwant.Rel] ^Ldo.Imprt
 ‘Do-2Sg what you want!’

The verb before *má* is in bare-stem form. For example, ‘sell’ appears as *dòrⁿʒ má*, with bare stem *dòrʒ* rather than perfective *dòrⁿ-ɛ*. However, the L-tone at the end of /HL/- and /LHL/-toned heavy stems like *juṇú-gù* ‘ruin, damage’ becomes H-toned (472).

- (472) wó *[gìrⁿi]^L juṇú-gú^{+H} má] ^Lèw-è
 3SgSbj [house^L be.ruined-Caus^{+H} Rel.SS] ^Lbuy-Pfv
 ‘He bought the house that he ruined.’*

jé má with ‘take away’ is pronounced with a downstep on the *má* morpheme.

In (473a), the relative clause is imperfective, denoting an event expected to follow that of the main clause. Negative relatives clauses are illustrated in (473b) (imperfective) and (473c) (perfective). In (473b), the final L-tone element of the imperfective negative suffix is carried over to *má*, which is heard as *mà*.

- (473) a. *Iⁿ [pèjù^L ^Héwé-jú má] ^L᷄-è*
 1SgSbj [sheep^L ^Hbuy-Ipfv Rel.SS] ^Lsee-Pfv
 ‘I saw the sheep-Sg that I will buy.’
- b. *Iⁿ [pèjù^L éwē:-rò má] ^L᷄-è*
 1SgSbj [sheep^L buy-IpfvNeg Rel.SS] ^Lsee-Pfv
 ‘I saw the sheep that I will not buy.’

- c. *iⁿ* [pèjù^L èwè-lí má] ^Lò-è
 1SgSbj [sheep^L buy-IpfvNeg Rel.SS] ^Lsee-Pfv
 'I saw the sheep that I did not buy.'

A textual example with suppletive stative ‘not know’ as predicate is (474).

- (474) [kó ^{HL}níjirⁿi] [kèné nɔ-è dè]
 [Def ^{HL}day] [beer drink-Pfv if]
 [[gò:^L íné má]]
 [[dance(n)^L not.know Rel.SS]
 gò:-ní:] ^Lnà:-jnù
 dance-while.SS] ^Lspend.night-Ipfv
 'That day, when they had drunk millet beer, they would spend the night dancing
 (wild) dances that they didn't know.' (2011.1b.03)

Another textual example is (475).

- (475) [[ú gò-jú má] ^Ldàyⁿ] pág-è dè
 [[2SgSbj be.able-Ipfv Rel.SS] ^Llimit] tie-Pfv if
 'You-Sg would tie up (=bundle) all that (=as much as) you-Sg could (carry) of it
 (=millet)' (2011.1a.13)

Historically, it is possible that *má* in its various anaphoric functions originated as a special use of the homophonous 1Sg pronoun form. In several western Dogon languages, including Najamba, 1Sg pronominal-subject suffix *-m* doubles as logophoric subject suffix in quotations.

14.1.11 Relative clause involving verb- or VP-chain

Any direct chain can be relativized on. The nonfinal verbs have the same form they have in normal chains with final inflected verb. The final verb has the appropriate relative-clause form. (476a) is a subject relative. In non-subject relatives like (476b), the preverbal subject pronoun is placed directly in front of the final verb.

- (476) a. *[nà^L bàgá súgó sáⁿ]* ^Lbàjà
 [person fall go.down Pfv.Rel] ^Lowner
 'the person who fell down'
 b. *[nà^L bàgá iⁿ ^Hsúg-é]* ^Ldèj
 [place^L fall 1SgSbj ^Hgo.down-Pfv] ^Lplace
 'the place where I fell down'

yé ‘go’ and *yéré* ‘come’ are idiosyncratically tone-dropped as nonfinal chained verbs, when directly preceding the H-toned preverbal subject pronoun (477a). The tone-dropping does not occur before an intervening nonpronominal element (477b).

- (477) a. *nà^L ^Lyé é mɔ:-nɔ-jnù*
 place^L ^Lgo 2PLSbj assemble-Caus-Ipfv
 'the place where you-Pl go and assemble (them)' (2011.1a.12)

- b. *nìŋìrⁿi^L yèré /yě pǎ: wó pí:-nù*
 day^L come/go meal 3SgSbj eat.meal-Ipfv
 ‘the day when he/she will come/go and ate a meal’

14.1.12 Demonstratives following the verb

My assistant had no difficulty placing a morphologically simple demonstrative pronoun after the verb of the relative clause, semantically modifying the head NP. In this construction, with near-distant *yጀ:* or proximate *nጀ:*, the verb undergoes no additional tonal changes, but the demonstrative itself usually drops tones (as it does following a numeral). However, there was one textual example (478d) where we would have expected *kጀ L yጀ:*, but where the actual output was *kጀ yጀ:*. In this instance, the demonstrative controls tone-dropping on the verb (or, here, a locational-existential quasi-verb). The difference may involve presence of a tonal definite (L-tone) at the end of the verb or quasi-verb in (478.a-c) and its absence in (478d), but the discourse context of (478d) doesn’t fit this well. The presence of the tonal definite is very difficult to identify when it is not NP-final.

- (478) a. *pèjū^L ú ^Héw-é ^Lyጀ:*
 sheep^L 2SgSbj ^Hbuy-Pfv.Rel ^LNearDist
 ‘that sheep over there that you-St bought’
- b. *mòtām^L nî núw-è: sáⁿ ^Lnጀ:*
 scorpion^L here go.in Ppl.Pfv ^LProx
 ‘this scorpion who has come in here’
- c. *[gù-gùrù^L nèwⁿé sò:-rój ^Lyጀ: ^Ldàyⁿ*
 [grass^L value be.in-Neg.Rel] ^LNearDist ^Llimit
 ‘all those weeds in which there is no value’ (2011.1a.24)
- d. *pù:^L-tè:ré [gǎm ^Hná ^Lkè] márⁿ-à→ kጀ,*
 millet^L-heap [some ^Hperson ^LPoss] big-Adv be.NonhSbj,
[gǎm ná ^Lkè] ùjú kጀ,
 [some person ^LPoss] small be.NonhSbj,
maintenant [márⁿ-à→ ^Lkጀ yጀ: nà
 now [big-Adv ^Lbe.NonhSbj.Rel ^LNearDist Pl]
 ‘some millet heaps were big, some (others) were (relatively) small. Now those
 that were big, ...’ (2011.1a.13)
 (regular relative-clause form is *kጀ*)

My assistant was not comfortable with similar combinations involving the far-distant demonstratives, which are more complex morphologically to begin with, and relatively uncommon in texts.

14.1.13 Universal quantifier ‘all’ (^L*dàyⁿ*) following the verb

My assistant had difficulty adding *sâ:ⁿ* (and *fú→*) ‘all’ directly after the verb of a relative clauses. This is not surprising given the near-homophony of the more common of these two

quantifiers, namely *sâ:n*, with the participial morpheme *sá:n* used in perfective subject relatives.

Instead, the intended sense is usually expressed by adding ^L*dày:n* after the verb (479a-b). This is the most noun-like of the ‘all’ quantifiers, being a special use of the L-toned form of the noun *dày:n* ‘outer limit’. It therefore fits the pattern of L-toned nouns as terminal elements in relatives. Once ^L*dày:n* or any other terminal element, such as plural *nà*, has been added after the verb, *sâ:n* ‘all’ may pile on (479b-c).

- (479) a. *[[pèjù^L ú ^H*d᷑n-lí]* ^L*dày:n]* jé:ré*
 [[sheep^L 2SgSbj ^Hsell-PfvNeg] ^Llimit] bring.Imprt
 ‘Bring all the sheep-Pl that you didn’t sell.’
- b. *[[àrⁿú gìnⁿi^L ^H*púnú-g-i]* ^L*dày:n]**
 [[rain house^L ^Hbe.ruined-Caus-Pfv] ^Llimit]
 sâ:n *dǎn-gá-jú*
 all be.good-Caus-Ipfv
 ‘We will fix up all the houses that the rain damaged.’ (*dànú-gi*)
- c. *[nà^L [săⁿ bě] ^{HL}*lámphⁿ]* tójⁿ sáⁿ nà] sâ:n*
 [person^L [ReflPoss Pl] ^{HL}tax] pay Pfv.Rel Pl] all
 ‘all the people who have paid their taxes’

14.1.14 Evaluative adjective following the verb

Adjectives normally remain with the internal portion of the head NP. However, I have one textual example (480a) suggesting that if a mini-relative-clause functions as a kind of common noun (denoting an open set), in the fashion of agentive nominals, an evaluative adjective can follow it. In this case, the entire relative clause is tone-dropped.

The context for (480a) is that a childless old woman has no-one to take care of her. The evaluative adjective ‘good’ effectively modifies ‘care-giver’, i.e. someone who is not ‘good’ in general but rather good at care-giving. Without ‘good’ the relative clause would have appeared as (480b).

- (480) a. *né: péré*
 now furthermore
 *[[nà sàⁿ ^L*dìn-é:-nú*] ^L*sé:n* kà:ⁿ]*
 [[person ReflObj hold-MP-Ipfv]^L good even]
 ^L*sà:-rà*
 ^Lhave-Neg
 ‘Now furthermore she_x didn’t even have a good person to take care of her(-self)_x.’
 (2011.1b.04)
- b. *nà^L sàⁿ ^L*dìn-é:-nú* kà:ⁿ*
 person^L ReflObj hold-MP-Ipfv even
 ‘even anyone to take care of herself’

Note that *sà:n* (reflexive object) as well as *dìn-é:-nú* (phrase-finally: *dìn-é:-nú*) is tone-dropped in (480a) under the control of the postverbal adjective. ‘Person’ is the head NP so it is tone-dropped anyway. Elicited examples show that the adjective forces tone-dropping on the entire

mini-relative clause (redundantly in the case of the head NP). Compare (481a) with an adjective to (481b) with no adjective, observing the tones of the preparticipial words. ^H*páná* in (481b) has possessed-noun {H} overlay.

- (481) a. [nà [sàⁿ pàñà] bì-jù]^L sēⁿ kà:ⁿ]
 [person [ReflPoss meal] make-Ipfv]^L good even]
 ‘(even) a good person to cook her meals’
- b. nà^L [sàⁿ ^Hpáná] bì-jú kà:ⁿ
 person^L [ReflPoss ^Hmeal] make-Ipfv even]
 ‘(even) anyone to cook her meals’

14.2 Subject relative clause

In this and the following sections I bring together the details described individually in the preceding sections, to illustrate what a complete relative clause looks like.

In a subject relative, like other relatives, the core NP (plus any numeral) that functions as relative head appears internally in the relative clause but undergoes tone-dropping. If the head NP is (human) plural, a plural morpheme *nà* is added after the verb (and perfective participial *sáⁿ* if present). Other than this there is no agreement with the (subject) head NP; in particular, there is no additional preverbal subject pronoun.

- (482) a. [i:ⁿ bàgá sáⁿ] yă: wò
 [child^L fall Ppl.Pfv] where? be.HumSgSbj
 ‘Where is the child who fell?’
- b. [ùrⁿi:^L bàgá sáⁿ nà] yă: wè
 [children^L fall Ppl.Pfv Pl] where? be.HumPl
 ‘Where are the children who fell?’
- c. [isi^L ú kéré sáⁿ] yă: kò
 [dog^L 2SgObj bite Ppl.Pfv] where? be.NonhSbj
 ‘Where is the dog that bit you-Sg?’

Adjectives and numerals that are part of the head NP remain with it, inside the relative clause, and are subject to relative-clause tone-dropping. However, any demonstrative, free plural particle, universal quantifier, or discourse-function particle (like ‘only’) that would normally be part of the head NP appears after the verb. If the overall NP is plural, plural *nà* appears after demonstrative (483d), while universal quantifier *sâ:ⁿ* follows *nà* (483e). Demonstratives are tone-dropped regardless of whether plural *nà* is present (483c-d).

- (483) a. [[i:ⁿ sìⁿ-sì:ⁿ]^L bàgá sáⁿ] yă: wò
 [[child small]^L fall Ppl.Pfv] where? be.HumSgSbj
 ‘Where is the small child who fell?’
- b. [[ùrⁿi: kùrè:^L bàgá sáⁿ nà] yă: wè
 [[children six]^L fall Ppl.Pfv Pl] where? be.HumPlSbj
 ‘Where are the six children who fell?’

- c. [i:ⁿ^L bágá sáⁿ L yɔ:[]] géré
 [child^L fall Ppl.Pfv L NearDist] look.at.Imprt
 ‘Look at that child who fell!’
- d. [ùrⁿì:^L bágá sáⁿ L yɔ:[]] nà géré
 [children^L fall Ppl.Pfv L NearDist Pl] look.at.Imprt
 ‘Look at those children who fell?’
- e. [ùrⁿì:^L bágá sáⁿ nà sâ:ⁿ] báwⁿérⁿè-sêⁿ
 [children^L fall Ppl.Pfv Pl all] be.wounded-Pfv.PlSbj
 ‘All of the children who fell are hurt (wounded).’

If the head NP is possessed, only prenominal possessors with *kè* are allowed. Even the 1Sg possessor, which is elsewhere postnominal *mà*, must be restructured to *iⁿ kè* and shifted to prenominal position. These possessors are not subject to relative-clause tone-dropping; that is, they constitute tonosyntactic islands. The remainder of the head NP is subject to tone-dropping as though the possessor were not present.

- (484) a. [[ú L kè] L i:ⁿ bágá sáⁿ] báwⁿrⁿì
 [[2SgPoss L Poss] L child fall Ppl.Pfv] be.wounded.Pfv
 ‘Your child who fell was hurt (wounded).’
- b. [iⁿ L kè] L i:ⁿ bágá sáⁿ] yǎ: wɔ̄
 [1SgPoss L Poss] L child fall Ppl.Pfv] where? be.HumSgSbj
 ‘Where is my child who fell?’
- c. [sè:dú L kè] L i:ⁿ bágá sáⁿ] yǎ: wɔ̄
 [Seydou L Poss] L child fall Ppl.Pfv] where? be.HumSgSbj
 ‘Where is Seydou’s child who fell?’

14.3 Object relative clause

In an object relative clause, the subject is expressed by a preverbal pronoun even if also expressed clause-initially by a nonpronominal NP. The head NP undergoes the usual tone-dropping. The verb has the form it would have in a main clause with singular subject, and does not agree with a plural subject. If the head NP is plural, plural morpheme *nà* occurs after the verb. Before *nà*, a final L-tone on the verb is raised to high, as in ^H*lág-é* in (485c).

- (485) a. [sè:dú i:ⁿ^L wó HL lág-è] báwⁿrⁿì
 [Seydou child^L 3SgSbj HL hit-Pfv.Rel] be.wounded.Pfv
 ‘The child who(m) Seydou hit was hurt.’
- b. [i:ⁿ^L bé HL lág-è] báwⁿrⁿì
 [child^L 3PlSbj HL hit-Pfv.Rel] be.wounded.Pfv
 ‘The child who(m) they hit was hurt.’

- c. [sè:dú ùrⁿi:^L wó ^Hlág-é nà]
 [Seydou children^L 3SgSbj ^Hhit-Pfv.Rel Pl]
 bàwⁿérⁿè-séⁿ
 be.wounded-Pfv.PlSbj
 ‘The children who(m) Seydou hit were hurt.’
- d. [nàŋà^L iⁿ ^{HL}dórⁿ-è] nɔ: kó=y
 [cow^L 1SgSbj ^{HL}sell-Pfv] Prox Nonh=it.is
 ‘The cow that I sold, this is it.’
- e. nɔ: [nàŋà^L iⁿ ^{HL}dórⁿ-è]=yⁿ
 Prox [cow^L 1SgSbj ^{HL}sell-Pfv]=it.is
 ‘This is the cow that I sold.’

14.4 Possessor relative clause

In this construction, the possessor itself undergoes tone-dropping as the head of the relative clause. In (486a-c), the tone-dropping actually applies both to the possessor and to the possessed noun (double tone-dropping).

- (486) a. [[[nà gírⁿi]^L bàgá sáⁿ] ^Lbàŋà]
 [[[person house]^L fall Pfv.Rel] ^Lowner]
 yǎ: wò
 where? be.HumSgSbj
 ‘Where is the person whose house fell?’ (*nǎ, gírⁿi*)
- b. [[[nà nùmò]^L bàwérⁿ-è: sáⁿ] nà]
 [[[person hand]^L be.injured-then.SS Pfv.Rel] Pl]
 yǎ: wè
 where? be.HumPlSbj
 ‘Where are the people whose hands were hurt?’ (*nǎ, nùmò*)
- c. [nà kòrò]^L pé-péy ú íné
 [person meaning]^L at.all 2SgSbj not.know.Rel
 ‘someone whose meaning (=background) you-Sg don’t know at all’ (2011.1b.02)
 (*nǎ, kòrò*)

In elicitation, my assistant had some difficulty with the tones of the possessed noun, and I also recorded a variation on (486b) with clearly audible lexical tones on the possessed noun ‘foot’. It is possible that (487) represents an alternative syntax with ‘foot’ treated as an adverb, not phrased with ‘cow’ (‘X was injured on the foot’).

- (487) [nàŋà^L kúwò bàwérⁿ-è: sàⁿ]
 [cow^L foot be.injured-then.SS Pfv.Rel]
 yǎ: kò
 where? be.NonhSbj
 ‘Where is the cow whose foot was hurt?’

The inconsistency of the data may be partially due to the ambiguity of ^L*bàŋà* in e.g. (486a). The literal sense of *bàŋá* is ‘owner’. Whereas a final ^L*bàŋà* in most relative clauses merely specifies human singular head NP, in possessor relatives the literal sense may well be activated. Indeed, examples like (488) are difficult to understand without taking ^L*bàŋà* literally. Note that in the reading ‘the owner of [the roof that collapsed]’, ‘roof’ is quite properly {L}-toned since it is now the head NP of the relative, while ^L*bàŋà* has the usual {L}-toned form for a terminal element in a relative clause.

- (488) [[*kùⁿ-mɔ́rù*^L *wòró* *sáⁿ*] ^L*bàŋà]*
 [[roof^L collapse Pfv.Rel] ^Lowner]
yǎ: *wò*
 where? be.HumSgSbj
 ‘Where is the owner of the house that collapsed?’

The double tone-dropping (i.e. of possessor and possessed) in (486) is nevertheless syntactically defensible, though not typical in other Dogon languages. We will see another case of double tone-dropping in the next section, on relativization involving postpositions.

14.5 Relativization on the complement of a postposition

When the NP complement of a postposition is relativized on, both the NP itself and the postposition are subject to tone-dropping. In each example in (489), the complement NP (‘person’, ‘people’, ‘house’) is audibly tone-dropped in the familiar fashion. The postpositions *kùⁿ* ‘on’ (489a) and *bín* ‘in’ (489c) have also audibly dropped from /HL/ to {L} tone. The dative postposition (489b) is already L-toned; we can assume that it is (vacuously) tone-dropped by comparing it to the other postpositions.

- (489) a. [*kùⁿ-mɔ́rú* *[nà *kùⁿ*^L *wòró* *sáⁿ*]* ^L*bàŋà*
 [roof [person on]^L collapse Ppl.Pfv] ^Lowner
 ‘the person on whom the roof collapsed (=fell)’
- b. [*bú:dú* *[nà = ñ]^L* *fⁿ* ^H*ó-é]* *nà*
 [money [person=Dat]^L 1SgSbj ^Hgive-Pfv.Rel] Pl
 ‘the people to whom I gave the money’
- c. [[*gìrⁿi* *bín*]^L *ú* *nú-ŷⁿ*] [*gìrí* *mà]=ŷⁿ*
 [[house in]^L 2SgSbj go.in-Pfv.Rel] [house 1SgPoss]=it.is
 ‘the house that you-Sg have entered, it’s my house’
 [based on example from Prost, p. 94]
- d. [*né:* *wɔ́ⁿ*] [[*là:rù* *gè:j*]^L
 [now Top] [[lowly.one for]
àná *bín*] *jàtâ:-rò* [*bé* ^H*wé*]
 [village in] count-IpfvNeg [3PlSbj ^Hbe.HumPl.Rel]
yér-é:
 come-and.SS
 ‘Now when [the lowly person (=the mother) whom they (=people) in the village did not think highly of] came, ...’ (2011.1b.04) (*là:rú* ‘lowly person’, purposive *gè:j*)

- e. *[[ðj ð b è]^L jú: L d ù w - è : - jù]*
 [[thing with]^L millet L carry-MP-Ipfv.Rel]
p è ré déy^{n→} k ð : - r ð
 other apart be.NonhSbj-Neg
 Otherwise there was nothing else by means of which (one) could carry millet.'
 (2011.1a.13)
- f. *[ðj ð g è :]^L b é H d á g - é*
 [thing for]^L 3PlSbj H leave-Pfv.Rel
 'the thing (=reason) for which they have abandoned (it)' (2011.1a.15)
- g. *[[ðj ð = n i]^H j ê] [[ðj ð = n i]^L ó - j ú^{+H}]*
 [[thing=Dat]^L convey] [[thing=Dat]^L give-Ipfv.Rel^{+H}]
 'anything (i.e. livestock) in the houses (=village) to take (=convey) it (=millet)
 and give it to' (2011.1a.22)

15 Verb (VP) chaining and adverbial clauses

By “chain” is meant a sequence of verbs, VPs, or clauses that denote two or more eventualities (sequenced or simultaneous), or that describe a single eventuality as a composite of two or more co-events. Adverbial clauses (“at the time when ...”) are closely related to this concept. Conditionals are treated separately in chapter 16, but there is some overlap with sequential chaining. The complement clauses in chapter 17 involve more specific grammatical interaction with the main clause, e.g. when the latter contains a control verb like ‘begin (to VP)’ or when the subordinated clause functions as a purposive clause.

A **direct chain** of verbs or VPs is one whose nonfinal verbs occur in the bare stem form, without an explicit subordinating morpheme. Typically, the components of direct chains denote co-events of a more or less unified eventuality. In TgK, direct verb chains are rather limited, because of the productivity of subordinators, especially the same-subject subordinator *-e:* (§15.2.2.1, below). Chain-like sequences involving explicit subordination, are **loose chains**.

15.1 Direct chains (without chaining morpheme)

A distinction must be made between those direct chains that can occur in any aspectual context, and those that only occur in imperfective contexts due to restrictions on the same-subject anterior subordinator *-e:*.

The aspectually versatile type of direct chain, functioning much like a compound denoting a single complex eventuality, and used in perfective as well as imperfective contexts, is exemplified (490). In cases like *tá: gèr-î:* ‘taste’, the need for a chain may not be so much the complexity of the event as the need to avoid confusion, given the fact that *tá:* ‘taste’ has homonyms (*tá:* ‘shoot, sting’; *tá:* ‘avoid taboo’).

(490) Direct verb chains (in any aspectual context)

chain	gloss	components
<i>jǔ:rù lé:</i>	‘(2 farmers) sow in unison (in parallel rows)’	<i>jǔ:rù</i> ‘put side by side’, <i>lé:</i> ‘slash (earth) to sow seeds’
<i>bàgá súgó</i>	‘fall down’	<i>bàgá</i> ‘fall (out)’, <i>súgó</i> ‘go down’
<i>bàjá gǔjì</i>	‘pull (sth) off’	<i>bàjá</i> ‘pull’, <i>gǔjì</i> ‘remove’
<i>tá: gèr-î:</i>	‘taste (sth)’	<i>tá:</i> ‘taste’ (with several homonyms), <i>gèr-î:</i> ‘look at, consider’
<i>kámá súnú-gì</i>	‘throw (sth) down’	<i>kámá</i> ‘throw’, <i>súnú-gì</i> ‘take down’
<i>kámá tí</i>	‘throw (sth) away’	<i>kámá</i> ‘throw’, <i>tí</i> ‘send’
<i>démé ná:-ñì</i>	‘push (sth) up’	<i>démé</i> ‘push’, <i>ná:-ñì</i> ‘put up’
<i>wá: tó:</i>	‘hack (sth) down early’	<i>wá:</i> ‘be/do early, on time’, <i>tó:</i> ‘hack down (millet stems)’

Certain verbs are particularly common in chains. Some clearly retain their basic lexical sense in the chain. For example, *gǔjì* ‘remove, take out’ occurs as final verb in numerous combinations like ‘pull off’ in (490), generally combining with a preceding verb specifying the manner of action (cf. English particles *out*, *off* and *away* in phrasal verbs).

A possible specialized element is *tí*, which as simple transitive verb means ‘send’, and which occurs as the final in *kámá tí* ‘throw (far) away’, i.e. horizontally as opposed to ‘throw down’ or ‘throw up’. The simple sense ‘send (e.g. money or a letter)’ is generally expressed as *bǎ:rì* or *bǎ:rì tí* ‘send’ (§16.1.3.2). *tí* occurs in what appears to be a three-part chain, *dàgá tí gàrá* ‘pass (sb, e.g. in a race)’, with *dàgá* ‘leave’ and *gàrá* ‘pass’. Here, however, we may be dealing with a homonymous morpheme or semantic offshoot *tí* that indicates a chronological divergence; see *tí dè* (§16.1.3.2), L-toned ^L*tí* (§15.1.6.3), and *té-è(:)* (§15.2.2.5).

If a stem occurs only as a nonfinal verb in chains, or develops a divergent sense in this position, it is difficult to identify it as a verb, rather than as an autonomous adverb. This is the case with *tóró*, which seems to mean something like ‘(move) over, (move) a short distance’ in *tóró gǔjì* ‘move, displace (sth)’ with *gǔjì* ‘remove’ and in *tóró dǒ*: ‘move over (a little), budge; come near, approach’ with *dǒ*: ‘arrive, reach’. There is no obvious connection with the verb(s) *tóró* ‘begin’, ‘resharpen (blade)’, ‘(egg) hatch’.

Because ‘go and come (back)’ expresses a sequence of bounded events, it does not qualify as an aspectually versatile direct chain, so we get *yé-è: yèré* with the same-subject subordinated form of ‘go’ (contrast Jamsay direct chain *yǎ: yèré*).

Co-events can also be expressed in other ways. In (491), ‘run’ is expressed as a noun ‘running’ which functions as complement of an instrumental postposition.

(491)	<i>wó</i>	<i>[jé]</i>	<i>bè]</i>	^L <i>nù-y</i>
	3SgSbj	[running	with]	^L go.in-Pfv
		‘He/She ran in.’		
		‘He/She came in on the run.’		

For cases where the final verb is specialized in chain-final function as a kind of control verb, e.g. ‘get, obtain’ in the sense ‘be able to’, see §17.5.

In imperfective contexts, those chains that are expressed in perfective contexts using the same-subject anterior subordinator *-è:* can be expressed in either of two ways: a) direct chains, or b) pseudo-conditionals with the first clause ending in *dè*. As a result, any verb-verb combination, even one that cannot be expressed as a direct chain in perfective contexts (e.g. in narrative sequences), can appear as a direct chain when the final clause is imperfective (including progressive), imperative, or hortative.

15.1.1 Verbal noun of directly chained verbs

Two chained verbs may combine into a verbal noun. The final verb has its regular verbal-noun form (§4.2.4). The nonfinal verb functions as compound initial and is {L}-toned: *bàgá súgó* ‘fall down’, verbal noun *bàgà*^L-[*súg-ú*] ‘falling down’.

15.1.2 Presence of AMN suffix in nonfinal verb in direct chains

In general, AMN (aspect-mood-negation) marking is not allowed on nonfinal verbs in direct chains. However, ^L*tí* ‘do first’ (in L-toned form) and the related *té-è(:)* occur medially in

chains, and function roughly as perfective markers for the preceding verb (§15.1.6.3, §15.2.2.5).

Adverbial clauses regularly do specify the temporal relationship between the subordinated and main clauses. Progressive *-táŋà* can occur in adverbial clauses (§15.2.1.1). Other subordinators likewise distinguish a sequential ('and then') from a concurrent ('while') temporal relationship between two juxtaposed clauses.

15.1.3 Linear position and arguments of directly chained verbs

In normal direct chains where the two (or more) verbs denote co-events, they are usually either all intransitive or all transitive, with the same subject and (if relevant) object.

The chained verbs normally occur together, following the subject and any other constituents. For intransitive chains, this applies to the subject and to adverbial elements (492).

- (492) *sè:dú [sòⁿ-sònó kúⁿ] bàgá súg-è*
 Seydou [Rdp-sand on] fall go.down-Pfv
 'Seydou fell down in the sand.'

For a transitive chain, the (nonpronominal or pronominal) object also precedes both directly chained verbs.

- (493) a. *iⁿ jòⁿtúrú bàjá gǔŋ-ì*
 1SgSbj donkey pull remove-Pfv
 'I pulled out the donkey.'
 b. *émé ú bàjá gǔŋj-ú*
 1PlSbj 2SgObj pull remove-Ipfv
 'We will pull you-Sg out.'

The verbs in a direct chain are, however, separated by a preverbal subject pronominal in relative clauses and related constructions.

- (494) a. *[nà^L bàgá wó Hsúg-é] Ldèŋ*
 [place^L fall 3SgSbj Hgo.down-Pfv.Rel] Lplace
 'the place where he/she fell down'
 b. *[níŋírⁿi^L ú bàjá iⁿ Hgúŋ-ú] Lníŋírⁿ*
 [day^L 2SgObj pull 1SgPoss Hremove-Pfv.Rel] Lday
 'the day (when) I pulled you-Sg out' (for Hgúŋ-í)

It was initially difficult to elicit chains of verbs with valency mismatches, but a textual example with an intransitive ('come') followed by a transitive ('find, encounter') shows that a pronominal object specifically associated with the second verb is positioned next to it (495a). My assistant provided a follow-up example showing that a nonpronominal object also occurs in this position (495b).

- (495) a. [pàrà-[gò:-rò]]^L-bíré yèré kó ^Ltèmè-jù
 [harvest]^L-work(n) come NonhObj ^Lencounter-Ipfv
 'The harvest work will come and find it (still there).' (2011.1a.07)
- b. [pàrà-gò:rò]^L-bíré yèré jú: ^Ltèmè-jù
 [harvest]^L-work(n) come millet ^Lencounter-Ipfv
 'The harvest work will come and find the millet (still there).'

15.1.4 Negation of direct verb chains

Only the final verb in a chain may be morphologically negated. The negation has scope over the entire chain. Only the final verb undergoes whatever tonal changes are required by the negative inflectional suffix.

- (496) wó bàgá sùgò-lí
 3SgSbj fall go.down-PfvNeg
 'He/She did not fall down.'

15.1.5 Iterated {HL}-toned verbs plus a final motion verb

To indicate the cooccurrence of a backgrounded activity with a motion event ('go', 'come', 'go up', etc.), the backgrounded activity verb is iterated once (after a cognate nominal or other constituents). Both occurrences have {HL} overlay and no inflection. The {HL} applies to lexically /LH/ verbs like *dègé* 'lick' (497e) as well as to /H/-toned verbs. Nonmonosyllabic stems whose bare form ends in a high vowel, like *wíri* 'whistle' (497c), have the vocalic form with final mid-height vowel as in the imperative and various suffixed forms. The motion verb follows the iterated activity verb, but need not be adjacent to it, as shown by the intervening constituents in (497b-c).

- (497) a. wó [nǎ: ^{ji:}_{HL-HL} ^{ji:}_{HL-HL}] ^Lyèr-è
 3SgSbj [meal eat^{HL-HL} eat] come-Pfv
 'He/She came (while) eating.'
- b. wó [núŋú núnjò^{HL-HL} núnjò] árà^{+L} d᷑w-è
 3SgSbj [song sing^{HL-HL} sing] top.Loc^{+L} go.up-Pfv
 'He/She went up (while) singing.'
- c. wó [wírɛⁿ wírè^{HL-HL} wírè] já ^Lsùg-è
 3SgSbj [whistling whistle^{HL-HL} whistle] ground go.down-Pfv
 'He/She came down (while) whistling.'
- d. wó [kìr'ní kójòrò^{HL-HL} kójòrò] ^Lyè-y
 3SgSbj [bone gnaw^{HL-HL} gnaw] go.Pfv
 'He/She went (while) gnawing on a bone.'
- e. wó [nùm᷑ dégè^{HL-HL} dégè] súg-è
 3SgSbj [hand lick^{HL-HL} lick] go.down-Pfv
 'She came down licking her hand.'

15.1.6 Nonfinal L-toned *CV(:)* verb stems in chains

Like ‘go’ and ‘do first’ (see below), *gí* ‘say’ has an L-toned form ^L*gì* in similar contexts in purposive clauses (§17.6.1.2).

15.1.6.1 Nonfinal L-toned ^L*yè* ‘go’ in chains

An L-toned form of *yé* ‘go’ occurs nonfinally in chains, directly following another verb. Motion as such need not be involved. Rather, the construction implies some time lapse between the event denoted by the final verb(s) in the chain and the preceding event.

- (498) a. ... *bògór-è:-séⁿ* *dè*,
 ... turn.over-Pfv-PlSbj if],
 pá→ ^L*yè* *kó* *í:ⁿ* ^L*nà-pù*,
 until ^L*go* NonhSbj child ^Lgive.birth-Ipfv,
 kó ^L*yè* *í:ⁿ* *nàrⁿ-è* *dè*, ...
 NonhSbj ^L*go* child give.birth-Pfv if, ...
 ‘... you-Pl turn over (weeds), until eventually they go and bear fruits. When they have gone and borne fruits, ...’ (2011.1a.30)
- b. *[[bàrà^L wàgá]* ^L*yè]* *kíj-ì:* *dǎn-g-è:-séⁿ* *dè*
 [[outback^L distant] ^L*go]* meet prepare-CausPerf-PlSbj if
 ‘(when) they would go and meet in the distant bush and prepare (=plan)’
 (2011.1b.03)

15.1.6.2 Nonfinal imperative ^L*yà:* ‘go’ in chains

In (499), the phrase with ^L*yà:→* is freely translated ‘as soon as (X) went’. It resembles ^L*yà:* in parallel constructions (§15.2.1.5), but the sense of the passage suggests rather a connection with imperative *yǎ:* ‘go!’.

- (499) *[íyé* ^L*kè]* *dè-dè:^{+L}* ^L*yà:→*,
 [today ^LTop] Rdp-father.Def^{+L} ^L*go*.Imprt,
 íyé=ì *è:ⁿ* *-[tè-tè:^{+L}]* *tégir-ì* *dè*
 again soda.ash^L-[Rdp-filtering.pot].Def^{+L} filter-Pfv if
 ‘This time, as soon as the father went, again the (step-)mother filtered (the soda ash) (with) the soda-ash filtering pot.’ (2011.1b.01)

For a different construction with doubled final ^L*yà:* see §15.2.1.5.

15.1.6.3 Nonfinal L-toned ^L*tí* ‘do first’ in chains

tí ‘do first’ (i.e. finish doing one thing before starting on another) is also attested in the form *té-è(:)* as a perfective linker between two chained verbs denoting sequenced events (§15.2.2.5), and in the combination *t-î dè* with similar functions (§16.1.3.2). In (500), it has unsuffixed form, with L-tone, again as a perfective linker. The point of the passage is that the

villagers (in the past) would complete carrying one person's millet from the fields to his home before beginning to do the same for another person.

- (500) [wó ^Lkè] dògò-lí,
 [3SgPoss ^LPoss] be.finished-PfvNeg,
 dágá ^Ltí [pù: ^Lpéré]— dùw-ê:-rè
 leave ^Ldo.first [millet^L other]— carry-MP-IpfvNeg.Plsbj
 '(If) (the millet) of that one was not finished (=completely transported), they didn't leave it and then carry any other millet.' (2011.1a.13)

tí 'send' or 'cause to move away' in verb chains, see (490) in §15.1, may be an accidental homonym of **tfí** 'do first', or they may have diverged from a single ancestral verb.

Jamsay perfective positive inflectional suffix **-tì-** and its Ben Tey match **-tì-**, used mainly with transitive verbs, are related. Jamsay also allows **tí** (H-toned) as a perfective-like linker in chains.

15.1.7 Inflected form of **yě-** 'go' as final member of chain

In the form **^Lyě-Ø**, a reduced form of perfective **yě-ŷ** 'went', the 'go' verb occurs in certain combinations that need not involve even incidental motion. The phrases in (501) are common.

- (501) a. táŋá ^Lyě-Ø dè
 become ^Lgo-Pfv if
 'if it happens that ...' (discussed in §16.1.3.1)
- b. náŋá ^Lyě-Ø
 forget ^Lgo-Pfv
 '(he/she) forgot'
- c. lóngó ^Lyě-Ø
 overflow ^Lgo-Pfv
 'it was too much (extreme)' (2011.1a.22)

táŋá 'become' does not combine with 'go' in its basic sense, cf. **tímé=yŋ' táŋ-è** 'he became (turned into) a tree'. 'Forget' and 'overflow' (in the sense 'be too much') combine with 'go' only in the perfective positive. Thus **náŋà-lí** 'did not forget', **náŋá-pú** 'will forget', **lóngó-jú** 'will be too much', etc.

As in English (*X went and died*), 'go' often occurs with 'die' and its euphemisms and with semantically related verbs like 'pass'. In the textual examples in (502a-b), no motion was involved. In (502c-d), motion is already indicated by the preceding chained verb 'go out'.

