

A Grammar of Nanga

Dogon language family
Mali

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I will later add index, consecutive numbering, page breaks, etc.
comments and questions welcomed

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color codes (excluding headings)

black: new material for this grammar

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1 Introduction

1.1 Dogon languages

Dogon is a family of somewhere around 20 languages belonging to the vast Niger-Congo phylum. The internal structure of the family as a whole is not yet clear. At least one language traditionally classified as Dogon, namely Bangeri Me in the northwest, appears to be genetically divergent from the others.

1.2 Nanga language

The Nanga language (with “ng” pronounced as a velar nasal) is spoken in a relatively small area about halfway between Douentza and Bandiagara. The speakers of the language refer to themselves, and to their language, as *nánjĩ*. The villages are Anda [*á:ndé*], Namakoro [*námákòrò*], Pergesa [*pègèsá*], Kono [*kó:r^hó*], Wakara [*wàkàrà*], Boromi [*bòròmí*], Irani [*ìràní*], Ouse [*ú:sé*], and Soroni [*sórónĩ*]. Administratively, the Nanga-speaking zone is carved up among three districts (*cercles*) in the province (région) of Mopti, namely the districts of Douentza (villages of Soroni and Ouse), Bandiagara (Anda, Wakara, Boromi, Irani, Namakoro, and Pergesa), and Koro (Kono), all of which currently form part of the région (i.e. province) of Mopti. There are markets in Wakara and Kono that participate in a five-day market-day sequence also involving the Tommo-So speaking villages of Mori and Kasa, and the mostly Jamsay-speaking village of Perge (not the same as Pergesa).

The major neighboring Dogon languages are Jamsay (to the northeast, and broadly to the east) and Tommo-So (=Tombo-So) to the west but also in a few villages to the immediate east of Anda and Ouse. Adult speakers of Nanga can generally speak these two languages.

The Nanga zone, and specifically the village of Anda where I worked, is also near the villages of Beni and Gamni, where another Dogon language, Ben Tey, is spoken. Intercommunication between Nanga and Ben Tey speakers is more often carried out in Nanga than in Ben Tey (in other words, this bilingual situation is asymmetrical). Nevertheless, Ben Tey and Nanga languages seem rather close genetically and structurally, and some Nanga speakers understand Ben Tey even if they don't speak it. Ben Tey is also closely related to Bankan Tey spoken in the village of Walo north of Douentza.

Fulfulde (the language of the Fulbe people and the primary language of Douentza) is also fairly well-known among Nanga speakers, particularly those who have had dealings with Fulbe herders or who frequent the markets.

1.3 Environment

Most of the Nanga villages are arranged in a north-south line. The centrally located village of Wakara is around N 14° 51' by W 3° 2'. Going south from Wakara one hits Namakoro, Pergesa, and Kono in that order. Going north from Wakara one encounters Soroni, Ouse, and Anda in that order.

The Nanga-speaking zone is punctuated by inselbergs, mostly rather small (in comparison to the imposing cliffs found around Douentza and Sangha), with intervening lowlands. Historically, all of the villages were located on the lower slopes of the hills that Fulbe cavalry could not reach on horseback. During the last thirty or so years of the Twentieth Century, as security improved, several of the villages (Anda, Namakoro, Pergesa, Boromi, Irani) were moved to lower ground so that fields in the plains could be cultivated. As of 2007, the villages of Soroni, Ouse, and Kono remain in their original elevated position. The village of Wakara has divided on sectarian lines, with the traditional animists remaining on the hill while converts to Islam now live on the plain below (where a French-Arabic school has been built).

There is a small river fueled by springs that begins in Anda and (in season) empties into a pond at Beni. The other Nanga-speaking villages have wells, seasonal ponds, or mountain springs as water sources. The main productive activity is farming, chiefly millet and sorghum as grain staples. Fonio (*Digitaria exilis*) was once widely grown but is no longer favored. Maize and rice are grown in selected locations. Cow-peas (*Vigna unguiculata*) and roselle (*Hibiscus sabdariffa*) are planted in the same fields as the millet and sorghum. Other crops grown separately during the main farming season are sesame, peanuts, groundnuts (*Vigna subterranea*), and okra.

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

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

1.4 Previous and contemporary study of Nanga

There is no previous published work on this language.

1.4.1 Fieldwork

Fieldwork on Nanga was undertaken in several trips during 2004-2008 as part of a broader project focusing on northern and northeastern Dogon languages (Jamsay, Ben Tey, Bankan Tey, Toro Tegu, Nanga, Najamba). My data are from the village of Anda, which was relatively accessible from my base in Douentza.

1.4.2 Acknowledgements

The fieldwork on Bankan Tey is being carried out under grant BCS 0853364 from the National Science Foundation (NSF), Documenting Endangered Languages (DEL) program, 2009-12.

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

The University of Michigan also provided important supplemental support.

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

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

2 Sketch

2.1 Prosody

Nanga has a typical Dogon stem-level tonal system, with at least one (lexical) high tone element per stem. At the level of syllables, tones are H[igh], L[ow], F[alling] = <HL>, R[ising] = <LH>, and bell-shaped <LHL>. There are no <HLH> syllables. The notation <...> is used for single-syllable contour tones like <HL>. The notation {...} is used for more abstract stem-wide contours like {H} and {HL} whose specific realizations depend on the number of syllables and moras.

Verb stems are lexically {LH} or {H}. When a derivational suffix is added, the lexical contour is generally respected. In the verbal inflectional system, tones play an important role along with inflectional suffixes. Several of the suffixes impose a specific tone contour on the preceding stem, overriding lexical tones. There are two distinct *-so-* suffixes, Resultative *-só-* and Progressive *-sò-*, distinguished only by tone contours (on the stem and suffix) and lengthening of the stem-final vowel: *súyó-só-* ‘has hit’ (Resultative) versus *súyò:-sò-* ‘is hitting’.

Nouns, adjectives, and numerals have little suffixal morphology, and what they have is generally straightforward phonologically. As in other Dogon languages, though, these non-verb stems undergo stem-wide tone contour overlays in various morphosyntactic positions. The most common overlaid contour is {L}, which I refer to as **tone-dropping**. A noun (or adjective) is tone-dropped before a modifying adjective, a determiner (demonstrative pronoun or Definite morpheme), or *kámâ* ‘each’. There is a possessed-noun contour {HL} on nouns preceded by a possessor ending in a high tone. The combination of a noun with a possessor is treated as a **tonosyntactic island**, so the noun is not subject to the usual tone-dropping effects induced by adjectives or determiners to its right. However, the tonological-island effect does not apply to the combination of possessor and noun when this sequence is followed by *kámâ* ‘each’; instead, the tone-dropping effect of *kámâ* does apply here to the noun and to a pronominal possessor.

In relative clauses, the final word of the core NP (i.e. noun plus any adjectives), and (simultaneously) a numeral also tone-dropped if the NP in question functions as head of the relative (§14.1.2).

2.2 Inflectable verbs

The verb stem may be underived or suffixally derived (Reversive, Causative). In indicative categories, the stem is followed by an aspect-negation (AN) suffix, then a pronominal-subject suffix. There is no audible AN suffix in the unsuffixed Perfective (all-low tone), so here the stem is followed by the usual pronominal-subject suffixes.

Negation is expressed within the AN suffix system, not by external Negative particles. In the indicative, there are two basic negative AN forms, Perfective Negative and Imperfective Negative, compared to a somewhat richer set of distinctions in the positive AN suffixes. The positive AN suffixes are in most cases absent from the negative forms.

There is a full set of Imperative and Hortative verb forms, positive and negative.

In relative clauses (see below), the regular inflected verb is replaced by a participle that agrees with the head NP in nominal features (but not person).

2.3 Noun phrase (NP)

Nouns and adjectives have no suffixal morphology. Unlike the more northerly Dogon languages, Nanga has no Singular/Plural distinction, nor a Human/Nonhuman or Animate/Inanimate distinction, within nominal or (modifying) adjectival morphology.

The **core NP** consists of a noun plus any following modifying adjectives. This may be preceded by a nonpronominal NP possessor or by Definite demonstrative *kú* (originally a Nonhuman or Inanimate possessor). The core NP may be followed by a numeral, another quantifier ('all', 'each'), and/or a determiner (Definite morpheme or demonstrative pronoun). The determiners do distinguish Animate Singular, Animate Plural, Inanimate Singular, and Inanimate Plural, and are therefore the primary vehicle for expressing these categories.

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

2.4 Postposition phrase (PP)

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

2.5 Main clauses and constituent order

Main clauses (and subordinated clauses) are verb-final and typically SOV (when the subject is nonprominal).

2.6 Nominalized clauses and constituent order

2.7 Relative clauses

As in all Dogon languages, relative clauses are a distinctive and important syntactic construction. For example, some types of spatiotemporal and manner adverbial clauses are relative clauses in form.

The syntax is similar to that of some other northeastern Dogon languages (e.g. Jamsay, Ben Tey).

The core of the head NP (noun plus any adjectives) along with a possessor and/or a numeral remains within the relative clause proper. Determiners and non-numeral quantifiers are peeled off of the head NP and are positioned to the right of the verb (i.e. participle). Within the clause-internal NP, the head noun and any following adjective(s) or numeral that are not already tone-dropped drop their tones. Repetition of the head NP as a possessed noun directly following the relative clause proper (as in Jamsay) has not been observed. The verb becomes a participle that is marked for aspect and negation but has no agreement morphology (except for 3PI subject in negative non-subject relatives).

2.8 Interclausal syntax

3 Phonology

3.1 General

Syllables and metrical structure are briefly covered in §3.2. The phonemes and some basic facts about their distribution and combinations are presented in §3.3 (consonants) and §3.4 (vowels). Nontonal phonological rules are described in §3.5. Cliticization is briefly discussed in §3.6. Tonal and intonation systems are the subject of §3.7.

3.2 Internal phonological structure of stems and words

3.2.1 Syllables

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

Using *v* for a short vowel and *v:* for a long oral vowel, the normal shape of a monosyllabic stem is *Cv:* with long (oral or nasal) vowel (xx1.a). *CvC* ending in a sonorant is also attested in pure form, in a couple of verbs (xx1.b) and in a few non-verb stems (nouns and numerals) (xx1.c). The shape *CvC* also occurs in various expressive and emphatic elements, and in the more interjection-like cases the final C may be an obstruent (xx1.d). Many phonetic occurrences of *CvC* and *Cv:C* actually reflect apocope of a final high vowel, which can be shown most clearly for inflectable verb stems (xx1.e).

| (xxx) | form | gloss | comments |
|-------|------------------------|----------------------|----------|
| a. | <i>yî:</i> | ‘child’ | |
| | <i>pé:</i> | ‘get old’ | |
| | <i>tǎ:ⁿ</i> | ‘taboo’ | |
| | <i>ǒ:</i> | ‘the bush, outback’ | |
| | <i>ě:</i> | ‘well (for water)’ | |
| b. | <i>núyⁿ</i> | ‘enter’ | |
| | <i>túy</i> | ‘arrange in bunches’ | |

- | | | | |
|----|------------------|--------------------------|----------------------------|
| c. | wǒy | ‘two’ | |
| | nǒy ⁿ | ‘four’ | |
| | děw | ‘trap (noun)’ | |
| d. | sóy | ‘all’ | |
| | dón-đón | ‘seething (mad)’ | |
| | kék | ‘completely, every inch’ | |
| e. | ěw | ‘purchase (noun)’ | variant èwí, cf. éwé ‘buy’ |
| | sěj | ‘rope’ | variant sèjí |
| | dějw | ‘cover’ | /dèwí/ |
| | bǎ:r | ‘add’ | /bǎ:rí/ |

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

3.2.2 Metrical structure

Segmental phonological rules generally point to a trochaic bias, i.e. bisyllabic [sw] with a strong followed by a weak. In CvCvCv trisyllabic verbs (in the bare stem and related inflections), the medial vowel (if high and short) is vulnerable to syncope.

3.3 Consonants

The inventory of consonantal phonemes is (xx1). Single parentheses enclose marginal phonemes. Double parentheses enclose extremely marginal phonemes.

(xx1) Consonants

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

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

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

3.3.1 Alveopalatals (**c, j, ɲ**)

As in the other languages of the region (Dogon, montane Songhay, etc.), there is occasional fluctuation before front vowels {**i e ε**} between /**k**/ and /**c**/, and between /**g**/ and /**j**/. Thus **gě:rⁿi** or **jě:rⁿi** ‘take away’. However, I generally hear unpalatalized (though perhaps slightly affricated) velars /**k**/ and /**g**/ before front vowels in this language.

3.3.2 Voiced velar stop **g** and **g**-Spirantization (**g**→**f**)

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

3.3.3 Back nasals (**ŋ ɲ**)

Velar **ŋ** occurs intervocally in such words as **nàŋá** ‘cow’, **bàŋá** ‘owner’, **dòŋóndí** ‘console’, **gòŋírⁿi** ‘circulate’, **nùŋó-mí** ‘turn on’, **súŋúrⁿi** ‘ear’, and **nùŋá nùŋí** ‘sing a song’.

ŋ is an allophone of an underspecified nasal in the clusters **ŋg** and **ŋk**. For **ŋk** I can cite only **ròŋké** ‘fail’ (<Fulfulde) and **jàjàŋkó:** ‘double grain spike’ (perhaps composite). **ŋg** is common intervocally, and there are some alternations (within Nanga or among nearby Dogon languages) between **ŋ** and **ŋg**. Examples are **yóŋgĩ** ‘soul’, **bòŋgó** ‘navel’, and **dàŋgárá** ‘thighbone’.

Palatoalveolar **ɲ** is permitted word-initially (where **yⁿ** is absent), as in **ɲǎ:** ‘meal’, **ɲámá** ‘malfunction (verb)’, **ɲé:rⁿê** ‘evil dwarf’, **ɲùŋírⁿi** ‘be stationery’, **ɲó:rⁿi** ‘summons’, **ɲǎ:rⁿi** ‘call, summon’, and **ɲùmó** ‘shake (e.g. branch)’. Some other word-initial cases are **ɲémírⁿi** ‘reins’, **ɲéŋé** ‘toilet’ (<Bambara), **ɲùŋúrⁿi** ‘quiver’. **ɲ** also occurs intervocally, but the examples are either historically composite, as in **ògò-ɲòŋó** ‘camel’, or they belong to “cultural” vocabulary that may well be borrowed: **ó:ɲí** ‘sag under a load’, **tó:ɲê** ‘teasing’. One caste of griots is called **ɲé-ɲéyⁿ**, and a term meaning ‘nonsense’ is **ɲé-ɲémé**, both probably with initial **Cv** reduplication. Interrogative ‘what?’ is based on **ɲé**, the actual form being either **ɲɲé** or **kò ɲé**.

3.3.4 Voiceless labials (p, f)

f is not a full-fledged phoneme in Nanga. It does occur in some loanwords, but even here it is often replaced by p. A pass through my working lexicon (July 2007) reveals only *fú* ⇒ varying with *pú* ⇒ ‘all’ (<Fulfulde), *ná:fiǵĩ* or *ná:pĩǵĩ* ‘trouble-maker’ (<Arabic via Fulfulde), and *sátsáⁿsêf* ‘sargeant’ (<French). ‘Rifle’ is pronounced *màrbâ* or *màrpâ*.

3.3.5 Laryngeals (h, ʔ)

h occurs stem-initially in numerous nouns and verbs, nearly all of them Fulfulde loanwords: *héyyèndé* ‘index finger’, *há:dí:* ‘stop (at border)’, *hámbé* ‘chew (tobacco)’, *húkûm* ‘tent’, *híbbé* ‘be complete’, *hógô* ‘herd’. The ubiquitous regional particle meaning ‘until’ or ‘all the way to’ appears as *háfi*.

h is attested medially in the loanword *jáhánámà* ‘hell’, and it does not occur word- or syllable-finally.

3.3.6 Sibilants (s, š)

There is no phonemic distinction between s and š (= IPA ʃ). Words like *gùsĩ* ‘skin’ have (unpalatalized) alveolar s in spite of the high front vowel. Loanwords like *sátsáⁿšêf* ‘sargeant’ (French *sergent-chef*) and *ĩnšá:lâw* ‘maybe’ (<Arabic ‘if God wills’) are poorly-assimilated and usually have pronunciation variants.

3.3.7 Nasalized sonorants (rⁿ, wⁿ, yⁿ)

rⁿ (nasalized tap) is a true phoneme, though it is limited to word-internal intervocalic position. It (therefore) does not occur initially, finally, or in consonant clusters. When a short vowel following rⁿ is syncopated, the rⁿ is converted to n, thus *sújúrⁿi* ‘ear’, *sújúrⁿi nè* or syncopated *sújûn nè* ‘his/her ear’.

rⁿ occurs independently of other nasals in unclustered intervocalic position, as in *bárⁿi* ‘red’. If there is a preceding nasal in the stem or uncompounded word, rⁿ but not oral r may occur, so ‘ear’ is *sújúrⁿi* and ‘give birth’ is *nàⁿá*. Sequences like #...júrⁿi and #nàⁿá with oral r are not allowed within uncompounded stems, and this extends to any inflectional suffixes, so Perfective Negative suffix -rⁱ becomes -rⁿi in nasalized environments: *nàⁿà-rⁿi* ‘she did not give birth’.

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

yⁿ occurs independently of other nasals in intervocalic or word-final position: óyⁿó ‘spin (cotton)’, wàyⁿá ‘boil’, sâyⁿ ‘nauseating’, mǔyⁿ ‘(joint) dislocation’, dúyⁿ-dùyⁿ ‘red (intensifier)’. It also occurs in nasalizing environments, where y and yⁿ fall together as yⁿ, as in núyⁿáyⁿ ‘this year’. Since ɲ (§3.3.3) occurs chiefly in initial position (excluding composites and borrowings), there is a partial complementarity between ɲ and yⁿ suggestive of an original phoneme split. However, I can cite no synchronic alternations between yⁿ and ɲ.

Unlike yⁿ and rⁿ, wⁿ has a very limited distribution. Within stems, I can cite only àrⁿáwⁿ (variant of àrⁿá) ‘year’, téwⁿɲí ‘rejoin’, and the borrowing ɲí:wⁿ ‘a cattle disease’. In these examples, there is either a preceding nasal, or an immediately following (clustered) nasal. I can find no intervocalic examples of wⁿ, nor for that matter of oral w (in a nasalizing environment).

Nanga has m (along with Bankan Tey and Najamba) corresponding to autonomous wⁿ in some neighboring languages (Jamsay, Ben Tey, Toro Tegu), e.g. némé ‘taste (verb)’ (Jamsay and Ben Tey néwⁿé), nàmâ ‘meat’ (Jamsay nòwⁿó, Ben Tey nàwⁿâ, Toro Tegu nàwⁿá, but Bankan Tey nàmâ: and Najamba nàmá). Toro Tegu and Ben Tey have some synchronic alternations of wⁿ (intervocalic) with m (other positions).

3.3.8 Consonant clusters

3.3.8.1 Problematic /nd/ and /nn/ clusters

Nanga and to a lesser extent Bankan Tey seem to have expanded an original intervocalic *l or *r under some conditions into a cluster beginning with /n/. At any rate, there are numerous correspondences of Nanga /nd/ and /nn/ to simple sonorants in some other languages. An example is (xx1).

(xx1) gloss Nanga comparative data

‘iron’ í:ndá Jamsay í:rⁿé, Ben Tey í:rⁿéy, Bankan Tey ɲírⁿéy

Since clusters like #nl and #nr are not acceptable, adding the extra initial /n/ seems to have forced a switch to an acceptable cluster /nn/ or /nd/.

Nanga has a number of important stems that begin with a nasal-nasal or nasal-stop cluster where some neighboring languages have an initial vowel instead of the initial nasal. The data in (xx2) are organized around possible

phonological source as inferred from the comparative data, but the reconstructions are first stabs.

| (xx2) | gloss | Nanga | comparative data |
|-------|----------------------------------|---------------------|--|
| a. | *r or *r ⁿ 'go up' | ndé | r: Jamsay & Ben Tey ùró, Bankan Tey ùrá n: Toro Tegu ùnú\ùnó l: Pergue ùló, Najamba ìlé, Yanda Dom ʔólé, Tommo So úló |
| | 'house' | ndô (indô) | r: Ben Tey & Bankan Tey úró, Jamsay úró, Pergue íré l: Toro Tegu íló, Yanda Dom ʔóló, Najamba ólé |
| | 3Sg 'field' | nné nnâ | r ⁿ : Ben Tey é ⁿ é, x, x, x r ⁿ : Ben Tey í ⁿ à, Bankan Tey jír ⁿ â:, x, x, x |
| | 'tooth' | nné (iné) | r ⁿ : Jamsay ìr ⁿ é, Ben Tey ìr ⁿ ú, x, x, x |
| b. | *l (or *r ?) 'go' | nné | Ben Tey ló, Bankan Tey ndó |
| c. | *(n)s 'seed' | njà | Ben Tey & Bankan Tey ìsâ:, Jamsay séy ⁿ |
| d. | *n(d) 'give' | ndí | Ben Tey & Bankan Tey ní, Najamba ndé |
| | 'name' | nnèr ⁿ i | Ben Tey ìnr ⁿ i:, Bankan Tey ɲinnî:, Najamba ínèn |
| e. | *nj 'what?-Pl' | ñné | Ben Tey & Bankan Tey ñné, Jamsay ñné 'what?' |

An initial short vowel is occasionally heard (e.g. indô for ndô). In these items, when the intervocalic sonorant grew an extra preceding /n/, it may be that this nasal crept into and eventually occupied the moraic position of the original initial short vowel. Reduplications treat the verbs as vowel-initial, with i- as the reduplicative segment for the /nn/ and /nd/ verbs, as in Imperfective ì-índí-m- 'give'. This is heard with a faint glottal stop separating the identical vowels: [iʔíndim].

Closer phonetic study is needed of what I write as *nd* and *nn*. It may be that “*nd*” is really [n^d], i.e., a single complex segment consisting of an *n* with a brief oral release. The stems with initial /*nn*/ are often pronounced with [ʔn], i.e. a preglottalized *n*, after a vowel or semivowel (but not phrase-initially).

3.3.8.2 Initial /*mb*/

The verb *m̀bó-* occurs with the noun meaning ‘nose’ (or ‘snot’) in the phrase *k̄rⁿé m̀bó* ‘blow one’s nose’. The only potential cognate I have come across is Najamba *imbí*. The reduplicated forms treat the verb as beginning in /*u*/, hence reduplicated Imperfective *ù-úmbó-m̀-*.

m̀bùrǎ- (or *m̀bù-rǎ-*), probably containing a (Stative) Negative suffix *-rǎ-* but now probably frozen), means ‘not want, dislike’. Cf. Ben Tey *m̀-rá-*, Bankan Tey *m̀bì-rá-*.

I have no other cases of initial /*mb*/ (or /*ŋg*/, other than grammatical formatives such as Negative *ŋgó-* and some demonstratives).

3.3.8.3 Medial geminated *CC* clusters

Geminated clusters are rare in Nanga. Based on a search of the lexicon (July 2008 version), only /*ll*/ is well-attested medially within a stem: *jállí-* ‘grab suddenly’, a few irregular reversives like *ìllí-rí-* ‘remember’ (*iré-* ‘forget’), and a few Fulfulde loans.

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

/*mn*/ occurs medially in Fulfulde loans like *hínnê* ‘quantity’. In native Dogon stems, it occurs initially (e.g. *íné-* ‘go’, see §3.3.8.1, above), but not medially within a stem.

Some additional geminate clusters may arise at compound boundaries or due to Syncope. I can cite *dèn-ní:* ‘semen’ (*dèrⁿi* ‘penis’, *ní:* ‘water’).

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

3.3.8.4 Medial non-geminate CC clusters

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

Excluding borrowings and compound boundaries, we have the following.

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

/r/ plus consonant is found in a few items: /rg/ in *pèrgé* ‘sheep’, (*kòŋòr"òy-*)*dàrgá* ‘breakfast’; /rŋ/ in *búrŋó* ‘group of travelers’ (etymology unknown); /rs/ in *kársì* ‘gizzard’ (etymology unknown).

/wr/ is well-attested: *kéwrí-* ‘cut wood’ (cf. Jamsay *céréwé-*) and *káwrí-* ‘split (peanut)’ (Jamsay *káráwá-*), *séwrú-* ‘trim surface (of wood) with knife’, *pówrí-* ‘rub or scrape off’ (Jamsay *pórówó-*), *kówró-* ‘(handle) be broken’, *káwrà* ‘shard’, *jòwrì-nî:* ‘sauce’. /wy/ in *éw-yé-* ‘sit’ is perhaps still segmentable (an archaic causative *éw-ré-* is the only synchronic evidence).

/yr/ occurs in *bóyrè* ‘porridge’, from Fulfulde.

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

3.3.8.5 Medial triple CCC clusters

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

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

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

3.3.8.6 Final CC clusters

None.

3.4 Vowels

Excluding tonal markings, the vowel segments are those in (xx1).

| (xx1) | short oral | long oral | nasalized |
|-------|------------|-----------|-----------------|
| | u | u: | — |
| | o | o: | — |
| | ɔ | ɔ: | ɔ: ⁿ |
| | a | a: | a: ⁿ |
| | ɛ | ɛ: | ɛ: ⁿ |
| | e | e: | — |
| | i | i: | i: ⁿ |

3.4.1 Short and (oral) long vowels

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

Vowel-final monosyllabic stems take the form (C)v: with long vowel: *yĩ:* ‘see’, *yĩ:* ‘child’, *pě:* ‘old’, *pé:* ‘get old’, *yǎ:* ‘women’, *dǒ:* ‘haunch’, *tũ:* ‘each other’, *dǒ:* ‘arrive’, *â:* ‘place’, *dě:* ‘mother’, *pó:* ‘pick (fruit)’.

In non-monosyllabic stems, short vowels predominate. In the case of verb stems (excluding borrowings), a long vowel is allowed only in the initial syllable, except insofar as a final /...iyi/ contracts to ...î:, as in *óg-î:* ‘become hot’ (compare imperative *ógí-yà*). Initial long vowels are illustrated by *pú:rí* ‘caress’, *kó:só* ‘brush away’, *bǒ:sí* ‘mix (crushed millet) with water’. The long vowel is usually followed by a single consonant, but nasal-stop clusters are also allowed: *ké:ndé* ‘make (well)’. There are many trisyllabic verb stems with all-short vowels like *jèŋí:ri* ‘look’ and *jígí:ré* ‘spin’.

Examples of long vowels in noun and other non-verb stems: *té:ndí* ‘wooden bed’, *bá:sí* ‘misfortune’, *kà:sá* ‘wool’ Monomorphemic stems like *dó:ró:sí* ‘strap for slapping horse’, *músó:rò* ‘head shawl’ (French *mouchoir*), and *gù:rá:nâ* ‘Coran (tome)’, with a long vowel in a non-initial, non-final syllable, are borrowings, usually from Fulfulde. Nanga has e.g. *pétèy* ‘flat and wide’ and

pótɔy ‘flat (nose)’ corresponding to Jamsay pètè⇒ and pátà⇒ (cf. Ben Tey pátà⇒).

A final falling-tone does not require lengthening of a short vowel: kòrô ‘ax’, tà:rí ‘egg’, sàwâ ‘grass’. In neighboring languages, either the vowel is long (typical of Ben Tey, e.g. tàrî: ‘egg’ and sàwâ: ‘grass’) or the tone is simple (typical of Jamsay, e.g. táru ‘egg’). (However, there are no final short rising-toned syllables.

3.4.2 Nasalized vowels

Vowel nasalization is limited in Nanga. Leaving aside loanwords, affixal contractions, and an occasional expressive reduplication like sôⁿ-sôⁿ ‘newborn’, nasalization is confined to long-vowel monosyllables, plus a few expressive adverbials (transcribed with ⇒ to indicate prolongation). All examples known to me are in (xx1.a-b). The correlation with open vowels {a ɔ ɛ} is typologically normal, but there are also a couple of cases with i.

- | | | | |
|-------|----|-------------------|--|
| (xxx) | a. | tá: ⁿ | ‘(goat) stand on hind legs to browse’ |
| | | pá ⁿ ⇒ | ‘wide open’ |
| | | pá: ⁿ | ‘find a mate or double for’ (and other meanings) |
| | | jâ: ⁿ | ‘normal, right’ |
| | | tǎ: ⁿ | ‘shed’ |
| | | gâ: ⁿ | ‘onion’ |
| | b. | tê: ⁿ | ‘honeycomb’ |
| | | sé ⁿ ⇒ | ‘looking straight at’ |
| | | kê: ⁿ | ‘inheritance’ |
| | c. | pǒ: ⁿ | ‘fonio’ (grain) |
| | d. | gǐ: ⁿ | ‘odor’ |
| | | bǐ: ⁿ | ‘cover up’ |

The ubiquitous yes/no and similar “grunted” utterances in (xx2) also show nasalization.

- | | | |
|-------|--------------------------------|--------|
| (xx2) | ò ⁿ hó ⁿ | ‘yes’ |
| | ś ⁿ ?ǒ ⁿ | ‘no’ |
| | hǎ: ⁿ | ‘huh?’ |

The verb ‘shoot’ is **tá:**, cf. Ben Tey and Bankan Tey **tá**, but Jamsay **tá:ⁿ**. A similar case is **dě:** ‘be tired’ (in certain locutions), cf. Ben Tey, Bankan Tey, and Toro Tegu **dě** ‘be tired’, but Jamsay **dě:ⁿ** ‘be tired’.

3.4.3 Initial vowels

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

a/a: **àmá** ‘half-ripe’, **àgíy** ‘hold on to’, **á:njí** ‘yawn (verb)’, **á:rⁿí** ‘shine’.

e/e: **èmbî** ‘trap’, **èré** ‘competition’, **éw-yé** ‘sit’, **émbéré-pè:sî** ‘hedgehog’, **è:njî** ‘roselle’.

ε/ε: **émbí** ‘pinch’, **éwé** ‘buy’, **è:mbé** ‘sorghum’, **é:njí** ‘tomorrow’.

i/i: **îré** ‘be better’, **îsî** ‘fish’, **î:-rí-** ‘cause to stop’, **î:ndá** ‘iron’.

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

ɔ/ɔ: **ógî** ‘hot’, **óndò** ‘ax’, **ó:rí** ‘(herder) leave in morning with herd’, **ó:sô** ‘tree sp.’ (*Grewia*)’.

u/u: **ùsú** ‘day (unit)’, **úró** ‘skin and butcher’, **ú:yí** ‘be afraid of’.

3.4.4 Stem-final vowels (/u/ is rare)

Any vowel quality may end a verb, noun, or other stem. However, stem-final /u/ is effectively absent except in monosyllabic non-verb stems like **kû:** ‘head’, and in predicative forms of nonmonosyllabic adjectives whose modifying form ends in /i/. Nouns whose cognates in Jamsay etc. end in /u/ have final /i/ in Nanga: **búrí** ‘bread’, **ósí** ‘road’, **gùsî** ‘skin’, etc. Likewise with adjectives in their basic modifying forms, e.g. **dúsî** ‘heavy’, **dùgî** ‘big, fat’. Verbs that end in a high vowel have final /i/, though in some phonological environments this is optionally realized as /u/.

3.4.5 Vocalic harmony

The vowels {**e o**} and {**ε ɔ**} constitute two opposed harmonic sets. Vowels of either set may co-occur with **a**, and with high vowels {**i u**}, which are therefore nonharmonic.

‘skinny-buttocks’, ày-nó ‘fatigue’, and séyní- ‘give good news’. These data are based on the assistant’s artificially pronouncing póyⁿ, etc., as separate syllables.

Inside an unsegmentable stem, Nasalization-Spreading is a passive constraint. A sequence like nVrⁿV (V=any vowel) as in nàrⁿá ‘give birth’ is acceptable, but a sequence #nVrV with oral /r/ is not. Examples respecting the constraint are núyⁿáyⁿ ‘this year’, mùrⁿá ‘sick person’, níŋêyⁿ ‘now’, and jî:wⁿ ‘a cattle disease’.

The exceptions that I have observed involve the **sequence m...r** with unnasalized r. Thus alongside the “correct” sequence in e.g. dómórⁿó ‘criticism’ and mòrⁿô ‘wild date’, there are several cases with “incorrect” m...r. The cases known to me are mùrá- ‘not want’, dómúró ‘shave around the edges’, jòmòró ‘foreskin’, òmúró ‘tamarind’, támórò ‘dates’, pómúró ‘eke out’, kómórò ‘(finger-)nail’, màrá ‘be lost’, mùmúró ‘dip (food) deeply (in sauce)’, mèrè-gìré ‘abdomen’, mèrégê ‘evil dwarf’. The m in several of these words is optionally (or dialectally) pronounced with a brief oral release, e.g. kóm^bórò, and there is some comparative support for *mb (or *m^b). pá:mírâl ‘understanding’ is an unassimilated Fulfulde loanword and shows oral r, but note the parallel borrowing pá:mírⁿè ‘understanding’ (cf. verb pá:mí ‘understand’).

The rule does not apply to r at the beginning of a cluster, even when there is a preceding nasal. This is presumably because rⁿ does not occur as first member of a cluster. However, since my examples involve m, the exception may also be related to the comments about m...r above. The examples in my data are màrbâ (variant màrpâ) ‘rifle’ and múrsí ‘revolt’.

Verbal suffixes beginning with r are subject to Nasalization-Spreading.

Perfective Negative -rí- is illustrated by dàmá ‘speak’, Perfective Negative dàmà-rⁿí ‘did not speak’, and by tá:ⁿ- ‘spread out fingers’, Perfective Negative tà:>-rⁿí ‘did not spread out fingers’. In nùyⁿò-rⁿí, which can mean either ‘did not enter’ (stem núy) or ‘did not hear’ (stem nŷy), the yⁿ is clearly nasalized. The contrast with núy-èrè ‘entered’ (discussed below) suggests that the Perfective Negative is particularly favorable to Nasalization-Spreading.

Reversive derivational suffix -rí- is illustrated by kámá ‘crumple’ and Reversive kámí-rⁿí ‘uncrumple’, whose Perfective Negative kàmì-rⁿà-rⁿí ‘did not uncrumple’ shows recursive application of the rule.

Perfective allomorph -èrè is not subject to Nasalization-Spreading even in núy-èrè ‘entered’ (stem núy, contrast Perfective Negative nùyⁿò-rⁿí mentioned above), much less in e.g. mǎ:-èrè ‘became dry’ where the source nasal is farther away. Perhaps -èrè is treated phonologically as though beginning with a (non-nasal) consonant that blocks Nasalization-Spreading.

3.5.1.2 Consonantal metathesis in suffixal derivatives of verbs

3.5.2 Vocalism of suffixally derived verbs

3.5.2.1 Suffixal Vowel-Spreading

3.5.2.2 Presuffixal V₂-Raising

3.5.3 Vocalic rules sensitive to syllabic or metrical structure

3.5.3.1 Vowel-lengthening

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

| | | | |
|-------|--------------------|------------------|---|
| (xxx) | kó:ndó | ‘curved (stick)’ | |
| | kè:ndê | ‘cheek’ | Ben Tey cèlê:, Bankan Tey kèndêy |
| | mè:njé | ‘thin’ | Ben Tey mènjê-w, Bankan Tey |
| | mèzêy ⁿ | | |
| | ò:mbó | ‘chin’ | Ben Tey òmbôy, Bankan Tey òmbôy |
| | sò:mbó | ‘earth’ | Ben Tey sùmóy ⁿ , Bankan Tey |
| | sùmbăy | | |
| | kă:ndâ | ‘melon’ | Ben Tey kânár ⁿ ây, Bankan Tey |
| | kândirá | | |

There is no synchronic rule of lengthening vowels before such clusters, and some native Dogon items retain short vowels in comparable syllabic positions: *néndè* ‘tongue’, *yùr-pémbí* ‘woman’s wrap’.

3.5.3.2 Epenthesis

No epenthesis processes have been observed.

3.5.3.3 Post-Sonorant Syncope (verbs)

Many verb stems of more than one syllable end in short *i* (sometimes varying with *u*). When followed by a C-initial inflectional suffix like Perfective-2 *-só-* or Perfective-1b *-tĩ-*, the short high vowel optionally deletes in allegro speech after an unclustered sonorant, e.g. *dàgírí-só-y* ~ *dàgír-só-y* ‘I got ready’. This

optional syncope has no wider phonological consequences; in particular, rhotics do not assimilate to following coronals (§3.5.5.2).

3.5.4 Deletion of final **u** (u-Apocope)

There is no productive apocope of word-final short high vowels, even after unclustered sonorants. This is seen especially with adjectives like **támî** ‘cold, slow’ and its predicative form **támû** ‘be cold, slow’. However, there are occasional forms suggesting (probably low-level) apocope: the first iteration in intensifier **pár-párú** ‘shiny new’.

3.5.5 Local consonant cluster rules

3.5.5.1 *Derhoticization (/rⁿ/ to n)*

In forms like **kárⁿi-tî-** ‘did’ (Perfective), Syncope of the medial vowel is not phonologically systematic; the tap **rⁿ** is released prior to the onset of the **t** in normal pronunciation.

3.5.5.2 *Rhotic Assimilation*

In forms like **tári-tî-** ‘glued on’ (Perfective-1b), Syncope of the medial vowel is not phonologically systematic (§3.5.3.3), and the tap **r** is released prior to the onset of the **t** in normal pronunciation. See, however, the discussion of Rhotic-Cluster Lateralization, just below.

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

Although there is no regular phonological rule to this effect, there are vestiges of a phonological development of the type **...rv-r...** > **...r-r...** (Syncope) > **...l-l...**, and of the type **...rⁿv-rⁿ...** > **...rⁿ-rⁿ...** (Syncope) > **...l-l...**, if my interpretation of Reversive derivatives is correct. For discussion of Reversive **măl-li-** ‘unseal’ from **mărⁿi-** ‘seal up’, and of Reversives like **kól-li-rí-** ‘unhook’ from **kó-rí-** ‘hook, hang up’, (xx4) in §9.1, below. Since the regular Reversive suffix **-rí-** has been re-added to e.g. **kól-li-rí-**, native speakers may well interpret the phonological process here as one where medial **r** is converted to **ll** before the

suffix (a kind of double dissimilation, in segmental quality and length, to the *r* of the suffix).

3.5.6 Vowel-vowel and vowel-semivowel sequences

3.5.6.1 *Hiatus between adjacent vowels in reduplications*

Hiatus is not typical of Nanga phonology, but when a vowel-initial verb stem is reduplicated, the two occurrences of the same vowel are phonetically separated by a glottal stop. Example: *éw-yé-* ‘sit’, reduplicated Imperfective *è-éw-yé-ṅ* ‘he/she will sit’, phonetic [èʔéwǰéṅ]. I do not write the glottal in ordinary transcriptions.

In unreduplicated Perfectives (§10.1.2.2), the 3Sg form may end in *...o-e*, *...a-ε*, or *...ɔ-ε*. The vowel is composite but has no hiatus. Examples: *nò-è* ‘he/she drank’, *sà-è* ‘he/she replied’, *wò-è* ‘he/she caught’. Similar combinations occurs with Perfective *-èrè-* (§10.1.2.3), as in *gó-èrè-* ‘went out’.

3.5.6.2 *VV-Contraction*

3.5.7 Local vowel-consonant interactions

3.5.7.1 *Alternations between i and u*

Stem- or suffix-final short high vowels {i u} in verbal morphology usually assimilate to a following suffixal non-homorganic semivowel. This happens, for example, when Perfective-1b *-ṯi-* is followed by 2Sg *-w* (or 2Pl *-w.:*), and when *bù-* ‘be’ is followed by 1Sg *-y* (or 1Pl *-y.:*). Thus *-tù-w̄*, *bǐ-y*, see §10.3.3.

These assimilations feed into Monophthongization, see just below.

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

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

For discussion of the phonological representation of verbs like *tíy-* (*tí:-*) ‘send’, see §10.1.1.

Subject-pronominal suffixes like 1Sg *-y* and 2Sg *-w* are often involved in Monophthongization. Examples are 1Sg Perfective Negative *-rí-ý* [*rí:*] and 2Sg ‘be’ *bù-w̄* [*bù:*] ‘you are (somewhere)’. The number of forms subject to Monophthongization is swollen by the effects of vowel-semivowel

assimilations, see the immediately preceding section. Thus *gò:-rú-ŵ* [gò:rú:] ‘you-Sg did not go out’ from /-rí-w/.

3.6 Cliticization

There is no sharp phonological difference between clitics, suffixes, or postposed particles such as postpositions. I use the term clitic (boundary symbol =) in cases where a morpheme (or morpheme cluster) that would ordinarily be thought of as postposed is attached to an independently occurring stem (noun, verb stem or inflected verb, etc.), with some evidence of phonological interaction.

I transcribe as clitics the following: the inflectable ‘it is’ morpheme and its negative counterpart (see just below, and §11.xxx); the locational form of place names (§8.1); and the inflectable Past morpheme =bɛ- that is added to (partially) inflected verb forms. Based on phonological interactions, one could argue that some additional postpositions are really clitics.

3.6.1 Phonology of =m clitic (‘be’)

For the paradigm of this clitic, which allows pronominal inflections, see §11.2.1, below. The first and second person forms are based on =m-. The third person forms (after vowels) are 3Sg =ŋ and phonetic variants, 3Pl =∅, and Inanimate =w.

Of phonological interest is the fact that, after a vowel, 1Sg =m-ĩ frequently contracts to =m̃, while 2Sg =m-ù frequently contracts to =m̃^w. This results in a unique (for Nanga) opposition of final plain versus labialized consonant. The labialization in the 2Sg form is difficult for the unpracticed ear to hear, but native speakers immediately correct poorly pronounced versions.

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

3.7 Tones

3.7.1 Lexical tone patterns

3.7.1.1 *At least one H-tone in each stem*

Regular stems (nouns, verbs, adjectives, numerals) have at least one high-tone component. For example, a monosyllable may be H-, F-, or R-toned, but not L-toned.

3.7.1.2 *Lexical tones of verbs*

In their lexically basic form (for criteria see §10.1.1), verbs may be {H} toned (xx1.a) or may have a rising {LH} contour. For Cv: monosyllabics, only {H} is observed. Bisyllabics and longers stems, including Cv reduced from /Cvyi/, {LH} is realized as Cu&y, C̣vC̣ṿ, C̣ṿCC̣ṿ, C̣ṿ:C̣ṿ, and C̣ṿC̣ṿC̣ṿ. While some other Dogon languages of the zone known to me delay the tone break until the final mora of the stem, in Nanga the break occurs at the second vocalic mora, i.e. midway through the long vowel of C̣ṿ:C̣ṿ, and in the second syllable of C̣ṿC̣ṿ, C̣ṿCC̣ṿ, and C̣ṿC̣ṿC̣ṿ.

In particular, I hear no noticeable rise on the second consonant of lexical C̣ṿCC̣ṿ, e.g. *nàmbí-* ‘stomp on’. In native Dogon vocabulary, the medial CC is normally a homorganic nasal-stop cluster. The tonal pattern suggests that the syllabification here is Cv-CCv, with an initial monomoraic syllable that is not capable of carrying a rising tone. The lexical LH-toned C̣ṿCC̣ṿ is distinguishable from a surface RH-tone contour in syncopated C̣ṿC̣ṿC̣ṿ stems, as for example in *gǎl-lí-* ‘take out’, Reversive of *gàrⁿi-* ‘put in’ and therefore underlying /gàrⁿi-rⁿi/ (§9.1).

| (xx1) | stem | gloss |
|-------|--------------------|------------------------------|
| | a. all-H-toned | |
| | tó: | ‘sow, plant (seeds)’ |
| | núy ⁿ | ‘go in’ |
| | súyó | ‘hit’ |
| | kímé | ‘tremble’ |
| | késé | ‘cut’ |
| | níy ⁿ é | ‘sleep’ |
| | kúwó-mí | ‘burn’ (also ‘give meat to’) |
| | éwré-ndíyé | ‘become small’ |

b. rising-toned

| | |
|--------------------|-----------------------|
| gǔ: | ‘go out’ |
| nǔ: | ‘drink’ |
| wǔ: | ‘catch’ |
| jàr ⁿ á | ‘tap’ |
| yègè | ‘fall’ |
| yògó | ‘run’ |
| bǎ:rí | ‘add’ (or ‘help’) |
| yǎ:sí | ‘scrub (one’s body)’ |
| dǎ:-ndí | ‘instruct’ |
| bǎ:rá-mí- | ‘have (sb) help (sb)’ |
| nàmbí | ‘stomp on (hide)’ |
| nàmbí-rí | ‘remove foot from’ |
| wǎnjé-mí | ‘swing (a whip)’ |
| wègísí | ‘poke with fingers’ |
| dùgú-ndíyè | ‘become big’ |

If the stem begins with a stop, we always have all-high tone if the stop is voiceless, and nearly always rising tone contour if the stop is voiced. Occasional exceptions to the latter generalization involve loanwords like *já:jíyí-* ‘come back home from the pasture’ and *gáǵé-* ‘win (match or contest)’. In Nanga the correlation (in verb stems) of tones with initial stop voicing is quite strong.

For vocalic sequences in verb stems, see §10.xxx.

3.7.1.3 *Lexical tone patterns for unsegmentable noun stems*

“Nouns” is interpreted broadly here, including some noun-like adverbs.

Among monosyllabic nouns (which have at least two moras), R-tone is common but all other possibilities except all-low occur. In (xx1), representative examples are given for H, F, and R, along with all known examples of <LHL> (excluding deverbal derivatives).

(xx1) Monosyllabic nouns

| stem | gloss |
|------------------|-----------|
| a. H (rare) | |
| gáy ⁿ | ‘courage’ |
| b. F | |
| pí: | ‘wealth’ |

| | |
|------------------|----------------|
| jâ: ⁿ | ‘just deserts’ |
| gô: | ‘large awl’ |

c. R

| | |
|------------------|---------|
| tǎ: ⁿ | ‘shed’ |
| sõŋ | ‘horse’ |
| jǎ: | ‘fence’ |
| dǒ: | ‘hip’ |
| nǎ: | ‘hand’ |

d. <LHL> (all known exx.)

| | |
|------------------|-------------|
| gõ: | ‘fire’ |
| tê: ⁿ | ‘honeycomb’ |
| mě: | ‘soft mud’ |
| sõ: | ‘awareness’ |
| gǒy ⁿ | ‘last year’ |
| dêw | ‘trap’ |

See also the discussion of **Cv-Cv**: reduplicated nouns in §3.xxx.

For bisyllabic nouns, the monotonal contour is HH. Bitonal contours may be of the general type {HL} or {LH}. {HL} is realized as HL or HF. HL is typical of bisyllabic nouns with heavy first syllable and light second syllable, i.e. **CvCCv** or **Cv:Cv**. HF is usual for bisyllabic nouns with two light syllables, i.e. **CvCv**, or with a final heavy syllable, e.g. **CvCvC** or **CvCv:**. A final falling tone does not require lengthening of a final short vowel. {LH} contour is realized as LH or as LR. The only attested tritonal contour is {LHL}, which for bisyllabic nouns is realized as RF or LF. There may be one case of quadrilateral {HLHL} in ‘ostrich’ (xxx.h) with H<LHL> tones, but this may well have originated as a compound.

(xx2) Bisyllabic nouns

| stem | gloss |
|--------------------|-------------|
| a. {H} as HH | |
| gír ⁿ á | ‘harvest’ |
| ségí | ‘dues’ |
| má:ndí | ‘belief’ |
| wé:rí | ‘tendon’ |
| tó:sí | ‘testicles’ |

b. {HL} as HF

| | |
|-----------------------------|---|
| <i>CvCv</i> | |
| pír ⁿ â | ‘flour’ |
| mír ⁿ â | ‘voice’ |
| tígâ | ‘griot’s calling out of lineage’ |
| súgĩ | ‘francolin’ |
| kíyâ | ‘squirrel’ |
| <i>final heavy syllable</i> | |
| sápôl | ‘row’ |
| kúmpâm | ‘curiosity’ |
| sínwâ: | ‘Chinese (person)’ (Fr <i>chinois</i>) |
| báykâl | ‘modern rifle (type)’ |
| c. {HL} as HL | |
| <i>Cv:Cv</i> | |
| bú:ďĩ | ‘money’ |
| <i>CvCCv</i> | |
| témbĩ | ‘customary rite’ |
| <i>CvCCCv</i> | |
| háy ⁿ ndè | ‘amazement’ |
| d. {LH} as LH | |
| <i>final Cv</i> | |
| kùw ⁿ á | ‘crowned crane’ (bird) |
| ĩ:gĩ | ‘bird’ |
| pândĩ | ‘mourning’ |
| nò:mbó | ‘rainbow’ |
| nèr ⁿ ĩ | ‘dog’ |
| e. {LH} as LR | |
| <i>final CvC</i> | |
| lèrèw | ‘entirely’ (adverb) |
| f. {LHL} as LF | |
| <i>CvCv</i> | |
| jâmâ | ‘crowd’ |
| dùr ⁿ ô | ‘eagle-owl’ |
| dùwâ | ‘act of forging’ |
| <i>CvCCv</i> | |
| màrpâ | ‘rifle’ |
| tòndô | ‘leech’ |
| ènjê | ‘chicken’ |
| <i>Cv:Cv</i> | |

| | |
|---------------------|----------------------------|
| tà:rî | ‘egg’ |
| kò:rô | ‘kneading stick’ |
| <i>Cv:CCv</i> | |
| tî:njî | ‘worm, grub’ |
| <i>CvCv:</i> | |
| ðŋjî: | ‘frog’ |
| sàgô: | ‘starling sp.’ |
| f. {LHL} as RF | |
| <i>CvCCv</i> | |
| děnjê ~ jěnjê | ‘God’ |
| <i>Cv:Cv</i> | |
| kě:rê | ‘money’ |
| sǎ:râ | ‘steam-cooked millet meal’ |
| sǒ:rô | ‘young (person)’ |
| h. {HLHL} as H<LHL> | |
| <i>CvCv:</i> | |
| sákô: | ‘ostrich’ (variant ságô:) |

The bisyllabic data, especially the HF pattern, suggest a tendency for tone contrasts to be expressed **near the right edge**.

Trisyllabic noun stems show more clearly the details of how the tone break in a bitonal contour pushes toward the right edge. HHH is well-attested but not very common (xx3.a); it is more typical of verbs. The basic falling contour, abstractly {HL}, is **HHL** (xx3.b) which corresponds structurally to bisyllabic HF. This suggests that the H of {HL} can push up to one full syllable to the right from its onset, but is then bounded. However, I did record **HHF** primarily in trisyllabic stems (mostly borrowed from Fulfulde) ending in a *CvC* syllable, even if the final consonant is not always pronounced in Nanga (xx3.c). The basic rising contour, abstractly {LH}, is **LLH** (xx3.d), not #LHH as for verbs.

Of the possible **tritonal contours** {LHL} and {HLH}, only {LHL} is well-attested. It is normally realized as LHF or as LLF (phonologically unpredictable, therefore lexical choice). ‘Mango’ is RHL (xx3). The other tritonal possibility, {HLH}, is attested in two nouns (xx3.h).

(xx3) Trisyllabic nouns

| stem | gloss |
|---------------|-------------|
| a. {H} as HHH | |
| tá-tágá | ‘arrogance’ |

| | |
|---------------------|---------------|
| pógírí | ‘belly strap’ |
| ádúr ⁿ ó | ‘life’ |
| dáŋgára | ‘thigh’ |

b. {HL} as HHL

final Ĉv

| | |
|----------------------|---------------|
| úsúr ⁿ ò | ‘wind’ |
| sámár ^m í | ‘day laborer’ |
| dúgúří | ‘remorse’ |
| dóró:sǐ | ‘strap’ |

c. {HL} as HHF

final ĈvC

| | |
|----------|-------------------------------------|
| tógíyêṃ | ‘pot used to heat metal underneath’ |
| kórosòl | ‘first rains’ |
| pá:mírâl | ‘understanding’ |

*final Ĉv from *ĈvC or *Ĉv:*

| | |
|---------|--|
| súgúlâ | ‘remorse’ (variant <i>súgúlâm</i>) |
| bálámbâ | ‘champion’ (variant <i>bálámbân</i> , cf. Ben Tey <i>bálámbâ:</i>) |
| káráwâ | ‘wooden milk bucket’ (variant <i>ká:râ</i> , Fulfulde <i>karawal</i>) |

d. {LH} as LLH

| | |
|------------------------------------|-------------------|
| gàsègè | ‘domestic animal’ |
| nàr ^m iy ⁿ é | ‘orphan’ |
| àr ⁿ àw ⁿ ó | ‘marabou stork’ |

e. {LHL} as LHF

| | |
|---------|---------------|
| dòndíyê | ‘cat’ |
| gòmbórô | ‘chest’ |
| sàríyê | ‘Islamic law’ |
| wòtúmbâ | ‘mound’ |

f. {LHL} as LLF

| | |
|--------------|--|
| màrpà-jǐgǐrǐ | ‘rifle-cock tightener’ (<i>màrpâ</i> ‘rifle’) |
| pǐ-pǐrǐ | ‘craziness’ |
| dògòrô | ‘cave cemetery’ |
| làsǐrǐ | ‘finger’ |
| sò-sòrǐ | ‘branch whip’ |
| bògòrô | ‘hubbub’ |
| pìtòlò | ‘pistol’ |

- | | | |
|---------------------------------|----------|-------------------------|
| | nèmbîrê | ‘act of pleading’ |
| g. {LHL} as LHL | làsá:sì | ‘modern rifle’ |
| h. {LHLH} as RLH (only example) | mǎngòró | ‘mango’ (with variants) |
| i. {HLH} as HLH (only example) | héyyèndé | ‘index finger’ |

Quadrissyllabics are prosodically composite, or borrowed (usually from Fulfulde). If composite (usually the break is in the middle), we can get tone contours like LL-HH that ostensibly violate the rule that tone contrasts are pushed to the right edge. This is of course because rules that apply to unsegmentable stems do not apply across compound boundaries. Quadrissyllabic borrowings usually have HHHL or HL-HL contours (the latter suggests that native speakers structure them prosodically like compounds).

3.7.1.4 Lexical tone patterns for adjectives and numerals

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

Examples, beginning with monosyllables, are in (xx1).

(xx1) Adjectives and Numerals

| stem | gloss |
|--------------------|---------------|
| monosyllabic, R | |
| pě: | ‘old’ |
| yǎ: | ‘female’ |
| wǒy | ‘two’ |
| bisyllabic, HH | |
| sóró | ‘straight’ |
| úmá | ‘alive’ |
| pírí | ‘white’ |
| pé:ré | ‘innocent’ |
| nánáy ⁿ | ‘respectable’ |

| | |
|---------------------|-----------------|
| bisyllabic, HF | |
| ár ⁿ â | ‘male’ |
| óřĩ | ‘smooth, sleek’ |
| kúřê | ‘six’ |
| pé:rù | ‘ten’ |
| bisyllabic, LH | |
| nà:r ⁿ á | ‘easy’ |
| kùnjú | ‘middle-aged’ |
| dùgĩ | ‘big’ |
| mùsú | ‘thousand’ |
| bisyllabic, LF | |
| tègê | ‘young’ |
| nòmĩ | ‘difficult’ |
| gòmĩ | ‘bad’ |
| bisyllabic, LR | |
| nĩmĩ: | ‘five’ |
| tè:sĩ: | ‘nine’ |

3.7.1.5 *Default H-tone, or autosegmental mapping?*

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

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

3.7.1.6 *Tone-break location for bitonal non-verb stems*

For monosyllabic stems, a contour tone {HL} or {LH} is of course realized on the single syllable: *tǎ:* ‘shed’, *pĩ:* ‘wealth’.

Bisyllabic and longer non-verb stems (nouns, adjectives, numerals) with {LH} contour have the tone break **near the right edge**: *CvCv́*, *CvCCv́*, *Cv:Cv́*, *Cv:Cv́:*, *CvCv́Cv́*. Examples are *kùwⁿá* ‘crowned crane’, *pàndĩ* ‘mourning’, *nò:mbó* ‘rainbow’, *gàsègè* ‘animal’.

Bisyllabic and longer non-verb stems with {HL} contour likewise have the break near the right edge. For prosodically light CvCv and nCv stems (with short vowels), the usual pronunciation is C̣VC̣V̂ and ṇC̣V̂, with the H-tone component spreading into the onset of the second syllable. Bisyllabics with a final heavy syllable likewise have the tone break just before the final mora. Bisyllabics with a heavy first syllable and light second syllable have the break at the syllable boundary. Examples: súgî ‘francolin’, bú:đi ‘money’, sínwâ: ‘Chinese person’. Trisyllabics are usually HHL-toned if they have a final light syllable, and HH<HL>-toned if they have a final heavy syllable, but some loanwords (mostly from Fulfulde) that have lost a final sonorant are still pronounced with a final falling tone; see (xx3.c) in §3.7.1.3.

The tendency of tone breaks in the basic lexical forms of noun, adjective, and numeral stems to occur as close as possible to the right edge is also observed with most {HL} and {LH} contours that are overlaid on such stems by morphosyntactic context (§xxx).

3.7.1.7 *Tone-break location for tritonal non-verb stems*

{HLH} is very rare. I can cite héyyèndé ‘index finger’, which occurs with similar tones in some other languages.

{LHL} is more variable in tone-break location than the other tone contours considered above. One consistent pattern is C̣VC̣V̂ for bimoraic CvCv stems, where the final vowel has falling tone. Likewise C̣VC̣V̂: when the first syllable is light and the second is heavy. Examples: dūr^hō ‘eagle-owl’, sàgô: ‘starling sp.’. However, CvCCv can appear, depending on the lexical item, as C̣VCCV̂ or C̣V̂CCV̂, compare tondô ‘leech’ and màrpâ ‘rifle’ with dēj̄j̄ê (variant jēj̄j̄ê) ‘God’. Likewise with Cv:C(C)v stems: tà:rî ‘egg’ and kò:rô ‘kneading stick’, but sô:rò ‘young (person)’ and kě:rè ‘money’. There is a similar lexical choice of tone-break location in {LHL} trisyllabics, namely between LH<HL> with the tone break near the left edge and LL<HL> with the tone break as close as possible to the right edge. Examples are dōndiyê ‘cat’ and nembirê ‘act of pleading’. The LHL contour in lāsá:sĩ ‘(modern) rifle’ is a variant on LH<HL> when the medial syllable has a long vowel.

3.7.2 Grammatical tone patterns

3.7.2.1 Grammatical tones for verb stems

Verbs are lexically {H} or {LH}. The tone break in {LH} stems, as seen in the bare stem (e.g. in verb chains) and in positive Perfective forms, is near the left edge: Cǎ:, CǎCǎ, Cǎ:Cǎ, CǎCCǎ, CǎCǎCǎ, etc. For examples see §10.1.3.

3.7.2.2 Grammatical tones for noun stems

When preceded by a possessor NP, the possessed noun is subject to an **overlaid {HL} tone contour**. However, if the possessor NP ends in a L-tone component (i.e. in a syllable with L, F, or <LHL tone), the possessed noun loses its initial H-tone component and is therefore all-L. Since pronominal possession (‘my house’, ‘their dog’) is expressed by a postposed element (e.g. ‘house my-thing’ = ‘my house’), the possessed noun in this case has its regular lexical tones. These patterns are illustrated in (xx1), where the noun ‘cat’ has LHF tone in isolation and before the pronominal possessor, but appears with HHL tone after ‘woman’ and with all-L tone after ‘man’.

- (xx1) a. dòndíyê ‘cat’
dòndíyê yě: ‘my cat’
- b. yǎ-ŋ dóndíyè ‘a woman’s cat’
árⁿâ dòndíyè ‘a man’s cat’

A fuller set of nouns is given in (xx2) to show the phonological realization of the basic {HL} possessed-noun pattern. (xx2.a) shows that a monosyllabic lexically F-toned noun has no audible change when the possessed-noun {HL} contour is superimposed. In (xx2.b), the tonal overlay is audible but phonetically subtle, from unpossessed HF to possessed HL. In (xx2.c), the noun has unpossessed and possessed HHL, so as in (xx2.a) there is no audible difference. In (xx2.d), the tonal contrast between unpossessed and possessed forms is clear since the unpossessed noun has a contour other than {HL}.

- | (xx2) | gloss | lexical form | possessed (after yǎ-ŋ ‘woman’) |
|-------|--------------------|--|--|
| a. | ‘wealth’ | pî: | yǎ-ŋ pî: |
| b. | ‘house’ ‘money’ | ńdô bú:ďi | yǎ-ŋ ńdô yǎ-ŋ bú:ďi |

| | | |
|-------------|--------------------|-------------------------|
| c. ‘donkey’ | súmáŋà | yǎ-ŋ súmáŋà |
| d. ‘dog’ | nèr ^m í | yǎ-ŋ nér ^m í |
| ‘courtyard’ | dámǐ | yǎ-ŋ dāmǐ |
| ‘blood’ | gòndùgó | yǎ-ŋ góndúgò |
| ‘mother’ | dě: | yǎ-ŋ dē: |
| ‘hawk’ | tè-têw | yǎ-ŋ té-têw |

As indicated above, all of the possessed forms drop to all-low when the preceding possessor NP ends in a L-tone component: ár^mà gòndùgò ‘a man’s blood’, etc.

A noun stem drops its tones to all-L when followed by a modifying adjective, a Definite morpheme, or a demonstrative pronoun. Thus nèr^mí ‘dog’ becomes low-toned in nèr^mí èsì ‘a good dog’, nèr^mí né ‘the dog’, and nèr^mí wǒŋ ‘this dog’. See §xxx, below.

A noun does not interact tonally with a following cardinal numeral or other quantifier: nèr^mí kùré ‘six dogs’, nèr^mí kéréw ‘all the dogs’.

A noun that has escaped tone-dropping within the core NP or from a possessor is tone-dropped as head of a relative clause: nèr^mí î: sùyò-sè né ‘the dog that we hit-Past’. See §14.xxx.

3.7.2.3 Grammatical tones for adjectives and numerals

An adjective drops its tones when followed within the core NP by another modifying adjective. Thus nèr^mí bār^mí ‘a red (= brown) dog’ has a high-toned adjective bār^mí, but this drops to all-low toned when a second adjective is added: nèr^mí bàr^mí èsì ‘a good red (= brown) dog’.

A modifying adjective or a cardinal numeral following a noun is within the domain of the {HL} or all-low possessed-noun contour imposed by a preceding possessor NP. The noun appears with {HL} or all-low contour depending on the final tone of the possessor NP. Any adjective or numeral that follows the noun appears as all-low. Thus yǎ-ŋ [nér^mí bàr^mí] ‘a woman’s red (= brown) dog’ (bār^mí ‘red’), yǎ-ŋ [nér^mí kùrè] ‘a woman’s six dogs’ (kùré ‘six’), yǎ-ŋ [nér^mí bàr^mí kùrè] ‘a woman’s six red (= brown) dogs’. See §xxx, below.

An adjective or cardinal numeral within an unpossessed NP functioning as head NP of a relative drops its tones. [nèr^mí bàr^mí] î: sùyò-sè né ‘the red (= brown) dog that we hit-Past’ (nèr^mí bār^mí ‘red dog’), [nèr^mí kùrè] î: sùyò-sè né ‘the six dogs that we hit-Past’ (nèr^mí kùré ‘six dogs’).

3.7.3 Tonal morphophonology

3.7.3.1 Autosegmental tone association (verbs)

In the lexically basic form, verbs have either all-high {H} or rising {LH} tone contour. The {H} contour spreads over the entire verb stem. The {LH} contour is realized as <LH> on monosyllabic stems, as LH on bimoraic bisyllabics (CvCv) and on CvCCv bisyllabics, as LH(H...) on trisyllabic or longer stems with initial short-voweled Cv or CvC syllable, and as <LH>H(H...) on bisyllabic or longer stems with initial-syllable long vowel. The generalization is that the break from low to high tone in the {LH} contour is before the second vocalic mora.

3.7.3.2 Break point in {HL} and {LH} overlaid tone contours

This section considers the tonal break point between H and L when a {HL} or {LH} contour is overlaid on a stem or word. The most useful stems to test are trisyllabics, e.g. CvCvCv, since these stems allow us to determine whether the break point remains near the left edge or near the right edge. The patterns are summarized in (xx1); see the indicated sections for the data. Except for one stylistically marked narrative verb-stem iteration, which limits the initial H of {HL} to one syllable, all overlaid {HL} and {LH} contours have break points after the second syllable in trisyllabic stems. In other words, the location of tone break is defined with respect to the right, not left, edge.

(xx1) {HL} contour tonal break point

| grammatical context | CvCvCv tone |
|--|------------------------|
| a. {HL} contour | |
| <i>break point up to 2 syllables from left</i> | |
| possessed noun after H-final possessor | [Ć̣ṿ́Ć̣ṿ́][C̣̀ṿ̀] |
| possessive-type (ñ ñ) compound (§5.1.4) | [Ć̣ṿ́Ć̣ṿ́][C̣̀ṿ̀] |
| bahuvrihi (ñ â) compounds (§5.2.1) | [Ć̣ṿ́Ć̣ṿ́][C̣̀ṿ̀] |
| Imperative of {H}-toned stems (§10.6.1.1) | [Ć̣ṿ́Ć̣ṿ́][C̣̀ṿ̀] |
| <i>break point one syllable from left</i> | |
| first of 2+ iterated verb stems (§11.6.1) | [Ć̣ṿ́][C̣̀ṿ̀C̣̀ṿ̀] |
| b. {LL} contour | |
| <i>break point up to 2 syllables from left</i> | |
| agentive (x̄ v̄-Ppl) compounds (§5.1.5) | [C̣̀ṿ̀C̣̀ṿ̀][Ć̣ṿ́] |

When the relevant stem has only one or two syllables, the break point is positioned in such a way that the final tone element is not obliterated. For the narrative verb-stem iterations, this is an issue only for monosyllabic verbs, which have a falling tone on the first iteration, e.g. $C\hat{V}:-C\hat{V}$.

For the {HL} patterns that have trisyllabic HHL realizations, we again get falling-tone on monosyllabics: $C\hat{V}$;, $C\hat{V}C$. Bisyllabics with heavy first syllable and monomoraic final syllable, i.e. $Cv:Cv$, $CvCCv$, and $Cv:CCv$, position the tone break at the internal syllabic boundary ($C\hat{V}:C\hat{V}$, etc.). Bisyllabics with final bimoraic syllable, e.g. $CvCvC$, $CvCv$;, $CvCCvC$, have the tone break inside the second syllable ($C\hat{V}C\hat{V}C$, etc.). Light bisyllabics with two monomoraic syllables, i.e. $CvCv$ and nCv (with syllabic nasal), are usually pronounced (prepausally) with the H-tone spilling into the second syllable, but not obliterating the terminal L-tone, resulting in a final falling tone: $C\hat{V}C\hat{V}$, $n\hat{C}\hat{V}$. However, if such a light bisyllabic is a compound initial, or is followed by a modifying adjective, it is normally heard as $C\hat{V}C\hat{V}$, $n\hat{C}\hat{V}$.

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

There are few non-verb stems that have four or more syllables and that are not treated phonologically as compounds. However, there are a few, and they too show the tone break near the right edge: $y\check{a}-\eta$ $b\acute{is}\acute{y}\acute{e}m\check{i}$ ‘a woman’s acacia’ ($b\acute{is}\acute{y}\acute{e}m\check{i}$), see §6.2.1.1. Because derivational suffixes can be stacked up in verbs, it is easier to find quadrisyllabic and even longer verbs, and their Imperative stems show the same right-edge tone break: $\acute{e}w\acute{r}\acute{e}-n\acute{d}\acute{y}\acute{e}-m\grave{o}$ ‘make (it) small(er)!’.

Examples showing the primary tone-break patterns are in (xx2). {HL} is illustrated with bahuvrihis. The {LH} examples are agentives. The second stem in each compound is the relevant one.