- (502) a. mòr-é-è: ^Lyě-Ø
 be.lost-MP-and.SS ^Lgo-Pfv
 '(she) was lost' (euphemism for 'died') (2011.1a.01)
- b. yð-ŋ yé nū: ^Lyě-Ø
 like.that there die ^Lgo-Pfv
 'In that way she died there?' (2011.1b.02)

- c. [y⁵ L**bàŋà**] g⁶: L⁷**yè-Ø**
 [NearDist L¹owner] go.out L²go-Pfv
 ‘That one went away.’ (2011.1b.02)
- d. l⁶ g⁷₂ L⁸**yè-Ø**
 planting pass L⁹go-Pfv
 ‘the planting (season) has passed’ (2011.1a.02)

In these combinations, the final ‘go’ verb is particularly common in the perfective (positive). However, it can also occur in other forms. (503) is imperfective.

- (503) [ú w²₂ L³**är-è** d⁴]
 [2SgSbj do.farming-Pfv if]
 [[nù:^L g⁵₁ L⁶**dàyⁿ**] n⁷: L⁸**yà:-jù**
 [[millet^L some] L⁹limit] die L¹⁰go-Ipfv
 ‘If you-Sg farm (=weed) (too early), most of the millet will go and die.’ (2011.1a.03)

Even perfective ^L**yè-Ø**, though it is reduced in form and meaning, still patterns as an inflected chain-final verb stem. It has a plural-subject form ^L**y-è** with short vowel, compare the full form **yɛ-è:(-sɛⁿ)** ‘(they) went’.

- (504) [éné b² w³₂] [nájá L⁴**y-è**] wà
 [Logo Pl Top] [forget L⁵go-Pfv.Plsbj] Quot
 ‘(They said:) “As for us, we forgot (the rendez-vous).”’ (2011.1b.03)

Something very similar to this chain-final perfective ^L**yè-Ø** with bleached sense was undoubtedly the historical source of Jamsay perfective suffix **-yɛ ~ -yà** with motion verbs and statives.

15.1.8 Chaining with **jíjè** ‘(go) along with’

The invariant form **jíjè** ‘along with’ seems to function as a transitive verb in nonfinal position in a chain with a motion verb. The context is that the subject of the motion verb is taking along a dependent person (such as a child or a visitor), an animal, or e.g. a tool. The 1Sg object form **má** preceding **jíjè** (505b) suggests a possible analysis of **jíjè** as a transitive verb (limited to nonfinal position in chains) rather than a typical spatial postposition. One could alternatively argue that **jíjè** is a postposition like dative **nì**, which also follows 1Sg **má**. In the perfective, ‘go’ takes the reduced form ^L**yè-Ø** described in the preceding section (505c).

- (505) a. [í:ⁿ^{+L} jíjè] y²:
 [child.Def^{+L} along.with] go.Imprt
 ‘Go-2Sg with the child!’ (= ‘Take the child with you! ’)
- b. [má jíjè] L²**yèr-è**
 [1Sg along.with] L³come-Pfv
 ‘(He/She) came with me (=brought me along).’

- c. [lɔ:^{+L} é.ⁿ bár-é: mà]
 [aunt.Def^{+L} soda.ash gather-and.SS and.then]
 [gírⁿí jíjè ^Lyè-Ø]
 [house along.with ^Lgo-Pfv]
 ‘The step-mother gathered up the soda ash (=burned stalks) and took it home with her.’ (2011.1b.01)

15.1.9 Chaining with final perfective of *pórù* ‘say’

In this construction, a final perfective *pór-ì* ‘said’ (§11.3.1) is added to a verb. The sense is not quotative, rather it indicates that the event in question immediately followed the preceding event. The construction is attested once in a text, involving a character transformed into a bird, perched on a tree, who could fly off very quickly. A more colorful translation like ‘flew off in a flash’ might be appropriate.

- (506) [yɔ̃-ŋ wó gé-è] [bàjíⁿ yě pór-ì]
 [like.that 3SgSbj say-and.SS] [B go say-Pfv]
 ‘When he had said (=sung) like that, Baji immediately went away.’ (2011.1b.02)

Following a ‘before’ clause, *yě pór-ì* ‘said’ (plural-subject *yě pór-è:*) has a perfect reading: ‘has/had (already) gone away’.

- (507) a. wó ^Hyé-jà, ^Iⁿ yě pór-ì
 3SgSbj ^Hcome-before, 1SgSbj go say-Pfv
 ‘By the time he/she came, I had gone (away).’
- b. bé ^Hyé-jà, ^émé yě pór-è:
 3PLSbj ^Hcome-before, 1PLSbj go say-Pfv
 ‘By the time they came, we had gone (away).’

My assistant did not accept this construction with verbs other than ‘go’.

15.2 Adverbial clauses with overt chaining or subordinating morpheme

15.2.1 Imperfective and durative subordinated clauses

In addition to the constructions described in the following subsections, see the imperfective complements of perception verbs like ‘see’ and ‘find’ in §17.2.2.2, and the iterated {HL}-toned verbs and a final motion verb in §15.1.5, above.

15.2.1.1 Progressive adverbial clause (-táŋà, plural -téŋè)

Time-of-day verbs like *ná:* ‘spend the night’ and *dègé* ‘spend the day’, along with *tɔwⁿɔ* ‘do for a long time’, can combine with a subordinated progressive clause (508a-c) whose verb has inflectional suffix *-táŋà*. The optional plural-subject form *-téŋè* can be used when the subject is plural (508a). My assistant favors this construction, rather than that with *-ní:* (see just below, §15.2.1.2) when the temporally concurrent main clause is perfective.

- (508) a. *bé* [gó: gɔ:-téŋè] ^H*nà-ɛ*
 3PlSbj [dance(n) dance-Prog.Plsbj] ^H**spend.night-Pfv**
 ‘They spent the night dancing.’
- b. *wó* [pá: pí:-táŋà] *tówⁿ-ɛ*
 3SgSbj [meal eat.meal-Prog] **do.long.time-Pfv**
 ‘He/She took a long time to eat.’
- c. *bé* [pá: pí:-táŋà] *tówⁿó-séⁿ*
 3PlSbj [meal eat.meal-Prog] **do.long.time-Pfv.Plsbj**
 ‘They took a long time to eat.’

15.2.1.2 Different-subject ‘while’ clause (-ní ~ -ñ)

A backgrounded clause denoting an activity simultaneous to that of the main clause, but with a disjoint subject, has suffix *-ní* ~ *-ñ* on the verb. When combined with *dè* ‘if/when’, the actions can be sequenced rather than simultaneous, but the clause with *-ní* ~ *-ñ* still denotes an imperfective action, as in (509c). See also the construction *kó kó-ñ dè* (§15.4.1.1).

- (509) a. *Iⁿ* *bíré* [pá: é pí:-ní] ^L*bì-jù*
 1SgSbj work(n) [meal 2PlSbj eat.meal-while.DS] ^L**do-Ipfv**
 ‘I will work while you-Pl eat.’
- b. *[bíré* *é* *bí-ní]*
 [work(n) 2PlSbj do-while.DS]
Iⁿ *gíné* ^L*nòwⁿ-ɛ:-ñù*
 1SgSbj sleep(n) ^L**sleep-MP-Ipfv**
 ‘While you-Pl work, I will sleep.’
- c. *[hâl* *pú:* *bé* *dùw-é:-ñ]*
 [even millet 3PlSbj carry-while.DS]
[hâl *fó→* *dà:gá* ^L*dè-ɛ]*
 [even even night ^L**night.fall-Pfv**]
[nùŋú *ná-ɛ* *kà:ⁿ*
 [sun spend.night-Pfv even]
 ‘even if they are carrying the millet while night has fallen, even while (the next) day has broken, ...’ (2011.1a.13)
- d. *[é né:] [è:rè^L ná:] gúj* *é* *pí:-ní* *dè,*
 [2Pl now] [peanut^L main] take.out 2PlSbj eat-while.DS if,
pú: kú:ⁿ gò:jù
 [millet then ^L**go.out-Ipfv**]
 ‘You-Pl now, you are taking out (=harvest) groundnuts and eating them (for a period of time), then (eventually) the millet comes out.’ (2011.1a.19)

Forms of this suffix with various verb-stem shapes and tones are in (510). The stem takes its usual presuffixal form, and preserves its lexical tones. The vowel of *-ní* is frequently apocopated, resulting in *-ñ*. *rv*-Deletion usually applies to *CvrV* and *CvrⁿV* stems (510d). A

connection between this suffix and the dative postposition *nì*, which also often apocopes, is phonologically reasonable but makes no sense semantically.

- (510) Different-subject (DS) ‘while’ subordinator (variant *-n̩* not shown)

bare stem	DS	gloss
a. <i>Cv</i>		
<i>regular</i>		
ó	ó- <i>nì</i>	‘give’
nú	nú- <i>nì</i>	‘go in’
gí	gí- <i>nì</i>	‘say’
<i>irregular</i>		
yě	yě:- <i>nì</i>	‘go’
jé	já:- <i>nì</i>	‘take away’
b. <i>Cv:</i>		
/H/-toned		
ká: ⁿ	ká: ⁿ - <i>nì</i>	‘shave’
kó: ⁿ	kó: ⁿ - <i>nì</i>	‘weep’
ná:	ná:- <i>nì</i>	‘spend night’
nú:	nú:- <i>nì</i>	‘die’
tú: ⁿ	tú: ⁿ - <i>nì</i>	‘measure’
/LH/-toned		
bě:	bě:- <i>nì</i>	‘put down’
gě: ⁿ	gě: ⁿ - <i>nì</i>	‘steal’
gő:	gő:- <i>nì</i>	‘go out’
já:	já:- <i>nì</i>	‘dig’
jě:	jě:- <i>nì</i>	‘scoop’
c. <i>CvCv</i> except with medial rhotic		
/H/-toned		
págá	págá- <i>nì</i>	‘tie’
píné	píné- <i>nì</i>	‘shut (door)’
súgó	súgó- <i>nì</i>	‘go down’
/LH/-toned		
bògó	bògó- <i>nì</i>	‘(dog) bark’
bàgá	bàgá- <i>nì</i>	‘fall’
dòwó	dòwó- <i>nì</i>	‘go up’
d. <i>CvrV, CvrⁿV</i> usually shortens to <i>Cv-</i>		
<i>rv</i> -Deletion applies		
bàr ⁿ á	bá- <i>nì</i>	‘beat (tomtom)’
dòr ⁿ á	dó- <i>nì</i>	‘sell’
gér-í:	gě- <i>nì</i>	‘look’
yéré	yě- <i>nì</i>	‘come’
<i>rv</i> -Deletion fails to apply		
téré	téré- <i>nì</i>	‘pound’

e. Cv:Cv

/HL/-toned

sí:ri	sí:ré-nì	'cook (meal)'
sí:ri	sí:ré-nì	'point at'
ú:-nì	ú:-nɔ́-nì	'lay down'

/LHL/-toned

bă:ri	bă:rá-nì	'send'
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f. CvCvCv

/HL/-toned

kígìrì	kígéré-nì	'return'
kógújù	kógújó-nì	'cough'
úgùrù	úgóró-nì	'bake'

/LHL/-toned

pùnú-gù	pùnú-gó-nì	'ruin'
wègírì	wègéré-nì	'rub (eye)'

g. Mediopassive CvC-i:

/HL/-toned

kír-ì:	kír-é:-nì	'jump'
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/LHL/-toned

dìw-î:	dìw-é:-nì	'lean on'
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15.2.1.3 Same-subject 'while' clause (*jè*)

This *jè* is distinct from recent perfect *jê* and variants (§10.2.1.3). It is attested with a following motion verb, so the basic context is 'go (along) VP-ing'. The verb is in its bare stem as in chains. Mediopassive verbs have the *-e:* ~ *-e*: suffix allomorph.

- (511) a. [nà^L pɔ̄ŋ], [lìgìjí→ wàrá jè] ^Lyà:-lè
 [person^L all], [in.disorder do.farm.work while.SS] ^Lgo-Proh
 'Nobody must go working (the fields) in disorder (randomly).'
- b. [dí: nɔ̄: jè] ^Lyè-y
 [water drink while.SS] ^Lgo-Pfv
 'He/She drank water while going (walking).'
- c. yɔ̄-ŋ [bé wò→] [wùrúdúdú-wùrúdú-wùrúdú
 like.that [3Pl all] noisily
 dùw-é: jè] gò-ó: mà, ...
 carry-MP while.SS] go.out-and.SS and.then,
 'Like that they all came out (of the bush) carrying (it) noisily, ...' (2011.1b.05)
 (gò-ó: for gò-é:)
- d. [kùnúgóró pôl pôl jè] ^Lgà-jì
 [head cut.off cut.off while.SS] ^Lgo.past-Ipfv
 '(They) keep breaking (=cutting) off the heads (=grain spikes) and moving on
 (from one plant to another).' (2011.1a.10)

Compare Ben Tey subordinator *-jè*→ indicating continuing action.

15.2.1.4 Same-subject ‘while’ clause (*-ní:*)

With a time-of-day verb (*ná:* ‘spend the night’, *dègé* ‘spend the day’), my assistant preferred a complement with suffix *-ní:* on the verb, instead of the progressive construction described above, when the temporally enclosing main verb is imperfective.

For verbs like *jă:nù* ‘boil (sth)’ whose bare stem ends in a short high vowel, the vocalism of the stem is that of the imperative and other suffixed forms, with a non-high final vowel. The form of the verb stem is identical to that with different-subject ‘while’ subordinator *-ní* as described just above.

-ní: can be reduced to *-n* in allegro speech or in high-frequency combinations. See *yé yă:-n* ‘while walking’ in (625b) in §17.6.1.1.

The time-of-day construction is illustrated in (512a-b).

- (512) a. *émé [té jă:ná-ní:] dègé-jú*
1PlSbj [tea boil-while.SS] spend.day-Ipfv
'We (will) spend the day making tea.'
- b. *émé gጀ: gጀ:-ní: L nà:-jù*
1PlSbj dance(n) dance-while.SS L spend.night-Ipfv
'We will spend the night dancing.'

For a textual example of *gጀ:-ní:* ‘while dancing’, see (474) in §14.1.10.

In (513) the verb plus *-ní:* is iterated and followed by *dè* ‘if/when’.

- (513) *yă:-ní: yă:-ní: dè, mhm,*
go-while.SS go-while.SS if, uh-huh,
bé=n *sá-è dè—*
3Pl=Topic reply-Pfv if—
'While they were going, uh-huh, they for their part spoke up—' (2011.1b.05)

15.2.1.5 Parallel construction (Verb₁^{HL L} *yà:*; Verb₂^{HL L} *yà:*)

This construction is used to indicate that two activities are simultaneous or interspersed rather than being carried out in a strict chronological sequence. The *yà:* segments are uninflected, and a synchronic connection with the ‘go’ verb is tenuous (motion is not a necessary feature of the activities). I will gloss ^L*yà:* noncommittally as ‘while’ in interlinears. For another construction with final ^L*yà:* see §15.1.6.2.

The two verbs take their presuffixal vocalic form, with an {HL} overlay on the final two syllables (or the single syllable of a monosyllabic stem). The verbs are otherwise uninflected, as the construction is used in narrative contexts where the referents and time frame are already clear. A subject NP is possible but not required.

In (514a), the point is that some farmers do not pile up all the millet grain spikes in the fields (over several days of the harvest) before carrying them home, rather they carry some home each day after cutting them off. In (514b), note that the object nouns ('water', 'meal') have their regular tones; this distinguishes the present construction from a purposive-clause

type with {HL} overlay on the verb but also with L-toned object nouns (in compound-initial form), see §17.6.2.

- (514) a. *kà:ná* [gàmà ^Hná] now [certain ^Hperson]
 [*gérè*^{HL} ^Lyà: *dúw-è*^{HL} ^Lyà:], [*gérè*^{HL} ^Lyà: *dúw-è*^{HL} ^Lyà:], [*cut.off*^{HL} ^Lwhile *carry-MP*^{HL} ^Lwhile]
 [*cut.off*^{HL} ^Lwhile *carry-MP*^{HL} ^Lwhile]
 [*kó* *kà:ná* *yɔ* *kò*]
 [Nonh also] now Exist be.NonhSbj
 'Nowadays, some people, (they do) cutting off (millet grain spikes) and carrying (them, to the houses) at the same time, cutting off and carrying. That too exists (=is done) nowadays.' (2011.1a.09)
- b. [*dí:* *nâ:*^{HL} ^Lyà:] [*nâ:* *nî:*^{HL} ^Lyà:] [water drink^{HL} ^Lwhile] [meal eat.meal^{HL} ^Lwhile]
 'drinking water and eating food at the same time'
- c. *kó* *í:n* *kúnɔ*^{HL} ^Lyà:, *piyé* *bágà*^{HL} ^Lyà:
 NonhSbj child put^{HL} ^Lwhile, flower fall.off^{HL} ^Lwhile
 'It (=peanut plant) puts out fruits and the flowers fall off (at the same time).' (2011.1a.20)

The mediopassive suffix (elsewhere *-î:* or *-é:-*) is reduced to *-è*, as in *dúw-è*^{HL} from *dúw-î:/dúw-é:* 'carry' in (514a).

Trisyllabic verbs have the partial {HL} overlay on the penult and the final, but preserve the lexical tone on the first syllable. The tonal effect is that only a final L-tone is superimposed: *yègérè*^{+L} ^Lyà: from *yègérí* 'winnow (by shaking)'.

There are no irregularities among the verbs that do show irregularities in several other forms: *jé:rè*^{HL} ^Lyà: ('bring'), *jâ:*^{HL} ^Lyà: ('take away'), *yérè*^{HL} ^Lyà: ('come'), *yâ:*^{HL} ^Lyà: ('go').

It is also possible to have a single *yà:* clause, as long as it is followed by another clause or clauses that denote another prolonged activity.

- (515) *bé* *gérè*^{HL} ^Lyà:, 3PlSbj cut^{HL} ^Lwhile,
 [*súrɔ* *[nâ*^L *túnɔ*^{+L}] *] mò:-nò]* [pile.up place^L one.Loc^{+L}] ^Lassemble-Caus.Imprt
 [*súrɔ* *[nâ*^L *túnɔ*^{+L}] *] mò:-nò]* [pile.up place^L one.Loc^{+L}] ^Lassemble-Caus.Imprt
 'As they cut off the grain spikes, (they) must gather and pile (them) in one spot, (they) must gather and pile (them) in a (=another) spot (and so forth).' (*gérè*) (2011.1a.12)

15.2.1.6 Parallel construction (Verb₁.Imprt ^LVerb₂.Imprt)

Another parallel construction, used in narrative to describe two simultaneous actions that continue in time, has the verb of the first clause in (singular) imperative form, hence HH-

toned for *CVCV* stems. The second verb is also imperative in form but {L}-toned, as often for verbs at the end of a clause or longer construction, especially in such parallelistic contexts.

- (516) a. [wó bájá] [dè-dé:] [íⁿ tò] ^Lbɔrⁿɔ] [3SgSbj pull.Imprt] [Rdp-father [around here] ^Lcall.Imprt]
 [wó bájá] [dè-dé:] ^Lbɔrⁿɔ] [3SgSbj pull.Imprt] [Rdp-father ^Lcall.Imprt]
 [wó bájá] [dè-dé:] ^Lbɔrⁿɔ] [3SgSbj pull.Imprt] [Rdp-father ^Lcall.Imprt]
 [dè-dé:] wɔⁿ] ... [Rdp-father Top] ...
 ‘She was pulling while the father (=crane) was calling (from) over here (on the other side), she kept pulling while the father kept calling. The father, ...’
 (2011.1b.02) (*bàjá, bɔrⁿɔ*)
- b. [wó yègéré] [3SgSbj winnow.Imprt] [dè-dé:] kògújó ^Lkògùjò] [Rdp-father cough(n) ^Lcough.Imprt]
 ‘she kept winnowing while father kept coughing’

15.2.1.7 ‘Until getting tired’ (*fó→ dēⁿ-èⁿ*)

This phrase, or its variant with *pá→* instead of *fó→*, can be added to a clause with progressive suffix, denoting an extended activity. It means literally ‘until (I, you, ...) got tired’, but it mainly emphasizes the temporal extent and intensity of the activity.

- (517) [fó núŋú núŋj-táŋjà] [fó→ dēⁿ-èⁿ] [1SgSbj song sing-Prog] [until get.tired-Pfv]
 ‘I sang until (I) got tired.’ (or: ‘I wore myself out singing’)
 ‘I sang for a very long time.’

dēⁿ-èⁿ can also directly follow a same-subject anterior verb form (§15.2.2.1). In this case it is subject to clause-final tone-dropping (518).

- (518) [[ènē bè] [íⁿ tò] [nà ^Lpɔ̃n] [[LogoSbj Pl] [here at] [person^L all]
 pór-è: ^Ldēⁿ-èⁿ] gíré gò:-lâ:] say-and.SS ^Lget.tired-Pfv] forward go.out-PfvNeg.Plsbj
 ‘(They said:) every one of us over here has spoken until (we) got tired, (but) (we) haven’t made progress.’ (2011.1b.04)

15.2.1.8 Chains with -è: plus locational-existential quasi-verb

In the construction exemplified by (519), a verb with same-subject anterior form (-è: or variant) is followed by a subject pronoun and an <HL>-toned form of the appropriate ‘be’ quasi-verb (human singular *wɔ̂*, human plural *wê*, nonhuman *kɔ̂*). This is the tonal form of

such quasi-verbs in adverbial function (11.2.2.2). The sequence can function as background to a following foregrounded event.

- (519) a. *[[kɔ̃n nɔ̃-ŋ dìn-é-è:] Iⁿ wɔ̃]*
 [daba like this hold-MP-and.SS] 1SgSbj **be.HumSgSbj**
 [má L-à-è]
 [1SgObj Lcatch-Pfv]
 'I was holding the (stolen) daba like this and they caught me.'
- b. *[[kɔ̃n nɔ̃-ŋ dìn-é-è:] émé wɛ̄]*
 [[daba like this hold-MP-and.SS] 1PlSbj **be.HumPl**
 [émé L-à-è]
 [1PlObj Lcatch-Pfv]
 'We were holding the (stolen) daba like this and they caught us.'

15.2.2 Anterior clauses

In the constructions described under the “anterior” rubric, the time interval associated with the subordinated clause precedes that associated with the following main clause.

15.2.2.1 Same-subject past anterior (*-e:* ~ *-e:* ~ *-i:*)

The subordinating suffix *-e:* ~ *-e:* ~ *-i:* (usually *-e:*) is added to a clause (really a VP) with the same subject as the main clause. The two events are chronologically sequenced. Normally the entire event sequence has taken place in the past. My assistant did not accept this construction with a following imperative, preferring a direct verb chain (520b).

- (520) a. *Iⁿ [děⁿ jě:r-è:] dǎ:n-ì*
 1SgSbj [waterjar bring-and.SS] put.down-Pfv
 'I brought the waterjar and put it down.'
- b. *děⁿ jě:rì dá:ná*
 waterjar bring put.down.Imprt
 'Bring-2Sg the waterjar and put it down!'

The pseudo-conditional or future anterior with *dè* is also possible with imperatives and more generally with ongoing or future event sequences, leaving *-e:* ~ *-e:* ~ *-i:* in connection with past event sequences.

Forms of this subordinator with stems representing different shapes and tone melodies are in (521). For the combination of *-e:* ~ *-e:* ~ *-i:* with a clause-final morpheme *mà*, see the following section.

(521) Same-subject (SS) anterior subordinator

bare stem	SS	gloss
a. <i>Cv</i>		
<i>no vocalic change</i>		
ó	ó-è:	'give'
tí	tí-è:	'send'
[for té-è: ~ té-è see §15.2.2.5]		
gí	gí-è:	'say'
[for gé-è: ~ gé-è see §11.3.1.2, §8.3.1.1]		
nú	nú-è:	'go in'
<i>Ce</i> harmonizing to <i>Ce-e</i> :		
yě	yě-è:	'go'
jé	jé-è:	'take away'
b. <i>Cv:</i> with nonhigh vowel		
[+ATR], stable		
gő:	gő-é:	'go out'
[+ATR], harmonizing to [-ATR]		
bě:	bě-é:	'put down'
[-ATR] or low vowel		
ná:	ná-é:	'spend night'
ká: ⁿ	ká ⁿ -é:	'shave'
já:	já-é:	'dig'
jě:	jě-é:	'scoop'
kó: ⁿ	kó ⁿ -é:	'weep'
c. <i>CvCv</i> , /H/-toned		
[+ATR]		
sígó	síg-é:	'go down'
téré	tér-é:	'pound'
[-ATR]		
págá	pág-é:	'tie'
píné	pín-é:	'shut (door)'
d. <i>CvCv</i> , /LH/-toned		
[+ATR]		
bògó	bòg-é:	'(dog) bark'
[-ATR]/r		
yèré	yèr-é:	'come'
dòwá	dòw-é:	'go up'
bàgá	bàg-é:	'fall'
e. <i>Cv:</i> with high vowel		
nú:	nú-í:	'die'
tú: ⁿ	tú ⁿ -í:	'measure'
gí: ⁿ	gí ⁿ -í:	'steal'

f. *Cv:Cv*

<i>sí:rì</i>	<i>sí:r-è:</i>	‘cook (meal)’
<i>sí:rì</i>	<i>sí:r-è:</i>	‘point at’
<i>ú:-ñ</i>	<i>ú:n-è:</i>	‘lay down’
<i>bă:rì</i>	<i>bă:r-è:</i>	‘send’

g. *CvCvCv*

<i>kígìrì</i>	<i>kígér-è:</i>	‘return’
<i>kéñìrì</i>	<i>kéñér-è:</i>	‘listen’
<i>úgùrù</i>	<i>úgér-è:</i>	‘bake’
<i>kógújù</i>	<i>kógúj-è:</i>	‘cough’
<i>wégúrì</i>	<i>wégér-è:</i>	‘rub (eye)’
<i>jùnú-gù</i>	<i>jùnú-g-è:</i>	‘ruin’

h. Mediopassive *CvC-i:*

<i>gér-î:</i>	<i>gér-é-è:</i>	‘look’
<i>díw-î:</i>	<i>díw-é-è:</i>	‘lean on’
<i>kír-ì:</i>	<i>kír-é-è:</i>	‘jump’
<i>tág-ì:</i>	<i>tág-è-è:</i>	‘jump’

The vowel quality is [-ATR] *-e:* for *Cv* stems, regardless of lexical ATR quality. It is also *-e:* for all heavy stems, i.e. *Cv:Cv*, mediopassive *CvC-i:*, and trisyllabic stems. For the trisyllabics the [-ATR] value extends backward from the suffix to the medial syllable, if this syllable has a mid-height vowel, but it does not affect a [+ATR] vowel in the first syllable hence *kígér-è:* from *kígìrì* ‘return’ (which is lexically [+ATR] as seen in imperative *Kígéré*), and *kéñér-è:* from *kéñìrì* ‘listen’. For bimoraic *Cv:* and *CvCv* stems, on the other hand, the suffix agrees with the lexical ATR value of the stem, so we get *-e:* or *-e:* depending on the stem. The allomorph is *-i:* after *Cv:* verbs with high vowel (521e). The phonology is not entirely transparent, but one way to explain the difference between *Cv* and *Cv:* stems is to argue that *-è:* is appended to the former, but fuses with the second mora of the latter, with the ATR value of this second mora dominating that of the suffix. How this analysis would explain the difference between *CvCv* and heavier stems is left to the reader.

The vocalism of a verb plus *-e:* ~ *-e:* ~ *-i:* suffix is very close to that of the simple perfective form (§10.2.1.1), apart from the vowel length. The only clear difference in vocalism is for ‘give’, which has simple perfective *ó-è* but SS subordinated form *ó-è:*. Given that the clause with SS *-e:* denotes an antecedent eventuality, so there is also a semantic connection with perfectivity. This suggests that the SS *-e:* form is segmentally a variant of the simple perfective with the final vowel (or semivowel *-y*) lengthened.

The tone of the suffix is also variable. It is always L-toned after a *Cv* stem or after a heavy stem (*Cv:Cv*, trisyllabic); in these combinations the stem itself has its lexical melody. For bimoraic (*Cv:* and *CvCv*) stems, the suffix is H-toned, while the lexical tone is expressed on the first syllable. The tones again show considerable similarity to those of the simple perfective, but there are tonal divergences between the two forms for some *Cv* stems, and a systematic tonal divergence in the /H-toned *Cv:* stems (simple perfective *Cv-è* etc., but SS subordination form *Cv-é:* etc.).

15.2.2.2 Simple inflected verb plus *mà* ‘and then’

TgK *mà* may be related historically to Jamsay *mèyⁿ* ~ *màyⁿ*, but the syntax of the two is rather different.

Clause-final *mà* ‘and then’ is attested once after a simple perfective verb.

- (522) [ké: bá→ né:], kà:ná
 [long.ago now], now
 [pàrà-[gò:-rò]]^L-bíré dòg-ê mà,
 [harvest]^L-work(n) end-Pfv and.then,
 [sò:^L [näj mà→]]^{HL} sít:n-kà:n,
 [thing^L [how? Q]]^{HL} equivalent,
 [àrⁿá-ùrⁿù bè] fêté kún-è:-séⁿ dè
 [man-children Pl] festival put-Pfv-PlSbj if
 ‘In the old days, now when the autumn work (=harvesting) was finished, or something of that sort, the young men would put (=hold) a festival.’ (2011.1b.03)

mà is also attested once after a progressive verb.

- (523) [yó: jé:rⁿé-táŋà mà]
 [NearDist suffer-Prog and.then]
 [yɔ-ŋ yé ^Lnù-y] wà
 [like.that there ^Ldie-Pfv] Quot
 ‘That (woman) was suffering, like that she died there, they say.’ (2011.1a.02)

More often, this *mà* is used after another subordinator or in stylistically marked verb iterations. For *mà* after same-subject anterior *-e:* ~ *-e:* ~ *-i:* see §15.2.2.3 just below, and for *mà* after *ké:ⁿ* ~ *kérⁿè* see §15.2.2.8. For relevant iterative constructions see §11.6.6-7.

15.2.2.3 Same-subject anterior *-e:* ~ *-e:* ~ *-i:* plus *mà*

The suffix *-e:* ~ *-e:* ~ *-i:* (see preceding section) may also be followed by *mà* (cf. Prost pp. 52, 87). In data freely elicited from my primary informant, *-e:* ~ *-e:* ~ *-i:* was used without this morpheme. However, in narrative texts, examples both with and without *mà* are common. The examples of this combination suggest close coordination of the events in the two clauses, which in some cases are co-events (aspects of a single event). *mà* is also optionally added to the different-subject anterior subordinator *ké:ⁿ* ~ *kérⁿè* (§15.2.2.8). I gloss it ‘and.then’ in interlinears.

- (524) a. [lɔ:^{+L} é:ⁿ bàr-é: mà]
 [aunt.Def^{+L} soda.ash gather-and.SS and.then]
 [gìrⁿí jíjè ^Lyè-∅]
 [house go.with ^Lgo-Pfv]
 ‘The step-mother gathered up the soda ash (=burned stalks) and took it home with her.’ (2011.1b.01)

- b. [nă:^{+L} téw-é: mà]
 [mother.Def^{+L} shoot-and.SS and.then]
 [[kó ^Hdēy^{+L}] yē ^Ldàrⁿ-è]
 [[NonhPoss ^Hplace.Loc^{+L}] there ^Lkill-Pfv]
 ‘He shot the (step-)mother in that place (=on the spot) and killed (her) there.’
 (2011.1b.01)
- c. [yē kēdúrú tár-é: mà],
 [there cowry affix-and.SS and.then]
 gō: yē ^Lyē-Ø
 go.out there ^Lgo-Pfv
 ‘He stuck a cowry shell there (over the scar), and left (home) to go there.’
 (2011.1b.02)

15.2.2.4 Conjoined background perfectives with dying-quail (.:)

In the textual passage (525), two clauses with perfective verbs each drawn out by dying-quail intonation (symbol .., interlinear gloss “.&”, see §7.1.1) function as background to a third clause. Both backgrounded clauses are also resumed by PPs (indented).

- (525) jírⁿíjé súg-è.:,
 rainy.season go.down-Pfv.&,
 [[[jírⁿíjé^L -[sùg-ú]] ^Hdógó] tò]
 [[[rainy.season^L -[go.down-VblN] ^Hrear] at]
 [wáru gō:-sēⁿ.:],
 [farm.work go.out-Pfv.PI Sbj.&],
 [wáru ^Hdógó] tò,
 [farm.work ^Hrear] at,
 né: [kó wà] [pàrá gō-è] gì-jù
 now [NonhSbj QuotSbj] [autumn go.out-Pfv] say-Ipfv
 ‘(Suppose) the rainy season has come down (=begun), (so it is) after the coming down of the rainy season; and (they) have gone out (to the fields) (for) the first weeding, (so it is) after the first weeding; they now say “autumn (=harvest season) has gone out (=is happening).”’ (2011.1a.32)

Another example from the same text is (526), where gō-è.:. is heard as [gōê:(:)]) with final falling pitch.

- (526) kà:ná, jírⁿíjé súg-è.:,
 now rainy.season go.down-Pfv.&,
 pàrá gō-è.:, pàrá gō-è.:,
 autumn go.out-Pfv.&, autumn go.out-Pfv.&,
 [kó ^Hdógó ní:] [né: iŋé ^Lbì-jù]
 [Nonh ^Hrear after] [now what? ^Ldo-Ipfv]
 ‘Now, (suppose) the rainy season has come down (=begun), and the autumn has gone out, the autumn has gone out, (then) after that what do (they) do now?’ (21.1a.33)

This construction should not be confused with the same-subject anterior construction with -e:
 ~ -e: ~ -i: (preceding sections). Confusion could easily arise when the perfective verb to

which dying-quail intonation applies ends in L-toned *-è* ~ *-è*, so that the only audible effect of this intonation is prolongation of the vowel. In (525-6), note that *súg-è:*, phonetic [súgè:(*:)*] is based on {HL}-toned perfective *súg-è* ‘he/she/it went/came down’, and is therefore clearly distinct from {H}-toned same-subject anterior *súg-é*: ‘went down and ...’. In addition, plural-subject perfective *-sêⁿ* can occur in the conjoined perfective construction, as in *gō:-sêⁿ:* in (525), pronounced [gō:sêⁿ:(*:)*]. By contrast, the same-subject anterior form does not allow plural-subject marking.

15.2.2.5 Perfective linker between two chained verbs (*té-è*: ~ *té-è*)

té-è: (often reduced to *té-è*) is the same-subject anterior form of *tf* in the sense ‘do first’ (the verb can also mean ‘send’). The irregular vocalism diverges from the more regular *tí-è*: from *tí* ‘send’, but it does have a vocalic match in purposive *gê*: from *gí* ‘say’ (§8.3.1.1). Other forms related to *tí* are L-toned ^L*tì* nonfinally in a verb chain (§15.1.6.3) and *t-i dè* (§16.1.3.2).

Inserting *té-è*(*:)* makes it clear that the event denoted by the VP to the left was completed (perfective) before the time of the following event. In (527) *té-è* is followed by the final main-clause verb.

- (527) [[kúⁿ mà ká:ⁿ té-è] ^L*gò-è*
 [[head 1SgPoss] shave do.first-SS.Ant] ^Lgo.out-Pfv
 ‘He shaved me, then left.’
 ‘Having (first) shaved me, he left.’

In (528) *té-è* is followed by another anterior subordinated clause (‘come’).

- (528) [[àjnú bórð] bé dàgá té-è] *yér-é:* mà, ...
 [[roselle under] 3PIObj leave do.first-and.SS] come-and.SS and.then,
 ‘She left them under a roselle bush and then came (home), ...’ (2011.1b.04)

There is a verb *té*: ‘weave’, but it is probably not connected to this linking element *té-è*(*:)* in verb chains.

15.2.2.6 (Pseudo-conditional) future anterior (*dè*)

As Prost already astutely noted (p. 67 and *passim*), there are two distinct constructions with *dè* ‘if’. One construction is a conventional conditional antecedent clause, with clause-final *dè* ‘if’ as in ‘if he comes, I will see him’. The antecedent and the consequent are both ordinary main clauses (except for *dè* at the end of the antecedent), with their own independent subjects. The antecedent denotes a possible future eventuality, the consequent an eventuality that is causally or otherwise dependent on the realization of the antecedent. The verb of the antecedent clause is often, but need not be, aspectually perfective. Either or both of the clauses may be negative. See §16.1 on conditionals.

The other construction is a **pseudo-conditional** chain requiring a (positive) perfective verb before *dè* and a chronological sequence of eventualities. In the great majority of cases, the subjects of the two clauses are coindexed. Unlike the case with same-subject anterior subordinator *-e*: which is used under these same conditions when the entire chain is perfective, the pseudo-conditional construction is used when the entire chain is imperfective. Therefore the *dè* clause is followed by a clause denoting an eventuality that is in progress,

recurrent, or not yet actualized, and it is at least implied that the first eventuality is included in this time perspective. The final clause may be imperative or hortative as well as imperfective indicative. Prost aptly dubs the pseudo-conditional verb the “participe futur antérieur.” Examples are in (529).

- (529) a. *wó* [dòw-ē] *dè* súgó-jú
 3SgSbj [go.up-Pfv if] go.down-Ipfv
 ‘He/She will go up and (then) come (back) down.’
- b. *émé* [yě-∅] *dè* yě-má-ŷⁿ
 1PlSbj [go if] come-Hort-Pl
 ‘Let’s (three or more) go and come (back)!’
- c. *[dě:n* *dă:ñ-∅* *dè*] *yă:*
 [waterjar put.down-Pfv if] go.Imprt
 ‘Put-2Sg the waterjar down and (then) go!'
- d. *bé* [já-wò→] *yéré(-sē:n)* *dè*
 3PlSbj [always come-Pfv(.PlSbj) if]
 [[să:n Hgírn^{+L}] yă:-téjè
 [[ReflPoss Hhouse.Loc^{+L}] go-Prog.PlSbj
 ‘Every day he/she comes here and (then) goes (back) home.’

See also (185a) in §8.2.4.

The verb before *dè*, in both conditional and pseudo-conditional constructions, triggers Apocope (here really a kind of Syncope) on a final perfective *-i* after an unclustered sonorant, thus *dă:ñ-∅* for *dă:n-i* in (529c). For monosyllabic verbs whose perfective forms are trimmed before *dè*, see (560) in §16.1.2.

Prost stated that the pseudo-conditional *dè*, unlike conditional antecedent *dè*, cannot combine with an explicit plural-subject verb form. I find that this is usually the case, but that pseudo-conditional *dè* can occasionally take a plural-subject perfective verb (529d). Because the pseudo-conditional requires that the subjects in the two clauses be the same, plural-subject marking in the *dè* clause is redundant. Since plural-subject marking is optional anyway, this redundancy probably accounts for any statistical differences between conditional and pseudo-conditional clauses.

Likewise, Prost’s claim that the pseudo-conditional clause must share a subject with the following clause is not completely correct. While the majority of examples do follow this pattern, it is possible to switch subjects as long as the chronology is maintained and there is a close connection between the two eventualities. See (210) in §8.4.5.2.

The pseudo-conditional with *dè* competes with the direct-chain construction, where the nonfinal clause ends in a verb in bare-stem form. All examples with pseudo-conditional *dè* can be rephrased as direct chains. This applies to the examples in (529), which can be rephrased with direct chains *dòwó súgó-jú, yě yě-má-ŷⁿ, dă:ñ yă:, yéré ... yă:-téjè*. If there is any difference in meaning, it is probably that the *dè* form puts a little more emphasis on the chronological sequence (‘..., then ...’).

The converse is not true, i.e. many direct verb chains cannot be freely replaced by pseudo-conditionals, even when the entire sequence is imperfective. This is because the co-events denoted by the verbs in some direct chains are not chronologically sequenced, as in *bàjá gǔñ* ‘pull off’ (‘pull’ plus ‘remove’), whose co-events are synchronized.

Special cases of the pseudo-conditional are *t-i dè* (§16.1.3.2) with the perfective of *tí* ‘do first’, and *g-i dè* in purposive clauses (§17.6.1.3) with the perfective of *gí* ‘say’.

15.2.2.7 Different-subject anterior clause (*ké:n* ~ *kérnè* ~ *ké-è:*)

We now consider clause combinations involving disjoint subjects. In the construction illustrated in (530), the first clause does include a same-subject subordinator *-è:* (§15.2.2.1), but the coindexation extends only to a following mini-clause (or chained verb) with an obligatory pronominal subject and a verb-like form *ké:n* or its less common variant *kérnè*. This form is not attested in other contexts; I will gloss it as ‘when.DS’ (DS = different subject). It is followed by a normal main clause with a disjoint subject.

- (530) a. [sè:dú nút-è:] [wó ké:n], íⁿ gó-è
 [S go.in-and.SS] [3SgSbj when.DS], 1SgSbj go.out-Pfv
 ‘When Seydou came in, I went out.’
- b. [émé nút-è:] [émé ké:n], bé gó-è
 [1PlSbj go.in-and.SS] [3SgSbj when.DS], 3PlSbj go.out-Pfv
 ‘When we came in, they went out.’
- c. [sùŋú báj-é:] [íⁿ ké:n], pál-ì
 [rope pull-and.SS] [1SgSbj when.DS], snap-Pfv
 ‘When I pulled (on) the rope, it snapped.’
- d. [íⁿ bú:dú [[sáⁿ ^{HL}dé-dè:]] nút-è:] gèn-é:
 [1SgSbj money [[ReflPoss ^{HL}Rdp-father] source] request-and.SS]
 [íⁿ ké:n], [éné ó:-rò] wá
 [1SgSbj when.DS], [LogoS give-IpfvNeg] Quot
 ‘When I asked my father for some money, he said he wouldn’t give it (=he refused).’
- e. [yé yé-è:] [wó ké:n],
 [there go-and.SS] [3SgSbj when.DS]
 [né: wáⁿ] jù:^L-dúgós ^Lt-í
 [now Top] fly ^Lsend-Pfv
 ‘When he (=Crane) had gone there, now she (=girl) sent Fly (to inspect him).’
 (2011.1b.02)

Prost (p. 86) comments that this construction is common in narratives: a new event is expressed as a perfective clause, then the same event is repeated as a background clause using the construction with *kérnè*, then the next new event is expressed.

ké:n ~ *kérnè* is likely derived from a subordinated form of **kárná* ‘do’ or ‘be done’, a verb that is not present in this TgK dialect but is reported by Prost. The verb is common in e.g. Jamsay in similar different-subject constructions.

However, some TgK speakers (perhaps those that use *biré* instead of *kárná* as the ‘do’ verb?) appear to be in the process of merging (or confusing) *ké:n* ~ *kérnè* with *ké-è:*, the same-subject anterior form of *ké:* ‘become’ (nonhuman). See (531c) below for an example with *ké-è:*.

15.2.2.8 Different-subject *kê:n*~*kérnè* plus *mà*

The different-subject anterior construction (preceding section) may be extended by adding a particle *mà*. This particle is also optionally used in same-subject anterior clauses (§15.2.2.3).

- (531) a. *kà:ná [sérí yér-é:] [kó kē:n mà]*,
 now [plow come-and.SS] [NonhSbj when.DS and.then]
[sérí bë] kárá-sé:n dè,
 [plow Inst] rip-Pfv.PlSbj if,
iyé=ñ jú: [kó kû:n] kú:n lnamà-jù
 again millet [Nonh on] then Lstep.on-Ipfv
 ‘Now that the plow has come, they rip up (the earth) with the plow, (then) again they (drop seeds and) step on that in that way (=as described before).’
 (2011.1a.01)
- b. *[kà:ná né:] [àségé né:] [á:rñé: là]*
 [now now] [animal now] [formerly than]
sígé jó→ ké-è: [kó kē:n mà],
 more many be.NonhSbj-and.SS [NonhSbj when.DS and.then]
[è:re^L-kúrɔ né:] dùw dùw-í-i dè, ...
 [peanut^L-leaf now] carry carry-MP-Pfv if, ...
 ‘Now that (livestock) animals have become more numerous than formerly, (the people) keep carrying the peanut leaves (=greens), (and ...)’ (2011.1a.22)
- c. *[né: wðⁿ] gú-gúrú, [ú gér-é-è:]*
 [now Top] grass, [2SgSbj look-MP-and.SS]
[ú ké-è: mà],
 [2SgSbj become.NonhSbj-and.SS and.then]
[pðjɔ: : gù-gúrù^L sígé] ldìyⁿ]
 [fonio-& [grass^L remaining] Llimit]
[kó yé-è: sã: gòjó-jú]
 [NonhSbj go-and.SS ReflObj distinguish-Ipfv]
 ‘Now the weeds, when you have looked, (you see that) the fonio and the remaining weeds have gone and become distinguishable.’ (2011.1a.24)

Example (531c) uses *ké-è:* instead of *kē:n*, as mentioned in the preceding section. (531b) has one example of each, but in this case the occurrence of *ké-è:* preserves the regular meaning of *ké:* ('become' with adverb).

15.2.2.9 Different-subject ‘after’ clause (-ñ dè)

This construction involves *-ñ* (different-subject ‘while’ subordinator, §15.2.1.2) and *dè* ‘if/when’. The temporal sense is closer to that of *dè* than to that of *-ñ* by itself. In this combination, the function of *-ñ* is to express the disjointness of the subjects of the subordinated and main clauses.

In addition to *gí-ñ dè* (§15.2.2.10) and *kó kó-ñ dè* (§15.4.1.1), there are four other textual examples. All clearly involve subject switches. The construction requires a preverbal subject pronominal. In (532d) the *ñ dè* clause is postposed to the main clause.

- (532) a. [gú-gúrú mòm-é:] [ú dòm-ñ dè],
 [grass uproot-and.SS] [2SgSbj wait-DS if],
 pòyá íré-jú
 fonio ripen-Ipfv
 ‘After uprooting (=weeding) weeds, you-Sg will wait, (until) fonio ripens.’
 (2011.1a.25)
- b. [sɔ: yɔ-ŋ] [sɔ:^L kewéré-kewèrè] [émé bĩ-ñ dè],
 [thing like.that] [thing^L minor] [1PlSbj do-DS if],
 pá→ àrⁿú L^Lòwò-jù
 until rain(n) rain.fall-Ipfv
 ‘Things like that, we do minor things (=tasks) like that, until the (heavy) rain falls.’ (2011.1a.02) (verb *biré* ‘do’)
- c. [nú: wó nòwⁿñ-ñ dè],
 millet [3SgSbj grind-DS if],
 [né: wɔⁿ né:] ne-yⁿ,
 [now Top now] girl,
 [ɛ:ⁿ^L-[tè-té:]] lèwⁿ-lèwⁿ pó=ní:]
 [soda.ash^L-[Rdp-filtering.pot] drip-drip say=while.SS]
 núŋjú L^Ltɔrɔ-jù
 singing begin-Ipfv
 ‘After she (=step-mother) ground millet, then the girl, as the soda-ash filtering pot made dripping sounds, was beginning a song.’ (2011.1b.01) (the dead girl was resurrected as the singing pot)
- d. [èné wà]
 [Logo QuotSbj]
 [[gù-ógù yí bé: bě-è dè] L^Lyè-jù wà]
 [[quickly over.there shit defecate-Pfv if] come-Ipfv Quot]
 [bé yá:-ñ dè]
 [3PlSbj go-DS if]
 ‘(Hare said:) “I will defecate quickly over there and will come (join you) after you-Pl have gone.” ’ 2011.1b.05

15.2.2.10 *gí-ñ dè* ‘when, after’ (different subject)

In this construction, a clause ending in a bare stem is followed by a pronominal subject and *gí-ñ dè*. The latter is composed of *gí* ‘say’ (also the basis for purposive morphemes), *-ñ* (elsewhere different-subject ‘while’ subordinator), and *dè* ‘if, when’, but the combination is rather frozen. The construction is often used like an English perfect.

The extent to which speech or thought is explicit or even alluded to varies. In (533a), the point is that groundnuts are harvested early and are a useful crisis food as one waits for the main staple (millet) to ripen, but there is no specific reference to the farmers’ thought process. In (533b), the ‘they’ in ‘they sang’ probably includes both the twins and the people (the song itself is a back-and-forth Q-and-A session), so it is treated as a different subject. In (533c), *gí* ‘say’ has its literal sense (it follows a song attributed to Hare). Instead of a clause, it is preceded by *yɔ-ŋ* ‘like that’, resuming a quoted song that the narrator has just finished.

- (533) a. [gàm ^Hná] = ñ [kìrè^L dágá] yè-jà^L ^{HL}sâ,
 [some ^Hperson]=Dat [hardship small] come-Fut ^{HL}have,
 [kó yèré] [kó gí-ñ dè],
 [NonhSbj come] [NonhSbj say-while.DS if],
 dògùrù^L jú: gó:^H-jà,
 time^L millet go.out^H-Fut,
 [è:re^L ná:] lá: gó:-jà
 [nut^L main] first go.out-Ipfv
 ‘A small crisis (i.e. food shortage) will eventually come for some people. When (and because) that (=crisis) has come, before millet comes out (=ripens in the field), groundnuts come out first.’ (2011.1a.19)
 [yè-jà^L ^{HL}sâ §10.2.2.4, gó:^H-jà §15.4.2]
- b. [né: bé yě-è:-sèⁿ dè]
 [now 3PISbj go-Pfv-PlSbj if]
 [[bé yě yě] [bé gí-ñ dè]],
 [[3PISbj there go] [3PISbj say-while.DS if]],
 bér wà
 3PI QuotSbj
 ‘If they (=twins) went (somewhere else), when they had gone there, (they sang), “hey you (people), ...”’ (2011.1b.04)
- c. jòwⁿ yò-ñ wó gí-ñ dè,
 hare like.that 3SgSbj say-while.DS if,
 [tā: sá-è dè]
 [hyena reply-Pfv if]
 ‘When Hare had spoken (=sung) like that, Hyena replied: ...’ (2011.1b.05)

15.2.3 ‘Since ...‘ clauses (*gì:ⁿ*)

The clause-final particle *gì:ⁿ* creates ‘since ...‘ clauses, specifying an interval that began with the specified event and is understood to continue to the present. This clause type requires a clause-medial subject pronoun, even if the subject is also expressed by a clause-initial nonpronominal NP. This is a feature of subject relatives (§14.1.8), as also in imperfective complements of perception verbs (§17.2.2.2). The verb of the ‘since’ clause has the {H}-toned form characteristic of perfective verbs in nonsubject relatives.

The verbs whose regular perfective differs segmentally from the (nonsubject relative) form used in the ‘since’ construction are shown in (534). For segmentally similar but tonally distinct reductions before *dè* ‘if’, see (560) in §16.1.2.

- (534) Form of singular-subject perfective before *gì:ⁿ* ‘since’

bare stem	perfective	gloss
regular	before <i>gì:ⁿ</i>	
a. with -y		
yě	yě-y	‘go’
jé	jé-y	‘take away’
nú	nú-y ⁿ	‘go in’

b. with -è

ó ó-è ó gì:ⁿ 'give'

Examples of *gì:ⁿ* 'since' are in (535). That the verb has an {H} tone overlay is shown by comparison with regular perfectives like *yèr-è* 'came' and *jùnú-g-i* 'ruined'.

- (535) a. *nî iⁿ ^Hyér-é gì:ⁿ, mágóró ð:-lí*
here 1SgSbj ^Hcome-Pfv since, mango see-PfvNeg
'Since I came here, I haven't seen a mango.'
- b. *bàmàkó ú ^Hyé gì:ⁿ,*
B 2SgSbj ^Hgo.Pfv since,
námà nî àⁿú lòwò-lí
up.to.now here rain rain.fall-PfvNeg
'(Ever) since you-Sg went to Bamako, it hasn't rained here.'
- c. *sè:dú péjú wó ^Hdárⁿ-é gì:ⁿ,*
S sheep 3SgSbj ^Hkill-Pfv since,
[émé ^Hbín] ^Ljò-è
[1PlSbj ^Hbelly] ^Lbe.full-Pfv
'Since Seydou slaughtered the sheep, our bellies have been full (=we have eaten well).'
- d. *tè^L-gérⁿí: ú ^Hjúnú-g-í gì:ⁿ,*
tea^L-gear 2SgSbj ^Hbe.ruined-Caus-Pfv since,
émé té bè-lâ:
1PlSbj tea get-PfvNeg.PlSbj
'Since you-Sg ruined the tea-kettle, we haven't had any tea.'
- e. *[iⁿtáyⁿ] mà bé ^Hyé-é: gì:ⁿ,*
[friend 1SgPoss] 3PlSbj ^Hgo-Pfv.PlSbj since,
iⁿ [kènè^L-kɔⁿ] bè] wò
1SgSbj [heart^L-weeping with] be.HumSgSbj
'Since my friends went (=left), I have been sad.'
- f. *tùwó kó ^Hbág-é gì:ⁿ,*
stone NonhSbj ^Hfall-Pfv since,
iⁿ yé yà:-lí
1SgSbj there.Def go-PfvNeg
'Since the rock fell (off), I haven't gone there.'

It was possible to elicit a negative example (536). The stem and perfective negative suffix are both included in the overlaid {H} tone.

- (536) *nðwⁿɔ wó ^Hbé-lí gì:ⁿ,*
meat 3SgSbj ^Hget-PfvNeg since,
[kènè^L-párú bè] wò
[anger with] be.HumSgSbj
'Since he didn't get any meat, he has been angry.'

This construction can also be used to translate ‘since X’ where X is a noun phrase or adverbial phrase. This requires an overt verb, ‘go out’ (537a) or ‘pass’ (537b). (537a) is syntactically interesting in that the adverb ‘yesterday’ does not correspond to a nonhuman subject pronoun *kó* similar to that coindexed with ‘Feast of the Ram’ in (537b).

- (537) a. *yá:* ^H*gó-é* *gì:n,* *Iⁿ* *já:* *ji:-lí*
 yesterday ^Hgo.out-Pfv since, 1SgSbj meal eat.meal-PfvNeg
 ‘I haven’t eaten (a meal) since yesterday.’
- b. *láyé* *kó* ^H*gár-é* *gì:n,*
 Feast.of.Ram NonhSbj ^Hpass-Pfv since,
àrⁿú ^L*lòwò-lí*
 rain ^Lrain.fall-PfvNeg
 ‘Since the Feast of the Ram (passed), the rain hasn’t fallen.’

15.2.4 ‘Until...’ clauses

Simple ‘until’ (without a ‘from’ phrase) can be expressed with clause-initial expressive adverbial *pá→* or *fó→* ‘until, all the way to’.

- (538) *[sò:^L kewéré-kewérè] émé bř-n dě,*
 [thing^L minor-minor] 1PlSbj do-while.DS if,
pá→ àrⁿú ^L*lòwò-jù*
 until rain(n) ^Lrain.fall-Ipfv
 ‘We do minor things (tasks), until eventually the (heavy) rains come.’ (2011.1a.02)

15.3 Noun-headed temporal clause (‘the time when ...’)

Nouns denoting a time or time interval, especially *tènjé* and less often *dóngúrú*, can function as head of a relative clause. They are {L}-toned like any relative-clause head NPs. Such relative clauses can be made into explicit temporal adverbial clauses (‘at the time when ...’) by adding a postposition such as *bè* ‘with’. (539a) illustrates with an {L}-toned form of *tènjé* ‘time’. For a similar case based on *dóngúrú* ‘time’ see (533a) in §15.2.2.10.

Other temporal nouns with meanings like ‘day’ and ‘year’ can also function as relative-clause heads. In an adverbial clause, the noun ‘day’ is repeated, still in {L}-toned form, after the clause proper, as a kind of external relative-clause head in addition to the clause-internal head (§14.1.7). If the verb is perfective, it is {H}-toned in the double ‘day’ construction (539b). ‘Year’ does not show the doubling, keeps the regular {HL} overlay on a perfective verb, and does not require a postposition (539c).

- (539) a. *[tènjé^L nùrⁿú ú á:-jú^{+H}] bè,*
 [time^L sickness 2SgObj catch-Ipfv.Rel^{+H}] with,
Iⁿ bámákó wò
 1SgSbj B be.NonhSbj
 ‘At the time when you were getting sick, I was in Bamako.’

- b. [nìŋìrⁿi^L] ú ^Hyér-é] ^Lnìŋìrⁿi,
 [day^L] 2SgSbj ^Hcome-Pfv.Rel] ^Lday
 nî àrⁿú lów-é
 here rain rain.fall-Pfv
 'The day you-Sg came, it rained.'
- c. kă: àrⁿà-kùjù^L kó ^Hyér-é,
 grasshopper year^L NonhSbj ^Hcome-Pfv.Rel,
 émé [pàrà-gò:rò]^L-bíré bì-lâ:
 1PlSbj [autumn]^L-work do-PfvNeg.Plsbj
 'The year the locusts came, we didn't do the harvest.'
 (also yér-é^{+L} with topic intonation)

15.4 Reverse anteriority clause ‘before ...’

Efforts to elicit ‘before ...’ clauses were unsuccessful when the subjects of the main and adverbial clauses were the same. In this case, my assistant translated them with conditional or pseudo-conditional clauses, ending in *dè* ‘if/when’. For example, ‘we’ll do some farm work before going to the market’ was rendered as ‘if/when we have done farm work, (then) we’ll go to the market’.

It was not difficult to elicit a distinctive ‘before ...’ clause when the subjects of the two clauses were disjoint. See below.

15.4.1 Based on perfective negative

15.4.1.1 *kó kó-ñ dè*

The construction in (540) involves a perfective negative clause ('planting did not arrive'), framed by *kó kó-ñ dè* 'if it is (there)'. A semi-literal paraphrase is 'if/when/while it was the case that [planting had not (yet) arrived], ...'. The construction is common in texts.

- (540) maintenant [émé gánà^{+L}],
 now [1PlPoss country.Loc^{+L}],
 [lě dɔ:-lí] [kó kó-ñ dè],
 [planting arrive-PfvNeg] [NonhSbj be.NonhSbj-while.DS if],
 émé iŋé lá: lów-é
 1PlSbj what? first do-Ipfv
 'Now (here) in our country, (even) before planting (time to plant) has arrived, what do we do first?' (2011.1a.01)

A variation on this is in (541), where *kó kó-ñ dè* frames a state including positive and negative propositions.

- (541) né: wɔⁿ, àrⁿú lów-é: mà,
 now Top, rain(n) rain.fall-and.SS and.then,
 pá [né: wɔⁿ] gár-á→ mǎ:-ŋ-é: jè-lí,
 earth [now Top] a.lot dry-Inch-and.SS finish-PfvNeg,
 pá bùŋjùrⁿù-bàŋjùrⁿù [kó kó-ñ dè],
 earth variably [NonhSbj be.NonhSbj-while.DS if]

- [[kó ^{HL}wágàtù] **bè]** ^Lwà-jù
 [[NonhPoss ^{HL}time] with] ^Ldo.farming-Ipfv
 ‘Now, when it has rained, (when) the earth hasn’t (yet) completely finished drying, (they) work (the field) at that time. They work (the field) at that (time).’ (2011.1a.23)

15.4.1.2 *kó kó bè*

A slightly distinct construction with final *bè* (instrumental or similar) is seen in (542). I interpret the construction as a relative clause, plus a postposition.

- (542) [sérí *yè-lí*] [[kó ^Hkój] **bè],**
 [plow come-PfvNeg] [[NonhSbj ^Hbe.NonhSbj.Rel] with],
 [nùmós **bè]** [wágà-tùmò^L dágá-^Ldágà-^Ldágà]
 [hand with] [mound^L small-^Lsmall-small (§4.5.2)]
 màñá-séⁿ *dè*, ...
 make.ball-Pfv.Plsbj if, ...
 ‘Before the plow came (=was introduced), they shaped small round mounds (in rows), ...’ (2011.1a.01)

15.4.2 With delayed future *-jà*

An {H}-toned verb stem with delayed future suffix *-jà* (§10.2.2.4) occurs at the end of the clause, which may contain *dógúrú* ‘time’ in {L}-toned form as relative head. The literal translation is therefore “(at) the time when ... was going to happen (eventually).” The head noun is occasionally omitted as in (543c). A subject pronoun is required immediately preceding the verb.

- (543) a. [[ú ^{HL}dé-dé:] **dògùrù^L wó yé^H-jà],
 [[2SgPoss ^{HL}Rdp-father] time^L 3SgSbj come^H-before]
 iⁿ *yě-jú*
 1SgSbj come-Ipfv
 ‘I’ll come (=I’ll be back) before your father comes (here).’**
- b. àrⁿú **dògùrù^L kó súgó^H-jà,**
 rain time^L NonhSbj go.down^H-before,
 émé [tógú bórð] nú-má-yⁿ
 1PlSbj [shed under] go.in-Hort.Plsbj
 ‘Let’s go under the shed before the rain comes down.’
- c. àrⁿú **kó yé^H-jà,**
 rain NonhSbj come^H-before,
 émé [tógú bórð] nú-è:
 1PlSbj [shed under] go.in-Pfv.Plsbj
 ‘We went under the shed before the rain came.’
- d. **dògùrù^L bé dówɔ^H-jà, bé á:**
 time^L 3PlSbj go.up^H-before, 3PlObj catch.Imprt
 ‘Catch-2Sg them before they go up!’

‘Before X’, where X is a NP denoting a time, can also be translated using this construction with the verb *dɔ̄*: ‘arrive’ (544a). If X denotes a human or other enduring entity, the logic is different (denoting priority relations) and the postposition *gírè* ‘in front of’ is pressed into service (544b).

- (544) a. *Iⁿ* [láyé] *dó:^H-jà* *bàmàkó* *yǎ:^Hjú*
 1SgSbj [Feast.of.Ram arrive^H-before] B go-Ipfv
 ‘I will go to Bamako before the Feast of the Ram.’
- b. *[àrⁿà]^L* *gàrá* *bè]* *jǎ:*
 [man^L] big Pl] meal
[[úrⁿí: bě] *gírè]* *jí:^H-ní*
 [[children Pl] in.front] eat-Ipfv
 ‘The adult men eat before (“in front of”) the children.’

Forms of *-jà* with representative verbs are in (545), with the bare stem and imperfective for comparison. The {H}-tone overlay before *-jà* is evident in (545b) with lexical /LH/-tone, but the two irregular /HL/-toned stems (‘take away’, ‘bring’) in (545d) are not audibly affected. The *j* of *-jà* does not become *p* after a nasal syllable as it does in imperfective *-jú* ~ *-pú*, see ‘go in’ (545a). *rv*-Deletion applies to contracting stems before both suffixes (545c).

(545) Forms of *-jà* ‘before’

bare stem	imperfective	‘before’ with <i>jà</i>	gloss
a. lexically /H/-toned			
<i>nú</i>	<i>nú-nú</i>	<i>nú^H-jà</i> [nú ⁿ dʒà]	‘go in’
<i>ó</i>	<i>ó-jú</i>	<i>ó^H-jà</i>	‘give’
<i>térē</i>	<i>térē-jú</i>	<i>térē^H-jà</i>	‘pound’
<i>kígìrì</i>	<i>kígérē-jú</i>	<i>kígérē^H-jà</i>	‘go back’
b. lexically /LH/-toned			
<i>gǒ:</i>	<i>gǒ:^H-jú</i>	<i>gó:^H-jà</i>	‘go out’
<i>dàgá</i>	<i>dàgá-jú</i>	<i>dágá^H-jà</i>	‘leave’
<i>jùnú-gì</i>	<i>jùnú-gó-jú</i>	<i>júnú-gó^H-jà</i>	‘ruin’
c. rhotic-medial <i>CvCv</i> subject to <i>rv</i> -Deletion			
<i>yérē</i>	<i>yě-jú</i>	<i>yé^H-jà</i>	‘come’
<i>bíré</i>	<i>bí-jú</i>	<i>bí^H-jà</i>	‘work’
<i>dárⁿá</i>	<i>dǎ-nú</i>	<i>dáⁿ^H-jà</i>	‘kill’
d. irregular			
<i>ň: to ũ-</i>			
<i>ň:</i>	<i>ň-jú</i>	<i>ň^H-jà</i>	‘see’
<i>Cě to Că:-</i>			
<i>yě</i>	<i>yǎ:^H-jú</i>	<i>yá.^H-jà</i>	‘go’
presuffixal <i>Cŷ:-</i>			
<i>jê</i>	<i>jâ:^H-jù</i>	<i>jâ:^H-jà</i>	‘take away’
<i>jě:rì</i>	<i>jě:^H-jù</i>	<i>jě:^H-jà</i>	‘bring’

The simple delayed future has the same *-jà* suffix and the same segmental form of preceding verb stems, but it has {L}- rather than {H}-toned stem, and it is followed by *sâ* ‘have’ (§10.2.2.4).

15.5 Spatial and manner adverbial clauses

15.5.1 Spatial adverbial clause ('where ...') (*nà*)

The {L}-toned form of noun *ná* ‘area, ground’ is very common as relative-clause head denoting a place. The relative clause is optionally followed by an {L}-toned form *dèŋ* related to *dèŋú* ‘place’ (§14.1.7). In (546a-b), the NP containing the relative clause functions as an argument. In (546c) it is a true adverbial clause, creating a setting, although there is no locative postposition.

- (546) a. *[nàŋá nà^L bàgá sáⁿ] ^Ldèŋ] yǎ:*
[[cow place^L fall Pfv.Rel] ^Lplace] go.Imprt
'Go-2Sg to the place where the cow fell!'
(also *[nàŋá nà^L bág-é] ^Ldèŋ]*)
- b. *[nà^L nǎ: émé pí:-ní] wàg-á→ kò*
[place^L meal 1PlSbj eat-Ipfv] far.away be.NonhSbj
'The place where we are going to eat is far away.'
- c. *[nà^L émé ná-è] ^Ldèŋ]
[place^L 1PlSbj spend.night-Pfv] ^Lplace]
[ʒjò^L póⁿ→] kò:-rò
[thing^L nothing] be.NonhSbj-Neg
'There is nothing (there) where we spent the night.'*

15.5.2 Manner adverbial clause ('how ...') (*bàⁿ*)

The usual head noun of a manner relative is *bàⁿ*^L, an {L}-toned and slightly reduced variant of *bàŋú* ‘way, manner’. The relative clause may be followed by {L}-toned *gì:ⁿ*, cf. particle *gí:ⁿ* ‘like’ (§8.4.1).

- (547) a. *[bíré bàⁿ^L íⁿ bǐ-jí] ^Lgì:ⁿ]*
[[work(n) manner^L 1SgSbj do-Ipfv] ^Lmanner]
[wó kà:ⁿ] kú:ⁿ bǐ-jí
[3Sg also] likewise ^Ldo-Ipfv
'The way I work is how he/she too works.'
- b. *[nǎ: bàⁿ^L ú pí:-ní]*
[meal manner^L 2SgSbj eat.meal-Ipfv]
má=ò sèⁿ^L=lá
1Sg=Dat good^L=StatNeg
'The way you-Sg eat doesn't please me.'

The verb of the *bàⁿ* clause is occasionally followed by *nò*, which appears to be related to demonstrative *nó*: ‘this’.

- (548) *[ènér dìn-î: bë:-rò] wà,*
 [LogoSbj hold-MP get-IpfvNeg] Quot,
[bàⁿ] nî ènér wó nò
 [manner^L here LogoSbj be manner]
 ‘saying (=thinking) “I can’t keep them, (considering) the situation I am in.”’
 (2011.1b.04)

15.5.3 Headless adverbial clause as spatiotemporal or manner clause

15.5.3.1 Omission of redundant clause-internal head

My assistant did not accept headless relatives as adverbial clauses in elicitation. However, the implied internal head, such as ‘time’ in (549), can be omitted as long as the external {L}-toned noun was present after the relative verb.

- (549) *[[[àrⁿú Ø lówá-jú^{+H}] Ltèjè] bë]*
 [[[rain (time) rain.fall-Ipfv.Rel^{+H}] Ltime] with]
[wàrù-wárá bë]=n sén kò
 [farmer Pl]=Dat good be.NonhSbj
 ‘In the times when it rains, the farmers are pleased.’

Alternatively, if the postposition *bè* ‘with’ follows the relative clause, so that the latter’s adverbial nature is clear, a headless relative can function as a vaguely temporal clause (550).

- (550) *[músá Ø bë á:-jú] bë,*
 [M (time) 3PlSbj arrest-Ipfv.Rel^{+H}] with,
íⁿ bàmákó wò
 1SgSbj B be.HumSgSbj
 ‘When they arrested Mousa, I was in Bamako.’

15.5.3.2 Headless adverbial relative clause plus topic *wòⁿ*

Topic *wòⁿ* may follow a headless relative clause in a construction translatable as ‘when/after ...’, describing a backgrounded situation that sets the stage for a new event. Most textual examples involve perfective relatives (551).

- (551) a. *[bàrà^L-nòwⁿó bë] wó kúwó jé,*
 [outback^L-meat Pl] 3SgObj eat.meat RecPf,
bé Hkúw-é wòⁿ,
 3PlSbj Heat.meat-Pfv.Rel Top,
kíné yî Lgò-é
 soul there.NearDist Lgo.out-Pfv
 ‘The wild animals ate her up. When they had eaten her up, (her) soul went away from there.’ (2011.1b.03)

- b. *né:* [è:n-[tè-tê:]] *sâ:n]* *tôn-tân tân-tântôn-tân tân*
now [soda.ash-[filtering.pot] all] (sound)
[*kó* ^H*tór-é* *wò:n*,
[NonhSbj ^Hbegin-Pfv.Rel Top]
[[[é *kô*] ^L*bànjà* *kà:n*] *tór-è*
[[that.FarDist] ^LHumSg] also] begin-Pfv
‘Now all the soda-ash filtering pots, when they began to go “plop, plop,” that one
(of hers) too began (to sound).’ (2011.1b.01)
- c. *né:* *gér-ú* ^H*dó-é* *wò:n*,
now cut-VblN ^Harrive-Pfv.Rel Top,
[*né:* *wò:n*] [*dér-né*^L *é* ^H*kún-ú* *wò:n*,
[now Top] [crops^L 2PISbj ^Hput-Pfv.Rel Top],
[*kó* *wà*] [*gùn-ú* *dó-é*] ^L*gi-jù*
[Nonh QuotSbj] [take.out-VblN arrive-Pfv] ^Lsay-Ipfv
‘Now when (time for) cutting (millet/sorghum) has arrived, now as for the crops
that you-Pl have put (=planted), they say “the (time for) taking out (=harvesting)
has arrived.”’ (2011.1a.32)

There is one textual example with a reduplicated imperfective relative, denoting a state just prior to the intended action, which in fact was stymied (552).

- (552) *kún-è:* *gò-gó:-jú*^{+H} *wò:n*,
put-and.SS Rdp-go.out-Ipfv.Rel^{+H} Top,
[*pnà*^L *gó:-jú*^{+H}] *kò:-rò*
[place^L go.out-Ipfv.Rel^{+H}] be.NonhSbj-Neg
‘As they put (it) down and were about to go out (of the house), (they found) there was
no way out.’ (2011.1b.05)

15.5.4 ‘From X, until (or: all the way to) Y’ (*pnànjá*, ^L*dò:*)

The verbs *pnànjá* ‘take, pick up’ (bare stem form as in a chain) and ^L*dò:* ‘arrive’ combine to form two-clause constructions denoting the beginning and endpoints of a time span. Both *pnànjá* and ^L*dò:* are chained to a preceding verb denoting the relevant event type. The image is of an event chronologically bounded by an act of ‘picking up’ (something) at the beginning and by an endpoint. Compare the Jamsay construction of similar meaning with the cognate verb *yànjá* ‘take’.

In both clauses, there is a subject pronominal immediately preceding the verb. The pronoun is obligatory unless there is no specific subject. It appears even if it simply resumes a nonpronominal subject that has already been presented. The substantive verb of the first clause has the form of a (singular-subject) perfective, therefore ending in {e e} for many verbs, but it has an {H} overlay. This is followed by *pnànjá* ‘take’, or by a conditional perfective *pnànj-è dè* ‘if (it) takes’. The verb of the second clause takes the form of either the bare stem (as in chains) or less often the verbal noun, but again it has {H} overlay. It is followed by ^L*dò:* ‘arrive’, in an uninflectable {L}-toned form of the bare stem.

For example, *gō:* ‘go out’ takes {H}-toned form *gó-é* before *pnànjá* instead of the usual perfective *gō-è* ‘went in’ in the first clause, and *gō:* before *dò:* in the second. *dèŋ-í-i:* ‘sit’ appears as *dèŋ-í-i* (from perfective *dèŋ-í-i*) in the first clause, and either *dèŋ-í:* (from bare stem *dèŋ-i:*) or *dèŋ-Ø* (from verbal noun *dèŋ-Ø*) before *dò:* in the second clause.

jàŋ-ē dè is exemplified in (553). This example also ends in a second ‘take’ verb (cf. English *how long does it take?*).

- (553) [è:rè^L ná:] dà, [bé ^Hlé-é] jiàŋ-ē dè,
 [peanut^L primary] Top, [3PlSbj ^Hslash.Pfv] take-Pfv if,
 [kó ^Htó:] ^Ldò:, [NonhSbj ^Hsprout(v)] Larrive,
 [nìŋjír'í ^Hà:yá] jiàŋá ^Lbè-jù
 [day how.many?] take ^Lget-Ipfv
 ‘As for groundnuts, starting from (when) they have slashed (=planted), until it sprouts, how many days can it take?’ (2011.1a.19)

Further elicited examples are in (554). My assistant preferred simple *jàŋá* to the conditional *jàŋ-ē dè*. In (554a), 1Sg subject *iⁿ* (in both clauses) shows that the independent, not possessor, pronoun is used. This example also shows *yé* from bare stem *yě* ‘go’ in the second clause. In (554b), the first clause illustrates the immediate preverbal position of the subject pronoun. In the second clause, *kó* is an object pronoun, the (unspecified, nonspecific) subject being omitted. (554c) is inside a quotation.