- (xx2) a. monosyllabic
- | | | |
|----------|---|-------------------------------------|
| $\{HL\}$ | $k\hat{u}:-w\hat{o}y$ | ‘two-headed’ ($w\check{o}y$ ‘two’) |
| $\{LH\}$ | $t\grave{o}n\grave{d}\acute{i}-t\check{e}:$ | ‘basket-weaver’ |
- b. bisyllabic
- | | | |
|----------|---|--|
| $\{HL\}$ | $k\hat{u}:-d\acute{u}g\acute{i}$ | ‘big-headed’ ($d\grave{u}g\acute{i}$ ‘big’) |
| | $n\check{a}:-n\acute{i}m\acute{i}:$ | ‘five-armed’ ($n\grave{i}m\acute{i}$: ‘five’) |
| | $s\grave{e}g\acute{e}-m\acute{e}:n\grave{j}\grave{e}$ | ‘thin-skeletoned’ ($m\grave{e}:n\grave{j}\acute{e}$ ‘thin’) |
| $\{LH\}$ | | |

nàmà-tùrí ‘meat-seller, butcher’

c. trisyllabic

{HL}

kû:-púrógĩ ‘with an off-white head’ (púrógĩ ‘off-white’)

{LH}

bĩđìgà-bĩđìgí ‘magician’

3.7.3.3 Tone-Dissimilation (decimal numerals)

pé:rù ‘ten’ forms compounds with following single-digit numerals to produce ‘20’, ‘30’, ... ‘90’ (§4.7.1.3). The ‘ten’ word appears segmentally in these compounds as peri- (‘20’, before a /y/), per- (‘60’ through ‘90’, before velar or corneal {k g s t}), and pɛ- (‘30’ through ‘50’, before coronal {n t}). There is a close, but not perfect, inverse correlation of the final tone of ‘ten’ with the initial tone of the following numeral. The correlation is seen in pèrí-yěy ‘20’ (cf. wǒy ‘2’), pé-tà:ndí: ‘30’, pěn-nǒyⁿ ‘40’, pěn-nĩmĩ:ⁿ ‘50’, pèr-kúrê ‘60’, pèr-súyê ‘70’, and pèr-gá:rê ‘80’, but the final decimal numeral in the series is an exception: pèr-tè:sí: ‘90’. Because numeral sequences like this are often recited in an incantational fashion, adjacent numerals often share phonological properties, and ‘90’ may simply be following the shape pèr- of the three preceding members of the series.

3.7.3.4 Atonal-Morpheme Tone-Spreading

Atonal morphemes (suffixes, clitics, particles, postpositions) acquire their surface tone by spreading from the final tone of the morpheme on the left. The morphemes in question are mostly monosyllabic, but /yaŋa/ ‘also, too’ is bisyllabic, and both of its syllables get the tone that spreads from its left.

The process applies systematically to atonal suffixes and clitics. Relevant suffixes in verbal morphology are 1Sg -y, 2Sg -w, and some allomorphs of the 3Pl suffix. (3Sg suffix is zero, and 1Pl and 2Pl suffixes have their own unusual pitch contour.)

For nouns and pronouns, Accusative suffix -ŋ is atonal and therefore gets its tone by spreading.

The relevant clitics are forms of the ‘it is’ clitic (=m-, =w-, etc.). For example, with nǎ: ‘hand’ we get nǎ:=wⁿ ‘it is a hand’, and with nàmâ ‘meat’ we get nàmâ=wⁿ ‘it is meat’.

Particles and postpositions that get their tones by spreading include Interrogative ma and Quotative wa. Interrogative ma in particular is highly

subject to intonational modification, so the (phonological) tone-spreading is not always clearly audible.

When tones spread from a stem or word that ends in a vowel with a contour tone, and when the targeted suffix or clitic consists of just a consonant, the resulting CvC or Cv:C syllable may require a phonetic adjustment regarding the location of the tone break; see Contour-Tone Stretching (§3.xxx, below).

Up to a point, the process is recursive. For example, in a word like yě:-só-ń ‘you-Sg came’, the final -ń morpheme gets its high tone from -só-, and when e.g. Quotative particle /wa/ is added, the high tone spreads to this particle: yě:-só-ń wá ‘(it was said) you came’.

However, in the combination of Accusative -ŋ and /yaŋa/ ‘also, even’, the latter is low-toned even when the former has high tone due to spreading; ñǰí-ŋ yàŋà ‘me too’ (§19.1.3). One way to interpret this is to take the Accusative as having underlying low tone.

3.7.4 Low-level tone rules

3.7.4.1 Rising-Tone Mora-Addition

A final **falling tone** may occur on a short Cv syllable; there is no lengthening (mora-addition) of this vowel. In addition to CýCv̂ and Cǰ:Cv̂ stems (lexical nouns, some Imperative verb forms), where the final falling tone represents the spread of the preceding high tone into the onset of the final syllable, there are nouns like ùsùrí ‘broom’ that clearly have a falling tone expressed entirely on the final short vowel.

However, a **rising tone** cannot be expressed on a single mora, i.e. in a Cv syllable with short vowel. In cases like nǰ: ‘person’, preadjectival form nù with short vowel (nù èsí ‘a good person’), it is reasonable to take /nǰ:/ as the basic lexical representation, even though it never occurs on the surface as such. When tone-dropping applies, producing nù (e.g. before an adjective), there is no need to lengthen the vowel. When the lexical rising tone surfaces, the short vowel must be lengthened.

(xx1) Rising-Tone Mora Addition

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

The phonological behavior of nǰ: ‘person’ is atypical for a monosyllabic. Most monosyllabic nouns of the shape Cǰ: are not shortened when tone-dropped (or when an {HL} tone contour is overlaid on them). This suggests that

the vowel length of most C \check{v} : stems is lexical rather than a product of Rising-Tone Mora Addition. Examples: \check{o} : ‘(the) bush, outback’ and compound \check{o} :- $\check{d}\acute{a}r^{\text{n}}\acute{a}$ ‘full outback’, $\acute{n}\acute{a}$: ‘hand’ and compound $\acute{n}\acute{a}$:- $\acute{k}\acute{e}n\check{d}\acute{e}$ ‘palm of hand’.

For non-verb stems of two or more syllables, final long vowels are uncommon, but there are cases of final \check{v} : that shorten when an overlaid contour converts it from <LH> to either L or <HL> tone. The two numerals in (xx2) have long, <LH>-toned final vowels in isolation or phrase-finally, but in bahuvrihi compounds, which overlay {HL} on the final stem, the final vowel appears as short and L-toned.

| (xx2) | stem | gloss | with {HL}-overlay |
|-------|---|---------|--|
| | $\acute{n}\acute{m}\check{i}$: | ‘five’ | $\acute{n}\check{a}$:- $\acute{n}\acute{m}\check{i}$ ‘five-armed’ (bahuvrihi) |
| | $\acute{t}\acute{a}$:- $\acute{n}\acute{d}\check{i}$: | ‘three’ | $\acute{k}\acute{u}$:- $\acute{t}\acute{a}$:- $\acute{n}\acute{d}\check{i}$ ‘three-headed’ (bahuvrihi) |

I know of no stem with final long falling-toned vowel that shortens when it drops to L-tone. Nonmonosyllabic stems with a final long falling-toned vowel are rare and apparently confined to loanwords. An example is $\acute{p}\acute{a}r\acute{p}\acute{a}\check{e}$:ⁿ ‘perfume’, which end in a full-fledged long vowel that does not shorten: $\acute{y}\check{a}$ - η $\acute{p}\acute{a}r\acute{p}\acute{a}\check{e}$:ⁿ ‘a woman’s perfume’. Others that behave similarly include the fauna terms $\acute{d}\eta\check{j}\acute{i}$: ‘frog’ and $\acute{s}\acute{a}g\acute{o}$: ‘blue-eared starling’.

Verb stems do not meet the phonological conditions for the shortening.

3.7.4.2 Contour-Tone Stretching

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

For example, in combinations with the ‘it is’ clitic, the final semivowel bears the second tone component in combinations like $\acute{n}\check{a}$:= \acute{v} :ⁿ ‘this is a hand’ and $\acute{n}\acute{a}m\acute{a}$:= \acute{w} :ⁿ ‘it is meat’. I transcribe the noun stem in such cases with its regular (word-final) tones, but the actual pronunciations are closer to $[\acute{n}\acute{a}$:- \acute{w} :ⁿ] and $[\acute{n}\acute{a}m\acute{a}$:- \acute{w} :ⁿ]. So a minor rule stretching the tone break to just before the final mora is needed.

3.7.4.3 Final-Tone Resyllabification

There are no combinations of a C \check{v} C or C \check{v} C stem with a vowel-initial clitic or suffix that would trigger a resyllabification and consequent tonal jump.

3.7.4.4 *Rightward H-Spreading*

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

Here I will merely comment on one relatively tangible matter. Historically, *Ć̣C̣̀C̣̀ stems have shifted to Ć̣C̣̀C̣̀, and *C̣̀C̣̀C̣̀ to C̣̀C̣̀C̣̀, as the H-tone spills over partially from the final (or sole) mora of the first syllable into the onset of the second, resulting in a short falling-toned short vowel that is characteristic of Nanga. We also get Ć̣C̣̀C̣̀ when a C̣̀C̣̀C̣̀ stem has a {HL} tone contour overlaid on it by a preceding possessor. However, in this case, the output is Ć̣C̣̀C̣̀ when the stem is a compound initial or when it is modified by a following adjective (in either case, the following stem is tone-dropped). The alternation between Ć̣C̣̀C̣̀ and Ć̣C̣̀C̣̀, and the absence of a lexical contrast between the two, raises the possibility that Ć̣C̣̀C̣̀ is derived by a synchronic phonological rule from /Ć̣C̣̀C̣̀/, and (by extension) that C̣̀C̣̀C̣̀ is derived from /C̣̀C̣̀C̣̀/, by a very limited Rightward H-Spreading process.

3.7.4.5 *Floating-Tone Linking*

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

However, the 1Sg possessor morpheme is a floating L-tone preceding the possessive classifiers g̣̀ ~ ḳ̀ (inanimate) and ỵ̀ (animate). The resulting forms are ḳ̀: and ỵ̀:, respectively, i.e. with <LHL> tones (§6.2.1.3, §6.2.2.1).

3.7.4.6 *Final-Cv R-to-H Reduction*

I know of no clear cases where a final rising tone is reduced (e.g. in a monomoraic syllable) to a high tone. This occurs in some other Dogon languages in nominal morphology, where a noun stem (arguably /C̣̀C̣̀C̣̀/) lexically) is realized as C̣̀C̣̀C̣̀- without suffix and as C̣̀C̣̀C̣̀-̣̀ with a suffix

consisting of a (nasal) consonant (x). The only noun in Nanga that has such a suffix is /yǎ/ ‘woman’, with its archaic singular yǎ-ŋ and its unsuffixed plural yǎ:, but here (perhaps since the stem is monosyllabic) the unsuffixed form is lengthened, allowing full expression of the rising tone. See Rising-Tone Mora-Addition (§3.xxx, above).

3.8 Intonation contours

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

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

3.8.2 Adverbs and particles with lexically specified prolongation (⇒)

Prolongation of the coda of the final syllable is also baked into certain adverbials as part of their lexical form. Fewer forms are affected in Nanga than in, say, Jamsay. The Jamsay adverbials *dém*⇒ ‘straight (direction)’ and *déyⁿ*⇒ ‘apart, separate’ are pronounced with prolongation of the final sonorant, but in Nanga I hear *dém* and *déyⁿ* without notable prolongation.

I did observe prolongation in some other expressive adverbials and adjectival intensifiers, e.g. *késékéréy*⇒ ‘very dry (intensifier)’, *pótô*⇒ ‘flat and small’, and *bëndê-bëndé*⇒ ‘brick-shaped’. See §xxx for more examples.

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

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

In Jamsay, only the coda of the final syllable of the word is affected, so if the word ends in a CvC syllable with final sonorant, as in *ɲǎ-m* ‘women’ as a coordinand, the prolongation and final pitch decline in the conjoined form *ɲǎ-m.:* apply to the *m*, not to the syllabic nucleus *ɛ*. In Jamsay, the initial pitch of the relevant syllable respects the phonological tone, which may be high or low. If high, the pitch decline is conspicuous; if low, the main audible effect is prolongation.

In Nanga there is an analogue to this, but it is somewhat different phonetically. It is limited to verbs and clitics conjugated for 1Pl and 2Pl subject, which (as in Ben Tey) are intonational modifications of the corresponding singulars. The independent pronouns, 1Pl *ɪ̃:* (cf. 1Sg *ɪ̃.ⁿ*), 2Pl *ũ:* (cf. 2Sg *ũ*), and Logophoric Pl *â:* (cf. singular *â*) are also (in part) tonal modifications of the singulars. However, in Nanga I did not observe the exaggerated prolongation and corresponding slow pitch decline in these pronouns, as in the cases I consider to have the dying-quail feature.

In verbal inflections, however, we do get terminal pitch patterns close to the dying-quail examples in the other languages. Consider the data in (xx1), where the square brackets simulate the phonetic pitch effects, and *:* in the phonological transcription indicates dying-quail intonation.

| | | | | |
|-------|---|------------------|---------------------------------|---------------------------------|
| (xx1) | 1Sg | 2Sg | 1Pl | 2Pl |
| a. | <i>sùỳè-</i> ‘hit’ (unaffixed Perfective) | | | |
| | <i>sùỳð-ỳ</i> | <i>sùỳð-ù</i> | <i>sùỳð-ỳ.:</i> [sùjðððj] | <i>sùỳð-ù.:</i> [sùjðððw] |
| b. | <i>súýó-jè-</i> ‘have already hit’ | | | |
| | <i>súýó-jè-y</i> | <i>súýó-jè-ù</i> | <i>súýó-jè-ỳ.:</i> [sújódzèèèj] | <i>súýó-jè-ù.:</i> [sújódzèèèw] |
| c. | <i>súýó-só-</i> ‘hit’ (Perfective-2) | | | |
| | <i>súýó-só-ý</i> | <i>súýó-só-ù</i> | <i>súýó-só-ý.:</i> [sújósòòòj] | <i>súýó-só-ù.:</i> [sújósòòòw] |

In these transcriptions, it should be understood that *:* override the phonological tone shown in the final syllable (and earlier syllables under some conditions). Therefore we get phonetic [LHL] pitch not only in (xx1.a-b), where the singulars show L-toned final syllable, but also in (xx1.c), where the singulars have H-toned final syllable.

Consider now (xx2). In these paradigms, observe in particular that the 1Pl and 2Pl forms show a **high tone on the penultimate syllable**, including the nasal onset in (xx2.a), in contrast to a low tone in the 1Sg and 2Sg (and the third

person forms, not shown). In addition, the stem-final vowel is lengthened in the Perfective Negative.

| | | | | | | |
|-------|------------|-----------------------|-------------|---------------|---------------|-------------|
| (xx2) | form | 1Sg | 2Sg | 1Pl | 2Pl | |
| a. | ḡgó- | ‘not be (somewhere)’ | | | | |
| | | ḡgó-ý | | ḡgó-y.: | [ḡgòóòj] | |
| | | | ḡgó-w | | ḡgó-w.: | [ḡgòóòw] |
| b. | m̀b̀urǎ- | ‘dislike’ (§11.2.6.3) | | | | |
| | | m̀b̀urǎ-ý | | m̀b̀urǎ-y.: | [m̀b̀urǎàj] | |
| | | | m̀b̀urǎ-w | | m̀b̀urǎ-w.: | [m̀b̀urǎàw] |
| c. | s̀ỳd̀-rí- | ‘did not hit’ | | | | |
| | | s̀ỳd̀-rí-ý | [s̀j̀d̀rí:] | s̀ỳd̀-rí-y.: | [s̀j̀d̀rí:] | |
| | | | s̀ỳd̀-rú-w | [s̀j̀d̀rú:] | s̀ỳd̀-rú-w.: | [s̀j̀d̀rú:] |

These forms create a transcriptional conundrum. One choice is to transcribe more or less phonetically, e.g. 1Pl *s̀ỳd̀-ri-y* for ‘we did not hit’. The other is to transcribe the 1Pl and 2Pl forms as intonational modifications of the corresponding singulars, e.g. 1Pl *s̀ỳd̀-ri-y.:*, bringing out the morphophonological structure but disguising the phonetics. I choose the latter course.

In (xx2.a), the dying-quail intonation actually is quadripartite [H-LHL], with the initial high pitch realized on the penultimate syllable. In (xx2.b-c), dying quail is [H-L] if analysed as being realized on the final two syllables, or [L-H-L] if analysed as being realized on the last three syllables.

In (xx2.c), I can hear no lengthening of 1Pl *-ri-ý* [rí:] vis-à-vis 1Sg *-ri-y* [rí:], the latter already being pronounced like a long vowel (as the /iy/ sequence monophthongizes). Likewise for 2Pl versus 2Sg.

The various realizations of dying-quail intonation are summarized in (xx3). The 2Pl forms, not shown, are parallel prosodically to the 1Pl forms shown. Verb stems used to illustrate the regular inflectional suffixes are *s̀ỳd̀-* ‘hit’, supplement by *t̀wé-* ‘die’ (Perfective -1b), *ǹỳn* ‘hear’ as an irregular Imperfective Negative, and *b̀mb̀í-yí* ‘carry on back’ in the Stative.

(xx3) Nanga dying-quail intonation with 1Pl -y.:

| | | | |
|----|---|---------------------|-------------|
| a. | [LHL] pitch, erasing input tone, on final syllable only | | |
| | <i>on otherwise L-toned final syllable</i> | | |
| | unsuffixed Perfective | <i>s̀ỳd̀-ý.:</i> | [s̀j̀d̀d̀j] |
| | Perfective-1a | <i>t̀wé-èrè-y.:</i> | [t̀wéèèèèj] |
| | Perfective-1b | <i>s̀ỳd̀-í-y.:</i> | [s̀j̀d̀ííí] |

| | | |
|---|--------------------------------|---------------------------|
| Recent Perfect jê- | súyó-jê-ỵ.: | [sújódzèéèj] |
| Redup Perfective | sú-sùyò-y.: | [súsùjòóòj] |
| Imperfective | (sù-)súyó-mi-y ⁿ .: | [(sù)sújómĩĩ] |
| Progressive | (sù-)súyò(:)-sò-y.: | [(sù)sújò(ò)sòóòj] |
| Stative | bá-bàmbà-ỵ.: | [bábàmbàááj] |
| Impf Negative | súyó-ŋò:-y ⁿ .: | [sújòŋòóòj ⁿ] |
| ‘have’ | yá sò-y.: | [sòóòj] |
| ‘be present’ | yá bĩ-y.: | [yábĩĩ] |
| ‘we are Fulbe’ | pírâ=mi-y ⁿ .: | [mĩĩ] |
| | [cf. pírâ=m-ĩ ‘I am a Fulbe’] | |
| <i>on otherwise H-toned final syllable</i> | | |
| Perfective-2 -só- | súyó-só-ý.: | [sújósòóòj] |
| ‘we are women’ | yâ:=mí-y ⁿ .: | [mĩĩ] |
| | [cf. yǎ-ŋ=m-í ‘I am a woman’] | |
| <i>on otherwise R-toned final syllable</i> | | |
| ‘it is not’ | =ndò-y.: | [ndòóòj] |
| b. [LH-L] with [LH] realized on the penult, both vowels lengthened | | |
| <i>on otherwise L-toned penult and final</i> | | |
| Progressive Negative | súyò:-sò=ndò-ỵ.: | [súyò:sòóónndòòj] |
| <i>on otherwise L-toned penult and H-toned final</i> | | |
| Stative Negative | bàmbà=ndó-ý.: | [bàmbàándòòj] |
| ‘not have’ | sò=ndó-ý.: | [sòóónndòòj] |
| c. [H-L] with [H] realized on the penult, only the ultimate lengthened | | |
| <i>on otherwise L-toned penult and R-toned final</i> | | |
| ‘dislike’ (irreg) | m̀bùrà-ỵ.: | [m̀bùrààáj] |
| <i>on otherwise L-toned penult and H-toned final</i> | | |
| Impf Negative (‘hear’) | nù-ŋó-y ⁿ .: | [núŋòóòj ⁿ] |
| ‘not be’ | ŋgó-ý.: | [ŋgòóòj] |
| <i>on otherwise H-toned penult and final</i> | | |
| ‘love’ | m̀bá=m-íy.: | [m̀bámĩĩ] |
| ‘be small’ | èwré=mí-y.: | [èwrémí:] |
| d. [H-L] with H on penult (for monosyllables only at the end of the syllable), penult and (perhaps) ultimate lengthened | | |
| <i>on otherwise H-toned final following {L}-toned stem</i> | | |
| Perfective Negative | sùyò-rí-y.: | [sùjò:rĩ:] |
| " | tà:-rí-y.: | [tã:rĩ:] |

4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 Simple nouns

With the exception of ‘woman’, discussed below (§4.1.2), nouns in Nanga have a single form that is used with both singular and plural reference. Number is therefore expressed not in the noun (or adjective), but in postnominal determiners (Definite or demonstrative), which distinguish Animate Singular, Animate Plural, Inanimate Singular, and Inanimate Plural.

- (xx1) a. *nèr^ɾi* ‘(a) dog; dogs’
nèr^ɾi né ‘the dog’ (singular)
nèr^ɾi bú: ‘the dogs’
- b. *tùmá* ‘tree; trees’
tùmà gú ‘the tree’
tùmà y ‘the trees’

In free form (without following modifiers), *Cv:* is an allowable nominal stem shape (xx2.a). Short-voweled *Cv* is found only in the variant *kó* ‘thing’ (more often *kón*, or an extended form *kò-kámâ* ‘thing, anything’) along with its plural *yé* (xx2.b). The noun for ‘person’ also reduces to a short-voweled form before a modifier (xx2.c). *ná* ‘time(s)’ occurs only before a quantifier (xx2.d). For ‘thing’ and ‘person’ see the more detailed discussion in §4.1.2, below.

| (xx2) | stem (free) | Definite | gloss |
|-------|------------------------|---------------------------|---------------|
| a. | <i>kû:</i> | <i>kù: gú</i> | ‘head’ |
| | <i>jă:</i> | <i>jà: gú</i> | ‘fence’ |
| | <i>nǎ:</i> | <i>nà: gú</i> | ‘mouth’ |
| | <i>dǎ:</i> | <i>dà: gú</i> | ‘rag cushion’ |
| | <i>nǎ:</i> | <i>nà: gú</i> | ‘hand’ |
| | <i>ɲǎ:</i> | <i>ɲà: gú</i> | ‘meal’ |
| | <i>tǎ:ⁿ</i> | <i>tà:ⁿ gú</i> | ‘taboo’ |
| | <i>dû:</i> | <i>dù: gú</i> | ‘load’ |
| | <i>ó:</i> | <i>ò: gú</i> | ‘medication’ |
| | <i>ô:</i> | <i>ò: gú</i> | ‘place’ |

| | | | |
|----|-----------|--------|-----------------------|
| | ě: | è: gú | ‘well’ |
| | yǎ: | yà: né | ‘woman’ |
| | bǎ: | bà: né | ‘father’ |
| | dě: | dè: né | ‘mother’ |
| b. | nǔ: | nù né | ‘person’ (see §4.1.2) |
| c. | kónj ~ kó | kò gú | ‘thing’ (see §4.1.2) |
| | yé | yè gú | ‘things’ (see §4.1.2) |
| d. | nà | | ‘time(s)’ |

Certain nouns that now behave as true Cv: stems in most combinations (xx2.a) preserve vestiges of a short-voweled form in certain compounds. For short-voweled yǎ- ‘woman’ in compounds, see §5.1.6. Regarding nǎ: ‘hand’, the terms for two types of shoulderbag, nà-pé:ré (variant nà-pégírê) and nà-kòmbó (cf. kòmbó ‘war’ ?) are suggestive, but I cannot find cognates elsewhere. bǎ: ‘father’ and dǎ: ‘mother’ occur with short vowel in parallel uncle/aunt terms (the finals are the adjectives ‘big’ and ‘small’): bà díyâ ‘father’s elder brother’, bà tégê ‘father’s younger brother’, dè díyâ ‘mother’s elder sister’, dè tégê ‘mother’s younger sister’.

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

For ‘woman’, the basic form is yǎ:, which is used in simple-noun form for the plural ‘women’, and in all combinations (even with singular reference) with a following word or particle within the NP: yà: tùmâ ‘one woman’, yà: èsí ‘(a) good woman’, yà: né ‘the woman’, yà: wǒnj ‘this woman’. See also the compounds in §5.1.7, below. However, as a simple noun (usually indefinite), the singular is expressed as yǎ-ŋ, as in yǎ-ŋ gó-èrè-Ø ‘a woman went out’. This is the only survivor of an original nominal and adjectival suffixal morphology, which in other Dogon languages distinguishes Animate (or Human) Singular, Animate (or Human) Plural, and Inanimate (or Nonhuman).

wǎnj ‘the counterparty’, plural wǎ: or wǎ:-yè

The antonym árⁿâ ‘man’ is a regular noun with no special singular form.

‘Child’ is yī: (for its compounds, see §5.1.6). Examples with following elements include yī: èsí ‘(a) good child’, yī: né ‘the child’, and yī: tùmâ ‘one child’, The plural ‘children’ is yī-tégê, a somewhat frozen and semantically

specialized combination with *têgê* ‘small’ (more common synonym: *èwré*), cf. also noun *têgê* ‘childhood’.

nũ: ‘person’ is used for singular or plural reference. It does, however, reduce its vowel to short before another element. If the syntactic context calls for tone-dropping, we get *nù*. Where no tone-dropping applies, we get high-toned *nú* (functioning as the compression of a rising tone into a single mora). Examples with following elements: *nù né* ‘the person’, *nù m̀̀sí* ‘(a) bad person’, *nú wǒy* ‘two people’, *nú kúrê* ‘six people’.

For ‘thing’, the singular form without a modifier is *kóŋ* or variant *kó*, with optional plural *yé*. The singular is *kó* (ior tone-dropped *k̀̀*) before a modifier: *k̀̀ gú* ‘the thing’, *k̀̀ tùmâ* ‘one thing’, *k̀̀ èsí* ‘a good thing’, *kó tà:ndí*: ‘three things’. The suppletive plural *yé* optionally replaces *kó* before nonsingular quantifiers: *yé tà:ndí*.

kóŋ ~ kó ‘thing’ occurs in the common phrase *k̀̀ kámâ* ‘each/any thing’, which can be glossed ‘(not) anything’ or ‘nothing’ when the predicate is negative. In positive contexts (‘each/any thing’), the plural *yè kámâ* ‘any things’ is also possible.

kóŋ ~ kó ‘thing’ is undoubtedly related historically to the Inanimate Singular pronoun *kú*, and to Inanimate Singular Definite *gú* (*kú*, *w*). Its plural *yé* is similarly related to Inanimate Plural Definite *ý*.

4.1.3 ‘So-and-so’ (*àmâ:n*)

The ‘So-and-so’ word, used in generic contexts as a variable representing any personal name, is *àmâ:n*.

4.1.4 Initial *Cv*- reduplication in nouns

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

In (xx1), we see three different tonal patterns for a basic type with *Cv*: base and an initial *Cv*- reduplication. All known examples are given. (xx2.b) is onomatopoeic. In (xx2.c), the ethnic term Bobo is most likely an accidental member of this reduplicated class. However, the four fauna terms do seem to form a clearly-recognized reduplicative set; ‘agama lizard’ seems to have mutated (cognates are unreduced bisyllabics pointing to **kèŋgú* or the like) on the analogy of the other fauna terms.

(xx2) Reduplications with <LHL>

| form | gloss |
|--|---|
| a. $C_1\hat{v}_1-C_1\hat{v}_1$ bè-bě: | ‘beard’ |
| b. $C_1\hat{v}_1-C_1\hat{v}_1$ gá-gã: ⁿ | ‘crow’ |
| c. $C_1\hat{v}_1-C_1\hat{v}_1$ bò-bô: gò-gô: kà-kâ: kè-kê: kè-kê: tà-tâ: | ‘Bobo’ ‘griot (with war tomtoms)’ ‘grasshopper’ (all species) ‘agama lizard’ (multiple species/varieties) ‘beetle, bug’ (all species) ‘hyena’ (extends to leopard) |
| d. $C_1\hat{v}_1-C_1\hat{v}_1C$ tè-têw | ‘large raptors (hawks etc.)’ |

Numerous trisyllabic and longer nouns have an initial *Cv-* reduplication, though in most cases an unreduplicated form is not attested: *kò-kòsò* ‘dried leaves on ground’, *kí-kínjí* ‘broken pieces of seed spike’, *jà-jàṅkó*: ‘double grain spike’, *mò-mòrⁿ* ‘scorpion’, *nà-nà:rⁿá* ‘spider’, *kó-kòsò* ‘cough (noun)’ (cf. verb *kósó-*) and many others.

CvC-CvC appears in *gòṅ-gṅ* ‘giant millipede’.

4.1.5 Final *-Cṽ:* and *-Cvy* reduplications in nouns

There are two minor final-reduplication patterns in nouns. The known examples, all of them fauna terms, are given in (xx1). Alternatively, *-kṽ:* in the term for ‘louse’ (xx1.a) could be taken as derived from *kó:-* ‘eat (meal)’. The term for ‘stone partridge’ is onomatopoeic, so any semantic connection to verbs *bègírí-* ‘shake (grain)’ and *bě:-* ‘cut off the end of’ is accidental.

(xx1) Final Reduplication (nouns).

| | |
|--------------------------------------|-------------------|
| a. ...- $C_1\hat{v}_1$ bègírí-bě: | ‘stone partridge’ |
| kòròṅ-kṽ: | ‘louse’ |

- b. ... C₁ŷy₁
 pété-pêy ‘grasshopper sp. (*Oedaleus*)’
 séñérⁿé-sêyⁿ ‘grasshopper sp. (*Kraussella*)’

4.1.6 Nouns with full-stem iteration

A number of patterns are illustrated in (xx1). Several are at least vaguely onomatopoeic. There is usually no unreduplicated counterpart with related meaning.

In (xx1), the vocalism is identical in the two iterations. The tone pattern LL-HL occurs in several body-part terms (xx1.a). The remaining examples are onomatopoeic or otherwise expressive and have various tone contours.

(xx1) Full-Stem Iteration (nouns)

a. LL-HL or LL-HF tones

- kòrò-kórò ‘bell’
 nà:-[tòṅṅ-tóṅṅ] ‘elbow’ (nǎ: ‘hand, arm’)
 kùnjò-kúnjò ‘knee’
 dùmò-dúmô ‘heel’

b. all-H

- sógóy-sógóy ‘rattling’

c. F-F

- wôw-wôw ‘bow-wow!’
 sîwⁿ-sîwⁿ ‘cheep!’ (birds chirping)
 kòyô wô:y-wô:y ‘disconsolately weeping’ (kòyô ‘weeping’)

d. other

- jùṅgùdú-jùṅgùdú ‘call of wild pigeon’
 kòyô bà:gà-bà:gà ‘sobbing’ (kòyô ‘weeping’)

The examples in (xx2) involve vocalic changes. In the single iteration cases (xx2.a-b), i.e. of type X-X’, one or both non-low vowels in the first occurrence are replaced by a-vowels in the second. pú:sù-pâ:s can be interpreted as apocopated pú:sù-pá:sù. When both vowels, not just the first, are replaced by a-vowels (xx2.b), there is also a tonal change. In the double iteration type (xx2.c), i.e. of type X-X’-X, the first and third occurrences are identical (and have at least one H-tone) and the medial occurrence has a-vowels (and is all-L-toned).

- (xx2)
- a. one vowel replaced by a
 kèndè-[pú:sù:pâ:s] ‘lungs’ (kéndè ‘liver, heart’)
 sèrĩ-[búndĩ-bándĩ] ‘cream of millet with tamarind’
- b. both vowels replaced by a
 kóró-kàrá ‘in clusters’
 sùṅùrⁿù-[gèrè-gárá] ‘earring’ (súṅú^rfi ‘ear’)
- c. H-L-H and LH-LL-LH with medial a-vocalism
 kòró-kàrà-kòró ‘hubbub’
 cí:ⁿ-cà:ⁿ-cí:ⁿ ‘creaking sound’
 hó:-hà:-hó: ‘loud chatter’
 ó:-à:-ó: ‘(sound of bullfrog croaking)’

4.1.7 Frozen initial a- or an- in nouns

A considerable number of noun stems begin with à- or àn-, which might originally have been a segmentable affix. For example, the term for ‘stick with curved end’ is either bèrè kó:ndó (with béré ‘stick’ followed by an adjective) or àkó:ndó (à-kó:ndó). A fuller list of candidates for this segmentation is in (xx1). Though historically unrelated, the number of such cases is increased accidentally by loanwords of Arabic origin, a few of which are listed in (xx1.c).

| (xx1) | form | gloss | comment |
|-------|------------------------|------------------------------------|-----------------|
| a. | with à- | | |
| | àbélkò | ‘game played with knife’ | |
| | àdǎṅ | ‘somewhat deaf person’ | |
| | àbà:gǐr ⁿ é | ‘grass sp.’ (<i>Rottboellia</i>) | |
| | à-kó:ndó | ‘stick with curved end’ | kó:ndó ‘curved’ |
| | àmíy ⁿ é | ‘inflection’ | |
| | àpûm | ‘mumps’ | |
| | àsímá | ‘dandy’ | |
| | àtá:ndĩ | ‘constellation with 3 stars’ | tà:ndĩ: ‘three’ |
| a. | with àn- | | |
| | àndĩrí | ‘rival’ | |
| | àndèṅgè kèsí | ‘baggy pants’ | |
| | ànjèrí | ‘wrestling’ | |
| | àntá:rí | ‘hunt (noun)’ | variant àtá:rí |
| | àntô: | ‘stick with hooked end’ | |

àntòngó ‘grains left after first winnowing’

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

àmá:nà ‘promise, vow’
 ànsá:rà ‘white person’

4.2 Derived nominals

4.2.1 Characteristic derivative (-gí)

A noun-to-noun derivation, denoting a person characterized by whatever the core noun denotes, is expressed by Characteristic suffix *-gí*. The core noun **drops its tones** before the suffix.

| (xxx) | noun | gloss | Characteristic | gloss |
|-------|--------------------|-----------|-----------------------|---------------|
| | mùr ⁿ á | ‘disease’ | mùr ⁿ à-gí | ‘sick person’ |
| | gúm ^{jé} | ‘hump’ | gùm ^{jè} -gí | ‘hunchback’ |

4.2.2 Verbal Nouns

4.2.2.1 Regular Verbal Noun (-ndé)

The basic Verbal Noun formation involves a suffix *-ndé*. The suffixal vowel is invariant and does not harmonize with stem vowels (xx1). The tone of the stem before *-ndé* is all-high, even when the stem otherwise has a rising tone contour (xx1.b).

| (xx1) | verb | gloss | Verbal Noun |
|-------|---------------------|----------|------------------------|
| a. | nǒ:- | ‘drink’ | nó:-ndé |
| | wǒ:- | ‘catch’ | wó:-ndé |
| | gǒ:- | ‘go out’ | gó:-ndé |
| | késé- | ‘cut’ | késé-ndé |
| | súyó- | ‘hit’ | súyó-ndé |
| b. | jàr ⁿ á- | ‘tap’ | jár ⁿ á-ndé |

4.2.3 Instrument nominals

Many instrument nominals are compounds including an incorporated object or similar compound initial; for them, see §5.xxx. Some uncompounded instrument nominals related to verbs are in (xx1). The basic form, also seen in the compounds, is with low-toned stem ending in *ĩ* (xx1.a). (xx1.b) may be a case of apocope from **bùwĩ*, with the tones shifted to the surviving syllable. An alternation of /ɔ/ with /o/ is seen in (xx1.c).

| (xx1) | verb | gloss | nominal | gloss |
|-------|---------------------------------|------------------------|------------------------------|--|
| a. | <i>ďi:sé-</i> <i>jűw-ró-</i> | ‘file’ ‘turn (sth)’ | <i>ďi:sĩ</i> <i>jù:rĩ</i> | ‘file’ (tool) ‘blacksmith’s bellow’ |
| b. | <i>bùwó-</i> | ‘scrub’ | <i>bűw</i> | ‘scrubber’ |
| c. | <i>kó:sĩ-</i> | ‘scrape’ | <i>kò:sĩ</i> | ‘scraper’ (tool) |

There are several other nominals of similar form denoting instruments that have no synchronic relationship to a verb, e.g. *gùšĩrĩ* ‘pointed instrument for undoing braids’.

There are also several other (non-instrument) nominals of similar shape, functioning as cognate nominals; see (xx1.e) in §11.1.6.1.

4.2.4 Uncompounded agentives

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

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

4.3 Pronouns

4.3.1 Basic personal pronouns

The basic morphological series are those in (xx1).

- (xx1)
- independent (also used for preverbal subject [e.g. in relative clauses], and optionally for object)
 - accusative (optional for direct object)

- c. pronominal-subject suffix on verbs
- d. possessor form, also used for complements of postpositions

The **independent, subject**, and accusative (= direct object) forms are given in (xx2). 3AnSg and 3AnPl are animate categories (including humans and animals), while Inan[imate] applies to plants and non-living things. Logo[phoric] pronouns are coindexed to the attributed author of quoted speech or thought (§xxx).

The preverbal subject forms (which are used in relative clauses) are identical to the independent forms. In regular main clauses the pronominal subject category is expressed by a suffix on the verb. The Accusative suffix **-ŋ** is usually reduced to nasalization of the preceding vowel. It may be entirely inaudible, in which case there is no audible difference between accusative and independent (or preverbal subject) forms, except in the 1Sg.

(xx2) Personal Pronouns

| | indep. | accusative | subject | |
|--------|-----------------|------------|-----------------|-------------------------|
| | | | [_Verb] | [Verb- _] |
| 1Sg | ĩ: ⁿ | ñjĩ-ŋ | ĩ: ⁿ | -ỹ |
| 1Pl | î: | î:-ŋ | î: | -ỹ.: |
| 2Sg | ú | ú-ŋ | ú | -w̃ |
| 2Pl | û: | û:-ŋ | û: | -w̃.: |
| 3AnSg | ńné | ńné-ŋ | ńné | -∅ |
| 3AnPl | bû: | bû:-ŋ | bû: | [varies by AN category] |
| InanSg | kú | kú-ŋ | kú | -∅ |
| InanPl | kû: | kû:-ŋ | kû: | =3AnPl |
| LogoSg | á | á-ŋ | á | -∅ |
| LogoPl | â: | â:-ŋ | â: | =3AnPl |

For the subject-pronominal suffixes, including the various 3Pl allomorphs (-à, -yà, -è, etc.), see §10.xxx.

Forms used as **possessors** and as **datives**, are in (xx3). The possessor forms include a classifier whose basic form is /kô ~ gô/ for Inanimate Singular and /yê/ for Animate Singular and all Plural categories; see §xxx. The rarely used **inanimate possessor forms are merged** with the much more common 3AnSg and 3AnPl forms, but the animate/inanimate distinction is maintained in datives.

There is a **special 3Sg possessor** form **nò** that does not allow a possessive classifier. In (xx3), the possessor forms are shown with N representing the preceding possessed noun (which retains its regular tones).

(xx3) Possessor and Dative Pronouns

| | | possessor | | |
|----|--------|------------------|----------|-------------------|
| | | AnSg/AnPl/InanPl | InanSg | dative |
| a. | 1Sg | N yě: | N kǎ: | bàr ^{ní} |
| | 1Pl | N î: yè | N î: gò | î: bày |
| b. | 2Sg | N ú yê | N ú gô | ú báy |
| | 2Pl | N û: yè | N û: gò | û: bày |
| c. | 3AnSg | N nò | N nò | ńné báy |
| | 3AnPl | N bú: yè | N bú: gò | bú: bày |
| d. | InanSg | [=3AnSg] | | kú báy |
| | InanPl | [=3AnPl] | | kû: bày |
| e. | LogoSg | [see below] | | á báy |
| | LogoPl | [see below] | | â: bày |

The Logophoric pronouns have a slightly different morphosyntax as possessors. With kin terms and a few other human relationship terms ('friend'), the Logophoric possessor precedes the possessed noun (N), which therefore takes overlaid possessed-noun tone contour, {HL} after **á** and all-low after **â**. With other animate possessed nouns (e.g. 'slave', 'sheep'), and with inanimates, the morphosyntax is the same as for the other pronouns (other than 3AnSg).

| (xx4) | kin | AnSg/AnPl/InanPl | InanSg |
|--------|------|------------------|---------|
| LogoSg | á N | N á yê | N á gô |
| LogoPl | â: N | N â: yè | N â: gò |

Examples: **á dérè** 'his/her-Logo elder sibling(s)', **â: dèrè** 'their-Logo elder sibling(s)', **pèrgé á yê** 'his/her-Logo sheep', **pèrgé â: yè** 'their-Logo sheep', **ńdô á gô** 'his/her-Logo house(s)', **ńdô â: gò** 'their-Logo house(s)'.
 Examples: **á dérè** 'his/her-Logo elder sibling(s)', **â: dèrè** 'their-Logo elder sibling(s)', **pèrgé á yê** 'his/her-Logo sheep', **pèrgé â: yè** 'their-Logo sheep', **ńdô á gô** 'his/her-Logo house(s)', **ńdô â: gò** 'their-Logo house(s)'.

4.4 Demonstratives

4.4.1 Definite morphemes

The forms in (xxx) behave like demonstratives, but are best glossed with definite ‘the’ in English. They indicate that the referent is already established in the discourse or in the common knowledge of the speech-act participants. In the forms given they require a preceding noun (or NP); in absolute function, an independent personal pronoun must be used (§4.xxx).

- (xx1) Animate Sg **né**
Animate Pl **bû:** (for **bù gò** in factive complements, see §17.2.1)
- Inanimate Sg **kú** (**gú, ẃ**)
Inanimate Pl **ý**

The modified noun drops its tones before a Definite morpheme (as it would before a true demonstrative). In recordings, this tone-dropping may be the most easily audible cue that **ẃ** or **ý** is present, especially after more-or-less homorganic stem-final vowels. Examples with **árⁿâ** ‘man’ and **béré** ‘stick’.

- (xxx) a. **àrⁿâ né** ‘the man’
b. **àrⁿâ bû:** ‘the men’
- c. **bèrè kú** (**bèrè gú, bèrè ẃ**) ‘the stick’
d. **bèrè ý** ‘the sticks’

These Definite morphemes are also used at the end of (restrictive) relative clauses, agreeing with the head NP (§14.xxx).

The Inanimate Definite forms, Singular **kú** (**gú, ẃ**) and Plural **/ý/**, interact phonologically with a following Locative postposition. The latter has surface variants {**ga gɔ go ŋa ŋɔ ŋo**} after nouns. The combination of Definite Inanimate Singular **kú** with the Locative is the fused portmanteau **gá** after tone-dropped noun; this looks like it has the segments of the Locative postposition but the tone (and tone-dropping power) of the Definite. The combination of Definite Inanimate Plural **/ý/** with the Locative is **ý gò**. See §8.2.xxx for examples and discussion. The Locative is not commonly used after animate NPs.

4.4.1.1 ‘This/that’ (deictic demonstrative pronouns)

Deictic demonstratives, which may be accompanied by a pointing gesture and in any event normally index proximate location, are given in (xxx).

| | | |
|-------|--------------|-----|
| (xx1) | Animate Sg | wǒŋ |
| | Animate Pl | wê: |
| | Inanimate Sg | ŋgú |
| | Inanimate Pl | yěy |

A preceding modified noun drops its tones. Examples with árⁿâ ‘man’ and béré ‘stick’.

| | | | |
|-------|----|----------------------|----------------------|
| (xxx) | a. | à ⁿ â wǒŋ | ‘this/that man’ |
| | b. | à ⁿ â wê: | ‘these/those men’ |
| | c. | bèrè ŋgú | ‘this/that stick’ |
| | d. | bèrè yěy | ‘these/those sticks’ |

Unlike the Definite morphemes, these deictics may also be used absolutely (i.e. with no overt preceding noun), see §6.xxx..

| | | | | |
|-------|----|----------|------------------------|---------------------------------------|
| (xx1) | a. | wǒŋ | jóró-ŋð-y ⁿ | |
| | | Dem.AnSg | like-Impf.Neg-1SgS | ‘I don’t like that one (animate).’ |
| | b. | ŋgú | ŋjí-ŋ | gðè-∅ |
| | | Dem.AnSg | 1SgO | jab.Perf.L-3SgS |
| | | | | ‘That (object) jabbed (=pricked) me.’ |

4.4.1.2 Prenominal Anaphoric kú ‘that (same)’

Anaphoric demonstrative kú, a special use of the Inanimate Singular pronoun, can be used prenominally in discourse-anaphoric sense: ‘that (same, aforementioned) ...’. I will gloss it as “Dem” in interlinears. It is treated as a (pronominal) possessor, specifically like a pronominal possessor preceding a kin term (inalienable possession). kú therefore induces {HL} tone contour on the immediately following noun. The noun may be animate (including human) or inanimate in reference. A Definite morpheme with the appropriate animacy

and number features follows the noun, but does not affect the tone of the noun (i.e. there is no tone-dropping).

- (xxx) a. kú tâ:ⁿ gú
 Dem shed.HL Def.InanSg
 ‘that (same) shed’ (tǎ:ⁿ)
- b. kú ndò gú
 Dem house.HL Def.InanSg
 ‘that (same) house’ (ndó)
- c. kú ndò ý
 Dem house.HL Def.InanPl
 ‘those (same) houses’ (ndó)
- d. kú nû: né
 Dem person.HL Def.AnSg
 ‘that (same) person’ (nú)
- e. kú yâ: né
 Dem woman.HL Def.AnSg
 ‘that (same) woman’ (yǎ:)
- f. kú yâ: bú:
 Dem woman.HL Def.AnPl
 ‘those (same) women’ (yǎ:)

Any such expression may be simplified by omitting the actual noun stem, using *kô* (inanimate) or *yê* (animate) as a substitute; these **generic morphemes** are also used in pronominal-possessor constructions (§6.xxx).

- (xxx) a. kú kô gú
 Dem Inan.HL Def.InanSg
 ‘that (same) one [inanimate]’
- b. kú yê né
 Dem An.HL Def.AnSg
 ‘that (same) one [animate]’

kú, in spite of its probable origin as a “possessor” of sorts (‘its ...’), is compatible with a true possessor NP (nonpronominal or pronominal). The possessor has its normal form and position: immediately before the possessed

noun if it is a nonpronominal NP, or a pronominal possessor with kin terms, and with generic *kú* or *yé* following the noun if a pronominal alienable possessor. The tone of the possessed noun is determined by the immediately preceding element, hence {HL} if immediately after *kú* as in (xxx.a), again {HL} after a pronominal possessor with inalienable possession as in (xxx.b), and {L} after a nonpronominal possessor NP as in (xxx.c).

- (xxx) a. *kú* *ńdò* [*ú* *gô*] *gú*
 Dem house.HL [2Sg Poss.InanSg] Def.InanSg
 ‘that (same) house of yours-Sg’
- b. *kú* *ú* *lésì* *né*
 Dem 2SgP uncle.HL Def.AnSg
 ‘that (same) uncle of yours’
- c. *kú* *á:mádù* *ndò* *gú*
 Dem Amadou house.L Def.InanSg
 ‘that (same) house of Amadou’s’

4.4.1.3 *Anaphoric/logophoric demonstrative pronouns*

For third person logophoric (or other anaphoric) pronouns *á* (Sg) and *â*: (Pl), see §18.xxx).

4.4.2 *Demonstrative adverbs*

4.4.2.1 *Locative adverbs*

The simple spatial deictic adverbs, with stationery locative function (unless given ablative or allative function by a motion verb) are in (xx1). *gá* in *ngà gá* was originally the Locative postposition, but it seems quite frozen here.

- (xx1) a. *ngá* ‘here’
- b. *ngà-gá* ‘over there’ (pointing)
- c. *ká* ‘there’ (discourse-definite)
yá

Another set of forms is used in the sense ‘(over) this/that way’ or ‘around here/there’, indicating direction of motion or approximate location. The suffix -rⁿⁱ is added to the forms in (xx1), above. This is followed by *ɲà*, an allomorph of the Locative postposition. The prolongation in the => variants perhaps reflects compensatory lengthening after the loss of this morpheme.

- (xx2) a. *ɲárⁿⁱ ɲà* ‘this way, around here’
 ɲárⁿⁱ=>
- b. *ɲgà-gá-rⁿⁱ ɲà* ‘(over) that way, around there’ (pointing)
 ɲgà-gá-rⁿⁱ=>
- c. *kárⁿⁱ ɲà* ‘around there, in that direction (definite)’
 kárⁿⁱ=>
 yárⁿⁱ ɲà
 yárⁿⁱ=>

4.4.2.2 *Emphatic and Approximative modifiers of adverbs*

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

- (xxx) a. *ɲgá* *té=>*
 here Emph
 ‘right here’
- b. *ɲgá* *yàɲà*
 here around
 ‘around here’

4.4.3 Presentatives (‘here’s ...!’)

There are two basic presentative forms (xxx).

- | | | | |
|-------|----------|--|-----------------------------|
| (xxx) | Sg or Pl | <i>wùnerⁿⁱ</i> <i>wùné</i> | ‘here it is, here they are’ |
| | Pl only | <i>wèré</i> | ‘there they are’ |

wùnérⁿé and variant wùnⁿé are used, for example, when handing something to the addressee, while wèré is most often used to indicate that something lost or absent has just come into view. However, the distinction does not seem to be sharp.

When they have scope over a NP ('here's X!'), they may precede or follow the NP. For wùnérⁿé only, pronominal conjugation may be added using bù- 'be'. The presentative particles may also be used preclausally, with scope over the whole clause (xxx.d-e); here the English free translation is awkward, but cf. French (e.g. *les voici qui dansent!*).

- (xxx) a. á:mádù wùnérⁿé
Amadou here.is!
'Here's Amadou!'
- b. yǐ-tègê wèré b-è
child-Pl here.is! be-3PIS
'Here are the children!'
- e. wùnérⁿé bù-ỳ.∴
here.is be-1PIS
'Here we are!'
- d. wèré gǐyé gíyé-m-è
here.are! dance(noun) dance-Impf-3PIS
'Here they are, dancing!'
- e. wùnérⁿé gǐyé gíyé⁻ⁿ
here.is! dance(noun) dance-Impf.3SgS
'Here he/she is, dancing!'

4.5 Adjectives

For adjectival intensifiers, see

4.5.1 Types of adjectives

I use "adjective" loosely for an element that occurs chiefly in postnominal modifying function (forcing tone-dropping on the immediately preceding noun or adjective) and in predicative function ('be/become ADJ'). However, this broad categorization covers two major subtypes.

The first subtype, which one is tempted to call “true adjectives” since they are maximally distinct from nouns, is presented in (xx1). In addition to a postnominal modifying form, these stems have a simple predicative form for 3Sg inanimate and 3Sg animate subjects (‘X is wide’, etc.). In practice, several of these adjectives are restricted to either inanimate or animate subjects (‘spacious’ to inanimates, ‘plump’ to animates), but those that can apply to both inanimate and animate entities have a single 3Sg predicative form.

If the modifying form of the adjective ends in a non-high vowel (xx1.a) or in a semivowel (xx1.b), the predicative form is identical to the modifying form. The same is true of the one Ci: adjective (xx1.c), which is arguably also semivowel-final (/sîy/). If the adjective ends in a high vowel, we get final *i* in postnominal modifying function, and final *u* in predicative function (xx1.d-f).

Of interest is the absence of HH-toned bisyllabic adjectives (except for color adjectives, discussed below), and of H-toned monosyllabic adjectives, in (xx1). The observed tone contours are rising (LH), falling (HF, monosyllabic F), and the one tritonal case (LF). See, however, the discussion of HH-toned color adjectives in (xx3), below. The switch between *i* and *u* does not change the lexical tone in the majority bitonal (HF and LH) patterns. However, in the one case of tritonal contour (LF), the final F-toned *î* in modifying function (xx1.e) corresponds to H-toned *ú* in the predicative form (xx1.f).

(xx1) Adjectives

| | gloss | modifying | predicative 3Sg | |
|----|---|--|--|-------------------------------------|
| | | | Inanimate | Animate |
| a. | ‘distant’ ‘tall’ ‘long, tall’ ‘big, grand; many’ ‘small, young’ | wàgá gàwá gùró òwó èwré | wàgá gàwá gùró òwó èwré | wàgá gàwá gùró òwó èwré |
| b. | ‘spacious’ | gâw | gâw | |
| c. | ‘pointed’ | sî: [arguably sîy, cf. verb sîyé-ndíyé-] | sî: | |
| d. | ‘narrow’ ‘narrow’ ‘good’ ‘short’ ‘lightweight’ | èmbí péŋî èsí déŋî ér ^h î | èmbú péŋú èsú déŋú ér ^h ú | èsú déŋú ér ^h ú |

| | | | | |
|----|---------------------|---------------------|---------------------|------|
| | ‘easy, cheap’ | nà:r ⁿ á | nà:r ⁿ á | |
| | ‘plump’ | àmí | | àmú |
| | ‘cold; slow’ | támî | támû | támû |
| | ‘sweet; sharp’ | érî | érû | érû |
| | ‘bitter’ | gárî | gárû | |
| | ‘slightly coarse’ | yágî | yágû | |
| | ‘hard’ | már ⁿ î | már ⁿ û | |
| | ‘slightly bitter’ | ásî | ásû | |
| | ‘salty, sour’ | párî | párû | |
| e. | ‘big; fat’ | dùgî | dùgú | dùgú |
| | ‘heavy’ | dúsî | dúsû | dúsû |
| | ‘soft (skin)’ | búrî | búrû | |
| | ‘hot, fast’ | ógî | ógû | ógû |
| | ‘nasty, ugly’ | mòsî | mòsú | mòsú |
| | ‘smooth, sleek’ | órî | órû | |
| | ‘deep’ | sónjî | sónjû | |
| | ‘coarse’ | kúnjî | kúnjû | |
| | ‘thick (liquid)’ | kùrî | kùrú | |
| f. | ‘difficult, costly’ | nòmî | nòmú | nòmú |

With other than 3Sg subject, the positive predicative form (‘I am __’, ‘they are __’, etc.) consists of the form used in modifying function plus the relevant conjugated form of the ‘it is’ clitic =m- (the 3Pl is a suppletive form =yè). All of the negative predicative forms (‘I am not __’, ‘they are not __’, ‘it/he/she is not __’) are likewise formed by adding a conjugated form of the ‘it is not’ clitic to the form of the stem used in modifying function. This suggests that the modifying form is lexically basic, and I treat it accordingly in the lexicon. One complication is that bisyllabic adjectives with a rounded vowel {u o ɔ} in the first syllable, as in (xx1.e) above, regularly assimilate the second-syllable i to u when followed by a (nonzero) clitic.

(xx2) illustrates the treatment of final vowels for two adjectives ending in high vowels (‘heavy’, ‘lightweight’) and for one adjective ending in a stable non-high vowel (‘long, tall’). ‘Heavy’ furthermore illustrates Rounding-Assimilation before nonzero clitic (xx2.c).

(xx2) construction ‘heavy’ ‘lightweight’ ‘long, tall’

a. postnominal modifying

‘a __ person’ nù: dúšî nù: é^rî nù: gàwá

- b. special 3Sg-subject positive predicative form
 ‘he is ___’ *dúsû* *érⁿû* *gàwá*
- c. cliticized forms based on (a), but subject to assimilatory rounding
 ‘they are ___’ *dúsû=yè* *érⁿî=yè* *gàwá=yé*
 ‘I am ___’ *dúsû=m-ĩ* *érⁿî=m-ĩ* *gàwá=m-ĩ*
 ‘he is not ___’ *dùsù=ndó-∅* *èrⁿî=ndó-∅* *gàwà=ndó-∅*

The basic **color terms** in (xx3) can pattern like the adjectives in (xx1), above. In particular, they do have a special suffixless 3Sg predicative form. However, this 3Sg form was recorded only for inanimate subject (xx3.a), and even for inanimates it less common (with color adjectives) than a morphological construction with Inanimate =w, Animate Singular =ŋ, and Animate Plural =ye (xx3.b). Of interest is the fact that the modifying forms are HH-toned while the special 3Sg forms in (xx3.a) are HL-toned.

(xx3) Adjectives

| | gloss | modifying | predicative 3Sg | | |
|----|---------|-------------------------|---------------------------------------|---------------------------|----------------------------|
| | | | Inanimate | AnimateSg | AnimatePl |
| a. | ‘red’ | <i>bárⁿĩ</i> | <i>bárⁿû</i> | — | — |
| | ‘black’ | <i>jémí</i> | <i>jémû</i> | — | — |
| | ‘white’ | <i>pírí</i> | <i>pírû</i> | — | — |
| b. | ‘red’ | <i>bárⁿĩ</i> | <i>bárⁿú=wⁿ</i> | <i>bárⁿĩ=ŋ</i> | <i>bárⁿĩ=yé</i> |
| | ‘black’ | <i>jémí</i> | <i>jémú=w</i> | <i>jémí=ŋ</i> | <i>jémí=yé</i> |
| | ‘white’ | <i>pírí</i> | <i>pírí=w</i> | <i>pírí=ŋ</i> | <i>pírí=yé</i> |

The stems in (xx4), below are common in postnominal modifying function. However, in predicative function I was only able to elicit the ‘it is’ clitic even for 3Sg subject. These stems are therefore more “noun-y” than those in (xx1), above. There are also some subtle differences in stem shapes. The long-voweled monosyllabic type *Cv:* is clearly represented in (xx4.a), but only dubiously (with *ĩ*: interpretable as /iy/) in (xx1). The adjective ‘new’ (xx4.b) is heard with HF tone rather than the HL typical of the adjectives in (xx1). The adjectives in (xx4.c) have a *Cv:mbv* shape (with repeated vowel) that is heavier than anything seen in (xx1). However, there are plenty of adjectives in (xx4.d) that have very normal adjectival shapes, and the LF tone of *gòmí* ‘no good’ (xx4.e) is matched by that of *nòmí* ‘difficult, costly’ in (xx1.e). There is one consonant-final bisyllabic, *nánáyⁿ* ‘respectable’ (also ‘useful’, etc.); it is phonologically

possible to add the 3Sg clitics to this stem, as shown (xx4.f), but these combinations sound somewhat awkward, and one can alternatively use *bú-* ‘be’.

(xx4) Adjectives with no special 3Sg predicative form

| | gloss | modifying | predicative 3Sg | |
|----|--|--|---|--|
| | | | Inanimate | Animate |
| a. | ‘full’ ‘dry’ ‘old’ | <i>bá:</i> <i>mǎ:</i> <i>pě:</i> | <i>bá:=w</i> <i>mǎ:=wⁿ</i> <i>pě:=w</i> | <i>pě:=ɲ</i> |
| b. | ‘new’ | <i>kándà</i> | <i>kándà=w</i> | <i>kándà=ɲ</i> |
| c. | ‘lean, emaciated’ ‘slender’ | <i>kó:mbó</i> <i>ké:mbé</i> | <i>ké:mbé=w</i> | <i>kó:mbó=ɲ</i> <i>ké:mbé=ɲ</i> |
| d. | ‘runty’ ‘unripe, raw’ ‘half-ripe’ ‘weak, diluted’ ‘coarse’ ‘deserted, empty’ ‘living, alive’ ‘ripe (fruit)’ ‘innocent’ | <i>kèté</i> <i>kè:sí</i> <i>àmá</i> <i>sèré</i> <i>kùnjĩ</i> <i>kóró</i> <i>úmá</i> <i>bòró</i> <i>pé:ré</i> | <i>kè:sú=w</i> <i>àmá=wⁿ</i> <i>sèré=w</i> <i>kùnjú=w</i> <i>kóró=w</i> <i>bòró=w</i> | <i>kèté=ɲ</i> <i>kóró=ɲ</i> <i>úmá=ɲ</i> <i>pé:ré=ɲ</i> |
| e. | ‘no good’ | <i>gòmí</i> | <i>gòmú=w</i> | <i>gòmí=ɲ</i> |
| f. | ‘respectable’ | <i>nánáyⁿ</i> | <i>nánáyⁿ=w</i> | <i>nánáyⁿ=ɲ</i> |

In the case of *íré* ‘ripe’ (postnominal in e.g. *yù: íré* ‘ripe millet’), in predicative function I could elicit only forms of the verb *íré-*, e.g. *íré-èrè-Ø* ‘it has ripened (=is ripe)’.

Stems like *sǒ:rò* ‘young (person)’ and *sátará* ‘able-bodied (adult)’ look like modifying adjectives in e.g. *àrⁿà-yⁿ sǒ:rò* ‘young man, adolescent boy’ and *yà: sátará* ‘able-bodied woman’. However, these combinations are better analysed as noun-noun compounds, to judge by the form taken by the simple stems as predicates: *sǒ:rô=ɲ* ‘he/she is young (=a young person)’, *sátará=ɲl* ‘he/she is an able-bodied adult’.

4.5.2 CVC̄VC̄=> adverbials ('flat')

The forms in (xx1) are adverbials syntactically (they take **bú-** in predicative function), but translate as adjectives. They occur in predicative function with a following **bú-** 'be'. When **bú-** takes participial (relative-clause) form, the adverbial may modify a noun: **kù: pètê=> bú-mĩ** 'flat-topped head'.

| | | |
|-------|------------------|---|
| (xx1) | form | gloss |
| | pótô=> | 'flat (and small, but longer than wide, e.g. nose)' |
| | pétê=> | 'flat and wide' |

The vocalic alternation reflects a minor sound-symbolic system also seen here and there among verbs. The final syllable is prolonged.

4.5.3 Iterated (fully reduplicated) adverbials

A small set of reduplicated adverbials denoting unusual shapes is presented in (xx1). The tone contour is LL-HH. The final syllable is prolonged. A single vowel is repeated in all four syllables.

| | | |
|-------|---------------------------|------------------------------------|
| (xx1) | form | gloss |
| | pèmbè-pémbé = > | 'shaped like a flattened calabash' |
| | bèndè-béndé = > | 'brick-shaped' |
| | sòrò-sóró = > | 'elongated, ovoid, barrel-shaped' |
| | kèbè-kébé = > | 'bar-shaped with flat sides' |

A different pattern, with tone contour LL-HL, is seen in (xx2). This contour also occurs in several reduplicated noun stems denoting body parts (§4.xxx).

| | | |
|-------|------------------------|---|
| (xx2) | form | gloss |
| | kù:-[gòrò-górò] | 'having an oversized head' (kù: 'head') |
| | gòmbò-gómbò | 'projecting (rock)' |

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

4.6 Participles

For participles, i.e. a nominal form of the verb used in relative clauses, see §xxx, below.

4.7 Numerals

4.7.1 Cardinal numerals

4.7.1.1 ‘One’, ‘same (one)’, and ‘other’

‘1’ is expressed as an adjective *tùmâ*. The preceding noun drops tones, as before normal modifying adjectives: *pèrgè tùmâ* ‘one sheep’ (*pèrgé*), *yà-ŋ tùmâ* ‘one woman’ (*yǎ-ŋ*).

The adjective for ‘other’ is either *bëndé* or *bëndí*. In practice they are used in postnominal modifying function, but not as adjectival predicates. *pèrgè bëndí* = *pèrgè bëndé* ‘a/the other sheep.’

4.7.1.2 ‘2’ to ‘10’

The numerals from ‘2’ to ‘10’ are shown in (xx1).

| (xx1) | gloss | form |
|-------|-------|------------------------|
| | ‘2’ | <i>wǒy</i> |
| | ‘3’ | <i>tà:ndí:</i> |
| | ‘4’ | <i>nǒyⁿ</i> |
| | ‘5’ | <i>nìmí:</i> |
| | ‘6’ | <i>kúrê</i> |
| | ‘7’ | <i>súyê</i> |
| | ‘8’ | <i>gá:rè</i> |
| | ‘9’ | <i>tè:sí:</i> |
| | ‘10’ | <i>pé:rù</i> |

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

The multiples of ‘10’ are given in (xx1).

| (xx1) | gloss | form |
|-------|-------|------|
|-------|-------|------|

| | |
|------|-------------------------|
| ‘10’ | pé:rù |
| ‘20’ | pèrí-yěy |
| ‘30’ | pé-tà:ndí: |
| ‘40’ | pě̀n-nǒy ⁿ |
| ‘50’ | pě̀n-nĩmĩ. ⁿ |
| ‘60’ | pèr-kúrê |
| ‘70’ | pèr-súyê |
| ‘80’ | pèr-gá:rè |
| ‘90’ | pèr-tè:sĩ: |

For the tonal patterns, see Tone-Dissimilation §3.7.xxx. The forms with final H- or R-tone (‘20-50’, ‘90’) are sometimes heard with final low pitch when phrase-final. However, the terminal high-tone segment is always audible in careful pronunciation, and e.g. when followed by *săy* ‘only’ or by an ‘it is’ clitic.

Combinations with a single-digit (‘1-9’) numeral, like ‘11’ and ‘59’, are expressed as shown in (xx2). The morpheme *ságâ*, used only with numerals, follows the single-digit numeral; I gloss it as ‘plus’.

- (xx2) a. *pê:r* [tùmâ *ságâ*]
 ten [one **plus**]
 ‘eleven’
- b. *pé-nĩmĩ.ⁿ* [tè:sĩ: *ságâ*]
 ten-five [nine **plus**]
 ‘fifty-nine’
- c. *ùsú* [pé-tà:ndí: tà:ndí: *ságâ*]
 day [ten-three three **plus**]
 ‘thirty-three days’

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

The stems in (xx1) are nouns.

- (xx1) gloss form
- a. ‘hundred’ *té:mdérê* (<Fulfulde)
- b. ‘thousand’ *mùsú*

c. ‘million’ mĩlyô:ⁿ (<French)

With following numeral: té:mdérè wǒy ‘two hundred’, mùsú tà:ndĩ: ‘three thousand’.

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

(xxx) [pèrgé mùsú wǒy ⇒] [té:mdérè nĩmĩ: ⇒]
[sheep thousand two] [hundred five]
[pèrí-yěy]
[ten-two]
‘two thousand, five hundred, (and) twenty sheep’

For sènjĩ ‘80’ or ‘100’ in currency terms, see just below.

4.7.1.5 Currency

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

sènjĩ is an archaic term meaning ‘100’ still used by older people in connection with currency, hence ‘500 CFA francs’ (synonym: bú:đĩ té:mdérè).

dògò-sènjĩ ‘Dogon hundred’ means ‘80 (riyals)’, i.e. ‘400 CFA francs’.

4.7.1.6 Distributive numerals

‘One at a time’, ‘one apiece’, and similar distributive phrases are expressed as tùmá-tùmá. Other adverbial distributives are likewise formed by iterating the numeral.

4.7.2 Ordinal adjectives

In addition to the ordinals described just below, note interrogative à:ngà-yé ‘how-many-eth?’ (French *quantième*), used to inquire what position or rank an individual is in.

4.7.2.1 'First' and 'last'

The basic forms are in (xxx).

| | | |
|-------|--------|---------|
| (xxx) | kǐyá:w | 'first' |
| | dù má | 'last' |

Examples: òdò kǐyá:w 'the first house', òdò dù má 'the last house' (cf. ndô 'house').

4.7.2.2 Other ordinals (suffix -nǎ:)

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

| (xx1) | form | gloss |
|-------|--|-------------------------|
| a. | single-digit numeral | |
| | wònjò-nǎ: (or: wònjǒw) | 'second' |
| | tàndà-nǎ: | 'third' |
| | nòr"ò-nǎ: | 'fourth' |
| | nǐmǐ:-nǎ: | 'fifth' |
| | kùrè-nǎ: | 'sixth' |
| | sùyè-nǎ: | 'seventh' |
| | gà:rè-nǎ: | 'eighth' |
| | tè:sǐ:-nǎ: | 'ninth' |
| | pè:r-nǎ: | 'tenth' |
| b. | decimal | |
| | pèrǐ-yèy-nǎ: | 'twentieth' |
| c. | decimal plus single-digit numeral | |
| | pê:r tùmà sàgà-nǎ: | 'eleventh' |
| d. | hundred | |
| | tè:mdêrè-nǎ: | 'hundredth' |
| e. | hundred plus '1-99' numeral (two levels) | |
| | tè:mdêrè pèrǐ-yèy-nǎ: | 'hundred and twentieth' |

In (xx1.c,e), I did not observe tone-dropping on the first part of the complex numeral, indicating that they are outside of the tone-dropping scope of the Ordinal suffix. In (xx1.b), the two components of the numeral are tightly fused and are treated as a frozen unit, so the whole sequence drops tones.

4.7.3 Fractions and portions

[péjérè](#) commonly means ‘(one) half’. Other (equal) fractions may be described generically as [gósô](#) ‘portion, division’.

5 Nominal and adjectival compounds

5.1 Nominal compounds

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

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

5.1.2 Compounds of type ($\hat{n} \bar{n}$)

One of the two most common noun-noun compound types is one with low-toned compound initial (perhaps itself compounded) and a final noun with its regular tones. This pattern competes most directly with the possessor-type compounds (§5.1.4, below). In general, the more established and lexicalized a noun-noun compound is, the more likely it is to take the tonal form [$\hat{n} \bar{n}$] rather than the possessor-type compound pattern.