- (554) a. [ní ^Hyér-é] jiàŋá,
 [here 1SgSbj ^Hcome-Pfv] take,
 [[íⁿ ^Hyé] ^Ldò:] [dí: in-é:-lí]
 [[1Sg ^Hgo] Larrive] [water bathe-MP-PfvNeg]
 ‘From the time that I came here until I went, I did not bathe.’
- b. [árⁿú gír'í kó ^Hjúnú-g-í] jiàŋá,
 [rain house NonhSbj ^Hbe.ruined-Caus-Pfv] take,
 [[kó ^Hdánú-g-ú] ^Ldò:] [[NonhSbj ^Hbe.fixed-Caus] Larrive]
 [émé gíné nòwⁿ-é:-lâ:]
 [1PlSbj sleep(n) sleep]
 ‘From the time the rain damaged the house, until when (they) fixed it, we didn’t sleep (well).’
- c. [[bé wà] [bé ^Hnárⁿ-é] jiàŋá]
 [[3Pl QuotSbj] [3PlSbj ^Hgive.birth-Pfv] take]
 [[bé ^Hnú:] ^Ldò:] [mòjú wè]
 [[3PlSbj ^Hdie] Larrive] [bad be.HumPlSbj]
 ‘(quotation:) From the time they are born (lit.: “they [i.e. mothers] give birth to them”), to the time they die, they are evil.’

This construction can also be used with NPs rather than clauses, provided the NPs denote temporally bounded actions. This is the case with cognate nominals and semantically similar nouns, as in (555). Here the interviewer informs the interviewee that the questions to come will cover every aspect of farming. *wáru* primarily denotes working with the daba, especially in the middle of the rainy season. The clause with *lě* ‘slashing’ (i.e. striking the earth with a pick-hoe before dropping seeds into the hole) may be a rephrasing of the first clause with *wáru*, since *lě* more accurately represents the kick-off for the millet-farming season.

- (555) *wárú* *jàŋ-ê* *dè*, *lě* *jàŋ-ê* *dè*,
farm.work take-Pfv if, slashing take-Pfv if,
[pàrà-gò:rò]L-*bíré* *Ldò:*,
[harvest]^L-work(n) *Larrive*,
[kó ^H*só:ʃ]* *ú=ñ* *úpó:r"ñ-pú* *gé-è*
[NonhPoss ^Hmatter] 2Sg=Dat ask-Ipfv Purp
‘From farming with the daba (and) from slashing (=planting) to autumn work (=harvesting), so that I may ask you-Sg about that topic’ (2011.1a.01)

A variation on this is (556). Here the eventuality denoted by the second clause has begun but has not ended. The first clause is structured as above. The second clause has a possessed compound verbal noun ('its putting out child[ren]') as subject. This is followed only by ^L*dò:*. The verb *dò:* is often translatable as 'arrive', but more strictly it denotes reaching the entrance, as when a visitor arrives in a courtyard but does not (yet) enter the house, or when e.g. the rainy season is just about to begin. So logically one might have had two occurrences of the verb in (556), one H-toned inside the second clause ('arrive' = 'begin') and the second L-toned and outside and after the clause ('until').

- (556) *maintenant* *[kó* ^H*tó-é]* *jàŋ-ê* *dè*,
now [NonhSbj ^Hsprout-Pfv] take-Pfv if,
[[fí:nL-[kùn-ú]] *[kó* ^L*kéʃʃ]* ^L*dò:*],
[[child^L-[put.VblN]] [Nonh ^LPoss]] *Larrive*],
[níŋír"í *à:ŋá]* *jàŋá* ^L*bè-jù*
[day how.many?] take ^Lget-Ipfv
‘Now, from the time that it has sprouted, until (the time when) its putting (out) fruits arrives (=begins), how many days can it take?’ (2011.1a.19)

15.6 Past time constructions

The absence of a past morpheme associated with verbs (like inflectable verbal clitic =*be-* in several Dogon languages, or like Jamsay postverbal particle *jì:n*) means that the expression of past-time categories is challenging in TgK.

15.6.1 Perfect with *gàrá* ^L*yè* (^L*y-è*) ‘pass’

The verb *gàrá* ‘pass by, go past’ is used with a following ^L*yè* (plural-subject ^L*y-è*) to form a perfect with any preceding VP. The ^L*yè* (^L*y-è*) appears to be a reduced form of the perfective of ‘go’. The full perfective form is *yě-ŷ* (plural *yě-è:-sé:n*), but reduced forms occur in some constructions (§15.1.6.1, §15.2.2.6, §15.2.3), *yě-ŷ* is also reduced to *yě* before *dè* ‘if’. In *gàrá* ^L*yè-Ø*, the ^L*yè-Ø* sounds rather like a clitic, but note that *rv*-Deletion does not apply as it does in *gàrá* before most suffixes.

- (557) a. *dògùrù*^L *já* *bé=ñ* *í*ⁿ *tóró*^H-*jà*,
time^L place 3Pl=Dat 1SgSbj show^H-before,
bé *wàrá* *gàrá* ^L*y-è*
3PlSbj do.farm.work pass ^Lgo-Pfv.PlSbj
‘Before I could show them the place (field), they had (already) cultivated (it).’

- b. *dògòtòrò^L-gìr'í* *iⁿ* *dó:^H-jà,*
doctor^L-house 1SgSbj arrive^H-before,
wó *nú:* *gàrá* ^L*yè-*Ø
3SgSbj die pass ^L**go-Pfv**
'Before I could get to the hospital, he/she had (already) died.'

16 Conditional constructions

16.1 Conditional antecedent with *dè* ‘if’

16.1.1 Simple *dè*

Clause-final *dè* functions as the ‘if’ particle in the usual type of conditional antecedent clause, denoting a possible eventuality that would entail a second eventuality. Usually both eventualities are in the future, and the unmarked logical relation is one of cause-and-effect. In this case, the antecedent clause is perfective in form, and the consequent is imperfective (or a deontic modal category such as imperative). *dè* is L-toned, but it is subject to an optional pitch rise due to nonterminal intonation effects.

The antecedent clause precedes the consequent clause. The consequent may omit subject and object NPs repeated from the antecedent and may therefore be reduced to a verb.

- (558) a. *fⁿ* *éwè^{+L}* *mě:* *ɔ̄-ɛ* *dè,* *éwé-jú*
1SgSbj market.Loc^{+L} salt see-Pfv if, buy-Ipfv
'If I see (=find) some salt in the market, I'll buy (some).'
- b. *ú* *péjú* *[bàrá bîn]* *bèr-ɛ* *dè,*
2SgSbj sheep [bush in] get-Pfv if,
nî *jě:ré*
here bring.Imprt
'If you-Sg get (=find) a sheep out in the bush, bring it here!'
- c. *já-wò→* *bíré* *bí-jí* *dè,* *dě:ⁿ-nú*
always work(n) do-Ipfv if, get.tired-Ipfv
'If (you-Sg) work every day, (you'll) get tired (=wear yourself out).'

Though often translated with ‘if’, the TgK particle *dè* can also be used when the antecedent eventuality is considered certain to happen, or when it denotes a recurring eventuality. In such contexts, ‘when’ or ‘after’ is a more apt free translation.

- (559) *émé* *wárú* *dág-à→* *wàrá-séⁿ* *dè]*
1PlSbj farming a.little do.farm.work-Pfv.PlSbj if]
kú:ⁿ *éwè^{+L}* ^L*yà:jù*
then market.Loc^{+L} ^Lgo-Ipfv
'When/After we have done a little farm work, then we'll go to the market.'

For pseudo-conditional *dè*, in future anterior subordinated clauses (first of two clauses denoting sequenced events in the future), see §15.2.2.6.

16.1.2 Reduced form of simple perfective of Cv verb before dè

The verb in the antecedent clause of a typical future-oriented conditional ('if he comes, I'll give him the millet') is normally perfective, either simple perfective (positive) or perfective negative.

There are no morphological irregularities involving the perfective negative, or the plural-subject form of the simple perfective, in this construction. However, the (positive) singular-subject form of the simple perfective has slightly reduced forms for monomoraic Cv verbs before dè.

(560) Form of singular-subject perfective before dè 'if'

bare stem	perfective regular	gloss
	before dè	
a. with -y		
yě	yě-∅	'go'
jé	jé-∅	'take away'
nú	nú-∅ ⁿ	'go in'
b. with -e		
ó	ó-∅	'give'

Segmentally identical but tonally distinct reductions of the perfective suffix -y ~ -i occur before ^Lgí.ⁿ 'since', which requires an {H}-toned verb; see (534) in §15.2.3.

Cv: stems, even though some of them have regular perfective forms of similar Cv-y and Co-e shapes, are not reduced. Thus ɔ-∅ dè ('see'), nū-∅ⁿ dè ('die').

Bisyllabic stems with perfective in -i (homophonous to the bare stem) often lose the -i before dè, but this is not obligatory and only occurs after an unclustered sonorant. When the -i is lost in this way, the stranded L-tone can be heard (in careful pronunciation) on the now word-final sonorant. I therefore attribute this to the phonological rule Apocope (§3.5.5). Example: perfective dǎ:-n-i 'put down, set', combined with dè as dǎ:-n-i dè ~ dǎ:-n̩ dè.

16.1.3 Extensions of dè

In addition to the extensions covered below, which (like dè itself) function as conditionals or temporal sequencing devices, some other combinations covered elsewhere may be mentioned.

g-i dè is used in some purposive clauses, as an alternative to gè:. These forms are based on gí 'say'. See §17.6.1 for examples and discussion.

-n̩ dè is the combination of different-subject 'while' subordinator -n̩ and dè 'if, when'. See §15.2.2.9-10.

16.1.3.1 táŋá yě-∅ dè 'if it happens that ...'

An extended variant ... táŋá yě-∅ dè 'if it happens that ...' is also found (compare Jamsay táŋà: dè). It contains táŋá 'become, turn into' and a reduced form of perfective yě-y 'went', which elsewhere drops the suffixal semivowel before dè to result in yě-∅ dè 'if (he/she) went'.

- (561) [[ú *bíré* ^L*bì-jù*] *tájá* ^L*yè-*Ø *dè*,
 [[2SgSbj work(n) ^Ldo-Ipfv] become ^Lgo-Pfv if]
 í" ú ^L*bà-jù*
 1SgSbj 2SgObj ^Lhelp-Ipfv
 'If (it happens that) you-Sg do some work, I'll help you.' (*bàrà*)

TgK *tájá yè-*Ø *dè* undoubtedly reveals the origin of the contracted Jamsay equivalent *tájà: dè*, whose tones and vowel length are anomalous synchronically.

16.1.3.2 *t-î dè* (temporal sequencing)

An extension *t-î dè* emphasizes the temporal sequencing of the antecedent and consequent eventualities. Since the chronology is more relevant than the cause-and-effect relationship, I will gloss *tí* as 'do first' in interlinears and analyse *t-î dè* as containing its simple perfective form, with the usual loss of final -ŷ before *dè*. Because of the chronological emphasis, *t-î dè* may be considered a special case of the pseudo-conditional construction with *dè* following a perfective verb (§15.2.2.6). Consistent with this, my examples of *t-î dè* involve future time contexts.

The stem *tí* is found elsewhere in TgK grammar as a linker in verb chains (§15.1.6.3) and in the form *té-è:* in a variant of the same-subject subordination construction (§15.2.2.5). Jamsay and Ben Tey cognates are mentioned at the end of §15.1.6.

- (562) a. *wó* [*săⁿ* ^H*gírⁿi*^{+L}] *jǎ:* *jí:* *t-î* *dè]*
 3SgSbj [ReflPoss ^Hhouse.Loc^{+L}] meal eat do.first-Pfv if]
yě-jú
 come-Ipfv
 'He will eat at his home before coming (here).'
 or: 'He will eat at his home, then come (here).'
- b. *[bíré* *bíré* *t-î* *dè]* *jǎ:* *jí:*
 [work(n) do do.first-Pfv if] meal eat.Imprt
 'Do-2Sg the work before you-Sg eat!'
 [lit. "After doing the work, eat a meal!"]

TgK verb *tí* 'send', which occurs mainly in the verb-chain *bǎ:rì tí* 'send', along with its cognates in other Dogon languages, may be historically related to the grammatically specialized *tí* in *t-î dè* and *té-è:*; or they may be accidental homonyms. Synchronously in TgK, the two can co-occur: *[bǎ:rì tí t-î dè] yéré* 'send (it) and then come!'.

16.1.4 'Unless' antecedent

An ordinary negative antecedent can express 'unless' as well as other nuances.

- (563) *ú* *wáru* *wǎ:-rò* *dè,*
 2SgSbj farming do.farm.work-IpfvNeg if,
 àbádá *jǎ:* *jí:-rò*
 never meal eat-IpfvNeg
 ‘If you-Sg don’t do farm work, you’ll never eat.’
 = ‘Unless you-Sg do farm work, you’ll never eat.’

16.2 Alternative ‘if’ particles

16.2.1 ‘Even if ...’ (... *kà:n*, *hâl* ... *kà:n*)

Replacing clause-final *dè* by *kà:n* ‘also, even’, with or without clause-initial *hâl* ‘even, all the way to’, expresses the sense ‘even if’. Usually the antecedent eventuality is unlikely to happen, and if it did it would not affect the consequent. In (564c) there is also a regular ‘if’ clause.

- (564) a. *hâl* *wó* *nî* *yér-ê* *kà:n*,
 even 3SgSbj here come-Pfv even,
 jǎ: *jí:-rò*
 meal eat.meal-IpfvNeg
 ‘Even if he/she comes here, he/she won’t eat (here).’
- b. *hâl* *àrⁿú* *lów-è* *kà:n*,
 even rain(n) rain.fall-Pfv even,
 iⁿ *bârá* *yǎ:-rò*
 1SgSbj bush go-IpfvNeg
 ‘Even if it rains, I won’t go to the bush (= the fields).’
- c. *í:ⁿ* *kà:ná*, *[wó* ^{HL}*ínà:]* *wò:-rò* *kà:n*,
 child now, [3SgPoss ^{HL}mother] be.HumSgSbj-Neg even,
 í:ⁿ *ú=n* *dâgá* *té-è* *dè*,
 child 2Sg=Dat leave do.first-Pfv if,
 pèré *[[ú* ^L*i:ⁿ]* *gì:ⁿ]* *wó* *din-é*: *dòŋòrⁿò*
 other [[2SgPoss ^Lchild] like] 3SgObj keep-MP.Imprt otherwise
 ‘A child now, even if its mother is absent (=dead), if/when an (orphaned) child is left to you (=in your charge), keep (=treat) it like your (own) child anyway.’
 (2011.1b.01)

For *kà:n* in counterfactual conditionals, see §16.4, below.

16.2.2 ‘As soon as ...’ (*dè fú→*)

Addition of *fú→* ‘all’ (§6.6.1, above) after the clause-final ‘if’ particle *dè* can add a nuance of immediacy to the sequencing of the antecedent and the consequent eventualities.

- (565) a. *ámírⁿí ùŋúr-ì dè fú→,*
 chief get.up-Pfv if all,
 émé *jă:* *jí:-ní*
 1PLSbj meal eat.meal-Ipfv
 ‘As soon as the chief gets up, we’ll eat.’

- b. *fⁿ bú:dú bér-ê dè fú→,*
 1SgSbj money get-Pfv if all,
 ú=ñ *tójó-jú*
 2Sg=Dat pay-Ipfv
 ‘As soon as I get the money, I’ll pay you-Sg.’

16.2.3 ‘As long as ...’ (*táⁿ fú→*)

táⁿ here is borrowed from French (*tant que*). It is combined with *fú→* ‘all’.

- (566) *[nìŋjírí pè-sô: ^Lyð:] dò:-lí táⁿ fú→,*
 [day ten-seven ^LNearDist] arrive-PfvNeg as.long all,
 [[kó í:ⁿ] *jí-*Ø *bìr-ê:-rò]*
 [[NonhPoss child] eat-VblN do-MP-IpfvNeg]
 *kân*kô
 considered be.NonhSbj
 ‘As long as those seventy days haven’t arrived (=elapsed), its fruits are considered to be inedible.’ (2011.1a.19)

16.2.4 ‘Suppose that ...’ (*sà*)

A clause-final particle *sà* is used in suppositional conditional antecedents. In the interview-style recorded texts, *sà* is often used by the interviewer at the beginning of a complex question shifting from the previous issue to a new one.

- (567) a. B: *né: pù:-dúw tóró-séⁿ lò, ...*
 A: *é→*
 B: ... *[bàrá bîn], [pù: -tè:ré wòⁿ] yó kò sà, maintenant*

B: Now they had begun carrying the millet, right?

A: Yes.

B: In the bush, suppose there were some big heaps (of millet grain spikes). ...
 [beginning of long speech turn ending with a new question]

- b. *maintenant [pú: wòⁿ] dùw-é:-séⁿ sà,*
 [pú: sâ:ⁿ] dùw-é: girⁿí jé:r-è:-séⁿ,
 maintenant gírⁿí jé:r-è:-séⁿ dè,
 [pú: dà] yă: ^Lbè:jù
 Now **suppose that** (they) have carried the millet,
 they have carried and brought all of the millet to the houses.
 Now when (they) have brought (it) to the houses,
 as for the millet, where do (they) put it?’ (2011.1a.16)

This *sà* is distinct from H-toned clause-final *sá*, an emphatic found widely in Malian languages (but absent from my TgK data) and probably derived from (African) French *ça* ‘that’. It is also distinct from *sà* and tonal variants ‘have’.

16.3 Willy-nilly and disjunctive antecedents ('whether X or Y ...')

In a ‘whether or not’ conditional, the two alternative antecedents are juxtaposed without the final *dè* ‘if’. The construction is really a conjunction of the two antecedents, and has the dying-quail intonation (prolongation and pitch drop) typical of NP conjunction (§7.1.1). If (as often) the two alternative antecedents are positive and negative counterparts, the dying-quail intonation is expressed only on the positive clause, which precedes the negative with no pause (568a). If the two antecedents have distinct predicates, both have dying-quail intonation (568b).

- (568) a. *àrⁿú lów-è:* *lòwɔ̡-lí,*
 rain rain.fall-and.SS rain.fall-PfvNeg
 émé bárá yǎ:-jí
 1PlSbj bush go-Ipfv.PlSbj
 ‘Whether it rains or not, we’re going to the bush (=fields).’
- b. *dí: kélú kɔ̡:, nú: kɔ̡:,*
 water cold be.NonhSbj.&, hot be.NonhSbj.&,
 fⁿ nɔ̡:-pú
 1SgSbj drink-Ipfv
 ‘Whether the water is cold or hot, I will drink (it).’

16.4 Counterfactual conditional (*kà:ⁿ*)

In a counterfactual, it is implied that the antecedent eventuality did not in fact occur in the past, so the causal chain between antecedent and consequent was broken. The antecedent ends in *kà:ⁿ* ‘also, even’ rather than *dè*. We have seen *kà:ⁿ* in ‘even if’ antecedents (§16.2.1). The consequent is imperfective in form, as with other types of conditional.

- (569) a. *kǎ: yè-lí kà:ⁿ,*
 grasshopper come-PfvNeg even,
 pàrà-gó:ró dàg-é:-jú
 harvest be.good-MP-Ipfv
 ‘If the locusts hadn’t come, the harvest would have turned out well.’
- b. *wó n̄í yèr-ê kà:ⁿ, fⁿ wó dǎ-pú*
 3SgSbj here come-Pfv even, 1SgSbj 3SgObj kill-Ipfv
 ‘If he/she had come here, I’d have killed him/her.’

17 Complement and purposive clauses

17.1 Quotative complement

The inflectable ‘say’ verbs are *póri* and *gí* (§17.1.2).

The quotative particle *wà* is in common use at the end of quoted clauses (§17.1.3). It is also commonly inserted after the subject of a quoted clause (§17.1.4).

Imperative verb forms appear as such in quotations. Hortatives, which are structurally a subtype of imperative, likewise occur in quotations (§17.1.5).

Quoted clauses have logophoric pronouns corresponding to original first person pronouns; see §18.2 below.

17.1.1 Direct versus indirect in quotative complements

Most discourse is indirect in the sense that some conversion of deictics is observed, most prominently the replacement of original first person pronouns by logophoric pronouns. Most quoted speech and thought is indirect. However, the distinction between direct and indirect is not pervasive, since a) TgK aspect categories (unlike English tense) are not recomputed; b) imperative and hortative forms are retained; and c) there is no ‘that’ complementizer.

17.1.2 ‘Say that ...’ with inflectable ‘say’ verb (*póri*, *gí*)

The inflectable ‘say’ verbs are *póri* and *gí*, see §11.3 for discussion of their forms (including irregularities). *póri* is very common in elicitation, *gí* is more common in texts.

póri can take NP as well as clausal complements.

- (570) a. *wó iŋé ^Lpòr-i*
3SgSbj what? ^Lsay-Pfv
'What did he/she say?'
- b. *[əjə^L pɔ̄n→] pò-lí*
[thing^L nothing] say-PfvNeg
'He/She didn't say anything.'
- c. *[ú yògó yě-jú dè] má=ñ pɔ̄-nó*
[2SgSbj tomorrow come-Ipfv if] 1Sg=Dat say-Imprt
'If you're coming tomorrow, tell me!'
- d. *Iⁿ [wó ^Hgí^{nì+L}] yèré bɛ:-rò]*
1SgSbj [3SgSbj ^Hhouse.Loc^{+L}] come get-IpfvNeg]
wó=ñ pór-i
3Sg=Dat say-Pfv
'I told him that I can't come to his house.'

The ‘say’ verb and its dative PP normally follow the quoted matter, and usually do not co-occur with an adjacent quotative *wà*, which would be rather redundant. However, a subject NP may occur at the beginning of the construction, preceding the quotation (570d).

The quoted matter may be short (e.g. a name) or one or more full sentences. Spatiotemporal adverbials ('yesterday', 'here') are reset to correspond to the current deictic center. However, aspectual categories are not reset. In 'He said (ten days ago) that he would slaughter a goat the next day', 'would slaughter' is translated out as an imperfective verb, just as in the original utterance ('I will slaughter a goat tomorrow').

The most important change from the original utterance to the quoted form is the use of logophoric pronouns replacing an original 1Sg or 1Pl pronoun, when the attributed speaker is not the current speaker. See §18.2 for examples and discussion.

For jussive complements (quoted imperatives and hortatives), see §17.1.5, below.

17.1.3 Quotative particle *wà*

The uninflectable particle *wà* follows the quotation. It functions much like quotation marks in written English. It may, however, co-occur with a pre-quotation subject denoting the attributed author of the quotation, like 3Sg *wó* in (571a). In any event, there is always an attributed speaker, even if covert, and this is sufficient to trigger the use of logophoric pronouns (which are coindexed to the attributed author).

- (571) a. *wó* *[ènē* ^H*áñà*^{+L}] *àrⁿú* *lów-è]* *wà*
 3SgSbj [[LogoP ^Hvillage.Loc^{+L}] rain rain.fall-Pfv] Quot
 'He_x said that it rained in his_x village.'
- b. *wó* *ènē* *yǎ:-jú* *wà*
 3SgSbj LogoS go-Ipfv Quot
 'He_x says he_x will go.'
- c. *wó* *[sè:dú* *bàg-è]* *wà*
 3SgSbj [S fall-Pfv] Quot
 'He/She said that Seydou fell.'

In (571a-c), the particle preserved the tones of the preceding verb, whereas clause-final position often induces tone-dropping (perhaps intonational in nature) of verbs. However, in recorded texts the tone-dropping sometimes occurs even before *wà* (572).

- (572) *[ènē* *ètě:* *yǎ:-jú* *wà*
 [LogoSbj well go-Ipfv] Quot
 '(He) said he was going to the well.' (2011.1b.03) (*yǎ:-jú*)

When the quoted matter ends with a clause-final emphatic particle, *wà* is inserted between the predicate and the emphatic.

- (573) *[bàrá* *bîn*] *[bàrà^L-nòwⁿɔ]* *fí→]*
 [outback in] [outback^L-meat all]
 ènē ^L*bàrà* *wà* *dè*
 LogoObj ^Lhelp.Imprt Quot Emph
 '(she said:) "all (you) wild animals in the bush, help me!" ' (2011.1b.05)

Combined with quotative subject *wà* (following section), this means that there are two break points in a quotation where *wà* can be inserted: after the subject NP, and after the verb (but before emphatic particles).

Clause-final *wà* does not occur in negative or irrealis contexts like ‘He didn’t say ...’ or ‘Did he say ...?’. These contexts require an overt ‘say’ verb (which follows the quotation), and this makes a quotative particle unnecessary and perhaps inappropriate. Examples occur in the following section.

17.1.4 Quotative subject *wà* and allomorphs

A quoted sentence consisting of an overt subject (NP or pronoun) plus a VP can be divided into two, with one *wà* after the subject NP and a second *wà* or an inflectable ‘say’ verb after the VP (but before any emphatic particle). This division is regular with human subjects, particularly pronouns. It does not seem to apply to nonhuman subjects. I refer to the first *wà* as the **quotative subject** morpheme.

- (574) a. *bé* [sè:dú *wà*] [yǎ: yǎ:-táŋà mà→] *wà*
 3PlSbj [S QuotSbj] [where go-Prog Q] Quot
 ‘They asked Seydou_x where he_x was going.’
 (or: ‘They asked, where was Seydou going?’)
- b. *wó* [nǎ bè *wà*] [lě lé:-sɛ̄ⁿ]
 3SgSbj [person Pl QuotSbj] [slashing slash.earth-Pfv.3Pl]
 pór-ì dè, bìn^L-kéjè=y
 say-Pfv if. untruth=it.is
 ‘If he says that the people have planted (the millet), it’s false.’

The 1Sg form is usually contracted from *má* *wà* to *má à*. The 3Sg can be contracted from *wó* *wà* to *wó à*. I know of no other irregularities in form.

The quoted subject may be a pronoun, reset to conform to the deictic center of the current speech event. In other words, it need not exactly repeat the pronominal or other form used in the original utterance. In (575a), for example, 1Sg is substituted for original 2Sg.

- (575) a. *bé* [*má* à] [yǎ: yǎ:-táŋà mà→] *wà*
 3PlSbj [1Sg QuotSbj] [where go-Prog Q] Quot
 ‘They asked (me) where I was going.’
- b. *bé* [ú *wà*] [yǎ: yǎ:-táŋà mà→] *wà*
 3PlSbj [2Sg QuotSbj] [where go-Prog Q] Quot
 ‘They are asking (you) where you-Sg are going.’
 [said e.g. by an interpreter, when there is no common language]
- c. *wó* [sè:dú *wà*]
 3SgSbj [S QuotSbj]
 [[yé tè] bàg-ɛ̄] má=ñ ^Lpór-ì
 [[there.Def around] fall-Pfv] 1Sg=Dat ^Lsay-Pfv
 ‘She said to me that Seydou has fallen over there.’

Clause-final *wà* is not used in negative or modally dubitative contexts ('he didn't say...', 'did he say...?'), which require an inflectable 'say' verb. However, quotative subject *wà* does appear after a human subject NP in such constructions.

- (576) a. *ámádú [nă bë wà] [lĕ lé:-sēⁿ] A [person Pl QuotSbj] [slashing slash.earth-Pfv.Plsbj] pò-lí say-PfvNeg*
 'Amadou did not say that the people have sown (the millet).'
- b. *ámádú [nă bë wà] [lĕ lé:-sēⁿ] A [person Pl QuotSbj] [slashing slash.earth-Pfv.Plsbj] pór-i say-Pfv*
 'Did Amadou say that the people have sown (the millet)?'

TgK differs from other Dogon languages that have a similar quotative-subject construction in that a homophonous and arguably identical *wà*, with the same contracted pronominal forms, is used with topicalized pronouns. For details see (666) and preceding discussion.

17.1.5 Jussive complement (reported imperative or hortative)

This section describes the form of quoted (or otherwise indirect) imperatives, prohibitives, and hortatives.

17.1.5.1 Quoted imperative

A quoted (embedded) imperative takes the regular imperative form, but in invariant singular form regardless of the original addressee number. The original addressee appears as an obligatory clause-initial pronoun followed by quotative subject (QuotSbj) particle *wà* (often reduced to *à* after 1Sg *má* or 3Sg *wó*, and contracting with them as [*mâ:*] and [*wâ:*] respectively). This clause-initial pronoun functions as a quoted vocative, with the original subject, or more likely vocative '(hey) you!', converted in accordance with the pronominal structure of the current speech event (hence often third person). Quotative *wa* (which adopts the final tone of the preceding word) may also occur at the end of the quoted clause.

The full form of the construction is exemplified by (577), which has two clearly distinct clauses.

- (577) *[séydú nì] pó-nó, [[wó à] yéré] wá*
 [S D_{at}] say-Imprt, [[3SgSbj QuotSbj] come.Imprt] Quot
 'Tell-2Sg Seydou to come!'
 [lit: "Say to Seydou, '(hey) he, come!'"]

It is also possible to omit the overt 'say' verb (*póri*), since the quotative particles mark the imperative clause as quoted (578a). Or the overt 'say' verb may follow the quoted segment (578b), perhaps as a kind of afterthought.

- (578) a. *séydú* [[má à] yéré] wá
 S [[1Sg QuotSbj] come.Imprt] Quot
 ‘Seydou told me to come!’
 [lit: “Seydou (said) ‘(hey) me, come!’ ”]
- b. *séydú* [[má à] yéré] pórì
 S [[1Sg QuotSbj] come.Imprt] say.Pfv
 ‘Seydou told me to come!’
 [lit: “Seydou said, ‘(hey) me, come!’ ”]

For wishes and imprecations (‘May God assist you!’) and the like, with a similar syntax except for the quotative subject marking, see §10.6.4.1, above.

The same structures are used for quoted prohibitives, which merely replace the imperative in the previous examples with a morphological prohibitive (579).

- (579) *[séydú nì] pó-nó,*
 [S Dat] say-Imprt,
 [[wó à] yé-lé] wá
 [[3SgSbj QuotSbj] come.Proh] Quot
 ‘Tell-2Sg Seydou not to come!’
 [lit: “Say to Seydou, ‘(hey) he, don’t come!’ ”]

17.1.5.2 Quoted hortative

As explained in §10.6.2.1, above, a hortative of the type translatable as ‘let’s VP!’ is structured as an imperative, with either a singular or plural addressee as the case may be, but with a 1Pl subject. This structure is reflected in the form of an embedded hortative, which treats the original addressee(s) as the subject(s) of the hortative verb. Therefore the hortative in (580) has a 1Sg pronoun as subject, representing the original addressee.

- (580) *séydú* [má à] pá-má wá
 S [1SgSbj QuotSbj] go-Hort Quot
 ‘Seydou said to me, let’s go!’ (i.e. he suggested that he and I go)
 [lit.: “Seydou (said), ‘(hey) me, let’s go!’ ”]

As with embedded imperatives, here the hortative verb is invariant in form. A plural subject can be expressed by the usual clause-initial pronoun, but the hortative verb does not take plural-addressee form (581).

- (581) *séydú* [émé wà] pá-má wá
 S [1SgSbj QuotSbj] go-Hort Quot
 ‘Seydou said to us, let’s (all) go!’ (i.e. he suggested that he and we go)
 [lit.: “Seydou (said), ‘(hey) us, let’s go!’ ”]

An embedded hortative negative is (582).

- (582) *séydú* [má à] yá:-m-lé wá
 S [1SgSbj QuotSbj] go-Hort-Proh Quot
 ‘Seydou said to me, let’s not go!’ (i.e. he suggested that he and I not go)
 [lit.: “Seydou (said), ‘(hey) me, let’s not go!’ ”]

17.2 Factive (indicative) complements

Factive complements have the form of main clauses, usually indicative but under some conditions polar interrogative. The factive clause may precede the entire main clause, including its subject, or it may be inserted between the subject and the verb of the main clause.

With verbs like ‘see’ and ‘hear’, a distinction must be made between factive complements that describe an inferred situation (‘I saw that he was tired’), and imperfective complements that describe an ongoing event (‘I saw him fall[ing] out of a tree’).

17.2.1 ‘Know that ...’ factive complement

For the predicate *í:ⁿ wô* ‘know’, including a copula, see §11.2.4.1, above.

A clausal complement has the form of a main clause. If ‘know’ is positive, the complement is a normal indicative clause, positive or negative as the case may be. If ‘know’ is negated, questioned, or otherwise non-assertive, the complement takes the form of a polar interrogative (§13.2.1). In English, ‘Does Seydou know that his house has fallen?’ has a presupposition absent from ‘Does Seydou know whether his house has fallen?’, but in TgK (583b) is used whether or not the current speaker knows whether the house has fallen.

- (583) a. *[íⁿ yë:-rò] [wó í:ⁿ wô]*
[1SgSbj come-IpfvNeg] [3SgSbj know be.HumSgSbj]
‘He/She knows that I am not coming.’
- b. *sè:dú [[sáⁿ ^Hgíⁿ] bàg-ê mà] í:ⁿ wô*
S [[ReflPoss ^Hhouse] fall-Pfv Q] know be.HumSgSbj
‘Does Seydou know that his house has fallen?’
‘Does Seydou know whether his house has fallen?’

17.2.2 ‘See (find, hear) that ...’ complement

17.2.2.1 Factive complement of ‘see’ and ‘hear’

‘See’ can take a factive complement, in the form of a main clause, when the emphasis is on the agent’s inference of an eventuality based on visual and perhaps other evidence, rather than on direct observation of the eventuality (584a-b). This construction is also usual with ‘hear (a report)’ (584c) and ‘find (a situation)’ (584d). A nonpronominal subject of the factive clause is not resumed by a preverbal proclitic pronoun (584b,d).

- (584) a. *[ú kilè-Íf] íⁿ ð-tápà*
[2SgSbj be.done-PfvNeg] 1SgSbj see-Prog
‘I see that you-Sg are not done (=are not ready).’
- b. *íⁿ [[sáⁿ ^Hsúgé:ⁿ] dě-èⁿ] ð-ê*
1SgSbj [[ReflPoss ^Hyounger.sib] be.tired-Pfv] see-Pfv
‘I saw that my younger sibling was tired.’

- c. [ú *yèr-ɛ̂*] [*iⁿ* *ég-ɛ̂*]
[2SgSbj come-Pfv] [1SgSbj hear-Pfv]
‘I heard that you-Sg had come.’
- d. *iⁿ* *yě-ɛ̂:* [[*sǎⁿ* ^{HL}*iⁿtāyⁿ*] *nùnú-jú*] *tém-ɛ̂*
1SgSbj go-and.SS [[ReflPoss ^{HL}friend] be.sick-Ipfv] find-Pfv
‘I went (there) and found that my friend was sick.’

17.2.2.2 Imperfective complement of ‘see’ and ‘hear’

In this context, the agent of ‘see’ or ‘hear’ directly perceives an event, rather than inferring a situation. The subject of the perception verb appears either before the complement (585a) or after it, next to the perception verb (585b-c).

Two syntactic details show that the complement is structured as a subject relative clause, suggesting that e.g. (585a) translates literally as “I saw [the child who was falling].” First, the verb of the complement ends in an L-toned version of otherwise H-toned imperfective suffix *-jú* or (plural) *-jí*. The L-toned version is the form that occurs in relative clauses, arguably reflecting a tonal definite (§14.1.9.2). Second, even when the subject of the complement is expressed as a nonpronominal NP, a preverbal subject pronominal is required. Note 3Sg *wó* in (585a,c) and 3Pl *bé* in (585b), agreeing with the clause-initial subject NP. This too is a feature of relative clauses (§14.1.8). Compare the syntax of ‘since’ clauses with *gì:ⁿ* (§15.2.3).

- (585) a. *iⁿ* [*í:ⁿ* [[*tímé* *árà*] ^L*gò:*] *wó* *bàgá-jù^{+L}*]
1SgSbj [[child tree] on.top] ^Lgo.out 3SgSbj fall-Ipfv.Rel^{+L}]
^L*ð-ɛ̂*
^Lsee-Pfv
‘I saw (a/the) child fall(-ing) out of a tree.’
- b. [[*pě* *bè*] *já* *bé* *jàyá-jí^{+L}*]
[[woman Pl] squabble(n) 3PlSbj squabble-Ipfv.PlSbj.Rel^{+L}]
iⁿ *ég-ɛ̂*
1SgSbj hear-Pfv
‘I heard the women squabble/squabbling.’
- c. [*í:ⁿ* *ú* *wó* *lágá-jù^{+L}*] *iⁿ* ^L*ð-ɛ̂*
[child 2SgObj 3SgSbj hit-Ipfv.Rel^{+L}] 1SgSbj ^Lsee-Pfv
‘I saw the child hit(ing) you-Sg.’

17.3 Nominalized and non-factive imperfective complements

Some main-clause verbs, such as ‘finish [VP-ing]’ and ‘consent [to VP]’, control a VP complement whose verb is in verbal-noun or other nominal form. Others take imperfective clauses as complements, or switch between verbal nouns and imperfectives.

17.3.1 Structure of verbal noun clause

A verbal noun in its regular abstractive function can be bracketed with clausemate complements. A simple direct-object noun, or other noun regularly associated with the verbal action (e.g. ‘night’ in ‘night fall’), is readily incorporated as an {L}-toned compound initial, as in (586). See §5.1.4 for more examples and discussion.