Examples with initial from *ènjê* ‘chicken’ are in (xx1).

| | | |
|-------|--------------------|--|
| (xx1) | <i>ènjê-tóndí</i> | ‘chicken basket’ (i.e. wicker chicken coop) |
| | <i>ènjê-ńdô</i> | ‘chicken coop (constructed with bricks or stones)’ |
| | <i>ènjê-biyê</i> | ‘chicken’s roosting place’ |
| | <i>ènjê-têŋê</i> | ‘chicken’s drinking pan’ |
| | <i>ènjê-gùwá</i> | ‘chicken’s foot’ (also ‘cock of musket’) |
| | <i>ènjê-káwsá</i> | ‘chicken lice’ (name of a disease with skin sores) |
| | <i>ènjê-kòmórô</i> | ‘chicken finger’ (name of a tree [<i>Piliostigma</i>]) |
| | <i>ènjê-kéwré</i> | ‘chicken eggplant’ (bush sp. [<i>Solanum</i>]) |

5.1.3 Compounds with final Verbal Noun, type ($\hat{n} \hat{n}$)

Verbal nouns take direct-object complements in the form of regular NPs (xx1), so there are fewer compounds of this type in Nanga than in many other Dogon languages, where such complements often appear in low-toned compound-initial form.

- (xx1) [yû: gírⁿé-ndé] nòmú
 [millet harvest-VbIN] be.difficult
 ‘Harvesting millet is difficult.’

An alternative construction is a compound type with **low-toned initial** representing an incorporated object, and {HL} toned verb in nominal function (xx2). The compound initial in this case (unlike the verbal-noun construction) cannot be expanded with a determiner or quantifier.

- (xx2) a. yù:-bàrá
 millet.L-gather.Nom.HL
 ‘act of gathering millet after the harvest and taking to the houses’
 (cf. verb bàrá- ‘gather’)
- b. yù:-[dú:-yè]
 millet.L-[carry.on.head-MP.Nom.HL]
 ‘act of carrying millet on the head (from field to houses)’
- c. ñjà-bégírè
 grain.L-winnow.Nom.HL
 ‘winnowing grain’.

Further examples are lè:tèrè-tóŋô ‘letter-writing’, pèrgè-sémê ‘slaughtering sheep’, and nàŋà-págâ ‘tying up cow(s)’. Such forms can be used as complements of bǎ:rí- ‘help’ (§17.5.1).

5.1.4 Possessive-type compounds (ñ ñ)

In this compound type, the initial is treated like a possessor and the final like a possessed noun. That is, the initial has its regular tones, while the final has either {HL} or all-low tone contour, depending on whether the initial ends in a high or low tone element. When eliciting new compounds, I found that my assistant often fluctuated between this pattern and the [ñ ñ] type (§5.1.2, above), but the more lexicalized compounds in common use are generally [ñ ñ].

Because there is no sharp distinction between possessor-possessed sequences and possessor-type compounds, I do not hyphenate the latter. Compare the compound (xx1.a) to the clearly possessive construction (xx1.b). As it happens, the final in these examples, dùgà-njà:, is already a (somewhat frozen) compound of [ñ ñ] type, but this point is not directly relevant here. The overlaid {HL} contour produces dúgá-njà.

- (xx1) a. **nǎ:** **dúgá-njà**
 hand necklace.HL
 ‘hand-necklace’ (term for ‘thin bead bracelets’) (**dùgà-njà:**)
- b. **yǎ-ŋ** **dúgá-njà**
 woman-Sg necklace.HL
 ‘a woman’s necklace’

Some other examples are in (xx2). In (xx2.a), the overlay of {HL} contour on **músó:rò** produces no audible change.

- (xx2) a. **[yùgùsì jém]** **músó:rò**
 [velvet.L black] shawl.HL
 ‘(woman’s) head shawl of black velvet’ (**yúgúsí, músó:rò**)
- b. **gǒ:** **òmǐr’í**
 fire parent.in.law.L
 ‘fire’s in-law’ (a plant, *Waltheria*) (**òmǐr’í**)
- c. **bòndí** **lí:gǐ**
 rain bird.HL
 ‘rain-bird’ (i.e., ‘cuckoo’) (**lí:gí**)

5.1.5 Agentive compounds of type (\hat{x} \check{v})

Most agentive nominals are compounds including an incorporated compound initial, usually a noun denoting a typical direct object of the action, or a cognate nominal of the verb. The initial is low-toned. The Agentive form of the verb has {LH} tone contour realized as <LH>, LH, or LLH depending on the number of syllables. The Agentive form also ends in /i/ (which is therefore always high-toned), except for monosyllabic stems, which have their regular lexical vowel. In (xx1), the form of the inflectable verb with its typical object is given in parentheses after the free gloss. The monosyllabic finals are (xx1.f-g).

- (xx1) a. **kù:-kùwí**
 sorcery.L-practice.sorcery.Agent
 ‘sorcerer’ (**kǔ: kúwó-**)
- b. **bǐdǐgà-bǐdǐgí**
 magic.tricks.L-do.magic.Agent
 ‘magician’ (**bǐgǐgâ bǐdǐgí-**)
- c. **dàwřĩ-bĩrĩ**

magical.solution.L-work.Agent
'magician (generally maleficent)' (dǎwří bíré-)

- d. **nàmà-tùrí**
meat.L-sell.Agent
'butcher' (meat-seller) (nàmâ túró-)
- e. **ndò-kèmi**
house.L-build.Agent
'construction worker, mason' (ndô kémé-)
- f. **tòndí-tě:**
basket.L-weave.Agent
'basket-weaver' (tòndí tē:-)
- g. **kònjò-nǒ:**
millet.beer.L-drink.Agent
'drinker of millet beer' (kònjó nó:-)

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

- (xx1) a. **[nà:-bìrà]-bìrí**
[hand.L-work(noun).L]-work.Agent
'manual worker' (nà:-bírá bíré-)
- b. **[sàgĩ-nĩ:]-nǒ:**
[dried.wild.grapes.L-water.L]-drink.Agent
'drinker of wild-grape juice' (sàgĩ-ní: nó:-)

5.1.6 Compounds with **yî:** 'child' and **ñjâ** or **nàⁿá** 'fruit'

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

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

In other compounds with this tone pattern, the initial is not a possessor, rather a noun that defines the category that the child belongs to: **tà:libù-yî:** 'child beggar (koranic-school pupil)', **[kè-kèrⁿ]-yî:** 'recently circumcised boy',

lèkòl-yî: ‘school child (pupil in public school)’. In these cases the plural is with **-yî̀tègê**. Similar compounds are used to denote the young of animals, e.g. **bèr-yî:** ‘goat kid’, **ènjè-yî:** ‘chick’.

For ‘girl’ and ‘boy’, see §5.1.7, just below.

With plants, **-yî:** as compound final denotes young plants (e.g. saplings) rather than fruits or other products. Thus **tùmà-yî:** ‘sapling (of tree)’, **tò:-yî:** ‘sprout’ (**tò:** ‘sown seeds’). My assistant accepted plurals with **-yî̀tègê**.

For other inanimate referents, I can cite the pairs **sèrí** ‘mound of excavated earth (at a burial)’ and **sèrì-yî:** ‘small pit dug for corpse inside larger burial pit’; **kó-kóró** ‘bobbin (in loom)’ and **[kò-kòrò]-yî:** ‘thin wooden rod on which bobbin turns’; and **béré** ‘stick, wood’ and **bèrè-yî:** ‘small stick, twig’. Again, my assistant accepted plurals with **-yî̀tègê**.

For ‘fruit of (plant)’, the compound final is either **̀njâ** ‘seed’ (e.g. for nut-like fruits) or more often **nàrⁿá** ‘fruit’ (related to the verb **nàrⁿá-** ‘give birth, bear’).

- (xx1) a. **mò:rⁿò-̀njâ**
 wild.date-seed
 ‘fruit (date-like) of wild-date tree’
- b. **kùrò-nàrⁿá**
 wild.grape-fruit
 ‘fruit of wild-grape tree’

5.1.7 ‘Man’ (-àrⁿá, àrⁿá-), ‘woman’ (-yǎ:, yà:-, yè-)

The adjectives used e.g. after terms for animal species, are **árⁿâ** ‘male’ and **yǎ:** ‘female’.

yǎ-ŋ ‘woman’ (plural **yǎ:**) takes the form **yǎ:** before numerals (from ‘2’ up) and **yà:** before modifying adjectives: **yà: tùmâ** ‘one woman’ (‘1’ is a modifying adjective), **yà: èsí** ‘pretty woman’, **yà: kó:** ‘unmarried woman’, **yǎ: wöy** ‘two women’. **yà-** with short vowel occurs as a compound initial in e.g. **yà-gürô** ‘young adult woman’, **yà-wô:** ‘woman who has just given birth’. ‘Girl’ is **yǎ-yⁿ** (plural **yà-tègê**).

árⁿâ ‘man’ (Sg=Pl) is generally regular: **árⁿâ wöy** ‘two men’, **àrⁿâ dùgí** ‘fat man’. ‘Boy’ is **árⁿâ-yⁿ**.

5.1.8 Compounds with *bàṅá* ‘owner’

The regular ‘owner of X’ construction is a possessive-type compound with final *bàṅà* or *bàṅà* ‘owner(s)’, the tones depending on whether the initial ends in a high or low tone. Simple examples are *ńdô bàṅà* ‘house owner’ and *nàṅá bàṅà* ‘cow owner’. The unpossessed form is *bàṅá* ‘owner, master’.

The initial is a NP in form and may be expanded (e.g. with a determiner), as in [*nàṅà wǒṅ*] *bàṅà* ‘the owner of this cow’.

The construction with *bàṅá* as final may be used to define a person or object on the basis of a major characteristic. The construction therefore competes with the Characteristic derivation with suffix *-gí* (§4.xxx). An example is *gúmǐé bàṅà* ‘person with curved (hunched) back’, based on the noun *gúmǐé* ‘curved back’. Other examples include *kǐyá bàṅà* ‘hair-owner’ (i.e. ‘hairy person’), *yǎr bàṅà* ‘sky-owner’ (i.e. ‘lightning jolt’), *lèwé bàṅà* ‘owner of sacrificial altar’ (i.e. member of a founding family of the village), *ìsè bàṅà* ‘village-owner’ (i.e. aboriginal, old-stock), and *tùrá:ǐ bàṅà* ‘divination owner’ (i.e. ‘Muslim fortune teller’).

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

Adjective *dé:* ‘authentic, prototypical’ is distinct tonally from *dě:* ‘mother’, but high-toned adjective *dé:* occurs with animal terms in e.g. *nàṅà dé:* ‘cow that has calved at least once’ (*nàṅá* ‘cow’). The senses ‘mother’ and ‘authentic’ or ‘entire’ are associated in other Dogon languages. Cf. also *dè-dé:* ‘papa!’, a respectful address form, considered by my assistant to be derived from *dèré* ‘elder sibling’.

dé: was recorded as an adjective specifying the prototypical member of a multi-member category in connection with the taxon *ò:sò*, which denotes a group of shrubs with edible fruits of the genus *Grewia* (excluding *G. bicolor*). Each species can be individually denoted by adding an adjective or compound final (*ò:sò kóró-kàrà* *G. flavescens*, *ò:sò jáṅmá* *G. tenax*, *ò:sò ògò-béré* *G. villosa*). I recorded *ò:sò dé:* ‘prototypical *Grewia*’ for *G. lasiodiscus*.

kùmbì dé: ‘prototypical (broad-leaved) fig tree’ is used, as a synonym for *kùmbì pírí* ‘white (broad-leaved) fig tree’, for the mountain fig *Ficus abutilifolia*. The other fig called *kùmbì* is *Ficus platyphylla*, which can be specified as *kùmbì báṙ’i* ‘red (broad-leaved) fig tree’.

A non-prototypical variant of a species may alternatively be named after the prototypical species, with the adjective *sǎ:ndâ*, which we might gloss as ‘false’ (though ‘second-string’ as used in baseball is closer to the Nanga sense). My only examples are these: *kùrô* ‘wild-grape tree’ (*Lannea microcarpa*) and *kùrò*

sǎ:ndà (*Lannea acida*); wèrè-wéré ‘swift or swallow’ (focally a large swift) and wèrè-wèrè sǎ:ndà ‘small swift or swallow’.

dé: is also used productively in the sense ‘entire (plant)’, distinguishing this from a fruit or other part that is also denoted by the same name. Thus màṅgòrò dé: ‘mango tree’ (mǎṅgórò).

5.1.10 Natural-species compounds with medial linking element

I did not observe any instances of flora-fauna or other nouns of the type X-L-X with an iterated segment X flanking a linking element like Jamsay -na:- or Tommo-So -ma:-.

5.1.11 Instrumental relative compounds (‘oil for rubbing’)

In this construction, the noun is head of a relative clause (with Imperfective participle) describing the function.

- (xx1) a. nǐ: nô:-mǐ
 water drink-Ppl.Impf
 ‘water for drinking’
- b. nǐ: díyé-mǐ
 water bathe-Ppl.Impf
 ‘water for bathing’

5.1.12 Other phrasal compounds

tàgà [mó:tĩ yâ:-tà] denotes a plastic man’s shoe with raised top. tàgá ‘shoe’ has as compound-like modifier a Fulfulbe phrase ‘(it) doesn’t go to Mopti’, which also occurs in similar terms for this shoe in other Dogon languages (Bankan Tey, Najamba, Tommo So).

A lightweight woman’s plastic shoe is called jènèbà-[yéyé-yéré], which is said to mean ‘Diénéba [woman’s name] is shaking’ in Bambara.

Such expressions based on VPs or clauses, in Nanga or borrowed from other languages, are not common overall.

5.2 Adjectival compounds

5.2.1 Bahuvrihi (“Blackbeard”) compounds (ñ â)

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

The initial is a noun with its regular tones. The final has {HL} contour, expressed as <HL>, HL, or HHL depending on syllable count. If the initial ends in a high tone element, the tonal pattern of the bahuvrihi is the same as for possessive-type compounds. However, in the bahuvrihi, the final has {HL} contour even if the initial ends in a low-tone element.

I transcribe bahuvrihis as hyphenated compounds.

5.2.1.1 With adjectival compound final

Examples are in (xx1). The initial, which often denotes a body part, has its regular tones. The adjectival final has {HL} contour; for the location of the tone break cf. §3.7.3.2. The regular form of the adjective showing the lexical tone is given in parentheses.

| | | |
|-------|------------------------|--|
| (xx1) | bëndé-dúgĩ | ‘big-bellied’ (dùgĩ) |
| | kû:-dúgĩ | ‘big-headed’ (dùgĩ) |
| | kû:-mè:njè | ‘small-headed’ (mè:njè) |
| | sègè-mè:njè | ‘skin-and-bones’ (lit. “skeleton-thin”) (mè:njè) |
| | gèsí-búfí | ‘soft-bodied’ (= ‘soft-skinned’) (búfí) |
| | kír ⁿ ê-sí: | ‘pointy-nosed’ (sí:) |
| | kû:-púrúgĩ | ‘with an off-white head’ (púrúgĩ) |

5.2.1.2 With numeral compound final

Examples are in (xx1).

| | | |
|-------|------------|--------------------------|
| (xx1) | kû:-wôy | ‘two-headed’ (wôy) |
| | kû:-tá:ndí | ‘three-headed’ (tá:ndí:) |
| | nǎ:-nīmí | ‘five-armed’ (nīmí:) |
| | nǎ:-kúrê | ‘six-armed’ (kúrê) |

5.2.1.3 *Alternative bahuvrihi with -nĩ suffix*

I also recorded a minor compound construction with bahuvrihi-like sense but with a different form, including a terminal suffix *-nĩ* following the adjective. The only two examples I have are in (xx2). Each shows a vowel-length and tonal change vis-à-vis the normal form of the adjective. As the glosses suggest, these belong to a slangy register.

- (xx2) *dúmbó-kèmběy-nĩ* ‘having skinny buttocks’ (*ké:mbé* ‘slender [person]’)
dúmbó-tàsĩrây-nĩ ‘having flat buttocks’ (*tàsĩrí* ‘flat and small’)

5.2.2 *Compounds of ǎ:- ‘very’ plus adjective*

The initial element *ǎ:-* may be used with a following adjective, in low-toned form, as one way of emphasizing the extent of the quality. It is used in predicates with the ‘it is’ clitic (my assistant balked at suggested examples as part of a nonpredicative NP). Examples: *ǎ:-dùgù=∅* ‘he/she is very fat’, *ǎ:-dùgù=m-ù* ‘you-Sg are very fat’; *ǎ:-bàrⁿù=∅* ‘it is very red’.

6 Noun Phrase structure

6.1 Organization of NP constituents

6.1.1 Linear order

The basic ordering of elements within NPs is (xx1).

(xx1) Order within NP (first approximation)

- a. Definite demonstrative *kú* ‘that (same) ...’
- b. pronominal possessor
 - b₁. possessor NP
 - b₂. pronominal possessor (with kin terms)
- c. **noun**
- d. modifying adjective(s)
- e. pronominal possessor (including classifier /*kâ*/ or /*yê*/)
- f. cardinal numeral or distributive
(less often, a cardinal numeral precedes (e), see (xx6), below)
- g. determiners
 - g₁. deictic demonstrative pronoun ‘this/that’
 - g₂. Definite morpheme
- h. non-numeral quantifiers
 - universal quantifier ‘all’ (*kéréw*)
 - distributive quantifier ‘each’ (*kámâ*, *kêw*)

Examples are in (xx2). After the free translation of each example, an indication of which positions in (xx1) are filled is given in curly brackets.

- (xx2) a. *kú* *á:mádù* *ndò*
Dem Amadou house.L

- ‘that (same) house of Amadou’s’ {abc____}
- b. *kú* *ú* *lésĩ* *nè*
 Dem 2SgP uncle.HL Def.AnSg.L
 ‘that (same) uncle of yours-Sg’ {abc__g_}
- c. *nèr̄ĩ* *tà:ndĩ* *bû:*
 dog.L three.L Def.AnPl
 ‘the three dogs’ {__c_fg_}
- d. *nèr̄ĩ* *tà:ndĩ* *wê:*
 dog.L three.L Dem.AnPl
 ‘these three dogs’ {__c_fg_}
- e. [*pèrgè* *bû:* *kéréw*] *íné-èr-à*
 [sheep.L Def.AnPl all] go-Perf-3PIS
 ‘All the sheep went.’ {__c__gh}
- f. *ndó* [*ú* *yê*] *tà:ndĩ:* *kéréw*
 house [2Sg Poss.InanPl] three.L all
 ‘all three of your-Sg houses’ {__c_ef_h}
- g. *ndò* *òwó* [*ú* *gô*] *gù*
 house.L big [2Sg Poss.InanSg] Def.InanSg.L
 ‘your-Sg big house’ {__cde_g_}
- h. *ndò* *òwó* [*ú* *yê*] *gà:rè* *ý*
 house.L big [2Sg Poss.InanPl] eight.L Def.InanPl
 ‘your-Sg eight big houses’ {__cdefg_}

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

However, *kámâ* may follow a cardinal numeral that has summative (rather than distributive) sense. Therefore (xx3.a) means ‘each of the three has two women’ rather than ‘each (group of) three has two women’. My assistant had difficulty with elicitation of distributive examples, but in (xx3.b) he eventually settled on a construction with *cêw*, a less common ‘each/every’ expression that is syntactically adverbial (cf. Jamsay *cêw*).

- (xx3) a. [*àr̄à* *tà:ndĩ* *kámâ*] [*yă:* *wöy*] *sò-Ø*

[man.L **three.L** each] [woman two] have-3SgS
 ‘Each of the three men has two women.’

- b. [árⁿâ tà:ndí: kêw] kílô: tùmâ béré-m-è
 [man.L three.L each] kilo one get-Impf-3PIS
 ‘Each/Every (group of) three men gets one kilo.’

kámâ may co-occur with a possessor, even a postnominal possessor with a possessive classifier (xx4).

- (xx4) [yĩ [ù yè] kámâ bày]
 [child.L [2Sg.L **Poss.AnSg.L**] **each** Dat]
 [bonbon wöy-wöy] ndí-m-Ø
 [candy two-two] give-Impf-1SgS
 ‘I will give two candies to each child of yours-Sg’ (= ‘to each of your children’)

It may also follow a determiner (xx5).

- (xx5) *yĩ-tègè wè: kámâ*
 child-Pl.L **DemAnPl.L** **each**
 ‘each of these children’

Numerals sometimes precede postnominal possessors (xx6.a). However, care should be taken to distinguish this NP construction from a clause with an unquantified possessed NP as subject and with a numeral as predicate (xx6.c).

- (xx6) a. *pèrgé kúrê [ú yê]*
 sheep six [2SgP Poss.AnSg]
 ‘your six sheep’
- b. *pèrgé [ú yê] kúrê*
 sheep [2SgP Poss.AnSg] six
 [= (a)]
- c. [*pèrgé ú yê] kúrê=yè*
 [sheep 2SgP Poss.AnPl] six=it.is.3PIS
 ‘Your sheep are six (in number)’.

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

Deictic demonstrative pronouns (§4.xxx) and universal quantifiers ('all', §6.8.1), can be used absolutely.

- (xx1) a. **ṅú** **kó:-ṅò-y"**
 Dem.AnSg eat.meal-ImpfNeg-1SgS
 'I won't eat that.'
- b. **kéréw** **kó:** **jè-Ø**
 all eat.meal RecPf-3SgS
 'He/She ate everything.'

6.1.3 Detachability (in relatives)

Possessors (preceding or following the head noun), modifying adjectives, and cardinal numerals remain with the NP when it functions as head NP of a relative. Determiners (demonstrative pronouns, Definite morphemes) and non-numeral quantifiers follow the verbal participle and may therefore be separated from the head NP by various other constituents.

6.1.4 Internal bracketing and tone-dropping

Within a NP without a pronominal possessor, tone-dropping is forced onto the preceding word X (noun, adjective, cardinal numeral, or distributive quantifier) in any of the sequences in in (xxx). (NPs with a possessor are covered below.)

(xx1) Tone-Dropping within NP

- a. [X + adjective] ("adjectives" includes ordinals)
 b. [X + **káma** 'each, any']
 c. [X + postnominal demonstrative pronoun]
 d. [X + Definite morpheme]

Tone-dropping is indexed by ".L" after the gloss in the interlinear. Examples: **ídó** 'house' drops tones to **ṅdò** before a modifying adjective in (xx2.a), a demonstrative pronoun in (xx2.b), a Definite morpheme in (xx2.c), and distributive quantifier **kámâ** 'each' in (xx2.d).

- (xx2) a. **ṅdò** **èsí]** **yá** **sò-y**

[**house.L** good] Exist have-1SgS
 ‘I have a good house.’

b. **ndò** **ngú**
 [**house.L** Dem.InanSg]
 ‘this house’

c. **ndò** **gú**
house.L Def.InanSg
 ‘the house’

d. **ndò** **kámâ**
house.L each
 ‘each house’

Recursive tone-dropping is seen in (xx3), where ‘red’ induces tone-dropping on ‘house’, and is in turn tone-dropped itself under the influence of the following ‘good’. This seems to be the most reasonable analysis, though one could alternatively argue that the final adjective ‘good’ simultaneously tone-drops the preceding adjective and (at one remove) the noun.

(xx3) [[**ndò** **bàrⁿⁱ**] **èsí**] **yá** **sò-y**
 [[**house.L** **red.L**] good] Exist have-1SgS
 ‘I have a good red house.’ (**ndò**, **bàrⁿⁱ**)

Recursion is also observed in (xx4), where **kámâ** ‘each’ forces tone-dropping on the demonstrative pronoun **wè:** ‘these’, which has already induced tone-dropping on ‘children’.

(xx4) [**yĩ-têgê** **wè:**] **kámâ**
 [**child-Pl.L** **DemAnPl.L**] each
 ‘each of these children’ (**yĩtêgê**, **wè:**)

Long-distance tone-dropping (where an element induces simultaneous tone-dropping on two other words), is discussed below.

Tone-dropping **does not occur** in the combinations in (xx5) within an NP.

(xx5) No Tone-Dropping

- a. [X + cardinal numeral]
- b. [X + universal quantifier **kéréw** ‘all’]
- c. [X + distributive adverbial quantifier **kêw** ‘each’]

d. [X + postnominal pronominal possessor]

Examples are in (xx6). In (xx6.b-c), the relevant point is that the demonstrative *y* retains its tone.

- (xx6) a. *ndó* *tà:ndi:*
house three
‘three houses’
- b. *ndò* *yěy* *kéréw*
house.L Dem.InanPl all
‘all of these houses’
- c. *ndò* *yěy* *kêw*
house.L Dem.InanPl each
‘each of these houses’
- d. *ndô* *kã:*
house 1SgP.InanSg
‘my house’

This raises the question of what happens when a sequence of tonally independent words like those in (xx6) is itself followed by a word that forces tone-dropping, such as a determiner. *kéréw* ‘all’ cannot be followed by anything within the NP, but numerals and possessors can.

It turns out that two outputs types occur, depending on the precise combination. When [**noun + numeral**] (without a possessor) is followed by a determiner, **both the noun and the numeral drop tones**. The determiner has its normal pronunciation including a high-tone element (xx7).

- (xx7) a. *ndò* *tà:ndi* *yěy*
house.L **three.L** Dem.InanPl
‘these three houses’ (*ndó*)
- b. *yà:* *wòy* *bû:*
woman.L **two.L** Def.AnPl
‘the two women’ (*yă:, wǒy*)
- c. *yà:* *wòy* *wê:*
woman.L **two.L** Dem.AnPl
‘these two women’

However, the combination of a **noun with a possessor** (in either order) forms a **tonosyntactic island** that is impervious to tone-dropping induced by a following determiner. Instead, the sequence [Poss noun] or [noun Poss] has the same tone it would have without a following determiner. Instead, **the determiner drops its tones**. Animate Plural **bû:** usually shortens its vowel and is heard as **bù**, though long-voweled **bû:** is also possible.

The tonological-island pattern is observed when the possessed noun is followed by a determiner (xx8).

- (xx8) a. **ńdô** **yě:** **ỳ**
house 1SgP.PossInanPl Def.InanPl.L
‘my houses’ (= ‘the houses of mine’) (**ỳ**)
- b. **ńdô** **kǎ:** **gù**
house 1SgP.PossInanSg Def.InanSg.L
‘my house’ (= ‘the house of mine’) (**gù**)
- c. **ńdô** **ú** **gô** **ỳgù**
house 2SgP PossInanSg Dem.InanSg.L
‘this house of yours-Sg’ (**ỳgù**)
- d. **ú** **lèsĩ** **nè**
2SgP uncle.HL Def.AnSg.L
‘this uncle of yours-Sg’ (**nè**)
- e. **ú** **lèsĩ** **bù** (or: ... **bû:**)
2SgP uncle.HL Def.AnPl.L
‘these uncles of yours-Sg’ (**bû:**)

In (xx8.a-c), **ńdô** ‘house’ has its lexical tones. In (xx8.d), the kin term **lèsĩ** ‘uncle’ has the {HL} tone imposed by the preceding possessor. Throughout (xx8), the final determiner (Definite morpheme or demonstrative pronoun) has no influence on the tones of the preceding words, and in fact own tones (compare **ỳ**, **gù**, **ỳgù**, and **nè** after unpossessed nouns). This tone-dropping can be understood as a **rightward extension of the final low tone** of the overlaid {HL} or all-low tone contour on the possessed noun with preposed possessor in (xx8.d-e), or that of the similar {HL} or all-low tone contour on the possessive classifier /**yě/** or /**gô ~ kǎ/** in (xx8.a-c). Therefore, for tonological purposes, one could bracket (xx8.c) along the lines of [*your [thing.HL determiner.L]*], where *your* has tonological scope over the sequence of thing (possessive classifier) and the determiner. One could likewise bracket (xx8.e) as [*your [uncle.HL determiner.L]*].

The tonological-island effect is also observable in the combination of a **possessed noun with a modifying adjective**. While one may surmise that the [noun adjective] sequence becomes [noun.L adjective] by tone-dropping internal to the core NP, this is erased by the possessor. When the possessor precedes the core NP, the output is [possessor [noun.(H)L adjective.L]], where the possessor imposes either {HL} or all-low tone on the noun (depending on whether the possessor ends in a high or a low tone), and the low-tone element extends rightward through to the end of the adjective (xx9).

- (xx9) a. \acute{u} $l\acute{e}s\grave{i}$ $m\grave{d}s\grave{i}$
 2SgP uncle.HL **bad.L**
 ‘your-Sg bad uncle’ ($m\grave{d}s\acute{i}$)
- b. \hat{u} : $l\grave{e}s\grave{i}$ $k\grave{a}n\grave{d}\grave{a}$
 2PIP uncle.L **new.L**
 ‘your-PI new uncle’ ($k\acute{a}n\grave{d}\grave{a}$)

When the possessor follows the possessed noun, it comes at the end of the core NP (including the adjective), and there is no tonal interaction between the possessor (and its possessive classifier) and the core NP (xx10).

- (xx10) a. $l\grave{e}s\grave{i}$ $m\grave{d}s\acute{i}$ $y\acute{e}$:
 uncle.L bad 1SgP.PossAnSg
 ‘my bad uncle’
- b. [$\grave{n}\grave{d}\grave{o}$ $\grave{d}w\acute{o}$] [\acute{u} $g\acute{o}$]
 [house.L big] [2SgP Poss.InanSg]
 ‘your-Sg big house’

While determiners and modifying adjectives cannot force tonal changes on a preceding possessed noun, **distributive quantifier** $k\acute{a}m\hat{a}$ ‘each’ can. Therefore $k\acute{a}m\hat{a}$ forces double tone-dropping not only on a preceding noun-numeral sequence (xx11.a), but also on a preceding noun with pronominal possessor, in either possessor-possessed order (xx11.b) or possessed-[possessor-classifier] order (xx11.c).

- (xx11) a. [$\grave{n}\grave{u}$ $t\grave{a}:n\grave{d}\acute{i}$ $k\acute{a}m\hat{a}$] [$k\acute{i}l\acute{o}$: $t\grave{u}m\hat{a}-t\grave{u}m\hat{a}$]
 [person.L three.L each] [kilo one-one]
 ‘one kilo for each three persons’
- b. [\grave{u} $l\grave{e}s\grave{i}$] $k\acute{a}m\hat{a}$
 [2SgP.L uncle.L] each
 ‘each uncle of yours-Sg’ (= ‘each of your uncles’) ($\acute{u} l\acute{e}s\grave{i}$)

‘Soumaila’s house’ (ńdô)

- b. sùmăylâ pèrgè
Soumaila sheep.L
‘Soumaila’s sheep-Sg’ (pèrgé)
- c. [bă: yê:] sòm
[father Poss.An.1SgP] horse.L
‘my father’s horse’. (sòm)

If the possessor **ends in a high tone**, the possessed noun has a **{HL} tone contour**. The tone break is near the right edge of the stem but does not obliterate the L-tone element: Cŷ:, CŷCŷ (with final falling tone), CŷCŷC, CŷCCŷ, CŷCŷCŷ, CŷCŷCŷCŷ, etc. This contour is indicated by “.HL” in the interlinear. Examples are in (xx2), with the lexical form of the noun shown in parentheses after the gloss.

(xx2) {HL}-toned possessed noun after final-H-toned possessor

- a. possessor is yă-ŋ ‘a woman’
- | | | |
|------|---------|---------------------------------------|
| yă-ŋ | sòm | ‘a woman’s horse’ (sòm) |
| yă-ŋ | kôsî | ‘a woman’s calabash’ (kôsî) |
| yă-ŋ | gúlá:rî | ‘a woman’s ax’ (gúlá:rî) |
| yă-ŋ | túŋgúrí | ‘a woman’s stool’ (túŋgúrí) |
| yă-ŋ | gúsîrî | ‘a woman’s de-braiding tool’ (gúsîrî) |
| yă-ŋ | bísíyéǹ | ‘a woman’s acacia’ (bísíyéǹ) |
- b. possessor is yă: wöy ‘two women’
- | | | |
|-----------|-----|------------------------|
| [yă: wöy] | sòm | ‘a horse of two women’ |
|-----------|-----|------------------------|
- c. possessor is yà: né ‘the woman’
- | | | |
|----------|-----|---------------------|
| [yà: né] | sòm | ‘the woman’s horse’ |
|----------|-----|---------------------|
- d. possessor is yà: wöŋ ‘this woman’
- | | | |
|-----------|-----|----------------------|
| [yà: wöŋ] | sòm | ‘this woman’s horse’ |
|-----------|-----|----------------------|
- d. possessor is yă-ŋ kéréw ‘every woman’
- | | | |
|--------------|-----|-----------------------|
| [yă-ŋ kéréw] | sòm | ‘every woman’s horse’ |
|--------------|-----|-----------------------|

As shown especially by the longer possessed nouns in (xx2.a), the tone break in {HL} occurs close to the right edge of the stem. However, most quadrisyllabic noun stems are treated phonologically as compounds, unlike ‘acacia’ in (xx2.a), whether or not they actually originated as compounds. This

means that the {HL} overlay is completed on the compound initial, with the compound final then continuing the L-tone (xx3). CvCv- initials are realized as ĆC̀C̀- instead of ĆC̀C̀-, since a falling tone cannot occur in a medial position.

- (xx3) a. yǎ-ŋ lāsī-kòrò ‘a woman’s perfume’ (lāsī-kórô)
 b. yǎ-ŋ súgò-pàpà: ‘a woman’s Albizzia tree’ (sùgò-pàpâ:)

6.2.1.2 Tonal treatment of modifiers following the possessed noun

If the possessed noun is followed by a **modifying adjective**, tone-dropping applies to that modifier as well. In (xx3.a-b), both ‘big’ and ‘house’ undergo tone-dropping. Phonologically, the tone contour is first applied to the noun (so that the low-tone portion of the {HL} contour is audible on the final syllable or mora of the noun), as for the compounds described in the preceding section. A light bisyllabic (CvCv, nCv) with {HL} contour overlaid is realized as ĆC̀C̀ or ńC̀C̀ before an adjective. Then the low tone of {HL} extends to the end of the adjective. If the noun and adjective had been treated as an undifferentiated syllable string, the tone break in the {HL} contour would have occurred at the final syllable break in the adjective, giving e.g. the incorrect #yǎ-ŋ [ńdò ówò] in (xxx.b).

- (xx3) a. [sùmǎylâ [ńdò ówò]] àrⁿáná bù-Ø
 [Soumaila [house.L big.L] where? be-3SgS
 ‘Where is Soumaila’s big house?’ (ńdò, ówò)
- b. [yǎ-ŋ [ńdò ówò]] àrⁿáná bù-Ø
 [woman [house.L big.L] where? be-3SgS
 ‘Where is a woman’s big house?’ (ńdò, ówò)

Tone-dropping also applies to a **cardinal numeral** following the possessed noun (or noun plus adjective). Therefore kúrê ‘six’ drops to kùrè in (xxx.a-b). As we will see later (end of §6.2.2), a prenominal pronoun possessor (before an inalienably possessed noun) does not cause tone-dropping on a numeral.

- (xxx) a. [sùmǎylâ ńdò kùrè] àrⁿáná bù-Ø
 [Soumaila house.L six.L] where? be-3SgS
 ‘Where are Soumaila’s six houses?’ (ńdò, kùrè)
- b. [sùmǎylâ ńdò ówò kùrè] àrⁿáná bù-Ø
 [Soumaila house.L big.L six.L] where? be-3SgS
 ‘Where are Soumaila’s six big houses?’ (ńdò, ówò, kùrè)

A **Definite** morpheme, **demonstrative** pronoun, or non-numeral **quantifier** ('all') at the end of the possessed NP is **not tone-dropped** under the influence of a pronominal possessor (xxx.a-c). (In the case of *kéréw* 'all', it is debatable whether the quantifier is in the NP or is a postnominal adverbial.)

- (xxx) a. [sùmǎylá ñdò kú] èsì=ndó-∅
 [Soumaila house.L Def.InanSg] good=not.be-3SgS
 'The house of Soumaila's is no good.'
- b. [sùmǎylá ñdò ñgú] èsì=ndó-∅
 [Soumaila house.L this.InanSg] good=not.be-3SgS
 'This house of Soumaila's is no good.'
- c. [sùmǎylá ñdò kéréw] èsì=ndó-∅
 [Soumaila house.L all] good=not.be-3SgS
 'Every house of Soumaila's is no good.'

6.2.1.3 Pronoun plus classifier as postnominal possessor

A **pronominal possessor** is expressed by juxtaposing the possessed noun (in its regular form) with a following pronominal possessor. For **3Sg** (including Inanimate Singular), there is a special invariant possessor morpheme /*nd*/. For all other pronominal categories, the postnominal possessor form consists of a pronominal morpheme plus a **possessive classifier** that originated as a generic noun. Thus 'your house' is expressed as 'house [you(r) thing]', essentially an **appositional** construction with the pronominal attached directly to the generic noun 'thing' that now functions as a classifier agreeing with 'house'. There are two such classifiers, one (*g*) used for inanimate singulars, and the other (*y*) used for everything else: animate singular, animate plural, and inanimate plural.

For **inanimate singulars**, the generic noun is /*g*/ (varying with /*k*/) which is related to the noun /*k*/ 'thing'.

The 1Sg form fuses the pronominal possessor with the generic noun, resulting in *k*: (with consistently voiceless /*k*/, and with <LHL> tone). This suggests an original form of the general type **x* *k*:, where **x* was C-final (favoring preservation of voiceless /*k*/) and had a L-tone (or R-tone) that ended up as the initial L tone segment in <LHL>. The usual 1Sg pronoun is *i*:ⁿ, which is close enough if we assume an original stem-final nasal consonant (**iŋ*). The other combinations with this classifier were regularly heard with /*g*/, but in elicitation I also heard variants with /*k*/. We get /*g*/ (after H-tone) or /*g*/ (after F-tone). The paradigm is (xx1).

(xx1) Pronominal Possessor (inanimate possessed noun)

| category | possessor form |
|-------------|--|
| 1Sg | kǝ: |
| 1Pl | î: gǝ |
| 2Sg | ú gǝ |
| 2Pl | û: gǝ |
| 3Sg | nǝ (but predicative <i>íné gǝ=ɨ</i> ‘is his/hers’) |
| Inan | nǝ (but predicative <i>kú gǝ=ɨ</i> ‘is its’) |
| 3Pl | bû: gǝ |
| InanPl | kû: gǝ |
| Refl/LogoSg | á gǝ |
| Refl/LogoPl | â: gǝ |

With ‘house’, for example, we get forms like those in (xx2.a-c). The predicative form for 3Sg possessor is seen in (xx2.d). The noun /kǝ/ ‘thing’ may also be possessed, like any other inanimate noun (xx2.e).

- (xx2) a. *ńdô* *kǝ:*
house 1SgP.Inan
‘my house’
- b. *ńdô* *ú* *gǝ*
house 2Sg Poss.Inan
‘your-Sg house’
- c. *ńdô* *nǝ*
house 3SgPoss
‘his/her house’
- d. [*ńdò* *gú*] [*íné* *kǝ=ɨ*]
[house.L Def.InanSg] [3Sg Poss.Inan]=it.is.3SgS
‘This house is his/hers.’
- e. *kǝ* *ú* *gǝ*
thing 2SgS Poss.Inan
‘your-Sg thing’

When the possessed noun is **inanimate plural**, the generic noun *gô* is either directly pluralized by adding Definite Inanimate Plural *ÿ* (in L-toned form), or replaced by another generic noun *yê*. The first alternative is exemplified in (xx3).

- (xx3) a. *ndó* *kõ:* *ÿ*
house 1SgP.Poss.InanSg Def.InanPl
‘my houses’
- b. *ndó* *î:* *gò* *ÿ*
house 1Pl Poss.InanSg Def.InanPl
‘our houses’

The alternative, whereby generic *gô* is **replaced** (for inanimate plural possessed noun) by *yê*, is interesting since the same generic *yê* is used for **animate** possessed noun (regardless of number). For first and second person possessor, and for 3Pl and InanPl possessor, the two paradigms are identical (xx4).

(xx4) Pronominal Possessor (inanimate plural or animate possessed noun)

| category | possessor form |
|-------------|---|
| 1Sg | <i>yě:</i> |
| 1Pl | <i>î: yè</i> |
| 2Sg | <i>ú yê</i> |
| 2Pl | <i>û: yè</i> |
| 3Sg | <i>nò</i> (but predicative <i>ńé yê=ñ</i>) |
| 3Pl | <i>bû: yè</i> |
| InanSg | <i>nò</i> (but predicative <i>kú yê=ñ</i>) |
| InanPl | <i>kû: yè</i> |
| Refl/LogoSg | <i>á yê</i> |
| Refl/LogoPl | <i>â: yè</i> |

Inanimate plural possessed nouns are exemplified in (xx5).

- (xx5) a. *ndô* *yě:*
house 1SgP.Poss.InanPl
‘my houses’

- b. **ńdô** **ú** **yê**
house 2Sg Poss.InanPl
‘your-Sg houses’
- c. **ńdô** **î:** **yè**
house 1Pl Poss.InanPl
‘our houses’

Animate singular possessed nouns are in (xx6).

- (xx6) a. **pèrgé** **yê:**
sheep 1SgP.Poss.AnSg
‘my sheep-Sg’
- b. **kórójĩ** **ú** **yê**
family 2SgP Poss.AnSg
‘your-Sg family’
- c. **gùndá** **î:** **yè**
slave 1PIP Poss.An
‘our slave’

The situation for 3Sg (and Inanimate Sg) possessor is more complex. With an animate singular possessed noun, the same /nɔ̃/ seen above (with inanimate singular possessed noun) is used postnominally. The expected, fully transparent predicative forms are also used. For inanimate plural possessed noun, 3Sg possessor can again be expressed by /nɔ̃/, meaning that there is no distinction between singular and plural possessed noun. The distinction can be expressed by a following determiner, such as Definite (Inanimate Singular **gú**, Inanimate Plural **ý**, in low-toned forms): **ńdô nɔ̃ gù** ‘the house of his/hers’, **ńdô nɔ̃ ý** ‘the houses of his/hers’.

While **nɔ̃** is the usual 3Sg/Inanimate possessor form, it is also possible to revert to the more generally productive pattern for pronominal possessors, using 3Sg pronoun **ńné** as the possessor, with a following classifier. (My assistant rejected comparable examples with Inanimate Singular pronoun **kú**.) Thus **ńné gô** ‘his/her’ for inanimate singular possessed noun, and **ńné yê** for inanimate plural (as well as all animates).

- (xx7) a. usual invariant 3Sg/Inanimate possessor

3Sg **nɔ̃** (but predicative **ńné yê=ɲ**)

InanSg *nò* (but predicative *kú yɛ=ɲ*)

b. alternative 3Sg possessor form with classifier

3Sg with inanimate singular *ɲné gô*
 3Sg with inanimate plural *ɲné yê*

An example with animate singular possessed noun is (xx8.a). Of course the reading with inanimate possessor and animate possessed noun is rare. That *nò*, like other postnominal pronominal possessors (those with classifiers), can follow a modifying adjective, is shown by (xx8.b). Predicative counterparts, distinguishing animate 3Sg possessor (common) from inanimate singular possessor (uncommon) are in (xx8.c-d).

- (xx8) a. *pèrgé nò*
 sheep 3SgP.AnSg
 ‘his/her sheep-Sg’ = ‘its sheep’
- b. *pèrgè dùgí nò*
 sheep.L big 3SgP.AnSg
 ‘his/her big sheep-Sg’ = ‘its big sheep’
- c. [*pèrgè wǒŋ*] [*ɲné yê=ɲ*]
 [sheep.L Dem.AnSg] [3Sg Poss.AnSg]=it.is.3SgS
 ‘This sheep is his/hers.’
- d. [*pèrgè wǒŋ*] [*kú yê=ɲ*]
 [sheep.L Dem.AnSg] [InanSgPoss.AnSg]=it.is.3SgS
 ‘This sheep is its (= belongs to it).’

Examples with inanimate plural possessed nouns are in (xxx). (xxx.a) is only good for animate possessor, while (xxx.b) can have animate or inanimate possessor. Predicative forms are in (xxx.c-d).

- (xxx) a. *ɲdô ɲné yê*
 house 3Sg Poss.InanPl
 ‘his/her houses’
- b. *ɲdó nòyⁿ*
 house InanSgP
 ‘his/her houses = ‘its houses’

- b. **ámberĩ** **dè:**
 chief mother.L
 ‘(a/the) chief’s mother’ (**dè:**)
- c. [**ámberĩ** **né]** **dè:**
 [chief.L Def.AnSg] mother.HL
 ‘the chief’s mother’

As we have seen, with alienable nouns, pronominal possessors are expressed in a distinctive construction involving a postnominal possessive classifier (‘house you(r) thing’ = ‘your house’). With inalienable nouns (i.e. kin terms) as the possessed noun, however, pronominal possessors (other than 1Sg and 3Sg/Inanimate, on which see below) have the same pronominal position as do nonpronominal possessors. The possessed noun, as usual, has overlaid {HL} contour if the pronoun ends in a high tone (2Sg **ú**, Logophoric Sg **á**), and all-low contour if the pronoun ends in a low-tone element (1Pl **ĩ:**, 2Pl **ũ:**, 3Pl **bũ:**, Logophoric Pl **â:**).

For 3Sg (including Inanimate) and 1Sg possessor, there is no difference between alienable and inalienable possessor. 3Sg possessor is expressed by the invariant postnominal morpheme **nò**, and 1Sg possessor is expressed by the relevant 1Sg form of the postnominal possessive classifier, which for kin terms (which of course are animate) is always **yê:** in both singular and plural.

The paradigm of **bǎ:** ‘father’ is therefore (xx1).

(xx1) category ‘X’s father’

- a. pronominal possessor ending in high tone, {HL} contour
 2Sg **ú bǎ:**
 LogoSg **á bǎ:**
- b. pronominal possessor ending in low tone, all-low contour
 1Pl **ĩ: bǎ:**
 2Pl **ũ: bǎ:**
 3Pl **bũ: bǎ:**
 LogoPl **â: bǎ:**
- c. postnominal possessor with possessive classifier, lexical tone
 1Sg **bǎ: yê:**
- d. special 3Sg postnominal morpheme, lexical tone
 3Sg **bǎ: nò**

Further examples of the full {HL} contour with kin terms: *dê:* ‘mother’ (unpossessed *dě:*), *dérè* ‘elder sibling’ (unpossessed *dèré*), *lógò* ‘husband’ (*lògò*), *ómírⁿⁱ* ‘parent-in-law’ (*òmírⁿⁱ*).

Aside from the obvious kin terms, some other relationship nouns are treated in this fashion. Examples: *tíyá* ‘friend’, *tògírá* ‘namesake’ (anyone with the same personal name), *tũ:* ‘agemate’, *kàdàgá* ‘agemate group’, *àndírí* ‘rival, competitor’. The forms with {HL} possessed-noun contour are *tíyà*, *tógírà*, *tũ:*, *kádágà*, and *ándírí*. The Reciprocal pronoun *tũ:* is related to *tũ:* ‘agemate’ (§18.3).

‘Woman’ (even in the sense ‘wife’) and ‘child’ (even in the kinship sense) are regular alienable nouns, so pronominal possessors are postnominal: *yâ: ú yê* ‘your-Sg wife’, *yî: ú yê* ‘your-Sg child’

6.2.2.2 No tone-dropping of numeral after pronominally possessed kin term

Like nonpronominal possessors, preposed pronominal possessors impose an {HL} or (if ending in a low tone) all-low tone contour not only on the following possessed noun, but also on a following modifying adjective (which is therefore always low-toned). Thus [*ú dérè m̀̀sĩ*] ‘your-Sg bad (older) brother’, where *m̀̀sí* ‘bad’ drops tones just as it does in .e.g. [*àr^{na} né] dérè m̀̀sĩ*] ‘this man’s bad (older) brother’.

However, there is a difference between pronominal and nonpronominal possessors with respect to tone-dropping of a numeral following the possessed noun. In (xx1.a-b), the nonpronominal possessor NP imposes the all-low (xxx.a) or {HL} (xx1.b) contour on the possessed NP, extending the low-toned portion to the numeral (*kúrê* ‘six’). In (xx1.c), by contrast, *kúrê* **keeps its lexical tones** after a noun with pronominal possessor.

- (xx1) a. *sùmăylâ* *dèRè* *kùrè*
 S older.sibling.L **six.L**
 ‘Soumayla’s six older brothers’
- b. [*àr^{na}* *wõŋ*] *dérè* *kùrè*
 [man.L Dem.AnSg] older.sibling.HL **six.L**
 ‘this man’s six older brothers’
- c. *ú* *dérè* *kúrê*
 2SgP elder.sibling.HL **six**
 ‘your-Sg six older brothers’.

6.3 Noun plus adjective

6.3.1 Noun plus regular adjective

Modifying adjectives (including ordinals) follow the noun. In the absence of a possessor, an adjective induces tone-dropping on the noun. Thus *ńdô* ‘house’ drops its tones to *ndò* in (xx1.b-d).

- (xx1) a. *ńdô* ‘(a) house’
 b. *ndò èsí* ‘(a) good house’
 c. *ndò pírí* ‘(a) white house’
 d. *ndò kiyá* ‘(the) first house’

6.3.2 Adjective *gàmbí* ‘certain (ones)’

The adjective *gàmbí* is most often used in the plural form *gàmbí-yê*, meaning ‘certain (ones)’, i.e. a subset (with at least two members) of a larger collectivity. The singular form *gàmbí* ‘(a) certain (one)’ is also possible but less common in connection with countable entities.

- (xx1) a. *nũ:* ‘(a) person’; ‘people’
 b. *nù gàmbí* ‘a certain person’
 c. *nù gàmbí-yê* ‘certain people’
- (xx2) a. *kúrⁿô* ‘(a) stone’
 b. *kùrⁿò gàmbí* ‘a certain stone’
 c. *kùrⁿò gàmbí-yê* ‘certain stones’

A typical discourse context for *gàmbí* is a parallel construction contrasting an eventuality involving one subgroup with a distinct or polar opposite eventuality involving the complementary subgroup (xx3). The noun may or may not be repeated with the second occurrence of *gàmbí*.

- (xx3) [*nù* *gàmbí*] *wàrà:ⁿ-s-è,*
 [person.L certain] do.farm.work-Prog-3PIS,
 [*nù* *gàmbí*] *wórí dògó-tĩ-yà*
 [person.L certain] farming leave-Perf1b-3PIS
 ‘Some people are (still) farming, (while) some (others) have given up farming.’

With mass nouns like ‘sugar’, *gàmbí* means ‘some of (X)’, denoting a portion of a larger quantity (xx4).

- (xx4) [sùkòrò gàmí] kò:-y.: ndè, gàmí àgí-yé-m-ì:
 [sugar.L some] eat.Perf.L-1PIS if, some hold-MP-Impf-1PIS
 ‘We’ll consume some of the sugar, and we’ll keep some (= the rest).’

6.3.3 Expansions of adjective

6.3.3.1 Adjective sequences

An adjective may follow a sequence of a noun and one or more adjectives. In this case, the final adjective has its lexical tones, but all preceding words in the core NP are tone-dropped.

- (xx1) a. nèr^í dùgǐ m̀sì
 dog.L big.L nasty
 ‘a big vicious dog’ (nèr^í, dùgǐ)
- b. yèbùmbà bàr^í gùró
 snake.L red.L long
 ‘a long red (= brown) snake’ (yèbùmbà, bàr^í)

6.3.3.2 ‘Good to eat’

In the most transparent construction, the NP in question is subject of an adjectival predicate (‘be good’ etc.), and the activity type is expressed by the locative form of a verbal noun. The adjectival predicate agrees with the subject (xx1.a-b.).

- (xx1) a. [tàgá nì:] [nó:-ndé gá] èsù=ndó-Ø
 [pond water.HL] [drink-VbIN] in] be.good=not.be-3SgS
 ‘The water of the pond isn’t good to drink.’
- b. yǐ-tègê [kúwó-ndé gá] érí-yè
 children [eat.meat-VbIN in] be.good-Pl
 ‘Children are good to eat.’

A variation on this is with a form of the verb equivalent to the Imperfective (without any further pronominal suffixation) instead of the verbal noun.

- (xx2) kǐsì-kísí kúwó-m̀ gò èsú

winged.termite eat.meat-Impf in be.good
 ‘Winged termites are good to eat.’

These constructions are distinct from one where the verbal noun is the subject of the adjectival predicate (xx3). Here there is no agreement in the predicate with the subject of the verbal-noun complement (‘children’).

(xx3) [yĩ-tègê ɲírⁿé-ndé] éru
 [children look-VbIN] be.good
 ‘It’s good to look at children.’

6.4 Noun plus cardinal numeral

Cardinal numerals follow a noun and any modifying adjectives, which together constitute the core NP. In the absence of a possessor, the numeral has its lexical tones, and it has no tonal effect on the words in the core NP.

(xx1) a. ndô ‘house’
 ndô wǒy ‘two houses’
 b. ndò ðwó ‘a large house’
 [ndò ðwó] wǒy ‘two large houses’

The numeral remains with the core NP (and a possessor if present) when it functions as head NP of a relative.

6.5 Noun plus determiner

6.5.1 Prenominal kú ‘the (afore-mentioned)’

kú before a noun may be used as a discourse-definite determiner, somewhat more emphatic than the usual postnominal Definite morphemes (which may co-occur with it). In form, kú is indistinguishable from the Inanimate Singular possessor pronominal kú ‘its’. It also has the same tonal treatment as the pronominal possessors. The possessed noun has {HL} tone contour overlaid. The examples in (xx1) include postnominal Definite morphemes, which in the absence of kú force tone-dropping on the preceding noun. Determiners such as Definite morphemes have their regular tones (i.e. they are not themselves subject to tone-dropping).

- (xx1) a. kúrⁿô ‘stone’
kùrⁿò gú ‘the stone’
kú kúrⁿò (gú) ‘that (same) stone’
- b. kùrⁿò ý ‘the stones’
kú kúrⁿò (ý) ‘those (same) stones’
- c. nǔ: ‘person’
nù: né ‘the person’
kú nù: né ‘that (same) person’
- d. nù: bû: ‘the people’
kú nù: bû: ‘those (same) people’

An example with a postnominal demonstrative pronoun is kú kúrⁿò ñgú ‘this (same) stone’, with the Inanimate Singular demonstrative ñgú.

Although kú behaves much like a possessor syntactically, it can **co-occur with a true possessor morpheme**. In (xx2.a), the possessor is a pronoun, and therefore it (along with its possessive classifier) follows the noun. The low tone of the final Definite morpheme is attributable to ú gô, as is suggested by the bracketing. In (xx2.b), kú precedes (and has broad semantic scope over) a sequence beginning in an indefinite possessor NP (‘woman’). kú here has no effect on this possessor NP (or on any other word). This construction is distinct from that in (xx2.c), where kú has local scope over the immediately following possessor (again ‘woman’), and therefore forces the {HL} possessed-noun contour on this noun. My assistant accepted (xx2.d) as grammatical, though awkward; it combines two occurrences of Definite kú, with broad and narrow semantic scope, respectively.

- (xx2) a. [kú ñdò] [[ú gô] gú]
[Def house.HL] [[1SgP.Poss.InanSg Def.InanSg] Def.InanSg]
‘that (same) house of yours-Sg’
- b. kú [yǎ-ŋ ñdò gú]
Def [woman-Sg house.HL Def.InanSg]
‘that (same) house of (a/the) woman’
- c. [kú yâ-ŋ] ñdò gú
[Def woman-Sg.HL] house.L Def.InanSg
‘(a/the) house of that (same) woman’
- d. kú [[kú yâ-ŋ] ñdò gú]
Def [Def woman-Sg.HL] house.L Def.InanSg

‘that (same) house of that (same) woman’

6.5.2 Postnominal demonstrative pronouns

A demonstrative pronoun (§4.4.1.1) follows the core NP and any cardinal numeral that may be present. In the absence of a possessor, the demonstrative retains its own tones, but forces tone-dropping on the final word of the core NP (the nonfinal words in the core NP are already tone-dropped), and (simultaneously) on the numeral. The illustrative examples in (xx1) involve the inanimate demonstrative pronouns, singular *ɲgú* and plural *yěy*.

- (xx1) a. *ɲdô* ‘house’
ɲdò ɲgú ‘this house’
- b. *ɲdò ɲwó* ‘(a) big house’
ɲdò ɲwò ɲgú ‘this big house’
- c. *ɲdô wǒy* ‘two houses’
ɲdò wòy yěy ‘these two houses’
- d. [*ɲdò ɲwó*] *wǒy* ‘two big houses’
[*ɲdò ɲwò*] *wòy yěy* ‘these two big houses’

When a NP containing a demonstrative functions as head NP of a relative, the demonstrative pronoun is separated from the core NP and the numeral, and is placed after the verbal participle (§14.xxx).

6.5.3 Definite morpheme plus noun

The Definite morphemes (§4.4.1) function syntactically in the same fashion as the demonstrative pronouns. They induce tone-dropping on the final word of a preceding core NP, and (simultaneously) on any cardinal numeral.

- (xx1) a. *ɲdô* ‘house’
ɲdò gú ‘the house’
- b. *ɲdò ɲwó* ‘(a) big house’
ɲdò ɲwò gú ‘the big house’
- c. *ɲdô wǒy* ‘two houses’
ɲdò wòy y ‘the two houses’

- d. [̀nd̀ òwó] wǒy ‘two big houses’
 [̀nd̀ òwò] wòy ý ‘the two big houses’

Like the demonstrative pronouns, Definite morphemes are separated from a NP that functions as head of a relative, and are placed after the verbal participle (§14.xxx).

6.6 Universal and distributive quantifiers

6.6.1 ‘All’ (*kéréw*, *sóy*)

For ‘all’ (universal quantifier), *kéréw* is added at the end of the NP. With inanimates, agreement is 3Sg rather than 3Pl (xxx.a). With animates, agreement is plural. *kéréw* may be combined directly with an independent pronoun (xxx.c), with appropriate person agreement. *kéréw* can also be used absolutely, in the sense ‘everything’ or ‘everyone’.

- (xxx) a. [̀nd̀ ý kéréw] yègè-èrè-∅
 [house.L Def.InanPl] all fall-Perf1a-3SgS
 ‘All of the houses fell (=collapsed).’
- b. [yì-tègè bû: kéréw] yá b-è
 [child-Pl.L Def.AnPl all] Exist be-3PlS
 ‘All of the children are present.’
- c. [í: kéréw] yá bû-y.:
 [1Pl all] Exist be-1PlS
 ‘We are all present.’
- d. kéréw ínè-èr-à
 all go-Perf1a-3PlS
 ‘Everyone went.’
- e. kéréw kó:-fi-yà
 all eat-Perf1b-3PlS
 ‘They ate everything.’

It is also possible to use the more emphatic *sóy* in the same NP-final position (xxx.a), and absolutely (xxx.b). However, *sóy* can also be used phrase-initially, and in this case it may co-occur with *kéréw* (xxx.c).

- (xxx) a. [̀nd̀o ́y sóy] ǹamé-èrè-∅
 [house.L Def.InanPl **all**] be.ruined-Perf-3SgS
 ‘All of the houses were ruined.’
- d. sóy ̀nné-èr-à
 all go-Perf-3PIS
 ‘Everyone went.’
- c. [sóy yĩ-tègè bú: kérew] yá b-è
 [**all** child-Pl.L Def.AnPl **all**] Exist be-3PIS
 ‘All of the children are present.’

For *kérew* and *sóy* with negation, see §6.xxx, below. For ‘(not) at all’ emphatics, see §19.xxx.

6.6.2 ‘Each’ (*kámâ*)

Distributive ‘each’ is *kámâ*. It forces tone-dropping on the preceding noun: *ndó* ‘house’, *ndò kámâ* ‘each house’. Agreement is 3Sg. It cannot be directly attached to a personal pronoun, but an independent pronoun with nonsingular reference may precede it appositionally. In this case, agreement is 3Sg regardless of the category of the pronoun (xxx.b).

- (xxx) a. [nù kámâ] [pèrgé wöy-wöy] ndí-m-ì:y
 [person.L **each**] [sheep two-two] give-Impf-1PIS
 ‘We will give two sheep (apiece) to each person.’
- b. [nù kámâ]
 [person.L **each**]
 [pèrgè tùmâ-tùmâ ñjĩ-ŋ ndí-ŋ]
 [sheep one-one] 1SgO give-Impf.3SgS
 ‘Each person will give me one sheep.’
- b. î: [nù kámâ]
 1PIS [person.L **each**]
 [á gò] éwé-ŋ
 [Refl Poss.InanSg] pay-Impf.3SgS
 ‘Each of us will pay for his own (portion).’

The expression *kò kámâ* ‘each thing’ is commonly used under negation to mean ‘(not) anything’, i.e. ‘nothing’. It is a high-frequency expression and is often heard as [kòkómà] with partial forward vocalic assimilation.

6.6.3 Universal and distributive quantifiers with negation

Of the two ‘all’ particles (universal quantifiers) described above (§6.xxx), the more emphatic *sóy* is most likely to have wide scope containing a negation. It therefore functions to emphasize the negation (xxx).

- (xxx) a. *sóy* *kó:-ŋ̀-**w**-nde,* *tù-túwé-m̀-^w*
all eat-**Perf.Neg**-1SgS, Rdp-die-**Impf**-2SgS
 ‘If you-Sg don’t eat at all, you will die.’

The more basic and unmarked universal quantifier *kéréw* is more usual in narrow-scope contexts, i.e. where the negation has wide scope (xxx).

- (xxx) a. [yú: î: g̀], *kà-kã:* *gàmbí kúwó í,*
 [millet 1Pl Poss.InanSg] Rdp-grasshopper some eat and.SS
gàmbí d̀g-g̀, [*kéréw g̀y*] *kùwò-ndú*
 some leave.**Perf.L**-3PlS, [**all** Topic] eat-**Perf.Neg**.3Pl
 ‘The locusts ate some of our millet and left some; they did not eat all (of it).’

6.6.4 Universal quantifier combined with a numeral

6.7 Accusative -ŋ

The Accusative suffix (or clitic) *-ŋ* can be added to nouns and pronouns in direct object function. It is more common with animate NPs and pronouns, but is also possible with inanimates. It occurs at most once in a multi-word NP.

It usually reduces phonetically to nasalization and perhaps very slight lengthening of a preceding vowel, though I normalize transcription as *-ŋ*. When followed by a vowel-initial word, we might expect a loud and clear [ŋ], but the *-ŋ* in *pèrgé-ŋ* ‘sheep-Acc’ has the same phonetic reductions in e.g. *pèrgé-ŋ ãy-só-y* ‘I picked up a sheep’ as it does before a consonant or prepausally. The suffix is often **entirely inaudible** in contexts where it is allowed. Inaudibility is common when the final syllable of the form is already nasal (*kúrⁿò* ‘stone’, *árⁿâ* ‘man’, *nàmâ* ‘meat’), but inaudibility is also fairly common even in more

benign phonological environments. When there is no audible cue, it is difficult to determine whether the suffix is structurally absent (i.e. is optional), or has merely been reduced to zero phonetically. My practice is to omit it in transcriptions unless it has at least some audible trace (such as nasalization). However, (animate) pronouns seem to have (underlyingly) obligatory *-ŋ* in the relevant syntactic environments, and in the case of 1Sg *ɲǰí-ŋ* even the phonetic disappearance of *-ŋ* is recoverable from the change in pronominal allomorph (compare regular 1Sg pronoun *ĩ:n*).

The suffix has **no intrinsic tone**, so the final tone of the noun or pronoun is extended to the suffix. (xx1.a) show *-ŋ* after a simple animate noun stem. The pronominal version in (xx1.b) also shows *-ŋ*. A pronominal possessor is compatible with *-ŋ* on the possessed noun (xx1.c).

- (xx1) a. *pèrgé-ŋ* *sémé-só-ý*
 sheep-Acc slaughter-Perf2-1SgS
 ‘I slaughtered a sheep.’
- b. *ɲné-ŋ* *sémé-só-ý*
 AnSg-Acc slaughter-Perf2-1SgS
 ‘I slaughtered it (animate).’
- c. [*á* *bâ:-ŋ*] *yĩ:-só-Ø*
 [ReflSgP father-Acc] see-Perf2-3SgS
 ‘She saw her (own) father.’
- d. *béré-ŋ* *késé-só-ý*
 stick-Acc cut-Perf2-1SgS
 ‘I cut a stick.’

If a noun is followed by a modifying adjective, Accusative *-ŋ* (if present at all) is attached to the adjective (xx2.a-b). The same is true when the noun is followed by a postnominal possessor (pronominal plus possessive classifier) (xx2.c). The noun cannot also take *-ŋ* in these combinations.

- (xx2) a. [*pèrgè* *èwré-ŋ*] *sémé-só-ý*
 [sheep.L small-Acc] slaughter-Perf2-1SgS
 ‘I slaughtered a small sheep.’
- b. [*àrⁿà* *gàwá-ŋ*] *súyó-só-ý*
 [man.L tall-Acc] hit-Perf2-1SgS
 ‘I hit a tall man.’
- c. [*pèrgé* *á* *yê-ŋ*] *sémé-só-Ø*
 [sheep ReflSgP Poss.AnSg-Acc] slaughter-Perf2-3SgS

‘He slaughtered his (own) sheep-Sg.’

When a numeral greater than ‘one’, the universal quantifier *kéréw* ‘all’, distributive quantifier *kêw* ‘each’, or *săy* ‘only’ follows an animate noun, Accusative *-ŋ* is suffixed to the noun (not to the quantifier) (xx3).

- (xx3) a. [pèrgé-ŋ pê:r] sémé-só-ý
 [sheep-Acc ten] slaughter-Perf2-1SgS
 ‘I slaughtered ten sheep.’ (pé:rù)
- b. [pèrgé-ŋ kéréw] sémé-só-ý
 [sheep-Acc all] slaughter-Perf2-1SgS
 ‘I slaughtered all the sheep.’
- c. [pèrgé-ŋ kêw] [ná wöy-wöy] sùyð-ý
 [sheep-Acc each] [time two-two] hit-Perf2-1SgS
 ‘I hit each sheep twice.’

The more common distributive quantifier *kámâ* is treated like a modifying adjective (in this as in other respects), so *-ŋ* in this case is added to the quantifier (xx4.a). The numeral ‘one’ is also an adjective syntactically and takes *-N* directly (xx4.b).

- (xx4) a. [pèrgé-ŋ săy] sèmè-ý
 [sheep-Acc only] slaughter.Perf.L-1SgS
 ‘I slaughtered only a sheep.’
- b. [pèrgè kámâ-ŋ] [ná wöy-wöy] sùyð-ý
 [sheep.L each-Acc] [time two-two] hit-Perf2-1SgS
 ‘I hit each sheep twice.’

Determiners are the only postnominal modifiers that Accusative *-ŋ* can attach to. In this case, the noun (which is low-toned) does not also show *-ŋ* (xx5).

- (xx5) a. [pèrgè né-ŋ] sémé-só-ý
 [sheep.L Def.AnSg-Acc] slaughter-Perf2-1SgS
 ‘I slaughtered the sheep-Sg.’
- b. [pèrgè èwrè né-ŋ] sémé-só-ý
 [sheep.L small.L Def.AnSg-Acc] slaughter-Perf2-1SgS
 ‘I slaughtered the small sheep-Sg.’
- c. [kùrⁿò gú-ŋ] gùyó-só-ý

7 Coordination

7.1 Conjunction

7.1.1 NP conjunction ('X and Y') with *yò*

The basic 'and' conjunction is *yò*, following both coordinands (xxx).

- (xxx) a.

| | | | |
|----------------|------------|------------------------|------------|
| <i>[ú</i> | <i>yò]</i> | <i>[i:ⁿ</i> | <i>yò]</i> |
| [2Sg | and] | [1Sg | and] |
| ‘you-Sg and I’ | | | |
- b.

| | | | |
|----------------------|------------|---------------|------------|
| <i>[béfi</i> | <i>yò]</i> | <i>[pèrgé</i> | <i>yò]</i> |
| [goat | and] | [sheep | and] |
| ‘a goat and a sheep’ | | | |

7.1.1.1 Ordering of coordinands

My assistant indicated that the coordinands can be ordered either way. He did, however, express a preference for ordering pronouns before names or other NPs. In combinations of two pronouns, he preferred ordering third person before second person ('he/she and you') and second before first ('you and I').

7.1.1.2 Conjunction with final quantifier

kéréw 'all' may appear at the end of a conjoined NP.

- (xx1)

| | | | | | |
|--------------------------------|------------|------------------------|------------|--------------|-----------------|
| <i>[ú</i> | <i>yò]</i> | <i>[i:ⁿ</i> | <i>yò]</i> | <i>kéréw</i> | <i>íné-m-ì:</i> |
| [2Sg | and] | [1Sg | and] | all | go-Impf-1PlS |
| ‘You-Sg and I are both going.’ | | | | | |

7.1.2 “Conjunction” of verbs or VP’s

The conjoined NP type *[X yò Y yò]* is not used with verbs, VP’s, or clauses (except when quoted and treated as NPs, as in ‘X said [“Y” and “Z”]’).