- (586) *iⁿ gìrⁿ_L-[ùj-ú] kíl-i*
 1SgSbj house^L-[build-VblN] finish-Pfv
 ‘I have finished the house-building.’
 (= ‘I have finished building the house.’)

It is not possible to incorporate multi-word object NPs as compound initials in this manner. When the noun is modified by an adjective, the noun-adjective combination has its regular tones, as in a main clause. This means that the adjective has its lexical melody, and controls tone-dropping on the noun (587a). Likewise, adding a quantifier such as a numeral, or adding a possessor, prevents compound formation, and the object NP has its usual main-clause tonal form (587b-c). Pronouns and adverbials likewise resist incorporation (587d-e). The 1Sg pronoun *má* in (587d) is accusative in form and expresses an object, not a possessor.

- (587) a. *iⁿ [[pèjù^L márⁿá] p᷑-Ø] kíl-i*
 1SgSbj [[sheep^L big] skin-VblN] finish-Pfv
 ‘I have finished skinning (and butchering) the big sheep.’
- b. *iⁿ [[gìrⁿí ĺy] ùj-ú] kíl-i*
 1SgSbj [[house two] build-VblN] finish-Pfv
 ‘I have finished building two houses.’
- c. *iⁿ [[săⁿ Hpéjú b̄e] d᷑rⁿ-ú] kíl-i*
 1SgSbj [[ReflPoss Hsheep Pl] sell-VblN] finish-Pfv
 ‘I have finished selling my sheep-Pl.’
- d. *wó [má g᷑r-ú] kíl-i*
 3SgSbj [1SgObj look-at-VblN] finish-Pfv
 ‘He/She has finished looking at me.’
- e. *wó [n̄i s᷑m-ú] kíl-i*
 3SgSbj [here sweep-VblN] finish-Pfv
 ‘He/She has finished sweeping here.’

When a morphologically simple demonstrative (*n᷑;* *y᷑*) is part of an object NP in a verbal-noun complement, two seemingly distinct constructions occur. In one, the NP has its main-clause form, with tone-dropped noun and H-toned demonstrative (588a). In the other, the noun shows its lexical melody, while the demonstrative drops tones. One interpretation of this tone-dropping is that the demonstrative, but not the associated noun, has been incorporated as compound initial into the verbal noun (588b). Alternatively, the L-toned demonstrative is not incorporated at all, rather it has undergone Postnominal-Determiner Tone-Lowering under the influence of an otherwise covert tonal definite on the noun (588c). This would make (588c) structurally parallel to (588a).

- (588) a. *iⁿ* *[[gò:^L nó:] tar-ú]* *dàg-ê*
 1SgSbj [[wall^L Prox] replaster-VblN] leave-Pfv
 'I have ceased (=abandoned) replastering this wall.'
- b. dispreferred mark-up, see (c)
iⁿ *[nòwⁿʒ yò:^L-[kèj-ú]]* *kíl-ì*
 1SgSbj [meat NearDist^L-[cut-VblN]] finish-Pfv
 'I have finished cutting that meat.'
- c. preferred alternative mark-up of (b)
iⁿ *[nòwⁿʒ L yò:^L] kèj-ú] kíl-ì*
 1SgSbj [meat.(Def) LNearDist] [cut-VblN] finish-Pfv
 'I have finished cutting that meat.'

As explained in chapters 6 and 14 *passim*, the complex of noun, adjective, and numeral forms a unit that remains intact when the NP functions as head of a relative clause, while demonstratives (along with plural *bè* and 'all' quantifiers) are positioned to the right of the clause-final relative verb. In a verbal-noun clause, this repositioning is not possible, since (for example) a numeral following the verbal noun would be interpreted as quantifying over events rather than over objects.

If a true subject (agent) is included with the verbal noun, it takes the form of a possessor. In (589), the entire compound verbal noun ('mango-cutting') is treated tonally as the possessed noun, with {HL} overlay. It is more difficult to elicit examples with a subject and an uncompounded verbal noun, since most such meanings are more readily expressed with a cognate nominal. This comment applies even when the verbal noun, or a homophonous form, is used as the cognate nominal, as with *nü*: 'death, dying' in (589b).

- (589) a. *[sè:dú HL[mángòrò-[kèj-ù]]] sèⁿ^L =lá*
 [S HL [mango-[cut.VblN]]] good^L-StatNeg
 'Seydou's mango-cutting is not good.'
- b. *[ámírⁿí H nü:] [sò:^L náná]=yⁿ*
 [chief H death] [matter^L serious]=it.is
 'the death of a chief is a grave matter'

17.3.2 'Prevent' (*gă:n*) with nominal complement

The transitive verb *gă:n* (imperative *gă:nâ*) has a range of senses (or translations) including 'pester', 'delay', and 'obstruct'. My assistant was uncomfortable using it as a control verb, as in 'X prevent Y [from VP-ing]'. One alternative construction he offered instead was a negated causative of 'go' (590), using the causative in the permissive sense 'let Y VP'.

- (590) *àrⁿú má=n bárá yà:-m-lí*
 rain 1Sg=Dat the.bush go-Caus-PfvNeg
 'The rain didn't let me go to the field(s).'

He had no trouble with *gă:n* accompanied by a simple nominal complement denoting an action or process (591).

- (591) *sípē* [gìné] [iⁿ] [^Lkè]] *gă:n-i*
noise [sleep(n)] [1SgPoss ^LPoss]] **obstruct-Pfv**
‘The noise obstructed my sleep (=kept me from sleeping).’

17.3.3 ‘Dare’ (*dă:rì*) with imperfective complement

The verb *dă:rì* ‘dare (to VP), have the nerve or the effrontery (to VP)’ takes a complement with imperfective verb (positive or negative). The subjects of the two clauses are coindexed.

- (592) a. *dònó* [[émé ^{HL}dá:gòl] bñ] nū-pú *dă:râ:-rò*
cat [[1PlSbj ^{HL}courtyard] in] go.in-Ipfv **dare-IpfvNeg**
‘The cat doesn’t dare to come into our courtyard.’
- b. *ú* ámírⁿí *dă:jú* *dă:rá-jú*
2SgSbj chief insult-Ipfv **dare-Ipfv**
‘You-Sg dare to insult the chief?’
- c. *ú* *yĕ:-rò* *dă:rá-jú*
2SgSbj come-IpfvNeg **dare-Ipfv**
‘You-Sg dare to not come?’

17.3.4 ‘Consent’ (*yòwó*, *mă:n*) with verbal-noun or imperfective complement

The sense ‘consent, agree (to VP)’ is expressed by either *yòwó* (also ‘receive, accept’) or *mă:n* (imperative *má:ná*). The complement is expressed using either a verbal noun or an imperfective verb, regardless of whether the two clauses have coindexed subjects. The subjects are coindexed in (593a) with a verbal noun, and in (593b) with an imperfective complement.

- (593) a. *ámírⁿí* *nî* *yér-ú* *yòw-ê*
chief here come-VblN **consent-Pfv**
‘The chief has agreed to come here.’
- b. *[fáná* ^{HL}*śgɔ̄-i:ⁿ*] *[[fáná* ^H*ná]* ^{HL}*lá:pɔ̄ⁿ*]
[village ^{HL}rich.man] [[village ^Hperson] ^{HL}tax]
tójó-jú *yòw-ê*
pay-Ipfv **consent-Pfv**
‘The rich man of the village has agreed to pay the (annual) tax for (all) the people of the village.’

The subjects are disjoint in (594). (594a) has a verbal noun complement, while (594b) has an imperfective complement.

- (594) a. *[dè-dé:* *mà*] *[bàmàkɔ̄^L-[yă-∅]* *[iⁿ] [^Lkè]]* *yòw-ê*
[Rdp-father 1SgPoss] [B^L-[go-VblN] [1SgPoss ^LPoss] **consent-Pfv**
‘My father has consented to my going to Bamako.’

- b. *wó* [émé kèpéré ^Lnđ:-nù] *yòwò-lí*
 3SgSbj [1PlSbj beer ^Ldrink-**Ipfv**] **consent-PfvNeg**
 ‘He/She did not consent that we drink beer.’

17.3.5 ‘Cease’ (*dàgá*) with verbal-noun complement

This is a special case of the important transitive verb *dàgá* ‘leave, abandon’. Wherever possible, a cognate nominal or other noun is used as the complement (595a). However, adding additional clause-internal constituents such as a direct object forces the use of a verbal noun clause (595b).

- (595) a. *bé* wárú *dàgá-séⁿ*
 3PlSbj farming leave-Pfv.PlSbj
 ‘They have stopped farming.’
- b. *[àⁿsà:rà^L* àrⁿá] [úrⁿí: bë] tò:pñ-ú *dàg-ê*
 [white.person^L man] [children Pl] tease-VblN leave-Pfv
 ‘The white man has stopped teasing the children.’

17.3.6 ‘Want’ (*iye*) with verbal-noun or imperfective complement

For the forms of the ‘want’ predicate, see §11.2.4.2.

For same-subject cases, the complement is most often a verbal noun (§4.2.4).

- (596) a. *wó* [[săⁿ ^Hánà^{+L}] *yě-Ø*] *iyâ:*
 3SgSbj [[ReflPoss ^Hvillage.Loc^{+L}] go-VblN] want
 ‘She wants to go to her village.’
- b. *fⁿ* [săⁿ ^Hwórú] *wàr-ú* *iyâ:*
 1SgSbj [ReflPoss ^Hfield] cultivate-VblN] want
 ‘I want to cultivate (=do farm work) in my field.’
- c. *émé* [kùⁿ^L-mòrú árà] *džw-Ø* *iy-è:*
 1PlSbj [roof on] go.up-VblN want-PlSbj
 ‘We would like to go up on the roof.’
- i. *fⁿ* *màngòrò^L-[pàl-ú]* *iyâ:*
 1SgSbj mango^L-[pick-VblN] want
 ‘I want to pick mangoes.’

An imperfective clause is also possible as a complement (597), since the complement denotes a hoped-for future eventuality.

- (597) a. *ú* nút-pú *iyâ:* *mà*
 2SgSbj go.in-Ipfv want Q
 ‘Do you-Sg want to come in?’

- b. *iⁿ té nánà gɛ-jú iyɛ^L = lá*
 1SgSbj tea at.all look-Ipfv want-Neg
 'I don't want (ever/at all) look at tea.'

With certain complements, such as 'eat', my assistant prefers *dènē* 'look for, seek' as the main-clause verb (598).

- (598) *émé íyé lásiri^L-[ni-Ø] dènē-pú*
 1PlSbj today couscous^L-[eat-VblN] seek-Ipfv
 'Today (=this evening) we'd like to eat couscous.'

Different-subject complements of 'want' are in (599). The verbal noun is "possessed" by the subject in (599a-b). In (599c), the object 'mango' functions as compound initial for the verbal noun. In (599d), where the object NP is determined and therefore cannot function as compound initial, it would appear that 'these mangoes' functions as possessor of the verbal noun.

- (599) a. *iⁿ yògó [ú ^Hyér-ú] iyɔ:*
 1SgSbj tomorrow [2SgPoss ^Hcome-VblN] want
 'I want you-Sg to come tomorrow.'
- b. *iⁿ yògó [sè:dú ^Hyér-ú] iyɔ:*
 1SgSbj tomorrow [S ^Hcome-VblN] want
 'I want Seydou to come tomorrow.'
- c. *iⁿ yògó [ú màŋgòrò-[pál-Ø]] iyɔ:*
 1SgSbj tomorrow [2SgSbj mango-[pick-VblN]] want
 'I want you-Sg to pick mangoes tomorrow.'
- d. *iⁿ yògó [ú [màŋgòrò^L nɔ:] ^Hpál-Ø] iyɔ:*
 1SgSbj tomorrow [2SgPoss [mango^L Prox] ^Hpick-VblN] want
 'I want you-Sg to pick these mangoes tomorrow.'

17.3.7 'Forget' (*náŋà*) with imperfective complement

This normally transitive verb (cf. *wó má náŋ-è* 'he/she forgot me') can take an imperfective clause as complement. The complement denotes an action that the main-clause subject forgot to carry out.

- (600) a. *wó [péjú jé:-jù] ^Lnáŋ-è*
 3SgSbj [sheep bring-Ipfv] ^Lforget-Pfv
 'He/She forgot to bring the sheep-Sg.'
 b. *[sìgɔ́ áwárá-jú] náŋá-lé*
 [mat lay.out-Ipfv] forget-Proh
 'Don't-2Sg forget to lay out the mats!'

This is of course distinct from a propositional complement, as in (601). Here the complement takes the form of a polar (yes-no) question. A more literal translation would be 'I forgot whether ...'.

- (601) *[iⁿtáyⁿ mà yě-ŷ mà iⁿ náŋ-è]*
 [[friend 1SgPoss] go-Pfv Q] [1SgSbj forget-Pfv]
 ‘I forgot that my friend had gone.’

17.3.8 Obligational ‘must VP’ (*kóy*)

The obligational construction is based on a hortative verb (for 1Sg or 1Pl subject), or on an imperative verb (for second or third person subject). It is followed by clause-final *kóy*.

Hortative examples are in (602). As in normal exhortations (‘let’s go!’), the plural-addressee hortative *-má-ŷⁿ* requires that a total of three or more persons (including the speaker) be involved.

- (602) a. *má sèwárà Lpà-mà kóy*
 1Sg S ^Lgo-Hort must
 ‘I must go to Sevare (city).’
- b. *má [săⁿ] HL dé-dè:] bàrá*
 1Sg [ReflPoss ^{HL}Rdp-father] help
wárú Lwà-mà kóy
 farm.work ^Ldo.farm.work-Hort must
 ‘I must help my father do farm work.’
- c. *émé nî wé:-má-ŷⁿ kóy*
 1Pl here be.HumSgSbj-Hort-PlSbj must
 ‘We (three or more) must be (=stay) here.’

Examples with the imperative verb are in (603). As in normal imperatives, a virtual 2Sg imperative subject is disregarded for anaphoric purposes, so ‘your father’ in (603a) does not have the reflexive-possessor form seen in (602b), above. On the other hand, third person subjects must be represented by a 3Sg or 3Pl pronoun, even if also specified in the form of a NP (603b-c).

- (603) a. *[ú HL dé-dè:] bàrá wárú wárá kóy*
 [2SgPoss ^{HL}Rdp-father] help farm.work do.farm.work.Imprt must
 ‘You-Sg must help your father do farm work.’
- b. *sè:dú wó sèwárà yă: kóy*
 S 3SgSbj S go.Imprt must
 ‘Seydou must go to Sevare.’
- c. *[úrⁿí: bë] bé bàrá yă:-ŷ kóy*
 [children Pl] 3PlSbj bush go.Imprt-PlSbj must
 ‘The children must go to the bush (=to the fields).’

17.3.9 Normative ‘it is right that ...’ (*jâ:ⁿ kð*) with imperfective complement

An example is (604). *jâ:ⁿ* is an adverbial meaning ‘right, proper, normal’ with reference to behavior.

- (604) [iⁿ yě-jú] jâ:ⁿ kò
 [1SgSbj come-Ipfv] proper be.NonhSbj
 'It's right (proper) that I come.'

17.3.10 'Fear' (*Iíw-i:* ~ *Iíy-i:*) with imperfective complement

For the forms of *Iíw-i:* ~ *Iíy-i:* 'fear, be afraid' and its causative, see §11.2.5.4. The verb can take imperfective complements (605) as well as NP objects. This construction is used when the subjects of the two clauses are coindexed ('be afraid to VP').

- (605) a. émé dà:gá dá:rà gõ:-jú ^L*lìyè-jì*
 1PlSbj night outside go.out-Ipfv ^Lfear-Ipfv.PlSbj
 'We are afraid to go outside at night.'
- b. fⁿ kógóró téwⁿé-nú ^L*lìyè-jù*
 1SgSbj fish eat-Ipfv ^Lfear-Ipfv
 'I am afraid to eat fish.'

When the two clauses have disjoint subjects, the complement takes the form of a polar interrogative (§13.2.1.1) with imperfective aspect, as in (606).

- (606) a. lú:ró má ^Lkèrè-jù mà→ ^L*lìyé-táŋà*
 snake 1SgObj ^Lbite-Ipfv Q fear-Prog
 'I'm afraid that a snake will bite me.'
- b. sè:dú [ná bë] sǎⁿ dž:-jú mà→ ^L*lìyé-táŋà*
 S [person Pl] ReflObj insult-Ipfv Q fear-Prog
 'Seydou_x is afraid that the people will insult him_x'

For the reflexive pronoun in (606b), see §18.1.4.

17.3.11 'Begin' (*tóřó*) with verbal-noun or purposive complement

The transitive verb *tóřó* 'begin', like its English counterpart, can take a range of nouns as nonclausal complements, provided they can be construed as denoting an activity. In (607), the complement is a noun ('cough') that implies the (absent) cognate verb.

- (607) wó kògújó tóř-è dè,
 3SgSbj cough(n) begin-Pfv if,
 wó=ñ lō ó-nó
 3Sg=Dat medication give-Imprt
 'If he starts to cough, give him the medicine.'

When the complement of *tóřó* is clausal (i.e. when it contains a verb), there are several options for the complement. The first is to convert its verb into a verbal noun (608).

- (608) a. *bé* *lě-Ø* *tóró-sêⁿ*
 3PlSbj plant-VblN begin-Pfv.PlSbj
 ‘They have begun planting.’
- b. *bé* *[[tùwó árà] dǒw-Ø] tóró-sêⁿ*
 3PlSbj [[stone on.top.of] go.up-VblN] begin-Pfv.PlSbj
 ‘They have begun to climb the mountain.’
- c. *bé* *gìrⁿi^L-[ùj-ú]* *tóró-sêⁿ*
 3PlSbj house^L-[build-VblN] begin-Pfv.PlSbj
 ‘They have begun to build (a/the) house.’
- d. *bé* *[[gìrⁿí mà] ùj-ú] tóró-sêⁿ*
 3PlSbj [[house 1SgPoss] build-VblN] begin-Pfv.PlSbj
 ‘They have begun to build my house.’
- e. *bé* *má làg-ú* *tóró-sêⁿ*
 3PlSbj 1SgObj hit-VblN begin-Pfv.PlSbj
 ‘They have begun to hit me.’

Secondly, a purposive clause with suffix *-Í* after an {L}-toned form of the verb (§17.6.3) is common as the complement of ‘begin’ (609).

- (609) a. *bé* *péjú dàⁿ-Í* *tóró-sêⁿ*
 3PlSbj [sheep kill-Purp] begin-Pfv.PlSbj
 ‘They have begun killing (=slaughtering) the sheep-Pl.’ (*dàrⁿâ*)
- b. *bé* *[búrú dòⁿ-Í] tóró-sêⁿ*
 3PlSbj [bread sell-Purp] begin-Pfv.PlSbj
 ‘They have begun selling bread.’
- c. *nòwⁿʒ* *ðmð-Í* *tór-è*
 meat be.rotten-Purp begin-Pfv
 ‘The meat has begun to spoil.’
- d. *[wó Hkéné] pàrà-Í* *tór-è*
 [3SgPoss Hheart] be.angry-Purp begin-Pfv
 ‘He/She has begun to get angry’

Finally, a second type of purposive complement, expressed by compound-like tonal overlays, is also attested with ‘begin’. In this construction, an object nominal has {L}-toned form as a compound initial, and the verb has {HL} overlay; see §17.6.2, below.

- (610) a. *Í:ⁿ* *[tìŋè^L HL tìŋè]* *tór-è*
 child [talk(n)^L HL speak] begin-Pfv
 ‘The child has begun to speak.’
- b. *Í:ⁿ* *[yè^L HL yâ:]* *tór-è*
 child [going^L HL go] begin-Pfv
 ‘The child has begun to walk.’

17.3.12 ‘Be VERB-able’ (*bìr-î*) with verbal-noun complement

Senses like ‘be drink-able’, ‘be-edible’, etc., focus on the intrinsic nature of the substance in question and some recurring actions applied to it as a consequence, rather than a particular person’s ability to apply the action. These senses are expressed by a construction consisting of the relevant NP (e.g. denoting a food), a verbal noun or similar action-denoting noun (such as a cognate nominal), and an imperfective form of mediopassive *bìr-î* ‘be done’ (cf. *bìré* ‘do’). The positive form is *bìr-é:-jú* (611d), the negative is *bìr-ê:-rò* (611a-c). The negative form, which is very common, is homophonous with transitive *bìrê:-rò* ‘does not do’. The nonspecific implied agent (‘they’, ‘people’) is not overtly indicated.

- (611) a. *[kó ^H*I:*ⁿ] jí-Ø bìr-ê:-rò*
 [NonhPoss ^Hchild] eat-VblN do-MP-IpfvNeg
 ‘Its fruits are inedible.’ (2011.1a.19)
- b. *[nìŋìrⁿí [pérè: [nú:né: ságà]]] dò:-lí dè,*
 [day [ten [five plus]]] arrive-PfvNeg if,
 [*wárú wòⁿ]* *bìr-ê:-rò*
 [farming Top] do-MP-IpfvNeg
 ‘If the fifteen days had not arrived (=elapsed), farming (=weeding) was not possible.’ (2011.1a.03)
- c. *[nú: ír-è] pòr-ú bìr-ê:-rò*
 [millet ripen-Pfv] say-VblN do-MP-IpfvNeg
 ‘It can’t be said that the millet has ripened.’ (2011.1a.06)
- d. *[[gáwⁿá tà:nú] ù:-n-ú] bìr-é:-jú*
 [[furrow three] lay-Caus-VblN] do-MP-Ipfv
 ‘laying (them) down (by) three furrows can be done.’ (2011.1a.08)

‘Be obtainable’ and ‘be (easily) seen’ can also be expressed by a passivized verb, see §9.3.2.

17.3.13 ‘Finish’ (*kíll*) with verbal-noun complement

kíll ‘finish (VP-ing)’ takes a verbal-noun complement. The complement may include a direct object as {L}-toned compound initial.

- (612) a. *pà:^L -[pí-Ø] kíll-i mà*
 meal^L-[eat.meal-VblN] finish-Pfv Q
 ‘Have (you) finished eating?’
- b. *bé tògù^L -[tòg-ú] kíll-è:-sêⁿ*
 3PlSbj shed^L-[build.shed-VblN] finish-Pfv
 ‘They have finished building the shed.’
- c. *émé námà lě-Ø kíll-è-lâ:*
 1Pl now sow-VblN finish-PfvNeg.Plsbj
 ‘We have not yet finished planting (millet).’

In (612a), the meal does not have to have been completely consumed; the subject of ‘finished eating’ has simply eaten enough and has ceased eating.

17.3.14 ‘Complete, finish’ (*dǔn*) plus same-subject anterior clause

dǔn ‘complete, finish (VP-ing),’ generally takes an NP complement. It appears to function as a kind of causative for *dògō* ‘be finished’, which occurs in contexts like ‘the sugar is finished (exhausted)’ and ‘the film is over’. While there is much overlap between *dǔn* and *kīlì*, *dǔn* presupposes completion, as in ‘finish up (the food)’ in the sense ‘consume all the food’.

dǔn can also be combined with another verb in the same-subject anterior form (§15.2.2.1).

- (613) a. [gírⁿI új-é:] *dǔn*-Ø
 [house build-SS.Ant] complete-Pfv
 ‘He/She finished (completed) building the house.’
- b. [wó ^Lkè ^Lyঃ:] té→
 [3SgPoss ^LPoss ^LNearDist] specifically
 dìw-é: *dǔn*-é:-séⁿ dè
 carry-SS.Ant complete-Pfv-PlSbj if
 ‘when (they) have completed carrying (the millet) of that particular (person)’
 (2012.1a.13)

17.4 Locative verbal noun or other nominal complement

This construction has not turned up in the TgK data as a complement clause type.

17.5 Chained-verb complement clause

In this section we consider cases where a final verb controls a preceding clause containing a verb in the bare stem form (see beginning of §10.1.3).

17.5.1 ‘Be able to, can’

17.5.1.1 *béré* following the main verb

The verb *béré* means ‘get, obtain’ as a simple transitive verb with NP object. When preceded by a chained VP ending in a verb in the bare-stem form, the sense is ‘can VP, be able to VP’. The subjects of the two clauses are understood to be coindexed. Less often, the chained verb takes the same-subject anterior subordinated form in -e: ~ -e: ~ -i:, as in (614c).

- (614) a. ú [tùwò^L] márⁿá] jàŋá bě-jú
 2SgSbj [stone^L] big] lift get-Ipfv
 ‘Can you-Sg lift this big rock?’

- b. *ú nùnú-pú dè, àná yě bë:-rò*
 2SgSbj be.sick-Ipfv if, village go get-IpfvNeg
 ‘If you-Sg are sick, you can’t travel.’
- c. *pó-n-è* *gàr-á→*
 decompose-Pfv a.lot
kó pá:m-è: *bè-lâ:*
 NonhObj understand-and.SS get-PfvNeg.Plsbj
 ‘(We) haven’t been able to understand very much (=fully) (the expression) “it has decomposed.”’ (2011.1a.25)

The imperfective negative (‘doesn’t, won’t) is sometimes used in contexts where *cannot* would be used in English.

- (615) *[sò-n-sònó kénè] wárú bìrè:-rò*
 [sand among] farming do-IpfvNeg
 ‘(You) don’t (=can’t) farm (=grow crops) in the sand.’

There are two ways to render ‘it’s possible’. *bìr-é:-jú* means more specifically ‘it is (=can be) done’ and denotes possible actions. *kí-i bè-jù* (ending with the imperfective of *bèrè*) has a more general meaning ‘it could happen’, for example a rain tomorrow. *kí-i* ‘it happened’ is a special perfective form of active copula *ké*: ‘be (nonhuman)’, as shown by its negation.

17.5.1.2 *bèrè* in respectful requests

bèrè ‘get, obtain’ occurs in ‘be able to VP’ expressions, see just above. This verb also appears in utterances like those in (616), where it adds a respectful note, as when a visitor asks to take leave of his/her host, either directly or through an intermediary. The positive version (616a) is easier to understand more or less literally in this pragmatic context, since ‘be able to’ implies the need for permission (616a). However, the use of *bèrè* extends to negative contexts (616b), where a semi-literal reading makes less sense.

- (616) a. *Iⁿ yě bèrè iyô:*
 1SgSbj go get want
 ‘I want to (be able to) go.’
- b. *Iⁿ yě bèrè iyè=lá*
 1SgSbj go get want=StatNeg
 ‘I don’t want to go.’

17.5.1.3 {L}-toned *bèrè*^L preceding the main verb

Invariant {L}-toned *bèrè*^L can also precede the main verb, which then takes regular inflections. This looks like a verb chain, except that in a real verb chain *bèrè* ‘get’ would have its lexical /LH/ melody. The sense is still close to ‘be able to’, but here it invokes an external situation, hence ‘(not) have the time to’ or ‘(not) have a chance (opportunity) to’, rather than ‘have the ability to’. Most textual examples are negations.

- (617) a. *bò:-dí: bérè^L è:-lí dè*
 root have.a.chance^L become.tight-PfvNeg if
 ‘if the (millet) roots don’t have time to become firm’ (2011.1a.03)
- b. *né: [jnù:^L gámá], sajú kó bérè^L jògô:-rò*
 now [millet^L certain], bird NonhObj have.a.chance^L peck-IpfvNeg
 ‘Now (with) some (kinds of, i.e. slow-growing) millet, the birds don’t have an opportunity to peck (=eat) that.’ (2011.1a.07)
- c. *[[àrⁿá-ùrù bè sâ:ⁿ] wó tì:ⁿ-tâ:ⁿ] [wó wà] [ètē: bérè^L yâ:-rò] wà*
 [[man-children Pl all] 3SgObj holding], [3Sg QuotSbj] [well have.a.chance^L go-IpfvN] Quot
 ‘All the young men held (=restrained) him, (and) said “you won’t be able to go to the well (to throw yourself in).”’ (2011.1b.03)
- d. *[[pú: má] kú:ⁿ ír-é:] [kó kê:ⁿ] [dérⁿé má] kú:ⁿ bérè^L gér-è wà*
 [[millet ReflPoss] like.that ripen-and.SS] [NonhSbj when.DS], [crops ReflPoss] like.that have.a.chance^L look-Pfv Quot
 ‘His (own) millet ripened in that way and thus [focus] he was able to cut (=harvest) his (own) crops, it is said.’ (2011.1b.05)

17.5.2 ‘Help’ (*bàrà*) as {L}-toned nonfinal verb in chain

With an NP object, ‘help’ is the regular transitive verb *bàrà*, as in *má bà-r-ê* ‘he/she helped me’. When the (logical) complement is clausal, the construction used is a kind of chain, with {L}-toned bare stem *bàrà* preceding the other verb, which has the contextually appropriate inflection. A direct object associated with the final verb may precede (618a) or follow (618b) the ‘help’ verb and its own direct object.

- (618) a. *gírⁿí [má Lbàrà] újó*
 house [1SgObj Lhelp] build.Imprt
 ‘Help-2Sg me build the house!’
- b. *Iⁿ [[sáⁿ HLdé-dè:] Lbàrà] kérú Ltè:rè-jù*
 1SgSbj [[ReflPoss HL Rdp-father] Lhelp] stem Lburn-Ipfv
 ‘I will help my father burn the stems.’

Since *bàrà* also means ‘increase (e.g. price)’ and ‘add (sth)’, ‘help’ may be an over-precise gloss in (618). A literal gloss for (618a) like “adding (yourself) to me, build the house!” might help bring out the TgK syntactic structure.

17.5.3 ‘Look’ (*gér-î:*) as final verb in chain (‘try to’)

gér-î: ‘look (at)’ (§10.1.3.7) can combine with a preceding VP in a sense close to ‘try to VP’, particularly where volition rather than physical difficulty is the issue.

- (619) *[pèré yé kɔ dè] [[kó túrú] pórù ^Lgè-mà]*
 [other Exist be.NonhSbj if] [[Nonh one] say ^Llook-Hort]
 ‘If there is another (tale), let’s look and (=try to) tell one.’ (2011.1b.04)

In other contexts, ‘try to VP’ is expressed indirectly by a purposive clause with final *gè:* (§17.6.1 below). (620) is literally ‘(I) went in order to go to the market, (I) couldn’t.’

- (620) *[[éwè^{+L}] yǎ:-jú gè:] yě-è:] bè-lí]*
 [[market.Loc^{+L}] go-Ipfv for] go-and.SS get-PfvNeg]
 ‘I tried to go to the market, but I couldn’t.’

17.6 Purposive, causal, and locative clauses

In addition to explicitly purposive clauses (see below), simple clause-chaining can sometimes be translated in this fashion. This is especially the case when the chain includes a nonfinal verb of motion or of changing position (e.g. sitting down), which may be a preliminary to an intended further action (621).

- (621) *émé dèg-â: [sǎⁿ] bè dè:rⁿé-má*
 1PlSbj sit-MP [ReflObj Pl] rest-Hort
 ‘Let’s sit down and rest (ourselves).’
 ‘Let’s sit down in order to rest (ourselves).’

17.6.1 Purposive clauses with postposition *gè:*, *gì*, or *g-i dè*

The ‘say’ verb *gí* (§11.3.1.2) is the source of purposive particles and postpositions. There is no sharp boundary between (thought-)quotative and purposive constructions. The range is from ‘saying/thinking that X’ to ‘planning/intending to X’ to ‘on the grounds that X’ to ‘in order that X’, a scale of descending foregrounding of the spoken or mental proposition. Forms that can occur after an imperfective clause in more or less purposive sense are those in (622). Compare postnominal postposition-like purposive elements *gè:*, *gì*, and (in combination with ‘God’) *gà* (§8.3.1.1).

- | (622) | form | comment |
|-------|---------------|--|
| a. | <i>gè:</i> | reduced from <i>gé-è:</i> ‘said’ (same-subject anterior) |
| b. | <i>gì</i> | same as L-toned chained form of <i>gí</i> ‘say’ |
| c. | <i>g-i dè</i> | lit. “if (X) says/said” |

For *gí-n dè* see §15.2.2.10.

17.6.1.1 Purposive clause with ^L*gè:*

This is an L-toned variant of the postnominal purposive postposition, which is usually *gè:* (§8.3.1.1), like the same-subject anterior form *gé-è(:)* ‘said (and then ...)’ from which they both derive.

Purposive clauses have ^L*gè:* after an imperfective complement when the two clauses have the same subject, and after an imperative complement when the two clauses have disjoint subjects. The purposive clause may be positive or negative, and may or may not share a subject NP with the main clause. The purposive clause is inserted into the middle of the main clause, following the subject, preceding the verb, and variably positioned with respect to other clause-medial constituents.

In (623a-b), the purposive clause is positive and has the same subject as the main clause. Purposive ^L*gè:* follows an imperfective verb, which may agree with the clausemate subject in number as in a main clause. The construction is evidently derived from a ‘say’ construction with *gé-è(:)* that focuses on intentions rather than on a specific articulated proposition (623c). However, purposive clauses like (623a-b) do not have the preverbal subject pronoun preceding ‘say’ as in (623c).

- (623) a. *émé* [[*bàmàkó* *yǎ:-jí*] ^L*gè:*] [*bú:dú* *dènē-téŋè*]
 1PlSbj [[Bamako go-**Ipfv.Plsbj**] ^L**for**] [money seek-Prog.Plsbj]
 ‘We’re trying to get money to go to Bamako.’
- b. *iⁿ* [[[*sǎⁿ* ^L*i:ⁿ*] *bàmàkó*] ^L*gè:*]
 1SgSbj [[[ReflPoss ^Lchild] B send-**Ipfv**] ^L**for**]
 [*bú:dú* *dènē-táŋà*]
 [money seek-Prog]
 ‘I’m trying to get money to send my child to Bamako.’
- c. *[bé* *né:*] *sâ:ⁿ* [*tògù^L* *nâ:^{+L}*]
 [3PlSbj now] all [shelter^L main.Def^{+L}]
 ^{è:ⁿL}-[*tè-té:*] *mǒ:-n-è:,*
 soda.ash^L-[Rdp-filtering.pot] assemble-Caus-and.SS,
 mǒ:-nó-jú *[bé* *gé-è],* *[sǎⁿ* ^L*kè]*
 assemble-Caus-Ipfv [3PlSbj say-and.SS], [Refl ^LTop]
 [[*è:ⁿ-tè-té:*^L] *père]* *dǎn-g-è:]*
 [soda.ash-[filtering.pot]^L other] be.fixed-Caus-and.SS
 [iyê *jâ:-jù]* *[wó* *gé-è]*
 [there convey-Ipfv] [3SgSbj say-and.SS]
 ‘Now all of them (=women) gathered the soda-ash filtering pots in the main palaver shelter. While they **decided** to gather (the pots), as for her(-self), she (step-mother) made another soda-ash filtering pot, **intending** to take it there.’
 (2011.1b.01)

In (624a-d), the purposive clause is positive but the subjects of the two clauses are disjoint. Here the verb of the purposive clause appears in imperative rather than suffixed imperfective form. The use of the imperative does not necessarily imply that an imperative-like clause was ever uttered; see (624a) with an inanimate NP.

- (624) a. *dòŋð^L-sɔ:rɔ* [[*ídí*: *sígó*] ^L*gè:*] ^L*kùn-è:*
 roof.gutter [[water go.down.**Imprt**] ^L**for**] ^Lput-Pfv.Plsbj
 ‘We put gutters (on the roof) so the (rain) water will come down.’

- b. *Iⁿ lāmpáⁿ [gīrⁿí bīn]*
 1SgSbj lamp [house in]
[[Í·ⁿ L[íⁿ Lkè]] jáŋ jáŋá] Lgè·]
 [[child 1SgSbj Poss]] reading read.Imprt Lfor
Lkùn-i
 Lput-Pfv
 'I put a lamp in the house so that my child can read (at night).'
- c. *[kó Lgè:] bǐ-téŋè, bíré yóró Lgè:*
 [Nonh Lfor] do-Prog.Plsbj, work(n) be.soft.Imprt Lfor
 'They are doing (it) for that reason. So that the work becomes soft(er).'
 (2011.1a.12) [purposive clause added as afterthought]

In (625), the subjects are the same but the purposive clause is negative. In (625a-b), the verb of the purposive clause is imperfective negative, parallel to the imperfective positive in (623), above). In (625c), the verb of the purposive clause is prohibitive, and the nuance can be captured by using English 'lest' in the free translation.

- (625) a. *Iⁿ [[[úrⁿí: bě] gǎ:nâ:-rò] Lgè:]*
 1SgSbj [[[children Pl] disturb-IpfvNeg] Lfor]
wàg-á→ wê
 far be.Hum
 'I go some distance away, so as not to disturb the children.'
- b. *Iⁿ [yé yǎ:-n bàgá-lé Lgè:]*
 1SgSbj [going go-while.SS fall-Proh Lfor]
bá:gá tíwé-táŋà
 stick lean.on-Prog
 'I am supporting myself with a cane, so as not to fall (=lest I fall) while walking.'

In (626), the subjects are disjoint and the purposive clause is negative. Here the purposive verb is prohibitive in form.

- (626) *tógu ìarⁿú nû-lé Lgè:] Ldèw-è*
 shed rain go.in-Proh Lfor Lcover-Pfv
 '(We) covered the shed (with a tarp) so the rain won't leak in.'

Lgè: can also be used with predicative comparative adjectives, with {HL} overlay.

- (627) *[nú: dág-à→ kó HL ògù] Lgè:,*
 [millet a.little NonhSbj HL fast] Lfor,
[kó Lgè:] bǐ-téŋè
 [Nonh Lfor] do-Prog.Plsbj
 'so that millet will be slightly faster (to ripen). For that reason (=that's why) they are doing it.' (2011.1a.01)

[kó Lgè:] 'for that (reason)', as in (627) is common as a resumption of a full purposive clause.

17.6.1.2 Purposive clause with *gì*

Purposive *gì* is derived from an L-toned chained form of *gí* ‘say’. Similar L-toned nonfinal chained forms are attested for *tí* ‘do first’ and *yě(yá:-)* ‘go’ (§15.1.6.1,3).

gì is less common than ^L*gè*: as a clause-level purposive morpheme in my data. It is attested with a perfective clause in the sense ‘on the grounds that’ or ‘considering that’ (628a), and with an imperfective clause indicating an intention or purpose (628b-d).

- (628) a. *kó→ [[nú: i:ⁿ kún-ì] gì] tɔ:-rè*
 Nonh [[millet child put-Pfv] for] hack.down-IpfvNeg.Plsbj
 ‘(They) don’t hack (them) down (merely) on the grounds that millet has put (=grown) grains.’ (2011.1a.08)
- b. *jáj bè→, ànà^L-yě bè→,*
 study and, village^L-going be,
[[já:gú jǎ:gá-jú] gì] kòlōm-∅ bè→
 [[commerce do.commerce-Ipfv] for] go.around-VblN and
 ‘There is schooling, and there is traveling (for work), and there is going around (in the region) in order to do commerce.’ (2011.1a.33)
- c. *[dè-dé: wà] [wó wà] [íyé ^Lkè],*
 [Rdp-father QuotSbj] [3Sg QuotSbj] [today ^LTop],
[[i:ⁿ+L dēnē-pú] gì] bárá yá:-lé gâ:
 [[child.Def^{+L} look.for-Ipfv] for] outback go-Proh warning
 ‘She said: “Father (of the girl), definitely do not go into the bush today intending to look for the child.”’ (2011.1b.01)
- d. *[wó wà] [íyé ^Lkè] [[bárá yá:-jú] gì]*
 [3Sg QuotSbj] [today ^LTop] [[outback go-Ipfv] for]
gō-è dè
 go.out-Pfv if
 ‘(she said:) “If you go out intending to go to the bush today, ...”’ (2011.1b.01)

With nonhuman pronoun as complement, *kó gì* ‘for that’ can resume a fuller purposive clause.

17.6.1.3 Purposive clause with *g-i dè*

Another variant, *g-i dè*, is optionally used instead of *gè*: when the main clause is imperfective with future time reference. In form it is a pseudo-conditional based on the perfective (§15.2.2.6). These elements are roughly parallel in form to those of the ‘do first’ verb *tí(té-è; t-i dè)*, see §16.1.3.2, §15.2.2.5.

Like purposive clauses with *gè*, those with *g-i dè* normally take an imperfective complement when the main and purposive clauses have the same subject (629).

- (629) a. *iⁿ* [billet *èwe-è-jù*^L] *g-î* *dè*
 1SgSbj [ticket buy-Ipfv^L] say-Pfv if]
bíré *bř-jú*
 work(n) do-Ipfv
 ‘I will work in order to buy the ticket.’
- b. *iⁿ* [[[úrⁿí: bě] *gă:nâ:-rò*] *g-î* *dè*
 1SgSbj [[[children Pl] disturb-IpfvNeg] say-Pfv if]
wàg-á→ wé:-jú
 far be.HumSgSbj-Ipfv
 ‘I will go some distance away, so as not to disturb the children.’

When the subjects are disjoint, an imperative (or, if negative, prohibitive) verb is used (630a-b). An adjectival predicate is also possible (630c).

- (630) a. *émé* *gìrⁿi^L-káⁿ* [[*mòtám* *gō:-lé*] *g-î* *dè*]
 1PlSbj house^L-mouth [[scorpion go.out-Proh] say-Pfv if]
sógá-jú
 lock-Ipfv
 ‘We will lock the door so the scorpion can’t get out.’
- b. [*dùrô:-dùrô:* *kìr-é→ wǎ-lé*] *g-î* *dè*,
 [backwards difficult-Adv do.farming-Proh] say-Pfv if,
né: [*nà*^L *pōj*] _{HL}*źjō→* _{HL}*źjō→*
 now [person^L all] _{HL}thing _{HL}thing (§13.2.9)
 ‘... in order that you don’t work (the field) with (unnecessary) difficulty in a backwards (=mixed-up) way, now each person (does) whatchamacallit, ...’
 (2011.1a.23)
- c. *kó* *dág-à→ pōⁿ-èⁿ* *dè*,
 NonhSbj a.little decompose-Pfv if,
[nám-Ø kó _{HL}*ná:rā]* *g-î* *dè*,
 [step.on-VblN NonhSbj _{HL}easy] say-Pfv if,
kó *dág-à→ pōⁿ-èⁿ* *dè*,
 NonhSbj a.little decompose-Pfv if,
íyé=ñ ú nă gèŋé mō:ñ-Ø *dè*
 again 2SgSbj person request assemble-Caus-Pfv if
 ‘When it has decomposed a little, so that stomping (on it) may be easier, when it has decomposed a little, you-Sg will ask the people to assemble, ...’
 (2011.1a.25) ({HL} comparative form of adjective)

A full purposive clause can be resumed as *kó g-î dè* ‘for that reason’.

The sequence *g-î dè* can also be a true conditional antecedent meaning ‘if X says’ (631).

- (631) *maintenant* [[*kò* *bànjà*^L] *sɔ:* *yō:-rò*]
 now [[Def owner]^L thing accept-IpfvNeg.Rel]
[ènē tōjō:-rò] *g-î* *dè*,
 [LogoS pay-IpfvNeg] say-Pfv if,

- [kó ^Hbájá ^Lkè] né: jāŋ ^Lkè:-jù
 [Def ^Howner ^LTop] now how? ^Lbe.NonhSbj-Ipfv
 ‘Now if the guy who wouldn’t accept the thing said he would not pay (the fine), how would it be for (=what would happen to) the guy?’ (2011.1a.15)

17.6.2 Tonal purposive clauses of type (ò ñ) before motion verb

This construction is used with intransitive or transitive motion verbs in the main clause ('go', 'send', etc.) and with purposive complement. The subject of the purposive clause is the theme (entity in motion) in the main clause. The verb of the purposive complement has an {HL} overlay, and a preceding object (sometimes a cognate nominal or verbal noun) has the tone-dropping typical of nominal initials in (ò ñ) compounds. This construction has an exact counterpart in Jamsay.

- (632) a. *bé* /ámír^{nì} *bè* [tìŋè]^L ^{HL}tíŋè] ^Lyèr-è
 3PlSbj [chief with] [speech^L ^{HL}speak] come-Pfv
 ‘They came (in order) to speak with the chief.’
- b. *émé* /yí *tò* [pà:^L ^{HL}pà:] *pá-mà-ỳⁿ*
 1PlSbj [there.NearDist toward] [meal^L ^{HL}eat.meal] go-Hort-PlSbj
 ‘Let’s-Pl go over there to eat (a meal).’
- c. *[ně* *bè]* [dì:^L ^{HL}bájá] ^Ly-è-è:
 [woman Pl] [water^L ^{HL}pull] go-Pfv.PlSbj
 ‘The women have gone to draw water (at the well).’
- d. *bàrá* [sàjù]^L ^{HL}dígè] *bé* *tí-téjè* *mà→*
 bush [bird^L ^{HL}chase.away] 3PlObj send-Prog.PlSbj Q
 ‘Do (they) send them to the bush (=fields) in order (for them) to chase away birds?’ (2011.1a.07)
- e. *[gàmà*^L ^Hná] *[yé* *tè]* [dèn-Ø]^L ^{HL}dénè]
 [certain^L ^Hperson] [there.Def around] [search-VblN^L ^{HL}search]
[nà^L *péré]* *yǎ:-jē;*, ...
 [place^L other] go-Ipfv.PlSbj, ...
 ‘Some people go there (to) another place seeking (work), ...’ (2011.1a.33)

This tonal purposive construction is also attested as a complement for ‘begin’, along with other purposive and verbal-noun complement constructions; see (610a-b) in §17.3.11, above.

I have one unexplained textual example that translates as a subject relative but that seems to have the bare stem and (ò ñ) tones of a tonal purposive clause.

- (633) [[kó *Iò:*] *gân*], *sò:*^L ^{HL}káw-gù
 [[Nonh two] between], thing^L ^{HL}be.distinct-Caus
 ‘Between those two (methods), the thing that separates (them)’ (2011.1a.12)

The tonal purposive construction should be distinguished from another construction involving an {HL} overlay on the verb. This is the parallel construction, indicating that two activities

are simultaneous (or interspersed), of the form Verb₁^{HL L} *yà:*, Verb₂^{HL L} *yà:*; see §15.2.1.5. Here the {HL} applies at most to the final two syllables, and an object noun is not tone-dropped.

17.6.3 Purposive clauses with *-lì*

An alternative purposive clause has an {L}-toned verb stem followed by H-toned *-lì*. This form is homophonous with the singular-subject perfective negative, but there is no semantic connection, and purposive *-lì* has no special plural-subject form. Other constituents in the purposive clause have their usual tones. In the attested examples, the subjects of the clauses are shared.

- (634) a. *bé* [péjú èwè^L-*lì*] ^L*yèr-è*
 3PlSbj [sheep buy^L-Purp] ^Lcome-Pfv
 ‘They came in order to buy a sheep.’
- b. *bé* *bàrá* [[săⁿ bë] ^{HL}*jɔ̄n'tùrù*] ^{HL}*dènè*^L-*lì* ^L*y-è-è:*
 3PlSbj bush [[ReflPoss Pl] ^{HL}donkey] look.for^L-Purp] ^Lgo-Pfv.PlSbj
 ‘They went out into the bush to look for their donkey.’

A purposive clause with *-lì* can also be used as the complement of ‘begin’; see §17.3.11, above.

17.6.4 Causal (‘because’) clause (*sàbù*, *sábú dè→*)

L-toned *sàbù* ‘because’ is the primary TgK version of a family of forms in Malian languages derived from Arabic *sabab-* ‘reason’. *sàbù* can occur clause-initially or -medially.

- (635) a. *[nèwⁿè^L péré], yó kò,*
 [value^L other], Exist be.NonhSbj,
 móm sàbù mòmò-lâ: dè,
 uprooting because uproot-PfvNeg.PlSbj if,
 pû: +^L dàg-î: bë:-rò
 millet.Def^{+L} be.good-MP get-IpfvNeg
 ‘There is another value (to it). Because if (we) don’t do the uprooting, the millet cannot turn out (=yield) well.’
- b. *kúrɔ^{+L} nánà á:rⁿé: kó há:jé sè:-ré,*
 leaf-Def^{+L} up.to.now formerly Nonh need(n) have.PlSbj-Neg,
 sàbù [[ɔjɔ=nì]^L jé] [[ɔjɔ=nì]^L ó:jú] ...
 because [[thing=Dat]^L convey] [[[thing=Dat] give-Ipfv] ...
 ‘The leaves (=peanut greens) they had absolutely no need for in the old days.
 Because (there was not) anything (i.e. livestock) in the houses (=village) to take (=convey) it and give it to.’ (2011.1a.22)

sábú-dè→ is a clause-initial (or preclausal) ‘because’ form. In isolation, it is pronounced with {H}-toned *sábú-*; in sentential context it is often heard with lowered pitch.

- (636) *émé* *kà:ná* *àná* *yě* ^L*bè:-rè*,
 1PlSbj now village go ^Lget-IpfvNeg.Plsbj,
 sábú-dè: *òjù*^L-*ká"* *mɔ́pú*
 because road bad
 ‘We cannot go to the village now, because the road is no good.’

When the complement is an NP rather than a clause, purposive-causal postposition *gè:* can be used in the (retrospective) sense ‘because of’ as well as in the (prospective) sense ‘for, for the purpose of’. See §8.3.1.1, above, for examples.

17.6.5 Phrase- or clause-final *sógo* ~ *sògò* ‘because (of)’

In (637), a clause ending in *sògò* ‘because’ is repeated (after an intervening thought quotation) with *gè:*, bringing out the interchangeability of the two.

- (637) *jòwⁿ́* *[[kó* ^L*kè]* ^{HL}*sónjòrò]* *í:ⁿ* *w᷑* *sògò*,
 hare [[Nonh ^LPoss] ^{HL}cleverness] know be.NonhSbj because,
 “...”,
 [thought quotation omitted]
 jòwⁿ́ *[[kó* ^L*kè]* ^{HL}*sónjòrò]* *í:ⁿ* *w᷑* ^L*gè:,*
 hare [[Nonh ^LPoss] ^{HL}cleverness] know be.NonhSbj ^Lfor,
 jòwⁿ́ *bàná* *g᷑:* ^L*yè-**∅*
 hare dodge go.out ^Lgo-Pfv
 ‘Hare, since he knew (=recognized) that cunning, (thinking) “...” Since Hare knew (=recognized) that cunning, Hare got away from there.’ (2011.1b.05)

Another example of *sógo* is (638).

- (638) *émé=nì* *[kó* ^{HL}*dó:rù]* *gà-gárà*,
 1Pl=Dat [NonhPoss ^{HL}fatigue] Rdp-pass.Stat
 lè^L-*k᷑n* *ígé-ní:* *lé:jú* *sògò*,
 pick.hoe stand-while.SS plant-Ipfv because,
 [[kó *bè]* ^{HL}*ná:rⁿà]*
 [[Nonh with] ^{HL}easy]
 ‘(planting with another tool) is very tiring for us. Because (with) a pick-hoe, one plants standing up. (Planting) is easier with that.’ (2011.1a.01)

18 Anaphora

Anaphoric elements, i.e. those that coindex their reference to that of an antecedent, are the reflexive *săⁿ*, reflexive possessor *má*, the logophoric *èné*, and the reciprocal *sàⁿ-túⁿ*.

18.1 Reflexive

18.1.1 Reflexive object (*săⁿ*)

Reflexive morpheme *săⁿ* is used when the object is coindexed with the subject. This applies to first and second as well as to third person subjects, and to cases where a subject pronoun is optionally omitted (639c). Reflexive *săⁿ* is unrelated in form to logophoric pronouns, and has no transparent relationship to any noun.

- (639) a. *Iⁿ săⁿ lág-ɛ*
1SgSbj ReflObj hit-Pfv
'I hit-Past myself.'
- b. *[úrⁿí: bè] [săⁿ bè] kéké-séⁿ*
[children Pl] [ReflObj Pl] cut-Pfv.PlSbj
'The children cut themselves.'
- c. *(ú) [injé Lgè-] [dùwɔlěⁿ bîn] săⁿ gér-ì:*
(2SgSbj) [what? Lfor] [mirror in] ReflObj look.at-MP.Pfv
'Why did you-Sg look at yourself in the mirror?'

A covert second person imperative “subject” does not qualify as antecedent (§10.6.3). Therefore (640) has 2Sg object, rather than reflexive object as in (639c). Because 2Sg *ú* occurs in non-clause-initial position in (640), it cannot be misinterpreted as a (clause-initial) subject pronoun.

- (640) *[dùwɔlěⁿ bîn] ú géré*
[mirror in] 2SgObj look.at.Imprt
'Look-2Sg at yourself in the mirror!'

18.1.2 Reflexive PP complement

A dative example is (641a). An example with a spatial postposition is (641b).

- (641) a. *Iⁿ bú:dú săⁿ=ñ bă:r-ì*
1SgSbj money Refl=Dat send-Pfv
'I sent some money to myself.'

- b. *fⁿ* *bú:dú* *[săⁿ* *bó:rò]* ^L*bèr-è*
 1SgSbj money [Refl under] get-Pfv
 ‘I found the money under myself.’

18.1.3 Reflexive possessor

18.1.3.1 Reflexive possessor *săⁿ* (plural *săⁿ bē*)

The reflexive replaces a regular pronominal possessor when it is coindexed to the clausemate subject. The possessed noun takes its usual possessed-noun overlay, usually {HL} or {H} depending on its syllabic shape and morphological structure.

- (642) a. *fⁿ* *[săⁿ* ^{HL}*dé-dè:j* *đ-è*
 1SgSbj [ReflPoss ^{HL}Rdp-father] see-Pfv
 ‘I saw my father.’
- b. *bé* *[[[săⁿ* *bē* ^H*gírⁿi]* *bīn]* *núw-è:-sēⁿ*
 3PlSbj [[[ReflPoss Pl] ^Hhouse] in] go.in-Pfv.PlSbj
 ‘They_x went into their_x (own) house.’

Reflexive possessor *săⁿ* is coindexed with the 2Sg subject *ú* in (643a). As mentioned above, an imperative “subject” does not bind reflexives, so in (643b) the possessor of the object is the regular 2Sg form. However, in quoted speech an imperative is associated with an overt subject, converted from second to third person, with quotative subject *wà*. This does qualify as an antecedent (643c).

- (643) a. *ú* *[săⁿ* ^{HL}*kúⁿ-kùwò]* *yă:* *bè-è*
 2SgSbj [ReflPoss ^{HL}hat] where? put-Pfv
 ‘Where did you-Sg put your hat?’
- b. *[ú* ^{HL}*kúⁿ-kùwò]* *má=ñ* *đnò*
 [2SgPoss ^{HL}hat] 1Sg=Dat give.Imprt
 ‘Give-2Sg me your hat!’
- c. *[bé wà]* *yě* *[[săⁿ* *bē]* ^{HL}*ínà:j* ^L*dènè* *wà*
 [3Pl QuotSbj] go [[ReflPoss Pl] ^{HL}mother] seek.Imprt Quot
 ‘(God) told them: “you-Pl go look for your mother.”’ (2011.1b.04)

Reflexive *săⁿ* is treated as a noun, and always precedes the possessed NP. This creates a conflict when a possessor coindexed to a clausemate subject is allowed by the syntax to follow the possessum, as happens when the possessed noun is quantified by a numeral. Two constructions are possible in this case. In (644a), *săⁿ* occurs as a morphologically simple reflexive possessor preceding the possessed NP, which has {HL} possessor-controlled overlay. In this construction, *săⁿ* is optionally expanded as *săⁿ kē*, as in (644b), with *kē* ‘possession’ in apposition to the real possessum. Plural *săⁿ bē* is likewise optionally restructured as *săⁿ bē kē*. These restructured prenominal [X *kē*] possessors have different tonosyntactic properties than ordinary prenominal possessors. After a restructured [X *kē*] possessor, an N-Num possessum has an {L}+H overlay rather than the usual possessor-controlled {HL} or {H}. Elsewhere, the {L}+H overlay occurs only in before a post-numeral

controller (determiner or possessor) within the same NP, so (644b) is a rare exception where the controller precedes the string. Restructured reflexive possessor *[săⁿ kè]* is especially common when a universal quantifier is added (644c). In (664d), the alternative postnominal reflexive possessor *má*, see §18.1.3.2 just below, replaces preposed *săⁿ kè* in (644c), but controls the same {L}+H overlay.

- (644) a. *sè:dú* [săⁿ ^{HL}[úrⁿi: *lɔy*]] ^Lđ-è
 S [RefPoss] ^{HL}[children two]] ^Lsee-Pfv
 ‘Seydou_x saw his_x (own) two children.’
- b. *sè:dú* [[săⁿ ^Lkè] ^L[ùrⁿi: *lɔy*]] ^Lđ-è
 S [[RefPoss ^LPoss] [children two]^{L+H}] ^Lsee-Pfv
 ‘Seydou_x saw his_x (own) two children.’
- c. *Iⁿ* [[săⁿ ^Lkè] ^L[gìrⁿi ^{L+H}kùré:^{L+H} *fú*→]] ^Ldò-pù
 1SgSbj [[RefPoss ^LPoss] [house six]^{L+H} all] ^Lsell-Ipfv
 ‘I will sell all six of my houses.’
- d. *Iⁿ* [[gìrⁿi ^{L+H}kùré:^{L+H} ^L**RefPoss** *fú*→]] ^Ldò-pù
 1SgSbj [[house six]^{L+H} **RefPoss** all] ^Lsell-Ipfv
 [= (c)] (for *má* see the following section)

18.1.3.2 Reflexive possessor *má*

A less common but well-attested alternative to preposed *săⁿ* is postposed H-toned *má*. It does not control tones on the possessed noun, except that when it follows a numeral it controls the same {L}+H overlay on the N-Num string in (645a) below as does *săⁿ kè* in (644b) above. My assistant indicated that the reflexive possessor type with *săⁿ* is more common than that with *má*, at least in his dialect, but both occur in texts recorded in his native village. Also like *săⁿ*, *má* is transpersonal, so the antecedent can be first or second person (645c) as well as third (645a-b). Reflexive marking is not obligatory in possessors, so nonreflexive 1st/2nd person possessors are also possible in indicative clauses (645d-e). A nonreflexive second person possessor is obligatory in imperatives, where once again the imperative “subject” is unable to bind an anaphor (2f-g).

- (645) a. *sè:dú* [[ùrⁿi: *lɔy*]^{L+H} ^L**RefPoss**] ^Lđ-è
 S [children two]^{L+H} [RefPoss] ^Lsee-Pfv
 ‘Seydou_x saw his_x (own) two children.’
- b. *dè-dè:*^{+L} *jágà* [màrpá: *má*] *lɔ:w-è:*
 Rdp-father.Def^{+L} lo! [rifle **RefPoss**] load-and.SS
jíjè ^L*yè-*Ø
 take.along ^Lgo-Pfv
 ‘Lo, the father had loaded his rifle and had brought it with him.’ (2011.1b.01)
- c. *ú / Iⁿ* [[ùrⁿi: *lɔy*]^{L+H} ^L**RefPoss**] ^Lđ-è
 2SgSbj/1SgSbj [children two]^{L+H} [RefPoss] ^Lsee-Pfv
 ‘You-Sg_x / I saw your_x/my (own) two children.’

- d. *iⁿ* [[ùrⁿi:] lɔy]^{L+H} mà] ^Lʒ-ɛ ^Lsee-Pfv
 1SgSbj [children two]^{L+H} 1SgPoss] see-Pfv
 ‘I saw my (own) two children.’
- e. *ú* [ú ^L[ùrⁿi:] lɔy]] ^Lʒ-ɛ
 2SgSbj [2SgPoss ^L[children two]]] ^Lsee-Pfv
 ‘You-Sg saw your (own) two children.’
- f. *[ú* ^L[ùrⁿi:] lɔy]] ^Lbɔrⁿɔ
 [2SgPoss ^L[children two]]] ^Lcall.Imprt
 ‘Call-2Sg your (own) two children!’
- g. *[[ùrⁿi:] lɔy]^{L+H}* ^L[ú ^Lkè]] ^Lbɔrⁿɔ
 [[children two]]^{L+H} [2SgPoss ^LPoss]] ^Lcall.Imprt
 [=f]

See also *pú: má* ‘his (own) millet’ and *dérⁿé má* ‘his (own) crops’ in (617d).

It is possible that reflexive possessor *má* is etymologically a specialized offshoot of an original 1Sg pronominal, cf. the homophonous 1Sg object *má*. Western Dogon languages like Najamba go so far as to use the 1Sg subject suffix on verbs as a logophoric subject marker in quoted clauses. However, actual 1Sg possessor is expressed in TgK by *mà*, which is L-toned, unless followed by a postposition as in *[ně má] bě* ‘with my wife’, which is discussed following (131) in §6.2.3. Four different ways to combine *giré* ‘eye’ with a following segmental *ma* morpheme are shown in (38) in §3.7.4.6. If *má* were replaced by LK-toned *mà* in (645a), the sense would be ‘Seydou saw my two children’.

Another context with a more or less anaphoric *má* is nonsubject relatives whose subject is coindexed to the subject of the higher clause. There, however, *má* is clause-final and functions much like a same-subject switch-reference subordinator. See §14.1.10 for examples and discussion.

18.1.4 Reflexive with antecedent in higher clause

A reflexive pronoun *săⁿ* can be used in a lower clause for a third person referent, with the antecedent being the subject of the higher clause. In (646), *săⁿ* is the subject of the lower clause, and is coindexed to the subject of the higher clause.

- (646) *sè:dú* *[săⁿ* *bàgá-jú]* *í:ⁿ* *w̪*
 S [ReflS fall-Ipfv] know be.HumSgSbj
 ‘Seydou_x knows that he_x will fall.’

Compare the use of same-subject *má* in relative-clause subjects in (471) in §14.1.10.

My assistant also sometimes, but not consistently, allowed the reflexive pronoun to be used with a **nonssubject** in the lower clause, still coindexed to the higher (rather than clausemate) subject. The reflexive is used in this fashion in direct-object function in (647a-b).

- (647) a. *sè:dú* *[[nă* *bè]* *săⁿ* ^Ldɔ:-jù] *í:ⁿ* *w̪*
 S [[person Pl] Refl] ^Linsult-Ipfv] know be.HumSgSbj
 ‘Seydou_x knows that the people are insulting him_x.’

- b. *sè:dú* [[*nă* *bè*] *săⁿ* *dō:-jú* *mà→]* *líyé-táŋà*
 S [[person Pl] **RefObj** insult-Ipfv Q] fear-Prog
 ‘Seydou_x is afraid that the people will insult him_x.’

This use of the reflexive for nonsubjects coindexed to the higher subject is especially common in relative clauses. See the ‘care-giver’ examples in §14.1.14, e.g. (480a). There the reflexive object *săⁿ* is coindexed with the higher subject (the old woman) in spite of the intervening lower-clause subject (‘person’).

However, this use of the reflexive is not rigorous. In (648a-b), we get the regular 3Sg pronoun although the context for the elicited examples involved coindexation with the higher subject.

- (648) a. *sè:dú* [*Iⁿ* *wó=ñ* *péjú* *ó-jú*] *Iⁿ* *wɔ̃*
 S [1SgSbj 3Sg=Dat sheep give-Ipfv] know be.HumSgSbj
 ‘Seydou_x knows that I will give him_x a sheep.’
- b. *sè:dú* [*Iⁿ* *wó* *lágá-jú* *mà→]* *líyé-táŋà*
 S [1SgSbj 3SgObj hit-Ipfv Q] fear-Prog
 ‘Seydou_x is afraid that I will hit him_x.’

A reflexive object in the lower clause in (648a-b) would most readily be interpreted as coindexed with the clausemate (not high-clause) subject. This would be less of a problem in the ‘caretaker’ example mentioned above, since ‘a good person’ is nonspecific and would make little sense as the antecedent of the reflexive.

Similarly, I have not observed this use of reflexive *săⁿ* with other than third person reference, though in its primary functions the reflexive pronoun is transpersonal, i.e. it can have any pronominal person category as antecedent. In (649), note 1Sg object *má* instead of a reflexive pronoun.

- (649) a. [[*nă* *bè*] *má* ^L*dō:-jù*] *Iⁿ* *Iⁿ* *wɔ̃*
 [[person Pl] **1SgObj** ^Linsult-Ipfv] 1SgSbj know be.HumSgSbj
 ‘I know that the people are insulting me.’
- b. [[*nă* *bè*] *má* *dō:-jú* *mà→]* *líyé-táŋà*
 [[person Pl] **1SgObj** insult-Ipfv Q] fear-Prog
 ‘I am afraid that the people will insult me.’

18.1.5 Reflexive topic (*săⁿ kë*)

săⁿ kë, identical in form to the reflexive possessive (‘one’s own possession’), is used as a contrastive topic ‘as for him/her(-self)’. It refers back to an NP that has been a primary topic of the passage when one or more other discourse referents are on the radar. For *kë* in topic function, see §19.1.3 below.

In (650a), the father and the mother are in the middle of a tug-of-war over their children, with father trying to send them away (in the form of birds) and mother trying to keep them there. In (650b), the stepmother has figured prominently in the narrative to this point, but ‘they’ (the other village women) have also made their presence felt.

- (650) a. *bé* *gǔŋ-gǔŋ* *sú-sù:rù* *tí-táŋà,*
 3PIObj take.out-take.out move.down-move.down send-Prog,
 né: *[sǎŋ* ^L*kè]* *yé* ^L*tòr"ɔ,*
 now [Refl ^LTop] Exist ^Lperch.Stat,
 [iwó *bàjá-jú]* *[wó* *bàjá-jú]*
 [3SgSbj pull-Ipfv] [3SgSbj pull-Ipfv]
 ‘... he kept sending them (=the children) away from (there). Now **as for him(-self)**, (he) was (still) perched (on the tree). (She) kept on pulling.’
 (2011.1b.02)
- b. *m᷑:-n᷑-jú* *[bé* *gé-è],* *[s᷑n* ^L*kè]*
 assemble-Caus-Ipfv [3PlSbj say-and.SS], [Refl ^LTop]
 [[è:ⁿ-[t᷑-t᷑:^L]] *péré]* *dǎn-g-è:]*
 [[soda.ash-[filtering.pot]^L] other] be.fixed-Caus-and.SS
 ‘While they decided to gather (the pots), **as for her(-self)**, she (step-mother) made another soda-ash filtering pot and ...’ (2011.1a.01)

18.1.6 Emphatic pronouns

18.1.6.1 *sán-᷑:* ‘(by/for) oneself’

The adverbial expression form *sán-᷑:* is irregularly contracted from *s᷑n tún᷑* with *tún᷑* ‘one’, here in the sense ‘alone, unaccompanied’ (§4.6.1.1). Examples of *sán-᷑:* are in (651a-b).

- (651) a. *wó* *bàrá* *sán-᷑:* ^L*yè-y*
 3SgSbj bush Refl-one ^Lgo-Pfv
 ‘She went to the bush (=to the fields) by herself (=alone).’
- b. *iⁿ* *bú:dú* *sán-᷑:* *dìn-é:-jú*
 1SgSbj money Refl-one hold-MP-Ipfv
 ‘I will hold (=keep) the money (for) myself.’

18.2 Logophoric pronouns

18.2.1 Logophoric *èn᷑* for second and third person antecedent

Elicited examples involving quotations show that logophoric *èn᷑* is used when the quotation is ascribed to a third person (652a) or to the addressee (652b), but not to the speaker (652c). *èn᷑* is most systematically used with third person quoted speaker, and in cases like (652a) it cannot be omitted. By contrast, in second person subject examples like (652b) *èn᷑* is often omitted. The examples in (652a-b) involve *èn᷑* in subject function within the quoted clause.

- (652) a. *wó* *[èn᷑* *(wà)]* *yě-jú]* *wà*
 3SgSbj [LogoS (QuotSbj)] come-Ipfv] Quot
 ‘He_x said that he_x would come.’
- b. *ú* *[iŋé* ^L*gè:]* *[(èn᷑)]* *yě-jú]* ^L*pòr-i*
 2SgSbj [what? ^Lfor] [(LogoS) come-Ipfv] ^Lsay-Pfv
 ‘Why did you-Sg say that you were coming?’

- c. *iⁿ* *nánà* [(*iⁿ*) *yě-jú*] ^L*pò-lì*
 1SgSbj never [(1SgSbj) come-Ipfv] ^Lsay-PfvNeg
 ‘I never said that I was coming.’
- d. *dè-dê:* ^{+L} *màrpá:* ^L*jàŋ-è,*
 [Rdp-father.Def^{+L}] rifle ^Ltake-Pfv,
 ènè *jè*^{+L} *tè-téwé-jú* *wà*
 LogoS woman.Def^{+L} Rdp-kill-Ipfv Quot
 ‘The father picked up a rifle, saying “I will shoot (you) the woman ...”’
 (2011.1b.01)

Examples with *ènè* in object function are in (653). Again, the antecedent (the quoted speaker) may be second or third, but not first, person. For second person subject the logophoric occurred in free elicitation from French cues (653b), but my assistant accepted a variant with 2Sg object pronoun that I proposed (653d).

- (653) a. *wó* *[[má à]* *ènè* *lág-è]* *wà*
 3SgSbj [[1Sg QuotSbj] **LogoObj** hit-Pfv] Quot
 ‘She_x said that I (had) hit her_x.’
- b. *ú* *[iŋé* ^L*gè:]* *[[má à]* *ènè* *lág-è]* ^L*g-i*
 2SgSbj [what? ^Lfor] [[1Sg QuotSbj] **LogoObj** hit-Pfv] ^Lsay-Pfv
 ‘Why did you-Sg say that I (had) hit you?’
- c. *iⁿ* *[[ú* *wà]* *má* *lág-è]* ^L*pò-lì*
 1SgSbj [[2Sg QuotSbj] **1SgObj** hit-Pfv] ^Lsay-PfvNeg
 ‘I didn’t say that you-Sg (had) hit me.’
- d. *ú* *[iŋé* ^L*gè:]* *[[má à]* *ú* *lág-è]* ^L*g-i*
 2SgSbj [what? ^Lfor] [[1Sg QuotSbj] **2SgObj** hit-Pfv] ^Lsay-Pfv
 [=(b)] [accepted]

18.2.2 Logophoric plural *ènè bè* for original-utterance 1Pl pronoun

If the original utterance (by a single speaker) included 1Pl pronominals, a quotation thereof converts them to logophoric plural *ènè bè*. In (654), Seydou is included in the group that is coming.

- (654) *sè:dú* *[ènè* *bè]* *yě-jú* *wà*
 S [LogoS Pl] come-Ipfv Quot
 ‘Seydou_x said that they_{xy} were coming.’

18.2.3 Logophoric *ènè* syntactically a pronoun

As subject, *ènè* normally occurs in clause-initial position, like other NPs and pronouns (655b). Also like them, it moves to clause-medial position (following the object and other nonpronominal complements, but still preceding verbs) under focalization (655c). The test of pronominal status is whether, in a nonsubject relative, *ènè* in subject function occurs

immediately before the inflected verb of the relative clause, like normal pronouns. In (655d), we see that this is the case. Therefore *ènē* occurs in the same range of linear positions as ordinary personal pronouns.

- (655) a. *iⁿ* *nàŋá* *dàrⁿ-é:* *dág-è*
 1SgSbj cow kill-and.SS leave-Pfv
 'I killed the cow and left it (there).'
- b. *sè:dú* [*ènē* *nàŋá* *dàr-é:* *dág-è*] *wà*
 S [LogoS cow kill-and.SS leave-Pfv] Quot
 'Seydou_x said that he_x had killed the cow and left it (there).'
- c. *sè:dú* [*nàŋá* *ènē* *dàrⁿ-é:* *dág-è*] *wà*
 S [cow LogoS kill-and.SS leave-Pfv] Quot
 'Seydou_x said that it was he_x [focus] who killed the cow and left it (there).'
- d. *sè:dú* [*nàŋá*^L *dàrⁿ-é:* *ènē* *dág-è*]
 S [cow^L kill-and.SS LogoS leave-Pfv]
 [*yá:* *kɔ]* *mà→]* *wà*
 [where? be.NonhSbj Q] Quot
 'Seydou_x said (=asked), where is the cow that he_x killed and left?'

Logophoric *ènē* is also like ordinary pronouns in that, as possessor, it can occur in either the nonappositional construction, as in *ènē*^H*gírⁿí* 'his/her house', or in the appositional construction with *kè* 'thing, possession', as in *gírⁿí* [*ènē* ^L*kè*] 'his/her house'.

18.2.4 Logophorics in nested quotations

The occurrence of a quotation embedded in another quotation does not necessarily prevent a logophoric pronoun in the lowest quotation from being coindexed with the attributed speaker of the higher quotation. This is easiest to see when the attributed author of the lower quotation is 1Sg, which cannot be the antecedent for a logophoric. In (656), *ènē* is the object of '(I) kill (him)', and can only refer to Seydou. (656) looks like it has trimmed out a second *[má à]*, but the speaker clearly understood the context, and the second 'say' verb shows that there is an embedded lower quotation. The final quotative particle *wà* relates to the higher quotation.

- (656) *sè:dú* *pór-è:* *mà,*
 S say-SS that,
 [[*má* *à*]] [*ènē* ^L*dà-pù*] *pór-i*] *wà*
 [[1Sg QuotSbj] [LogoObj ^Lkill-Ipfv] say-Pfv] Quot
 'Seydou_x said that I said that I would kill him_x.'

However, when both higher and the lower quotations are attributed to distinct third persons, so that both are (in theory) eligible for antecedent status for logophorics in the lower quotation, my assistant prioritized, allowing the logophoric to refer only to the attributed speaker of the lower quotation. Therefore *ènē* in (657) is coindexed with Adda (female name). The nonlogophoric 3Sg pronoun *wó* in object function might refer to Seydou, but could also refer to a third participant.

- (657) *sè:dú* *pór-è:* *mà,*
 S say-SS that,
 [ádà wà] [ènē] wó L^{dà-jù]} pór-i wà
 [A QuotSbj] [LogoS 3SgObj] [kill-Ipfv] say-Pfv Quot
 ‘Seydou_x said that Adda_y said that she_y would kill him_x.’
 ‘Seydou_x said that Adda_y said that she_y would kill him/her_z.’