For the various ways to chain together verbs, VP's, and clauses, see Chapter 15.

7.2 Disjunction

There is no sharp distinction between disjunctive 'X or Y' in indicative contexts, and polar (including yes/no) interrogatives (§13.2.1).

7.2.1 'Or' (mà)

The simplest disjunctive phrase is of the type [X *mà* Y *mà*], as in (xx1.a). This is directly comparable to the conjunction type [X *yò* Y *yò*] described above. However, there is an asymmetry in the disjunctive construction, in that the first but not the second *mà* is subject to intonational prolongation, the effect of which is to make it difficult to bracket this *mà* with the first coordinand. Furthermore, the second *mà* is often omitted, as in (xx1.b).

- (xx1) a. *àsú*⇒ [*pèrgé* *mà*⇒ *béfi* *mà*] *sémé-m-ĩ*.
 always [sheep or goat or] slaughter-Impf-1PIS
 'We slaughter (either) a sheep or a goat always (= every day).'
- b. [*nù* *bù*: [*nàjá* *tà:ndí*: *mà*⇒ *nǒyⁿ*]
 [person.L Def.AnPI] [cow three or four]
màrà-g-à
 be.lost-Caus-Perf.L-3PIS
 'The people lost three or four cows.'

7.2.2 Clause-level disjunction

It is particularly difficult to keep clausal disjunction (which by definition allows two or more possibilities) distinct from polar interrogation. The examples in (xx1) were elicited as disjunctions. They show a single occurrence of *mà*⇒ 'or' between the two clauses, which is also possible with interrogatives ('will we go to the market, or will we die?'). In the indicative disjunctive sense, my assistant showed a distinct **preference for the unaffixed Perfective** as opposed to the Imperfective for future as well as past time frames. Stative verbs are also possible (xx1.c).

- (xx1) a. *é:ŋí* [*éwé* *gá*] *nnè-y*.: *mà*⇒ *tùwè-y*.:

tomorrow [market in] go.Perf.L-1PIS or die.Perf.L-1PIS
 ‘Tomorrow, (either) we’ll go to the market, or we’ll die.’
 (lit. “... we’ll have gone ... or we’ll have died”)

- b. **bàmàkó** **̀̀nè-w** **mà⇒** **̀̀gá** **bè:-w**
 B go.Perf.L-2SgS or here stay.Perf.L-2SgS
 ‘You-Sg will go to Bamako or you will stay here.’ (but e.g. you
 won’t go to Mopti)
- c. **[ò: gó]** **̀̀nè-Ø** **mà⇒** **ní-ǹ̀yà-Ø**
 [field.L in] go.Perf.L-3SgS of Rdp-sleep.Stat-3SgS
 ‘Either he has gone to the field, or he’s sleeping.’ (since he doesn’t
 answer our knock at the door)

My assistant rejected disjunctions including morphological imperatives (either two imperatives, or a combination of some other verb form with a final imperative). (xx1.b) can be used as a rough pragmatic equivalent to a disjunction of two imperatives.

8 Postpositions and adverbials

8.1 Dative and instrumental

8.1.1 Dative *bay* ('for', 'at the place of')

This postposition appears in two tonal variants, *báy* and *bày*, carrying over the final tone from the preceding morpheme.

- (xxx) a. *yùrí* [[*nù* *pě:*] *báy*] *ké:r-só-ý*
garment [[person.L old] **Dat**] show-Perf2-1SgS
'I showed the garment to the old man.'
- b. *kě:rè* [*á:mádù* *bày*] *ńdí-só-ý*
money [Amadou **Dat**] give-Perf1b-1SgS
'I gave the money to Amadou.'
- c. [[*ú* *bâ:*] *bày*] *dámâ*
[[2SgP father] **Dat**] speak.Imprt
'Speak-2Sg to your father!'
- d. *nî:* [*lò:sí* *báy*] *ńđi-y*
water [visitor **Dat**] give.Perf.L-1SgS
'I gave some water to a visitor.'

With 'give' and 'show', datives are optionally replaced by accusatives, but 'say' requires that the addressee (if specified overtly) be in dative form.

This postposition can also be used like French *chez X* 'at the place/house of X'.

- (xx2) *á:mádù* [*ú* *báy*] *bù-Ø*
A [2Sg chez] be-3SgS
'Amadou is at your-Sg place.'

Pronominal datives are repeated in (xx3) from §4.3.xxx. Except for the first singular, the forms are transparent. 1Sg *bàrⁿⁱ* arguably begins with a variant of

bày followed by a 1Sg element (reversing the usual order), but the morphology here is messy.

(xx3) Pronominal Datives

| | category | dative |
|----|------------------|------------------------------|
| a. | 1Sg 1Pl | bàr ^r i î: báy |
| b. | 2Sg 2Pl | ú báy û: báy |
| c. | 3Sg 3Pl | íné báy bû: báy |
| d. | InanSg InanPl | kú báy kû: báy |
| e. | LogoSg LogoPl | á báy â: báy |

Further examples of pronominal datives are in (xx4).

- (xx4) a. **bàr^ri** ñjènà:r^ri dàmà-r^ri-Ø
1SgDat nothing speak-Perf.Neg-3SgS
 ‘He/She said nothing to me.’
- b. **tégî** [ú báy] dámá-m-Ø
 truth [2Sg **Dat**] speak-Impf-1SgS
 ‘I will tell you-Sg the truth.’

8.1.2 Instrumental yàṅà (yṅà)

The basic instrumental postposition is low-toned yàṅà, optionally elided after a vowel to yṅà. It is distinct from /yàṅa/ (atonal, hence either yáṅá or yàṅà) ‘also, even’, (§19.1.3).

- (xx1) a. **nàmâ** [pòrí yàṅà] késé-só-Ø
 meat [knife **with**] cut-Perf2-3SgS
 ‘He/She cut the meat with a knife.’

- b. [nè:mí yàṅà] nèṅí néṅgírè-m-è
 [salt with] sauce cook.sauce-Impf-3PlS
 ‘They cook the sauce with salt.’
- c. [kúr^o yàṅà] íné-ṅ sùyò-y
 [stone with] 3Sg-Acc hit.Perf.L-1SgS
 ‘I hit him/her with a stone.’

8.2 Locational postpositions

8.2.1 Locative, allative, and ablative functions

Simple locative adverbials, including locative PPs, can be translated as (stationary) locatives, as allatives, or as ablatives (‘in/at X’, ‘to X’, ‘from X’). Directional senses (allative and ablative) are expressed by other words, primarily motion verbs. Ablative is expressed by *gǒ*: ‘go out, exit’, which can be chained to other verbs. Any other verb of motion or locomotion (‘go’, ‘run’) can be used with a locative adverbial or place name to express the allative. For examples see

8.2.2 Simple and complex PPs

The complex PPs are parallel to English ‘in front of X’ or the like. In Nanga they involve a possessed noun expressing the spatial relation (‘over’, ‘under’, ‘front’, etc.). This possessed spatial noun is then followed by the simple Locative postposition *ga* (§8.3.3). Since the spatial noun in question is possessed, it has its regular tone before a pronominal possessor, and a basic HL tone contour following a possessor noun, becoming all-L when the possessor noun itself ends in a L- (or F-) tone. The spatial noun may therefore have three distinct tone patterns: lexical tone, HL contour, or all-L contour. In practice, the HL contour has generalized to become the lexical (as well as possessed) tone.

8.2.3 ‘In, on’ (*ga, ṅa, gɔ, ṅɔ, go, ṅo*)

The basic locative postposition has allomorphs {*ga ṅa gɔ ṅɔ go ṅo*}. It is used chiefly with inanimate NP complements, but not with toponyms, which instead have a clitic *≡yè* that may reduce to just a tone element (§8.2.4, below). The opposition of a general inanimate category associated with a morpheme **KO** (**K** a velar, **O** a back or low vowel) to a toponym category associated with a

morpheme **YE** can be connected with Najamba nominal morphology, where a final **E** vocalism {e e} is associated with nouns denoting topographic features (and liquids), while the more common final **O** vocalism {o o a} is found with other inanimate nouns.

The NP preceding Locative {ga ŋa go ŋo go ŋo} has its regular tones (with exceptions noted below), and the **final tone spreads** to the postposition. There is a partial phonological basis for the allomorphs, but some nouns have unpredictable allomorph choices and there is some variation in my data. The following is a summary of what seem to me to be the basic patterns.

Segmentally, one common allomorph of the postposition is **ga**. It is realized tonally as either **gà** or **gá** depending on the final tone of the noun (xx1). The stems with this allomorph generally have vowels from the set {a e i} and do not have a final nasal syllable.

| (xx1) | gloss | noun | ‘in a(n) X’ |
|-------|--------------|----------|-----------------------------------|
| | ‘shop’ | bĩfíkĩ | bĩfíkĩ gá (syncopated: [bĩfíkǵà]) |
| | ‘pond; shoe’ | tàgá | tàgá gá |
| | ‘cousinhood’ | màgĩ | màgĩ gá |
| | ‘courtyard’ | dám-bí | dám-bí gá |
| | ‘market’ | éwé | éwé gá |
| | ‘afternoon’ | dèndè-sĩ | dèndè-sĩ gá |
| | ‘leaves’ | úwá | úwá gá |
| | ‘goat(s)’ | bérĩ | bérĩ gá |

The /g/ of the postposition is **nasalized** to /ŋ/ after a nasalized vowel or after a syllable of the shape NV with a nasal (or nasalized sonorant) followed by an oral vowel. A nasal earlier in the word does not have this effect; see ‘cousinhood’ in (xx1), above. Examples showing the postposition in the form /ŋa/ are in (xx2).

| (xx2) | gloss | noun | ‘in a(n) X’ |
|-------|--------------|-------------------|----------------------|
| | ‘shed’ | tǎ: ⁿ | tǎ: ⁿ ŋá |
| | ‘man(-hood)’ | ár ⁿ â | ár ⁿ â ŋà |
| | ‘word’ | dámá | dámá ŋá |
| | ‘chaff’ | òy ⁿ ó | òy ⁿ ó ŋó |
| | ‘tree’ | tùmá | tùmá ŋá |
| | ‘beam’ | gâ: ⁿ | gâ: ⁿ ŋà |
| | ‘cow’ | nàŋá | nàŋá ŋá |
| | ‘meal’ | ŋǎ: | ŋǎ: ŋá |
| | ‘water’ | nĩ: | nĩ: ŋó |

The vowel of the postposition is often **rounded** to /ɔ/ or /o/. In many cases this is by **assimilation** to the final vowel of the preceding NP. If the final vowel is /ɔ/, the postposition has /ɔ/ (xx3.a). If the final vowel is /o/ or /u/ (the latter is rare at the end of nonmonosyllabic noun stems), the postposition has /o/ (xx3.b). Stems ending in a sequence like ...oCi and ...ɔCi may appear as ...oCu and ...ɔCu, respectively, before the postposition, and the /o/ or /ɔ/ may carry over into the postposition. My assistant inconsistently distinguished the /ŋo/ and /ŋɔ/ variants, tending to pronounce /ŋɔ/ even in vocalic environments where /ŋo/ is expected. Some but not all nouns containing a nasal require /ɔ/ in the postposition even without a rounded vowel in the noun itself (xx3.e). Stems with /e/ also favor /o/ in the postposition (xx3.f).

| (xx3) | gloss | noun | ‘in a(n) X’ |
|-------------------------|-----------------|----------------------|-------------------------|
| a. after /ɔ/ | | | |
| | ‘immature pod’ | gǔ:njɔ̃ | gǔ:njɔ̃ gɔ̃ |
| | ‘wide pond’ | tàgà ðwɔ̃ | tàgà ðwɔ̃ gɔ̃ |
| | ‘mountain’ | tórɔ̃ | tórɔ̃ gɔ̃ |
| b. after /o/ or /u/ | | | |
| | ‘bush, outback’ | ò:-sóró | ò:-sóró gó |
| | ‘field’ | ǒ: | ò: gó |
| | ‘complex’ | gálô | gálô gò |
| | ‘criticism’ | dómór ^m ó | dómór ^m ó ñó |
| | ‘head’ | kû: | kú: gó |
| c. after ɔ...i | | | |
| | ‘toilet area’ | sùgɔ̃-gɔ̃mí | sùgɔ̃-gɔ̃mú ñó |
| d. after o...i or u...i | | | |
| | ‘road’ | ósí | ósú gó |
| | ‘mountain’ | tòrɔ̃-kúndí | tòrɔ̃-kúndú gó |
| | ‘rear’ | tùndí | túndú gó |
| | ‘skin’ | gùsí | gùsú gó |
| | ‘forest’ | úndí | úndù gò |
| e. ‘meat’ | | | |
| | ‘speech’ | nàmâ | nàmâ ñò |
| | ‘milk’ | dámá | dámá ñó |
| | ‘milk’ | émê | émê ñò |
| | ‘water’ | nî: | nî: ñó |

| | | |
|-------------|-------|------------------------------|
| f. ‘speech’ | tégî | tégî gò (syncopated [tèg:ò]) |
| ‘belly’ | bèndé | bèndé gó |
| ‘eye’ | gǐré | gǐré gó |
| ‘sauce’ | nèŋí | nèŋí ñó (syncopated [nèŋ:ó]) |

Combined with Nasalization-Spreading (see above), the rounding of the postposition vowel accounts for the allomorphs *gò*, *ño*, *gò*, and *ño*.

In several high-frequency combinations, a final low or falling tone on the noun **shifts to H-tone** before the postposition (which then itself acquires the H-tone by spreading). In the case of *gõ*: ‘fire’, the same process is at work, but since the input stem is a <LHL> monosyllable the output is <LH> (i.e. rising tone).

| | | | |
|-------|------------------------|------|-------------|
| (xx4) | gloss | noun | ‘in a(n) X’ |
| | a. final <HL> to H | | |
| | ‘house’ | ńdô | ńdó gó |
| | ‘road’ | ósì | ósú gó |
| | ‘farm work’ | wórî | wór gó |
| | ‘grass’ | sàwâ | sàwá gá |
| | ‘head’ | kû: | kú: gó |
| | b. final <LHL> to <LH> | | |
| | ‘fire’ | gõ: | gõ: gó |

The shift of the final low-tone element in (xx4) is not a general phonological rule; several examples given above preserve a final low or falling tone before the postposition, which therefore itself has low tone.

The common expression ‘in/to the field(s)’ is ò: *gó*, with **low-toned** version of ò: ‘field(s)’. The other example I know of is ìsè *gó* ‘in/to (the) village’ from ìsê ‘village’. Again, there is no general phonological rule converting a rising-toned monosyllabic to a low-toned one, compare è: *gá* ‘in/to the well’.

Locative *ga* **fuses with a preceding Definite kú** as *gá*, presumably contracted from syncopated *k *gá*. Definite *kú* induces tone-dropping on the noun, and **tone-dropping is observed** in the fused forms, which are therefore always distinguishable from the indefinite locatives illustrated above. *gá* is invariant in form in this construction (there are no other allomorphs such as /*ŋá*/ or /*gó*/).

| | | | | |
|-------|------------|---------|------------|------------|
| (xx5) | gloss | noun | ‘the X’ | ‘in the X’ |
| | ‘hide bag’ | nàkòmbó | nàkòmbò kú | nàkòmbò gá |

| | | | |
|----------------|------------------|---------------------|---------------------|
| ‘calabash’ | kòsì | kòsù kú | kòsì gá |
| ‘water’ | ní: | nǐ: kú | nǐ: gá |
| ‘shop’ | bítíkǐ | bítík kú | bítík gá |
| ‘house’ | ńdô | ńdò kú | ńdò gá |
| ‘dense forest’ | úndĩ | úndù kú | úndĩ gá |
| ‘river’ | nǐ:-bá: | nǐ:-bà: kú | nǐ:-bà: gá |
| ‘field’ | ǒ: | ò: kú | ò: gá |
| ‘seeds’ | tǒ: | tò: kú | tò: gá |
| ‘shed’ | tǎ: ⁿ | tà: ⁿ kú | tà: ⁿ gá |

The Inanimate Plural Definite is *ý* (with tone-dropping on the noun), see. The Locative postposition takes L-toned form *gò* after this, regardless of the vocalism of the noun.

| | | | | |
|-------|-----------|------|-----------|--------------|
| (xx6) | gloss | noun | ‘the X’s’ | ‘in the X’s’ |
| | ‘stick’ | béré | bèrè ý | bèrè ý gò |
| | ‘house’ | ńdô | ńdò ý | ńdò ý gò |
| | ‘field’ | ǒ: | ò: ý | ò: ý gò |
| | ‘market’ | éwé | èwè ý | èwè ý gò |
| | ‘writing’ | tǎŋó | tǎŋò ý | tǎŋò ý gò |
| | ‘damage’ | ńámâ | ńàmà ý | ńàmà ý gò |

A similar fusion occurs with the Inanimate Singular **demonstrative pronoun** *ɲgú*, which has locative form *ɲgá*. As with the fusion of Definite *kú* and the Locative into *gá*, the fused form *ɲgá* requires tone-dropping on the preceding noun: *ńdò ɲgá* ‘in this house’. The plural is *ńdò yěy gò* ‘in these houses’.

Without a preceding noun, *ɲgá* functions as the regular ‘here’ demonstrative adverb (§4.xxx).

Animate nouns are not commonly followed by the Locative postposition, but the combination is attested. Most often it involves a plural noun, in partitive or spatial sense. The combinations are phonologically regular with no fusion. My assistant pronounced them as follows: Definite Animate Singular *né ɲó*, Definite Animate Plural *bú: gò* (xx7), Animate Singular demonstrative *wǒŋ ɲó*, Animate Plural demonstrative *wê: gò*.

| | | | | | | | |
|-------|---|-----------|------|-----------|------|-------|---------|
| (xx7) | [[àr ⁿ à | bú:] | gò], | [nù | tùmâ | sǎy] | ésú |
| | [[man.L | Def.AnPl] | in] | [person.L | one | only] | be.good |
| | ‘In (= among) those men, only one is any good.’ | | | | | | |

In the examples given in this section so far, the postposition can usually be glossed with ‘in’, since the reference entity is (potentially) a container or a zone with an interior. The postposition can also mean ‘on X’ where X is an entity with an upper or lateral surface (‘rock’, ‘wall’). Examples (with the definite form of the postposition) are in (xx8).

| | | | |
|-------|--------------|--------------------|-----------------------|
| (xx8) | gloss | noun | ‘on the X’ |
| | ‘rocky area’ | pàpàgǐrí | pàpàgǐrǐ gá |
| | ‘rock’ | kúr ⁿ ô | kùr ⁿ ò gá |
| | ‘wall’ | ̀ndò-tùndí | ̀ndò-tùndí gá |

The ‘on X’ use of the postposition competes with fuller expressions of the type ‘on the head of X’ described below (§8.xxx).

The locative, or its Definite form *gá*, may also be used with NPs denoting periods of time, such as seasons (xx9).

| | | | | |
|-------|----------------|--------------------------|------------------------------|-----------------------------|
| (xx9) | gloss | noun | ‘in X’ | ‘in the X’ |
| | ‘rainy season’ | gèr ⁿ é | gèr ⁿ é ̀nó | gèr ⁿ è gá |
| | ‘hot season’ | ùsǐyè-bár ⁿ â | ùsǐye-bár ⁿ à ̀nà | ùsǐyè-bàr ⁿ à gá |

However, time-of-day expressions such as ‘at night’ are expressed simply as nouns (‘night’). These nouns are interpreted adverbially unless the syntax points in another direction.

| | | |
|-------|---------------------|----------------|
| (xxx) | dè:ndê | bírè-m-ìy.: |
| | night | work-Impf-1PIS |
| | ‘We work at night.’ | |

The precise gloss of the Locative in context depends not only on the ‘in/on’ distinction (container versus surface), but also on the verb. As in the other languages of the zone, verbs rather than postpositions distinguish (static) locative from allative and ablative senses.

- (xxx) a. [̀ndò gá] níyè-m-Ø
 [house.L Def.InanSg.Loc] sleep-Impf-1SgS
 ‘I will sleep in the house.’ (̀ndò)
- b. [éwé gá] níní-m-Ø
 [market Loc] go-Impf-1Sg
 ‘I am going to the market.’

- c. [ósú gó] gô:
 [road Loc] go.out.Imprt
 ‘Get-2Sg out of the road!’

tùyà-gá ‘bunch (unit of items for sale)’ is a case where an original locative PP has become frozen into a noun. It can be followed by a numeral or other modifier: tùyà-gá wǒy ‘two bunches’, tùyà-gà òwó ‘large bunch’. The composite origin of tùyà-gá is suggested by comparison with verb túy ‘put down’.

8.2.4 Locative clitic =yè (or final tone change) with place names

There are no Jamsay-style tonal locatives (locative forms of nouns marked only by a tonal change). However, there is a locative (hence also allative and ablative) form of **place names** that is expressed by a final clitic, which in some cases **reduces to a tonal change**. The forms of the clitic are in (xx1).

| (xx1) | form | context |
|-------|------------------------|--------------------------|
| | =yè | default |
| | =y ⁿ è | after nasalized syllable |
| | (: `)=∅ (final L-tone) | after some vowels |

The default allomorph, and the one that I take to be phonologically basic, is =yè. It is required after /i/ in a non-nasal syllable, and it occurs after other vowels in some place names (xx2.a). If the preceding syllable is nasalized, the variant =yⁿè is obligatory (xx2.b). After long (i.e. quadrisyllabic) place names, =yè tends to contract with a stem-final vowel, resulting in either a long or a short vowel with falling tone, although the full pronunciation is also possible (xx2.c).

| (xx2) | location | Nanga term | locational form |
|-------|----------|-------------------------|--|
| a. | Mopti | mó:tǐ | mó:tǐ=yè |
| | Wakara | wàgáří | wàgáří=yè |
| | Perge | pèrgé | pèrgé=yè |
| | Pergesa | pègèsá | pègèsá=yè |
| b. | Douentza | dúwánsár ⁿ í | dúwánsár ⁿ í=y ⁿ è |
| | Boni | bó:ní | bó:ní=y ⁿ è |

| | | |
|-------------|----------------------|---|
| Ben Tey | bě:r ⁿⁱ | bě:r ⁿⁱ =y ⁿⁱ è |
| Soro-ni | sóròní | sóròní=y ⁿⁱ è |
| c. Namakoro | námákòré | námákòr=è: ~ námákòré=yè |
| Bandiagara | bàṅgàrà | bàṅgàr=è: ~ bàṅgàré=yè |
| Bamako | bàmàkó | bàmàkò:=Ø ~ bàmàkó=yè |
| Dianwely | jáw ⁿⁱ lé | jáw ⁿⁱ lê:=Ø ~ jáw ⁿⁱ lê:=Ø |
| Kono | kó:r ⁿⁱ é | kó:r ⁿⁱ é:=Ø |
| Anda | á:ndé | á:ndê:=Ø |

This clitic is used with place names as locations, destinations, or points of departure.

- (xx3) a. **bàmàkó=yè** **ṅnè-tà:-rí-y**
 Bamako=in go-ExpPf-Perf.Neg-1SgS
 ‘I have never gone to Bamako.’
- b. **bàmàkó=yè** **tùwè-Ø**
 Bamako=in die-3SgS
 ‘I have never gone to Bamako.’
- c. **bàmàkó=yè** **gò-y**
 Bamako=in go.out-1SgS
 ‘I left Bamako.’

8.2.5 ‘On (the head of) X’ ([X kù:] gò)

The concept ‘on X’ is expressed as [[X kù:] gà] or [[X kù:] gò], depending on whether the NP (X) ends in a high or low tone. It is based on possessed forms of **kù:** ‘head’ followed by the basic Locative postposition /ga/. In some cases, when X is a human or animal, the literal sense ‘on the head of X’ may be valid.

| (xxx) gloss | noun | ‘on X’ |
|-------------|----------|-------------------|
| ‘stool’ | túṅgúrí | [túṅgúrí kù:] gò |
| ‘box’ | góngó | [góngó kù:] gò |
| ‘cart’ | wògòtórô | [wògòtórô kù:] gò |

With a pronoun, we get the usual forms for pronominal possessor, after the noun in its regular tonal form (xxx).

- (xxx) a. kû: kǔ:
 head 1SgP.Poss.InanSg
 ‘my head’
- b. kû: kǔ: gò
 head 1SgP.Poss.InanSg in
 ‘on me’ (or: ‘on my head’)

8.2.6 ‘Next to, beside X’ ([X kéri] gà)

This concept is expressed using a possessed form of *kéri* ‘side’ followed by Locative *ga*. When X is a nonpronominal NP, the combination is heard as [[X *kéri*] *gà*] or [[X *kéri*] *gà*], depending on whether X ends in a high or low tone. The Locative postposition is optional after a pronominal possessor (xx1.b).

- (xx1) a. [[*ñdò* *gú*] *kéri*] *gà*
 [[house.L Def.InanSg] side.HL] in
 ‘beside the house’
- b. [*kéri* *kǔ:*] (*gò*)
 [side 1SgP.Poss.InanSg] (in)
 ‘beside me’

This complex postposition specifies that the topical entity is next to the reference point, as with two persons sitting right next to each other. For a looser spatial connection, as when the two persons are in the same setting but not directly next to each other, [[X *dósù*] *gà*] ‘under X’ can be used.

8.2.7 ‘In front of’ ([X gíré] gà)

With nonpronominal complement, ‘in front of X’ is expressed by a possessed form of *gíré* ‘front’ (cf. *gíré* ‘eye’), plus Locative postposition *ga*. When X is a nonpronominal NP, the result is [[X *gíré*] *gà*] or [[X *gírè*] *gà*] depending on the final tone of X. The final /*gà*/ is optional after a pronominal possessor, which follows *gíré* in its lexical form (xx1.b).

- (xxx) a. [ě: *gíré*] *gà*
 [well front.HL] in
 ‘in front of the well’

- b. [gírê kɔ:] (gà)
 [front 1SgP.Poss.InanSg] (in)
 ‘in front of me’
- c. [ńdô ǵírè] ǵà
 [house front.L] in
 ‘in front of (a/the) house’

The corresponding adverb, with no overt reference NP, is *gírê gò* ‘ahead, in front’.

8.2.8 ‘Behind/after X’ ([X túndù] gò), ‘about’

‘About (=concerning) X’ is expressed with X as possessor of a verbal noun (or similar nominal), when the verb is ‘speak’. With other verbs, we get [[X túndù] gò] ‘after X’, cf. noun *tùndí* ‘back, rear’ and adverbial PP [tùndú gó] ‘afterwards’.

- (xxx) a. [émê dàmà] dámá-m-ĩ.∴
 [milk talk.L] speak-Impf-1PlS
 ‘We will speak about milk.’ (lit. “... speak some talk of milk”)
- b. [[émê túndù] gò] mǎ:ndí=bé-y
 [[milk rear.L] in] think.Perf=Past-1SgS
 ‘I thought about milk.’
- c. [[émê túndù] gò] nùŋú=b-á
 [[milk rear.L] in] sing=Past-3PlS
 ‘They sang about milk.’

8.2.9 ‘Over X’ ([X témbè] gà), ‘under X’ ([X dósù] gò)

There are complex postpositions with *témbè* ‘top’ and *dósí* ‘bottom, underneath’, in possessed form with following Locative postposition (*gà*, *gò*). The forms with preposed X are [[X *témbè*] *gà*] or [[X *tèmbè*] *gà*], and [[X *dósù*] *gò*] or [[X *dòsù*] *gò*], with the tone depending on whether X ends in a high or low tone. As in other such complex postpositions, the Locative postposition is optionally omitted after a pronominal possessor.

- (xx1) a. [ńdô tèmbè] ǵà] bù-∅

[house **over.L** in] be-3SgS
 ‘It is over the house.’

b. **témbè** **ú** **gô** (gò)
over 2SgP Poss.InanSg (in)
 ‘over you-Sg’

a. [n̄dò **gú**] **dósù** **gò**
 [house.L Def] **under.HL** in
 ‘under the house’

b. [tùmá **dósù** **gò**] **bìyò-Ø**
 [tree **under.HL** in] lie.down.Stat-3SgS
 ‘He/She is lying down under a tree’

c. **mè:r^h** [[**dósù** **kǎ:**] (gò)] **bèr-à**
 wild.date [[**under.HL** 1SgP] (in)] find.Perf.L-3PlS
 ‘They found some wild dates under me.’

Without an explicit reference NP, we get pure adverbials **témbè gá** ‘up above, overhead’ and **dósú gó** ‘down below, at the bottom, underneath’.

‘Under X’ can also be stretched to mean ‘beside, in the vicinity of (someone)’.

8.2.10 ‘Between’ ([X **bèrè-kèndè**] **gá**)

‘Between’ or ‘among/amidst’ is expressed by a complex postposition containing the noun **bèrè-kèndè** ‘middle’. The postposition, with noun X, appears as [[X **bèrè-kèndè**] **gà**] or [[X **bèrè-kèndè**] **gà**] depending on whether X ends in a high or low tone. The first of these (i.e. after a final high tone) can also be pronounced [[X **bérékèndè**] **gà**] with the break in the {HL} tone contour delayed until the beginning of the final syllable of /*berekendé*/. The difference between [[X **bèrè-kèndè**] **gà**] and [[X **bérékèndè**] **gà**] is attributable to the ambiguous status of /*bérékèndè*/ as compound **béré-kèndè** or as an uncompounded quadrisyllabic noun, since the application of {HL} tone contours is sensitive to this distinction.

This complex postposition may take either a simple NP (with plural reference) or a conjunction as its complement.

(xxx) a. [**i:** **bèrè-kèndè**] **gà**
 [1Pl middle.L] in

‘between/among us’

- b. [[[ú yò] [í:ⁿ yò]] bɛ̀rɛ̀-kɛ̀ndɛ̀] gà
 [[[2Sg and] [1Sg and]] middle.L] in
 ‘between you-Sg and me’
- c. wògòtórô [[[[á:ndé yò] [dúwánsárⁿí yò]]
 donkey.cart [[Anda and Douentza and]
 bɛ̀rɛ̀-kɛ̀ndɛ̀] gà] ɲàmɛ̀-∅
 middle.L in] be.ruined.Perf.L-3SgS
- d. [isè kùrè ý] bɛ̀rɛ̀-kɛ̀ndɛ̀] gà
 [village.L six.L Def.InanPl] middle.HL] in
 ‘between/among the six villages’

8.2.11 ‘From X to Y’

A complete locational ‘from X to Y’ expression requires two clauses, the first including *gõ*: ‘go out, leave’ to convey an ablative sense. *bǎ*: ‘since, all the way from’ may be added (xx1).

- (xxx) [[dúwánsárⁿí=yⁿɛ̀ bǎ:] gõ: ń]
 [[D=Loc all.the.way.from] go.out and.SS]
 [lòsò gó] mó:tí=yè ñn-ò
 [foot Loc] M=Loc go.Perf.L-3PIS
 ‘They walked on foot from Douentza to Mopti.’

If the distance to the endpoint is emphasized, *háfi* ‘all the way to’ can be used; cf. §19.2.1.

- (xx2) [háfi mó:tí=yè] [yògó jè:] ñnè-∅
 [all.the.way.to M=Loc] [run while.SS] go.Perf.L-3SgS
 ‘He/She ran all the way to Mopti.’

8.3 Purposive-Causal *dèrⁿí*

This postposition has invariant segmental and tonal form; it does not behave like a possessed noun or have any other phonological interaction with the preceding complement NP.

The postposition occurs in a range of purposive and causal senses. In (xx1.a-b), the purposive sense is prospective, while the causal sense in (xx1.c) and arguably that in the high-frequency phrase in (xx1.d) is retrospective.

- (xx1) a. [[ò:ndò gú] dèrⁿí] y-ò:
 [[honey.L Def.InanSg] for] come.Perf.L-3PlS
 ‘They have come for the honey.’
- b. [kě:rê dèrⁿí] nújí-ḡ
 [money for] sing-Impf.3SgS
 ‘He/She sings for money.’
- c. [[bòndĩ dùgù gú] dèrⁿí] yḡg-ḡ
 [[rain.L big.L Def.InanSg for] flee.Perf.L-3PlS
 ‘They fled because of the great (= heavy) rain.’
- d. [nú bú:] [jěnjê dèrⁿí] ñjí bà:r-à
 [person.L Def.AnPl] [God for] 1SgO help.Perf.L-3PlS
 ‘The people helped me on account of (=for the sake of) God.’

8.4 Other adverbials (or equivalents)

8.4.1 Similarity (mayⁿ ‘like’)

The particle mayⁿ ‘like’ follows the argument that it has scope over (xx1). The final tone of the preceding word spreads into the particle.

- (xx1) a. [íné máyⁿ] bù-y
 [3Sg like] be-1SgS
 ‘I am like him/her.’
- b. [yǎ-ḡ máyⁿ] dámá-m-^w
 [woman-Sg like] speak-Impf-2SgS
 ‘You-Sg talk like a woman.’
- c. [árⁿâ màyⁿ] bíré-m-Ø
 [man like] work-Impf-1Sg
 ‘I work like a man.’

In the common phrase *kú mà̀yⁿ* ‘thus, like that (inanimate)’, which is also often used in narrative (‘that being the situation, ...’), the tone of *mà̀yⁿ* is unexpectedly low. Contrast the regular high tone in e.g. *̀ngú má̀yⁿ* ‘like this’.

8.4.2 Extent (‘a lot’, ‘a little’)

The adverb *̀sì* ⇒ ‘a lot’ can be used in a wide range of senses, ranging from **quantity** (‘a lot’ in the sense ‘a large amount’) to **frequency or intensity** of an event type (‘a lot’ as synonym of ‘greatly’ or ‘frequently’). It is normally preverbal, but its position with respect to e.g. object nouns is variable, and it does not behave like an adjective (for example, it does not force tone-dropping on a preceding noun).

- (xx1) a. *bírá* *̀sì* ⇒ *bíré-̀j*
work(noun) a.lot work-Impf.3Sg
‘He/She works a lot.’
- b. *̀sì* ⇒ *bírá* *bíré-̀j*
[= (a)]
- c. *̀sì* ⇒ *̀sê-̀j* *̀nd-à*
a.lot village-Acc give.Perf.L-3PlS
‘They gave a lot (=a large amount) to the village.’

In the sense of ‘large amount’ (‘many’, ‘much’), other devices are also available. As predicate, there are several options (xx2).

- (xx2) a. *̀ndó* *̀sì* ⇒ *bù-Ø*
honey a.lot be-3Sg
‘There is a lot of honey.’
- b. *̀ndó* *jǒ-èrè-Ø*
honey be.much-Perf1a-3SgS
‘There is a lot of honey.’ (lit. “Honey has become abundant.”)
- c. *̀ndó* *sámá-èrè-Ø*
honey be.common-Perf1a-3SgS
‘There is a lot of honey.’ (lit. “Honey has become common.”)
- d. *̀ndó* *lógó-èrè-Ø*
honey be.excessive-Perf1a-3SgS

‘There is a whole lot of honey.’ (or: ‘There is too much honey’)

- e. ò:ndó dǎyⁿ sò-ndó-Ø
 honey limit(n) have-Neg-3SgS
 ‘There is a whole lot of honey.’ (lit. “The honey has no end.”)

(xx2.a) is semantically unremarkable, merely stating a current abundance. (xx2.b-c) imply that the element in question was less common previously. jǒ: ‘become much/many’ is otherwise semantically neutral, while sámá- ‘become common’ implies a loss of value due to abundance. (xx2.d-e) are more emphatic in nature; (xx2.d) tends to be pejorative.

(xx3) illustrates modifying function. In (xx3.a), èsí⇒ is still an adverb syntactically, and has no tonal effect on ‘sheep’. In (xx3.b), jó: is a regular modifying adjective, and forces ‘sheep’ to drop tones. There is no significant difference in meaning.

- (xx3) a. pèrgé èsí⇒ tùw-à
 sheep a.lot die.Perf.L-3PIS
 ‘A lot of sheep died.’
- b. [pèrgè jó:] tùw-à
 [sheep.L a.lot] die.Perf.L-3PIS
 ‘Many sheep died.’

Antonyms (‘a little’ or ‘slightly’) are expressed in either adverbial or nominal function by the adverbials dágáy (variant dákáy) and démĩ⇒, and in nominal (but not adverbial) function also by the adjective èwré ‘small’ used as a noun. démĩ⇒ is best glossed ‘somewhat’, and suggests that the amount is adequate though not especially big, while dágáy is more emphatic, may be glossed ‘slightly’ when adverbial, and is more likely than démĩ to occur with sǎy ‘only’.

- (xxx) a. á:mádù dágáy (sǎy) òd-à
 A a.little (only) give.Perf.L-3PIS
 ‘They gave (only) a little to Amadou.’
- b. á:mádù démĩ⇒ òd-à
 A somewhat give.Perf.L-3PIS
 ‘They gave a little to Amadou.’ (suggests adequacy)
- c. á:mádù èwré òd-à
 A small give.Perf.L-3PIS

[= (a)]

- d. **dágáy** **ìró-Ø**
a.little be.better-3SgS
'It (e.g. illness) is a little (= slightly) better.'
(i.e. 'I'm feeling better')
- e. **démǐ⇒** **ìró-Ø**
somewhat be.better-3SgS
'It (e.g. illness) is a somewhat better.'

8.4.3 Specificity

8.4.3.1 'Approximately'

bǎ: can be used to indicate approximateness of a numerical value.

- (xxx) [**pèrgé** **pé-nǐmǐ:ⁿ** **bǎ:]** **màrá-s-é**
[sheep ten-five about] be.lost-Perf2-3PIS
'Around fifty sheep were lost (=died).'

An alternative is to use **mayⁿ** 'like', as in 'I will buy like (= somewhere around) fifty sheep'.

8.4.3.2 'Exactly' (**lék**, **cók**, **já:ǎi**, **té⇒**)

lék is an interjection-like intensifier that can be used with numerals (xx1).

- (xxx) [**pèrgé** **pé-nǐmǐ:ⁿ** **lék]** **màrá-s-é**
[sheep ten-five exactly] be.lost-Perf2-3PIS
'Exactly fifty sheep were lost (=died).'

cók is another interjection-like particle used to indicate 'exactly identical' (on some measure, usually height). It can also be used to indicate that all members of a group are present.

To confirm the truth or correctness of what an interlocutor has just said, the particle **já:ǎi** 'exactly' (i.e. 'you're exactly right') is used.

Adverbial **té⇒** can be used with time expressions: **mǐǎi té⇒** 'at noon sharp'. Its reduplication **té:-té:** is also in use in similar contexts. See also the following subsection.

8.4.3.3 ‘Specifically’ (té=>)

Adverbial particle *té=>* is also used in the sense ‘specifically’.

- (xx1) *ú-ì* *té=>* *ndĩ-Ø*
 2Sg-Acc specifically give.Perf.L-3SgS
 ‘He/She gave (it) specifically to you-Sg.’

8.4.4 Evaluation

8.4.4.1 ‘Well’ and ‘badly’

The preferred construction equivalent to English evaluative manner adverbials is one with a complement NP (often containing a cognate nominal or similar noun) plus an adjective.

- (xx1) a. [*birà* *èsí*] *bíré-m̀*
 [work(noun).L good] work-Impf-1SgS
 ‘I do good work.’ (= ‘I work well.’)
- b. [*birà* *m̀dsí*] *bíré-m̀*
 [work(noun).L bad] work-Impf-1SgS
 ‘I do bad work.’ (= ‘I work badly.’)

8.4.4.2 ‘Proper, right’

The adverbial *jâ:ⁿ*, generally predicative with following ‘it is’ clitic, characterizes an action or behavior pattern as normal or proper (following social norms), or as contextually appropriate. This adverbial is also found in Jamsay.

- (xx1) a. *jâ:ⁿ≡Ø*
 proper=it.is
 ‘It’s proper (right, normal, appropriate).’
- b. [*kàrⁿà* *ú* *kàrⁿà-m̀* *gú*] *jâ:ⁿ≡ndó-Ø*
 [doing.L 2SgS do-Ppl.Impf Def] proper=not.be-3SgS
 ‘What you are doing is not right.’

8.4.5 Manner

The equivalents of simple English manner adverbials (-ly) can be constructed using NP complements (with an adjective) as in (xx1.a). Or an adverbial PP may be used if there is a suitable noun available, like *pàṅá* ‘strength, force’ in (xx1.b).

- (xx1) a. *[bìrà ógù] bîré-m̀*
[work(noun).L fast] work-Impf-1SgS
‘I do fast work.’ (= ‘I work fast.’)
- b. *[pàṅá ṅá] ñjì dàmbì-∅*
[strength in] 1SgO push.Perf-3SgS
‘He/She pushed me hard (with force).’

The noun meaning ‘manner’ is *dǎyⁿ*. For manner adverbials, see §xxx.

8.4.6 Spatiotemporal adverbials

8.4.6.1 Temporal adverbs

Some of the major temporal adverbs are in (xx1). Note the tonal distinction between *íyé* ‘today’ and *íyê* ‘again’ (xx1.a). *níṅyèⁿ* ‘now’ and *éndèy* ‘day after tomorrow’ were heard with HL tone pattern.

- (xx1) a. *íyé* ‘today; nowadays’
íyê ‘again’
yéjír^mi: ‘yesterday; formerly, in the old days’
íyé tà:ndi: ‘day before yesterday’
níṅyèⁿ ‘now’
- b. *é:ṅí* ‘tomorrow; in the future’
éndèy ‘day after tomorrow’
éndèy túndèy ‘second day after tomorrow’ (third from today)
lég tàrà ‘third day after tomorrow’ (fourth from today)
júgú ‘fourth day after tomorrow’ (fifth from today)
júgú-jàgú ‘fifth day after tomorrow’ (sixth from tomorrow)
- c. *gǎyⁿ* ‘last year’

àⁿà kámâ ‘next year’
núⁿáyⁿ ‘this year’

8.4.6.2 ‘First’ (*kĩyá*)

Adverbial ‘first’ (‘firstly’, ‘at first’) is expressed by *kĩyá*, which is identical to the ordinal adjective ‘first’ (as in English).

(xx1) *bírá* *kĩyá* *bĩrè* *gáy*, *ɲǎ:* *kó:-m-ì:*
work(noun) first work.L and.then.SS, meal eat.meal-Impf-1PlS
‘We’ll work first, then we’ll eat.’

8.4.6.3 Spatial adverbs

(xx1) a. *témbè* ‘above, top, summit’
dósí ‘below, bottom, down’

b. *ùsì-[túm-nó]*, *dú: gĩrè* ‘east’
ùsì-[yéǵí-nó] ‘west’
tèŋì-dágá ‘south’
dù:-dágá ‘north’

c. *tùn-túndí⇒* ‘going backward, in reverse’
tùndú gó ‘in the rear’
gírè gó ‘forward; in front’ cf. *gírè* ‘eye’

ùsì-[túm-nó] ‘east’ and *ùsì-[yéǵí-nó]* ‘west’ are compounds containing *ùsì* ‘sun’ and nominals based on the verbs *túmbó* ‘(sun) rise’ and *yèǵé* ‘fall; (sun) set’, respectively. The term for ‘south’ is based on the location of the Tengou (southern Dogon group).

‘Left hand’ is *nà: bàŋyè*, while ‘right hand’ is *nà: nà^myⁿé* (with *nǎ:* ‘hand’).

8.4.7 Adverbials

Like the other Dogon languages, Nanga has many **adverbials**, which I define syntactically as forms that cannot be directly inflected but that can be made predicative by adding an auxiliary. They are generally expressive, i.e. semantically colorful, and they are similar to what are often referred to (in other

languages) as mimetics or ideophones. These latter terms seem inadequate for various reasons.

Some adverbials have adjective-like senses, but they differ morphosyntactically from adjectives. Adverbials do not form parts of NPs and (therefore) have no tonal interactions with nouns or other NP words. Like adjectives, they can also function as predicates, but the form of the predication is different. Their phonological form is usually distinctive, with full-stem iteration or final intonational prolongation (but usually not both).

In positive predicates, the adverbial is followed by either quasi-verb *bù-* ‘be (somewhere)’ for stative and durative senses. The negative form of *bù-* is *ngó-* ‘not be (somewhere), be absent’. Thus *jèjí* = > *bù-∅* ‘it is tilting’, *jèjí* = > *ngó-∅* ‘it is not tilting’. Adverbials with more active senses are made predicative by adding regular transitive verb *kárⁿi-* ‘do’, which has a fuller range of aspect-negation forms. Adverbials like *yàl-yàl* ‘flapping’ can take either: *yàl-yàl kárⁿi-só-∅* ‘it flapped in the wind (perhaps briefly)’, *yàl-yàl bù-∅* ‘it is flapping in the wind’.

Some expressive adverbials, like *yàl-yàl*, are **entirely low-toned** lexically. There are no lexically {L}-toned nouns, adjectives, numerals, or verbs.

Many adjectives can be made into adverbials, with little difference in sense, by adding a final *-í* = >. Thus *èsí* ‘good’, adjectival predicate *èsú* ‘it is good’, adverbial *ès-í* = >, adverbial predicate *ès-í* = > *bù-∅*.

8.4.7.1 Expressive adverbials

Examples of expressive adverbials without stem iteration are in (xx2). Only a handful, such as those in (xx2.c), are parts of larger word families.

| (xx2) | form | gloss | related form |
|-------|--------------------------------|----------------------------------|--------------------|
| a. | high-toned, final prolongation | | |
| | <i>{H}-toned</i> | | |
| | <i>pó</i> ⇒ | ‘gaping (hole)’ | |
| | <i>páⁿ</i> ⇒ | ‘wide open (doorway)’ | |
| | <i>kárás</i> ⇒ | ‘face to face’ | |
| | <i>{LH}-toned</i> | | |
| | <i>kâyⁿ</i> ⇒ | ‘wide open (eyes)’ | |
| | <i>jèjí</i> ⇒ | ‘tilting’ | <i>jèjí</i> ‘tilt’ |
| | <i>màmí</i> ⇒ | ‘with head tilting’ | |
| | <i>èndírí</i> ⇒ | ‘ajar (door)’ | |
| | <i>gògírí</i> ⇒ | ‘rickety, shaky, poorly encased’ | |
| | <i>{L}-toned</i> | | |
| | <i>lòm</i> ⇒ | ‘froth forming’ | |

| | |
|----------|-------------------------|
| dĩm⇒ | ‘towering, lofty’ |
| sèm⇒ | ‘straight-nosed’ |
| yòw⇒ | ‘slightly open (mouth)’ |
| yèw⇒ | ‘slightly open (eyes)’ |
| tàrù = > | ‘fat (woman, cow)’ |
| gènjèy⇒ | ‘motionless’ |

b. no final prolongation

{H}-toned

sómógó ‘(head) long and bending forward’

{L}-toned

nàm ‘brief shower (rain)’

jùṅàṅⁿ ‘fat and clumsy’

c. CuCuCôy

lùgùsôy ‘chubby, puffy’ lùgùsí (adjective)

yùgùsôy ‘woolly, disheveled’ yùgùsí ‘velvet’

The intonational prolongation applies to the final segment. Therefore in e.g. sèm⇒ ‘straight-nosed’, the m but not the vowel is prolonged.

Examples of iterated adverbials involving “nonsense” stems (i.e. those whose uniterated form do not occur) are in (xx3).

| (xx3) | form | gloss | related form |
|-------|------------------------------------|-------------------------------|--------------|
| | a. high-toned | | |
| | ṅéy ⁿ -ṅéy ⁿ | ‘drizzle (fairly light rain)’ | |
| | só: ⁿ -só: ⁿ | ‘all together’ | |
| | ṅém-ṅém | ‘drizzle (very light rain)’ | |
| | yál-yál | ‘flapping’ | |
| | pár-páru | ‘shiny new’ | |
| | pèrè-pàrà | ‘suddenly encountering’ | |
| | yìgìsè-yìgìsé | ‘runty and weak’ | |
| | b. low-toned | | |
| | jḍ:-jḍ: | ‘swaying’ | |
| | c. complex tone contour | | |
| | tùn(dī)-túndī⇒ | ‘going backward’ | tùndú ‘rear’ |
| | dòndī-dòndī⇒ | ‘almost alongside’ | |

8.4.7.2 Adjectival intensifiers

Like the other Dogon languages, Nanga has an abundance of uninflectable adverbials used as intensifiers, primarily for adjectival but also for a few verb-like senses. Compare English *brand new*, *blind as a bat*, *X stopped still (in his tracks)*, and the like. In most cases the intensifier has no phonological relationship to the semantically associated word(s). There is no sharp difference between intensifiers and (other) expressive adverbials.

Intensifiers (mostly adjectival in meaning) are in (xx1). For the glosses, supply ‘very’ or the like for the sense of the intensifier. If there is no associated word that commonly co-occurs with the intensifier, the semantically closest word is given in parentheses. In [èšè-\[tɛw-tɛw\]](#) and [bùdè-\[tɛw-tɛw\]](#) (xx1.a), there is (unusually) a {L}-toned compound initial corresponding to the associated word.

Vocalic sound symbolism is seen in the alternation of [lèré-lèré](#) ‘cleaned up’ with [lòró-lòró](#) ‘clean-shaven head’.

Because of the frequency of collocations (associated word followed by intensifier), it is possible for a single form to serve as intensifier for unrelated senses, see [kát-kát](#) in (xx1.a). It is also possible for a basic sense to have multiple intensifiers, normally used by different speakers, see [kát-kát](#), [kúsú-kúsú](#), and [kúrúŋ-kúrúŋ](#) for ‘black’ in (xx1.a).

The data in (xx1) are organized by the phonological form of the intensifier.

| (xx1) | intensifier | gloss | associated word(s) |
|-------|---|--------------------|--|
| | a. iteration (no tonal or vocalic change) | | |
| | <i>one iteration</i> | | |
| | sôⁿ-sôⁿ | ‘newborn’ | bà-bàⁿ ‘newborn baby’ |
| | púl-púl | ‘(brand) new’ | kándà ‘new’ |
| | bóm-bóm | ‘stout’ | dùgí ‘big’ |
| | dím-dím | ‘straight’ | dém = > ‘straight’ |
| | dój-dój | ‘furious’ | kèndè bārⁿ ‘anger’ |
| | sél-sél | ‘long; tall’ | gùró ‘long’ |
| | gɛŋ-gɛŋ | ‘tight-fitting’ | pòró- ‘be tight-fitting’ |
| | kúy-kúy | ‘stocky (person)’ | démbiré ‘stout’ |
| | kéy-kéy | ‘hard’ | mǎ: ‘hard, dry’ |
| | káy-káy | ‘hard, dry’ | mǎ: ‘hard, dry’ |
| | péy-péy | ‘unripe’ | kè:sí ‘unripe’ |
| | kóyⁿ-kóyⁿ | ‘emaciated’ | kó:mbí-yé- ‘be lean’ |
| | séyⁿ-séyⁿ | ‘slender (person)’ | ké:mbé ‘slender’ |
| | gáyⁿ-gáyⁿ | ‘tight; crowded’ | ɛ: ‘tight’ |
| | jáyⁿ-jáyⁿ | ‘uncooked (red)’ | bārⁿ ‘red’ |
| | táyⁿ-táyⁿ | ‘sweet’ | éří ‘sweet’ |

| | | |
|------------------------------------|---------------------|---------------------------------|
| táy ⁿ -táy ⁿ | ‘salty’ | párí ‘salty’ |
| dúy ⁿ -dùy ⁿ | ‘red’ | bár ⁿ i ‘red’ |
| táw-táw | ‘hot (weather)’ | sòy ‘hot weather’ |
| jáw-jáw | ‘hot (object)’ | ógì ‘hot; fast’ |
| lâw-lâw | ‘fast’ | ógì ‘hot; fast’ |
| jéw-jéw | ‘lightweight’ | ér ⁿ i ‘lightweight’ |
| èsè-[téw-téw] | ‘unfertilized’ | ésé- ‘be unfertilized’ |
| èsè-[téw-téw] | ‘bland’ | ây ‘bland’ |
| bùdè-[téw-téw] | ‘fine (powdery)’ | bùtè ‘fine, powdery’ |
| bùdè-[téw-téw] | ‘supple’ | bùtè ‘supple’ |
| pép-pép | ‘full’ | bá: ‘full’ |
| ték-ték | ‘standing straight’ | í:-yí- ‘stand, stop’ |
| kát-kát | ‘rotten’ | ðmbí ‘rotten’ |
| kát-kát | ‘bitter’ | gárí ‘bitter’ |
| kát-kát | ‘black’ | jémí ‘black’ |
| pár-páru | ‘shiny new’ | kándà ‘new’ |
| písi-písi | ‘lost’ | màrà- ‘be lost’ |
| séri-séri | ‘dusty’ | kóngò ‘dust’ |
| kúsú-kúsú | ‘black’ | jémí ‘black’ |
| kúsú-kúsú | ‘glaring (at)’ | bèmbi- ‘glare (at)’ |
| yógó-yógó | ‘soft’ | búri ‘soft’ |
| búdè-búdè | ‘fine (powdery)’ | bùtè ‘fine, powdery’ |
| búdè-búdè | ‘supple’ | bùtè ‘supple’ |
| púlá-púlá | ‘hot (object)’ | ógì ‘hot; fast’ |
| péré-péré | ‘cold (weather)’ | gòyó ‘(the) cold’ |
| pàsá-pàsá | ‘white’ | píri ‘white’ |
| tègè-tègè | ‘moon shining’ | wà: píri ‘moonlight’ |
| lèrè-lèrè | ‘cleaned up’ | ésé- ‘be clean’ |
| lòró-lòró | ‘clean-shaven head’ | ká:- ‘shave’ |
| kúrún-kúrún | ‘black’ | jémí ‘black’ |
| gérén-gérén | ‘inflated’ | píriyé- ‘be inflated’ |
| kórógó-kórógó | ‘loose-fitting’ | kórógó ‘loose-fitting’ |
| gùsùró-gùsùró | ‘fraying’ | gùsùró- ‘fray’ |
| <i>more than one iteration</i> | | |
| dónj dónj dónj | ‘pouting’ | nǒ: sómó- ‘pout’ |

b. iteration (with vocalic and/or tonal change)

tonal change only

táy-tày ‘used up’ ðimé- ‘be used up’

tonal and vocalic change (high vowel to a)

yùgùsì-yágísím ‘very woolly’ yúgúsí ‘furry, woolly’

bǐrgǐ-bárgǐ ‘junk (in disorder)’ ñàmà-ñámá ‘junk’

c. intonational prolongation

simple

| | | |
|----------------------------|--------------------|--|
| dám = > | ‘blind’ | g̃rè-mbí ‘blind’ |
| dím = > | ‘stout’ | dùgí ‘thick’ |
| póm = > | ‘enormous’ | dùgí ‘big’ |
| sěw ⁿ = > | ‘tiny (eye)’ | èwré ‘small’ |
| táy ⁿ = > | ‘full (eating)’ | sír ⁿ é- ‘be full, satisfied’ |
| kăy ⁿ = > | ‘oversized (eye)’ | (dùgí ‘big’) |
| kěy ⁿ = > | ‘tiny (moon, eye)’ | (èwré ‘small’) |
| kěw ⁿ = > | ‘tiny (moon)’ | (èwré ‘small’) |
| pútúm = > | ‘flowery’ | pùr ⁿ ó ‘flower’ |
| pútúm = > | ‘foggy, hazy’ | súđí ‘haze’ |
| lèrěw = > | ‘everything’ | kéréw ‘everything’ |
| dù-dűy ⁿ = > | ‘red’ | bár ⁿ i ‘red’ |
| <i>apparently compound</i> | | |
| késé-kéréy = > | ‘dry’ | mă: ‘hard, dry’ |
| lèrè-gèrěw = > | ‘everything’ | kéréw ‘everything’ |

d. final reduplication

| | | |
|-----------------------|--------------------|----------------------------------|
| ísásâ: | ‘well-branched’ | jăŋmí- ‘ramify’ |
| wúsúsú | ‘long’ | gùrò ‘long’ |
| èrélélé | ‘sweet (abstract)’ | érí ‘sweet’ |
| đimámamá | ‘stout’ | dùgí ‘thick’, cf. <i>dím</i> = > |
| pàrálálá | ‘sour’ | pári ‘sour’ |
| mà ⁿ ánáná | ‘solid (no holes)’ | (dén ‘hard, stiff’) |
| pèsésésé | ‘cold (object)’ | támî ‘cold’ |
| pòsósósó | ‘point of light’ | (ésê ‘light’) |
| pàsásásá | ‘point of light’ | (ésê ‘light’) |
| dùsúsúsú | ‘heavy’ | dúsí ‘heavy’ |
| bùrúndúndú | ‘red’ | bár ⁿ i ‘red’ |
| gòmómómó | ‘rotten smelling’ | òmbi ‘rotten’ |

e. other

| | | |
|-----------------------------------|--------------------|----------------------|
| mâ: | ‘pouring out’ | tí:rí- ‘pour’ |
| tép | ‘full’ | bá: ‘full’ |
| déndè | ‘sole, only (one)’ | tùmâ ‘one’ |
| lék | ‘sole, only (one)’ | tùmâ ‘one’ |
| kék | ‘completely’ | (kéréw ‘everything’) |
| kèmr ⁿ ěy ⁿ | ‘tiny (eye)’ | (èwré ‘small’) |
| kédégéy | ‘short’ | déŋi ‘short’ |

8.4.7.3 ‘Straight’ (*dém* = >)

dém = > is the basic adverb for ‘straight’ in the sense of a direct trajectory (not the absence of crookedness in e.g. a stick). The /m/ is prolonged intonationally.

- (xx1) **mó:ŋi** **dém = >** **ńné-m-ĩ:**
 Mopti straight go-Impf-1PIS
 ‘We’ll go straight (= directly) to Mopti.’

Iterated **dém-dém** can be used in the sense ‘straight ahead’ without a NP complement (French *tout droit*). As usual in iterations, there is no intonational prolongation.

- (xx2) **dém-dém** **ńńô**
 straight go.Imprt
 ‘Go-2Sg straight (ahead)!.’

8.4.7.4 ‘Apart, separate’ (**déyⁿ = >**)

The adverbial **déyⁿ = >** is used in parallel constructions of the type ‘X is apart, Y is apart’ (meaning ‘X and Y are separated or distinct’).

- (xx1) [**pèrgè** **bû:]** **déyⁿ = >** **b-è,**
 [sheep.L Def.AnPl] apart be-3Pl,
 [**bèr** **bû:]** **déyⁿ = >** **b-è**
 [goat.L Def.AnPl] apart be-3Pl
 ‘The sheep-Pl and the goats are apart (= separated or distinct).’

The iterated form **déyⁿ-déyⁿ** occurs in examples where the parallelistic phrasing is absent (xx2).

- (xx2) [[**pèrgé** **yò]** [**bèrì** **yò]]** **déyⁿ-déyⁿ** **kúrⁿú-m-ìy.:**
 [[sheep and] [goat and] separated put-Impf-1PIS
 ‘We’ll put sheep and goats in separate spots.’

8.4.7.5 ‘Always’ (**àsú⇒**), ‘never’ (**à:bádá**)

The adverbial ‘always’ is **àsú⇒** (also found in Ben Tey and Najamba) (xx1.a). It might be etymologically connected with **ùsú** ‘day’. The usual ‘never’ particle is the regionally widespread **à:bádá** (ultimately from Arabic), which occurs in combination with a negated predicate (xx1.b).

- (xx1) a. **àsú⇒** **sígórò** [**ńné** **báy]** **éwé-m-∅**
 always sugar [3Sg Dat] buy-Impf-1SgS
 ‘I always buy sugar from him (= at his store).’

- b. à:bádá sígórò [íné báy] éwé-ṅ̀-̀y
 never sugar [3Sg Dat] buy-ImpfNeg-1SgS
 ‘I never buy sugar from him (= at his store).’

8.4.7.6 ‘Exclusively, together’ (*só:ⁿ-só:ⁿ*)

The adverb *só:ⁿ-só:ⁿ* is used, for example, to indicate that a group is seated together (in a bus or concert). The context suggests both togetherness of the group and the exclusion of others from the zone occupied by the group.

- (xx1) [kàdàgá yě:] só:ⁿ-só:ⁿ ínέ-m-ì:
 [agemate 1SgP.AnPl] together go-Impf-1PlS
 ‘Only I and my agemates will go.’

In many cases, ‘together’ is translated indirectly by a verb-chain (‘assemble and work’), by a PP (‘beside each other’), or by a numeral in the subject NP (‘we two work’). See also the construction with *bèndèy* (§18.3.2).

8.4.7.7 ‘All, entirely’ (*kéréw, sóy*)

The usual ‘all, entirely’ adverb is *kéréw* (xx2). This is also the most common universal quantifier (‘all X’). A less common form with similar sense is *sóy* (xx1.c). An intensifier for ‘all, entirely’ is *táy* or its iteration *táy-táy*. These adverbs follow NPs (with anything from human to inanimate reference) but have no tonal interactions with them.

- (xx1) a. *kéréw* ínέ-èr-à
 all go-Perf1a-3PlS
 ‘They all went (away).’
- b. *sígórò* *kéréw* ðímé-èrè-Ø
 sugar all be.finished-Perf1a-3SgS
 ‘The sugar is all used up.’
- c. [àrⁿà-y tà:nđi: bù:] *kéréw* ínέ-èr-à
 [man-child.L three.L Def.Pl] all go-Perf1a-3PlS
 ‘The three boys all went (away).’
- d. *sígórò* *sóy* ðímé-èrè-Ø
 sugar all be.finished-Perf1a-3SgS

‘The sugar is all used up.’

- e. *sígórò* *tǎy* *đimé-èrè-Ø*
sugar all.Intens be.finished-Perf1a-3SgS
‘The sugar is used up (to the last grain).’

Another adverb, *lèřw*, is not commonly used with human referents. Its characteristic context is exemplified by e.g. ‘they swept the courtyard completely (= thoroughly)’. However, it was accepted by my assistant as an alternative to the ‘all, entirely’ adverbials in the ‘sugar’ examples in (xx1).

8.4.8 Derived iterated adverbials

8.4.8.1 *Distributive adverbial iteration*

Any numeral, or the interrogative *à:ngǎy* ‘how many?’, can be iterated to form a distributive adverb with meanings like ‘six at a time’, ‘six apiece’, or ‘six by six’. Such phrases can be used, among other things, to specify the price per unit of a commodity for sale.

- (xxx) a. *tùyà-gá* *à:ngǎy-à:ngǎy* *má* Q
bunch how.many?-how.many?
‘How much per bunch (unit of sale)?’
- b. *pèrì-yěy* *pèrì-yěy*
ten-two ten-two
‘Twenty (riyals, = 100 francs CFA) each’

8.4.8.2 ‘Scattered, here and there’ (*kân-kân*)

This adverb, also found in Jamsay (and with phonological variation in other nearby Dogon languages) indicates irregular and sparse distribution.

- (xx1) *tǒ:* *kân-kân* *té:-só-Ø*
seeds here.and.there sprout-Perf2-3SgS
‘The (planted) seeds have sprouted here and there.’

9 Verbal derivation

The productive suffixal derivations (stem to stem) for verbs are the Reversive ('un-...') and the Causative. There are a fair number of verbs with segmentable Mediopassive and (contrasting) Transitive endings. Adjectives have corresponding intransitive (Inchoative) and transitive (Factitive) verb forms, but these are not directly formed from the adjective by adding a suffix.

9.1 Reversive verbs (-rí-)

The Reversive suffix is **-rí-** (rarely **-ré-**). It is common in verb pairs like 'shut/open' and 'cover/uncover' that denote complementary actions, one of which reverses or undoes the other. (Note that 'shut' is more basic than 'open'.) The Reversive is often transitive ('X opened the door') but may also be used intransitively ('the door opened').

The Reversive is often chained with a following intransitive **gó-** 'exit' or transitive **gò-ndó-** 'take out, remove', which helps to clarify the valency, as in **níndí-rí gó-èrè** as an alternative to **níndí-rí-èrè** 'it became untangled', and **níndí-rí gò-ndó-tí** as an alternative to **níndí-rí-tí** 'he/she untangled (it)'. The chain construction also makes it unambiguous that a reversive sense is intended (some reversives are homophonous with nonreversive transitives). For verbs that have no morphological Reversive, the chain construction can be used as a periphrastic reversive.

A full list of attested Reversives is in (xx1). The input must be mono- or bisyllabic, so the Reversive is bi- or trisyllabic. The Reversive usually respects tonal patterns, and restrictions on vowel sequences, for underived trisyllabic verbs (this is not true of all derivational suffixes). This can be seen most clearly in (xx1.a-b), where merely adding **-rí-** to the input stem would produce an incorrect vowel sequence like **a...a...i**. So the outputs shift to acceptable vowel sequences like **a...i...i**. In (xx1.c), the input is already an **i**-final stem, so no observable change is needed in the vocalism when **-rí-** is added. In (xx1.d), the initial stem vowel is shortened. In (xx1.e), a Reversive of the underlying shape **/CVCV-rí-/** has undergone Syncope, resulting in a **CVC-rí-** output with R-toned initial syllable. (xx1.f) illustrates monosyllabic inputs.

| | | | | |
|-------|-------|-------|-----------|-------|
| (xx1) | input | gloss | reversive | gloss |
|-------|-------|-------|-----------|-------|

a. non-high vocalism adjusted to acceptable trisyllabic pattern

| | | | |
|-------|-----------|------------------------|-----------------|
| kámá- | ‘crumple’ | kámí-r ⁿ í- | ‘uncrumple’ |
| dàgá- | ‘lock’ | dàgí-rí- | ‘unlock’ |
| pégé- | ‘nail’ | pégí-rí- | ‘remove (nail)’ |

b. like (a) but medial /i/ syncopated

| | | | |
|--------------------|----------------|------------------------------------|------------------|
| óy ⁿ ó- | ‘braid (rope)’ | óy ⁿ -r ⁿ í- | ‘unbraid (rope)’ |
|--------------------|----------------|------------------------------------|------------------|

c. underived stem already ends in /i/

| | | | |
|--------|--|------------------------|---------------------------------|
| gòṅí- | ‘surround’ | gòṅí-r ⁿ í- | ‘un-surround’ |
| bèsí- | ‘bury’ | bèsí-rí- | ‘disinter’ |
| gìsì- | ‘immobilize’ | gìsì-rí- | ‘allow to move’ |
| págí- | ‘tie’ | págí-rí- | ‘untie’ |
| légí- | ‘insert’ | légí-rí- | ‘remove inserted item’ |
| téṅí- | ‘hobble’ | téṅí-r ⁿ í- | ‘unhobble’ |
| níndí- | ‘tangle’ | níndí-rí- | ‘untangle’ |
| tímbí- | ‘put lid on’ | tímbí-rí- | ‘take lid off’ |
| nàmbí- | ‘step on’ | nàmbí-rí- | ‘remove foot from’ |
| yèmbí- | ‘cover (person)’ | yèmbí-rí- | ‘uncover (person)’ |
| | (yèmbí-rí- also used as synonym of yèmbí-) | | |
| pémbí- | ‘press to wall’ | pémbí-rí- | ‘release (sth pressed to wall)’ |
| kéndí- | ‘roll up (pants)’ | kéndí-rí- | ‘unroll (pants)’ |
| mèndí- | ‘fold’ | mèndí-rí- | ‘unfold’ |
| nómbí- | ‘sag’ | nómbí-rí- | ‘bounce back’ |

d. vowel shortened

| | | | |
|---------|--------|-----------|----------|
| kó:ndí- | ‘bend’ | kóndí-rí- | ‘unbend’ |
|---------|--------|-----------|----------|

e. Reversive with RH tone after syncope

| | | | |
|-------------|------------------|---------|--------------------|
| dèwí- [dèw] | ‘cover (object)’ | dèw-rí- | ‘uncover (object)’ |
|-------------|------------------|---------|--------------------|

f. monosyllabic stems

| | | | |
|--------------------|----------------|-------------------------------------|------------------|
| pí: ⁿ - | ‘shut’ | pí: ⁿ -r ⁿ í- | ‘open’ |
| jǎ:- | ‘fence in’ | jǎ:-rí- | ‘un-fence’ |
| mǎ:- | ‘tie (knot)’ | mǎ:-r ⁿ í- | ‘untie (knot)’ |
| lá:- | ‘braid (rope)’ | lá:-rí- | ‘unbraid (rope)’ |
| tó:- | ‘roll turban’ | tó:-rí- | ‘unroll turban’ |

In (xx2), we get a suffix allomorph *-ré-* or *-ró-* with upper-mid-height vowel instead of *-rí-*. These are regular adjustments to the vowel-sequence constraints on trisyllabics (§10.xxx). In (xx2.a), the initial syllable has /o/, which requires a matching /o/ rather than /i/ in the third syllable. In (xx2.b), the initial syllable has /i/, which is compatible with either *i...i...i* or *i...i...e* trisyllabic sequences, and the latter is decisively favored by the input bisyllabic sequence *i...e*.

- | | | | | | |
|-------|----|------------------|---------------------|------------------|--------------------------|
| (xx2) | a. | <i>nóngí-yé-</i> | ‘be caught in tree’ | <i>nóngú-ró-</i> | ‘be un-caught’ |
| | b. | <i>wǐré-</i> | ‘go into coma’ | <i>wǐlí-ré-</i> | ‘come to (= recover)’ |
| | | <i>ǵísé-</i> | ‘prop up’ | <i>ǵísí-ré-</i> | ‘remove a prop from’ |

(xx2.a) also illustrates the pattern whereby a Mediopassive suffix *-yv-* is dropped when Reversive *-rí-* is added (there are no quadrisyllabic or longer Reversives). Another example of this is (xx3).

- | | | | | |
|-------|------------------|-----------------|---|-----------------|
| (xx3) | <i>pémbí-yí-</i> | ‘put on a wrap’ | <i>pémbí-rí-</i> | ‘take off wrap’ |
| | | | [<i>pémbí-rí-</i> also ‘put a wrap on (sb)’] | |

The phonologically most difficult Reversives are those in (xx4). When *-rí-* is added to a stem of the shape (C)*vrv-*, with oral /r/ or /r^h/, either of two patterns is observed. In (xx4.a), after syncope, the expected rhotic cluster shifts to /ll/. In (xx4.b), there is some ambiguity as to the morphemic composition. In one analysis, Reversive *-ri-* is added to a variant form of the stem with /ll/ instead of /r/ (a kind of dissimilation to the suffixal rhotic). In the other analysis, the variant stem with /ll/ already contains the Reversive morpheme, and the final suffix is Transitive *-rv-*, which is elsewhere often paired with Mediopassive *-yǵ-*. In (xx4.c), because of the initial nasal, there are optional pronunciations with /n/ or /nd/ (perhaps via *nn) instead of /ll/. My assistant struggled with several of these forms in elicitation.

- | | | | | | |
|-------|----|---------------------------|--------------|---------------------------|----------------------------|
| (xx4) | a. | <i>kórí-yí-</i> | ‘be hooked’ | <i>kól-lí (gǒ:-)</i> | ‘be unhooked’ |
| | | <i>gàr^m-í-</i> | ‘put in’ | <i>gǎl-lí-</i> | ‘take out’ |
| | | <i>tárí-yí-</i> | ‘be affixed’ | <i>tál-lí-yí-</i> | ‘affixed item come off’ |
| | | <i>ǐré-</i> | ‘forget’ | <i>ǐllí-</i> (variant) | ‘remember’ |
| | b. | <i>kórí-</i> | ‘hook, hang’ | <i>kóllí-rí-</i> | ‘unhook’ |
| | | <i>ǐré-</i> | ‘forget’ | <i>ǐllí-rí-</i> (variant) | ‘remember’ |

| | | | | |
|----|----------------------|---------------|-------------------------------------|-----------------------|
| | tá-rí- | ‘affix’ | tál-lí-rí- | ‘remove affixed item’ |
| c. | mà-r ⁿ i- | ‘seal up’ | mǎl-lí-rí- ~ màní-r ⁿ i- | ‘unseal’ |
| | mà-rá- | ‘become lost’ | màndí-rí (gǒ:-) | ‘lost item be found’ |
| | — | | [= mǎllí-rí (gǒ:-)] | |
| | | | mǎllí-rí- | ‘recover lost item’ |

Some synchronically unsegmentable trisyllabic stems ending in *-rí* may have originated as reversives. Since *-rǎ-* is also a minor Transitive or Causative suffix, caution should be exercised here. One example is *nángírí-* ‘remember’ (synonym of *ìllí-rí-*), which is synchronically isolated but corresponds to Jamsay *nángá-rⁿá-* ‘remember’, reversive of Jamsay *nángá-* ‘forget’.

Representative AN forms of two trisyllabic reversive verb stems (i.e. from bisyllabic inputs) are in (xx5). AN stems of bisyllabic reversives are in (xx6).

| | | | |
|-------|-----------|--|--------------------|
| (xx5) | | ‘untie’ | ‘unhook’ |
| | bare stem | págí-rí | kóllí-rí |
| | Imprt | págí-rà | kólló-rò |
| | Imprt.Neg | págí-rí-ndà: | kóllí-rí-ndà: |
| | Perf1b | págí-rí-tǐ- | kóllí-rí-tǐ- |
| | PerfNeg | pàgǐ-rà-rí- | kòllò-rò-rí- |
| | Impf | pà-págí-rá-m̀- | kò-kólló-ró-m̀- |
| | ImpfNeg | págí-rá-ḡò:- | kólló-ró-ḡò:- |
| (xx6) | | ‘open’ | ‘uncover (object)’ |
| | bare stem | pí: ⁿ -r ⁿ i | děw-rí |
| | Imprt | pí: ⁿ -r ⁿ à | děw-râ |
| | Imprt.Neg | pí: ⁿ rí-ndà: | děw-rí-ndà: |
| | Perf | pí: ⁿ -r ⁿ i-tǐ- | děw-rí-tǐ- |
| | Perf.Neg | pǐ: ⁿ -r ⁿ è-r ⁿ i- | dèw-rè-rí- |
| | Impf | pǐ-pí: ⁿ -r ⁿ é-m̀- | dè-děw-ré-m̀- |
| | Impf.Neg | pí: ⁿ -r ⁿ é-ḡò:- | děw-ré-ḡò:- |

9.2 Deverbal causative verbs

9.2.1 Productive causative with suffix *-mí-*

The productive Causative suffix added to verb inputs is *-mí-*. It preserves the {H} or {LH} tone contour of the input (xx1).

(xx1) Causatives with *-mí-* (input verb ends in non-high vowel)

| input | gloss | causative | gloss |
|----------------------------|-------------------|-----------------------------|--------------------------|
| a. {H}-toned | | | |
| <i>kóyó</i> | ‘weep’ | <i>kóyó-mí-</i> | ‘make weep’ |
| <i>kúwó-</i> | ‘eat (meat)’ | <i>kúwó-mí-</i> | ‘give meat to’ |
| <i>íné-</i> | ‘go’ | <i>íné-mí-</i> | ‘allow to go’ (with /ε/) |
| <i>tómbó-</i> | ‘jump’ | <i>tómbó-mí-</i> | ‘make jump’ |
| <i>kó:-</i> | ‘eat (meal)’ | <i>kó:-mí-</i> | ‘feed, nourish’ |
| <i>sírⁿé-</i> | ‘be full (sated)’ | <i>sírⁿé-mí-</i> | ‘make full (sated)’ |
| <i>éw-yé-</i> | ‘sit down’ | <i>éw-yé-mí-</i> | ‘make sit’ |
| <i>péré-</i> | ‘jump off’ | <i>péré-mí-</i> | ‘make jump off’ |
| <i>píríyé-</i> | ‘be inflated’ | <i>píríyé-mí-</i> | ‘inflate’ |
| b. {LH}-toned | | | |
| <i>jùgó-</i> | ‘know’ | <i>jùgó-mí-</i> | ‘in form’ |
| c. monosyllabic Cǎ:- verbs | | | |
| <i>dǎ:-</i> | ‘arrive’ | <i>dǎ:-mí-</i> | ‘cause to arrive’ |
| <i>nǎ:-</i> | ‘drink’ | <i>nǎ:-mí-</i> | ‘give drink to’ |

As the examples in (xx1) show, *-mí-* does not force changes in the vowel qualities of the preceding stem, provided that the stem ends in a non-high vowel (i.e. in anything but /i/). In other words, although most of the causatives are trisyllabic or longer, the constraints on vowel sequences that apply to underived trisyllabics (and longer stems) do not apply to causative derivatives.

However, if the input stem ends in /i/, this vowel must be changed before *-mí-*, as shown in (xx2). If there is a preceding non-high vowel, which in practice is almost always from the set {a ε ɔ}, this vowel is copied on the final vowel of the input stem before *-mí-* (xx1.a). If the stem has no non-high vowel, the default for the stem-final vowel is /ɔ/ after /u/, and /ε/ after /i/ (xx1.b). I have also recorded /e/ (as an optional variant of /ε/) after initial-syllable /i/ under the influence of a preceding nasal (xx1.c).

(xx1) Causatives with *-mí-* (input verb ends in /i/)

| input | gloss | causative | gloss |
|---|----------------|------------------------|-----------------------|
| a. input has preceding non-high vowel {a ε ɔ} | | | |
| bǎ:rí- | ‘help’ | bǎ:rá-mí- | ‘make help’ |
| dèwí- | ‘cover’ | dèwé-mí- | ‘make cover’ |
| só:rí- | ‘creak’ | só:ró-mí- | ‘make creak’ |
| b. input has preceding {u i} only | | | |
| núy ⁿ í- | ‘enter’ | núy ⁿ ó-mí- | ‘make enter’ |
| pú:rí- | ‘frisk’ | pú:ró-mí- | ‘make frisk’ |
| tímbí- | ‘cover’ | tímbé-mí- | ‘make cover’ |
| píy ⁿ í- | ‘shut’ | píy ⁿ é-mí- | ‘make shut’ |
| ǰínǰí- | ‘make noise’ | ǰínǰé-mí- | ‘cause to make noise’ |
| c. input has preceding /i/ only, nasal allows variant /e/ | | | |
| tíǰí- | ‘speak’ | tíǰé-mí- ~ tíǰé-mí- | ‘make speak’ |
| ǰínǰí- | ‘ride double’ | ǰínǰé-mí- ~ ǰínǰé-mí- | ‘have ride double’ |
| d. after Mediopassive -yí- | | | |
| tágí-yí- | ‘put on shoes’ | tágí-yé-mí- | ‘put shoes on (sb)’ |

The causative stem has a characteristic conjugation (xx2). The vocalism of the suffix combinations is independent of that of the preceding input stem. For example, *kóyó-mí-* ‘cause to weep’ has the same suffixal forms as *núyⁿó-mí-* ‘cause to go in’ (xx2), e.g. Imperative *kóyó-mò*.

(xx2) Paradigm of Causative (‘cause to go in’)

| | |
|--|----------------------------------|
| <i>núyⁿó-mí</i> | bare stem |
| <i>núyⁿó-mí-ndé</i> | Verbal Noun |
| <i>nùyⁿò-mǐ-</i> | unsuffixed Perfective (3Pl y-à:) |
| <i>núyⁿó-m-tǐ-</i> | Perfective-1b |
| <i>núyⁿó-m-só-</i> | Perfective-2 |
| <i>núyⁿó-m-jè-</i> | Recent Perfect |
| <i>núyⁿó-mí tá:-só-</i> | Experiential Perfect |
| <i>nùyⁿò-mè-rⁿí-</i> | Perfective Negative |
| <i>nù-núyⁿó-mé-nè-</i> | reduplicated Imperfective |
| <i>nù-núyⁿó-mê:-sò-</i> | reduplicated Progressive |
| <i>núyⁿó-m-ǰò:-</i> | Imperfective Negative |

| | |
|--|---------------------|
| núy ⁿ ᵛ-mò | Imperative |
| núy ⁿ ᵛ-m-ndà: | Imperative Negative |
| núy ⁿ ᵛ-mé-mày ⁿ | Hortative |

9.2.2 Minor causative suffixes (-gí ~ -ŋí-, -ndé- ~ -ndí-)

Transitive -rí- functions as a causative in some but not all cases, see §9.2.3, below.

A suffix -gí ~ -ŋí- occurs with a few stems, mainly in causative function. All clear examples known to me are in (xx1). The variant -ŋí- occurs after nasal syllables. Note that -gí- does not alter the vocalism of the preceding stem (there is no conversion to canonical trisyllabic vowel-sequence patterns).

(xx1) -gí ~ -ŋí- in causative and other functions

a. causative

-gí- after nonnasal syllable

| | | | |
|-------|-----------------|----------|-----------------|
| pósó- | ‘(sth) crumble’ | pósó-gí- | ‘crumble (sth)’ |
| màrá- | ‘become lost’ | màrá-gí- | ‘get rid of’ |
| wòró- | ‘cave in’ | wòró-gí- | ‘demolish’ |
| wùrᵛ- | ‘(sb) wake up’ | wùrᵛ-gí- | ‘wake (sb) up’ |
| párá- | ‘(sth) snap’ | párá-gí- | ‘snap (sth)’ |

-ŋí- after nasal syllable

| | | | |
|-------|----------------|----------|--------------------|
| kúmó- | ‘(bone) break’ | kúmó-ŋí- | ‘break (sth long)’ |
| ñámá- | ‘malfunction’ | ñámá-ŋí- | ‘damage, waste’ |

b. transitivity (causative-like)

| | | | |
|-------|--------------------|----------|--|
| émbí- | ‘be narrow, tight’ | émbí-gí- | ‘hold (sth) in armpit (by squeezing)’ |
|-------|--------------------|----------|--|

c. intensive

| | | | |
|-------|----------|----------|-------------|
| kárá- | ‘incise’ | kárá-gí- | ‘rip, tear’ |
|-------|----------|----------|-------------|

A suffix -nde- is attested in the archaic and irregular sí-ndé- ‘take/bring down’, from intransitive sígé- ‘go down’. It is probably related to a minor Factitive suffix -ndí- that is attested with two adjectival verbs (bǎ:-ndí- ‘fill, make full’ and é:-ndí- ‘tighten’), see §9.5, below.

9.3 Passive and Transitive

9.3.1 Mediopassive *-yí-* and Transitive *-rí-*

Alternations of Mediopassive (MP) *-yí-* and Transitive (Tr) *-rí-* occur chiefly with verbs of stance (xx1.a), putting on or wearing garments (xx1.b), and holding (xx1.c). The examples given are representative rather than exhaustive.

For the stance verbs, the mediopassive denotes taking a position, while the form with Transitive *-rí-* is causative. For the verbs of wearing and holding, the mediopassive is syntactically transitive but denotes an action that results in the agent being in a state (of wearing or holding something). In this case, the form with Transitive *-rí-* denotes the act of placing an object in such a way that another person wears or holds it.

| (xx1) | MP | gloss | stem | gloss |
|-------|------------------------------|----------------------|------------------------------|-------------------------------|
| | a. stance | | | |
| | <i>bìyé-</i> | ‘lie down’ | <i>bì:-ré-</i> | ‘have lie down, put to sleep’ |
| | <i>éw-yé-</i> | ‘sit down’ | <i>éw-ré-</i> | ‘have sit, seat’ |
| | <i>í:-yí-</i> | ‘stand up, stop’ | <i>í:-rí-</i> | ‘stop (sth)’ |
| | <i>túnjì-yⁿí-</i> | ‘kneel’ | <i>túnjì-rⁿí-</i> | ‘cause to kneel’ |
| | b. wearing clothes | | | |
| | <i>tágí-yí-</i> | ‘put one’s shoes on’ | <i>tágí-rí-</i> | ‘put shoes on (sb)’ |
| | <i>dòmbí-yé-</i> | ‘roll on turban’ | <i>dòmbó-ró-</i> | ‘put turban on (sb)’ |
| | <i>ków-yé-</i> | ‘put one’s hat on’ | <i>ków-ró-</i> | ‘put hat on (sb)’ |
| | <i>págí-yí-</i> | ‘tie one’s belt on’ | <i>págí-rí-</i> | ‘tie belt on (sb)’ |
| | (cf. <i>págí-</i> ‘tie’) | | | |
| | c. carrying/holding | | | |
| | <i>bàmbí-yí-</i> | ‘carry on back’ | <i>bàmbí-rí-</i> | ‘put on (sb’s) back’ |
| | <i>dùyí-</i> | ‘carry on head’ | <i>dù:-rí-</i> | ‘put on (sb’s) head’ |
| | <i>kómbí-yí-</i> | ‘cling to’ | <i>kómbí-rí-</i> | ‘cause to cling’ |
| | d. other | | | |
| | <i>nî: ðiyé-</i> | ‘bathe’ | <i>nî: ði:-ré-</i> | ‘bathe (sb)’ |
| | (with <i>nî:</i> ‘water’) | | | |
| | <i>ńdé-</i> | ‘go up’ | <i>ńdí-rí-</i> | ‘take up’ |
| | <i>káwá-</i> | ‘be separated’ | <i>káw-rí-</i> | ‘separate [tr]’ |
| | <i>témbí-yí-</i> | ‘become wet’ | <i>témbí-rí-</i> | ‘make wet’ |
| | <i>ságí-yí-</i> | ‘expand [intr]’ | <i>ságí-rí-</i> | ‘expand (sth)’ |
| | <i>dàwí-yí-</i> | ‘hide [intr]’ | <i>dàw-rí-</i> | ‘hide (sth)’ |
| | (< / <i>dàwí-rí-</i> /) | | | |

tíyé- ‘be spilled’ tí:-rí- ‘spill [tr]’

The /e/ in *-yé-* and *-ré-* in some of these pairs is due to the vocalism of the stem, which contains {o e} and therefore triggers adjustments that reflect constraints on vowel sequences in trisyllabic stems.

Segmentability of Mediopassive *-yí-* is difficult in the cases of *bìyé-* ‘lie down’ (xx1.a), and *điyé-* ‘bathe’ and *tíyé-* ‘be spilled’ (xx1.d) because of their initial short-voweled syllables. The corresponding transitives have a phonetic long [i:] that could easily be (re-)interpreted by native speakers as reflecting /iy/ syncopated from /iyi/, i.e. *bìy-rí-* and *điy-rí-*. In this interpretation, *-rí-* is still segmentable as a Causative suffix allomorph, but the stems can be taken as *bìyé-* and *điyé-* without segmentation. I therefore transcribe these stems without hyphens. A similarly problematic case is *dùyí-* ‘carry on head’ (xx1.c), but here the transitive is *dũ:-rí-*.

In some of these cases, the transitive form shown competes with a Causative with suffix *-mí-* added to the mediopassive form, e.g. *éw-yé-mí-* ‘cause to sit’. This suggests that the *-yí-/rí-* alternation is not quite as productive as in e.g. Najamba.

Of the two verbs with the general sense ‘put on clothes, get dressed’, one has the expected alternation: *dúnjí dúnjí-yí-* ‘get dressed’ versus *dúnjí dúnjí-rí-* ‘dress (someone)’ (shown with cognate nominal). The alternative for ‘get dressed’ is *yùrí kúr^{ní}-y^{ní}-* (with *yùrí* ‘fabric, garment’), but the expected transitive *#kúr^{ní}-r^{ní}-* does not occur. Instead, we get just *yùrí kúr^{ní}-* ‘dress (someone)’. This suggests that *-rí-* is not readily added to stems with a rhotic in the final syllable.

9.3.2 Passive suffix *-yé*

The Passive *-yé* allows, but does not require, the presupposition of an **unexpressed agent**. The preceding stem shifts to **H-tone** (if not already H-toned). The suffix itself is not affected by phonological features of the stem; for example, there is no Nasalization-Spreading, and no harmonizing of vowels.

The passive was readily elicited from a range of transitive inputs (xx1).

| (xx1) | input verb | gloss | passive | gloss |
|-------|--------------------------|---------|----------------------------|--------------|
| | a. input {H}-toned | | | |
| | <i>kár^{ní}-</i> | ‘do’ | <i>kár^{ní}-yé</i> | ‘be done’ |
| | <i>tíŋí-</i> | ‘speak’ | <i>tíŋ-yé</i> | ‘be said’ |
| | <i>tóŋí-</i> | ‘write’ | <i>tóŋ-yé</i> | ‘be written’ |

| | | | |
|--------|------------|----------|----------------|
| káwrá- | ‘disperse’ | káwrí-yé | ‘be dispersed’ |
| kémé- | ‘build’ | kémé-yé | ‘be build’ |

b. input {LH}-toned

| | | | |
|--------|------------|----------|---------------------|
| yí:- | ‘see’ | yí:-yé | ‘be seen’ |
| gùró- | ‘rob’ | gùró-yé | ‘be robbed/stolen’ |
| gòndó- | ‘take out’ | gòndó-yé | ‘be taken out’ |
| noḽ:- | ‘drink’ | noḽ:-yé | ‘(liquid) be drunk’ |

The Passive form is **adjectival** in form; more specifically, it is a special use of a participial form (as we will see below). It can function as a modifying adjective, either with a semantically light stem filling the noun slot (xx2.a), or with a more typical common noun (xx2.b).

- (xx2) a. [kò gùró-yé] éwé-ḡò-yⁿ
[thing.L steal-Pass] buy-ImpfNeg-1SgS
‘I don’t/won’t buy anything stolen.’
- b. [mòbìlì gùró-yé] éwé-ḡò-yⁿ
[vehicle.L steal-Pass] buy-ImpfNeg-1SgS
‘I don’t/won’t buy a stolen vehicle.’

The passive form is, however, often **predicative**, in which case it is followed by the appropriate conjugated form of the ‘it is’ **clitic** (§11.xxx). For example, ḡú gùró-yé=w ‘this is/was stolen’ can be said while pointing to an object of dubious provenance found in a thief’s den. It can be negated with the Stative Negative =ndö:, as in ḡú gùró-yé-w=ndö: ‘this is/was not stolen’.

The third plural forms end in -yé=∅ instead of -yé=yé.

Some further examples are in (xx3). See also §17.2.2.2.

- (xx3) a. kárⁿi-yé=w
do-Pass=it.is.InanSgS
‘It is (= has already been) done.’
- b. tóḡ-yé=∅
write-Pass=it.is.InanPIS
‘They (e.g. books) are (= have already) been written.’
- c. gùrígùró-yé=m-í:
robbery rob-Pass=it.is-1SgS
‘I have been robbed.’

That we are dealing with a participial form, and therefore with a kind of relative construction, is suggested by the fact that the subject (when overtly expressed) undergoes tone-dropping. This is consistent with the tone-dropping on relative head NPs. Examples are in (xx4).

- (xx4) a. pèrgè sémé-yé=ń
sheep.L slaughter-Pas=it.is.3SgS
 ‘A/the sheep-Sg is (= has already been) slaughtered.’ (pèrgé)
- b. àrⁿà gùrí gúró-yé=ń
man.L robbery rob-Pass=be.3SgS
 ‘A/the man has been robbed.’ (árⁿà)
- c. tònótón-yé=w
writing.L write-Pass-be.InanS
 ‘A/the book is (= has already been) written.’ (tónó)

However, the passive-predicate construction differs from the true relative construction in that the **subject NP may end in a determiner or a non-numeral quantifier** (in relatives, such elements must appear after the verbal participle).

- (xx5) a.. [pèrgè bú:] sémé-yé=Ø
 [sheep.L **Def.AnPl**] slaughter-Pass=it.is.3PlS
 ‘The sheep-Pl are (= have already been) slaughtered.’
- b. [àrⁿà wǒń] gùrí gúró-yé=ń
 [man.L **Dem**] robbery rob-Pass=it.is.3SgS
 ‘This man has (already) been robbed.’
- c. [árⁿà gá:rè] gùrí gúró-yé=Ø
 [man.L **eight**] robbery rob-Pass=it.is.3PlS
 ‘Eight men have been robbed.’

Negative predicative forms of the passive can be formed by adding an inflected form of the Negative ‘it is not’ clitic =ndǒ: (§xxx) to the Passive suffix (xx6).

- (xx6) tónó-yé=w=ndǒ:-Ø
 write-Pass=it.is.InanSgS=it.is.not-3SgS
 ‘It has not been written.’

Alternatively, **-yé=** plus the inflected form of the (positive) ‘it is’ clitic is added to the Perfective Negative verb form with **-rí-** (xx7). In the case of 3Pl subject, both inanimate and animate, the 3Pl Perfective Negative **-ndú-** is the basis for the form, which is therefore doubly conjugated. **-ndú-** is pronounced **-ndí-** before **-yé=**.

- (xxx) a. **tòṅḍ-rⁿi-yé=w**
 write-Perf.Neg-Pass=it.is.InanS
 ‘It has not been written.’
- b. **gùrò-rí-yé=m-íy**
 rob-Perf.Neg-Pass=it.is-1SgS
 ‘I have not been robbed.’
- c. **gùrò-ndí-yé=∅**
 rob-Perf.Neg.3PlS-Pass=it.is.3PlS
 ‘They have not been robbed.’
- d. **tòṅḍ-ndí-yé=∅**
 write-Perf.Neg.3PlS-Pass=it.is.3PlS
 ‘They have not been written.’

Both positive and negative predicative forms of the passive may combine with Past clitic **=be-**. For the forms and examples, see §10.5.1.xxx.

9.3.3 Minor passive suffix **-mí-**

One unproductive type is a morphological mimic of the causative, using the same suffix **-mí-**. The two known examples are in (xx1). The best gloss is of the type ‘be VERB-able’.

- (xx1) a. **témbé-** ‘encounter’ **témbé-mí-** ‘be found (often), be findable’
 b. **bèré-** ‘obtain’ **bèré-mí-** ‘be gotten (often), be available’

Examples: reduplicated imperfective **tè-témbé-mé-ṅ** ‘it is found (= possible to find, available)’, imperfective negative **béré-m-ṅḍ:-∅** ‘it isn’t available, it can’t be gotten’.

9.4 Ambi-valent verbs without suffixal derivation

Ambi-valent verbs, i.e. those used both transitively and intransitively, are not typical of Nanga.

9.5 Deadjectival inchoative and factitive verbs

In the tables in this section, the adjective is first given in its usual modifying form (it should be recalled, though, that many nonmonosyllabic adjectives with final /i/ in this form also have a predicative form with final /u/). The adjective is followed by the inchoative verb ('become ADJ') and the factitive verb ('make [something] ADJ'). The factitive is the causative of the inchoative, and usually ends in Causative **-mí-** (there are also a few cases with **-ndí-**). The inchoative is therefore the lexically basic verb.

In the first set of examples, the inchoative verb has **no segmentable derivational suffix**. The inchoative verb and the adjective are semi-autonomous members of the same word-family, rather than one being directly derived from the other. The phonological form of the verb respects the usual constraints on verb-stem shapes regarding tone and vocalism. The verb is {LH} toned if it begins with a voiced stop, and high-toned if it begins with a voiceless stop. These constraints do not apply to the adjective.

| (xx1) | gloss | adj | inchoative | factitive |
|---|----------------------|--------------------|---------------------|------------------------|
| a. Factitive -ndí- | | | | |
| | 'full' | bá: | bǎ:- | bǎ:-ndí- |
| | 'tight (screw)' | ě: | é:- | é:-ndí- |
| b. Factitive with Causative -mí- , inchoative ends in non-high vowel | | | | |
| | 'tight (rope)' | ě: | é:- | é:-mí- |
| | 'old' | pě: | pé:- | pé:-mí- |
| | 'dry, hardened' | mǎ: | mǎ:- | mǎ:-mí- |
| | 'ripe (crop); fresh' | íré | íré- | íré-mí- |
| | 'half-ripe' | ámá | ámá- | ámá-mí- |
| | 'plump' | ámí | ámá- | ámá-mí- |
| | 'red' | bár ⁿ í | bàr ⁿ á- | bàr ⁿ á-mí- |
| | 'empty, bare' | kóró | kóró- | kóró-mí- |
| | 'weak, diluted' | sèré | sé-é- | sé-é-mí- |
| | 'ripe (fruit)' | bòró | bòró- | bòró-mí- |
| | 'black' | jémí | jèmé- | jèmé-mí- |
| c. Factitive with Causative -mí- , inchoative ends in /i/ | | | | |

| | | | |
|----------|-------|--------|-----------|
| ‘curved’ | gòndí | gòndí- | gòndó-mí- |
| ‘narrow’ | èmbí | émbí- | émbé-mí- |
| ‘tilted’ | jèṅí | jèṅí- | jèṅé-mí- |

In (xx1.c), the final /i/ of the inchoative is replaced, before the Causative suffix, by a non-high vowel copied from the initial syllable.

In the remaining forms, the inchoative verb has a **derivational suffix**. One could therefore argue that the inchoative is formed by adding an Inchoative suffix directly to the adjective. To make this work, the adjectival stem would have to be reshaped to fit the constraints on the phonological form of verbs, in addition to the simple addition of the derivational suffix.

In (xx2), the Inchoative suffix is **-yí-**, with variant **-yé-** after verbs with {e o} vowel. This suffix requires the preceding stem to end in /i/. The **-yí-** variant shifts to **-yé-** before the Causative suffix. The /y/ is regularly nasalized to /yⁿ/ after a nasal syllable. This inchoative formation is found with stems that have an initial long vowel, i.e. of shape **Cv:C(C)v-**, and with the two basic adjectives denoting temperatures.

(xx2) Inchoative **-yí/-yé-**

| gloss | adj | inchoative | factive |
|---------------------------|---------------------|---------------------------------------|--|
| a. Cv:C(C)v- | | | |
| ‘thin’ | ké:mbé | ké:mbí-yí- | ké:mbí-yé-mí- |
| ‘skinny’ | kó:mbó | kó:mbí-yé- | kó:mbí-yé-mí- |
| ‘young, adolescent’ | sò:rô | só:rí-yé- | só:rí-yé-mí- |
| ‘easy, cheap’ | nà:r ⁿ á | ná:r ⁿ í-y ⁿ í- | ná:r ⁿ í-y ⁿ é-mí- |
| ‘unripe, raw’ | kè:sí | ké:sí-yé- | ké:sí-yé-mí- |
| b. temperature adjectives | | | |
| ‘cold’ | támí | támí-yí- | támí-yé-mí- |
| ‘hot’ | ógí | ógí-yí- | ógí-yé-mí- |

The most common and productive Inchoative suffix, however, is **-ndiyé-**. The /e/ vowel is stable, occurring with any stem vocalism. The comments at the beginning of each group of examples in (xx3) suggest how one might derive the vocalism of the inchoative verb from that of the adjective.

The tone contour of the inchoative can in most cases also be predicted, but this is generally based on the initial consonant, rather than on the lexical tones of the adjective. The inchoatives beginning in a voiceless stop, /s/, or zero (vowel-initial) have all-high tone contour, while those beginning in a voiced stop have {LH}. This leaves sonorant-initial stems, which in principle allow either tone contour in verbs, and might therefore clarify whether the adjective

and the inchoative share a lexical tone contour. Here I find two cases of {LH} in both the adjective and the inchoative (*wàgá* ‘distant’, *m̀̀s̀́í* ‘bad/ugly’), one with {HL} in the adjective and all-high in the verb (*m̀́ár`í* ‘hard’), one with {HL} in the adjective and {LH} in the verb (*yáǵí* ‘coarse’); and one with {LHL} adjective and all-high verb (*ǹ̀m̀́í* ‘difficult/costly; this adjective has a predicative form *ǹ̀m̀́ú* with {LH} contour). These data are rather equivocal.

(xx3) Inchoative -ndiyé-

a. stem ends in {e ɔ a}, vocalism stable

| | | | |
|-----------------|-------------|--------------------|-----------------------|
| ‘distant’ | <i>wàgá</i> | <i>wàgá-ndiyé-</i> | <i>wàgá-ndiyé-mí-</i> |
| ‘fat; numerous’ | <i>òwó</i> | <i>òwó-ndiyé-</i> | <i>òwó-ndiyé-mí-</i> |
| ‘small, young’ | <i>èwré</i> | <i>èwré-ndiyé-</i> | <i>èwré-ndiyé-mí-</i> |
| ‘long, tall’ | <i>gùró</i> | <i>gùró-ndiyé-</i> | <i>gùró-ndiyé-mí-</i> |

b. CvC stem with non-high vowel extended to CvCv- by copying vowel

| | | | |
|------------|------------|--------------------|-----------------------|
| ‘spacious’ | <i>gâw</i> | <i>gàwá-ndiyé-</i> | <i>gàwá-ndiyé-mí-</i> |
| ‘short’ | <i>dêŋ</i> | <i>dèŋé-ndiyé-</i> | <i>dèŋé-ndiyé-mí-</i> |

c. stem has u...i (but predicative u...u) becoming u...u, stem CvCv

| | | | |
|---------------|-------------|--------------------|-----------------------|
| ‘big, fat’ | <i>dùgí</i> | <i>dùgú-ndiyé-</i> | <i>dùgú-ndiyé-mí-</i> |
| ‘heavy’ | <i>dúsí</i> | <i>dùsú-ndiyé-</i> | <i>dùsú-ndiyé-mí-</i> |
| ‘soft (skin)’ | <i>búrí</i> | <i>bùrú-ndiyé-</i> | <i>bùrú-ndiyé-mí-</i> |

d. stem has u...i becoming u...e, stem CvCCv

| | | | |
|----------|--------------|---------------------|------------------------|
| ‘coarse’ | <i>kùnjí</i> | <i>kúnjé-ndiyé-</i> | <i>kúnjé-ndiyé-mí-</i> |
|----------|--------------|---------------------|------------------------|

e. stem has i...i, vocalism stable

| | | | |
|---------|-------------|--------------------|-----------------------|
| ‘white’ | <i>pírí</i> | <i>pírí-ndiyé-</i> | <i>pírí-ndiyé-mí-</i> |
|---------|-------------|--------------------|-----------------------|

f. Ci: stem extended to Ciye-

| | | | |
|-----------|------------|--------------------|-----------------------|
| ‘pointed’ | <i>sí:</i> | <i>síyé-ndiyé-</i> | <i>síyé-ndiyé-mí-</i> |
|-----------|------------|--------------------|-----------------------|

g. stem ends in /i/ that is replaced by copy of non-high first vowel

| | | | |
|---------------------|----------------|-----------------------|--------------------------|
| ‘bitter’ | <i>gáří</i> | <i>gàrá-ndiyé-</i> | <i>gàrá-ndiyé-mí-</i> |
| ‘salty, sour’ | <i>páří</i> | <i>pàrá-ndiyé-</i> | <i>pàrá-ndiyé-mí-</i> |
| ‘half-bitter’ | <i>ásí</i> | <i>ásá-ndiyé-</i> | <i>ásá-ndiyé-mí-</i> |
| ‘hard’ | <i>m̀́ár`í</i> | <i>m̀́ár`á-ndiyé-</i> | <i>m̀́ár`á-ndiyé-mí-</i> |
| ‘coarse’ | <i>yáǵí</i> | <i>yàǵá-ndiyé-</i> | <i>yàǵá-ndiyé-mí-</i> |
| ‘no good (garbage)’ | <i>g̀̀m̀́í</i> | <i>g̀̀m̀́ó-ndiyé-</i> | <i>g̀̀m̀́ó-ndiyé-mí-</i> |
| ‘somewhat rotten’ | <i>g̀̀m̀́í</i> | <i>g̀̀m̀́ó-ndiyé-</i> | <i>g̀̀m̀́ó-ndiyé-mí-</i> |
| ‘bad, ugly’ | <i>m̀̀s̀́í</i> | <i>m̀̀s̀́ó-ndiyé-</i> | <i>m̀̀s̀́ó-ndiyé-mí-</i> |
| ‘difficult, costly’ | <i>ǹ̀m̀́í</i> | <i>ǹ̀m̀́ó-ndiyé-</i> | <i>ǹ̀m̀́ó-ndiyé-mí-</i> |
| ‘hot, fast’ | <i>óǵí</i> | <i>óǵó-ndiyé-</i> | <i>óǵó-ndiyé-mí-</i> |
| ‘deep’ | <i>sóŋí</i> | <i>sóŋó-ndiyé-</i> | <i>sóŋó-ndiyé-mí-</i> |

| | | | |
|-----------------|------|-------------|----------------|
| 'smooth, sleek' | óřĩ | óró-ndíyé- | óró-ndíyé-mí- |
| 'good' | èsí | ésé-ndíyé- | ésé-ndíyé-mí- |
| 'sweet; sharp' | éřĩ | éřé-ndíyé- | éřé-ndíyé-mí- |
| 'lightweight' | éř"ĩ | éř"é-ndíyé- | éř"é-ndíyé-mí- |

There are also two cases known to me of **Inchoative -rĩ-**. The adjective *yágĩ* 'coarse' has been given above with its inchoative *yàgá-ndíyé-* 'become coarse', but it also has a more specialized verb *yàgĩ-rĩ-* '(skin) be itchy'. The adjective *ógĩ* is also given above, in the sense 'hot', with inchoative *ógĩ-yĩ-*, and in the senses 'hot/fast', with inchoative *ógó-ndíyé-*. However, for 'become fast(er)' (i.e. 'speed up'), there is another verb, *ógĩ-rĩ-*.

Examples of adjectives (or adjective-like compound finals) that **do not have** an associated inchoative verb are in (xx4). For 'other' the problem is logical ('become other' makes little sense except in a postmodern context). 'Become new' is not much better. The other terms in (xx4) are noun-like.

| (xxx) | gloss | adjective | inchoative/factitive |
|-------|---------------|---------------|----------------------|
| | 'other' | <i>bèndĩ</i> | — |
| | 'new' | <i>kándà</i> | — |
| | 'young adult' | <i>sátará</i> | — |
| | 'living' | <i>úmá</i> | — |
| | 'runty' | <i>kèdè</i> | — |

9.6 Denominal verbs

There is no productive denominal verbalization. Some cases of verb-noun relationships where the noun is arguably lexically basic are listed in (xx1). We seem to have a *-rĩ-* suffix in (xx1.a), *-gíyé-* in (xx1.b), and *-yé-* in (xx1.c). The *-mí-* ending in (xx1.d) may be a special case of the Causative suffix *-mí-*. The example in (xx1.e) involves just a final-vowel change (the stem is borrowed from Fulfulde).

| (xx1) | noun | gloss | verb | gloss |
|-------|---------------------------|-------------------------|-----------------------------------|---|
| a. | <i>dú:</i> <i>tĩgâ</i> | 'load' 'family name' | <i>dũ:-rĩ-</i> <i>tĩgĩ-rĩ-</i> | 'load (e.g. cart)' '(griot) chant the ancestry of (sb)' |
| b. | <i>úndĩ</i> | 'forest' | <i>úndú-gíyé-</i> | '(zone) become dense (e.g. after rains)' |

| | | | | |
|----|--------------------------|-------------|--|------------------------------|
| c. | kùrí | ‘(a) share’ | ké-í-yé- | ‘share, divide up’ |
| d. | pǒ: | (greeting) | pó:-mí- | ‘greet’ |
| | lí-sǐ-gír ⁿ é | ‘filth’ | lí-sǐ-gír ⁿ é-mí- | ‘soil, make dirty’ |
| | | | lí-sǐ-gír ⁿ i-y ⁿ i- | ‘become dirty, soiled’ |
| e. | bármà | ‘injury’ | bármí- | ‘injure, wound (someone)’ |

9.7 Obscure verb-verb relationships

Listed without comment.

| (xx1) | verb | gloss | related verb | gloss |
|-------|-------|---------------|--------------|--------------------|
| | ná:- | ‘spend night’ | ná:-mí- | ‘greet in morning’ |
| | ɲàmá- | ‘malfunction’ | ɲàmá-ɲí- | ‘do harm to, ruin’ |

10 Verbal inflection

10.1 Inflection of regular indicative verbs

Inflected indicative verbs are normally followed by an aspect-negation (AN) suffix, then an optional Past suffix, then a pronominal-subject suffix (including 3Sg zero). There is an unsuffixed Perfective paradigm with no audible AN suffix preceding the pronominal.

Tense as such is not marked in the basic AN system, but a conjugatable Past clitic may be added to several AN suffixes.

The modal categories (Imperative, etc.) have distinctive morphology but are also suffixal, except that the singular imperative is marked by tonal and vocalic changes rather than by suffixation.

10.1.1 Suffixes versus chained verbs

As in other Dogon languages, in those categories where a nonzero AN morpheme follows the regular bare stem of the verb (with its regular tones), there is an issue as to whether the AN morpheme is a suffix or a chained verb. Experiential Perfect **tá:-só-** is unmistakably an auxiliary verb (with its own Perfective-2 suffix **-só-**). Recent Perfect **jè-** does not have a similar inflectional suffix in main clauses, but it is followed in relative clauses by Perfective participial **-sè**, and a preverbal subject pronominal (e.g. in nonsubject relatives) intervenes between the primary verb and **jè-** (§10.xxx). I write **tá:-só-** and **jè-** as separate words.

Perfective-1b **-fi-** and Perfective-2 **-só-** might also be analysed as constituting separate words, but the evidence is equivocal. In favor of this analysis is the fact that the preceding primary verb has its regular lexical tones and segments, as in chains. On the other hand, **-fi-** and **-só-** do not normally appear in relative clauses, which have Perfective Participial **-sè** instead. If **-sè** is identified as a variant of **-só-**, then there is no case for taking **-só-** as a separate word, since preverbal subject pronominals cannot intervene between the primary verb and **-sè** (§14.1.7.1).

It was possible to elicit relatives with **-fi-**, but only with some difficulty, and this construction did not occur in spontaneous data. My assistant did allow preverbal subject pronominals to intervene between the primary verb and **-fi-** in

most, but not all, of the elicited examples. In the absence of clear evidence, I write *-ñi-* as a suffix, but a case can be made for a separate-word analysis.

10.1.2 Overview of categories

For regular (active) verbs in the basic indicative mood, there is a fundamental aspectual split between perfective and imperfective aspectual systems, though each system consists of more than one AN category. Both systems are also divided into positive and negative subsystems.

The aspectual split is neutralized in statives, which include Stative paradigms derived from otherwise active verbs (§10.4), the Progressive (§10.2.2.3), and various defective quasi-verbs like 'be (somewhere)' and 'have' (§11.2). Statives also have a special negative forms distinct from those of active verbs.

Modal categories marked in the morphology are imperative, (first person) hortative, and a kind of third-person hortative used in expressing wishes. The imperative and (first person) hortative have special negative forms.

10.1.3 Verb stem shapes

Verb stems (excluding inflectional suffixes) may have from one to three syllables. Some verbs are themselves derived from simpler verbs or from adjectives; for these derivations see Chapter 9. The present chapter disregards the internal structure of such derivatives.

In this section I discuss the basic lexical stem shapes, proceeding from monosyllabics to trisyllabics. The **basic stem** is used in bare-stem form (as in the complement of *bèrè-* 'be able to', and in other verb-chains), and is also the basis for the Perfective and (with tonal overlays) the reduplicated Imperfective and the Future Negative. However, some other inflected forms (notably the Imperative and the Perfective Negative) induce phonological changes on verb stems.

10.1.3.1 *Cv:- verb stems*

The ***Cv:- verbs*** known to me are in (xx1). The subsections of (xx1) are organized by vowel quality. I initially thought that H-toned and R-toned stems could be distinguished even for monosyllabics, and early drafts of this grammar made this claim. Further study led me to conclude that the R-toned ***Cv̄:-***

transcriptions were incorrect. However, vestiges of an original tone distinction in monosyllabics may survive in the third person hortative (§10.6.xxx).

I have no example of a Cu: verb; the verb ‘go in’ appears as núy (compare Jamsay nú:-, Ben Tey nú-, etc.). There is only one example of Ci:.

| (xx1) | H-toned {LH} | gloss |
|-------|------------------------|--|
| | with /a/ | |
| | á:- | ‘uproot (peanuts)’ |
| | ká:- | ‘shave’ |
| | má:- | ‘become dry’ |
| | ná:- | ‘spend night’ |
| | pá:- | ‘chip off’ |
| | sá:- | ‘reply’ |
| | sá:- | ‘uproot (with a tool)’ |
| | sá:- | ‘take (millet grain spikes) to pile’ |
| | sá:- | ‘strain’ |
| | tá:- | ‘shoot’ |
| | tá:- | ‘(ripening fruit) begin to turn color’ |
| | bă:- | ‘be enough; be full’ |
| | dă:- | ‘learn’ |
| | dă:- | ‘endure’ |
| | dă:- | ‘patch up’ |
| | gă:- | ‘harvest (rice) with sickle’ |
| | gă:- | ‘be unaware’ |
| | jă:- | ‘fence in (with thorn branches)’ |
| | with /a ⁿ / | |
| | tá: ⁿ - | ‘avoid (taboo)’ |
| | tá: ⁿ - | ‘build shed (thatched shelter)’ |
| | pá: ⁿ - | ‘take (step)’ |
| | with /o/ | |
| | kó:- | ‘cover (e.g. box) with animal hide’ |
| | kó:- | ‘spit (wood)’ |
| | kó:- | ‘sew’ |
| | pó:- | ‘whistle’ |
| | pó:- | ‘replaster (mud wall)’ |
| | só:- | ‘dip’ |
| | tó:- | ‘hit hard (with stone)’ |
| | bǒ:- | ‘sip’ |
| | dǒ:- | ‘wash (hands)’ |

| | | |
|----------|------|-------------------------------|
| | gǔ:- | ‘go out’ |
| | wǔ:- | ‘catch, hold’ |
| with /ɔ/ | | |
| | kó:- | ‘eat (meal)’ |
| | mó:- | ‘tie (knot)’ |
| | nó:- | ‘drink’ |
| | pó:- | ‘pick (fruits)’ |
| | pó:- | ‘leach, let ferment’ |
| | só:- | ‘peck at’ |
| | tó:- | ‘sow, plant (seeds)’ |
| | tó:- | ‘roll (turban)’ |
| | tó:- | ‘take out (daily rations)’ |
| | tó:- | ‘(milk) fill up (in udder)’ |
| | bǔ:- | ‘unsheathe’ |
| | dǔ:- | ‘arrive’ |
| | dǔ:- | ‘burn (on fire)’ |
| | gǔ:- | ‘jab’ |
| | jǔ:- | ‘pick out delicately’ |
| | wǔ:- | ‘(rain) fall’ |
| with /e/ | | |
| | ké:- | ‘(grasshopper) bite off’ |
| | té:- | ‘(muddy water) become clear’ |
| | bě:- | ‘remain’ |
| | jě:- | ‘bring’ |
| | yě:- | ‘come’ |
| with /ɛ/ | | |
| | é:- | ‘become tight’ |
| | é:- | ‘(woman) marry (man)’ |
| | té:- | ‘lay out (mat)’ |
| | pé:- | ‘break off’ |
| | pé:- | ‘get old’ |
| | ké:- | ‘shine’ |
| | ké:- | ‘cut out (leather sections)’ |
| | sé:- | ‘trim (hair)’ |
| | bě:- | ‘cut off end’ |
| | dě:- | ‘be tired’ |
| | jě:- | ‘(man) marry (woman)’ |
| | jě:- | (ńné jě:- ‘go away, get out’) |

with /i/ (see also Ciy- stems below)

yǐ:- (yǐ-) ‘see’ (discussed separately below)

with /u/

[none]

For the verbs in (xx1) other than ‘see’, the long vowel is consistent across all AN suffixal categories, with the following exceptions. Those that take Perfective-1a -èrè- instead of Perfective-1b -ǐ- shorten the vowel, and may contract it with the initial /ɛ/ of the suffix: gǒ:- ‘go out’, Perfective gǒ-èrè ‘went out’ (§10.xxx). In the Imperative, Ce: verbs shift to Co:, and Ce: verbs appear as Cea with a diphthong (§10.xxx).

10.1.3.2 yǐ:- ‘see’

There only Ci:- verb is yǐ:- ‘see’, and it is somewhat irregular. Specifically, the Perfective Negative yè-rí- suggests a short-voweled variant /yǐ-/ , and moreover suggests that the /i/ has affinities to the final short /i/ of nonmonosyllabic verbs like kárⁿi- ‘do’, which also drops to a non-high vowel before the Perfective Negative suffix (kàⁿà-rⁿi-). The other cases where the vowel shifts from /i/ to /ɛ/ are certain Hortative forms. The Imperfective Negative ɲù-ŋó- (more common than the morphophonologically regular variant yǐ:-ŋó:-) not only shows a similar short stem vowel, but shows other irregularities (low-toned stem followed by high-toned suffix, short suffixal vowel) that are shared only with nǔyⁿ ‘hear’. The other inflected forms are regular and are compatible with /yǐ:-/. The paradigm is in (xx1). The Perfective-1b is elicitable but uncommon, as the Perfective-2 is the common perfective of perception verbs.

(xx1) Paradigm of ‘see’

| | |
|-------------|----------------------------------|
| yǐ: | bare stem |
| yí:-ndé | Verbal Noun |
| yǐ:- | unsuffixed Perfective (3Pl y-à:) |
| yǐ:-ǐ- | Perfective-1b |
| yǐ:-só- | Perfective-2 |
| yǐ:-jè- | Recent Perfect |
| yǐ: tá:-só- | Experiential Perfect |
| yè-rí- | Perfective Negative |
| yǐ-yí:-m- | reduplicated Imperfective |
| yǐ-yí:-sò- | reduplicated Progressive |

| | |
|----------------------|---------------------------------|
| nù-ηó- ~ yí:-ηò:- | Imperfective Negative |
| yĩ: | Imperative |
| yí-rá | Imperative Negative |
| yě:-ndà: | third-person Hortative Negative |
| yě:-mày ⁿ | Hortative |

10.1.3.3 Cuy(i)- and Ciy(i)- verbs

There is a difficulty in deciding whether the verbs in (xx1) are best represented as Cvy- (where “v” = a short high vowel /i/ or /u/) or as bisyllabic Cvyi-. In the cases where “v” is /i/ (xx1.c), the third possible representation is Ci:

| (xx1) | stem | gloss |
|-------|--|---------------------------------|
| a. | núy ⁿ - nǔy ⁿ - | ‘go in’ ‘hear’ |
| b. | túy- ~ tíy- | ‘put down’ |
| c. | tíy- bǐy ⁿ - | ‘send’ ‘put (earth in hole)’ |

The analytical problem is due to the fact that a final /i/ syncopates or apocopates after a semivowel, so there is no surface contrast between Cuyi and Cuy, and no surface contrast between Ciyi, Ciy, and Ci:

The best evidence for a bisyllabic representation is the Perfective Negative along with the Hortative. A final /i/ in a nonmonosyllabic stem shifts to a non-high vowel before Perfective Negative -rí- and Hortative -mày. The Perfective Negative forms of the verbs in question suggest /Cvyi-/. (xx2) shows the revised representations for the stem as well as the Perfective Negative form.

| (xx2) | stem | PerfNeg | gloss |
|-------|--|--|---------------------------------|
| a. | núy ⁿ i- nùy ⁿ i- | nùy ⁿ ò-rí- nùy ⁿ ò-rí- | ‘go in’ ‘hear’ |
| b. | túyí- ~ tíyí- | tùyò-rí- ~ tǐyè-rí- | ‘put down’ |
| c. | tíyí- bǐy ⁿ i- | tǐyè-rí- bǐy ⁿ è-rí- | ‘send’ ‘put (earth in hole)’ |

However, other forms of these verbs are compatible with monosyllabic *Cvy-* representations. It is possible that native speakers have a phonological analysis of the Perfective Negative and the Hortative (which are rather marked categories) that does not require positing a basic representation with final /i/. Possible direct evidence for *Cvy-* rather than *Cvyi-* is the Perfective-1a of ‘go in’, which is heard as *núyⁿ-èrè-*, not #*núyⁿi-èrè-* (cf. *dèwí-èrè-* ‘was covered’).

10.1.3.4 *nCv-* and *mCv-* verbs

The four verbs in (xx1) are bisyllabic (and treated as such morphophonologically), but their first syllable consists just of /n/, followed by a homorganic consonant (/n/ or /d/). The initial /n/ may be high-toned (xx1.a) or low-toned (xx1.b). For some (historical) phonological background see §3.3.8.1.

| (xx1) | stem | gloss | reduplicated Imperfective |
|-------|--|----------------|---------------------------------------|
| a. | <i>ńné-</i> <i>ńdí-</i> | ‘go’ ‘give’ | <i>ĩ-ńńí-m̀-</i> <i>ĩ-ńńdí-m̀-</i> |
| b. | <i>ńdé-</i> | ‘go up’ | <i>ĩ-ńńdé-m̀-</i> |
| c. | (<i>kĩrⁿé</i>) <i>m̀bó-</i> | ‘blow (nose)’ | <i>ù-úmbó-m̀-</i> |

For background on such initial nasal-stop and /nn/ clusters, see §3.3.8.1-2.

In the reduplicated forms in (xx1), a synchronic constraint requiring a vocalic nucleus in the reduplicant forces the stems in question to “grow” an initial /i/, which is then copied in the reduplicant.

The ‘go’ verb has somewhat irregular **stem-final vowel-quality alternations**, in addition to the regular shift of final /e/ to /o/ in the Imperative and to /i/ in the Imperative Negative. We get /ɛ/ instead of /e/ in several forms, including those with a suffix containing the vowel /ɛ/ or /a/, but also in the unsuffixed Perfective and in the Perfective Negative (suffix /-rí-/). We get /i/ for expected /e/ in the positive and negative imperfective forms.

(xx2) Paradigm of ‘go’

| form | category |
|---------------------------|---|
| a. with /ɛ/ <i>ńné</i> | bare stem (contrast <i>ńné</i> 3Sg pronoun) |

| | |
|-----------------------|----------------------------------|
| ńńé-só- | Perfective-2 |
| ńńé tá:-só- | Experiential Perfect |
| ńńé-màý ⁿ | Hortative |
| b. with /ɛ/ | |
| ńńé-ndé | Verbal Noun |
| ńńè- | unsuffixed Perfective (3Pl ńń-ò) |
| ńńé-èrè- | Perfective-1a |
| ńńé-jè- | Recent Perfect |
| ńńè-r ⁿ í- | Perfective Negative |
| c. with /i/ | |
| ĩ-ńńĩ-mè- | reduplicated Imperfective |
| ĩ-ńńĩ:-sò- | reduplicated Progressive |
| ńńí-ńjò:- | Imperfective Negative |
| ńńí-r ⁿ á | Imperative Negative |
| d. with /o/ | |
| ńńò | Imperative |

10.1.3.5 Regular bisyllabic stems

All non-monosyllabic stems end in a short vowel. Bisyllabics are (C)vCv, (C)v:Cv, (C)vCCv, and rarely (C)v:CCv. The initial C position may be empty. Except in recent French or Fulfulde loanwords, there are tight restrictions on vocalism. For bisyllabics, there are two primary patterns, one where the second vowel is identical to or closely related to the first vowel, and another where the second vowel is /i/.

In the first pattern, the two vowels are either **identical non-high vowels**, hence {e...e, ɛ...ɛ, a...a, ɔ...ɔ, o...o} (xx1.a) or have an **initial high vowel followed by a mid-height vowel** with the same roundness value, hence {i...e, i...ɛ, u...o, u...ɔ} (xx1.b). There are therefore nine possible combinations of the seven vowel qualities, meaning that one cannot quite reduce the vocalisms to single autosegments.

(xx1) stem gloss

a. identical non-high vowels

| | |
|---------|------------|
| bàýá- | ‘be cured’ |
| téré- | ‘chop’ |
| ké:ndé- | ‘do well’ |
| kóyó- | ‘weep’ |

dògó- ‘leave’

b. high vowel followed by non-high vowel

gùró- ‘steal’

dùyó- ‘insult’

bĩndé- ‘go back’

wĩsé- ‘swing (arms)’

písé- ‘spray’

tímbé- ‘lean on (cane)’

Verbal loans from Fulfulde normally end in /ɛ/ regardless of other vowels in the stem, and unless further assimilated they often have vowel sequences in violation of the tight patterns illustrated in (xx2.a). The final /ɛ/ is also typical of French loans (xx2.b), reflecting both an extension of the Fulfulde pattern to a wider range of loans, and the convenient fact that French verbs have several high-visibility forms ending in phonetic [e] or [ɛ] (written *-er*, *-ez*, *-ait*, etc.). A further source of non-canonical vowel sequences is the tendency for **iwv* to shift to *uwv*, notably in the word for ‘die’, *tíwé-* or *túwé-* (xx4.c), where the usual reduplicated Imperfective *tù-túwé-m̀-* shows that the representation with /u/ now has the upper hand.

| (xx2) | stem | gloss |
|-------|------------------------------|-------------------------|
| a. | <i>súré-</i> <i>pálé-</i> | ‘pacify’ ‘box in’ |
| b. | <i>gápé-</i> | ‘win (match, election)’ |
| c.. | <i>túwé-</i> ~ <i>tíwé-</i> | ‘die’ |

The second major pattern for bisyllabic stem vowelism is with **final /i/** (in some environments fluctuating with /u/). There are no clear restrictions on the quality of the preceding vowel, but {*ɛ ɔ*} are more common than {*e o*}. The /i/ is subject to syncope/apocope after an unclustered sonorant, most systematically after a semivowel /w/ (*dèwí-* ‘cover’) or /y/ (*í:-yí-* ‘stop’).

| (xx3) | stem | gloss |
|-------|--|---|
| a. | <i>CvCi-</i> <i>gàrⁿi-</i> <i>jòŋi-</i> <i>bògí-</i> | ‘put’ ‘cure’ ‘perpetrate (crime)’ |

| | |
|----------------------|--------------|
| děw (< /dɛwí/) | ‘cover’ |
| dɛŋí- | ‘tamp’ |
| dùŋí- | ‘put down’ |
| tíŋí- | ‘speak’ |
| b. Cv:Ci- | |
| bǎ:rí- | ‘help’ |
| gɛ:r ⁿ i- | ‘take away’ |
| í:-yí- | ‘stop’ |
| c. CvCCi- | |
| témbí- | ‘find’ |
| gòmbí- | ‘open wide’ |
| tímbí- | ‘put lid on’ |
| d. Cv:CCi- | |
| mǎ:ndí- | ‘gather’ |

(xx3) contains examples of **all seven vowel qualities** in the initial syllable.

The contrast of *tímbí-* ‘put lid on’ with *tímbé-* ‘lean on (cane)’ shows how one cannot always predict the final vowel from the initial one.

10.1.3.6 Trisyllabic stems

Trisyllabic stems are often etymologically composite, but in individual cases it is difficult to demonstrate this in the absence of semantically and phonologically linked basic stems. As with bisyllabics, an important division is between stems ending in a non-high vowel and those ending in /i/.

(xx1) illustrates the vocalic patterns of verbs ending in a non-high vowel.

| | | |
|---|----------|---------------------------------|
| (xx1) | stem | gloss |
| a. repeated {e o} vowels flanking medial high vowel | | |
| | néŋgíyé- | ‘carry on head (without hands)’ |
| | bègíré- | ‘hiccup’ |
| | yègísé- | ‘cut up (into pieces)’ |
| | mònjúró- | ‘dream’ |
| b. (o...i...e) | | |
| | dògíyé- | ‘look up at’ |

- c. (o...o after syncope)
- | | | |
|--------|-----------|--------------------------------------|
| kómró- | ~ kómúró- | ‘shell (peanuts)’ (and other senses) |
| dómró- | ~ dòmúró- | ‘shave around edges’ |
- d. (initial high vowel, final mid-height vowel)
- | | |
|---------|------------|
| pígíré- | ‘screw in’ |
| wǐgíré- | ‘be dizzy’ |
| lúgúró- | ‘ransack’ |
| dùsúró- | ‘poke’ |

Patterns (xx1.a) and (xx1.d) are productive. In (xx1.a), an initial upper-mid-height vowel {e o} occurs in the first and third syllables. The second syllable, in a metrically weak position, shows the corresponding rounded or unrounded high vowel. Cognate nominals sometimes show three identical vowels with no weakening of the medial, e.g. *mónjórò* ‘dream (noun)’ versus verb *mònjúró-*.

(xx1.b) and (xx1.c) are offshoots of (xx1.a). In (xx1.b), the pair of initial and final vowels is o...e rather than o...o or e...e, though at least the vowel-harmonic set {e o} is maintained. This uncommon pattern is probably a reflection of frozen suffixal derivations, in this case with Mediopassive *-yǐ-*.

In (xx1.c), the metrically weak /u/ between /m/ (alternating with /mb) and /r/ may syncopate to produce a *CvCCv-* stem.

In (xx1.d), the initial vowel is high {i u} and the final vowel is upper-mid-height, hence i...e or u...o (there are no attestations of i...e or of u...o). The medial vowel is again, high, as in type (xx1.a).

We now consider trisyllabic verbs **ending in /i/** (xx2) These are the trisyllabic counterparts of the bisyllabics ending in /i/ discussed above, above. In the morphologically uncomplicated examples (xx2.a), the initial syllable has any vowel quality other than /e/ or /o/. The middle syllable is basically /i/, but it is in a metrically weak position and is subject to sporadic rounding after a rounded vowel, especially /u/. When the final syllable begins with /y/, the resulting /...iyí/ is heard as /i:/ (xx2.b), but the underlying form is revealed by inflected forms such as the Imperative (*iríyà* ‘get up!’). In cases like *téwsi-* (xx2.c), the form is phonetically bisyllabic but given the unusual consonant cluster one suspects Syncope from /téwísí/. A more convincing argument could be made if the tone contour were rising, since /CvCiCv/ with LHH tone should appear as *CvCCv* after Syncope, in contrast to *CvCCv* from an unsyncopated true bisyllabic. This is clearly the case in the derived transitive verb *dǎw-rí-* ‘hide (sth)’ from /dǎwí-rí-/; cf. *dǎwí-yí-* ‘hide (oneself)’. In principle there should be underived verbs of the same type, but I can cite none from my lexical data.

| | | |
|-------|------|-------|
| (xx2) | stem | gloss |
|-------|------|-------|

- a. initial vowel other than {e o}, final /i/
- | | | |
|-----------------------|-------------------------|----------------------------|
| súmúr ⁿ i- | ~ sùmír ⁿ i- | ‘rest’ |
| púgúsí- | | ‘scrub’ |
| ínǵírí- | | ‘accompany’ |
| kémír ⁿ i- | | ‘have fun’ |
| gòǵír ⁿ i- | | ‘go around’ |
| bógísí- | | ‘punch’ (Fr <i>boxer</i>) |
| dàǵírí- | | ‘get ready’ |
- b. final ...íyí heard as [i:]
- | | | |
|----------|--|--------------|
| iríyí- | | ‘get up’ |
| níndíyí- | | ‘be tangled’ |
- c. syncope to CvCCi-
- | | | |
|--------|--|-------------|
| téwsí- | | ‘tamp down’ |
|--------|--|-------------|

For the trisyllables, if we combine the data in (xx1) and (xx2), we can say that initial-syllable {u i} allow either a final /i/ or a final {o e} (agreeing in rounding), while non-high initial-syllable vowels allow us to predict the final-syllable vowel. The allowable sequences (disregarding occasional assimilatory rounding of the medial vowel) are therefore u...i...i, u...u...o, i...i...i, i...i...e, e...i...e, o...u...o, ε...i...i, ɔ...i...i, and a...i...i. Factoring out /i/ as the basic medial vowel, these sequences have a partial correspondence to those allowed in bisyllabic verbs. However, one notes the absence of #ε...i...ε and #ɔ...u...ɔ corresponding to bisyllabic ε...ε and ɔ...ɔ, of #e...i...i and #o...i...i corresponding to the (not very common) bisyllabic e...i and o...i, and of #a...i...a corresponding to bisyllabic a...a.

The preceding discussion of trisyllabic vowel sequences is somewhat idealized. However, the generalizations are valid for trisyllabic stems that are under no whiff of suspicion of including a derivational suffix. When we include stems that do seem to have such a suffix (even if frozen and no longer clearly segmentable), additional vowel sequences emerge. Consider the data in (xx3).

- (xx3) stem gloss
- | | |
|--------------|-----------------|
| a. jòríyé- | ‘fight’ |
| b. làrágí- | ‘scrub lightly’ |
| ámbíǵí- | ‘hold on chest’ |
| c. bèndé-mí- | ‘hit hard’ |

pínjé-mí- ‘wring’

In (xx3.a), an initial /o/ or /u/ co-occurs with a final /e/ (instead of expected /o/). Since the cognate nominal is jòríyè ‘(a) fight’, one suspects that the verb is just following the vocalism of the noun. An additional factor is that -yé can be a derivational suffix (Mediopassive), and there are some examples of this suffix after a stem containing o or u, e.g. nóngí-yé- ‘be caught (stuck)’, tónjí-yé- ‘be curved’, and púndí-yé- ‘be clumped’.

In (xx3.b), the first two syllables of the stem have the correct vocalism for CvCv- stems. The following -gí- syllable resembles a minor Causative allomorph -gí- which likewise does not alter the vocalism of a preceding CvCv- stem (§9.2.2). However, I know of no unsuffixed counterpart to làrágí, and ámbí- is recorded only in the sense ‘apply (a compress)’.

The productive Causative suffix -mí- likewise does not alter the vocalism of a preceding CvCv-. The forms in (xx3.c) are phonologically compatible with causative morphophonology, though they do not function as causatives; compare pínjé ‘(water) splash’, bèndí ‘swim’.

10.2 Positive indicative AN categories

10.2.1 Perfective positive system (including perfect)

10.2.1.1 Unsuffixed Perfective with all-low toned stem

The unsuffixed Perfective consists morphologically of the stem without audible AN suffix, and with tones dropped. It is typical of clauses with a focalized constituent (other than the verb itself). In Nanga, the notion of “focalized” is quite broad, and the unsuffixed Perfective is very common when any preverbal constituent is present.

Sample paradigms are in (xx1). The verbs are dḡgḡ- ‘leave’, túwé- ‘die’, gùró- ‘steal, rob’, and yě:- ‘come’. The latter shows that a Cv:- stem shortens its vowel before the consonant of a 1st/2nd person suffix.

| (xx1) category | ‘leave’ | ‘die’ | ‘rob’ | ‘come’ |
|----------------|----------|----------|----------|--------|
| 1Sg | dḡgḡ-ỳ | tùwè-y | gùrò-y | yè-y |
| 1Pl | dḡgḡ-ỳ.: | tùwè-ỳ.: | gùrò-ỳ.: | yè-ỳ.: |
| 2Sg | dḡgḡ-w | tùwè-w | gùrò-w | yè-w |
| 2Pl | dḡgḡ-w.: | tùwè-w.: | gùrò-w.: | yè-w.: |
| 3Sg/InanSg | dḡgè | tùwè | gùrè | yè: |

3Pl/InanPl dḡg-ḡ tṽw-à gṽr-ò y-ò:

There is no AN suffix as such. In the **first and second person** forms, the pronominal-subject suffix is added directly to the low-toned form of the stem, with the same vocalism (in particular, the same final vowel) as in the bare form. The **1Pl and 2Pl** subject forms are pronounced with a version of dying-quail intonational overlay. The stem-final vowel is prolonged. Having started out with low tone, this vowel then raises its pitch slightly and then lowers it. Therefore *dḡgḡ-y:* ‘we left’ is realized phonetically as [dḡgḡóḡḡ] or [dḡgḡóḡ], and *tṽwè-w:* ‘you-Pl died’ is realized as [tṽwèéèw] or [tṽwèéw]. In transcribing e.g. *dḡgḡ-y:* and *tṽwè-w:*, instead of e.g. *dḡgḡ-y* and *tṽwè-w*, I am suggesting a morpho-phonological analysis where the dying-quail intonation of the plural-subject forms is grafted onto the 1Sg and 2Sg forms (§3.xxx).

The **3Sg form** ends in {e e} in the examples in (xx1), but if the verb is nonmonosyllabic and ends in /i/, the 3Sg form also ends in /i/. This makes it difficult to segment the final vowel as a 3Sg suffix, and I transcribe the 3Sg form with the usual 3Sg -Ø suffix, taking the final vowel as part of the stem. Nevertheless, it should be understood that this is a special form of the verb, which I call the E/I-stem, since it must end in {e e i}, whereas the basic form of the verb may end in a wider range of vowels.

The 3Pl, by contrast, ends in {o ɔ a}. In other AN categories, the 3Pl is marked by a suffix, contrasting with 3Sg -Ø. I therefore hyphenate the final vowel of the 3Pl in the unsuffixed Perfective. Analytically, I take the 3Pl as an underlying back or low vowel (underspecified). When it follows a vowel that is already back or low {o ɔ a}, the 3Pl suffix does not change the vowel quality. It also combines with preceding /i/ to give long /i:/ (‘see’). The 3Pl suffix appears as /-à/ after /ɛ/, and combines with preceding /e/ to give /o:/.