18.2.5 Non-logophoric topic-indexing function

In the absence of a coindexed quoted speaker, the logophoric pronoun is not used for the subject of a relative clause that is coindexed to the subject of the higher clause. A construction where clause-final *má* same-subject subordinator replaces the expected clause-initial subject pronoun is used instead (§14.1.10).

18.3 Reciprocal

18.3.1 Simple reciprocals (*sàⁿ-túⁿ*)

The basic reciprocal word is *sàⁿ-túⁿ*, consisting of an L-toned form of reflexive *săⁿ* plus a synchronically obscure element *-túⁿ* that belongs etymologically to a cognate set meaning ‘companion’ (e.g. Jamsay *tɔ:wⁿɔ-n*). Some other Dogon languages also have a reciprocal word containing this element or a synonym.

The antecedent is normally the clausemate subject. The reciprocal may function as direct object (658a), complement of postposition such as dative (658b), or possessor of a nonsubject NP (658c). The reciprocal form can be used for any nonsingular number of interacting participants, i.e. from two up.

- (658) a. *émé* *éwè*^{+L} *sàⁿ-túⁿ* *ð:-sêⁿ*
 1PlSbj market.Loc^{+L} RecipObj see-Pfv.PlSbj
 ‘We saw each other in the market.’
- b. *émé* *sàⁿ-túⁿ=ñ* *bú:dú* L^{ð-jù}
 1PlSbj Recip=Dat money Lgive-Ipfv
 ‘We give each other money.’
- c. *bé* *[sàⁿ-túⁿ* H<sup>láré:ⁿ] L^{jàg-è}
 3PlSbj [RecipPoss H^{sister.Pl}] Lmarry.woman-Pfv
 ‘They (men) married each other’s sisters.’</sup>

18.3.2 ‘Together’ (*wò→*, *mòrⁿ-î:*)

To indicate that members of a nonsingular subject NP cooperate in an activity, *wò→* ‘each’ (§6.6.3) may be added to the subject NP.

- (659) *bíré* [*émé* *wò→*] L^{bi-jì}
 work(n) [1PlSbj each] Ldo-Ipfv.PlSbj
 ‘We will work together.’

In some other constructions, ‘together’ is expressed by a stem from the word-family including *mòrⁿ-î*: ‘assemble, come together’.

- (660) *émé* [é:ré:] *ní*[:] *mɔ:-n-ɛ:-sɛⁿ*
 1PlSbj [peanut.& cowpea.&] assemble-Caus-Pfv.PlSbj
 ‘We put-Past the peanuts and the cow-peas together.’

18.4 Restrictions on reflexives

18.4.1 No antecedent-reflexive relation between coordinands

In a NP conjunction, the left conjunct may not function as antecedent of a reflexive possessor (or other reflexive element) in the right conjunct. In (661), there is no overt indication that ‘his’ in ‘his father’ is coindexed with ‘Amadou’.

- (661) *[àmàdú:]* *[wó* ^{HL}*dé-dè:]]* *yér-é-sɛⁿ*
 [A [3SgPoss ^{HL}Rdp-father]]] come-Pfv.PlSbj
 ‘Amadou_x and his_x father came.’

19 Grammatical pragmatics

19.1 Topic

In addition to the morphemically marked topical constituents described in the following sections, a NP often occurs by itself preclausally, followed by a pause.

- (662) *[gú-gúrù^{+L}* ^L*yɔ:]],* *pú:=ní* *sɛ^{nL}=lá*
 [grass.Def^{+L} ¹NearDist], millet=Dat good^L=not.be
 ‘Those weeds, they are not good for millet.’ (2011.1a.02)

19.1.1 Falling tone (or pitch) on topical NP

Such unmarked, preclausal topical NPs often have a final falling tone if not already L-toned. This is systematic with topical *kô* ‘(as for) it/that’, based on the nonhuman pronoun *kó* ‘it, that’.

A similar final L-tone is also the mark of the tonal definite (§4.4.1.1) and the tonal locative (§8.2.1). It is possible that the “topical” and “definite” functions should be consolidated into one category. On the other hand, falling-tone topics tend to be paired in parallel clauses, suggesting a connection with the dying-quail intonation marking coordinands in NP conjunctions. Yet another possibility is that the final pitch represents a contraction of the topic particle *wɔⁿ* (cliticized variant = *w̄ⁿ*) leaving a tonal trace behind.

In (663a), the demonstrative *nó:* ‘this’ shows the final L-tone twice. In (663b), the relative-clause form of ‘be in’ is elsewhere H-toned *só*.

- (663) a. *é→,* *[kó* ^L*lɔ:]]* *[kó* *túrú],*

yes, [Nonh ^Ltwo] [Nonh one],
^{nɔ:}^{+L} *gìyé* *báⁿ-yⁿ→* *kɔ→,*
 Prox. Topic^{+L} body red-Adv be.NonhSbj,
^{nɔ:}^{+L} *gìyé* *pír-í→* *kɔ*
 Prox. Topic^{+L} body white-Adv be.NonhSbj
 ‘Yes, the two of them are the same. This one, the body is red, (and) this (=other) one, the body is white.’ (2011.1a.27, varieties of roselle bush)

- b. [yɔ: *bîn* [sɔ: *pèrè*^L ^{HL}*sô*,
 [NearDist in] [thing other]^L ^{III}**be.in.Topic**,
est-ce que *ú* [*sâ:n* *fú→*] *mɔ:-n̄,*
 Q 2SgSbj [all all] assemble-Caus,
tíjé ^L*bè-jù*
 speak ^Lget-Ipfv
 ‘Can you-Sg speak (about) anything else that is in it (=farming) putting all (of it) together (=summarizing briefly)?’ (2011.1a.33)

19.1.2 Topic (*wòⁿ*)

The Topic particle is *wòⁿ* following a NP, pronoun, PP, or adverb (for subordinated clauses see below). A less common variant *wòyⁿ* is attested, especially before a pause due to hesitation, e.g. *né: wòⁿ* varying with *né: wòyⁿ* ‘now’.

The topic particle generally signals a change in topic or setting from the preceding discourse, or a reaffirmation of a topic when a switch might have been expected. The tone is copied from the final preceding tone (except as noted below).

- (664) a. [bé *wòⁿ*] *yă:-rè*
 [3PlSbj **Top**] go-IpfvNeg.Plsbj
 ‘As for them, they won’t go.’
- b. [ně *bè* *wòⁿ*] *yă:-rè*
 [woman Pl **Top**] go-IpfvNeg.Plsbj
 ‘As for the women, they won’t go.’
- c. émé *yá:* *bíré* *gàr-á→* *bír-è,*
 1PlSbj yesterday work(n) a.lot do-Pfv,
[íyé *wòⁿ*] [*să:n* *bè*] *dè:rⁿé-mí-pú*
 [today **Top**] [ReflObj Pl] rest-Caus-Ipfv
 ‘Yesterday we worked hard; as for today, we’ll rest.’

The topicalized constituent might well be preclausal in many cases. However, there is evidence that this constituent is at least sometimes clause-internal. In (665a), the topicalized element is a pronominal dative, governed by the verb ‘give’. In (665b), the absence of accusative marking in TgK (except for 1Sg, see below) means that the object NPs are not explicitly governed, but the absence of any pause and of resumptive object pronouns points to clause-internal position.

- (665) a. *ú=n* *gàr-á→* *ó-è,*
 2Sg=Dat a.lot give-Pfv,

[má=ñ wɔ̄n] [ʒjɔ̄^L] pɔ̄n] ò-Ií
 [1Sg=Dat Top] [thing^L none] give-PfvNeg
 ‘She gave you-Sg a lot, (but) as for me, she didn’t give (me) anything.’

- b. [àrⁿá bè á:-sɛ̄n gà-,
 [man Pl] catch-Pfv.PlSbj but,
 [ně bè wɔ̄n] à:-lā:
 [woman Pl Top] catch-PfvNeg.PlSbj
 ‘They took the men, but as for the women, they didn’t take (them).’

The 1Sg pronoun does distinguish subject *iⁿ* from object *má* (§4.3.1) and this distinction is maintained before the topic particle. Topical subject *iⁿ wɔ̄n* is in (666a). One would expect #*má wɔ̄n* for direct object, but instead a slightly expanded form *má à wɔ̄n* occurs, contracted from *má wà wɔ̄n*. Other topical object pronominals also show *wà*, but without *wɔ̄n*. In (666b), 2Sg object *ú wà* anticipates the topic switch to 1Sg object in the following clause. Other topic forms are 3Pl *bé wà*, and contracted 3Sg *wó-đ* from /wó wà/. A phonologically identical *wà* morpheme with the same contractions occurs as the quotative subject particle (§17.1.3). In (666b), note that the first clause anticipates the (contrastive) topic switch and has *wà*, though not *wɔ̄n*.

- (666) a. [iⁿ wɔ̄n] yă:-rò
 [1SgSbj Top] go-IpfvNeg
 ‘As for me, I won’t go.’
- b. [ú wà] gär-á→ lág-è,
 [2SgObj Top] a.lot hit-Pfv,
 [má à wɔ̄n] tɔwɔ̄-lí
 [1SgObj Top Top] touch-PfvNeg
 ‘He hit you-Sg a lot, (but) as for me, he didn’t touch (me).’

Topic particle *wɔ̄n* can be added to an ‘if’ clause (667).

- (667) [[nú: ^Lkè] ^Hágá] tò, [móm gär-é dè wɔ̄n],
 [[millet ^LPoss] ^Hside] around, [uprooting pass-Pfv if Top],
 [[nú: ^Lkè] ^Hágá] tò wɔ̄n,
 [[millet ^LPoss] ^Hside] around Top,
 [ʒjɔ̄^L dɔ̄m-é:-nú] ò:-lā:
 [thing^L wait-MP-Ipfv] see-PfvNeg.PlSbj
 ‘Concerning (work) of millet, when the uprooting has passed, concerning (work of)
 millet, (we) haven’t seen anything (else) to wait for.’ (2011.1a.04)

The topic particle can contract and cliticize in the form =*w̄n*. In (668), the immediately preceding segment has introduced the two color types of roselle for making bissap beverage, and the speaker now elaborates on each of them in turn. Twice =*w̄n* is added to a tonal definite.

- (668) bâ^{n+L}=*w̄n*, kà:ná [já:ñ nɔ̄:-nú]
 red.Def^{+L}=Topic, now [boil drink-Ipfv]
 ú pó-jù^{+L},
 2SgSbj say-Ipfv.Rel^{+L},

$kó$ $[ànì-kò:rò^L]$ $bâ^n+L]$ $kúní;$
 Nonh [bissap.roselle^L] red.Def^{+L}] referring.to,
 $píri^{+L} = w^n$, ...
 white.Def^{+L}=Topic, ...

‘As for the red (subtype), (the one) which you-Sg were saying just now that it’s for boiling and drinking, it’s the red bissap roselle. As for the white (subtype), ...’
 (2011.1a.27)

If the tonal marking of topic (§19.1.1 above) is historically derived from $w\d{a}^n$, deleting the segments but preserving the L-tone, this cliticized contraction could represent a transitional pattern.

For $w\d{a}^n$ at the end of headless perfective relative clauses in the sense ‘when/after ...’, see §15.5.3.2.

19.1.3 Possessive $kè$ in topic function

$kè$ is familiar as a possessive marker: $[ú\ kè]$ ‘yours’, etc., see §6.2.3. However, in texts $[X\ kè]$ is often best translated as ‘concerning X, regarding X, as for X’ or the like, i.e. as a topical NP, often preclausal. Examples are frequent in the texts. A clearly topical example is (669).

(669) *maintenant, lè ^Lkè,*
 now, slashing ^LTop,
 $[lè^L-kɔ^n \quad bè] \quad lè=lò \quad dè, \quad est-ce que$
 [slashing^L-pickhoe with] slashing=it.is.not if, Q
 $[[lè^L \quad pèré] \quad ba^n \quad lé:-ju^{+H}] \quad yó \quad kò$
 [[slashing^L other] manner^L slash-Ipfv.Rel^{+H}] Exist be.NonhSbj
 ‘Now, as for planting (i.e. slashing the earth), if not (=aside from) with a pick-hoe, is there any other way to plant?’ (2011.1a.01)

One can argue for a literal possessive reading in such cases, with topicality inferred from context. Compare English *on the subject/topic of X*, or constructions like this: *of the bureaucracy, he said that ...* In TgK, this would imply omission of an understood ‘subject/topic’ noun and a locative postposition. Such constructions can occur overtly, see $[[nú: kè]^{H}\ ágá] t\d{a}$, ‘concerning (work) of millet’ in (667) in §19.1.2. This might be the origin of the topicalizing function of $kè$.

For reflexive topic $sá^n\ kè$ see §18.1.5 above.

19.1.4 Topical interrogative subject ‘what about?’ ($dà$)

A NP-final particle $dà$ is attested in NPs that function as topics for a following question. A translation ‘what about X?’ with a following question roughly captures the flavor (‘What about you, are you going?’). Interlineal abbreviation is QTop.

There are many examples of $dà$ in the interview-style recording. In (670a), $dà$ is added to a near-distant demonstrative (in recent discourse-definite sense), the whole NP functioning as topic of the ‘what?’ question. The topical NP is resumed by the possessor $kó$ in the interrogative clause proper. Other elicited examples like (670b) involve topical NPs that function as subjects of the interrogative clauses.

- (670) a. *né: [gù-gùrù]^L-[kò:j-ú] [yó: nà] dà ...*
now [grass]^L-[dig.up-VblN] [NearDef Pl] QTop ...
nú:=nì [kó ^Hnéwⁿé] iŋé=y
millet=Dat [NonhPoss ^Husefulness] what?=it.is
‘Now those acts [that you recently mentioned] of digging up weeds ... what is their value for the millet?’ (2011.1a.02)
- b. *[ú ^Hpéjú dà] yó kò mà*
[2SgPoss ^Hsheep QTop] Exist be.NonhSbj Q
‘Your-Sg sheep-Sg, is it there?’
- c. *[ú dà] bíré bíré ^Lbè-jù mà*
[2Sg QTop] work(n) do ^Lget-Ipfv Q
‘You-Sg, can (you) do the work?’

When *dà* is used without an overt following question, a general question is implied. This can happen when the topic changes in the context of a series of questions. In (671), the interviewer switches the discussion of farming techniques from groundnuts ('main peanuts') to regular peanuts ('Mossi peanuts'). 'What about X?' captures the discourse function.

- (671) *né: [è:rè^L múpúrⁿú] dà*
now [peanut^L Mossi] QTop
‘Now, (what about) peanuts?’

My assistant declined to produce or accept examples with *dà* (as opposed to *wɔⁿ*) in non-interrogative contexts, and explicitly stated that such a context is a condition for the use of the particle.

19.1.5 Topic (*kày*)

Much less common than *wɔⁿ* or *dà* is *kày*. It occurred once in about an hour of recorded text, following a clause rather than an NP. In (672), it co-occurs with two tokens of *wɔⁿ*.

- (672) *[né: wɔⁿ] [[pàrà-gò:rò]^L-bíré=lò dè ^{kày],}*
[now Top] [[harvest]^L-work(n)=it.is.not if Top]
[[nú: ^Lkè] ágá] tò wɔⁿ,
[millet ^LPoss] about] around Top.
[pàrà-gò:rò]^L-bíré dɔm-é:-nú [námà ^{kà:}ⁿ]
[harvest]^L-work(n) wait-MP-Ipfv [as.of.now also]
‘Now, if it isn’t (=other than) harvest work, concerning millet, we are still waiting for the harvest work.’ (2011.1a.05)

kày is the regular topic particle in several other regional languages.

19.1.6 ‘Now’ (*kà:ná*, *né:*, *né: wòⁿ*)

The neutral ‘now’ temporal adverb, paraphrasable as ‘at this time’ with no further pragmatic baggage, is *kà:ná* (673a). It is also used in oppositions like ‘nowadays, in the present’ (*kà:ná*) versus ‘in the old days, in the past’ (*kò kék*, *kék: bà→*, or *gíré tɔ*).

né: wòⁿ (with the topic particle) or just *né:* is a pragmatically sensitive ‘now’, and is more likely than *kà:ná* to occur preclausally (before the subject), as in (673b).

- (673) a. *émé* *bíré* *kà:ná* *bǐ-jú*
 1PlSbj work(n) now do-Ipfv
 ‘We will work now.’
- b. *[né: wòⁿ] émé* *gìrⁿí* ^L*yà:-jù*
- [now Top] 1PlSbj house ^Lgo-Ipfv
 ‘Now we’ll go home.’
- c. *né:* *péré* *y᷑* *k᷑*
 now other Exist be.NonhSbj
 ‘Now, is there another (way)?’ (2011.1a.02)

Simple *né:* as in (673c) is usually pronounced with the same low pitch typical of clause-initial subject pronouns, and like them may be set off by a pause.

né: is also common after a clause-initial (or preclausal) topical pronoun or NP. The two elements are prosodically grouped. Again the sense of ‘now’ is pragmatic rather than referentially temporal.

- (674) *[kó n̩é:] [kó ^H*b᷑ⁿ*] ^H*j᷑ŋ* ^L*gì-jù**
- [Nonh now] [NonhPoss ^Hname] how? ^Lsay-Ipfv
 ‘That now (=what you have just mentioned), how (= what) do (they) call it?’
- (2011.1a.02)

For a distinct *nè:*, see (396) in §12.3.

19.1.7 ‘Also’ (*kàrⁿà* ~ *kà:ⁿ*)

This particle follows the NP or other constituent that it highlights. It is not normally clause-final (after the verb), even when the translation suggests that it has clausal scope, except when the clause itself is an argument of a higher main clause. Instead, the particle is attached to some preverbal constituent, whether a cognate nominal as in (675e) or some other nominal as in (675f). The particle may follow 1Sg subject or object forms (675a-b) as the sentence requires.

- (675) a. *ú* *bàmàk᷑* ^L*y᷑-Ø* *d᷑*, *[fⁿ kàrⁿà]* ^L*yà:-jù*
 2SgSbj B ^Lgo-Pfv if, [1SgSbj also] ^Lgo-Ipfv
 ‘If you-Sg go to Bamako, I’ll go too.’
- b. *w᷑* *ú* *lág-è* *d᷑*, *[m᷑ kà:ⁿ]* *lágá-jú*
 3SgSbj 2SgObj hit-Pfv if, [1SgObj also] hit-Ipfv
 ‘If he hits you-Sg, he’ll hit me too.’

- c. *ú=ñ bòⁿbóⁿ ô-∅ dè,*
 2Sg=Dat candy give-Pfv if,
 [*má=ñ kàrⁿà*] ó-jú
 [1Sg=Dat also] give-Ipfv
 ‘If she gives you a piece of candy, she’ll give (one) to me too.’
 [note: a true conditional, not a pseudo-conditional]
- d. *émé [yògó kà:ⁿ] bíré ^Lbì-jù*
 1PlSbj [tomorrow also] work(n) ^Ldo-Ipfv
 ‘We’ll work tomorrow too.’
- e. *émé [dáná kà:ⁿ] ^Ldànà-nù*
 1PlSbj [hunt(n) also] ^Lhunt-Ipfv
 ‘We will go hunting also.’
- f. *wó nǎ: sí:ré-jú, [nǎ kà:ⁿ] sémé-pú*
 3SgSbj meal cook-Ipfv, [ground also] sweep-Ipfv
 ‘She cooks meals, and she also sweeps (the ground).’

The particle may follow an entire PP, but is not inserted between the postposition and its complement, even where this would be logically reasonable as in (676b).

- (676) a. *émé děⁿ [gírⁿí bín] kún-è:-sêⁿ,*
 1PlSbj waterjar [house in] put-Pfv.PlSbj,
 [*tóngú bórò kà:ⁿ*] ^L*b-ě:-sêⁿ*
 [shed under also] put.down-Pfv.PlSbj
 ‘We put waterjars in the house, and (we) placed (some) under the shed too.’
- b. *nǎ [dògó mà] yó kò,*
 person [behind 1Sg] Exist be,
 [*ú dógò kà:ⁿ*] ^L*yó kò*
 [2SgSbj behind also] Exist be
 ‘There is someone behind me, and (someone) behind you-Sg too.’

In textual example (677), the clause preceding *kà:ⁿ* ‘also’ functions as subject (or theme) of the final ‘(it) exists’ predicate.

- (677) *[wàrù^L gēⁿ] bímì*
 [[farm.work^L] black] in
 [*kú:ⁿ nú-pú kà:ⁿ*] ^L*yó kò*
 [then go.in-Ipfv also] Exist be.NonhSbj
 ‘There is also (=it can also happen that) (you) go back in then (from time to time) during the black farming (=the first round of weeding).’ (2011.1a.03)

In many textual occurrences, ‘also’ or ‘too’ is not a felicitous English translation. Often *kà:ⁿ* is used in a sense such as ‘likewise’, bringing out a pragmatic parallel or comparability rather than identity of eventuality types. In some cases it is little more than a topic-switching device.

19.1.8 ‘Also’ (=à)

There are occasional examples of a clause-initial (or preclausal) topic-switching phrase with a pronoun plus cliticized =à. The form is identical to the corresponding dative PP in the reduced (cliticized) variant of the postposition (§8.1.1), except for 1Sg, where the topical form is iⁿ=à in contrast to the irregular 1Sg dative má=à. There seems to be a hint of ‘also, too’ in the free translation.

- (678) [né: wòⁿ] jé^{+L} [bé dógò]
 [now Top] woman.Def^{+L} [3Pl behind]
 tág-è-è: mà,
 follow-MP-and.SS and.then,
 yá:-ní: yá:-ní: dè, mhm,
 go-while.SS go-while.SS if, uh-huh,
 bé=à sá-è dè—
 3Pl=also reply-Pfv if—
 ‘Now the woman followed behind them. While they were going, uh-huh, they for their part spoke up—’ (2011.1b.05)

For iyé=à ‘again’ see (685) in §19.3.1.

19.1.9 ‘Even’ (hál, kárⁿà ~ ká:ⁿ)

There is no consistent distinction between ‘X also’ and ‘even X’. The same kárⁿà ~ ká:ⁿ illustrated in §19.1.7 above for ‘X also’ is also found in passages translatable as ‘even X’, hence the two translations for (679b). The phrase in question is optionally preceded by hál ‘all the way to, until’ to force the ‘even X’ translation (679a). The absence of a parallel phrase in preceding discourse can also force an ‘even X’ translation, as with (679c).

- (679) a. [hál àⁿsá:rá ká:ⁿ] té nđ:-nú
 [even white.person also] tea drink-Ipfv
 ‘Even the white person will drink tea.’
- b. wó dí: nđ:-nú, írí nđ:-nú,
 3SgSbj water drink-Ipfv, milk drink-Ipfv,
 [kènē ká:ⁿ] nđ:-nú
 [beer also] drink-Ipfv
 ‘He drinks water, he drinks milk, he even drinks beer.’
 or: ‘He drinks water, he drinks milk, he drinks beer too.’
- c. [pō: ká:ⁿ] kùnđ-lí
 [greeting also] put-PfvNeg
 ‘He didn’t even greet (=say hello).’

For ‘even if’ conditionals, see §16.2.1.

For nè: and yè in the sense ‘(not) even’ in *a fortiori* constructions, see §12.3.

19.2 Interclausal discourse markers

19.2.1 ‘But …‘ (*gà→*)

gà→ is a ‘but’ particle, occurring at the border between two clauses that are discordant in some fashion. In TgK, *gà→* is normally pronounced at the end of the first clause, though it only makes sense when the final clause is uttered.

- (680) a. *jòwó bě-jú gà→, bàŋ-i: bě:-rò*
 run get-Ipfv but, hide-MP get-IpfvNeg
 ‘You-Sg can run, **but** you can’t hide.’
- b. *[né: mà:-ŋà-Í] dè] tɔ:-rè gà→, [kó mǎ:-ŋ-ɛ:] [tɔ dɔ-ɛ]*
 [now dry-Inch-PfvNeg if] hack-IpfvNeg.Plsbj **but**,
[kó sáⁿ tó:r-ì dè, né: kú:ⁿ tó:-jú dɔŋɔrⁿò
 [NonhSbj dry-Inch-and.SS-Pfv.Plsbj] hack arrive-Pfv
 [NonhSbj ReflObj show-Pfv if,
 now only.then hack-Ipfv on.other.hand
 ‘Now when it (=millet) has not (yet) dried out, (they) do not hack (the stems) down. **But** when that (millet grain) has showed itself as having dried (=hardened) so that (the time) to hack down (the stems) has arrived, then (they) they hack (them) down.’ (2011.1a.08)

19.2.2 ‘And/or alternatively…‘ (*gá:*)

This particle, which seems to be H-toned although in some cases it is heard with low pitch, occurs medially in the second part of a parallel construction describing alternative possibilities (e.g. alternative techniques). Specifically, it occurs after a clause-initial constituent, generally one that conveys the difference between the two parallel possibilities. The second part may include *kà:ⁿ* ‘also’, especially when both alternatives in fact occur.

- (681) a. *nǐ kà:ⁿ, [[wòrú bínì páná-pú] yó kò→,*
 cowpea also, [[field in] crossplant-Ipfv] Exist be.NonhSbj,
[nì-bógí=: gá: bògó-jú] yó kò
 [cowpea-apart=Foc **and.or** grow.apart-Ipfv] Exist be.NonhSbj
 ‘Cow-peas too, there is cross-planting (them) in a (millet) field, (and/or) there is growing (them) separately (in their own field).’ (2011.1a.29)
- b. *[[[kúwó bè] yá:-jú^{+H}] nà] yé wè,*
 [[[foot Inst] go-Ipfv.Rel^{+H}] Pl] Exist be.HumPl,
[[[[írⁿ Hsóⁿ] bè] gá: yá:-jú^{+H}] nà] kà:ⁿ]
 [[[iron Hhorse] Inst] **and.or** go-Ipfv.Rel^{+H}] Pl] **also**
yé wè
 Exist be.HumPl
 ‘There are (people) who go on foot, and there are (people) who go on bicycles.’

This might be connected with the *gá:* that occurs in one type of verb iteration, following the first iteration of the verb (§11.6.5). A less likely connection is with possessed noun *gá:* ‘something like’ (§8.4.1).

19.2.3 ‘Otherwise ...’ (*dòŋðrⁿò*)

Clause-final particle *dòŋðrⁿò* occurs at the boundary between two conflicting propositional states. The *kúⁿ* particle at the beginning of the following clause in (682a), here glossed ‘lest’, is admonitive.

- (682) a. *émé bíré bĩ-má dòŋðrⁿò, kúⁿ gã:-rò*
 1Pl work do-Hort otherwise, lest pass-IpfvNeg
 ‘Let’s work, otherwise we won’t get by (=succeed).’
- b. *bé yè-lâ: dòŋðrⁿò, yèré-séⁿ dè,*
 3PlSbj come-PfvNeg.Plsbj otherwise, come-Pfv.Plsbj if,
émé bé lágà-jù
 1PlSbj 3PlObj ^Lhit-Ipfv
 ‘They haven’t come, however if they do come, we’ll beat them up.’

See also (172), (564c), and (680b).

19.3 Pragmatic adverbs or equivalents

19.3.1 ‘Again’ (*pílé-m-è:*, *pílé-m̄*, *íyé=ñ*), ‘not again’ (*péré*)

One free-standing ‘again’ adverbial is *pílé-m-è:*. This is a same-subject subordinating form with *-è:* (§15.2.2.1) from frozen causative *pílé-m̄* ‘do again, repeat’. Of course the following verb has the same subject as ‘do again’ in this construction.

- (683) *í:ⁿ bág-é:, ùŋór-è:, pílé-m-è: ^Lbág-è*
 child fall-SS, get.up-SS, repeat-SS ^Lfall-Pfv
 ‘The child fell, got up, and fell again.’

pílé-m̄ itself may be used as a nonfinal chained verb. It can often be translated as ‘furthermore, in addition’.

- (684) *[yó: wò→ sâ:ⁿ fú→] gár-ê dè,*
 [NearDist all all all] pass-Pfv if,
pílé-m̄ né: nǎŋ-nǎŋ bír-ê dè, ...
 do.again now how?-how? do-Pfv if, ...
 ‘When all those (things) have passed, what (things) do (you) do now in addition, (and ...)’

The adverb *íyé=ñ* is another ‘again’ expression. Its relationship to *íyé* ‘today’ is unclear. The *=ñ* is likely to be the clitic *=ñ* described in §19.1.8 rather than the dative postposition. Like *pílé-m̄*, *yé=ñ* can be a pragmatic adverbial ‘furthermore, in addition’. (685) is from a passage about reseeding in spots where the first millet sown has not sprouted.

- (685) [gàmá tó-è] [gàma tò:-lí] dè,
 [some sprout-Pfv] [some sprout-PfvNeg] if,
 émé íyé=ñ pù:^L-sá sɔ:-seⁿ dè, ...
 1PlSbj again millet^L-grain scoop-Pfv.PlSbj if, ...
 ‘If some has sprouted and some has not sprouted, we scoop up some millet seed again (=additionally), (and re-seed).’ (2011.1a.01)

The combination of a negated verb and adverb *péré* ‘otherwise, additionally’ (cf. adjective *péré* ‘other’) in the sense ‘on another occasion’ can be translated as ‘not again’ (686).

- (686) *iⁿ* *péré* *bàmàkɔ̄* *yǎ:-rò*
 1SgSbj otherwise B go-IpfvNeg
 ‘I won’t go to Bamako again.’

The simple ‘again’ expressions (*pílé-ñ*, *íyé=ñ*, *péré*) often co-occur in the same clause.

19.4 ‘Only’ particles

19.4.1 ‘Only’ (*sǎy*)

sǎy ‘only’ follows the constituent or clause that it highlights. The 1Sg form is *mí=ýⁿ sǎy* in both subject and object function, suggesting a connection with focalization. The <LH> tone of *sǎy* is often reduced to L-tone, medially as well as prepausally.

- (687) a. *iⁿ* [témdéré lóy sǎy] ^{HL}*sâ*
 1SgSbj [hundred two only] ^{HL}have
 ‘I have only one hundred (currency units).’
- b. *[mí=ýⁿ sày]* *ní* ^L*sigè-jù*
 [1Sg=it.is only] here ^Lremain-Ipfv
 ‘Only I remain here.’
- c. *[mí=ýⁿ sày]* *wó* ^L*làg-è*
 [1Sg=it.is only] 3SgSbj ^Lhit-Pfv
 ‘He hit me only.’

Like the ‘also’ particle, *sǎy* is attached wherever possible to a preverbal constituent, even when the translation suggests clausal or VP scope. In (688), the particle is attached to the object noun *gìné* ‘sleep’ in a fixed noun-verb collocation.

- (688) *wó* *bíré* *bǐ:-rò*, *[gìné sày]* *nówⁿ-é:-ju*
 3SgSbj work(n) do-IpfvNeg, [sleep(n) only] sleep-MP-Ipfv
 ‘He doesn’t work, he just sleeps.’

19.4.2 ‘Just (one)’ (*léwⁿ*)

léw is a kind of intensifier for the numeral *túrú* ‘one’. It may be separated from *túrú* by other constituents.

- (689) *iⁿ [wó túrú sǎy] [gìrⁿí bîn] léwⁿ tém-è*
1SgSbj [3Sg one only] [house in] just.one find-Pfv
'I found him/her completely alone in the house.'

19.5 Phrase-final emphatics

For clause-final *sâ*, see delayed future *-jà sâ* in §10.2.2.4.

19.5.1 Clause-final *tájìri* ‘definitely’

The noun-like element *tájìri* ‘certainly, definitely’ is an adverb medially or at the end of a clause. It is not in a higher clause, taking another clause as complement. It indicates the speaker’s certainty about the truth or validity of the statement. In textual passage (690), it has a strong confirmational value.

- (690) B: *est-ce que [kó gè:] bǐ-wè-ré*
A: *[kó gè:] bǐ-téŋè tájìri*

B: Aren’t they doing it for that reason?

A: They **definitely** do it for that reason. (2011.1a.12)

Elicited examples are in (691). They confirm that *tájìri* is an adverb. It occurs with other adverbs like ‘tomorrow’ (in either order), in the usual adverbial position following real subject NPs (691b). It precedes low-referentiality “subjects” in fixed meteorological collocations like ‘rain’ in (691a).

- (691) a. *yògó tájìri àrⁿú lówó-jú*
tomorrow certainly rain rain.fall-Ipfv
'It will certainly/definitely rain tomorrow.'
[can also be ordered: *tájìri yògó àrⁿú lówó-jú*]
- b. *éme yògó tájìri bàmakó dɔ:-jú*
1PLSbj tomorrow certainly B arrive-Ipfv
'We will certainly arrive in Bamako tomorrow.'

19.5.2 Phrase-final *já:tì* ‘exactly’

Although this form, common in Fulfulde and several other Dogon languages, was elicited in TgK, it did not occur in the recorded texts.

19.5.3 Clause-final *kòy* (confirming)

This clause-final particle is used in statements that confirm the listener's expectation, or that express agreement with what the interlocutor has just said. Compare English *sure* (A: *It's hot today*. B: *It sure is*.).

The passage in (692) shows the difference between *dè*, which contradicts the listener's expectation, with *kòy*, which confirms it. The discussion is about harvesting millet grain spikes using a harvesting knife, either with the millet plant still standing ("up high") or previously hacked down ("on the ground").

- (692) B: *yó: kírè = lá*→
 A: *dág-à*→ *kíré*→ *kô dè, [árá kû' n kè] kírè nánà, dág-à*→ —
 B: *[árá kû' n kè] kírè*
 A: *[árá kû' n kè] kírè kòy, [ná kû' n kè] sógò*

B: That isn't hard (work)?

A: It **actually** is rather hard. In particular, (the method) up high is harder. Fairly—.

B: Up high is harder?

A: Up high **sure** is harder than on the ground.

Clause-final *kòy* should be distinguished from *kó=ý* 'that's it', with 'it is' clitic.

19.5.4 Clause-final *là* (surprise)

This particle is probably a variant of *n'est-ce pas?* type tag questions, which can be used rhetorically (§13.2.1.3). It is a mild emphatic that can usually be left untranslated. The textual examples involve information of some importance (e.g. clarifications) in the discourse.

In (693a), the narrator clarifies the listener's confusion about which child was referred to in a preceding clause, by revealing that there was a second child in the scene.

- (693) a. *[[wó Lkè] Lì:n] yó kò là*
 [[3SgPoss LPoss] Lchild] Exist be.NonhSbj **Emph**
 'Now there was (also) a child of hers (=of the step-mother).' (2011.1a.01)

- b. A: *háyè kà:ná [yó: gê: mà]*
 well now [NearDist for Q]
[yó: Ldág-è],
 [NearDist Lleave-Pfv]
á:r'né: ògó gí-jí là
 previously chieffood say-Ipfv.PlSbj **Emph**
 B: *ògó*
 chieffood

A: ... Well, that is why nowadays (they) have abandoned that. In the past they said (=called it) the chieffood.

B: Chieffood? (2011.1a.15)

19.5.5 Clause-final *dè* (contradicting or warning)

This clause-final particle is used when the speaker believes that the proposition in the clause is not what the listener expects, or more generally to indicate surprise or urgency. It is a warning to the listener to take careful note. Compare English *actually* or clause-initial *well* when correcting the listener, and low-pitched *now* in warnings ('Don't be late now!')

- (694) a. é [jèŋè-ùrⁿi:^L] nɔ: nà sɛⁿ w̄e d̄è
 wow! [twin-children^L] Prox Pl] good be.HumPlSbj Emph
 '(they said:) "wow, those twins are definitely handsome." ' (2011.1b.04)
- b. [bàrà b̄n] [bàrà^L-nɔwⁿɔ] fū→]
 [outback in] [outback^L-meat all]
 ènē Lbàrà wà d̄è
 LogoObj^Lhelp.Imprt Quot Emph
 '(He said:) "all (you) wild animals in the bush, all wild animals help me!" '
 (2011.1b.05)

See the second line (first turn for A) in (692) in §19.5.3 for another example.

19.5.6 Clause-final *gà* ~ *gâ*: (warning)

A clause-final element heard as *gà* or *gâ*: occurs in warnings. I gloss it as 'beware' in interlinears.

- (695) a. [ně-yⁿ wà] [[[kó b̄ɔrɔ] L nù] wà]
 [girl QuotSbj] [[[Nonh under] L go.in.Imprt] Quot]
 [gò:nò^L-sɔⁿ yé yé-jú gâ]
 [raider Exist come-Ipfv beware]
 'She (=step-mother) told the girl, "go in (=hide) under it (=pile of stalks) quickly, (since) raiders are coming!" ' (2011.1b.01)
- b. [d̄è-dé: wà] [wó wà] [íyé L k̄e],
 [Rdp-father Quot] [3SgSbj Imprt] [today L Top],
 [[i.ⁿ^{+L} dènē-jú] ḡi] bàrà yă:-lé gâ:
 [[child.Def^{+L} look.for-Ipfv] for] outback go-Proh beware
 '(She said:) "Father (of the girl), definitely do not go into the bush today
 intending to look for the child." ' (2011.1a.01)

19.6 Backchannel and uptake checks

The recorded texts are full of brief backchannel items, ranging from *mhm*-type vocalizations to *é→* 'yes', which indicate that the listener is following what the speaker is saying (or asking). In addition, the listener often repeats a clause or phrase just used by the interlocutor. It is difficult to tell when this is a request for confirmation and when it is just backchannel. In any event, the interlocutor may take it as a request for confirmation, and may repeat the phrase yet again.