The 3Sg and 3Pl forms of monosyllabic **Cv:-** stems are illustrated in (xx2). Of particular interest are diphthongal /àè/, /ḡè/, and /òè/ in the 3Sg, and /èà/ in the 3Pl.

| (xx2) | gloss | bare stem | 3Sg Perf | 3Pl Perf |
|------------------------------|-----------------|--------------------|-----------------------------------|--------------------|
| a. regular Cv:- verbs | | | | |
| | ‘reply’ | sá:- | sàè-Ø | s-à: (=sà-à) etc. |
| | ‘go out’ | gḡ:- | gḡè-Ø | g-ò: |
| | ‘eat’ | kḡ:- | kḡè-Ø | k-ò: |
| | ‘come’ | yè:- | yè:-Ø | y-ò: |
| | ‘lay out (mat)’ | té:- | tè:-Ø | tè-à |
| | ‘avoid taboo’ | tá: ⁿ - | tà ⁿ è ⁿ -Ø | t-à ⁿ : |
| b. irregular verb ‘see’ | | | | |
| | ‘see’ | yĩ:- | yĩ:-Ø | y-à: |

The verbs of type *Cvy-*, which were interpreted as /*Cvyi*/ in §10.xxx, above, have the unsuffixed Perfectives in (xx3). *túyí- ~ t̥íyí-* ‘put down’ can be treated as in (xx3.a) or as in (xx3.b). In all of the forms shown, a final /*i*/ syncopates or apocopates after /*y*/, hence in the 3Sg forms (heard as *nùyn-∅* etc.) as well as in the bare stem.

| (xx3) | gloss | bare stem | 3Sg Perf | 3Pl Perf |
|-------|----------------|---------------------------|----------------------------|----------------------------|
| a. | <i>Cuyi</i> | | | |
| | ‘hear’ | <i>nùynⁿ-</i> | <i>nùynⁿ-∅</i> | <i>nùynⁿ-ò</i> |
| | ‘go in’ | <i>núynⁿ-</i> | <i>nùynⁿ-∅</i> | <i>nùynⁿ-ò</i> |
| b. | <i>Ciyi</i> | | | |
| | ‘send’ | <i>t̥íyí-</i> | <i>t̥íyí-∅</i> | <i>t̥íy-à</i> |
| | ‘put earth in’ | <i>b̥íynⁿ-</i> | <i>b̥íynⁿ-∅</i> | <i>b̥íynⁿ-à</i> |

The 3Sg and 3Pl unsuffixed Perfective forms of *nCv-* and other bisyllabic stems are illustrated in (xx4). Here there are no final diphthongs. The 3Sg ends in {*e e ɔ*}, with /*e*/ replacing stem-final /*o*/. The 3Pl ends in {*o ɔ a*}, with /*a*/ replacing /*e*/. In (xx4.d), we see that when the stem ends in /*i*/, the 3Sg Perfective retains this /*i*/, while the 3Pl replaces it by copying the quality of the vowel of the first syllable (if this is a non-high vowel). If the first syllable has a high vowel this does not work; we get *-à* after first-syllable /*i*/ and *-ò* after first-syllable /*u*/. The data in (xx4.e) should be taken with salt; the vowel sequences *e...i* and *o...i* are uncommon and may fluctuate with *e...i* and *ɔ...i*, respectively. My assistant pronounced the first syllable of the bare stem and of the 3Sg Perfective of these verbs with {*e o*}, but switched to {*e ɔ*} in the 3Pl Perfective form, with consequences for the suffixal allomorphy. The three *nCv-* stems in (xx4.f) have messy Perfective forms. ‘Go’ switches from /*e*/ in the basic stem to /*ɛ*/ in the 3Sg Perfective, but 3Pl *̀nn-ò* is consistent with underlying /*́nné-*/. For ‘give’, the 3Pl form *̀nd-à* ‘they gave’ (homophonous with ‘they went up’) suggests that the variant onset pronunciation *́ndí-* for *́ndi-* is psychologically basic; compare the suffixal vocalism with that of *́nǰí-* ‘speak’ (xx4.d).

| (xx4) | gloss | bare stem | 3Sg Perf | 3Pl Perf |
|-------|--|----------------|-----------------|----------------|
| a. | bisyllabics with repeated non-high vowel | | | |
| | ‘touch’ | <i>táwá-</i> | <i>tàwè-∅</i> | <i>tàw-à</i> |
| | ‘get’ | <i>bèrè-</i> | <i>bèrè-∅</i> | <i>bèr-à</i> |
| | ‘do well’ | <i>ké:ndé-</i> | <i>kè:ndè-∅</i> | <i>kè:nd-ò</i> |
| | ‘weep’ | <i>kóyó-</i> | <i>kòyè-∅</i> | <i>kòy-ò</i> |

| | | | |
|---|---------------------|----------------------|---------------------|
| ‘leave’ | dògó- | dògò-Ø | dòg-ò |
| b. high vowel followed by non-high vowel | | | |
| ‘steal’ | gùró- | gùrè-Ø | gùr-ò |
| ‘insult’ | dùyó- | dùyè-Ø | dùy-ò |
| ‘return’ | bìndé- | bìndè-Ø | bìnd-ò |
| ‘swing’ | wísé- | wísè-Ø | wís-à |
| ‘spray’ | písé- | písè-Ø | pís-ò |
| c. final /ɛ/ after a different vowel (loanwords) | | | |
| ‘win’ | gáɲé- | gáɲè-Ø | gáɲ-à |
| d. {i ɛ a ɔ u} plus final /i/ | | | |
| ‘put’ | gàr ⁿ i- | gàr ⁿ i-Ø | gàr ⁿ -à |
| ‘cover’ | dɛwí- [dɛw] | dɛwí-Ø | dɛw-à |
| ‘put down’ | dùɲi- | dùɲi-Ø | dùɲ-ò |
| ‘speak’ | tíɲi- | tíɲi-Ø | tíɲ-à |
| ‘perpetrate’ | bògí- | bògí-Ø | bòg-ò |
| e. {e o} plus final /i/ (uncommon, {e o} may vary with {ɛ ɔ}) | | | |
| ‘cure’ | jòɲi- | jòɲi-Ø | jòɲ-ò |
| ‘tamp’ | dèɲi- | dèɲi-Ø | dèɲ-à |
| f. nCv- verbs | | | |
| ‘go’ | ńné- | ńnè-Ø | ńn-ò |
| ‘go up’ | ńdé- | ńdè-Ø | ńd-à |
| ‘give’ | ńdì- | ńdì-Ø | ńd-à |

Some **trisyllabic** examples are in (xx5). In (xx5.a), we see that both stem-final /e/ or /o/ in the bare stem split into a 3Sg with /e/ and a 3Pl with /o/. In (xx5.b-c), the final /i/ is replaced in the 3Pl Perfective by a copy of a first-syllable {o ɔ a}, by /a/ after first-syllable /i/ or /ɛ/, and by /ɔ/ after first-syllable /u/.

| (xx5) | gloss | bare stem | 3Sg Perf | 3Pl Perf |
|----------------|--------------|-----------------------|------------------------|-----------------------|
| a. final {e o} | | | | |
| | ‘cut up’ | yègísé- | yègìsè-Ø | yègìs-ò |
| | ‘dream’ | mòɲjùró- | mòɲjùrè-Ø | mòɲjùr-ò |
| | ‘look up at’ | dògíyè- | dògìyè-Ø | dògìy-ò |
| | ‘ransack’ | lùgùró- | lùgùrè-Ø | lùgùr-ò |
| b. final {i} | | | | |
| | ‘accompany’ | ìɲgírí- | ìɲgírì-Ø | ìɲgír-à |
| | ‘have fun’ | kémír ⁿ i- | kémír ⁿ i-Ø | kémír ⁿ -à |

| | | | |
|-------------|---------|----------|---------|
| ‘get ready’ | dàgírí- | dàgírĩ-Ø | dàgĩr-à |
| ‘punch’ | bógísí- | bògĩsĩ-Ø | bògĩs-ò |
| ‘scrub’ | pùgúsí- | pùgùsĩ-Ø | pùgùs-ò |

c. final {i} with derivational suffix

| | | | |
|--------------|------------------------|-------------------------|------------------------|
| ‘demolish’ | wòró-gí- | wòrò-gĩ-Ø | wòrò-g-ò |
| ‘make go in’ | núy ⁿ ó-mí- | nùy ⁿ ò-mĩ-Ø | nùy ⁿ ò-m-ò |
| ‘make jump’ | péré-mí- | pèrè-mĩ-Ø | pèrè-m-ò |
| ‘recover’ | màllí-rí- | màllĩ-rĩ-Ø | màllĩ-rĩ-à |

Sentence examples containing an unsuffixed Perfective as in (xx6).

(xx6) a. yéñĩrⁿi: yè-y
yesterday come.Perf.L-1SgS
‘It was yesterday [focus] that I came.’

b. ǎŋ [yĩ: né-ŋ] sùyè-Ø mà
who? [child DefAnSg-Acc] hit.Perf.L-3SgS Q
‘Who hit the child?’

àrⁿáná nà:-wⁿ mà
where? spend.night.Perf.L-2SgS Q
‘Where did you-Sg sleep?’

10.2.1.2 Perfective-1a -èrè-, Perfective-1b -tĩ-

There are two suffixally marked Perfective forms. The suffixes are -èrè-, which I label Perfective-1a, and -tĩ-, which I label Perfective 1-b. The stem has its lexical form (not the special form used in the unsuffixed Perfective) before both of these suffixes.

The two Perfective-1 suffixes compete most directly with the Perfective-2 with suffix -só-. (The unsuffixed Perfective is used when a non-verb constituent has at least some degree of focalization.)

Perfective-1a -èrè- is used with motion and stance verbs (‘go’, ‘sit down’), with deadjectival inchoatives and other non-active intransitives, with a few low-impact transitives like ‘forget’, and optionally with transitive verbs of holding and wearing (which often contain Mediopassive -yí/-yé-)

(xxx) Perfective-1a -èrè-

| | | |
|-------|------|------------|
| gloss | stem | Perfective |
|-------|------|------------|

a. monosyllabic Cv:-

| | | |
|---------------|------|---------|
| ‘go out’ | gǔ:- | gǔ-èrè- |
| ‘arrive’ | dǔ:- | dǔ-èrè- |
| ‘spend night’ | ná:- | ná-èrè- |
| ‘come’ | yě:- | yě-èrè- |

b. nCv-

| | | |
|---------|------|----------|
| ‘go’ | ńné- | ńné-èrè- |
| ‘go up’ | ndé- | ndé-èrè- |

c. bisyllabic with final non-high vowel

| | | |
|---------------|--------|------------|
| ‘die’ | túwé- | túwé-èrè- |
| ‘jump’ | tómbó- | tómbó-èrè- |
| ‘run’ | yàgǔ- | yàgǔ-èrè- |
| ‘sit down’ | éw-yé- | éw-yé-èrè- |
| ‘be finished’ | đimé- | đimé-èrè- |

d. Cvýi- and ...iyí-

| | | |
|---------|---------------------|------------------------|
| ‘enter’ | núy ⁿ i- | núy ⁿ -èrè- |
| ‘stand’ | í:-yí- | í:-y-èrè- |

e. bisyllabic with final /i/

| | | |
|--------------|--------|-------------------------|
| ‘become’ | tánjí- | tánjí-èrè- ~ tánjy-èrè- |
| ‘lie down’ | bìyé- | bìyé-èrè- |
| ‘be covered’ | dèwí- | dèwí-èrè- |

-èrè- is not subject to Nasalization-Spreading even when the preceding stem ends in a nasalized syllable. The main phonological problem is how VV sequences are treated (núyⁿ-èrè- ‘went in’ is the easy case, since this stem is C-final). With a Cv:- stem, the stem vowel is shortened and we get a surface bimoraic /ve/ sequence with both vowels clearly articulated, without harmonization (gǔ-èrè, etc.). With longer stems, there is fluctuation between bimoraic and monomoraic (contracted) articulations. In casual speech, the tendency is toward contraction in the direction of a single mora, preserving the suffixal ϵ clearly and at least a trace of the stem-final vowel. For example, in yàgǔ-èrè- ‘ran’, the middle vowel is pronounced [ɔɛ], with the [ɔ] somewhat faint. The duration of this complex vowel is variable, but it often approaches the duration of a single non-complex short vowel like /ɛ/. When the stem-final vowel is /o/ (but not /ɔ/), the articulation may approach that of labialized C^w- ϵ , as in tómbó-èrè ‘jumped’, which can approach [tóm^wb-èrɛ]. However, I think that tómbó-èrè is a better transcription, even phonetically, since the H-tone on

the second /o/ remains audible in the falling pitch of the medial complex vowel, and since consonantal labialization is not consistently heard. When the stem-final is /ɛ/, of course there is no shift in vowel quality at the boundary, and I often hear the duration as short, but the falling pitch is still there, e.g. **đimé-èrè-** ‘was finished’. Stem-final /ɛ/ is clearly heard in the onset of the medial complex vowel, as in **éwyé-èrè-** ‘sat’.

A form **èré** is attested as a kind of equivalent of the Perfective-1a suffix preceding the clause-final different-subject subordinator **nà** ‘then’. See ...**gǔ: nǎné èré nà** ‘(When here) had gone out (completely), ...’ in (xxx) in the sample text. In this example, **èré** is separated from **gǔ:** ‘go out’ by an intervening 3Sg subject pronoun.

Perfective-1b **-tǐ-** is used with most transitives, and with active intransitives denoting speech or thought.

(xxx) Perfective-1b **-tǐ-**

| gloss | stem | Perfective |
|---|--------------------|---------------------------|
| a. monosyllabic Cv:- | | |
| ‘shave’ | ká:- | ká:-tǐ- |
| ‘catch’ | wǒ:- | wǒ:-tǐ- |
| ‘see’ | yǐ:- | yǐ:-tǐ- |
| b. nCv- | | |
| ‘give’ | ńđi- | ńđi-tǐ- |
| c. bisyllabic with final non-high vowel | | |
| ‘hit’ | súyó- | súyó-tǐ- |
| ‘shout’ | kóyó- | kóyó-tǐ- |
| ‘bathe’ | điyé- | điyé-tǐ- |
| ‘cut (slice)’ | késé- | késé-tǐ- |
| d. bisyllabic with final /i/ | | |
| ‘send’ | tíyí- [tí:] | tíy-tǐ- |
| ‘cover’ | děwí- [děw] | děw-tǐ- |
| ‘speak’ | tíŋí- | tíŋ-tǐ- ~ tíŋí-tǐ- |
| ‘think’ | mǎ:ndí- | mǎ:ndí-tǐ- |
| ‘laugh’ | màndí- | màndí-tǐ- |

Many non-monosyllabic verbs that take **-tǐ-** (but not those that take **-ère-**) end in a lexical /i/, and this vowel is usually syncopated before **-tǐ-** where syllabically possible, i.e. after a single C : **lá:r-tǐ-** ‘chased’ from **lá:rǐ-**, **pág-tǐ-**

‘tied’ from *pági-*. Pronunciations with the /i/ are also possible, especially in careful speech.

The pronominal paradigms are given in (xxx). The second person forms of *-tĩ-* show optional assimilation of the /i/ to the following /w/. Homorganic sequences of vowel and semivowel (i.e. /iy/, /uw/) are pronounced as long vowels ([i:], [u:]). The 1PI and 2PI forms have their usual prolongation and [LHL] pitch of the final syllable.

| (xxx) | category | form of <i>-tĩ-</i> | form of <i>-èrè-</i> |
|-------|----------|----------------------------|--------------------------|
| | 1Sg | <i>-tĩ-ỳ</i> | <i>-èrè-y</i> |
| | 1PI | <i>-tĩ-y :.</i> [tĩĩ] | <i>-èrè-y :.</i> [èrèéj] |
| | 2Sg | <i>-tĩ-w̃ ~ -tù-w̃</i> | <i>-èrè-w</i> |
| | 2PI | <i>-tĩ-w :. ~ -tù-w :.</i> | <i>-èrè-w :.</i> |
| | 3Sg/Inan | <i>-tĩ-∅</i> | <i>-èrè-∅</i> |
| | 3PI | <i>-tĩ-yà</i> | <i>-èr-à</i> |

The distinction between Perfective-1a *-èrè-* and Perfective-1b *-tĩ-* is neutralized under negation (§10.xxx, below). It is also generally neutralized in relative clauses, where Perfective Participial *-sè* replaces them (and Perfective-2 *-só-*). With some effort it was possible to elicit relatives with *-tĩ-*, see §14.1.7.1, below, but these did not occur spontaneously.

10.2.1.3 Perfective-2 (*-só-*)

Another positive perfective-system form is expressed by a suffix H-toned suffix *-só-*. This form is common with verbs of perception (‘see’, ‘hear’), but can be used with any verb and competes with the suffixal perfectives just described. It is the most common perfective form obtained in elicitation, with French past-tense cue sentences.

- (xx1) a. *ḡgĩ:* *yĩ:-só-∅*
 1SgO see-Perf2-3SgS
 ‘He/She saw me.’
- b. *b̀̀g̀̀r̀̀* *nũyⁿ-só-y*
 noise hear-Perf2-1SgS
 ‘I heard a noise.’

The stem has its lexical final vowel, as before *-tĩ-* and several other suffixes. Examples are in (xx2).

| | | | |
|---|---------------|---|------------------------|
| (xx2) | gloss | stem | Perfective-2 |
| a. Cv:- monosyllabics | | | |
| | ‘catch’ | wǒ:- | wǒ:-só- |
| | ‘go out’ | gǒ:- | gǒ:-só- |
| | ‘spend night’ | ná:- | ná:-só- |
| | ‘see’ | yǐ:- | yǐ:-só- |
| b. nCv- | | | |
| | ‘go’ | ńné- | ńné-só- |
| | ‘go up’ | ńǎé- | ńǎé-só- |
| | ‘give’ | ńǎí- | ńǎí-só- |
| c. bisyllabics ending in non-high vowel | | | |
| | ‘hit’ | súyó- | súyó-só- |
| | ‘bathe’ | ǎiyé- | ǎiyé-só- |
| | ‘run’ | yǎgǎ- | yǎgǎ-só- |
| | ‘sit down’ | éw-yé- | éw-yé-só- |
| d. bisyllabics ending in /i/ | | | |
| | ‘do’ | kár ⁿ i- | kár ⁿ i-só- |
| | ‘enter’ | núy ⁿ i- [núj ⁿ] | núy ⁿ -só- |
| | ‘think’ | mǎ:ndǐ- | mǎ:ndǐ-só- |

The pronominal paradigm is (xx3). The 1Pl and 2Pl have their usual bell-shaped [LHL] pitch contour in the final syllable.

| | | |
|-------|----------|-----------------|
| (xx3) | category | Perfective-2 |
| | 1Sg | -só-ý |
| | 1Pl | -só-ý.: [sòóòj] |
| | 2Sg | -só-ń |
| | 2Pl | -só-ń.: [sòóòw] |
| | 3Sg/Inan | -só-∅ |
| | 3Pl | -s-é |

Representative stem combinations are in (xx4), with the Imperative and Progressive for comparison.

| | | | | |
|-------|-------|-------|--------------|-------------|
| (xx4) | gloss | Imprt | Perfective-2 | Progressive |
|-------|-------|-------|--------------|-------------|

| | | | |
|--------------|--|--------------------------|--------------------------------|
| ‘see’ | yĩ: | yĩ:-só- | yĩ-yĩ:-sò- |
| ‘understand’ | pá:mò | pá:mí-só- | pà-pá:mè(:)-sò- |
| ‘hit’ | súyô | súyô-só- | sù-súyô(:)-sò- |
| ‘hear’ | nùy ⁿ í [nũj ⁿ] | nũy ⁿ -só- | nù-núy ⁿ -sò- |
| ‘tie’ | págî | págî-só- | pà-págî(:)-sò- |
| ‘have fun’ | kémîr ⁿ à | kémîr ⁿ í-só- | kè-kémîr ⁿ è(:)-sò- |

For Progressive *-sò-* see §10.xxx. The Perfective-2 and the Progressive both have *-so-* suffix but differ phonologically as indicated in (xx5). The 1Pl and 2Pl forms are disregarded here.

| (xx5) feature | Perfective-2 | Progressive |
|-------------------------|--------------|---------------------------------------|
| suffixal tone | H | L |
| stem tone | lexical | H, HL, HHL |
| stem-final vowel length | lexical | lengthened (in some cases optionally) |
| final /i/ in long stems | no change | shifts to non-high |
| reduplication | none | yes, if clause-initial |

The opposition is illustrated in (xx6.a) versus (xx6.b), and (xx6.c) versus (xx6.d-e).

- (xx6) a. *nàŋá* *yĩ:-só-y*
 cow see-Perf2-1SgS
 ‘I saw the cow.’
- c. *nàŋá* *yĩ:-sò-y*
 cow see-Prog-1SgS
 ‘I see (=am seeing) the cow.’
- c. *sémbí-só-y*
 sweep-Perf2-1SgS
 ‘I swept.’
- d. *sè-sémbĩ(:)-sò-y*
 Rdp-sweep-Prog-1SgS
 ‘I am sweeping.’
- e. *dámí* *sémbĩ(:)-sò-y*
 courtyard sweep-Prog-1SgS

‘She has (just) given birth.’

- c. $\text{gĩr}^n\text{é}$ $\text{jè-y} \cdot$
 harvest RecPf-1PlS
 ‘We have (already) harvested.’
- d. $\text{ɲǎ}:$ wàgàdĩ $\text{kó}:$ ĩ^n jè-sè gà
 meal time.L eat 1SgS RecPf-Ppl.Perf in
 ‘at the time when I finished eating’

The pronominal paradigm is (xx2). The dying-quail effect in the 1Pl and 2Pl results is expressed as [LHL] pitch on the final syllable.

| | | |
|-------|----------|------------------------------|
| (xx2) | category | Recent Perfect |
| | 1Sg | jè-y |
| | 1Pl | $\text{jè-y} \cdot$ [dʒèéèj] |
| | 2Sg | jè-w |
| | 2Pl | $\text{jè-w} \cdot$ [dʒèéèw] |
| | 3Sg/Inan | $\text{jè-}\emptyset$ |
| | 3Pl | j-à |

10.2.1.6 Reduplicated Perfective (Cv-)

An initial reduplication, with no further affixation, expresses another perfective category. It is not very common in my texts, but it is used in conversation in somewhat emphatic contexts, as in ‘So-and-so has already eaten (plenty)’ (and therefore doesn’t need any more food).

The reduplicative syllable has high tone, while the following base is low-toned. The stem has the same vocalism as in the unsuffixed Perfective; it therefore ends in {e e i} depending on the stem, and has the usual Perfective diphthongs with Cv:- stems. The pronominal-subject suffixes are the same as for the unsuffixed Perfective.

| | | | |
|-------|--|-------------------------------------|---|
| (xx2) | stem | gloss | Redup Perf |
| a. | àgí-yí- dù:-yí- $\text{nù}^n\text{í-}$ | ‘hold’ ‘carry on head’ ‘hear’ | á-àgí-yí- dú-dù:-yí- $\text{nú-nù}^n\text{í}$ [núnúj] |

$C\grave{V}C\acute{V}$ -, become all-high toned in the Imperfective, and are therefore not distinguished tonally from their high-toned counterparts.

Examples showing the Imperfective of stems **ending in a non-high vowel** are in (xx1). The stem vocalism, including the stem-final vowel, is identical in the bare stem and in the Imperfective, except for the irregular shift of $\acute{n}\acute{e}$ - ‘go’ to $\acute{n}\acute{i}$ - (xx1.b). Note the merger of all-high and {LH} tone contours in (xx1.b-c), versus the preservation of this tone-contour distinction in the trimoraic and longer stems in (xx1.d-f).

(xx1) Imperfective (stem ends in non-high vowel)

| bare stem | Imperfective | gloss |
|---|--|--------------|
| a. monosyllabic Cv - | | |
| $k\acute{a}$:- | $k\acute{a}$:- $m\grave{e}$ - | ‘shave’ |
| $g\check{o}$:- | $g\acute{o}$:- $m\grave{e}$ - | ‘go out’ |
| $t\acute{e}$:- | $t\acute{e}$:- $m\grave{e}$ - | ‘lay out’ |
| b. nCv - | | |
| $\acute{n}\acute{e}$ - | $\acute{n}\acute{i}$ - $m\grave{e}$ - | ‘go’ |
| $\acute{n}\acute{d}\acute{e}$ - | $\acute{n}\acute{d}\acute{e}$ - $m\grave{e}$ - | ‘go up’ |
| c. $CvCv$ - (bimoraic) | | |
| $d\grave{o}g\acute{o}$ - | $d\acute{o}g\acute{o}$ - $m\grave{e}$ - | ‘leave’ |
| $g\grave{u}r\acute{o}$ - | $g\acute{u}r\acute{o}$ - $m\grave{e}$ - | ‘steal’ |
| $p\acute{i}s\acute{e}$ - | $p\acute{i}s\acute{e}$ - $m\grave{e}$ - | ‘spray’ |
| $g\acute{a}p\acute{e}$ - | $g\acute{a}n^{\acute{e}}$ - $m\grave{e}$ - | ‘win’ |
| $t\acute{u}w\acute{e}$ - | $t\acute{u}w\acute{e}$ - $m\grave{e}$ - | ‘die’ |
| d. $CvCCv$ - | | |
| $d\grave{o}n\grave{g}\acute{o}$ - | $d\acute{o}n\grave{g}\acute{o}$ - $m\grave{e}$ - | ‘rub on’ |
| $t\acute{i}m\acute{b}\acute{e}$ - | $t\acute{i}m\acute{b}\acute{e}$ - $m\grave{e}$ - | ‘lean on’ |
| e. $Cv:C(C)v$ - | | |
| $k\acute{e}$: $n\acute{d}\acute{e}$ - | $k\acute{e}$: $n\acute{d}\acute{e}$ - $m\grave{e}$ - | ‘do well’ |
| $y\check{o}$: $r\acute{o}$ - | $y\acute{o}$: $r\acute{o}$ - $m\grave{e}$ - | ‘stalk’ |
| f. trisyllabic | | |
| $y\grave{e}g\acute{i}s\acute{e}$ - | $y\grave{e}g\acute{i}s\acute{e}$ - $m\grave{e}$ - | ‘cut up’ |
| $m\grave{o}n\grave{j}\acute{u}r\acute{o}$ - | $m\grave{o}n\grave{j}\acute{u}r\acute{o}$ - $m\grave{e}$ - | ‘dream’ |
| $k\acute{o}n\acute{d}\acute{i}y\acute{e}$ - | $k\acute{o}n\acute{d}\acute{i}y\acute{e}$ - $m\grave{e}$ - | ‘droop, sag’ |

When the verb ends in /i/, the Imperfective has the same tone contours as above, except that the lexical distinction between {LH} and all-high is

respected not only in stems that have three or more moras, but also in the shorter stems. Therefore ‘see’ (xx2.a) along with ‘hear’, ‘cover’, and ‘put down’ (xx2.c), begin with a low-tone element in the Imperfective. Segmentally, the final /i/ is preserved in stems of two moras (xx2-c) and in CvCCi- (xx2.d), but in stems with three or more vocalic moras, including Cv:Cv-, it is replaced by a non-high vowel (xx2.e-f). The non-high vowel in this event is copied from the initial syllable vowel (if non-high). If the stem has no non-high vowel, we get /ɔ/ after /u/, and /ɛ/ after /i/. The Imperfective of Causative -mí- is -mé-m̀ regardless of the vocalism or syllable count of the input stem (xx2.g)

(xx2) Imperfective (stem ends in high vowel)

| bare stem | Imperfective | gloss |
|---|--|--|
| a. monosyllabic Ci:- yǐ:- | yí:-m̀- | ‘see’ |
| b. nCi- ńdí- | ńdí-m̀- | ‘give’ |
| c. CvCi- núy ⁿ ǐ- [núj ⁿ] núy ⁿ ǐ- [núj ⁿ] dèwí- dùŋǐ- kár ⁿ ǐ- | nũy ⁿ -m̀- núy ⁿ -m̀- dèwí-m̀- dùŋǐ-m̀- kár ⁿ ǐ-m̀- | ‘hear’ ‘go in’ ‘cover’ ‘put down’ ‘do’ |
| d. CvCCi- tímbí- témbí- dãmbí- | tímbí-m̀- témbí-m̀- dãmbí-m̀- | ‘cover, close’ ‘find’ ‘push’ |
| e. Cv:C(C)i- bǎ:rǐ- tí:rǐ- pé:ndǐ- | bǎ:rǎ-m̀- tí:rè-m̀- pé:ndé-m̀- | ‘help’ ‘pour over’ ‘stimulate’ |
| f. trisyllabic with final /i/ kémír ⁿ ǐ- púgúsǐ- bègírǐ- | kémír ⁿ é-m̀- púgúsó-m̀- bègírè-m̀- | ‘have fun’ ‘scrub’ ‘winnow’ |
| g. Causative -mí- kó:-mí- | kó:-mé-m̀- | ‘feed’ |

| | | |
|------------------------|--------------------------|--------------|
| péré-mí- | péré-mé-m- | ‘make jump’ |
| núy ⁿ ǝ-mí- | núy ⁿ ǝ-mé-m- | ‘make go in’ |

The pronominal paradigm is given in (xx3).

(xx3) Imperfective

| category | form | |
|----------|---|-------------|
| 1Sg | -m̃-∅ ~ -m-ĩ | |
| 1Pl | -mĩ-y | (or: -m-ĩy) |
| 2Sg | -m̃ ^w ~ -m-ù | |
| 2Pl | -mù-w | (or: -m-ùw) |
| 3Sg/Inan | -ḥ ~ ʔ ⁿ (i.e. nasalized long vowel, falling tone) | |
| 3Pl | -m-è | |

In the 1Sg and 2Sg forms, the assistant wavered between syllabic variants (1Sg -m̃, 2Sg -mù) and apocopated variants (1Sg -m, 2Sg -m^w). In the shortened forms, 2Sg -m^w was heard with slight rounding at the transition from the stem-final vowel to the nasal; in effect, the nasal is “prelabialized.” The corresponding plurals have long vowels, but the pitch of the final syllable is level low.

In the 3Sg, I hear variably a final velar nasal (L-toned), or a weakened version of the same involving final falling-toned stem-vowel with terminal nasalization.

Analytically, one could argue that a **floating low tone** (L) occurs at the end of this imperfective stem, hence /STEM-L-PRONOMINAL/. If so, the L is realized phonetically on the pronominal suffix if the latter is audible (all of the nonzero suffixes consist of a Cv syllable or of a nasal, so these suffixes all have at least one mora). In the 3Sg, if the -ḥ suffix weakens to just vocalic nasalization, the low-tone component is expressed as the final part of a falling tone.

Examples of the Imperfective are in (xx3).

- (xxx) a. àsú⇒ wóri wára-m̃-∅
 every.day farming farm-Impf-1SgS
 ‘I farm (=work in the field) every day.’
- b. tê: dógó-m̃-∅
 tea leave-Impf-1SgS

- b. {H}-toned bisyllabic
- | | | |
|------------|--------|-------------|
| ‘jump’ | tómbó- | tò-tómbó-m- |
| ‘hit’ | súyó- | sù-súyó-m- |
| ‘sit down’ | éw-yé- | è-éw-yé-m- |
- c. {LH}-toned bisyllabic shifting to all-high in Imperfective
- | | | |
|---------|-------|------------|
| ‘leave’ | dògó- | dò-dógó-m- |
|---------|-------|------------|
- d. longer {LH}-toned stem preserving initial low tone
- | | | |
|---------|----------|---------------|
| ‘laugh’ | màndí- | mà-màndí-m- |
| ‘dream’ | mònjúró- | mò-mònjúró-m- |

A sample paradigm (‘sit down’) is (xx2).

(xx2) ‘sit down’ (reduplicated Imperfective)

| | | |
|-----|------------------------|--------------------------|
| 1Sg | è-éw-yé-m | ~ è-éw-yé-mĩ |
| 1Pl | è-éw-yé-mĩ-y | |
| 2Sg | è-éw-yé-m ^w | ~ è-éw-yé-mù |
| 2Pl | è-éw-yé-mù-w | |
| 3Sg | è-éw-yé-ŋ | ~ è-éw-yê:- ⁿ |
| 3Pl | è-éw-yé-m-è | |

The reduplicated Imperfective can be distinguished from the reduplicated Perfective by the presence of high tones on the stem, and by the low tone on the reduplicant.

10.2.2.4 Progressive (-sò-)

A verb form used in progressive contexts involves L-toned AN suffix *-sò-*, following a stem-form ending in a low- or falling-toned vowel. A short stem-final vowel is also lengthened. This is a historical reflex of an original Imperfective morpheme (*-m- or *-ŋ-) added to the stem before *sò ‘have’. I have heard variant pronunciations with *-ŋ-* in the Progressive: *gô:-ŋ-sò-* ‘be going out’, variant of *gô:-sò-*. The fuller form suggests a two-word construction similar to that with Imperfective *-ŋ (-m)* plus *bù-* ‘be’, see §15.2.2.2. However, the fuller form is no longer in common use, at least in my assistant’s dialect. See also the discussion of *-m-sè* in §15.2.3, below.

When the verb is clause-initial (i.e. in the absence of an object or other preverbal constituent), reduplication (C \check{V} -) is present.

Progressive forms of stems **ending in a non-high vowel** are in (xx1). In monosyllabics and short bisyllabics, the lexical distinction between all-high and {LH} tones is neutralized, and we get a {HL} contour on the (simple) Progressive stem. In Cv:Cv- bisyllabics and in all trisyllabics, the tone of the first syllable of the (simple) Progressive stem is lexically determined; the final two syllables have {HL}. ‘Go’ shifts from /e/ to /i/, as it does in the Imperfective (xx1.b). I hear consistent lengthening of the stem-final vowel in the nCv- stems (xx1.b), but not in the other stems.

(xx1) Progressive (stem ends in non-high vowel)

| gloss | bare stem | Progressive | |
|----------------------|-----------|----------------|-------------------|
| | | simple | reduplicated |
| a. monosyllabic Cv:- | | | |
| ‘eat’ | kô:- | kô:-sò- | kò-kô:-sò- |
| ‘lay out’ | té:- | tê:-sò- | tè-tê:-sò- |
| ‘drink’ | nǎ:- | nâ:-sò- | nò-nâ:-sò- |
| b. nCv- | | | |
| ‘go’ | ńné | ńní:-sò- | ĩ-ńní:-sò- |
| ‘go up’ | ńné | ńdè:-sò- | ĩ-ńdè:-sò- |
| c. bisyllabic | | | |
| ‘hit’ | súyó- | súyò(:)-sò- | sù-súyò(:)-sò- |
| ‘leave’ | dògó- | dógò(:)-sò- | dò-dógò(:)-sò- |
| ‘jump’ | tómbó- | tómbò(:)-sò- | tò-tómbò(:)-sò- |
| ‘rub on’ | dòngó- | dóngò(:)-sò- | dò-dóngò(:)-sò- |
| ‘stalk’ | yǎ.ró- | yǎ:rò(:)-sò- | yò-yó:rò(:)-sò- |
| d. trisyllabic | | | |
| ‘cut up’ | yègísé- | yègísè(:)-sò- | yè-yègísè(:)-sò- |
| ‘dream’ | mònjúró- | mònjúrò(:)-sò- | mò-mònjúrò(:)-sò- |
| ‘droop, sag’ | kóndíyé- | kóndíyè(:)-sò- | kò-kóndíyè(:)-sò- |

Stems ending in /i/ are illustrated in (xx2). I hear consistent lengthening of the final vowel in the one nCi- verb (xx2.b), and also in the lexically {LH}-toned CvCCi- verbs (xx2.d), which express the final <HL> characteristic of the Progressive on the stem-final syllable (the first syllable carrying the lexical initial low tone). In the other verbs, I heard sporadic but inconsistent lengthening of the stem-final vowel, except that the /Cvyi/ (Cvy) verbs were always heard as just Cvy (xx2.c). Segmentally, the stem-final /i/ is retained in (xx2.a-c), but stems that have three or more vocalic moras, including Cv:Cv-, replace the final /i/ by a non-high vowel. If the stem has an initial non-high

vowel, its vowel quality is copied on the stem-final, otherwise we get stem-final /ɔ/ after /u/ and /ɛ/ after /i/.

(xx2) Progressive (stem ends in /i/)

| gloss | stem | Progressive | |
|--|--|--|--|
| | | simple | reduplicated |
| a. monosyllabic Ci- 'see' | yĩ:- | yĩ:-sò- | yĩ-yĩ:-sò- |
| b. nCi- 'give' | ńní | ńđi:-sò- | ĩ-ńđi:-sò- |
| c. CvCi- 'do' 'cover' 'go in' 'hear' | kár ⁿ i- dèwí- núy ⁿ i- [núj ⁿ] núy ⁿ i- [núj ⁿ] | kár ⁿ i(:)-sò- dèwì(:)-sò- núy ⁿ -sò- núy ⁿ -sò- | kà-kár ⁿ i(:)-sò- dè-dèwì(:)-sò- nù-núy ⁿ -sò- nù-núy ⁿ -sò- |
| d. CvCCi- 'grill' 'laugh' 'push' | símbí- màndí- dàmbí- | símbì(:)-sò- màndì:-sò- dàmbì:-sò- | sĩ-símbì(:)-sò- mà-màndì:-sò- dà-dàmbì:-sò- |
| e. Cv:C(C)i- 'pour over' 'stimulate' 'help' | tí:rí- pé:ndí- bǎ:rí- | tí:rè(:)-sò- pé:ndè(:)-sò- bǎ:rà(:)-sò- | tĩ-tí:rè(:)-sò- pè-pé:ndè(:)-sò- bǎ-bǎ:rà(:)-sò- |
| f. trisyllabic 'have fun' 'winnow' 'scrub' | kémír ⁿ i bègírí- púgúsí- | kémír ⁿ è(:)-sò- bègírè(:)-sò- púgúsò(:)-sò- | kè-kémír ⁿ è(:)-sò- bè-bègírè(:)-sò- pù-púgúsò(:)-sò- |

The pronominal paradigm is (xxx). The 1Pl and 2Pl have F-tone, while all other forms have L-tone.

| | | | |
|-------|----------|-------------|---------|
| (xx3) | category | Progressive | |
| | 1Sg | -sò-ỳ | |
| | 1Pl | -sò-ỳ.∴ | [sòóòj] |
| | 2Sg | -sò-ẁ | |
| | 2Pl | -sò-ẁ.∴ | [sòóòw] |
| | 3Sg/Inan | -sò-∅ | |
| | 3Pl | -s-è | |

Examples are in (xx4).

- (xxx) a. **bírá** **bírè(:)-sò-ỳ**
work(noun) work-Prog-1SgS
‘I am working.’
- b. **móndī** **màndī:-sò-ỳ**
laughter laugh-Prog-1SgS
‘I am laughing.’
- c. **kèmirⁿé** **kémírⁿè(:)-s-è**
fun have.fun-Prog-3PlS
‘They are having fun.’
- d. **tómbī** **tómbò(:)-s-è**
jump(noun) jump-Prog-3PlS
‘They are jumping.’

10.2.3 Negation of indicative verbs

Except for statives (including the progressive), which have a special Stative Negative **-ndó-**, the positive indicative inflections correspond to a Perfective Negative **-rí-** or to an Imperfective Negative **-ɲè:-**.

10.2.3.1 Perfective Negative **-rí-**

For most purposes, there is a single negative perfective-system form, that with suffix **-rí-** added directly to the stem. This corresponds to all of the major positive perfective-system forms: unsuffixed Perfective, Perfective-1a **-èrè-**, Perfective-1b **-tī-**, Perfective-2 **-só-**, and Recent Perfective **jè-**.

- (xx1) a. **ɲǎ:** **kò:-rí-∅**
meal eat-Perf.Neg-3SgS
‘He/She hasn’t eaten (yet).’
- b. **ĩ:ⁿ** **gò:-rí-y**
1SgS go.out-Perf.Neg-1SgS
‘I didn’t go (= haven’t gone) out.’
- c. **kò-kámâ** **yè-rí-y**
anything see-Perf.Neg-1SgS
‘I didn’t see anything.’

The plural-subject (1Pl, 2Pl, 3Pl) forms are somewhat distinct from the singular-subject forms. For 1Pl and 2Pl, the differences are limited to tone contours. For 3Pl, the differences are more substantial. The plural forms are covered at the end of this section, after the description of the singular forms.

In the singular-subject forms, the stem drops tones to all-low before the high-toned **-rí-**.

If the verb ends in a **non-high vowel** {**e e a o o**}, the only change to the stem is the tone-dropping. Some examples are in (xx2).

| (xx2) | stem | Perfective Negative | gloss |
|-------|------------------|---------------------|-------------|
| a. | monosyllabic Cv: | | |
| | bě:- | bè:-rí- | ‘remain’ |
| | gǔ:- | gò:-rí- | ‘go out’ |
| | jě:- | jè:-rí- | ‘bring’ |
| | ká:- | kà:-rí- | ‘shave’ |
| | yě:- | yè:-rí- | ‘come’ |
| b. | nCv | | |
| | ndé- | ndè-rí- | ‘go up’ |
| c. | bisyllabic | | |
| | yògó- | yògò-rí- | ‘run’ |
| | tómbó- | tòmbò-rí- | ‘jump’ |
| | ké:ndé- | kè:ndè-rí- | ‘make well’ |
| d. | longer stems | | |
| | mònjúró- | mònjùrò-rí- | ‘dream’ |
| | pígíré- | pígírè-rí- | ‘screw in’ |

Verbs ending in /i/ in the bare stem form must **replace it by a non-high vowel** before -rí-.

The nonlexical vowel that appears before -rí- in these cases is in most cases **copied** from the non-high stem vowel if there is one. This is the case with **bisyllabic** stems, where all nonhigh vowel qualities are attested (xx3.a). If the verb has only high vowels {u i}, the “copied” vowel is /ɔ/ or /ɛ/, respectively, agreeing with the lexical high vowel in backness and rounding (xx3.b). In addition, the few verbs of the shapes Cuy- and Ciy- (Ci:) add a non-high vowel before -rí- (xx3.c). For the nCi- verbs, the shape is ñCè- before -rí-, harmonizing with the displaced final vowel (xx3.d). The verb ‘see’ is slightly irregular in having a short vowel before -rí- (xx3.e).

| (xx3) | stem | PerfNeg | gloss |
|-------|--|--------------------------------------|--------------|
| a. | final /i/, bisyllabic, lexical non-high vowel present | | |
| | ónjǐ- | ònjǎ-rí- | ‘urinate’ |
| | págí- | pàgà-rí- | ‘tie’ |
| | dèwí ([dɛ̃w]) | dèwè-rí- | ‘cover’ |
| | dèŋǐ- | dèŋè-r ⁿ ǐ- | ‘tamp’ |
| | jòŋǐ- | jòŋò-r ⁿ ǐ- | ‘cure’ |
| b. | final /i/, bisyllabic, no lexical non-high vowel present | | |
| | nùŋǐ- | nùŋǎ-r ⁿ ǐ- | ‘sing’ |
| | dùŋǐ- | dùŋǎ-r ⁿ ǐ- | ‘put down’ |
| | tíŋǐ- | tíŋè-r ⁿ ǐ- | ‘speak’ |
| | tímbí- | tímbè-rí- | ‘put lid on’ |
| c. | Cuy- | | |
| | nǔy ⁿ - | nùy ⁿ ǎ-r ⁿ ǐ- | ‘hear’ |
| | núy ⁿ - | nùy ⁿ ǎ-r ⁿ ǐ- | ‘go in’ |
| | túy- | tùyǎ-rí- | ‘put down’ |
| | tíy- | tíyè-rí- | ‘send’ |
| d. | nCi- | | |
| | ńdí- | ńdè-rí- | ‘give’ |
| | ńní- | ńnè-r ⁿ ǐ- | ‘go’ |
| e. | irregular | | |
| | yǐ:- | yè-rí- | ‘see’ |

In **trissyllabic and longer** stems, there are further examples involving {*ɛ ɔ a*} and a small number with {*e o*}. In most such verbs there is also an intervening medial high vowel that is disregarded in determining the stem-final vowel before *-rí-* (xx4.a). There are also some additional stems that have nothing but high vowels, where /*ɔ*/ appears in connection with /*u*/ and /*ɛ*/ appears in connection with /*i*/ (xx4.b). Some Fulfulde loanwords show final /*ɛ*/ where one would expect /*ɔ*/, reflecting the fact that the usual form in which Fulfulde verbs are borrowed into Dogon (and Songhay) languages is with final /*ɛ*/ (xx4.c).

| (xx4) | stem | PerfNeg | gloss |
|-------|---|---|----------------------------|
| a. | final /i/, trissyllabic, lexical non-high vowel | | |
| | táŋá-ndí- | tàŋàndà-rí- | ‘ignite (fire)’ |
| | bègírí- | bègìrè-rí- | ‘winnow’ |
| | wògírí- | wògùrò-rí- | ‘take grain out of mortar’ |
| | kóŋúr ⁿ í- | kòŋùr ⁿ ò-r ⁿ í- | ‘gnaw (bones)’ |
| | dèŋí-r ⁿ í- | dèŋì-r ⁿ è-r ⁿ í- | ‘un-stick flour’ |
| b. | final /i/, no lexical non-high vowel present | | |
| | kúgírí- | kùgùrò-rí- | ‘skim’ |
| | íríyí- [írí:] | ìrǐyè-rí- | ‘get up’ |
| d. | Fulfulde loanwords | | |
| | yúrumí- | yùrùmè-r ⁿ í- | ‘pity’ |
| | sógíní- | sògìnè-r ⁿ í- | ‘take to pasture at night’ |

Causative *-mí-* becomes *-mè-* before *-rí-* (the result is *-mè-rⁿí-*), regardless of the vocalism of the preceding stem (xx5).

| (xx5) | stem | PerfNeg | gloss |
|-------|------------------------------|---|------------------|
| | bàr ⁿ á-ndíyé-mí- | bàr ⁿ à-ndiyè-mè-r ⁿ í- | ‘make red’ |
| | jèmé-mí- | jèmè-mè-r ⁿ í- | ‘make black’ |
| | tómbó-mí- | tòmbò-mè-r ⁿ í- | ‘cause to jump’ |
| | éw-yé-mí- | èw-yè-mè-r ⁿ í- | ‘seat, have sit’ |

Stems ending in minor Causative allomorphs, the Reversive suffix, or the Mediopassive suffix, are treated for inflectional purposes just like underived stems of the same (often trissyllabic) shape.

The suffixal /*r*/ of the Perfective Negative suffix is subject to **Nasalization-Spreading** (§3.xxx), hence *-rⁿí-* after a nasal syllable (one containing a

| | | | |
|---------------|---------------|---------------|----------|
| tàṅà-ndà-rí-ý | tàṅà-ndà-rú-ṵ | tàṅà-ndà-rí-Ø | ‘ignite’ |
| gǐsè-rí-ý | gǐsè-rú-ṵ | gǐsè-rí-Ø | ‘throw’ |

The **1Pl** and **2Pl** show vowel-length and tonal changes, but are otherwise segmentally identical to the corresponding singulars (with 1Sg *-y* and 2Sg *-w*). If not already long, the **stem-final vowel is lengthened** before the Perfective Negative suffix. The tone contour of the stem is {LH} realized as <LH> (rising) tone on a monosyllabic stem, LH on a bisyllabic, LLH on a trisyllabic, etc. The final syllable consisting of the suffix *-rí-* plus the pronominal-subject suffix is heard with **low tone**, in contrast to the high tone of the singular-subject forms. For example, 1Sg *yè-rí-ý* ‘I did not see’ corresponds to 1Pl *yě:-rǐ-y* ‘we did not see’. I do not hear 1Pl *-rǐ-y* or 2Pl *-rù-w* suffixes themselves as longer than their singular counterparts.

The special prosody of the 1Pl and 2Pl forms is roughly consistent with the analysis of other 1Pl and 2Pl forms in terms of **dying-quail intonation** (§xxx). In the Perfective Negative, both the suffixal syllable and the stem-final syllable in the 1Pl and 2Pl forms are modified vis-à-vis the corresponding singulars. My usual transcription is with *∴* after the transcription of the singular form, which brings out the morphological structure. It is understood that the vowel-lengths and pitch contours are adjusted by phonetic implementation rules. Examples below of the 1Pl (xx9) and 2Pl (xx10) show the phonetic realizations in brackets.

| (xx9) | 1Pl (1Sg plus ∴) | 1Pl phonetic | gloss |
|-----------------|-----------------------------------|----------------------------|------------|
| a. monosyllabic | | | |
| | <i>yè-rí-y ∴</i> | [jě:rǐ:] | ‘see’ |
| | <i>yè:-rí-y ∴</i> | [jě:rǐ:] | ‘come’ |
| | <i>gò:-rí-y ∴</i> | [gǒ:rǐ:] | ‘go out’ |
| | <i>tà:-rí-y ∴</i> | [tǎ:rǐ:] | ‘shoot’ |
| b. bisyllabic | | | |
| | <i>ṅṅè-rⁿⁱ-y ∴</i> | [ṅṅé:r ⁿⁱ :] | ‘go’ |
| | <i>ṅṅè-rí-y ∴</i> | [ṅṅé:rǐ:] | ‘go up’ |
| | <i>ṅṅè-rí-y ∴</i> | [ṅṅé:rǐ:] | ‘give’ |
| | <i>bà-yà-rí-y ∴</i> | [bájá:rǐ:] | ‘be cured’ |
| | <i>gǐsè-rí-y ∴</i> | [gǐsé:rǐ:] | ‘throw’ |
| | <i>gò-ndò-rí-y ∴</i> | [gòndó:rǐ:] | ‘take out’ |
| c. trisyllabic | | | |
| | <i>kùwò-mè-rⁿⁱ-y ∴</i> | [kùwòmé:r ⁿⁱ :] | ‘burn’ |
| | <i>tàṅà-ndà-rí-y ∴</i> | [tàngándá:rǐ:] | ‘ignite’ |

| (xx10) | 2PI (2Sg plus .:) | 2PI phonetic | gloss |
|--------|--|----------------------------|------------|
| | a. monosyllabic | | |
| | yè-rú-w.: | [jě:rù:] | ‘see’ |
| | yè:-rú-w.: | [jě:rù:] | ‘come’ |
| | gò:-rú-w.: | [gò:rù:] | ‘go out’ |
| | tà:-rú-w.: | [tǎ:rù:] | ‘shoot’ |
| | b. bisyllabic | | |
| | ̀̀nè-r ⁿ ú-w ⁿ .: | [̀̀nè:r ⁿ ù:] | ‘go’ |
| | ̀̀dè-rú-w.: | [̀̀dè:rù:] | ‘go up’ |
| | ̀̀dè-rú-w.: | [̀̀dè:rù:] | ‘give’ |
| | bàyà-rú-w.: | [bájá:rù:] | ‘be cured’ |
| | gìsè-rú-w.: | [gìsé:rù:] | ‘throw’ |
| | gò-ndò-rú-w.: | [gòndó:rù:] | ‘take out’ |
| | c. trisyllabic | | |
| | kùwò-mè-r ⁿ ú-w ⁿ .: | [kùwòmé:r ⁿ ù:] | ‘burn’ |
| | tàjà-ndà-rú-w.: | [tájàndá:rù:] | ‘ignite’ |

In these 1PI and 2PI forms, note the following. The final syllable (the suffixal syllable) is long and low-pitched. Its length is arguably due to the monophthongization of /iy/ and /uw/ to [i:] and [u:], rather than to the phonetics of the dying-quail intonation. However, lengthening also occurs in other 1PI and 2PI forms with comparable pitch contours in other AN inflections (§3.xxx). The low pitch of the ultimate contrasts sharply with its final high tone in the singulars. The penult has its vowel lengthened. In addition, a rising pitch contour is realized on the stem. Specifically, monosyllabic stems have rising pitch, bisyllabics are LH, and trisyllabics are LLH. That is, the high pitch is limited to the penult, but occupies the entire penult except in monosyllabic stems (which preserves the {L}-tone contour of the stem in its initial mora). The dying-quail intonation elsewhere is characterized by (at least) [LHL] pitch, usually just on the final syllable. Here in the Perfective Negative, the [LHL] pitch is distributed over the entire word.

The **3PI form** shows a radical divergence from the rest of the paradigm, since the Perfective Negative marker (elsewhere *-rí-*) combines with 3PI to give the portmanteau *-ndú*. The preceding stem is **low-toned** as in the singular forms.

There are also some segmental changes in the final stem vowel in the 3PI, suggestive of an underlying suffixal form */-àndú/* with an initial /a/, but only in certain combinations. Cross-cutting this is a process by which final {e ε} are rounded to {o o}, presumably under the influence of the suffixal /u/ (though this cannot be attributed to a productive phonological rule). Moreover, in some cases it appears that */-àndú/* or */-ndú/* is added to a form of the stem whose

vocalism is consistent with that of the singular-subject Perfective Negative forms (i.e. before *-rí-*) rather than that of the bare stem, to the extent the two can be distinguished.

In (xx11), note especially the following. Regarding the possible allomorph */-àndú/*, note 3Pl *Cèà-ndú-* for the *CÉ:-* stems ‘shine’ and ‘sprout’ in (xx11.a), and the shift of final */ɛ/* to */a/* in most bisyllabic and longer stems, e.g. ‘obtain’ and ‘take handful’. The */ɛ/* that shifts to */a/* is specifically the */ɛ/* of the Perfective Negative stem, not that of the bare stem form, in the cases of ‘give’ (xx11.b), the irregular verb ‘see’ (xx11.c), and ‘fear’ and ‘take handful’ in (xx11.e), all of which have final */i/* in the bare stem form. The alternative rounding and backing of {*e ɛ*} to {*o ɔ*} is relatively systematic in the case of */ɛ/* > */o/*, being obligatory in monosyllabics, see ‘come’ and ‘bring’ in (xx11.a), and common in spite of considerable phonetic variation (from the same assistant) in the stem-final */ɛ/* of longer stems like those at the end of (xx11.d). The verb ‘go’ (xx11.b) shows the shift of */ɛ/* to */ɔ/* in 3Pl *nnò-ndú* (based on Perfective Negative *nnè-rí-*, already shifted from lexical */ɛ/* to */ɛ/*)

| (xx11) | stem | PerfNeg (Sg) | PerfNeg 3Pl | gloss |
|---|----------------|-------------------|----------------------------|--------------|
| a. monosyllabic <i>Cv:-</i> | | | | |
| | <i>gǒ:-</i> | <i>gò:-rí-</i> | <i>gò:-ndú</i> | ‘go out’ |
| | <i>jě:-</i> | <i>jè:-rí-</i> | <i>jò:-ndú</i> | ‘bring’ |
| | <i>yě:-</i> | <i>yè:-rí-</i> | <i>yò:-ndú</i> | ‘come’ |
| | <i>ká:-</i> | <i>kà:-rí-</i> | <i>kà:-ndú</i> | ‘shave’ |
| | <i>té:-</i> | <i>tè:-rí-</i> | <i>tèà-ndú-</i> | ‘sprout’ |
| | <i>ké:-</i> | <i>kè:-rí-</i> | <i>kèà-ndú</i> | ‘shine’ |
| | <i>kó:-</i> | <i>kò:-rí-</i> | <i>kò:-ndú</i> | ‘eat (meal)’ |
| b. <i>nCv-</i> | | | | |
| | <i>ńné-</i> | <i>nnè-rí-</i> | <i>nnò-ndú</i> | ‘go’ |
| | <i>ndé-</i> | <i>ndè-rí-</i> | <i>ndà-ndú</i> | ‘go up’ |
| | <i>ndí-</i> | <i>ndè-rí-</i> | <i>ndà-ndú</i> | ‘give’ |
| c. ‘see’ (irregular) | | | | |
| | <i>yĩ:-</i> | <i>yè-rí-</i> | <i>yà:-ndú</i> | ‘see’ |
| d. bisyllabic or longer, ending in non-high vowel | | | | |
| | <i>bàyá-</i> | <i>bàyà-rí-</i> | <i>bàyà-ndú</i> | ‘be cured’ |
| | <i>yògǒ-</i> | <i>yògò-rí-</i> | <i>yògò-ndú</i> | ‘tun’ |
| | <i>gò-ndó-</i> | <i>gò-ndò-rí-</i> | <i>gò-ndò-ndú</i> | ‘take out’ |
| | <i>bèrè-</i> | <i>bèrè-rí-</i> | <i>bèrà-ndú</i> | ‘obtain’ |
| | <i>gǐsé-</i> | <i>gǐsè-rí-</i> | <i>gǐsè-ndú ~ gǐsò-ndú</i> | ‘throw’ |

| | | | |
|----------|-------------|---------------------|-------------------|
| sígé- | sǐgè-rí- | sǐgò-ndú ~ sùgò-ndú | ‘go down’ |
| péré- | pèrè-rí- | pèrè-ndú ~ pèrò-ndú | ‘jump (off)’ |
| mèngǐré- | mèngǐrè-rí- | mèngǐrò-ndú | ‘make into balls’ |

e. bisyllabic or longer, ending in high vowel

| | | | |
|--------------------|--------------------------------------|------------------------|----------------|
| ú:-yí- | ù:-yè-rí- | ù:-yà-ndú | ‘fear’ |
| nǔy ⁿ - | nùy ⁿ ḁ-r ⁿ í- | nùy ⁿ ḁ-ndú | ‘hear’ |
| pénjí- | pènjà-rí- | pènjà-ndú | ‘take handful’ |
| kúwó-mí- | kùwò-mè-r ⁿ í- | kùwò-mḁ-ndú | ‘burn’ |
| tánjá-ndí- | tànjà-ndà-rí- | tànjà-ndà-ndú | ‘ignite’ |

10.2.3.2 Experiential Negative -tà:-rí-

For the sense ‘**have never** VERB-ed’, Perfective Negative -rí- is added to the verb *tá:-*, which is chained to a substantive VP (§10.1.2.xxx). A peculiarity of this combination is that the preceding verb is also tone-dropped.

- (xx1) a. [bàmàkó ònè] tà:-rí-y
 [Bamako go.L] ExpPerf.L-PerfNeg-1SgS
 ‘I have never gone to Bamako.’
- b. [yí: sùyḁ] tǎ:-rǐ-y
 [child hit.L] ExpPerf-PerfNeg-1PIS
 ‘We have never struck a child.’

10.2.3.3 Recent Perfect Negative

The Recent Perfect *jè-* (§10.2.1.xxx), which cannot easily be distinguished from the ‘finish VP-ing’ construction, is usually negated by the simple Perfective Negative -rí-. In other words, in the negative it is not usually distinguished from other subtypes of the perfective (positive). Therefore the usual negative answer to the question *nǎ: kó: jè-w mà* ‘have you-Sg already eaten a meal?’ is simply *kò:-rí-y* ‘I have not eaten’.

However, it is possible to elicit examples with Recent Perfect *jè-* followed by the Perfective Negative suffix to produce *jè-rí-*. The Perfective Negative form *jè-rí-* is usually understood to mean ‘have not finished (VP-ing)’, as in *nǎ: kó: jè-rí-y* ‘I have not finished eating the meal’. The 3Pl subject form is *nǎ: kó: jà:-ndú* ‘they have not finished eating’.

The tone-dropping usually enforced by Perfective Negative *-rí-* on a preceding stem does not apply to the stem preceding *jè-*, another indication that *jè-* patterns phonologically like a chained verb.

10.2.3.4 Imperfective Negative *-ገፅ:-*

The all-purpose negation of imperfectives (‘doesn’t VP’, ‘isn’t VP-ing’, ‘will not VP’) is formed by adding the Imperfective Negative suffix. It has a basic form *-ገፅ:-* with long vowel for third person categories (3Sg *-ገፅ:-∅*, 3Pl *-ገፅ:-ፅ:*), but the first and second person forms are based on *-ገፅ-*, which is followed by the suffixal semivowel (1Sg *-ገፅ-ⁿ*, 2Sg *-ገፅ-^w*). The phonetic long vowel in 1Pl *-ገፅ-ⁿ ∴* and 2Pl *-ገፅ-^w ∴* is attributable to the dying-quail intonational effect associated with the pronominal suffix, i.e. *-ገፅ-* plus *-y ∴* (1Pl) or *-w ∴* (2Pl).

The pronominal-subject **paradigm** of *-ገፅ:-* is given in (xx1), with ‘run’ as the example in the right-hand column. The *∴* symbol indicates dying-quail intonation in the 1Pl and 2Pl, which is expressed by prolongation and [LHL] pitch on the suffixal syllable.

| (xx1) | category | ImpfNeg | | ‘run’ |
|-------|----------|---------------------------|---------|-------------------------------|
| | 1Sg | <i>-ገፅ-ⁿ</i> | | <i>yógó-ገፅ-ⁿ</i> |
| | 1Pl | <i>-ገፅ-ⁿ ∴</i> | [ገፅóፅj] | <i>yógó-ገፅ-ⁿ ∴</i> |
| | 2Sg | <i>-ገፅ-^w</i> | | <i>yógó-ገፅ-^w</i> |
| | 2Pl | <i>-ገፅ-^w ∴</i> | [ገፅóፅw] | <i>yógó-ገፅ-^w ∴</i> |
| | 3Sg | <i>-ገፅ:-∅</i> | | <i>yógó-ገፅ:-∅</i> |
| | 3Pl | <i>-ገፅ:-ፅ:</i> | | <i>yógó-ገፅ:-ፅ:</i> |

The stem preceding the Imperfective Negative suffix has a full or partial tone-contour overlay controlled by the suffix. Verbs ending in /i/ differ from those ending in non-high vowels.

If the bare stem of the verb ends in a non-high vowel, and has no more than two vocalic moras (Cv:, CvCv, CvCCv), the lexical tone is erased and the stem has H-tone before the suffix (xx2).

(xx2) Imperfective Negative (light stem ending in nonhigh vowel)

| stem | ImpfNeg | gloss |
|-------------------|---------|-------|
| a. monosyllabic | | |
| <i>{LH}-toned</i> | | |

| | | |
|------------------|----------|----------|
| gǔ:- | gó:-ὴ:- | ‘go out’ |
| nó:- | nó:-ὴ:- | ‘drink’ |
| bě:- | bé:-ὴ:- | ‘remain’ |
| jě:- | jé:-ὴ:- | ‘bring’ |
| wǔ:- | wó:-ὴ:- | ‘catch’ |
| yě:- | yé:-ὴ:- | ‘come’ |
| <i>{H}-toned</i> | | |
| tá:- | tá:-ὴ:- | ‘shoot’ |
| tó:- | tó:-ὴ:- | ‘sow’ |

b. CvCv

| | | |
|-------------------|-----------|--------------|
| <i>{LH}-toned</i> | | |
| yògó- | yógó-ὴ:- | ‘run’ |
| dògó- | dógó-ὴ:- | ‘leave’ |
| bàrá- | bárá-ὴ:- | ‘gather’ |
| <i>{H}-toned</i> | | |
| péré- | pére-ὴ:- | ‘jump (off)’ |
| tóró- | tóró-ὴ:- | ‘pound’ |

c. nCv

| | | |
|-------------------|----------|---------|
| <i>{LH}-toned</i> | | |
| ńdé- | ńdé-ὴ:- | ‘go up’ |

d. CvCCv, lexical {LH} tone

| | | |
|-------------------|-------------|---------------------|
| <i>{LH}-toned</i> | | |
| gòmbó- | gómbó-ὴ:- | ‘pull in (stomach)’ |
| gùnjó- | gúnjọ́-ὴ:- | ‘harvest (peanuts)’ |
| <i>{H}-toned</i> | | |
| tónjọ́- | tónjọ́-ὴ:- | ‘bend, flex’ |
| éw-yé- | éw-yé-ὴ:- | ‘sit down’ |

Stems ending in a nonhigh vowel with more than two vocalic moras, i.e. Cv:Cv, CvCvCv, and longer, distinguish lexical {H} from {LH} tones. As in the bare stem, {LH}-toned verbs have an audible L-toned onset (first mora of Cv:Cv, first syllable of trisyllabic and longer stems) (xx3).

(xx3) Imperfective Negative (heavy stem ending in nonhigh vowel)

| stem | ImpfNeg | gloss |
|------------------|------------|-------------|
| a. Cv:Cv | | |
| <i>{LH}-tone</i> | | |
| yǔ:ró- | yǔ:ró-ὴ:- | ‘stalk’ |
| <i>{H}-tone</i> | | |
| sé:ré- | sé:ré-ὴ:- | ‘encounter’ |

| | | | |
|----------------|------------------|--------------|------------|
| b. trisyllabic | | | |
| | <i>{LH}-tone</i> | | |
| | mònjúró- | mònjúró-nò:- | ‘dream’ |
| | <i>{H}-tone</i> | | |
| | pígíré- | pígíré-ὴ:- | ‘screw in’ |

Stems ending in a high vowel /i/ respect the lexical {H} versus {LH} distinction more strongly than do the stems ending in a non-high vowel. In particular, CvCv stems make the tone-class distinction. If the stem is prosodically light, with no more than two vocalic moras, the final /i/ is also preserved, so the stem used in the Imperfective Negative is indistinguishable from the bare stem (xx4).

(xx4) Imperfective Negative (light stem ending in /i/ or /y/)

| | stem | ImpfNeg | gloss |
|--------------------|---------------------|-------------------------|---------------------|
| a. Cv _y | | | |
| | <i>{H}-toned</i> | | |
| | núy ⁿ - | núy ⁿ -ὴ:- | ‘go in’ |
| | túy- | túy-ὴ:- | ‘put down’ |
| b. nCi | | | |
| | <i>{H}-toned</i> | | |
| | íní- | íní-ὴ:- | ‘go’ |
| | ídí- | ídí-ὴ:- | ‘give’ |
| c. CvCi | | | |
| | <i>{LH}-toned</i> | | |
| | gàr ⁿ i- | gàr ⁿ i-ὴ:- | ‘put (in)’ |
| | dèwí- | dèwí-ὴ:- | ‘cover’ |
| | <i>{H}-toned</i> | | |
| | kár ⁿ i- | kár ⁿ i-ὴ:- | ‘do, make’ |
| d. CvCCi | | | |
| | <i>{LH}-toned</i> | | |
| | màndí- | màndí-ὴ:- | ‘laugh’ |
| | gànjí- | gànjí-ὴ:- | ‘dig’ |
| | <i>{H}-toned</i> | | |
| | sándí- | sándí-ὴ:- | ‘pray’ |
| | túngí- | túngí-ὴ:- | ‘rest (one’s head)’ |

Quite irregular are two perception verbs (*yĩ:-* ‘see’ and *nũyⁿ-* ‘hear’), which have a low-toned stem and a high-toned form of the Imperfective Negative suffix. In addition, the stem is shortened to *Cv-* and the suffix has a short vowel even in the third person (xx5). For ‘see’, the initial /y/ is nasalized to /ɲ/ by a unique case of **Backward Nasalization**, and the vowel is irregularly backed and rounded to /u/, perhaps by analogy to the corresponding form of ‘hear’.

| (xx5) | stem | ImpfNeg | gloss |
|-------|--|---|--------|
| a. | <i>Cvy</i> <i>{LH}-toned</i> <i>nũyⁿ-</i> | <i>nù-ŋó-</i> | ‘hear’ |
| b. | <i>Cv:</i> <i>{LH}-toned</i> <i>yĩ:-</i> | <i>ɲù-ŋó-</i> (alongside regular variant <i>yĩ:-ŋò:-</i>) | ‘see’ |

In heavy stems ending in /i/, the {LH} versus {H} lexical tone distinction is again audible. However, in contrast to the prosodically light stems ending in the same vowel, these heavier stems shift the final /i/ to a non-high vowel before the Imperfective Negative suffix *-ŋò:-*. The quality of this vowel is copied from the (other) non-high vowel, if any, in the stem (xx6).

(xx6) Imperfective Negative (heavy stem with non-high vowel and final /i/)

| | stem | ImpfNeg | gloss |
|----|---|-------------------------------|--------------------------|
| c. | <i>Cv:Ci</i> , lexical {LH} tone <i>{LH}-toned</i> | | |
| | <i>dǎ:rí-</i> | <i>dǎ:rǎ-ŋò:-</i> | ‘dare’ |
| | <i>gě:rⁿi-</i> | <i>gě:rⁿé-ŋò:-</i> | ‘take, deliver’ |
| | <i>{H}-toned</i> | | |
| | <i>ká:rí-</i> | <i>ká:rǎ-ŋò:-</i> | ‘rip’ |
| | <i>tó:rí-</i> | <i>tó:ró-ŋò:-</i> | ‘authorize’ |
| a. | trissyllabic, lexical {LH} tone, final /i/, non-high vowel in stem <i>{LH}-toned</i> | | |
| | <i>bègírí-</i> | <i>bègíré-ŋò:-</i> | ‘sift’ |
| | <i>jèmbírí-</i> | <i>jèmbíré-ŋò:-</i> | ‘hit off-center’ |
| | <i>wùrǒ-gí-</i> | <i>wùrǒ-gó-ŋò:-</i> | ‘awaken’ |
| | <i>gàgírí-</i> | <i>gàgírǎ-ŋò:-</i> | ‘rub into the ground’ |
| | <i>{H}-toned</i> | | |
| | <i>tígírí-</i> | <i>tígíré-ŋò:-</i> | ‘(griot) call out names’ |

| | | | |
|-----|--------------|-----------------|-------------------|
| 2Pl | -sò=ndò-w̃.: | yî:-sò=ndò-w̃.: | súyò:-sò=ndò-w̃.: |
| 3Sg | -sò=ndò-∅ | yî:-sò=ndò-∅ | súyò:-sò=ndò-∅ |
| 3Pl | -s-è=nd-è | yî:-s-è=nd-è | súyò:-s-è=nd-è |

10.3 Pronominal paradigms for non-imperative verbs

10.3.1 Subject pronominal suffixes

The forms used to index subject pronominal category on verbs and some other predicators are given in (xxx). The third person forms are used for inanimate as well as animate referents.

| (xxx) | category | suffix |
|-------|----------|-------------|
| | 1Sg | -y |
| | 1Pl | -y.: |
| | 2Sg | -w |
| | 2Pl | -w.: |
| | 3Sg | -∅ |
| | 3Pl | [see below] |

The third person forms are more difficult to analyse. The 3Sg can generally be taken as -∅, but in the positive imperfective we get -ŋ (or just -ⁿ, i.e. vowel nasalization) rather than the expected #-m-∅.

The 3Pl category is expressed by adding -è to Imperfective -m-, by zero in the unsuffixed perfective (where 3Pl is therefore identical to 3Sg), by a shift of a preceding back vowel {o ɔ} to ε (preserving the vowel length), by shift of a preceding ε to a, and by apparent suppletion in the case of Perfective Negative -rí- becoming -ndó-. Using 1Sg and 1Pl for comparison (2Sg -w and 2Pl -w. are exactly parallel), note the 3Sg versus 3Pl alternations across various AN categories in (xxx).

| (xxx) | category | 1Sg | 1Pl | 3Sg | 3Pl | suffix |
|-------|-----------------|---------|-----------|-----------|--------|--------|
| | unsuffixed Perf | -ỹ | -ỹ.: | (è\è\ĩ)-∅ | -ò\ò\à | — |
| | Perfective-1a | -èrè-ỹ | -èrè-ỹ.: | -èrè-∅ | -èr-à | -èrè- |
| | Perfective-1b | -tĩ-ỹ | -tĩ-ỹ.: | -tĩ-∅ | -tĩ-yà | -tĩ- |

| | | | | | |
|----------------|--------|-----------------------|--------|-------|-------|
| Perfective-2 | -só-ý | -só-ý.: | -só-∅ | -s-é | -só- |
| Recent Perfect | -jè-ỳ | -jè-ỳ.: | -jè-∅ | -j-à | -jè- |
| Perf.Neg | -rí-ý | -rí-ý.: | -rí-∅ | -ndó | -rí- |
| Imperfective | -m-(i) | -m-i.: | -ḡ | -m-è | -m- |
| Progressive | -sò-ỳ | -sò-ỳ.: | -sò-∅ | -s-è | -sò- |
| Impf.Neg | -ḡḡ-y | -ḡḡ-y ⁿ .: | -ḡḡ:-∅ | -ḡ-è: | -ḡḡ:- |
| Past | -bè-y | -bè-y.: | -bè-∅ | -b-à | -bè- |

10.3.2 Nonhuman versus 3Sg subject

There is no distinction between animate 3Sg and inanimate third person subjects in verbal inflection.

10.3.3 Vowel-semivowel interactions of AN and pronominal suffixes

Perfective-1b -ṭi- combines with 2Sg -w as -tù-w̄ more other than as -tù-w̄. Likewise, Perfective Negative -rí- has a 2Sg form -rú-w̄. The 2Pl forms have the same vowel quality.

Quasi-verb bù- ‘be’ combines with 1Sg -y as bĩ-ỳ or bù-ỳ. The 1Pl form has the same vowel quality.

What I write as uw and iy are, in syllable-final position, pronounced [u:] and [i:].

These alternations are of course assimilations of a short high vowel to a following nonhomorganic semivowel, followed by Monophthongization. See §3.xxx.

10.3.4 Tones of pronominal-subject suffixes

Pronominal-subject suffixes used in indicative categories lack intrinsic tones. The nonzero suffixes (except 3Pl) consist of a sonorant, whose tone is acquired by spreading from the preceding vowel.

This does not apply to the modal inflectional categories, most of which have syllabic and tone-bearing suffixes (e.g. Prohibitive -rá).

10.4 Stative form of verbs (reduplicated and unreduplicated)

10.4.1 Stative positive

Verbs of stance (sitting, standing, etc.), holding and carrying, and certain others like ‘be closed’, are used in both active (‘sit down’) and stative (‘be sitting, be seated’) contexts. The regular indicative conjugations (perfective and imperfective) are used in the active sense. In the stative sense, denoting a static position, the (reduplicated or unreduplicated) Stative inflection is used. It makes no aspectual distinctions, falling outside of the perfective and imperfective systems that apply to active verbs.

The reduplicated Stative has an initial *Cv-* reduplication (high-toned), followed by a low-toned stem ending in /o/ or /a/. For those stems that transparently contain a *-yv-* suffix in the active forms, this suffix is omitted in the reduplicated Stative. The criterion for transparency is syllabic in nature; the stem minus the *-yv-* formative must be *CvCv-* or *CvC-* (xx1.b-c). Original **Cv-yv-* with just a **Cv-* stem have arguably become unsegmentable, and in any event require the second syllable to meet the bisyllabic shape requirement, so the /yv/ segment remains in the Stative stem (xx1.d). This might also be argued to be the case with some of the **Cv:-yv-* stems in (xx1.e), but ‘fear’ in particular suggests that in these verbs the initial *Ci:-* or *Cu:-* splits into *Ciya-* and *Cuwa-*, in which case there is no need to assume that the **-yv-* formative is present in the Stative.

| (xx1) | gloss | Imperative | Perfective-1a | reduplicated Stative |
|---|-----------------|------------------------|------------------------|------------------------|
| a. bisyllabic stem (unsegmentable) | | | | |
| | ‘lean (on)’ | tísô | tísé-èrè- | tí-tísò- |
| b. bisyllabic stem plus Mediopassive <i>-yí-</i> | | | | |
| | ‘lean back’ | ḍísí-yô | ḍísí-èrè- | ḍí-ḍísò- |
| | ‘kneel’ | túnjì-y ⁿ à | túnjì-y-èrè- | tú-tùḅò- |
| | ‘hold’ | ágí-yà | ágí-y-èrè- | á-àgà- |
| | ‘hold onto’ | kúmbí-yò | kúmbí-èrè- | kú-kùmbò- |
| | ‘carry on back’ | bàmbí-yâ | bàmbí-èrè- | bá-bàmbà- |
| c. <i>CvC-</i> stem plus Mediopassive <i>-yí-</i> | | | | |
| | ‘sit’ | éw-yò | éw-yé-èrè- | é-èwò- |
| | ‘squat’ | sów-yò | sów-yé-èrè- | só-sòwò- |
| | ‘perch’ | téw-yò | téw-yé-èrè- | té-tèwò- |
| d. <i>Cvyv-</i> stem (with frozen Mediopassive <i>*-yí-</i>) | | | | |
| | ‘sleep’ | níy ⁿ à | níy ⁿ -èrè- | ní-nìy ⁿ à- |

‘lie down’ bíyô bíyé-èrè- bí-bìyò-

e. Cv:yv- stem (with frozen Mediopassive *-yV-)

| | | | |
|-------------|----------------------|--------------------------|------------------------|
| ‘be closed’ | pí:-y ⁿ à | pí:-y ⁿ -èrè- | pí-pǐy ⁿ à- |
| ‘stand’ | í:-yà | í:-y-èrè- | í-ìyà- |
| ‘fear’ | ú:-yà | ú:-y-èrè- | ú-ùwà- |

The pronominal-suffix **paradigm** is (xx2), with ‘be sitting’ as the example. In the 3Pl, final /o/ shifts to /e/. This could be taken as a slightly irregular assimilation to the following -yè. It could also be a case of double 3Pl conjugation (as in the negative paradigm, below). However, a stem-final /a/ does not shift: uwà-yè ‘they fear’.

| (xx2) category | Stative | ‘be sitting’ |
|----------------|---------|------------------|
| 1Sg | -y | èwò-y |
| 1Pl | -y.: | èwò-y.: |
| 2Sg | -w | èwò-w |
| 2Pl | -w.: | èwò-w.: |
| 3Sg/Inan | -∅ | èwò-∅ |
| 3Pl | -yè | èwè-yè (èw-è-yè) |

The full reduplicated form of the stem given above is used when no location is overtly specified. When the verb is preceded by a locational adverb, the reduplicated segment is optionally (but usually) omitted (xx3).

- (xx3) a. ñgà-gá èwò-∅
 there sit.Stat-3SgS
 ‘He/She is sitting over there.’
- b. ñgà-gá ìyà-yè
 there stand.Stat-3PIS
 ‘They are standing there.’
- c. [ńdó gó] bìyò-∅
 [house in] lie.down.Stat-3SgS
 ‘He/She is lying down over there.’

10.4.2 Stative Negative (=ndó-)

The negative forms are based on Stative Negative clitic =ndó-. The paradigm, and the forms for ‘not be sitting’, are in (xx1). The final syllable of the verb stem becomes high-toned before the clitic-suffix complex (in addition to the dying-quail intonation). With ‘sit’, the stem-final /o/ shifts to /e/ before the clitics, regularly in the 3PI and sporadically in the other cases.

| | | | | |
|-------|----------|------------------|------------------|--------------|
| (xx1) | category | Stative Negative | ‘not be sitting’ | |
| | 1Sg | =ndó-ý | èwò=ndó-ý | |
| | 1PI | =ndo-y.: | èwó=ndo-y.: | [èwòóndòóòj] |
| | 2Sg | =ndó-ń | èwò=ndó-ń | |
| | 2PI | =ndo-w.: | èwó=ndo-w.: | [èwóndòóòw] |
| | 3Sg/Inan | =ndó-∅ | èwò=ndó-∅ | |
| | 3PI | =nd-é | èwè=nd-é | |

10.5 Post-verbal temporal particles

10.5.1 Past clitic (=bɛ-)

The Past suffix =bɛ- carries over the preceding tone (subject to further tone rules due to a following pronominal suffix). We therefore get e.g. -ń=bɛ- with low tone but e.g. -rí=bɛ- with high tone. The Past clitic combines with certain AN forms of the verb, and is itself conjugated for pronominal subject. The combinations with preceding AN suffixes are given in (xxx).

| | | | |
|-------|-----------------------|-----------|---------------------|
| (xx1) | AN category | AN suffix | AN + Past |
| | positive | | |
| | Imperfective | -ń- | -ń=bɛ- |
| | Progressive | -sò- | -sò=bɛ- |
| | unsuffixed Perfective | (zero) | =bɛ- (Past Perfect) |
| | Perfective-1b | -ń- | -ń=bɛ- |
| | Perfective-1a | -èrè- | -èrè=bɛ- |
| | Perfective-2 | -só- | -só=bɛ- |
| | Recent Perfect | -jè- | -jè=bɛ- |
| | negative | | |
| | perfective | -rí- | -rí=bɛ- |

imperfective -ŋð:- -ŋð:-[pronominal]=bè-

=bɛ- is followed by the usual subject pronominals. The 3Pl form is =b-a. The paradigm is given in two forms, based on the preceding tone. The two tonal forms are not distinguished in the 1Pl and 2Pl, which have their bell-shaped pitch of LHL type.

| (xx2) category | form with =bɛ- | |
|----------------|-----------------|----------------|
| | after high tone | after low tone |
| 1Sg | =bé-y | =bè-y |
| 1Pl | =bè-y.∴ | =bè-y.∴ |
| 2Sg | =bé-w | =bè-w |
| 2Pl | =bè-w.∴ | =bè-w.∴ |
| 3Sg | =bé-∅ | =bè-∅ |
| 3Pl | =b-á.∴ | =b-à |

There are some cases of double conjugation, whereby the pronominal subject is marked both on the Past clitic and on the preceding verb. This is especially true for the 3Pl.

10.5.1.1 Past Imperfective (positive and negative)

A **Past Imperfective** (positive) is formed with the complex -m̀= bɛ-. Here -m̀- is equatable with the Imperfective suffix -m- seen above. This leaves =bɛ- as the specifically Past morpheme. The 3Sg form is -m̀= bɛ-∅, and the 3Pl form is -m̀= b-à.

- (xxx) a. àmâyⁿ-àmâyⁿ ká kárⁿi-m̀= bɛ-w̄.∴
 how?-how? there do-Impf=Past-2PlS
 ‘What did you-Pl use to do there (= about it)?’
- b. k̄iyăw [̀ndò ñgá] sígɛ-m̀= bɛ-y
 first [house.L Dem.InanSg.Loc] go.down-Impf=Past-1SgS
 ‘I used to go down (= lodge) in this house.’
- c. bàmàkó ñní-m̀= bɛ-∅
 Bamako go-Impf=Past-3SgS
 ‘He/She used to go to Bamako’

| | | |
|------------|---------|-------------------|
| positive | | |
| ‘be’ | bù- | bù-m=bè- |
| ‘have’ | sò- | sò-m=bè- ~ sò=bè- |
| negative | | |
| ‘not be’ | ṅgó- | ṅgó=bé- |
| ‘not have’ | sò-ndó- | sò-ndó=bé- |

For 3Pl, ‘not have’ takes doubly conjugated Past forms *sè-ndé=b-á* ‘did not have’, *ṅgé=b-á* ‘were not’, and *sè-m=b-à* ‘had’. (Positive) ‘(they) were’ is singly conjugated: *bù-m=b-à*.

For (positive) ‘have’, the variant without *-m-* is used in 3Sg *sò=bè-Ø*. All other forms (e.g. 1Sg *sò-m=bè-y* and 3Pl *sò-m=b-à*) have the *-m-*. For (positive) ‘be’, the *-m-* is required in all forms, including 3Sg *bù-m=bè-Ø*.

10.5.1.3 Past Perfect (positive and negative)

The Past clitic *=bè-* can also be used after the bare stem (with lexical tone contour as well as vocalism), and after suffixal forms of the perfective system, in **Past Perfect** (positive sense) (‘X had VERB-ed’). This requires establishment of a separate temporal reference point, before which the eventuality in question occurred.

In the bare-stem construction, the bare stem functions as a substitute for the unsuffixed Perfective, which does not combine with *=bè-*.

Examples follow with the bare stem (xx1.a), Perfective-1a *-èrè-* (xx1.b), Perfective-1b *-tĩ-* (xx1.c), Perfective-2 *-só-* (xxx.d), and Recent Perfect *jè-* (xxx.e). Perfective-1b *-tĩ-* occurs here in high-toned form.

- (xxx) a. *bàyá=bé-y*
 be.cured=Past-1SgS
 ‘I had been cured.’
- b. *gó-èrè=b-à*
 go.out-Perf1a=Past-3PlS
 ‘They had gone out.’
- c. *ṅjí-ṅ súyó-tí=bé-Ø*
 1Sg-Acc hit-Perf1b=Past-3SgS
 ‘He/She had hit me.’

- d. ñǐ-ŋ yí:-só=bé-Ø
 1Sg-Acc see-Perf2=Past-3SgS
 ‘He/She had seen me.’
- e. . wàgàǐ ñné yé:-m̀ sè g̀à,
 time.L 3SgS come-Ppl.Impf Ppl.Perf in,
 ǎǎ: kó: jè=bè-y.∴
 meal eat RecPf-Past-1PIS
 ‘When he was coming, we had already eaten.’

The **Past Perfect Negative** is formed by adding =bé- (with its inflection) to Perfective Negative suffix -rí-. The latter takes its usual 3Pl form -ndú-, but is otherwise invariant before =bé-. The paradigm is therefore (xxx). Examples are in (xxx).

(xxx) category negative past perfect

| | |
|-----|------------|
| 1Sg | -rí=bé-y |
| 1Pl | -rí=bè-y.∴ |
| 2Sg | -rí=bé-w |
| 2Pl | -rí=bè-w.∴ |
| 3Sg | -rí=bé-Ø |
| 3Pl | -ndú=b-á |

- (xxx) a. wàgàǐ ñné yé:-m̀ sèg̀à,
 time.L 3SgS come-Ppl.Impf while,
 ǎǎ: k̀̀:-rí=bè-y.∴
 meal eat-Perf.Neg=Past-1PIS
 ‘When he came, we had not (yet) eaten.’
- b. ǎǎ: k̀̀:-rí=bé-Ø
 meal eat-Perf.Neg=Past-3SgS
 ‘He had not (yet) eaten.’
- c. ǎǎ: k̀̀:-ndú=b-á
 meal eat-Perf.Neg.3PIS=Past-3PIS
 ‘They had not (yet) eaten.’

Past Perfect verb forms with =bé- are also used in both the antecedent and consequent clauses of **counterfactual conditionals** (§16.xxx). Thus the past imperfective negative in (xxx.a) has two free translations, the second being appropriate to a counterfactual (xxx.b) exemplifies the first reading in context,

| | |
|--------|-----------|
| InanSg | -yé=w=b-è |
| InanPl | -yé=w=b-à |

Pronominal inflection occurs on Past =bè-, and for inanimates and for 3Pl also on Passive -yé=. The expected #=η=bè- sequence (3SgS plus Past) is pronounced =m=bè- with Nasal-Assimilation, and therefore falls together with =m=bè- in the first and second person forms.

Examples of the Past Passive are in (xx2).

- (xx2) a. ñdò kémé-yé=w=bè-Ø
house.L build-Pass=it.is.InanSgS=Past-3SgS
'A/The house had been built.'
- b. tóη-yé=Ø=b-à
write-Pass=it.is.3PlS=Past-3PlS
'They (= books) had been written.'
- c. pèrgè sémé-yé=m=bè-Ø
sheep.L slaughter-Pass=it.is.3SgS=Past-3SgS
'A/The sheep-Sg had been slaughtered.' (from /...=η=bè-/)
- d. [pèrgè bû:] sémé-yé=Ø=b-à
[sheep.L Def.AnPl] slaughter-Pass=it.is.3PlS=Past-3PlS
'The sheep-Pl had been slaughtered.'

The Past Passive Negative is based on combining either of the two Passive Negative constructions mentioned in (§xxx) with Past =bè- (xx3.a-b).

- (xx3) a. tóη-yé=w=ndö:-Ø=bè-Ø
write-Pass=it.is.InanSgS=it.is.not-3SgS=Past-3Sgs
'It had not been written.'
- b. tòηð-r"i-yé=w=bè-Ø
write-Perf.Neg-Pass=it.is.InanS
'It has not been written.'

10.5.2 ‘Still’, ‘up to now’, (not) yet’

‘Still’ and ‘up to now, for the present’ can be expressed by [níṅày yṅà], instrumental PP (§8.1.2) from níṅàyⁿ ‘now’. If the predicate is negative, the translation is ‘not (yet)’.

- (xx1) a. [níṅàyⁿ yṅà] [ǒ: gó] bù-Ø
 [now with] [field.L in] be-3SgS
 ‘He/She is still in the fields.’
- b. [níṅàyⁿ yṅà] yè:-rí-Ø
 [now with] come-PerfNeg-3SgS
 ‘Up to now he/she hasn’t come.’
 ‘He/She hasn’t come yet.’

10.6 Imperatives and Hortatives

10.6.1 Imperatives and Prohibitives

10.6.1.1 Positive imperatives (Imperative stem, Plural -ndī)

Positive imperatives have distinctive forms for 2Sg and 2Pl subject. The **2Sg imperative** has no affix (and so is equivalent to the **Imperative stem**), but does show vocalic and tonal changes vis-à-vis the bare stem (see discussion below). The Imperative stem favors stem-final {a ɔ o} vowels. Tonally, it is characterized chiefly by a final L-tone.

The **2Pl imperative** is expressed by adding suffix allomorph -ndī to the singular imperative; it has also been heard as -nī after longer stems (xx1). I gloss the suffix as “2Pl.Imprt” in interlinears.

| (xx1) | number | Sg imperative | Pl imperative |
|-------|-------------|------------------------------------|--|
| a. | ‘run’ | yógô | yógô-ndī [jógòhndī] |
| | ‘go out’ | gô: | gô:-ndī |
| | ‘buy’ | éwâ | éwâ-ndī |
| | ‘go’ | ínô | ínô-ndī |
| b. | ‘make weep’ | kóyó-mô | kóyó-mô-ndī |
| | ‘return’ | bíndò | bíndò-ndī |
| | ‘open’ | pí: ⁿ -r ⁿ à | pí: ⁿ -r ⁿ à-ndī |

Examples with objects are in (xx2). In the free translation, -2Sg or -2Pl is added to the verb to indicate subject number.

- (xx2) a. $\text{\textit{nj\ddot{i}-\textit{ij}}}$ $\text{\textit{nj\ddot{i}r}^n\textit{\hat{a}}}$
 1Sg-Acc look.at.Imprt
 ‘Look-2Sg at me!’
- b. $\text{\textit{nn\acute{e}-\textit{ij}}}$ $\text{\textit{s\ddot{u}y\hat{o}-nd\ddot{i}}}$
 3SgO-Acc hit.Imprt-Imprt.Pl
 ‘Hit-2Pl it!’

The final vowel of the stem is subject to modifications in the imperative. It suffices here to discuss the singular, since the plural is based on it.

If the regular stem ends in /e/, this vowel shifts to /o/ in the imperative. The shift applies to monosyllabic as well as longer stems (xx3).

| (xx3) | gloss | bare stem | Sg imperative |
|-------|------------------------------------|---|---|
| a. | ‘bring’ ‘come’ | $\text{\textit{j\acute{e}:}}$ $\text{\textit{y\acute{e}:}}$ | $\text{\textit{j\hat{o}:}}$ $\text{\textit{y\hat{o}:}}$ |
| b. | ‘go’ | $\text{\textit{nn\acute{e}}}$ | $\text{\textit{nn\hat{o}}}$ |
| c. | ‘do well’ ‘fight’ ‘jump off’ | $\text{\textit{k\acute{e}:nd\acute{e}}}$ $\text{\textit{j\ddot{o}r\acute{i}y\acute{e}}}$ $\text{\textit{p\acute{e}r\acute{e}}}$ | $\text{\textit{k\acute{e}:nd\hat{o}}}$ $\text{\textit{j\ddot{o}r\acute{i}y\hat{o}}}$ $\text{\textit{p\acute{e}r\hat{o}}}$ |

If the stem ends in /ɛ/, this vowel shifts to /a/ in the imperative in stems of two or more syllables. $\text{\textit{nd\acute{e}}}$ ‘go up’ is counted as bisyllabic for this purpose (xx4.a). Monosyllabic $\text{\textit{C\acute{\epsilon}:}}$ has an imperative of the diphthongal form $\text{\textit{C\acute{\epsilon}a}}$, except for $\text{\textit{t\acute{\epsilon}:}}$ ‘lay (mat)’, which also has a bisyllabic variant form $\text{\textit{C\acute{\epsilon}ya}}$ (xx4.b). Cognates of $\text{\textit{t\acute{\epsilon}:}}$ have a semivowel in some neighboring languages, e.g. Ben Tey $\text{\textit{t\acute{e}y(i)}}$.

| (xx4) | gloss | bare stem | Sg imperative |
|-------|--|--|--|
| a. | ‘go up’ ‘build’ ‘fall’ ‘look’ | $\text{\textit{nd\acute{e}}}$ $\text{\textit{k\acute{\epsilon}m\acute{e}}}$ $\text{\textit{y\acute{\epsilon}g\acute{e}}}$ $\text{\textit{nj\ddot{i}r}^n\textit{\acute{e}}}$ | $\text{\textit{nd\hat{a}}}$ $\text{\textit{k\acute{\epsilon}m\hat{a}}}$ $\text{\textit{y\acute{\epsilon}g\hat{a}}}$ $\text{\textit{nj\ddot{i}r}^n\textit{\hat{a}}}$ |
| b. | ‘lay (mat)’ | $\text{\textit{t\acute{\epsilon}:}}$ | $\text{\textit{t\acute{e}y\hat{a}}, t\acute{e}\hat{a}}$ |

| | | |
|-------------|-----|-----|
| ‘shine’ | ké: | kéâ |
| ‘knock off’ | pé: | péâ |
| ‘get old’ | pé: | péâ |

Monosyllabic *Ci*: is segmentally stable in the imperative in the one relevant verb, ‘see’. There is no audible segmental distinction between the syllabic nucleus of *yî*: ‘see’ and that of *tîy* ‘send’ (xx5.a). Stems of the bisyllabic shapes (C)vCi and (C)vCCi, with “v” a short vowel, have a stable final /i/ that is retained in the imperative (as well as in the Imperfective) (xx5.b). *ńdí* ‘give’ is treated as bisyllabic for this purpose (xx5.c). Longer stems, including bisyllabics with a long vowel in the first syllable (xx5.d), and trisyllabics (xx5.e), have a final /i/ in the bare form (and in the suffixal Perfective) that is replaced, in the imperative (and Imperfective) by a vowel from the set {a o o}. In the trisyllabics, if the final vowel is rounded {o o}, this vowel quality also **spreads to the medial syllable**; see ‘rest’ and ‘go around’ in (xx5.e).

(xx5) Imperatives (verbs with final /i/)

| gloss | bare stem | Sg imperative |
|---------------------------------|-------------------------|-------------------------|
| a. <i>Ci</i> : and <i>Ciyi</i> | | |
| ‘see’ | <i>yî</i> : | <i>yî</i> : |
| ‘send’ | <i>tîyí</i> [tí:] | <i>tîy</i> |
| b. <i>CvCi</i> and <i>CvCCi</i> | | |
| ‘speak’ | <i>tîŋí</i> | <i>tîŋí</i> |
| ‘put’ | <i>kúr^{ri}</i> | <i>kúr^{ri}</i> |
| ‘tie’ | <i>págí</i> | <i>págí</i> |
| ‘do’ | <i>kár^{ri}</i> | <i>kár^{ri}</i> |
| ‘put up’ | <i>náŋí</i> | <i>náŋí</i> |
| ‘cure’ | <i>jòŋí</i> | <i>jòŋí</i> |
| ‘sing’ | <i>nùŋí</i> | <i>nùŋí</i> |
| ‘cover’ | <i>děw</i> (</dèwí/) | <i>dèwí</i> |
| ‘find’ | <i>témbí</i> | <i>témbì</i> |
| ‘put lid’ | <i>tímbí</i> | <i>tímbì</i> |
| ‘urinate’ | <i>ónjì</i> | <i>ónjì</i> |
| ‘laugh’ | <i>màndí</i> | <i>màndí</i> |
| ‘step in’ | <i>nàmbí</i> | <i>nàmbì</i> |
| c. <i>nCi</i> | | |
| ‘give’ | <i>ńdí</i> | <i>ńdí</i> |

d. Cv:Ci

underived

| | | |
|-------------|---------------------|---------------------|
| ‘call’ | ɲǎ:r ⁿ í | ɲǎ:r ⁿ à |
| ‘help’ | bǎ:rí | bǎ:rà |
| ‘take away’ | gě:r ⁿ í | gě:r ⁿ ò |
| ‘gather’ | mǎ:ndí | mǎ:ndò |
| ‘think’ | mǎ:ndí | mǎ:ndà |

mediopassive

| | | |
|-----------------|--------|--------|
| ‘carry on head’ | dũ:-yí | dũ:-yâ |
|-----------------|--------|--------|

| | | | |
|----|--------------|----------------------|---|
| e. | ‘rest’ | súmír ⁿ í | súmór ⁿ ò |
| | ‘demolish’ | wòró-gí | wòró-gô |
| | ‘go around’ | gòṅír ⁿ í | gòṅór ⁿ ò |
| | ‘get up’ | írí-yí [írí:] | íríyà |
| | ‘have fun’ | kémír ⁿ í | kémír ⁿ à ~ kémír ⁿ ò |
| | ‘winnow’ | bègírí | bègírâ ~ bègírò |
| | ‘get ready’ | dàgírí | dàgírâ |
| | ‘get rid of’ | màrá-gí | màrá-gâ |
| | ‘remember’ | ìlí-rí | ìlí-râ |

Several examples in (xx5.d-e) show that the stem-final vowel in the imperative is a **copy of an earlier stem vowel** {a ɔ o}, as in wòró-gô, màrá-gâ, gòṅórⁿò. An earlier *ɛ* is copied as *ɔ* or *a*, often in free variation, but my assistant accepted only *ɔ* in the high-frequency imperative gě:rⁿò ‘bring!’. If the nonfinal syllables of the stem have such a vowel followed by a high vowel {i u}, the high vowel is disregarded in determining the imperative stem-final vowel. For example, in gòṅírⁿí ‘go around’ the first two syllables have an *ɔ...i* sequence, but only the *ɔ* is relevant in determining the imperative vocalism.

If the nonfinal syllables of the stem have **only high vowels** {i u}, the imperative ends in a vowel from the set {a ɔ o}. In the available examples, I find /a/ after *i*-vowels (corresponding to /*ɛ*/ in the Imperfective), and a lexical choice of /o/ or /ɔ/ after *u*-vowels (xx6).

(xx6) Stems with all high vowels in nonfinal syllables

| gloss | bare stem | Sg imperative |
|--------------------------------|------------------|---------------|
| a. Imperative ends in a | | |
| ‘remember’ | ìlí-rí | ìlí-râ |
| ‘get up’ | írí: (</írí-yí/) | íríyà |
| ‘accompany’ | íṅgírí | íṅgírâ |

- b. Imperative ends in **o**
 ‘rest’ **súmír^{ní}** **súmór^{nò}**
- c. Imperative ends in **o**
 ‘skim’ **kúgírí** **kúgórò**

The remaining stem-final vowels, namely {**o o a**}, are segmentally stable as we go from the bare stem to the Imperative. This remark applies to monosyllabic stems (xx7.a) as well as to longer stems (xx7.b).

| (xx7) | gloss | bare stem | Sg imperative |
|-------|----------|-------------|---------------|
| a. | ‘drink’ | nó: | nô: |
| | ‘reply’ | sá: | sâ: |
| | ‘go out’ | gǒ: | gô: |
| b. | ‘run’ | yògó | yógô |
| | ‘bite’ | kúwó | kúwô |
| | ‘touch’ | táwá | táwâ |

Tonally, the Imperative stem is characterized by a final L-tone, which combines with the lexical {H} or {LH} to result in word-level {HL} or {LHL}. However, the expected {LHL} is reduced to {HL} under some conditions, which distinguish stems ending in a high vowel (or y) from those ending in non-high vowels.. The following exposition on tones re-uses the forms given above to demonstrate imperative vocalism.

rewrite analysis

In (xx8), we see that the Imperative stem (i.e. the singular imperative) is {HL}-toned for Cv:, CvCv, and most CvCCv stems (i.e. stems with two vocalic moras) that end in a non-high vowel, regardless of lexical tone contour. Therefore even the {LH}-toned stems have imperatives beginning with a H-tone.

(xx8) Tone of prosodically light stems with final non-high vowel

| | gloss | bare stem | Imperative |
|--------|------------------|------------|------------|
| a. Cv: | | | |
| | <i>{H}-toned</i> | | |
| | ‘reply’ | sá: | sâ: |

| | | |
|-------------------|-----|---------------------------|
| <i>{LH}-toned</i> | | |
| ‘go out’ | gǒ: | gô: (contrast gǒ: ‘fire’) |
| ‘drink’ | nǒ: | nô: |

b. CvCv (including nCv)

| | | |
|-------------------|------|--------------------|
| <i>{H}-toned</i> | | |
| ‘go’ | íné | ínô (variant ínô) |
| ‘get bogged’ | pídé | pídô |
| <i>{LH}-toned</i> | | |
| ‘go up’ | ndé | ndâ (variant indâ) |
| ‘steal’ | gùró | gúrô |
| ‘run’ | yògó | yógô |

c. CvCCv with simple CC cluster (see text below)

| | | |
|-------------------|-------|-------|
| <i>{H}-toned</i> | | |
| ‘tamp down’ | túmbó | túmbò |
| <i>{LH}-toned</i> | | |
| ‘dig’ | gùnjó | gúnjô |
| ‘churn’ | jùmbó | júmbò |

There are certain CvCv and CvCCv stems that are treated differently. Most of these include a derivational suffix (xx9.a-b), and we will see below that the productive causative derivative (which always has more than two vocalic moras) also has special tonal treatment. There is a type with complex medial CC cluster that also has special treatment (xx9.b).

(xx9) Irregular CvCv and CvCCv

| | gloss | bare stem | Imperative |
|----|---|-----------|------------|
| a. | initial L-tone of lexical {LH} verb preserved | | |
| | Mediopassive Cÿ-yí | | |
| | ‘lie down’ | bĩ-yé | bĩ-yê |
| | Cÿ-ndý (frozen causative) | | |
| | ‘take out’ | gò-ndó | gò-ndô: |
| b. | H<HL> instead of HL sequence for CvCCv | | |
| | Mediopassive C’C-yí | | |
| | ‘sit’ | éw-yé | éw-yô |
| | C’mj’ | | |
| | ‘crumple’ | kúmjó | kúmjô |

In (xx9.a), the L-tone of lexical {LH} remains on the entire first syllable in the imperative. In effect, these stems are treated as prosodically heavy (see below). In (xx9.b), The irregularity in (xx9.b), by contrast, is that the H-tone does not end at the syllabic boundary, but instead spreads into the onset of the final vowel, as with CvCv stems. In the case of ‘crumple’, the heavy, nonhomorganic cluster mj seems to somehow be involved; this cluster is heard as [mndʒ] in careful speech, i.e. as even heavier than my regular transcription suggests. Perhaps with such a heavy cluster, the final syllable is treated as prosodically autonomous.

Prosodically heavy stems (those with at least three vocalic moras) ending in a non-high vowel are shown in (xx10). Here the lexical distinction between {H}- and {LH}-toned stems is audible in the imperative, since the {LH}-toned stems preserve the L-tone at the stem onset. The final syllable is L-toned. There are no available non-causative quadrisyllabic stems to test.

(xx10) Tones of prosodically heavy stems with final non-high vowel

| gloss | bare stem | Imperative |
|---------------------|-----------|------------|
| a. Cv:Cv and Cv:CCv | | |
| <i>{H}-toned</i> | | |
| ‘weigh’ | pé:sé | pé:sò |
| ‘do well’ | ké:ndé | ké:ndò |
| <i>[LH]-toned</i> | | |
| ‘stalk’ | yǒ:ró | yǒ:rò |
| ‘file’ | ǎi:sé | ǎi:sò |
| b. CvCvCv | | |
| <i>{H}-toned</i> | | |
| ‘screw in’ | pígíré | pígírò |
| ‘rub’ | lígísé | lígísò |
| <i>[LH]-toned</i> | | |
| ‘fight’ | jòríyé | jòríyò |
| ‘lean’ | ǎisíyé | ǎisíyò |

This completes the tonal analysis of imperatives for stems ending in non-high vowel. Stems ending in i (often varying with u) or in y (arguably /yi/) are illustrated in (xx11). Causative -mí is not included (see below for separate discussion).

(xx11) Tones of stems with final non-high vowel

| | gloss | bare stem | Imperative |
|---------------------|-------------------|----------------------|--------------------------------------|
| a. Cv(i) | <i>{H}-toned</i> | | |
| | ‘go in’ | núy ⁿ | núy ⁿ [tonally irregular] |
| ok | <i>{LH}-toned</i> | | |
| | ‘hear’ | nǔy ⁿ | nǔy ⁿ |
| b. CvCi | <i>{H}-toned</i> | | |
| | ‘cross’ | tájí | tájǐ |
| | ‘affix’ | tárí | tářǐ |
| | ‘put up on’ | nájí | nájǐ |
| | <i>{LH}-toned</i> | | |
| | ‘cure’ | jòjí | jòǐ |
| | ‘cover’ | děw (< /dèwí/) | dèwǐ |
| c. CvCCi | <i>{H}-toned</i> | | |
| | ‘pinch’ | kémbí | kémbǐ |
| | <i>{LH}-toned</i> | | |
| | ‘laugh’ | màndí | màndǐ |
| d. Cv:Ci and Cv:CCi | <i>{H}-toned</i> | | |
| | ‘chase’ | lá:rí | lá:rà |
| | ‘scratch’ | kó:sí | kó:sò |
| | <i>{LH}-toned</i> | | |
| | ‘mix’ | gǎ:r ⁿ í | gǎ:r ⁿ à |
| | ‘take away’ | gě:r ⁿ í | gě:r ⁿ ò |
| | ‘call’ | ɲǎ:r ⁿ í | ɲǎ:r ⁿ à |
| | ‘gather’ | mǔ:ndí | mǔ:ndò |
| e. trisyllabic | <i>{H}-toned</i> | | |
| | ‘have fun’ | kémír ⁿ í | kémír ⁿ à |
| | <i>{LH}-toned</i> | | |
| | ‘winnow’ | bègírí | bègírà |

The i-final verbs in (xx11.b-e) clearly distinguish lexical {H} and {LH} tones, with {LH} stems showing L-toned initial syllable. This is true even in CvCi stems, which contrast in this respect from CvCv stems with final non-high

vowel. In (xx11.a), we see an irregular {H}-toned imperative núyⁿ ‘go in!’, audibly distinct from the regular imperative of nŷyⁿ ‘hear’ (xx11.a).

Causative suffix *-mí* is treated as a chained verb stem for this purpose. For example, in Imperative *kóyó-mô* ‘make-2Sg weep!’ and its plural-subject form *kóyó-mô-ndĩ*, the Causative suffix has its own {HL} tone contour, while the preceding stem has the same form it would have as a bare stem. If *kóyó-mí* ‘make weep’ were treated as an ordinary trisyllabic, the H-tone would extend from the left edge only to the second syllable, giving the incorrect #*kóyó-mò*, #*kóyó-mò-ndĩ*.

10.6.1.2 Prohibitives (*-rá*, *-ndá*, *-ndà*.)

The Prohibitive is the negative imperative (xx1).

(xx1) *tê:* *nó:-rⁿá-ndĩ*
 tea drink-Prohib-Imprt.Pl
 ‘Don’t-2Pl drink the tea!’

The Prohibitive is formed from mono- and bisyllabic stems with a suffix *-rá* that has a variant *-ndá*. The form *-rá* is usual in Anda, but a Wakara informant generally used *-ndá*. This suffix is distinct in form from other negative suffixes on verbs (Perfective Negative *-rí-*, Imperfective Negative *-ŋò:-*). The suffix *-rá* undergoes **nasalization** to *-rⁿá* under the influence of a preceding nasal or nasalized segment, as does Perfective Negative *-rí-*. For allomorph *-ndà*: with longer stems, see below.

The plural Prohibitive adds *-ndĩ* (sporadically reduced to *-nĩ*) to the singular Prohibitive.

Examples with monosyllabic stems are in (xx2). Observe that the lexical tone contour, {H} versus {LH}, is respected in the Prohibitive.

| (xx2) gloss | bare stem | Sg Prohib | Pl Prohib |
|-------------|------------|---------------------------|-------------------------------|
| ‘go out’ | <i>gǒ:</i> | <i>gǒ:-rá</i> | <i>gǒ:-rá-ndĩ</i> |
| ‘drink’ | <i>nǒ:</i> | <i>nǒ:-rⁿá</i> | <i>nǒ:-rⁿá-ndĩ</i> |
| ‘bring’ | <i>jě:</i> | <i>jě:-rá</i> | <i>jě:-rá-ndĩ</i> |
| ‘see’ | <i>yĩ:</i> | <i>yĩ:-rá</i> | <i>yĩ:-rá-ndĩ</i> |
| ‘reply’ | <i>sá:</i> | <i>sá:-rá</i> | <i>sá:-rá-ndĩ</i> |
| ‘lay (mat)’ | <i>té:</i> | <i>té:-rá</i> | <i>té:-rá-ndĩ</i> |

Since the plural form is always easily predictable from the singular, I will omit the plurals in the remaining tables.

For **bisyllabics** with just two vocalic moras (no long vowel), the **stem-final vowel is replaced by /i/** (xx3.a-b). The /i/ is usually syncopated when the syllabic and segmental conditions permit, i.e., after certain unclustered sonorants, especially semivowels and /r/ (xx3.c). The suffix is usually heard as **-ndá** after a rhotic (xx3.c). A syllable-final /iy/ resulting from syncope contracts phonetically to a long [i:] (xx3.d) by Monophthongization. Likewise, a syllable-final /uw/ resulting from syncope contracts to a long [u:], though in one case (‘bite’) my assistant preferred a variant with /uy/ (xx3.e). Throughout (xx3), the lexical tone is respected in the Prohibitive.

(xx3) Prohibitive (bimoraic bisyllabic stem ending in non-high vowel)

| | gloss | bare stem | Sg Prohib |
|----|--------------|---------------------|----------------------------------|
| a. | ‘tie’ | págí- | págí-rá |
| | ‘cut’ | késé- | késí-rá |
| | ‘build’ | kémé- | kémí-r ⁿ á |
| | ‘throw’ | gǐsé- | gǐsí-rá |
| | ‘run’ | yògó- | yògí-rá |
| | ‘fall’ | yègè- | yègí-rá |
| | ‘go back’ | bǐndé- | bǐndí-rá |
| | ‘nibble’ | jòmbó- | jòmbí-rá |
| | ‘dig’ | gùnjó | gùnjí-rá |
| b. | ‘go’ | ńné- | ńní-r ⁿ á |
| | ‘go up’ | ńdé- | ńdí-rá |
| c. | ‘work’ | bǐré- | bǐr-ndá |
| | ‘begin’ | tóró- | tór-ndá |
| | ‘sell’ | túró- | túr-ndá |
| | ‘skin’ | úró- | úr-ndá |
| | ‘hit’ | súyó- | súy-rá |
| | ‘buy’ | éwé- | éw-rá |
| | ‘look’ | ńǐr ⁿ é- | ńǐr ⁿ í-ndá |
| | ‘give birth’ | nàr ⁿ á- | nàr ⁿ í-ndá ~ nǎn-dá) |
| d. | ‘kill’ | gǐyé- | gǐy-rá [gǐ:rá] |
| | ‘lie down’ | bǐyé- | bǐy-rá [bǐ:rá] |
| e. | ‘fan’ | jùwó- | jǔw-rá [dʒǔ:rá] |
| | ‘brush’ | bùwó- | bǔw-rá [bǔ:rá] |
| | ‘bite’ | kúwó- | kúy-rá |

(kúw-rá OK but dispreferred)

Stems with **three or more vocalic moras** (Cv:Cv-, CvCvCv-) ending in a **non-high vowel** are in (xx4). The Prohibitive suffix is now **-ndà:**, which is heard in L-toned form word-finally. It combines with the Plural suffix as **-ndà:-ndí**, bringing out a latent rising tone that is also heard when a clause-final particle is added. The final vowel of the stem is **not shifted** to /i/.

(xx4) Prohibitive (trisyllabic stem ending in non-high vowel)

| | gloss | bare stem | Sg Prohib |
|----|----------------------|---------------------|-----------------------------|
| a. | ‘do well’ | ké:ndé- | ké:ndé-ndà: |
| b. | ‘dream ‘hiccup’ | mònjúró- bègírè- | mònjúró-ndà: bègírè-ndà: |
| c. | ‘screw in’ ‘poke’ | pígírè- dùsúró- | pígírè-ndà: dùsúró-ndà: |

We now turn to stems ending in /i/ (xx5). Of course any morphophonological switch to final /i/ for these verbs would be inaudible. The tonology and suffixal allomorphy are consistent with those seen above for verbs ending in non-high vowel. We get **-rá-** (which is nasalized **-rⁿá-** after a nasal syllable) with stems that have just two vocalic moras, including CvCCv-, but **-ndà:** after stems with three vocalic moras, including Cv:Cv-. Causative **-mí-** tends to be reduced to segmental zero before **-ndà:**, though a fuller pronunciation as **-m-dà:** is also possible (xx5.g).

(xx5) Prohibitive (bisyllabic stem ending in /i/)

| | gloss | bare stem | Sg Prohib |
|----|------------------------------|---|--|
| a. | ‘give’ | ndí- | ndí-rá |
| b. | ‘speak’ ‘perpetrate’ | tíŋí- bògí- | tíŋí-r ⁿ á bògí-rá |
| c. | ‘cover’ ‘go in’ ‘hear’ | děwí- [děw] núy ⁿ i- [núj ⁿ] núy ⁿ i- [núj ⁿ] | děw-rá núy ⁿ -r ⁿ á núy ⁿ -r ⁿ á |

| | | | |
|----|--|--|--|
| d. | ‘open wide’ ‘find’ | gòmbí- témbí- | gòmbí-rá témbí-rá |
| e. | ‘help’ ‘stop’ ‘gather’ ‘open’ | bǎ:rí- í:-yí- [i:] mǒ:ndí- pí:-r ⁿ i | bǎ:r-ndà: í:-y-ndà: mǒ:ndí-ndà: pí: ⁿ -r ⁿ i-ndà: |
| f. | ‘uncover’ ‘accompany’ ‘scrub’ ‘get ready’ | tímbí-rí- íngírí- púgúsí- dàgírí- | tímbí-r-ndà: íngír-ndà: púgúsí-ndà: dàgír-ndà: |
| g. | ‘make go out’ | gǒ:-mí- | gǒ:-m-dà: ~ gǒ:-Ø-ndà: |

10.6.2 Positive hortatives (-má, plural -màyⁿ)

For dual number (speaker and one addressee), the hortative (‘Let’s ...!’) is expressed by adding a suffix **-má**. For larger numbers (speaker and two or more others, including the addressee), the form is **-màyⁿ**.

| (xx1) | gloss | dual hortative | 3+ hortative |
|-------|----------|----------------|-----------------------|
| | ‘run’ | yògó-má | yògó-mày ⁿ |
| | ‘go out’ | gǒ:-má | gǒ:-mày ⁿ |
| | ‘buy’ | éwé-má | éwé-mày ⁿ |
| | ‘go’ | ńné-má | ńné-mày ⁿ |

Further examples showing the hortative of verbs with **final non-high vowel** are in (xx2). As the dual form is predictable from the (more common) 3+ hortative, only the latter is shown. In every example in (xx2), the stem used before the Hortative suffix is identical (segmentally and tonally) to the bare stem.

(xx2) Hortative (verb with final non-high vowel)

| | gloss | bare stem | 3+ hortative |
|----|---------|-----------|----------------------|
| a. | ‘shave’ | ká:- | ká:-mày ⁿ |
| | ‘drink’ | nó:- | nó:-mày ⁿ |

| | | | |
|----|-----------------------------------|--------------------------------|---|
| b. | ‘go’ ‘go up’ | ńné- ̀ndé- | ńné-mà ⁿ ̀ndé-mà ⁿ |
| c. | ‘steal’ ‘run’ ‘spray’ | gùró- yògò- písé- | gùró-mà ⁿ yògò-mà ⁿ písé-mà ⁿ |
| | ‘hiccup’ ‘dream’ ‘screw in’ | bègíré- mònjúró- pígíré- | bègíré-mà ⁿ mònjúró-mà ⁿ pígíré-mà ⁿ |

When the stem ends in /i/, on the other hand, this final vowel must be changed to a non-high vowel, regardless of syllable or mora structure. The final /i/ is replaced by a vowel with the same quality as the initial-syllable vowel, if non-high. Stems with only /u/ have final /ɔ/, and those with only /i/ have final /ɛ/ (xx3). The lexical tone contour is retained in the hortative.

(xx3) Hortative (verb with final /i/)

| | gloss | bare stem | 3+ hortative |
|----|--|--|--|
| a. | ‘see’ | yĩ:- | yě:-mà ⁿ |
| b. | ‘give’ | ńdí- | ńdé-mà ⁿ |
| c. | ‘go in’ ‘hear’ ‘send’ ‘cover’ ‘perpetrate’ ‘put down’ | núy ⁿ i- [núj ⁿ] nùy ⁿ i- [nǔj ⁿ] tíyí- [tí:] dèwí- bògí- dùjí- | núy ⁿ ɔ́-mà ⁿ nùy ⁿ ɔ́-mà ⁿ tíyé-mà ⁿ dèwé-mà ⁿ bògò-mà ⁿ dùjò-mà ⁿ |
| d. | ‘find’ ‘open wide’ ‘put lid on’ | témbí- gòmbí- tímbí- | témbé-mà ⁿ gòmbó-mà ⁿ tímbé-mà ⁿ |
| e. | ‘help’ ‘take away’ ‘stop’ ‘gather’ | bǎ:rí- gě:r ⁿ i- í:-yí- mǔ:ndí- | bǎ:rá-mà ⁿ gě:r ⁿ é-mà ⁿ í:-yé-mà ⁿ mǔ:ndí-mà ⁿ |
| f. | ‘scrub’ ‘get ready’ ‘have fun’ | púgúsí- dàgírí- kémír ⁿ i- | púgúsó-mà ⁿ dàgírá-mà ⁿ kémír ⁿ é-mà ⁿ |

10.6.3 Hortative Negative (-rá and variants, plural -rá-màyⁿ)

The Imperative Negative form of the verb, with suffix -rá-, -ndá-, or -ndǎ:- (word-final ndǎ:), is followed by the (positive) Hortative suffix -má (dual subject) or -màyⁿ (three or more) to form a the Hortative Negative. Some examples showing the morphological connection to the (singular-subject) Prohibitive are in (xx1).

| (xx1) | gloss | bare stem | Sg Prohibitive | Hortative Neg |
|-------|------------|-----------|----------------------|---------------------------------------|
| a. | ‘go out’ | gǒ: | gǒ:-rá | gǒ:-rá-mày ⁿ |
| | ‘drink’ | nó: | nó:-r ⁿ á | nó:-r ⁿ á-mày ⁿ |
| | ‘tie’ | págí- | págí-rá | págí-rá-mày ⁿ |
| | ‘go’ | ńné- | ńní-r ⁿ á | ńní-r ⁿ á-mày ⁿ |
| b. | ‘begin’ | tóró- | tór-ndá | tór-ndá-mày ⁿ |
| c. | ‘screw in’ | pígíré- | pígíré-ndǎ: | pígíré-ndǎ:-mày ⁿ |

Examples are (xx2).

- (xx2) a. **ńńí-rⁿá-má**
 go-Hort.Neg-Hort.Du
 ‘Let’s-2 (= the two of us) not go!’
- b. **gǒ:-rá-màyⁿ**
 go.out-Hort.Neg-Hort.3+
 ‘Let’s-3+ (= all of us) not go out!’

10.6.4 Third-person Hortative

A third-person subject form occurs primarily in wishes (and curses) of the form ‘may God VERB you!’. It can also be used as a kind of indirect command, whether or not the speaker intends the command to be conveyed to the third person by an intermediary. The third person agent can be singular or plural.

We begin with the positive third-person Hortative. When the verb ends in a **non-high vowel**, we get the forms in (xx1). The **Cv:-** verbs take a suffix -y, and shorten their vowel. They also divide into two tonal sets, one with a high-toned form (xx1.a) and another with a rising-toned form (xx1.b), reflecting

etymological stem-tone contours. Bisyllabic verbs with just two vocalic moras shift their final vowel to /i/, which however remains high-toned (xx1.b-d). An exception is *gòndó-* ‘take out’, an original causative that patterns like a longer stem. Verbs with three or more vocalic moras, including *Cv:Cv-*, have a **final low-tone** element that is joined to the right edge, producing {HL} or {LHL} depending on the lexical tone. The added final low tone has its own syllable if preceded by two high-toned syllables, otherwise it merges with the final-syllable high tone to produce a falling tone (xx1.e-g). Longer stems also differ in final vocalism; the trisyllabics the *Cv:Cv-* verbs kept a final /e/ rather than switching it to /i/. Trisyllabics and *Cv:Cv-* verbs with final /o/ were more difficult for my assistant, who either switched the /o/ to its harmonic stablemate /e/ (‘dream’) or switched it to /i/ (‘stalk’).

(xx1) Third-Person Hortative positive (verb with final non-high vowel)

| | gloss | bare stem | 3rd person hortative |
|----|---------------|-----------|----------------------|
| a. | ‘shave’ | ká:- | ká-y |
| | ‘spend night’ | ná:- | ná-y ⁿ |
| | ‘reply’ | sá:- | sá-y |
| | ‘eat’ | kó:- | kó-y |
| b. | ‘arrive’ | dǒ:- | dǒ-y |
| | ‘bring’ | jě:- | jě-y |
| | ‘go out’ | gǒ:- | gǒ-y |
| c. | ‘go’ | ńné- | ńní |
| | ‘go up’ | ńdé- | ńdí |
| d. | ‘steal’ | gùró- | gùrí |
| | ‘run’ | yògó- | yògí |
| | ‘spray’ | písé- | písí |
| | ‘pound’ | tóró- | tórí |
| | ‘jump off’ | péré- | pérí |
| e. | ‘go back’ | bǐndé- | bǐndí |
| | ‘lift up’ | índé- | índí |
| f. | ‘stalk’ | yǒ:ró- | yǒ:rí |
| | ‘turn over’ | jǔw-ró- | jǔw-rí |
| | ‘bathe [tr]’ | ǎi:-ré- | ǎi:-rê |
| | ‘do well’ | ké:ndé- | ké:ndè |
| | ‘take out’ | gòndó- | gòndê |

| | | |
|-------------|----------|-------------------|
| g. ‘hiccup’ | bègírè- | bègírê |
| ‘dream’ | mònjúró- | mònjúré ~ mònjírî |
| ‘screw in’ | pígírè- | pígírê |

When the stem already ends in /i/, there is no change in vocalism. The tonology is different from what we just saw with the stems ending in a non-high vowel, in that the final low-tone element is obligatory regardless of syllable count. Therefore ‘see’ and (at least phonetically) ‘hear’ end up as <LHL> toned, and the other verbs in (xx2.b-c), and the lexically {LH} toned verbs in (xx2.d-f), end up with a final falling-toned syllable. The lexically high-toned verbs in (xx2.d-f), like ‘find’, ‘stop’, and ‘have fun’, have final low-toned syllables.

(xx2) Third-Person Hortative positive (verb with final /i/)

| gloss | bare stem | 3rd person hortative |
|--------------|---|----------------------|
| a. ‘see’ | yĩ:- | yĩ: |
| b. ‘give’ | ńdí- | ńdí |
| c. ‘go in’ | núy ⁿ i- [núj ⁿ] | nûy ⁿ |
| ‘hear’ | nùy ⁿ i- [nũj ⁿ] | nũy ⁿ |
| ‘send’ | tíyí- [tí:] | tíyî [tí:] |
| ‘cover’ | dèwí- | dèwî |
| ‘perpetrate’ | b̀̀gí- | b̀̀gî |
| ‘put down’ | dùjî- | dùjî |
| d. ‘find’ | témbí- | témbî |
| ‘open wide’ | g̀̀mbí- | g̀̀mbî |
| ‘put lid on’ | tímbí- | tímbî |
| e. ‘help’ | bă:rí- | bă:rî |
| ‘take away’ | gě:r ⁿ i- | gě:r ⁿ î |
| ‘stop’ | í:-yí- | í:-yî |
| ‘gather’ | mǔ:ndí- | mǔ:ndî |
| f. ‘scrub’ | púgúsí- | púgúsî |
| ‘get ready’ | dàgírí- | dàgírî |
| ‘have fun’ | kémír ⁿ i- | kémír ⁿ î |

Causatives are fairly common in the third-person hortative construction, since wishes like ‘let him jump off!’ can be expressed as ‘may God make him jump off!’ (dènjê ńné-ńj péré-m-î).

The elicited Negative counterparts end in *-rà*, *-ndà*, or *-ndà:* for singular subject. The plural-subject forms are, respectively, *-rá-ndi*, *-ndá-ndi*, and *-ndǎ:-ndi* for plural subject. These forms are related to those of the Prohibitive (=imperative negative), but are low-toned in the singular-subject form, and the stem vocalism differs significantly in the two morphological categories. There is probably dialectal and even idiolect-internal variation in the allomorphy, here as with the Prohibitive. For my assistant, third-person Hortative *-ndà:* occurs with far more types of verbs than does the similar Prohibitive allomorph *-ndà:*. Therefore many short stems have third-person Hortative *-ndà:* but Prohibitive *-rá*. A generous set of forms is given in (xxx). Note *-ndà:* after all verbs whose bare stem ends in a nonhigh vowel (xxx.a), as well as with many stems with final high vowel (xxx.b). *-rà* was recorded with *CvCi* and *nCi* stems (xxx.c), and *-ndà* (note the short vowel) after *CvCvCi* stems (xxx.d).

(xxx) Third-Person Hortative Negative (verb ending in nonhigh vowel)

| | gloss | bare stem | 3rd person hortative negative | |
|----|-------------|---|-------------------------------|------------------------------|
| | | | Sg | Pl |
| a. | ‘shave’ | ká:- | ká:-ndà: | ká:-ndǎ:-ndi |
| | ‘eat’ | kó:- | kó:-ndà: | kó:-ndǎ:-ndi |
| | ‘arrive’ | dǒ:- | dǒ:-ndà: | dǒ:-ndǎ:-ndi |
| | ‘bring’ | jě:- | jě:-ndà: | dǒ :-ndǎ:-ndi |
| | ‘go’ | ńné- | ńné-ndà: | ńné-ndǎ:-ndi |
| | ‘go up’ | ńdé- | ńdé-ndà: | ńdé-ndǎ:-ndi |
| | ‘steal’ | gùró- | gùró-ndà: | gùró-ndǎ:-ndi |
| | ‘pound’ | tóró- | tóró-ndà: | tóró-ndǎ:-ndi |
| | ‘dream’ | mònjúró- | mònjúró-ndà: | mònjúró-ndǎ:-ndi |
| b. | ‘see’ | yĩ:- | yě:-ndà: | yě:-ndǎ:-ndi |
| | ‘go in’ | núy ⁿ i- [núj ⁿ] | núy ⁿ ó-ndà: | núy ⁿ ó-ndǎ:-ndi |
| | ‘find’ | témbí- | témbé-ndà: | témbé-ndǎ:-ndi |
| | ‘open wide’ | gòmbí- | gòmbó-ndà: | gòmbó-ndǎ:-ndi |
| | ‘gather’ | mǒ:ndí- | mǒ:ndí-ndà: | mǒ:ndí-ndǎ:-ndi |
| | ‘take away’ | gě:r ⁿ i- | gě:r ⁿ i-ndà: | gě:r ⁿ i-ndǎ:-ndi |
| | ‘help’ | bǎ:rí- | bǎ:rí-ndà: | bǎ:rí-ndǎ:-ndi |
| c. | ‘give’ | ńdí- | ńdí-rà | ńdí-rá-ndi |
| | ‘cover’ | děwí- | děw-rà | děw-rá-ndi |
| d. | ‘scrub’ | púgúsí- | púgúsí-ndà | púgúsí-ndǎ-ndi |
| | ‘have fun’ | kémír ⁿ i- | kémír ⁿ i-ndà | kémír ⁿ i-ndǎ-ndi |

10.6.5 Third-Person Hortative with implied first person singular subject

The third-person hortative can also be used with a first-person subject, in a special (but high-frequency) context where the speaker needs clarification as to whether he/she is commanded or authorized to perform an action. For example, if the boss asks you to ‘bring some fruits!’, and you want to know what kind of fruits the boss wants, you can say (in English) *should I bring mangoes?* In Nanga, the relevant construction is hortative in form, with a final interrogative particle: *mǎŋgórò jě-y má* ? There is no overt subject pronominal here, but in context it is understood that the speaker is, in effect, quoting a command directed at himself.

11 VP and predicate structure

11.1 Regular verbs and VP structure

11.1.1 Verb types (valency)

Since Nanga clearly distinguishes subjects (pronominal-subject agreement on verbs) from direct objects (Accusative case suffix on animate nouns and pronouns), the prototypical transitive verbs are clearly identifiable from their syntactic behavior. These include the usual impact verbs ('hit', 'cut'), but also perception verbs ('see', 'hear')

- (xx1) a. *ńńé-ń yĩ:-só-ý*
3Sg-Acc see-Perf2-1SgS
'I saw him/her.'
- b. *ńńé-ń súyó-só-ý*
3Sg-Acc hit-Perf2-1SgS
'I hit him/her.'

Basic **motion verbs** ('go', 'come') are intransitive. Sentences like *[[isé gó] ńńé-èrè-ý]* 'I went [to the village]' have adverbial (e.g. PP) rather than simple NP complements, usually with Locative /*ga/* (/go/, etc.). Toponyms omit the Locative postposition, so sentences like *[mó:tĩ ńńé-èrè-ý]* 'I went [to Mopti]' mimic transitives, but the adverbial nature of these place names is suggested by the fact that they correspond to 'where?' (*àrⁿáńá*) rather than to 'what?' in questions, and by the fact that the place name cannot be replaced by an Accusative pronominal.

ńdí- 'give' takes two direct objects, either or both of which may show Accusative *-ń*. In the usual case where the recipient is animate and the thing given inanimate, Accusative marking is much more common on the recipient than on the noun denoting the thing given (xx2.a), following the usual pattern with the Accusative morpheme. When both NPs are animate, double Accusative marking is common (xx2.b). *ké:rí-* 'show X to Y' has similar syntax.

- (xx2) a. *[bă: yē:-ń] ké:rê ńdí-só-ý*
[father 1SgP.Poss.AnSg-Acc] money give-Perf2-1SgS
'I gave some money to my father.'

- b. pèrgé-ń ú-ń ńdí-só-ý
 sheep.Sg-Acc 2Sg-Acc give-Perf2-1SgS
 ‘I gave you-Sg a sheep.’

kíyé- ‘say’ can take a direct object referring to a quotation (‘I didn’t say that’) and/or a dative NP representing the person addressed.

- (xx3) [[bǎ: yě:] bày] ńgú-ń kiyè-rí-ý
 [[father 1SgP.Poss.AnSg] Dat] Dem.InanSg-Acc say-PerfNeg-1SgS
 ‘I didn’t say that to my father.’

Verbs of **putting** like kúr^o- ‘put (object) in (a container)’, gārⁱ- ‘put (e.g. liquid, grain) in (container)’, and náńí- ‘put (object) up on (something)’ normally take a direct object and a locational expression, though the latter is sometimes obvious and can be omitted (‘I put the tea kettle on [the burner]’).

The boundary between intransitives and transitives is blurred by the existence of many verbs that take a conventional complement, usually a **cognate nominal**. Syntactically, the cognate nominal can be taken as a direct object; see §11.1.6.2. However, it does not normally allow Accusative -ń.

There are also some fixed subject-verb combinations whose subject NP does not appear to have full subject properties; see §11.1.4, below.

11.1.2 Valency of causatives

The subject (agent) of an intransitive clause becomes a direct object when the clause is causativized, and may therefore take Accusative -ń.

- (xx1) [dèré yě:-ń] yě:-m-só-ý
 [elder.sibling 1SgP.Poss.AnSg-Acc] come-Caus-Perf2-1SgS
 ‘I made/had my older sibling come.’

When an already transitive clause is causativized, we end up with two direct objects, either or both of which may take Accusative -ń (xx2).

- (xx2) [dèré yě:-ń] pèrgé-ń
 [elder.sibling 1SgP.Poss.AnSg-Acc] sheep-Acc
 sémé-m-só-ý
 slaughter-Caus-Perf2-1SgS
 ‘I had my older brother slaughter a sheep.’

What I call the Mediopassive (MP) verb form (suffix *-yí-* etc.) cuts across transitivity lines, as it can apply not only to classic mediopassives like ‘be hung up’, but also to transitives denoting actions that create a state for the agent (verbs of carrying, wearing clothes, etc.). A transitive Mediopassive verb (xx2.a) often corresponds to a related verb with Transitive suffix *-rí-* that functions much like a causative and takes two objects (xx2.b).

- (xx2) a. *yí:-ṅ* *bàmbí-ý-só-ý*
 child-Acc carry.on.back-MP-Perf2-1SgS
 ‘I carried a child (on my back).’
- b. *yí:-ṅ* *ńné-ṅ* *bàmbí-rí-só-ý*
 child-Acc 3Sg-Acc put.on.back-MP-Perf2-1SgS
 ‘I put a child on him/her (on his/her back).’

11.1.3 Verb Phrase

The notion of VP is most useful in connection with VP-chains, which are essentially chains of clauses with a shared subject; see §15.1.

11.1.4 Fixed subject-verb combinations

Fixed combinations of a subject NP and a verb are mainly found with meteorological and seasonal expressions (xx1.a-b) and some emotional and medical expressions (xx1.c).

- (xx1) a. involving *ùsí* ‘sun’ or variant (cf. *òsù-dérⁿí* ‘daytime’)
- | | | |
|--------------|--------------------------|---|
| <i>ùsí</i> | <i>síyé-</i> | ‘(day) break’ |
| <i>ùsí</i> | <i>dèrⁿé-</i> | ‘night fall’ (cf. <i>dèRⁿé-</i> ‘spend mid-day’) |
| <i>ùsíyé</i> | <i>bàrⁿá-</i> | ‘be summer’ (cf. <i>bárⁿí</i> ‘red’) |
- b. rain and rainy season
- | | | |
|--------------|-------------|---|
| <i>yàrí</i> | <i>dǔ:-</i> | ‘rainy season be about to start’ (“sky go.out”) |
| <i>yàrí</i> | <i>gǔ:-</i> | ‘be just after the harvest’ (“sky go.out”) |
| <i>bòndí</i> | <i>wǔ:-</i> | ‘rain fall’ |
- c. emotions and medical
- | | | |
|--------------|--------------------------|--|
| <i>kéndè</i> | <i>bàrⁿá-</i> | ‘get angry’ (<i>kéndè</i> ‘heart/liver’, <i>bàrⁿá-</i> ‘become red’) |
|--------------|--------------------------|--|

kĩrⁿè-dèrⁿĩ gǒ:- ‘have a nosebleed’ (kĩrⁿê ‘nose’, gǒ:- ‘go out’)
 kĩrⁿè-dèrⁿĩ dèrⁿé- ‘have a nosebleed’ (cognate verb)

The nouns in these constructions tend not to have full subject properties. The noun usually occurs close to the verb, following spatiotemporal adverbs, whereas fully referential subject NPs often precede such adverbs. However, these are tendencies rather than strict rules.

The seasonal and meteorological expressions can occur in same-subject constructions. This is possible since some cyclical sequences can be expressed by pairing combinations sharing a conventionalized subject (xx2).

(xx2) [yàrí dǒ: ń] bĩndé-èrè-Ø
 [sky arrived and.SS] go.back-Perf1a-3SgS
 ‘The sky (=cloudy weather of rainy season) arrived and left.’

With the emotional and medical expressions in (xx1.c), the absence of subject properties is due to the (frequent) presence of a separate human subject, in addition to the bodily term shown. The construction suggests “possessor raising,” as the choice of verb makes most sense if selected by the bodily term. kéndè bàrⁿá- by itself would mean ‘heart/liver (seat of emotions) became red (=burned)’, and kĩrⁿè-dèrⁿĩ gǒ:- would mean ‘nosebleed (nose blood) go out’. These would make good sense with possessors: ‘my heart became red’, ‘my nose-blood came out’. However, the actual constructions have human subject NPs, not possessors. This is shown by subject agreement on the verb and by the absence of possessed-noun tone contour on the bodily term.

(xx3) a. kéndé bàrⁿá-só-y
 heart/liver get.red-Perf2-1SgS
 ‘I got angry.’
 b. á:mádù kéndè bàrⁿá-só-Ø
 A heart/liver get.red-Perf2-3SgS
 ‘Amadou got angry.’
 c. kĩrⁿè-dèrⁿĩ gǒ:-só-y
 nose-bleed go.out-Perf2-1SgS
 ‘I had a nosebleed.’

Therefore at least in the emotional and medical expressions, the apparent subject noun functions somewhat like an adverb.

11.1.5 Idiomatic and cognate objects

Many verbs are commonly paired with a default nominal, usually functioning as direct object (and usually omitted if there is a more concrete object NP). In some cases, the default object nominal and the verb are non-cognate (xx1).

| (xx1) | noun | verb | gloss of combination |
|-------|------|-------|-----------------------|
| | jǎ: | kó:- | ‘eat (a meal)’ |
| | nî: | ḏiyé- | ‘bathe’ (nî: ‘water’) |
| | nî: | nó:- | ‘drink (water)’ |

11.1.5.1 Formal relationships between cognate nominal and verb

Many verbs have a **lexicalized cognate nominal** from the same word family. The present focus is on the relationship among the nominal and verbal forms. For the grammatical functions of the cognate object, see §11.1.5.xxx, below.

Any verb that does not have a lexicalized cognate nominal can simply use its regular verbal noun in **-ndé**. Example: **játí-ndé jàtí-** ‘do a calculation’. Such cases are not at issue in the present section since verbal nouns are predictable in form.