(696) is the free translation of a segment with particularly dense backchannel from one interview-style text (2011.1a.06).

- (696) A: ...Now that (millet) has become ripe.
 B: It has become ripe.
 A: Yes, that has become ripe.
 B: Before all that has happened, ...
 A: Yes?
 B: ... as for the millet, it can't be said that the millet has become ripe yet.
 A: It can't be said.
 B: Developing the red fuzz ...
 A: Developing the red fuzz.
 B: Putting out fruits (=grains) ...
 A: Uh-huh.
 B: Turning whitish ...
 A: Turning whitish.

On the other hand, uptake checks initiated by the speaker who holds the floor did not occur frequently in the texts. This is perhaps attributable to the particular individuals involved; that is, the speaker could assume that the listener understood more or less everything and that he would ask when anything was unclear.

19.7 Greetings

Simple time-of-day greeting sequences are summarized in (697). A is the first speaker. All of the initial greetings by A are imperative in form, with *-y* for plural addressee as in normal imperatives. The ‘good morning’ phrases are retrospective, based on the verb *ná:* ‘spend the night’ and *sé:w* ‘well-being’, but *ná:-wⁿá* and *sé: wó* are irregular in form. There is no special greeting for mid-day, so the simple *pō:* ‘hello!’ is used then. The two afternoon/evening greetings are slightly retrospective, denoting the concurrent or just elapsed time of day (*nùnùŋú kūⁿ* ‘early afternoon’, *dàgà-nùŋú* ‘late afternoon’).

- (697) a. morning to 10 AM
 A: *ná:-wⁿá* ‘good morning!’ (single addressee)
ná:-wⁿá-yⁿ ‘good morning!’ (plural addressee)
- B: *sé:w ná-è mà* [lit. “did [you] spend the night well?”]
 A: *sé: wó*
- b. mid-day
 A: *pō:* ‘hello!’ (single addressee)
pō:-y ‘hello!’ (plural addressee)
- B: *pō:.*
- c. early afternoon around 1 to 4 PM
 A: *[nù-nùŋú kūⁿ] pō:* ‘good afternoon!’ (single addressee)
[nù-nùŋú kūⁿ] pō:-y ‘good afternoon!’ (plural addressee)
- B: *pō:.*

d. late afternoon to evening, around 4 to 7 PM

- | | | |
|----|------------------------|--|
| A: | <i>dàgà-nùŋú pō:</i> | ‘good afternoon/evening!’ (single addressee) |
| | <i>dàgà-nùŋú pō:-y</i> | ‘good afternoon/evening!’ (plural addressee) |

B: *pō::*

e. night (after nightfall)

- | | | |
|----|--------------------|------------------------------------|
| A: | <i>dà:gá pō:</i> | ‘good evening!’ (single addressee) |
| | <i>dà:gá pō:-y</i> | ‘good evening!’ (plural addressee) |

B: *pō::*

e. night (at parting)

- | | | |
|----|--|---|
| A: | <i>jáⁿ ná:-má</i> | ‘(have a) good night!’ (single addressee) |
| | <i>jáⁿ ná:-má-yⁿ</i> | ‘(have a) good night!’ (plural addressee) |

B: *àmà séⁿ bè émé ná:-má* ‘may God’s/have us spend the night with good(ness)!’

Situational greetings involving a location or the addressee’s activity, not depending on time of day, are in (698). The reply in each case is *pō::*.

- (698) a. *ú bírè→* (doing any work) (single addressee)
é bírè→ (doing any work) (plural addressee)
[compare noun *bíré* ‘work’]
- b. *bàrá pō:* (returning from fields) (single addressee)
bàrá pō:-y (returning from fields) (plural addressee)
[compare noun *bàrá* ‘the bush, the fields’]
- c. *ètě: pō:* (returning from well) (single addressee)
ètě: pō:-y (returning from well) (plural addressee)
[compare noun *òtě:* ‘well’]
- d. *éwè^{+L} pō:* (at or returning from market) (single addressee)
éwè^{+L} pō:-y (at or returning from market) (plural addressee)
[compare noun *éwé* ‘market’, tonal locative *éwè^{+L}*]

Greetings and wishes to departing and returning travelers are in (699). (699a) is literally ‘may God take you-Sg/Pl there with peace’, slightly distorted from *àmá [jám bè]* ‘God [with peace]’, plus the 2Sg or 2Pl pronoun and *dō:-ñ* ‘cause to arrive’ (imperative *dó:-nñ*). (699b) is also slightly irregular ‘God (has) brought you (back)!’, whose normal form would be (for the singular) *àmá ú jě:rì*.

- (699) a. *àmà jâⁿ ú dō:-nñ* ‘bon voyage!’ (to single traveler)
àmà jâⁿ bè é dō:-nñ ‘bon voyage!’ (to traveling group)
- b. *àm-ú: jě:rè:* ‘welcome back!’ (to single returnee)
àm-é: jě:rè: ‘welcome back!’ (to returning group)

Presenting condolences to the family of a deceased person is very important in Dogon culture. In (700), A is the visitor and B, who replies, is one of the bereaved. *kárⁿá* ‘do’ is not used in the focal TgK dialect except in formulaic phrases like this, but it is reported as a ‘do’ verb for other TgK dialects (and is common in Jamsay).

- (700) A: *àmá=ñ* *yá:pú* *kárⁿá*
God=Dat reconciliation do.Imprt

B: *yá:pú* *kárⁿá*

The four-part sequence (701) is uttered on major religious holidays.

- (701) A: *àmá* *íyé* *tó:r-i*
God today show-Pfv
‘God has showed today to us.’

B: *pō:*

A: *àmá* *nàŋúrⁿú* *tó:ró*
God next.year show.Imprt
‘May God show next year to us!’

B: *àmí:ñà*
amen

20 Text

“Planting”

This corresponds to tape 2011.01, segment 1a. It is excerpted from a long interview-style text about farming. Recorded in Koporo-Pe in 2011. Additional texts, with TgK transcriptions and free English translations along with some notes, but without interlinear mark-up, are in a separate document.

- (702) B: *dàgà-nùŋú pō:-ŷ [dè AJ*
 late.afternoon greeting-Pl [father A]
 A: *pō:-→*
 greeting
 B: Good afternoon, A [name].
 A: Greetings.
[pō:-ŷ in plural-imperative form, addressed to two people; B uses dè ‘father’ respectfully addressing an older man]
- (703) B: *émé íyé nî [bá:sí gê:] yè-lâ:*
 1PlSbj today here [trouble for] come-PfvNeg.PlSbj
 A: *àmá bá:sí pógó*
 God trouble brush.away
 B: We haven’t come here today because of any trouble.
 A: May God brush away any trouble.
[standard sequence when a guest arrives; imperative pógó with third person subject (‘God’) in a wish]
- (704) B: *wálà; nô: kà:ná [émé ^Lkè], émé, tògò-gánà ^{+L},*
 well, Prox now [1Pl ^LTop], 1Pl, Togo-country.Loc^{+L}
wárú bâ ^{nL} ^Lwà-jù,
 farming manner^L ^Ldo.farming-Ipfv.Rel,
wárú jàŋ-ê dè, lě jàŋ-ê dè,
 farming take-Pfv if, slashing take-Pfv if,
[pàrà-[gò:-rò]] ^L-bíré ^Ldɔ:,
 [autumn-[go.out-Nom]]^L-work(n) ^Larrive,
[kó ^Hsó:] ú=ñ úpóṛⁿžⁿñú gê;,
 [NonhPoss ^Hthing] 2Sg=Dat ask-Ipfv for,
maintenant émé tí-, [lě kâŋ] lá: ^Ltòrɔ-jù,
 now 1PlSbj first, [slashing about] first ^Lbegin-Ipfv,
maintenant [émé ^Hgánà ^{+L}],
 now [1PlPoss ^Hcountry.Loc^{+L}]
[lě dɔ:-lí] [kó kɔ-ñ dè],
 [slashing arrive-PfvNeg] [NonhSbj be.NonhSbj-while.DS if],
émé ìŋé lá: ^Lbì-jì
 1PlSbj what? first ^Ldo.Ipfv.PlSbj

B: Well, this now, as for us, we, (in) Togo country, the way (one) does farming. From farming with the daba (and) from slashing (=planting) to autumn work (=harvesting), so that I may ask you-Sg about that topic. Now first of all, we'll start with planting. Now, (here) in our country, before planting (time) has arrived, what do we do first?

[wálà: < Fr. voilà; émé kè with possessive kè in topic function §19.1.3; gáná 'land, country' twice in tonal locative form §8.2.1; bà^{nL} 'manner' head of imperfective manner adverbial relative §15.5.2; verb ^Lwà-jù after rv-Deletion §3.5.3.2 from verb stem wárá 'do farming' (prototypically working earth with a daba [type of hoe] with pulling motion), with cognate nominal wárú; verb lé: and cognate nominal lě 'slash (earth, with pick-hoe, to sow seeds)', hence 'plant (millet)'; [X pàj-ê dè] [Y ^Ldò:] 'from X to Y' with jànjá 'take' and dò: 'arrive' §15.5.4; the complex initial in the compound [pàrà-[gò:-rò]-bíré] is nominalization from collocation pàrà gò: 'autumn go out', i.e. 'be harvest time'; kó^H sós: from sós: '(abstract) thing, matter, issue', {H}-toned after nonhuman "possessor" kó as discourse-definite marker §4.4.1.3; purposive gê: (postposition after NP §8.3.1.1) and ^Lgè: (clause-final §17.6.1.1); tí→ and lá: are interchangeable adverbs 'first'; 'before' clause with perfective negative §15.4.1.1; ^Lbì-jì one of several tone-dropped clause-final verbs, from bìré 'do']

- (705) A: *[[lě dò:-lí] [kó kó-ñ dè]]*
 [[slashing arrive-PfvNeg] [NonhSbj be.NonS-while.DS if]]
[émé bàrà^L-bíré lá: ^Lbì-jì],
 [1PlSbj outback^L-work(n) first ^Ldo-Ipfv.PlSbj],
bàrà^L-bíré jìwè^L-[tè:r-ú] bè→,
 outback^L-work(n) thorn^L-[burn-VblN] and,
gìwè^L dègé-dègé→,
 bush^L small-small,
jù:^L -[kè:n-ú] ^Lgà:nà-jù,
 millet^L-[be.good-VblN] ^Lprevent-Ipfv.Rel
té-téré té:ré-jú bè→,
 chop-chop burn-Ipfv and,
[ð:rò^L dág-à→ jù:^L-lě jùnú-gó-jú^{+H}]
 [trash^L a.little millet^L-slashing be.ruined-Caus-Ipfv.Rel^{+H}]
té:ré-jú bè→,
 burn-Ipfv and,
[[yós: ^Ltògù ^Ldàyⁿ] émé bì-ñ dè]
 [[NearDist type ^Llimit] 1PlSbj do-while.DS if]
[pá→ ^Lyè-∅ dè],
 [until ^Lgo-Pfv if]
émé àrⁿú ^Ldóm-è:-jù
 1PlSbj rain(n) ^Lwait.for-MP-Ipfv

A: Before planting (time) has arrived, we do buswork (clearing fields) first. (In) bush-work, there is burning thorns (=thorny branches), there is chopping and burning the small bushes that prevent millet from turning out well, there is burning the trash (e.g. remains of last year's stems) that damages millet-planting. We do all those sorts of thing until (the time when) we are waiting for the rain.

[jìwè-[tè:r-ú] and jù:-[kè:n-ú] verbal-noun compounds with incorporated object §5.1.4; conjoined series with bè 'and' §7.1.3; té-téré reduced from iterated /té-ré-téré/; subject relative clauses with tone-dropped heads gìwè^L and ð:rò^L and with imperfective verbs ^Lgà:nà-jù and jùnú-gó-jú^{+H} §14.1.9.2; tògù 'kind, type' tone-dropped to ^Ltògù

after demonstrative *yó*: as possessor §4.4.1.2; ^L*dàyⁿ* ‘limit’ meanng ‘all’ §6.6.2; *bǐ-ñ dè* from *bìré* ‘do’, for *-ñ dè* see §5.2.2.9]

- (706) B: *bon, né:, àrⁿú kà:ná, àrⁿú tí→ lów-è dè,*
 good, now, rain(n) now, rain(n) first rain.fall-Pfv if,
é íyé=ñ ìjé ^Lbì-jì
 2PlSbj again what? ^Ldo-Ipfv.Plsbj

B: Okay. Now the rain now, when rain first falls, what do you-Pl do now?

- (707) A: *àrⁿú tí→ lów-è dè, émé lè-lé:-jú,*
 rain(n) first rain.fall-Pfv if, 1PlSbj Rdp-slash-Ipfv,
lè^L-kɔ̄n ^Ljàŋá-séⁿ dè,
 slashing^L-pick.hoe take-Pfv.Plsbj if,
jù:^L-sá só:-séⁿ dè,
 millet^L-seed scoop-Pfv.Plsbj if,
[bàrá ^Lyè] [wàgà-tùmò^L pěⁿ] lé:-séⁿ dè,
 [outback ^Lgo] [ridge^L old] slash-Pfv.Plsbj if,
[jú: kún-è:-séⁿ dè] [émé nám-è dè],
 [millet put-Pfv-PlSbj if] [1PlSbj step.on-Pfv if]
émé wárú ^Ldòm-è:-jù,
 1Pl farming ^Lwait.for-MP-Ipfv,
á:rⁿé: yô-ŋ bì-téjè
 formerly like.that do-Prog.Plsbj

A: When rain first falls, we plant. (We) take the pick-hoe, scoop up some millet seed, go to the bush (=the fields) and make slashes (with the pick-hoe) (on) the old (plowing) ridges. (We) put (=drop) the millet (seeds, in the slashes), we step (on the seeds), we (then) wait for the farming work (=weeding). (They) did like that in the old days.

[*lè-lé:-ju* reduplicated imperfective §10.2.2.2; *dè* ‘if/when’ used repeatedly to link clauses into a chronological sequence; perfective plural-subject suffix *-séⁿ* marks the subject of these clauses as plural, but only at the end does 1Pl *émé* appear overtly (since the discussion is about general farming techniques there is much switching between 1Pl, 2Pl, and 3Pl and many ambiguous passages); *lè^L-kɔ̄n* and *jù:^L-sá* are typical noun-noun compounds with tone-dropped initial §5.1.3; *bàrá ^Lyè* with L-toned ^Lyè ‘go’ medially in a verb chain §15.1.6.1]

- (708) B: *maintenant, kó,*
 now, Nonh,
jù:^L [hâl é lé:] [é ké:ⁿ],
 millet.Def^{+L} [even 2PlSbj slash] [2PlSbj when.DS],
[[[nà^L gámá] tó-è]
 [[[place^L some] sprout-Pfv]
[[nà^L gámá] tò:lí] dè]
 [[place^L some] sprout-PfvNeg if]
[é né:] [kô^{+L} né:] jnǎŋ-jnǎŋ ^Lbì-jì]
 [2Pl now] [Nonh.Topic^{+L} now] how?-how? ^Ldo-Ipfv.Plsbj],

B: Now, then, the millet, even if you-Pl have planted (it), if it has sprouted in some spots and it has not sprouted in some (other) spots, how and how (=what things) do you-Pl now do (to) that?

[*ké:ⁿ* in different-subject subordinated clause §15.2.2.7; parallel clauses with *gámá* ‘some’ §6.3.2; *kô^{+L}* with falling tone as topic §19.1.1]

A:	<i>[gàmá tó-è]</i>	<i>[gàmá tò:-lì]</i>	<i>dè,</i>
	[some sprout-Pfv]	[some sprout-PfvNeg]	if,
<i>émé</i>	<i>íyé=ñ</i>	<i>jù:-sǎ</i>	<i>só:-sēⁿ</i>
1PlSbj	again	millet ^L -seed	scoop-Pfv.PlSbj
<i>[ná én-i-i]</i>		<i>tájá</i>	<i>^Lyè-Ø</i>
[land get.wet-MP-Pfv]		become	^L go-Pfv
<i>[émé jójórⁿð]</i>		<i>^Lgì-jì]</i>	<i>dè,</i>
[1PlSbj resowing]		^L say-Ipfv.PlSbj]	

A: If some has sprouted and some has not sprouted, we scoop up some millet seed again, (then) if the earth happens to get soaked (by another rain), (there is) what we call “re-sowing” (*jójórⁿð*).

[... *tájá yè-Ø dè* ‘if it happens that ...’ §16.1.3]

(709)	<i>[émé yé-Ø dè]</i>	<i>[[nú::: jú:::]</i>	<i>gân],</i>
	[1PlSbj go-Pfv if]	[[millet.& millet.&]]	between]
<i>émé</i>	<i>^Llè-ùrⁿú</i>	<i>tó:-tó:-sēⁿ</i>	<i>dè,</i>
1PlSbj	slashing ^L -hole	slash-slash-Pfv.PlSbj	if,
<i>[nú::: tú-túrú námá-námá-sēⁿ dè],</i>			
[millet one-one	step.on-step.on-Pfv.PlSbj		if]
<i>lígé-ñì</i>	<i>^Ldàgà-jù</i>		
be.complete-Caus	^L leave-Ipfv		

We go (to the fields), slash (more) holes (with the pick-hoe) in between the millet plants (that have sprouted), step on the millet (seeds, dropped into the slashes) one by one, complete (the rows of millet, i.e. filling the gaps), and leave (it).

[NP conjunction expressed by dying-quail intonation §7.1.1; *tú-túrú* contracted distributive iteration of *túrú* ‘one’ §4.6.1.6]

(710)	B: <i>maintenant, lě</i>	<i>^Lkè,</i>
	now, slashing	^L Top,
	<i>[lě^L-kɔⁿ bè] lě=łò</i>	<i>dè, est-ce que</i>
	[slashing ^L -pickhoe with]	slashing=it.is.not if, Q
	<i>[[lě^L père] bà^L lé:-jú^H]</i>	<i>yó kò</i>
	[[slashing ^L other] manner ^L slash-Ipfv.Rel ^H]	Exist be.NonhSbj

B: Now, as for planting (i.e. slashing the earth), if not (=aside from) with a pick-hoe, is there any other way to plant?

(711)	A: <i>[[lě^L-kɔⁿ té-→] bè], lě:=łò dè,</i>
	[[slashing ^L -pick.hoe exactly] with], slash=it.is.not if,
	<i>[[ɔjɔ^L père] bè] lé:-jú]</i>
	[[thing ^L other] with] slash-Ipfv]
	<i><émé-> émé=nì [kó HLdó:rù] gà-gárà,</i>
	1Pl=Dat [NonhPoss HLfatigue] Rdp-pass.Stat,
	<i>lě^L-kɔⁿ ígé-ní: lě:-jú sógò,</i>
	slashing ^L -pick.hoe stand-while.SS slash-Ipfv because,
	<i>[[kó bè] HLná:rⁿà]</i>
	[[Nonh with] HLeasy]
	<i>[émé [lě^L-kɔⁿ bè] lě:-jú]</i>
	[1PlSbj [slashing ^L -pick.hoe with] slash-Ipfv]
B:	<i>né: père yó kò</i>
	now other Exist be.NonhSbj

A: If not with a pick-hoe specifically, planting with something else, it is very tiring for us. Because (with) a pick-hoe, one plants standing up. (Planting) is easier with that, (so) we plant with a pick-hoe.

B: Now, is there another (way)?

[the pick-hoe has a long wooden shaft so the farmer can make a light slash in the earth without having to bend over; té → ‘exactly’ §8.4.3.2; “its fatigue passes (=is excessive) for us (dative)”; ní: while’ for same subject §15.2.1.4; sógò ‘because’ §17.6.5; {HL} overlay on adjective in a comparative §12.1.2.1]

- (712) A: *péré, [gàmà^L ^Hná], [dág-à→ kô dè],*
 other, [some^L ^Hperson], [small-Adv be.NonhSbj if]
[ú gă-ní: dè]
 [2SgSbj pass.by-while.SS if]
[gàmá [kúwó bë] tógùj-ì dè] námá-jô;
 [some [foot with] turn.over-Pfv if] step.on-Ipfv,
[gàmá [jòpùrⁿú bë] tó-è dè]
 [some [hoe with] slash-Pfv if]
námá-jú [kí-ì ^Lbè-jù],
 step.on-Ipfv [be.NonhSbj-Pfv ^Lget-Ipfv],
kó dág-à→ kô dè]
 NonhSbj small-Adv be.NonhSbj if]

A: Other than that, some people, if it (=field) is small, as you-Sg pass by (in the field), (you-Sg) could turn over some (spots of in the field) with the foot and (after sowing more seeds) step on (them). You can possibly slash some (spots) with a short-handled pick-hoe and step on (them), if it (=field) is small.

[dág-à→ kô adjectival predicate §11.4.1.2; gă-ní: same-subject ‘while’ subordinator §15.2.1.4 with gárá ‘pass by’; -jô: variant of imperfective -jú in paired-clause construction §10.2.2.3; kí-ì bè-jù ‘it may be’ §11.2.2.4]

- (713) B: *[yó: sâ:ⁿ] lě=y quoi*
 [NearDist all] slashing=it.is
 A: < yó:— > *yó: lě=y,*
 NearDist slashing=it.is,
lě sôⁿ-sôⁿ yá:-táñà kò
 slashing various go-Prog NonhSbj

B: All that (=those methods) are planting.

A: Those are planting. The various (methods of) planting are going (=being described in turn).

- (714) B: *lě est-ce que, gàmá wàgà^L-túmó ñjó bìr-ê dè,*
 slashing Q, some ridge thing do-Pfv if,
 < kúwó— > *[kúwó bë] tógùj-ì dè,*
 [foot with] turn.over-Pfv if,
[bé lě:-jù^{+L}] [[kó kà:ⁿ] kò:-rò], ...
 [3PlSbj slash-Ipfv.Rel^{+L}] [[Nonh also] be.NonhSbj-Neg], ...
 A: *kó kà:ⁿ—*
 Nonh also
 B: ... ùrò-bón gí-è: mà
 ... plowed.field say-Pfv.PlSbj Q

- A: [kó kà:n] yó kò
 [Nonh also] Exist be.NonhSbj
 B: ́n, [kó né:] nǎy-nǎy Lbì-jì
 yes, [Nonh now] how?-how? Ldo-Ipfv.Plsbj

B: Planting. When (they) have done the thing (=turned over) some (spots) in the (plowed) ridges, when (they) have turned over (some earth), (the way) they will plant. Doesn't that too exist? ...

A: That too—

B: ... they call (them) plowed fields?

A: That too exists.

B: Yes, how do (they) do that now?

[bé lé:-jù headless imperfective adverbial relative §15.5.3]

- (715) A: [kó kà:n] ùrò^L-bón, [wárú Lgì:n],
 [Nonh also] plowed.field, [farming Llike],
 jò:túrú kún-è:-sé:n dè, wár-sé:n dè,
 donkey put-Pfv-PlSbj if, do.farming-Pfv.Plsbj if,
 [wágà-tùmò^L kàná] né: jòrù-já Lgì-jì,
 [ridge^L new] now (quoted) Lsay-Ipfv.Plsbj
 [kó Hbò:n+H] né: à:n sà:rà^L-[jòrù^L-já] Lgì-jì,
 [NonhPoss Hname.Def+H] now white.person^L-... Lsay-Ipfv.Plsbj,
 ú né:, [kúwó bë] tóglùj-ì námá-jó:,
 2Sg now, [foot with] turn.over-Pfv step.on-Ipfv,

A: That too, plowed fields (plowed before sowing), like cultivating (=weeding). (They) put a donkey (in the field), (they) do farm work (=make furrows with plow or daba), (they) call it “preparing the field for planting” (jòrù-já). Its name now, (they) call it “white person’s preparing the field for planting” (=plowing). Now you-Sg (might) turn over (some earth) with the foot (and) step on (it).

[jòrù^L-já compound verbal noun based on noun-verb collocation jòrú já: ‘prepare field for planting’, i.e. with ridges (or rows of mounds) and furrows, made by hand or with a plow]

- (716) [[gám Hná] [lè^L-kñⁿ bë]
 [[some Hperson] [slashing-pick.hoe with]
 [kó kù:n] ig-í-i dè]
 [Nonh on] stand-MP-Pfv if]
 [wágà-tùmò^L kàná] lé-è dè,
 [ridge^L new] slash-Pfv if,
 námá-jú kà:n íyé=n yó kò
 step.on-Ipfv also again Exist be.NonhSbj

Some people stand up on that (=ridges) with the pick-hoe. They slash (with the pick-hoe) (in) the new ridge (formed by the plow) and step on (it), that too exists.

- (717) B: kô^{+L}, [nùmò bë] bìr-é:-jú mà→,
 Nonh.Topic^{+L}, [hand with] do-MP-Ipfv Q,
 ou bien [sàrú bë] òjó Lbì-jì—,
 or [plow(n) with] thing Ldo-Ipfv.Plsbj—,
 [sàrú bë] Ldàn-gà-jù
 [plow(n) with] Lbe.fixed-Caus-Ipfv

B: So, is it (=can it be) done by hand, or do they do the thing with a plow—do they carry it out with a plow?

[mediopassive *bìr-é:-jú* ‘be done’ is often translatable as ‘be possible’; *sàrú* ~ *sèrí* ‘plow’ < Fr *charrule*]

- (718) A: *á:rⁿé:* [gíré] *tò* [sèrí] *bè],*
 formerly [before around] [plow(n) with],
[sèrí yè-lí] [[kó ^Hkó]] *bè],*
 [plow(n) come-PfvNeg] [[NonhSbj ^Hbe.NonhSbj.Rel] with],
[nùmós bè] [wàgà-tùmò] *dágá^H-Ldágà-Ldágà]*
 [hand with] [ridge small^H-Lsmall-Lsmall]
màŋá-séⁿ *dè,*
 shape(v.)-Pfv.Plsbj if,
[kó kâⁿ] *jú:* *námá-téŋè,*
 [Nonh on] millet step.on-Prog.Plsbj,

A: In the old days, previously, with a plow— Before the plow came (=was introduced), (they) used to shape small round mounds (in rows) by hand and step on (seeds) on those (=mounds).

[*gíré tò* ‘forward, ahead’ here means ‘before, previously’, for *tò* see §8.2.14; ‘before ...’ construction with perfective negative, *kó* ‘it is’ (in relative-clause form), and instrumental *bè*; *dágá^H-Ldágà-Ldágà* iterated adjective §4.5.2]

- (719) *kà:ná* [sèrí yér-é:] [kó kē:ⁿ] *mà],*
 now [plow(n) come-and.SS] [NonhSbj when.DS and.then]
[sèrí bè] *kárá-séⁿ* *dè,*
 [plow(n) with] rip-Pfv.Plsbj if,
iyé=ñ jú: [kó kâⁿ] *kú:ⁿ* *l námá-jù*
 again millet [Nonh on] like.this *l*step.on-Ipfv

Now after (=since) the plow came, (they) rip up (the earth) with the plow, (then) again (they) (drop seeds and) step on that in that way (=as described before).

- (720) B: *yó:* *wòⁿ* *né:,* *gùⁿsáⁿ* *bîn—,*
 NearDist Top now, full.outback in—,
kó [gùⁿsáⁿ] *bîn* *sây* *mà→,* ou bien *hâl*
 Nonh [full.outback in] only Q, or even
[wòrù^L-bónó bîn] *kâ:ⁿ* *ðjó* *l bì-jì*
 [field^L-fallow in] also thing *l*do-Ipfv.Plsbj

B: (As for) that now, out in the bush—, (is) that (method) only out in the bush? Or do (they) also do the thing in fields that have lain fallow (for one to three years)?

[*gùⁿsáⁿ* includes the uncultivated outback, but also long-abandoned fields that have gone back to nature and/or have been grazed by livestock, in any event more remote than *bârâ*, which can denote any area away from villages including cultivated fields; noun *wòrù^L-bónó*, cf. verb *bònó* ‘hoe (earth) into a small mound (with the daba)’]

- (721) A: *[gùⁿsáⁿ* *bîn]* *kárá* *bè-mà-jô:→,*
 [full.outback in] rip get-Caus-Ipfv,
[wòrù^L-[pù-pùrò] bîn] *kárá* *bè-mà-jô:→,*
 [field^L-[Rdp-fallow] in] rip get-Caus-Ipfv,
[jú: dág-à→ kó *HL* *śgù]* *l gè:,*
 [millet a.little NonhSbj *HL* fast] *l*for,

[kó ^Lgè:] bǐ-téñè, jú: kó gá:rá kà:ⁿ,
 [Nonh ^Lfor] do-Prog.Plsbj, millet NonhObj more also,
 né: ^Lké:né-jú
 now ^Lproduce-Ipfv

A: Out in the bush (you) could let it rip (=plow), in fields that have laid fallow (for one to three years) you could let it rip, so that millet will be slightly faster (to ripen). For that reason (=that's why) they are doing it. The millet, it will yield more now.

[*bè-mà-* from *bě-nì*, causative of *běré*; *wòrù*^L-[*pù-pùrò*] is synonymous to *wòrù*^L-*bónó* (see just above); ^{HL}ángù ^Lgè: purposive clause with {HL}-toned predicative comparative adjective ^{HL}ángù 'be faster'; *gá:rá* 'more' §12.1.2]

- (722) B: [é né:] [lě kâ:ⁿ] péré
 [2Pl now] [slashing on] otherwise
 [[sò: pérè]^L tíñé é ^Lbè-jú]
 [[thing other]^L speak 2PlSbj ^Lget-Ipfv.Rel]
 yó kò mà, [[yó: nà sâ:ⁿ] gár-é dè
 Exist be.NonhSbj Q, [[NearDist Pl] all] pass.by-Pfv if
 B: You-Pl now, concerning planting, is there additionally another topic that you-Pl can talk (about), aside from all those things (already said)?
*[object relative clause with tone-dropped adjective in head NP, see sò:^L péré 'another thing' in the following segment below; 'aside from X' is phrased as 'if/when X has passed by'; *běré* means 'get, obtain' with NP complement but 'be able to, can' with a preceding chained verb §17.5.1]*

- (723) A: sò:^L péré, [sò:^L káná] á:rⁿé: émé íné gá→,
 thing other, [thing^L new] formerly 1PlSbj not.know but,
 kà:ná émé, pòñó gí:ⁿ,
 now 1Pl, fonio like,
 ná bùgúj-è:-séⁿ dè,
 land turn.over-Pfv-PlSbj if,
 [kó bīn] [lě lé:-jú kà:ⁿ] yé bǐ-téñè
 [Nonh in] [slashing slash-Ipfv also] Exist do-Prog.Plsbj

A: Another topic, a new topic. In the past we didn't know, but now, like (=for example) fonio, they turn over the earth (all around, with a daba), they also in fact practice planting (fonio seeds) on that (disturbed earth surface).

[fonio is a cultivated grain, Digitaria exilis; bùgújù 'turn over (earth, with daba, to level it)]

- (724) B: [kō^{+L} né:] iñé=y [[kó ^Hnéwⁿé] yá:-kò=y
 [Nonh.Topic^{+L} now] what?=it.is [NonhPoss ^Hvalue] which?=it.is
 A: kō^{+L} jú: kó gá:rá ké:né-jú,
 Nonh.Topic^{+L} millet NonhSbj more produce-Ipfv
 [[kó ^Lgè:] bǐ-téñè]
 [[Nonh ^Lfor] do-Prog.Plsbj]
 [jú: kó gá:rá ké:né-jú]
 [millet Nonh more produce-Ipfv]

B: That way, what is it? Which (=what) is its usefulness?

A: That way it will yield more millet. That's why they do it. It will yield more millet.

- (725) B: [yɔ: sâ:n fú:] lě=y
 [NearDist all all] slashing=it.is
- A: [yɔ: sâ:n fú:] lě=y
 [NearDist all all] slashing=it.is
- B: [yɔ: ^Hdógó ní:] [lě^L père] kɔ:-rɔ
 [NearDist ^Hrear after] [slashing^L other] be.NonhSbj-Neg
- A: [yɔ: ^Hdógó ní:] [lě^L père], lè^L père,
 [NearDist ^Hrear after] [slashing^L other], slashing^L other
 éme [yɔ: ^Hdógó ní:] [lě^L père],
 1PlSbj [NearDist ^Hrear after] [slashing^L other],
 père jùgɔ:-rè
 other know-IpfvNeg.PlSbj
- B: [yɔ: nà wɔ:n] né: kà:ná,
 [NearDist Pl Top] now now,
 [é [[yɔ: nà sâ:n fú:] bìré-sêⁿ
 [2Pl [[NearDist Pl] all all] do-Pfv.PlSbj
- A: é→
 yes
- B: All those are (methods of) planting?
- A: All those are (methods of) planting.
- B: After those, there is no other (method of) planting?
- A: After those, another (method of planting), we don't know any other (method of) planting after those (already mentioned).
- B: As for those now, you-Pl have done all those (things)?
- A: Yes.

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Abbreviations and symbols

Abbreviations			
Acc	accusative (in 1SgAcc), §6.7)	Hort	hortative, §10.6.2
Adj	adjective	Hum	human
Adv	adverbial (especially derived from adjective)	Ipfv	imperfective
Agent	agentive nominal	Imprt	imperative
Ant	anterior (subordinated clause)	Inch	inchoative ('become' with adjective), §9.5
ATR	advanced tongue root (vowel feature)	Inst	instrumental, §8.1.2
C	consonant (in e.g. CvCv)	Iter	iteration (full reduplication)
Caus	causative, §9.2	L	low (tone)
Char	characteristic (nominal derivative, §4.2.3)	Loc	locative
Dat	dative, §8.1.1	Logo	logophoric
Def	definite, §4.4.1.1	MP	mediopassive
Dem	demonstrative	N	noun
Det	determiner (demonstrative or definite)	(n)	noun (in interlinear glosses)
DF	discourse-functional elements	Neg	negative
Dimin	diminutive	Nom	nominalization
Dist	distant (in NearDist and FarDist)	Nonh	nonhuman
DS	different subject (subordinator), §15.2.1.2, §15.2.2.7-10	NP	noun phrase
EA	expressive adverbial, §8.4.6, §4.5.3	Num	numeral
Emph	emphatic (clause-final particle)	Obj	object
Exist	existential particle, §11.2.2.1	Poss	possessor
ExpPf	experiential perfect, §10.2.1.2	Pass	passive
Fact	factive ('cause to become' with adjective), §9.5	Pfv	perfective
Foc	focus	Pf	perfect (in ExpPf or RecPf)
Fut	(delayed) future, §10.2.2.4	Pl	plural
H	high (tone)	Poss	possessive (<i>kè</i>), §6.2.3
		PP	postpositional phrase
		Ppl	participle (in Ppl.Pfv, in relative clauses)
		Prog	progressive
		Proh	prohibitive (negative imperative)
		Pron	pronoun
		Prox	proximate
		Proh	prohibitive
		Purp	purposive
		Q	question
		QTop	interrogative topic ('what about X?'), §19.1.4
		Quot	quotative particle, §17.1.3

QuotSbj	quotative subject particle, §17.1.4	Stat	stative, §10.4 (derived), §11.2-4 (lexical)
Rdp	reduplication	Top	topic
Recip	reciprocal, §18.3	Tr	transitive (verb stem, paired with
RecPf	recent perfect, §10.2.1.3		mediopassive), §9.3
Refl	reflexive, §18.1		verb
Rel	relative clause (verb participle)	V (v)	verb (in interlinear glosses)
Rev	reversive (verb derivation, §9.1	v	vowel (in e.g. CvCv)
Sbj	subject	VblN	verbal noun
Sg	singular	VP	verb phrase
SS	same subject (subordinator), §15.2.1.3- 4, §15.2.2.1-3		

Symbols

*	reconstructed
#	ungrammatical, unacceptable, unattested
á, à, â, ã, ã	tones on vowels (or syllables), §3.7
̄x, ̄x̄, ̄x̄, ̄x̄, ̄x̄	tone changes on stem in compounds, chapter 5
/.../	a) lexical tone melody, e.g. /LH/, /H/ b) underlying or lexical representation, e.g. /gàrá/
{...}	a) tone overlay, e.g. {HL}, {H}, {L} b) enclosing any set, e.g. {u a i}
[...]	a) phonetic (IPA) representation, e.g. [bú:] downstep
↓	{L} tone overlay controlled by an element to the right, §6.1.4
[...] ^L	like preceding but with extra H-tone on final syllable/mora
[...] ^{L+H}	{H} or {HL} tone overlay controlled by a possessor to the left, §6.2.1
^{HL} [...], ^H [...]	{L} on demonstrative or numeral in certain combinations, §3.7.3.5, §4.6.1.4
^L [...]	“intonational” prolongation of final vowel or sonorant, §3.8.3
→	dying-quail terminal intonation effect, §3.8.4
..:	clitic boundary, §3.6
=	conjunction (in interlinears, e.g. X.& Y.& ‘X and Y’)
&	

Reference

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