A generous set of examples of cognate noun-verb pairs is in (xx1). Since the tone contour of a verb is closely associated with its initial consonant, it seems most useful to organize the data around the tone contour (and syllable count) of the noun. Of interest is the distinction between **dùrî dùró-** ‘let out a groan’ (xx1.e) and **dúfî dùró-** ‘(lion etc.) roar’ (xx1.d), distinguished only by the tone of the noun.

| (xx1) | noun | verb | gloss of combination |
|-------------------------|--------------------|---------------------|---|
| a. monosyllabic | | | |
| | tǎ: ⁿ | tá: ⁿ - | ‘build a shed (shelter)’ |
| | tǎ: ⁿ | tá: ⁿ - | ‘avoid, respect (a taboo)’ |
| | pô: | pó:- | ‘give out a whistle’ |
| | mǎ: | mó:- | ‘tie a knot’ |
| b. bisyllabic, noun {H} | | | |
| | bírá | biré- | ‘work, do a job’ |
| | gír ⁿ á | gír ⁿ é- | ‘harvest millet, do the millet harvest’ |
| | dér ⁿ í | dèr ⁿ é- | ‘spend the mid-day’ |
| | dómbó | dòmbí-yé- | ‘roll turban (on head)’ |
| | má:ndí | mǎ:ndí- | ‘think a thought’ |

c. bisyllabic, noun {LH}

| | | |
|--------------------|---------------------|--------------------------------------|
| tùwá | túwé- | ‘(a) death occur’ |
| òró | óró- | ‘make a heap’ |
| èré | éré- | ‘be rivals, have a rivalry’ |
| gìyé | gìyé- | ‘dance’ |
| gìy ⁿ é | gìy ⁿ é- | ‘fart, let out a fart’ |
| sùgó | sùgó- | ‘defecate, take a shit’ |
| dámá | dámá- | ‘speak’ |
| péw | péwé- | ‘give a reprimand’ |
| tír ⁿ i | tír ⁿ i- | ‘go search for firewood’ |
| tòṅó | tòṅi- | ‘write, do some writing’ |
| jòṅi | jòṅi- | ‘treat (medically), provide care to’ |
| nùṅá | nùṅi- | ‘sing, perform a song’ |
| pòmbó | pómbi- | ‘compete, be in a race’ |
| sàmbá | sámbi- | ‘do the second round of weeding’ |
| jìmbi | jìmbi- | ‘double up, have two’ |

d. bisyllabic, noun {HL}

| | | |
|--------------------|---------------------|------------------------------------|
| síbá | síbé- | ‘give a description’ |
| bígá | bígé- | ‘chew cud’ |
| bógí | bògó- | ‘(dog) bark’ |
| dúrí | dùró- | ‘(lion, hyena, elephant) roar’ |
| jìṅá | jìṅi- | ‘(plant stem) split into two’ |
| gór ⁿ ò | gòr ⁿ ó- | ‘be stronger (than)’ |
| gósò | gòsó- | ‘divide into halves’ |
| ísè | ìsé- | ‘sneeze’ |
| tìṅá | tìṅi- | ‘speak’ |
| jìgá | jìgí- | ‘belch, emit a belch’ |
| úrò | úró- | ‘vomit’ |
| máṅi | màṅi- | ‘cook a dish including cottonseed’ |
| bérè | bèrè- | ‘gain, make a profit’ |
| pútò | pútó- | ‘foam, be frothy’ |
| púdê | púdé- | ‘foam up’ |
| jáyрэ | jàyрэ- | ‘poke fun at’ |
| bémbè | bèmbé- | ‘stutter’ |
| jàngè | jàngí- | ‘study, go to school’ |
| sándi | sándi- | ‘pray, perform the Muslim prayer’ |
| tómbi | tómbó- | ‘jump, take a jump’ |
| tí:nà | tí:ní- | ‘make a profit’ |
| wá:jè | wá:jí- | ‘preach a sermon’ |
| wé:tè | wé:tí- | ‘spend a half-day (morning)’ |
| wá:tè | wá:té- | ‘swear an oath’ (<Fulfulde) |
| té:njè | té:njì- | ‘tell a story’ |

e. bisyllabic, noun {LHL}

| | | |
|-----------|------------|---|
| t̀̀s̀̀ô | t̀̀s̀̀í- | ‘make a payment’ |
| k̀̀ỳ̀ô | k̀̀ỳ̀ó- | ‘weep’ |
| l̀̀g̀̀ô | l̀̀g̀̀ó- | ‘count (recite numbers)’ |
| b̀̀g̀̀ô | b̀̀g̀̀í- | ‘be deceptive, trick’ |
| d̀̀ỳ̀â | d̀̀ỳ̀ó- | ‘make an insult’ |
| d̀̀ẁ̀â | d̀̀ẁ̀ó- | ‘forge (tools)’ |
| ĩ̀ỳ̀â | ĩ̀-:ỳ̀í- | ‘stand/ stop in a position’ |
| k̀̀âg̀̀â | k̀̀âg̀̀á- | ‘clear one’s throat’ |
| ùs̀̀â | ùs̀̀í- | ‘ask a question’ |
| p̀̀ârà | p̀̀ârà- | ‘cook p̀̀ârà (dish with cow-peas, or millet mixed with roselle leaves)’ |
| à:nj̀̀â | á:nj̀̀í- | ‘yawn, make a yawn’ |
| d̀̀ùr̀̀í | d̀̀ùr̀̀ó- | ‘let out a groan’ |
| ònj̀̀í | ónj̀̀í- | ‘urinate’ |
| t̀̀ònj̀̀í | t̀̀ónj̀̀í- | ‘spit, emit a spit’ |
| j̀̀ínj̀̀â | j̀̀ínj̀̀í- | ‘make noise’ |
| t̀̀à:r̀̀í | t̀̀á:r̀̀í- | ‘lay egg’ |
| s̀̀è:r̀̀í | s̀̀é:r̀̀í- | ‘(woman) emit cry of joy’ |

f. trisyllabic, noun {LH}

| | | |
|----------------|-----------------|-------------------------------|
| k̀̀è̀m̀̀í-r̀̀í | k̀̀è̀m̀̀í-r̀̀í- | ‘have fun, stage festivities’ |
| è̀m̀̀í-r̀̀í | é̀m̀̀í-r̀̀í- | ‘converse, chat’ |
| s̀̀àl̀̀ámí | s̀̀álmí- | ‘utter a formal greeting’ |
| b̀̀è̀r̀̀è̀mbí | b̀̀è̀r̀̀é̀mí- | ‘take animals to pasture’ |

(often pronounced b̀̀è̀r̀̀è̀m b̀̀è̀r̀̀é̀mí-)

g. trisyllabic, noun {HL}

| | | |
|-------------|--------------|--------------------------------|
| s̀̀ámár̀̀í | s̀̀ámár̀̀í- | ‘do wage labor (by the day)’ |
| s̀̀ógínè | s̀̀ógíní- | ‘take cows out at night’ |
| ỳ̀ímbé̀rè | ỳ̀ímbírí- | ‘(beggar) sing koranic verses’ |
| j̀̀óríyè | j̀̀óríyé- | ‘fight, engage in a fight’ |
| m̀̀ónj̀̀órò | m̀̀ónj̀̀úró- | ‘dream a dream’ |

h. trisyllabic, noun {LHL}

| | | |
|----------------|----------------|-------------------------------------|
| g̀̀òr̀̀òndò | g̀̀òr̀̀òndí- | ‘snore; (lion) roar’ |
| t̀̀s̀̀òr̀̀ò | t̀̀s̀̀írí- | ‘have a discussion’ |
| ǹ̀è̀mbírè | ǹ̀é̀mbíré- | ‘request, beg’ |
| b̀̀g̀̀g̀̀òr̀̀ò | b̀̀g̀̀g̀̀írí- | ‘make loud noises’ |
| b̀̀g̀̀g̀̀òr̀̀ò | b̀̀g̀̀g̀̀óró- | ‘(animal) bellow’ |
| t̀̀ínj̀̀írí | t̀̀ínj̀̀írí- | ‘formally counsel (a young person)’ |
| ùg̀̀írí | ùg̀̀úró- | ‘perfume with incense’ |
| s̀̀ùm̀̀ùr̀̀í | s̀̀úm̀̀ú-r̀̀í- | ‘have a rest’ |

Some of the trisyllabic examples above show distinctions between the noun and the verb in the treatment of the medial stem syllable (raised /i/ versus a repeated non-high vowel); see ‘(beggar) sing koranic verses’ and ‘dream a dream’ in (xx1.g), and ‘have a discussion’, ‘make loud noises’, and ‘(animal) bellow’ in (xx1.h).

In a few cases, there is an **irregular vocalic change** affecting the initial vowel. Some examples involve switches between {e o} in the noun and {e ɔ} in the verb (xx2.a). There are also several cases of {o ɔ} in the noun versus /a/ in the verb (xx2.b). The example in (xx2.c) is similar but likely involves syncope of *g in addition to the vocalic change.

| (xx2) | noun | verb | gloss |
|-------|-------|-----------|------------------------------------|
| a. | tõ: | tõ:- | ‘sow (seeds); sow the seedstock’ |
| | yógî | yògõ- | ‘run’ |
| | jéw | jèwé- | ‘curse, utter a curse’ |
| | yégî | yègè- | ‘fall down, take a fall’ |
| | ségî | ségî- | ‘pay dues, make a contribution’ |
| | yémbí | yèmbí-yí- | ‘cover oneself with blanket’ |
| b. | móndî | màndî- | ‘laugh, let out a laugh’ |
| | bó:rî | bǎ:rî- | ‘make an addition (top-off)’ |
| | yórí | yàrí-yí- | ‘take a walk’ |
| | ò:rî | á:rî- | ‘crawl, drag oneself’ |
| | bómbí | bàmbí-yí- | ‘hold on one’s back’ |
| | wórí | wàrá- | ‘do (manual) farm work (in field)’ |
| c. | sò:rî | sógírî- | ‘(sth unseen) make a noise’ |

In (xx3), there is a **partial cognate** relationship. The default object nominal is a compound, whose initial or final is related to the verb.

| (xx3) | noun | verb | gloss |
|-------|--|--------------------|-------------------------------|
| a. | verb related formally to the final element of a nominal compound | | |
| | yè-kú: | kúwó- | ‘perform black magic’ |
| | gîrè-níy ^{nê} | níyé- | ‘sleep’ (gîré ‘eye’) |
| | à ⁿ à-bó:rî | bǎ:rî- | ‘provide assistance to’ |
| | à ⁿ à-tõ: | tõ:- | ‘scold’ |
| | à ⁿ à-pǎ. ⁿ | pá: ⁿ - | ‘take a step’ |
| | nò:-já:rà | jǎ:rî- | ‘emit some slobber, drool’ |
| | gò:-kòndùgó | kóndúgó- | ‘build a conical roof’ |
| | nà:-pérê | pérê | ‘clap, applaud’ |
| | nà:-tínjî | tínjé- | ‘draw a line (with the hand)’ |

- b. [noun adjective] combination, verb based on adjective
 nà: pírí píré- ‘cook nà: pírí (lit. “white meal,” a millet dish)
- c. noun arguably with frozen *an- not included in verb (§4.xxx)
 àntá:rí (~ àtá:rí) tá:rí- ‘hunt, go on a hunt’ (árⁿâ ‘man’ ?)
- d. verb based on final ...CvCv of trisyllabic noun
 ná:pílà pílé- ‘perform an individual prayer’
- e. verb based on initial of nominal compound
 bègírè-bê: bègé- ‘hiccup’
 kòyò-kè:sí kóyó- ‘give out a shout’

A few morphologically messier cases are in (xx4). In (xx4.a), the verb is a somewhat frozen combination of a monosyllabic stem plus Mediopassive -yí- (§9.xxx). In (xx4.b), the verb has a somewhat frozen transitive suffix *-rív-. In (xx4.c), the noun has a reduplicative segment that is disregarded in the verb.

| (xx4) | noun | verb | gloss |
|-------|------------|------------------|--|
| a. | ùwá ìyâ | ú:-yí- í:-yí- | ‘be afraid’ ‘stand, be in a position’ |
| b. | nèjí | néngírè- | ‘cook sauce’ |
| c. | kà-kàrí | kára- | ‘lie, tell a lie’ |

11.1.5.2 Grammatical status of cognate nominal

Often the cognate nominal is rather pro forma, as in ‘dance (a dance)’ or ‘stutter (a stuttering)’. However, the cognate nominal may be **quantified over** or **modified** adjectivally where this makes sense semantically. If the activity is divisible into bounded units, these can be quantified over (xx1.a). Evaluative or other adverbial modification normally takes the form of adding a modifying adjective to the nominal (xx1.b), cf. §8.xxx.

| | | | | | | |
|-------|----|--------------------------|----------|-----------|-----------------|----------------------------|
| (xx1) | a. | [nùṅá [song three] | tà:ndí:] | nùṅí-só-∅ | sing-Perf2-3SgS | ‘He/She sang three songs.’ |
| | b. | [nùṅà | èsí] | nùṅí-só-∅ | | |

[song.L good] sing-Perf2-3SgS
 ‘He/She sang well (“sang a good song”).’

11.2 ‘Be’, ‘become’, ‘have’, and other statives

11.2.1 ‘It is’ clitics

11.2.1.1 Positive ‘it is’ (=m-, =ŋ-, =yè-, =w-)

The clitic =m- ‘it is’ is added to NPs. It can be conjugated, and has the **paradigm** (xx1). (The postconsonantal forms are rare, see below, so readers should focus on the postvocalic paradigm.) Except for 3Pl =yɛ and the special Inanimate form =w, both of which suggest adjectival morphology, the paradigm is closely related to that of the Imperfective suffix -m̃- (and 3Sg portmanteau -ŋ) with regular verbs (§10.xxx). However, the pronominal endings with the Imperfective suffix are shorter, e.g. 1Sg Imperfective -m̃-∅ ~ -m̃-ĩ versus 1Sg ‘it is’ clitic =mi-y, phonetic [mi:].

| (xx1) category | postvocalic | postconsonantal (uncommon) |
|----------------|----------------|----------------------------|
| 1Sg | =mi-y [mi:] | [same as postvocalic] |
| 1Pl | =mi-y.: [mĩĩ] | [same as postvocalic] |
| 2Sg | =mu-w [mu:] | [same as postvocalic] |
| 2Pl | =mu-w.: [mùù] | [same as postvocalic] |
| 3Sg | =ŋ ~ :=ⁿ ~ :=∅ | =yè ~ =yɛ |
| 3Pl | =yè ~ =yɛ | =yè ~ =yɛ |
| Inan | =w | =yè ~ =yɛ |

I generally normalize the transcription of the 3Sg form to =ŋ. However, it may be realized phonetically as nasalization (and brief lengthening) of the final vowel, and (especially in an already nasal context) may reduce segmentally to zero.

3Sg =ŋ and Inanimate =w consist only of a consonant, and do not occur in postconsonantal position. However, postconsonantal position is rare for the ‘it is’ clitic since noun and adjective stems are essentially all vowel-final. Even a noun (from Fulfulde) like álâl ‘Sunday’ that are usually heard with final sonorant seem to be treated as vowel-final (with apocoped final high vowel), so we get ‘it is’ forms like álâlù=w̃ ‘it’s Sunday’. True postconsonantal position is therefore effectively restricted to NPs ending in a numeral wöy ‘two’, in a consonant-final determiner (wöŋ ‘this-Animate’, yëy ‘these-Inanimate’,

Definite Plural \acute{y}), or in particle $s\check{a}y$ ‘only’. After these true consonant-final elements, $=\eta$ and Inanimate $=w$ are replaced by the syllabic morpheme $=y\grave{e} \sim =y\epsilon$, which is otherwise (i.e. postvocally) a 3Pl form.

The fact that nonmonosyllabic nouns and adjectives do not end in /u/ (§3.xxx) is very helpful, since $=w$ is easily audible after other vowels. Stem-final /i/, which is quite common in nouns, combines with $=w$ as [u:], as in $b\grave{o}nd\acute{u}=w$ ‘it is rain’ ($b\grave{o}nd\acute{i}$).

The 1Pl and 2Pl forms have their usual dying-quail intonation with [LHL] pitch on the clitic syllable, at least in careful pronunciation. This is most easily heard when the ‘it is’ form is followed by a particle, such as interrogative /ma/.

The 1Sg, 2Sg, 3Sg, and Inanimate ‘it is’ forms are **atonal**, meaning that they acquire a surface tone by spreading from the preceding morpheme. Thus $\grave{a}ns\acute{a}:r\acute{a}=m\acute{i}-\acute{y}$ ‘I am a white person’ with final high tone, but $d\acute{o}g\hat{o}=m\check{i}-y$ ‘I am a Dogon’ with final low tone; likewise $\grave{a}ns\acute{a}:r\acute{a}=\eta$ ‘he/she is a white person’, $d\acute{o}g\hat{o}=\eta$ ‘he/she is a Dogon’, $j\check{a}:=w^n$ ‘it is a meal’, and $t\grave{a}:r\acute{u}=w$ ‘it is an egg’ ($t\grave{a}:r\acute{i}$).

3Sg $=\eta$ and Inanimate $=w$ are atonal in most combinations as just stated. However, when added to third person pronouns, demonstrative pronouns, and interrogative pronouns, they are **low-toned** even when the preceding form ends in a high tone: $k\grave{o}-j\acute{e}=w^n$ ‘what is it?’ ($k\grave{o}-j\acute{e}$), $\acute{a}n\acute{e}=\eta$ ‘it’s him/her’ ($\acute{a}n\acute{e}$), $\eta g\acute{u}=w$ ‘it’s this/that’ ($\eta g\acute{u}$). I am inclined to interpret this as a special grammatical low-tone element grafted onto the clitic, but the effect is that the 3Sg and Inanimate clitics have a marked low tone in these combinations.

The tonal behavior of 3Pl $=y\grave{e} \sim =y\epsilon$ is equivocal in my data. After a final-high-toned noun, I have recorded both $=y\acute{e}$ and $=y\grave{e}$ (the latter includes surface $=y\hat{e}$ after a rising-toned syllable, whose final high-tone element spills over), with $=y\grave{e}$ predominating. For ‘it’s women’ (stem $y\check{a}$), $y\check{a}:=y\hat{e}$ is more common than $y\check{a}:=y\acute{e}$, though my assistant accepts both. For ‘it’s white people’ (stem $\grave{a}ns\acute{a}:r\acute{a}$), only $\grave{a}ns\acute{a}:r\acute{a}=y\grave{e}$ was accepted. For ‘it’s sheep-Pl’ ($p\grave{e}rg\acute{e}$), both $p\grave{e}rg\acute{e}=y\acute{e}$ and $p\grave{e}rg\acute{e}=y\grave{e}$ were recorded.

$=y\epsilon$ (like Inanimate $=w$) also occurs in the inflection of **stative verbs** (§10.4.1). Here $=y\epsilon$ (like $=w$) is atonal, and therefore appears with high tone when following a final-high-toned stem, as in $m\grave{b}\acute{a}=y\acute{e}$ ‘they love’ (§11.2.6.3). Incidentally, in these stative paradigms, the 3Sg form is zero (not $=\eta$).

For occasional extensions of $=y\grave{e}$ to 1Pl and 2Pl subjects ($=y\acute{e}-m\check{i}-\acute{y} \cdot \cdot$, $=y\acute{e}-m\grave{u}-w \cdot \cdot$), see §11.xxx, below.

Examples with **animate subjects** are in (xx2). An initial independent pronoun (topicalized) is possible but not required, though it is common in the 3Pl (which has no suffixal expression).

- (xx2) a. ($\acute{i} \cdot \cdot$) $d\acute{o}g\hat{o}=m\check{i}-\acute{y}$
 (1Sg) Dogon=it.is-1SgS

‘I am (a) Dogon.’

- b. (i:) dógô=m-ïy.∴
(1Pl) Dogon=it.is-1PlS
‘We are Dogon.’
- c. (ńné) dógô=îj
(3Sg) Dogon=it.is.3SgS
‘He/She is Dogon.’
- d. (bû:) dógô=yê
(3Pl) Dogon=it.is.3PlS
‘They are Dogon.’
- e. pèrgé=îj
sheep=it.is.3SgS
‘It is a sheep’
- f. ãñ=∅
who?=it.is.3SgS
‘Who is it?’ (from /ãñ=îj/)
- g. [á:mádù sǎy]=mí-y
[Amadou only]=it.is-1SgS
‘I am (= it’s) just Amadou.’
- h. ńné [fâtùmátâ sǎy]=yê
3Sg [Fatoumata only]=it.is.3S
‘She is (= it’s just) Fatoumata.’
- i. bû: [yù:-wàrí sǎy]=yê
3Pl [millet.L-farm.Agent only]=it.is.3S
‘They are only millet farmers.’

In **identificational predicates** with an animate pronoun (even a first or second person pronoun) as predicate, as in ‘it’s me’ (in answer to e.g. ‘who ate the meat?’ or ‘who is that knocking at the door?’), the relevant pronominal category appears as the subject (expressed by pronominal-subject suffix) as well as the predicate (expressed as independent pronoun), hence literally ‘I am me’, etc. Recall the comment above that third person pronouns (along with demonstratives) have a final low tone in the ‘it is’ form; this accounts for 3Sg **ńné=îj** (xx3.d). The 3Pl is **bû:=∅** with no overt clitic (xx3.e).

- (xx3) a. $\check{i}^n \equiv m\acute{i}-y$
 1Sg=it.is-1SgS
 ‘It is me.’
- b. $\acute{u} \equiv m\acute{u}-w$
 2Sg=it.is-2SgS
 ‘It is you-Sg.’
- c. $\hat{i} \equiv m\check{i}-y \cdot$
 1Pl=it.is-1PlS
 ‘It is us.’
- d. $\acute{n}\acute{e} \equiv \grave{y}$
 3Sg=it.is-3SgS
 ‘It is he/she.’
- e. $b\hat{u} \equiv \emptyset$
 3Pl-be.3PlS
 ‘It’s them.’

Examples with **inanimate subject** are in (xx4). $\equiv w$ is nasalized to $\equiv w^n$ by regular Nasalization-Spreading when preceded by a nasal syllable.

- (xx4) a. $n\grave{a}m\hat{a} \equiv w^n$
 meat=it.is.InanS
 ‘It’s meat.’ ($n\grave{a}m\hat{a}$)
- b. $p\grave{o}r\acute{u} \equiv w$
 knife=it.is.InanS
 ‘It’s a knife.’ ($p\grave{o}r\acute{u}$)
- c. $k\acute{u}r^n \hat{o} \equiv w^n$
 stone=it.is.InanS
 ‘It’s a stone.’ ($k\acute{u}r^n \hat{o}$)
- d. $t\grave{u}m\acute{a} \equiv w^n$
 tree=it.is.InanS
 ‘It’s a tree.’ ($t\grave{u}m\acute{a}$)
- e. $k\grave{o}-n\acute{e} \equiv w^n$ $m\grave{a}$
 what?=it.is.InanS Q

‘What is it?’

- f. $\eta g\acute{u}$ [ně:m sǎy]=yê
Dem.InanSg [salt only]=it.is.3SgS
‘That is just salt.’ (nè:mí)

Identificational predicates with inanimate pronoun or demonstrative as predicate have = η , i.e. 3Sg as subject, rather than the specifically inanimate =w. The same is true of interrogative pronouns. Perhaps the substitution was originally a device to avoid adding =w to any of the high-frequency grammatical morphemes already ending in /u/. As noted above, some of these combinations are also irregular in having low-toned = η after a high tone.

- (xxx) a. $k\acute{u}=\eta$
InanSg=it.is.3SgS
‘It is (= that is) it.’
- b. $k\acute{u}:=\eta$
InanPl=it.is.3PlS
‘It is (=that is) them-Inan.’
- c. $\grave{a}r^n\acute{a}\eta\acute{a}=\eta$
where?=it.is.3SgS
‘where is it?’ (compare $\grave{a}r^n\acute{a}\eta\acute{a}$ bù- \emptyset)
- d. $\eta g\acute{u}=\eta$
Dem.InanSg=it.is.3SgS
‘it’s this’

11.2.1.2 ‘It is not’ (=ndǒ:-)

L-toned when clause-final

The negative counterpart of =m- ‘it is’ is =ndǒ:- ‘it is not’. It has this form after consonants as well as vowels. It does not co-occur with -yε (cf. the following section). It is phonologically slightly distinct from Stative Negative -ndó-, which is used with other statives, but the two are probably related.

=ndǒ:- ‘it is not’ can be conjugated; the paradigm is (xx1). 3Sg (including Inanimate) is the zero category. There is a suffixed 3Pl form. The nasal in =ndǒ:- gets its tone (not marked in the transcription) from the preceding stem, which is not tone-dropped.

| (xx1). category | form | |
|-----------------|----------|----------|
| 1Sg | ≡ndǒ-y | |
| 1Pl | ≡ndǒ-y.∴ | [ndòóòj] |
| 2Sg | ≡ndǒ-w | |
| 2Pl | ≡ndǒ-w.∴ | [ndòóòw] |
| 3Sg, Inan | ≡ndǒ:-∅ | |
| 3Pl | ≡nd-ě: | |

Examples are in (xx2).

- (xx2) a. **dógô≡ndǒ-y**
 Dogon-**not.be**-1SgS
 ‘I am not a Dogon.’ (dógô)
 phonetic [dógôndòj]
- b. **wǒŋ nàŋá≡ndǒ:-∅**
 Dem cow-**not.be**-3SgS
 ‘That is not a cow.’
 phonetic [nàŋáíndòó]
- c. **ŋgú [ně:m sǎy]≡ndǒ:-∅**
 Dem.InanSg [salt only]-**not.be**-3SgS
 ‘That is not just salt.’ (ně:mí)
 phonetic [sǎjndòó]
- d. **[ànsá:rá sǎy]≡nd-ě:**
 [white.person only]≡not.be-3PlS
 ‘They are not only white people.’
 phonetic [sǎjnděé]

11.2.1.3 Extensions of *yé-m-* to 1Pl and 2Pl subject

The form **-yε** is mentioned above as a postconsonantal allomorph of the ‘be’ clitic for third person subject, used for example after **sǎy** ‘only’. A further example is (xxx).

- (xx1) **[bû: gày] [ànsá:rá sǎy]≡yé**
 [3Pl Topic [white.person only]≡it.is.3SgS]

‘Them, they’re only white people.’

However, =yɛ is morphologically rather obscure, as it fails to make the usual distinction between 3Sg, 3Pl, and inanimate categories. Not surprising, it shows signs of partial reanalysis as a nonpronominal element. There are (therefore) occasional attestations of =yɛ- with following =m- ‘it is’ and a **1PI** or **2PI** pronominal-subject suffix. Thus (xx2.b) occurs as an optional variant of (xx2.a). My assistant rejected =yɛ- with 1Sg and 2Sg suffixes.

- (xx2) a. [ɪ: ànsá:rá sǎy]=m-ǐ.:
 [1PIS white.person only]=it.is-1PIS
 ‘We are only white people.’
- b. ǐ: ànsá:rá sǎy=yɛ=m-ǐ.:
 1PI white.person only=it.is=it.is-1PIS
 [= (a)]

11.2.2 Existential and locative quasi-verbs and particles

11.2.2.1 Existential (yá)

This particle is used in conjunction with a following locational ‘be’ quasi-verb (bù-), or with a following ‘have’ quasi-verb (sò-). It is not used in negative clauses, or in (positive) relative clauses. See §11.xxx and §11.xxx for examples.

11.2.2.2 Locational quasi-verb (bù-, negative ñgó-)

The ‘be’ quasi-verb used in positive contexts with an overt or implied locational expression (‘be in the village’, ‘be here’, ‘be present’, etc.), or in general existential sense (‘exist, be somewhere’), is bù-.

| (xx1). category | form | |
|-----------------|--------------------------------|--|
| 1Sg | bù-ỵ ~ bǐ-ỵ | |
| 1PI | bù-ỵ.: ~ bǐ-ỵ.: [bùúùj] | |
| 2Sg | bù-w | |
| 2PI | bù-w.: [bùúùj] | |
| 3Sg | bù-∅ | |
| 3Pl | b-è | |

Examples with specific locationals are in (xx2).

- (xx2) a. [bǎ: yê:] [ísé gó] bù-Ø
 [father 1SgP.PossAnSg] [village in] be-3SgS
 ‘My father is in (the) village.’
- b. ñgà-gá bù-w̃ mà
 there be-2SgS Q
 ‘Are you-Sg over there?’

When there is no other locational complement, Existential *yá* precedes it.

- (xx3) a. yá bù-w̃ mà
 Exist be-2SgS Q
 ‘Are you-Sg there?’
- b. nàmâ yá bù-Ø
 meat Exist be-3SgS
 ‘There is some meat.’

The **negative** counterpart of *bù-* is *ñgó-* ‘not be (somewhere)’. Its paradigm is (xx4). The initial nasal is normally low-toned, but in the 1Pl and 2Pl the nasal and */o/* are high-pitched.

| (xx4) category | form | |
|----------------|----------------|---------|
| 1Sg | ñgó-ý | |
| 1Pl | ñgó-ý.: | [ñgòòj] |
| 2Sg | ñgó-ẁ | |
| 2Pl | ñgó-ẁ.: | [ñgòòw] |
| 3Sg | ñgó-Ø | |
| 3Pl | ñg-é: ~ ñgé-yé | |

Existential *yá* is not used in negative contexts. Examples of *ñgó-* with and without overt locational complements are in (xxx).

- (xxx) a. nàmâ ñgó-Ø
 meat not.be-3SgS
 ‘There is no meat.’

- b. [ńdó gó] ñgó-ý
 [house in] not.be-1SgS
 ‘I am not in the house.’

11.2.3 ‘Be put in/on’ (kùrⁿò-, gàrⁿà-, nàṅà-)

To say that a person, animal, or a large or whole object (e.g. a grain spike) is ‘in’ a container or, metaphorically, ‘in’ a situation (such as being in post-partum quarantine), but not e.g. being in a village or in a house, the Stative verb kùrⁿò- ‘be in’ (also ‘be put in’) is used instead of bù-. It is the Stative form of active transitive verb kúrⁿí- ‘put (something) inside (a container)’. It occurs with an explicit locational in (xx1.a), with optional Existential yá. The Existential yá is required in the absence of an explicit locational (xx1.b).

- (xx1) a. nàmâ [sà:g gá] (yá) kùrⁿò-Ø
 meat [sack Def.InanSg.Loc] (Exist) be.in.Stat-3SgS
 ‘The meat is in the sack.’ (sá:gĩ)
- b. nàmâ yá kùrⁿò-Ø
 meat Exist be.in.Stat-3SgS
 ‘The meat is in (it).’

To say that a liquid or granulated substance (water, millet grain, flour, granulated sugar or salt) is ‘in’ a container (waterjar, grain sack), a different Stative verb gàrⁿà- is put to use. The corresponding transitive is gàrⁿí- ‘put, place’. The syntax is as for kùrⁿò-.

- (xx2) a. ní: [jĩnjà gá] (yá) gàrⁿà-Ø
 sugar [waterjar.L Def.InanSg.Loc] (Exist) be.in.Stat-3SgS
 ‘The water is in the waterjar.’ (jĩnjá)
- b. yû: [sà:g gá] (yá) gàrⁿà-Ø
 millet [waterjar.L Def.InanSg.Loc] (Exist) be.in.Stat-3SgS
 ‘The millet (grain) is in the (grain) sack.’ (sá:gĩ)
- c. sígórò yá gàrⁿà-Ø
 sugar Exist be.in.Stat-3SgS
 ‘The sugar is in (it).’

To say that an object is ‘(up) on’ another object or raised surface, the Stative verb used is nàṅà- ‘be (put) up on’. Contexts include putting a tea-kettle

on a burner, a cooking pot on a raised (three-stone) hearth with fire underneath, and putting anything (mattress, peanuts) on a roof. The syntax is as before.

- (xx3) a. **màfílá:** [dèw gá] (yá) nàṅà-Ø
 sugar [roof.L Def.InanSg.Loc] (Exist) be.up.on.Stat-3SgS
 ‘The mattress is up on the roof.’ (dèwí)
- b. **tê:** yá nàṅà-Ø
 tea Exist be.up.on.Stat-3SgS
 ‘The tea (kettle) is up (on the burner).’

The three Stative locational verbs described here are the most important alternatives to **bù-** ‘be’. However, the Stative form of verbs is productive and many others occur to describe more specific positions (‘be hanging up’, ‘be lying down’, etc.)

11.2.4 Morphologically regular verbs

11.2.4.1 ‘Remain, happen’ (bě:-)

This morphologically regular verb has a full set of AN stems including Perfective-1a **bě-èr-è-**, Perfective Negative **bè:-rí-**, and Imperfective **bè-bé:-m-**. For present time (stative), the perfective is used.

- (xxx) a. **ké-kéw** **bě-èr-à**
 Rdp-same remain-Perf1a-3PIS
 ‘They remain (= are) the same.’
- b. **ké-kéw** **bè-bé:-m-è**
 Rdp-same Rdp-be-Impf-3PIS
 ‘They will remain (= be) the same.’

11.2.4.2 ‘Become, happen’ (táŋí-)

This morphologically regular verb has Perfective-1a **táŋí-èr-è-** (or **táŋy-èr-è-**), Perfective Negative **tàṅà-rí-**, Imperfective **tà-táŋí-m-**, etc. In the sense ‘become X’, the X is most often a noun or NP, but can also be an adjective or a descriptive adverbial. (For ‘become A’ with adjective A, the inchoative derived verb is common; see §9.xxx).

- (xxx) a. *yǎ-ŋ* *táŋí-èrè-Ø*
 woman-Sg become-Perf1a-3SgS
 ‘He/She has become a woman.’
- b. *[[kǐyǎw kô gù] màyⁿ]*
[[before Poss.InanSg Def.InanSg.L] like]
táŋí-èrè-w
 become-Perf1a-2SgS
 ‘You-Sg have become like before.’ (lit. “like before’s thing”)

11.2.4.3 ‘Want, like’ (*jòró-*, *nàmà-*, *m^bùrà-*)

‘X want Y’ denoting a momentary wish may be expressed by the morphologically regular verb *jòró-*. This verb may also (in other contexts) be translated ‘like, love’, denoting an enduring attitude. An alternative is a verb that usually occurs in stative form as *nàmà-*, though Imperfective stem *námá-m-* is also attested.

- (xx1) a. *[kò ɲé] nàmà-wⁿ mà*
[what?] want.Stat-2SgS Q
 ‘What do you-Sg want?’
- b. *[kò ɲé] jòró-m^w mà*
[what?] want-Impf-2SgS Q
 ‘What do you-Sg want?’ (or: ‘What do you-Sg like/love?’)

In positive utterances, stative *nàmà-* may be preceded by Existential *yá*. In the negative, it takes Stative Negative *-ndó-*, without *yá*.

- (xx2) a. *nī:* *yá* *nàmà-yⁿ*
 water Exist want.Stat-1SgS
 ‘I want (some) water.’
- b. *nī:* *nàmà-ndó-ý*
 water want-StatNeg-1SgS
 ‘I don’t want water.’

In the strong sense ‘love, be very fond of (someone)’, an irregular stative verb *m̀bá ~ m̂bá ~ ùmbá* is also recorded: *úⁿ m̀bá=m-í* ‘I love you-Sg’, *̀n̂jí m̀bá-Ø* ‘he/she loves me’, *̀n̂jí m̀bá=yé* ‘they love me’. The paradigm, which has some unusual tonal features, is (xx3).

(xx3) *m̀bá-* ‘love’

| category | form | |
|----------|--------------------------------|--------------------|
| 1Sg | <i>m̀bá=mí-yⁿ</i> | [<i>m̀bámí:</i>] |
| 1Pl | <i>m̀bá=mí-yⁿ ∴</i> | [<i>m̀bámǐ:</i>] |
| 2Sg | <i>m̀bá=mú-wⁿ</i> | [<i>m̀bámú:</i>] |
| 2Pl | <i>m̀bá=mú-wⁿ ∴</i> | [<i>m̀bámù:</i>] |
| 3Sg/Inan | <i>m̀bá-∅</i> | |
| 3Pl | <i>m̀bá=yé</i> | |

The regular Stative Negative of this is *m̀bà=ndó-* ‘not love’.

A distinct, irregular negative stem *m̀bùrà-* is more common, often being used as the negation of *j̀r̀ó-*, but tending toward a lexically separate sense ‘**dislike, hate**’ rather than the mere absence of liking. A segmentation as *m̀bùrà-* is possible but not transparent.

(xx3) *m̀bùrà-* ‘not want; dislike’

| category | form | |
|----------|-------------------|---------------------|
| 1Sg | <i>m̀bùrà-ý</i> | |
| 1Pl | <i>m̀bùrà-ý ∴</i> | [<i>m̀bùráàj</i>] |
| 2Sg | <i>m̀bùrà-w</i> | |
| 2Pl | <i>m̀bùrà-w ∴</i> | [<i>m̀bùráàw</i>] |
| 3Sg/Inan | <i>m̀bùrà-∅</i> | |
| 3Pl | <i>m̀bùrá=yé</i> | |

11.2.4.4 ‘Fear’ (*ú:-yí, ùwà-*)

‘X fear Y’, ‘X be afraid of Y’ may be expressed by the morphologically regular verb *ú:-yí-*, which contains Mediopassive *-yí-*.

(xx1) a. *ńné-íj* *ù:-yè-rí-ý*
 3Sg-Acc fear-MP-PerfNeg-1SgS
 ‘I was not afraid of him/her.’

- b. $\dot{n}\dot{j}\dot{i}$ $\acute{u}:-y-\grave{e}r\grave{e}-\emptyset$
 1SgO fear-MP-Perfla-3SgS
 ‘He/She was afraid of me.’

The Stative form is $\grave{u}w\grave{a}-$, or reduplicated $\acute{u}-\grave{u}w\grave{a}-$ (§10.4). It optionally takes Existential $y\acute{a}$ in the positive. The negative has the regular Stative Negative suffix, and does not allow the Existential particle. These Stative forms are used for states including the present time.

- (xx2) a. $\dot{n}\dot{j}\dot{i}$ $y\acute{a}$ $\grave{u}w\grave{a}-y\grave{e}$
 1SgO Exist fear.Stat-3PlS
 ‘They are afraid of me.’
- b. $\dot{n}\dot{j}\dot{i}$ $\grave{u}w\grave{a}=\text{nd}-\acute{e}$
 1SgO fear=StatNeg-3PlS
 ‘They are not afraid of me.’

11.3 Quotative verb

11.3.1 ‘Say’ ($k\acute{i}y\acute{e}-$)

The fully inflectable verb ‘say’ is $k\acute{i}y\acute{e}-$.

- (xx1) a. $[y\grave{e}b\grave{u}m\grave{b}\grave{a}$ $w\check{o}ŋ]$, $k\grave{o}-k\grave{o}s\acute{i}$ $k\acute{i}y\acute{e}-m-\grave{e}$
 [snake.L Dem.AnSg], viper say-Impf-3PlS
 ‘This snake, they call it “viper”.’
- b. $[k\grave{o}$ $k\acute{a}m\grave{a}]$ $k\grave{i}y\acute{e}-r\acute{i}-y$
 [thing.L any] say-Perf.Neg-1SgS
 ‘I didn’t say anything.’
- c. $[\acute{n}\acute{e}$ $k\grave{i}y\acute{e}-s\grave{e}-\emptyset$ $g\acute{u}\downarrow$ $p\acute{u}\Rightarrow]$ $k\grave{a}-k\grave{a}r\acute{u}=\acute{w}$
 [3SgS say-Ppl.Perf-3SgS Def.InanSg.L all] Rdp-lie=it.is.Inan
 ‘Everything he/she said, it is false.’

For quotative complements, see §17.xxx. For jussives (embedded imperatives), see §17.xxx.

For uninflectable quotative particle $w\grave{a}$, see §17.xxx.

11.4 Adjectival predicates

The predicates discussed here are stative in nature ‘X is heavy’, etc. Inchoatives (‘become heavy’) and factitives (‘make it heavy’) are expressed by fully inflectable derived verbs; see §9.xxx.

11.4.1 Positive adjectival predicates with ‘it is’ clitic

Adjectives may function as predicates when followed by the ‘it is’ clitic $\equiv\grave{m}$ - (§xxx). The 3Sg subject form is, however, zero instead of the usual portmanteau $\equiv\grave{\eta}$.

The form of the adjective, specifically its final vowel, is often distinct in modifying as opposed to predicative function. Specifically, stem-final /i/ in modifying function corresponds to stem-final /u/ in predicative function: $k\grave{u}r^{n\grave{o}}\acute{d}\acute{u}s\acute{i}$ ‘a heavy stone’, $[k\grave{u}r^{n\grave{o}}\acute{\eta}g\acute{u}] \acute{d}\acute{u}s\acute{u}$ ‘this stone is heavy’. In the case of ‘difficult’ (and no other adjective known to me), there is also a tonal change, the final syllable appearing as high- rather than falling-toned: $k\grave{o}:\acute{n}\grave{o}m\acute{i}$ ‘a difficult thing’, $[k\grave{o}:\acute{\eta}g\acute{u}] \acute{n}\grave{o}m\acute{u}$ ‘this thing is difficult’. For a list of adjectives in modifying and predicative function, see §4.5.1.

Examples with **first and second person** subjects are in (xx1). Optional independent pronouns at the beginning are topicalized.

- (xx1) a. ($\acute{i}:\acute{n}$) $\acute{d}\acute{u}s\acute{u}\equiv m\text{-}\acute{i}$
(1Sg) heavy=it.is-1SgS
‘I am heavy.’
- b. ($\acute{u}:$) $\grave{e}w\acute{r}\acute{e}\equiv m\text{-}\grave{u}w\text{.}\acute{.}$
(2Pl) small=it.is-2PlS
‘You-Pl are small.’

Examples with **3Sg subject** are in (xx2). Here the expected 3Sg ‘it is’ clitic $\equiv\grave{\eta}$ is absent. Again, an independent pronoun is optional.

- (xxx) a. ($\acute{n}\acute{n}\acute{e}$) $\acute{d}\acute{u}s\acute{u}$
(3Sg) heavy
‘He/She is heavy.’
- b. ($\acute{n}\acute{n}\acute{e}$) $\grave{e}w\acute{r}\acute{e}$
(3Sg) small
‘He/She is small.’

- c. [kò: gù] èwré
 [thing.L Def.InanSg] small
 ‘The thing is small.’

For 3Pl, the suffix *-yè* is added (without ‘it is’ clitic *=m-*). After stem-final /*ɛ*/, the semivowel tends to elide, resulting in a final /*ɛ̃*/.

- (xxx) a. (bû:) dúsû-yè
 (3Pl) heavy-be.3PlS
 ‘They are heavy.’
- b. (bû:) èwré-yè
 (3Pl) small
 ‘They are small.’ [variant èwrê:-Ø]

incorporate

- [kàrⁿâ ú gô] ñjî-ŋ érû
 ‘Your action pleases me.’
- [kàrⁿâ ú gô] ñjî-ŋ èrⁿndó
 ‘Your action doesn’t please me.’

11.4.2 Negative adjectival and stative predicates (*=ndó-*)

Negative counterparts of the positive adjectival predicates illustrated above are formed by adding an inflected form of Stative Negative clitic *=ndó-* to the adjective stem, which drops its tones.

- (xxx) a. (íné) dùsùⁿ=ndó-Ø
 (3Sg) heavy.L=StatNeg-3SgS
 ‘He/She is heavy.’
- b. (bû:) èwrèⁿ=nd-é
 (3Pl) small.L=StatNeg-3PlS
 ‘They are not small.’
- c. (í:ⁿ) dùsùⁿ=ndó-ý
 (1Sg) heavy.L=StatNeg-1SgS
 ‘I am not heavy.’

11.5 Possessive predicates

11.5.1 ‘Have’ (sò-)

Positive ‘(X) have Y’ is expressed as [Y yá sò-], with Existential particle *yá* and defective quasi-verb *sò-*, which takes pronominal subject suffixes but allows no overt marking of aspectual categories. Like other statives, it does combine with Past *≡bè-*, which in this combination oddly requires what appears to be Imperfective *-m-* (xx1.b) except in the 3Sg, see §10.5.1.2, above.

- (xx1) a. *lègèsô: yá sò-ỳ*
 bicycle Exist have-1SgS
 ‘I have a bicycle.’
- b. *lègèsô: yá sò-m≡bè-ỳ*
 bicycle Exist have-Impf≡Past-1SgS
 ‘I had (= used to have) a bicycle.’
- c. *yǎ: [ndò dùgí] yá s-è*
 woman [house.L big] Exist have-3PIS
 ‘The women have a big house.’

sò- can be relativized on (xx2). This is the only instance where it appears in H-toned form (*só-*). Existential *yá* is omitted.

- (xx2) a. *[wàgàǎ lègèsô: ỳⁿ só-m-sè gǎ]*
 [time.L bicycle 1SgS have-Impf-Ppl.Perf Loc]
[àsú⇒ á:ndê=∅ ní-ni-m≡bè-y]
 [always Anda go-Impf≡Past-1SgS]
 ‘When I had a bicycle, I used to go to Anda all the time.’
- b. *[àrⁿà [ndô wǒy] só-mǎ] ògò-yí:≡ì]*
 [man.L [house two] have-Ppl.Impf] chief.L-child≡it.is.3SgS
 ‘A man who has two houses is a rich person.’

The **negative** of *sò-* is *sò-ndó-*, cf. Stative Negative clitic *≡ndó-*. Existential *yá* is not allowed in negatives (xx3). (xx3.b) is one of the most common utterances in Nanga speech.

- (xx3) a. *lègèsô: sò-ndó-y*
 bicycle have-StatNeg-1SgS
 ‘I don’t have a bicycle.’

- b. $d\check{a}y^n$ $s\grave{o}-nd\acute{o}-\emptyset$
 limit have-StatNeg-3SgS
 ‘It has no limit (= is abundant).’

The positive and negative **paradigms** are in (xx4).

| (xx4) | category | ‘have’ | ‘do not have’ |
|-------|----------|---|--|
| | 1Sg | $(y\acute{a})\ s\grave{o}-\grave{y}$ | $s\grave{o}-nd\acute{o}-\acute{y}$ |
| | 1Pl | $(y\acute{a})\ s\grave{o}-\grave{y} \therefore [s\grave{o}\acute{o}\acute{o}j]$ | $s\grave{o}-nd\acute{o}-\acute{y} \therefore [s\grave{o}\acute{o}\acute{n}\acute{d}\acute{o}\acute{o}j]$ |
| | 2Sg | $(y\acute{a})\ s\grave{o}-\grave{w}$ | $s\grave{o}-nd\acute{o}-\acute{w}$ |
| | 2Pl | $(y\acute{a})\ s\grave{o}-\grave{w} \therefore [s\grave{o}\acute{o}\acute{o}w]$ | $s\grave{o}-nd\acute{o}-\acute{w} \therefore [s\grave{o}\acute{o}\acute{n}\acute{d}\acute{o}\acute{o}w]$ |
| | 3Sg/Inan | $(y\acute{a})\ s\grave{o}-\emptyset$ | $s\grave{o}-nd\acute{o}-\emptyset$ |
| | 3Pl | $(y\acute{a})\ s-\grave{e}$ | $s\grave{e}-nd-\acute{e}$ |

11.5.2 ‘Belong to’ predicates

‘X belongs to Y’ is expressed as ‘X, it is Y’s thing (possession)’. The X NP is optional, and normally preposed (like a topic) when overt. Y appears in possessor form, hence with $k\hat{o}$ (or $g\hat{o}$) for an inanimate possessed entity and $y\hat{e}$ for an animate one (§6.xxx).

- (xxx) a. $\grave{h}g\acute{u}$ $[\check{a}\eta$ $k\hat{o}-]=\grave{h}$
 Dem.InanSg [who? Poss.InanSg]=it.is.3SgS
 ‘That is whose (= belongs to whom)?’
- b. $[n\grave{a}k\grave{o}mb\grave{o}$ $g\acute{u}]$ $[\acute{a}:m\acute{a}d\acute{u}$ $k\hat{o}]=\grave{h}$
 [shoulder.bag.L Def] [Amadou Poss.InanSg]=it.is.3SgS
 ‘The shoulder bag is Amadou’s.’
- c. $[n\grave{e}r^r\acute{i}$ $n\acute{e}]$ $[\check{a}\eta$ $y\hat{e}]=\grave{h}$
 [dog.L Dem.AnSg] [who? Poss.AnSg]=it.is.3SgS
 ‘This dog belongs to who(m)?’
- d. $\grave{h}g\acute{u}$ $k\check{d}=\eta$
 Dem.InaSg 1SgPoss.Inan=it.is.3SgS
 ‘That is mine.’

11.6 Verb iteration

11.6.1 Uninflected iteration of type [\hat{v}_1 - \hat{v}_1 (- \hat{v}_1 ...)] in narratives

In narrative, a common device for backgrounding a durative activity (often motion), setting up a following foregrounded event predication, is to iterate the activity verb one or more times, without inflectional suffixation. The first occurrence has superimposed {HL} tone, and the following iterations are all-low-toned.

In the sample text, note *kémè-kèmè-kèmè-kèmè* ‘(they) kept building and building’ from verb *kémé-* (§xxx), *jòrò-jòrò-jòrò-jòrò* ‘(he) was looking and looking’ from verb *jòró-* (§xxx), and *yê:-yè:* ‘(as they) were coming’ from verb *yě:-* (§xxx).

With a trisyllabic or longer verb, the high tone of {HL} is limited to the first syllable: *bègírì-bègírì-bègírì* ‘(they) kept winnowing’ from verb *bègírì-*.

12 Comparatives

12.1 Asymmetrical comparatives

12.1.1 Simple adjective with *dé:rè=w̃* ‘than’ and comparandum

In one construction, the predicate is an adjective. The comparandum precedes the predicate, with *dé:rè=w̃*.

For first and second person subject,, the predicative adjective is followed by the appropriate conjugated form of *=m-* ‘it is’ clitic.

- (xx1) a. *[ńné dé:rè=w̃] gàwá=m-íy*
 [3Sg more] long=it.is-1SgS
 ‘I am taller than he/she (is).’
- b. *ĩ:ⁿ [ú dé:rè=w̃] dúsû=m-ÿy*
 1SgS [2Sg more] heavy=it.is-1SgS
 ‘I am heavier than you-Sg.’
- c. *[ĩ: dé:rè=w̃] dùgú=m-ùw.∴*
 [1Pl more] fat=it.is-2PIS
 ‘You-Pl are fatter than we (are).’

For 3Pl subject, the verb lacks *=m-* but is inflected with clitic *=ye* (xx2). This is the regular (non-comparative) 3Pl predicative form (‘they are fat’).

- (xx2) a. *[ĩ:ⁿ dé:rè=w̃] dùgú=yé*
 [1Sg more] fat=3PIS
 ‘They are fatter than I (am).’
- b. *[ĩ:ⁿ dé:rè=w̃] dúsû=yè*
 [1Sg more] heavy=3PIS
 ‘They are heavier than I (am).’

For 3Sg subject, the **bare adjective** form is used (one might alternatively transcribe with a zero 3Sg suffix). This is again the regular (non-comparative) predicative form.

- (xx3) a. $pà:ngǒ:$ [tà-tǎ: $dé:rè=w̃$] $dùgú$
 elephant [Rdp-hyena more] big
 ‘An elephant is bigger than a hyena (is).’
- b. $[i:ⁿ$ $dé:rè=w̃$] $gùró$
 [1Sg more] long
 ‘He/She is taller than I (am).’

For **past time**, the Past clitic $=be-$ is added. For first or second person subject, the result is either $=be-$ or $=m=be-$ plus the correct pronominal-subject inflection. $=be-$ (as well as the optional $=m-$) acquires its tone from the final tone of the preceding morpheme. For 3Sg, the form is $=be-∅$ without $=m-$. For 3Pl, the form is $(=yε)=b-à$ where $=yε-$ gets its tone from the left but where $=b-à$ is always low-toned. A variant $=yε=m=bà$ was recorded early in the fieldwork but was later rejected by the same assistant. Excluding this doubtful variant, the paradigm is (xx4).

(xx4) Past of comparative adjectival predicate

| category | suffix-clitic complex (after adjective stem) | |
|----------|--|-----------------|
| | after H-tone | after L-tone |
| 1Sg | $(=m̃)=bé-ỹ$ | $(=m̃)=bè-ỹ$ |
| 1Pl | $(=m̃)=bé-ỹ.:$ | $(=m̃)=bè-ỹ.:$ |
| 2Sg | $(=m̃)=bé-w̃$ | $(=m̃)=bè-w̃$ |
| 2Pl | $(=m̃)=bé-w̃.:$ | $(=m̃)=bè-w̃.:$ |
| 3Sg | $=bé-∅$ | $=bè-∅$ |
| 3Pl | $(=ỹε)=b-à$ | $(=ỹε)=b-à$ |

Examples of the past-time positive comparative are in (xx5).

- (xx5) a. $k̃iyǎw$ [$ñné$ $dé:rè=w̃$] $dùgú(=m)=bé-y$
 before [3Sg more] fat(=it.is)=Past-1SgS
 ‘I used to be fatter than he/she (was).’
- b. $[i:ⁿ$ $dé:rè=w̃$] $gùró=bé-∅$
 [1Sg more] long=Past-3SgS
 ‘He/She was taller than I (was).’
- c. $[i:$ $dé:rè=w̃$] $jémí(=ỹε)=b-à$
 [1Pl more] black(=it.is.3Pl)=Past-3PlS

‘They were blacker (=darker) than we (were).’

- d. [ńné dé:rè=w̃] dúŝù(=m̃)=bè-ỳ
 [3Sg more] heavy(=it.is)=Past-1SgS
 ‘I used to be heavier than he/she (was).’
- e. [ĩ:ⁿ dé:rè=w̃] dúŝù=bè-Ø
 [1Sg more] heavy=Past-3SgS
 ‘He/She used to be heavier than I (was).’
- f. [ĩ:ⁿ dé:rè=w̃] dúŝù(=yè(=m̃))=b-à
 [1Sg more] heavy(=it.is.3Pl(=it.is))=Past-3PlS
 ‘They used to be heavier than I (was).’

The adjective may be directly **negated** with Stative Negative =ndó- ‘not be’, which requires L-toned stem. For the paradigm of =ndó-, see §10.4.2. The stem-final high tone in the 1Pl and 2Pl forms before =ndó- is applicable here.

- (xx6) a. [ĩ:ⁿ dé:rè=w̃] gàwà=ndó-Ø
 [1Sg more] tall.L=StatNeg-3Sg
 ‘He/She is not taller than I (am).’
- b. [ú dé:rè=w̃] dùgù=ndó-ý
 [2Sg more] fat.L=StatNeg-1SgS
 ‘I am not fatter than you-Sg (are).’
- c. [û: dé:rè=w̃] dùgù=ndó-ý.:
 [2Pl more] fat.L=StatNeg-1PlS
 ‘We am not fatter than you-Pl (are).’
- d. [ĩ:ⁿ dé:rè=w̃] dùŝù=nd-é
 [1Sg more] heavy.L=StatNeg-3PlS
 ‘They are not heavier than I (am).’

The **past negative** is =ndó=bé- with the usual morphology of Past =bè-. The paradigm is (xx7).

(xx7) Past Negative of comparative adjectival predicate

category suffix-clitic complex (after adjective stem)

1Sg =ndó=bé-ý

| | |
|-----|-------------|
| 1Pl | =ndò=b-y.: |
| 2Sg | =ndó=bé-w |
| 2Pl | =ndò=bé-w.: |
| 3Sg | =ndó=bé-Ø |
| 3Pl | =nd-é=b-á |

Examples of the past negative are (xx8).

- (xx8) a. [í:ⁿ dé:rè=w] gàwà=ndó=bé-Ø
 [1Pl more] tall.L=StatNeg=Past-3SgS
 ‘He/She was not taller than I (was).’
- b. [í: dé:rè=w] dùsù=nd-é=b-á
 [1Pl more] heavy.L=StatNeg-3PlS=Past-3PlS
 ‘They were not heavier than I (was).’

12.1.2 Verbal predicate plus dé:rè=w ‘than’

In (xx1), the predicate is a verb, imperfective (xx1.a) or perfective (xx1.b). There is no explicit ‘more’ adverb. dé:rè=w ‘than’ follows the comparandum. The unmarked interpretation is ‘X VP’s more (than) Y’.

- (xx1) a. [ú dé:rè=w] kô:-ⁿ
 [2Sg more] eat-Impf.3SgS
 ‘He/She eats more than you (eat).’
- b. [ú dé:rè=w] ñjǐ-ŋ ñdĩ-Ø
 [2Sg more] 1SgO-Acc give.Perf.L-3SgS
 ‘He/She gave me more than you-Sg (gave me).’
 or: ‘He/She gave me more than (he/she gave) to you.’

The comparandum may take the form of a PP, such as the dative in (xx2.a), which is followed by dé:rè=w. Accusative -ŋ is optionally used before dé:rè=w when the form functions as direct object (xx2.b). This theoretically allows the speaker to distinguish (xx2.b) from (xx2.c), but Accusative -ŋ is optional in (xx1.b) as elsewhere, so this cue is far from reliable.

- (xx1) a. [[ú báy] dé:rè=w] bàrⁿí kíyé-só-Ø
 [[2Sg Dat] more] eat-Impf.3SgS say-Perf2-3SgS
 ‘He/She said more to me than to you.’

- b. [ú-ŋ dé:rè=w̃] ñjǐ-ŋ súyó-só-∅
 [2Sg-Acc more] 1Sg-Acc hit-Perf2-3SgS
 ‘He/She hit me more than (he/she hit) you-Sg.’
- c. [ú dé:rè=w̃] ñjǐ-ŋ súyó-só-∅
 [2Sg more] 1Sg-Acc hit-Perf2-3SgS
 ‘He/She hit me more than (he/she hit) you-Sg.’

12.1.3 ‘Surpass’ (lává-)

lává- ‘pass (by)’ can be used in the sense ‘surpass, exceed’. It specifically denotes the transition from equality or inferiority to superiority in the relevant dimension. The latter is specified by a nonfinal chained verb or VP.

- (xx1) a. ñjǐ-ŋ gává lává-èrè-∅
 1Sg-Acc be.tall pass-Perf1a-3SgS
 ‘He/She has surpassed me in tallness (= has become taller than me).’
- b. ñ:gí ñjǐ-ŋ gǐyé lává-só-∅
 bird 1Sg-Acc kill pass-Perf2-3SgS
 ‘He/She has surpassed me in killing birds.’

12.1.4 ‘Be better, more’ (dé:rè-)

In this construction, **dé:rè-** itself is conjugated by adding the conjugated ‘it is’ clitic =m- with first or second person inflection, or 3Sg =w or 3Pl =yé.

- (xx2) a. ú dé:rè=m-ì:
 2SgO better=it.is-1SgS
 ‘I am better than you-Sg (are).’
- b. mǎngórò kùró dé:rè=w̃
 mango wild.grape better-be.3SgS
 ‘Mangoes are better than wild grapes (are).’
- c. ǐ:ⁿ dé:rè=yè
 1SgO better-be.3PlS
 ‘They are better than I (am).’

For past time reference, the forms take Past clitic =bè-, but there is some variation in the morphological construction in my data. My assistant preferred the paradigm in (xx2). However, for the first and second person forms, a variant with =m̃= instead of =m̃= was also recorded.

(xx2) ‘Was better than’

| | |
|-----|------------------------------|
| 1Sg | dé:rè=w̃=bè-ỹ |
| 1Pl | dé:rè=w̃=bè-ỹ .: [...bèéèj] |
| 2Sg | dé:rè=w̃=bè-w̃ |
| 2Pl | dé:rè=w̃=bè-w̃ .: [...bèéèw] |
| 3Sg | dé:rè=w̃=bè-Ø |
| 3Pl | dé:rè=w̃=b-à |

An example is (xx3).

(xx3) **ú** **dé:rè=w̃=bè-ỹ**
 2SgO better=it.is=Past-1SgS
 ‘I used to be better than you-Sg.’

12.1.5 ‘Best’ (kǎy)

The noun **kǎy** is used to specify that the referent in question is the best (of a set). The conjugation is the same as for **dé:rè-** except that 3Sg =w is not pronounceable after the stem-final semivowel. The paradigm therefore consists of conjugated forms of =m- ‘it is’ for first or second person, zero for 3Sg, and =yɛ for 3Pl. Thus **kǎy=m-iy** ‘I am the best’, **kǎy=Ø** ‘he/she is the best’, **kǎy=yɛ** ‘they are the best’.

Past forms: **kǎy=m̃=bé-ỹ** ‘I am the best’, **kǎy=bé-Ø** ‘he/she is the best’, **kǎy=yé=b-à** ‘they are the best’.

When the reference set is specified, it functions as possessor of **kǎy**, which therefore takes possessed-noun tone contour, {HL} or all-low depending on whether the possessor ends in a high or low tone.

(xx1) **ĩ:n** **wòrĩ-wàrí** **pú⇒** **kây=m-ÿy**
 1SgS farming.L-do.farming.Agent all best.HL=it.is-1SgS
 ‘I am the best of all the farmers.’

12.2 Symmetrical comparatives

12.2.1 ‘Equal; be as good as’ (bǎ:-)

The verb **bǎ:** ‘equal, be as much as’ most often occurs in negative sentences (‘not be as much as’ = ‘be less than’). When the domain of comparison is specified in a following expression, negation is expressed on the latter rather than on **bǎ:** itself, the effect being to reduce **bǎ:** to a particle-like status.

- (xxx) a. [á bǎ:] bá:-ḡḡ:-Ø
 [ReflP father] equal-Impf.Neg-3SgS
 ‘He/She isn’t as good as his father.’
- b. [á bǎ:] bǎ: gáwá-ḡḡ:-Ø
 [ReflP father] equal be.tall-Impf.Neg-3SgS
 ‘He/She is not as tall as his/her father.’

12.2.2 ‘Same (equal)’ (kêw)

Another way to indicate equality along a measure is to use **kêw** ‘each, all’ as a predicate, reminiscent of the adverb **ké-kéw** ‘same, equal’. The form is always **kêw-yè**, which I interpret as having adjectival Plural **-yè**.

- (xx1) a. [í: wǒy] ígírí kêw-yè
 [1Pl two] height same-Pl
 ‘We two are of the same height.’
- b. [sèḡí ý] [á: wǒy] gùró kêw-yè
 [rope.L Def.InanPl] [ReflPl two] long same-Pl
 ‘The two ropes are of the same length.’

12.2.3 ‘Attain, equal’ (dǎ:-)

dǎ:- ‘arrive at, reach (a place)’ can be used in the abstract sense ‘attain the level of (someone, in some respect).’ It denotes the transition from inferiority to equality. The domain of comparison may be specified by a chained VP or verb.

- (xx1) ḡḡí-ḡḡ dùsú-ndíyè dǎ-èrè-Ø
 1Sg-Acc heavy-Inch arrive-Perfl a-3SgS
 ‘He/She has become equally heavy as me.’

12.3 ‘A fortiori’ (sákô, yê:)

The ‘a fortiori’ expression (i.e. ‘much less ...’, ‘not to mention ...’, or ‘never mind ...’ as part of a comparison) is either *sákô* (from Fulfulde) at the end of the second phrase, or *yê:* (shared with Jamsay) at the beginning of the second phrase. This phrase may also contain the possessed noun *dámá* ‘talk (of ...)’ or some similar expression (cf. local French *ne parlons pas de ...* as an ‘a fortiori’ expression). With *yê:* the second phrase specifies a far greater or more difficult task (xx1.a). With *sákô* the second phrase may be of this type, or it may simply describe a less likely or less appropriate task (xx1.b).

- (xx1) a. [[kè:rè bérí éwè-mì] sò-ndó-ý]
 [[money goat buy-Ppl]] have-Neg-1Sgs]
 [yê: [nàná dámà]=wⁿ]
 [a.fortiori [cow talk.HL]=it.is.Inan
 ‘I don’t have the money to buy a goat, much less (talk of) a cow.’
- b. [kô: éwé bèrè-rí-ý]
 [1SgP.Poss.InanSg buy get-PerfNeg-1SgS]
 [[ú gô] sákô]
 [[2Sg Poss.InanSg] a.fortiori]
 ‘I couldn’t buy one for myself, never mind (me buying) one for you.’

13 Focalization and interrogation

13.1 Focalization

When a focalized constituent is present, it is preverbal but not necessarily clause-initial.

The remainder of a clause beginning with a focalized constituent undergoes modifications of a simplificatory nature (xx1), but the verb has regular subject-pronominal inflection.

- (xx1)
- Imperfective and Progressive are both possible, but the optional reduplication in the Imperfective is omitted
 - unsuffixed Perfective (bare stem with all-L tones) replaces the suffixally marked Perfective-1a/b or Perfective-2
 - Perfective Negative -rí- is usually low-toned
 - Imperfective Negative verbs (preceding suffix -ṛḁ:-) are often all-low toned
 - pro forma cognate nominal-objects are usually omitted

In imperfective examples like $\acute{e}:\eta\acute{i}$ $y\acute{e}:-\grave{m}-\emptyset$ ‘I will come tomorrow’, we cannot be sure whether $\acute{e}:\eta\acute{i}$ ‘tomorrow’ is focalized (‘It is tomorrow [focus] that I will come’) or unfocalized (‘I will come tomorrow’). In practice, focalization is most easily detected in positive perfective clauses, since the unsuffixed Perfective is specifically associated with focalization. With other inflectional categories,

13.1.1 Subject focalization

The verb has its usual pronominal subject suffix. In (xx1.a), the focalized constituent is a pre-clausal topic NP, and is resumed within the clause proper by a 3PI pronoun.

- (xx1) a. $y\check{i}-t\grave{e}g\acute{e}$, $b\acute{u}:$ $b\acute{i}r\acute{e}-m-\grave{e}$
 child-PI 3PI work-Impf-3PIS
 ‘The children, it’s they [focus] who work.’

- b. \check{i}^n $s\acute{e}mb\acute{i}-\grave{m}-\emptyset$
 1Sg sweep-Impf-1SgS
 ‘It’s I [focus] who will sweep.’
- c. \hat{i} : $s\acute{e}mb\acute{i}-m-\grave{i}$:
 1Pl sweep-Impf-1PlS
 ‘It’s we [focus] who will sweep.’
- d. \acute{u} $y\grave{e}g\grave{e}-w$
 2SgS fall.Perf-2SgS
 ‘It’s you-Sg [focus] who fell.’
- e. \check{i}^n $\acute{u}-\acute{y}$ $s\grave{u}y\grave{d}-\grave{y}$
 1SgS 2Sg-Acc hit.Perf.L-1SgS
 ‘It was I [focus] who hit you-Sg.’

13.1.2 Object focalization

The object NP or pronoun is preposed. It may have Accusative marking, and 1Sg object is obligatorily expressed by the special 1Sg Accusative $\grave{n}\acute{j}\acute{i}-\eta$.

- (xxx) a. $\grave{n}\acute{g}\acute{u}$ $j\acute{o}r\grave{d}-s\grave{o}-\grave{y}$
 Dem.InanSg look.for-Perf-1SgS
 ‘That [focus] is what I’m looking for.’
- b. $\acute{n}\acute{n}\acute{e}-\eta$ $s\grave{u}y\grave{d}-y$
 3Sg-Acc hit.Perf-1SgS
 ‘It is him/her [focus] that I hit.’
- c. \acute{u}^n $j\acute{i}r^m\acute{e}-m-\grave{i}$:
 2Sg-Acc look.at-Impf-1PlS
 ‘It’s you-Sg [focus] that we will look at.’
- d. $\grave{n}\acute{j}\acute{i}-\acute{y}$ $s\grave{u}y\grave{e}-\emptyset$
 1Sg-Acc hit.Perf.L-3SgS
 ‘It was me [focus] that he/she hit.’

13.1.3 Focalization of PP or other adverbial

A spatial or temporal adverbial, such as a PP, is focalized in (xx1).

- (xx1) a. [ò: gó] ñní-nè-Ø
 [field.L in] go-Impf-1SgS
 ‘It’s to the fields [focus] that I am going.’
- b. é:ŋí [ò: gó] ñní-nè-Ø
 tomorrow [field.L in] go-Impf-1SgS
 ‘It’s tomorrow [focus] that I will go to the field(s).’

A **dative** example is (xx2.a), and an **instrumental** example is (xx2.b).

- (xx2) a. [ú báy] kiyè-y
 [2Sg Dat] say.Perf.L-1SgS
 ‘It’s to you-Sg [focus] that I said (it).’
- b. [ŋgú yàŋà] bĩrè-y
 [Dem.InanSg with] work.Perf.L-1SgS
 ‘It was with this [focus] that I worked.’

13.1.4 Focalization of postpositional complement

The full postposition is focalized as a unit; there is no way to distinguish focalization of a PP from focalization of just its NP complement.

13.2 Interrogatives

13.2.1 Polar (yes/no) interrogatives (*ma*)

The interrogative particle /*ma*/ is added at the end of an otherwise indicate sentence. It is optionally prolonged (symbol ⇒). It is of variable pitch because of intonational effects (see below on parallelistic constructions).

It is heard as *mà* with **low tone** after verbs, adjectives, and anything else that ends in a low tone. Interestingly, it also has low tone after verb forms containing Perfective-2 *-só-* that end in a high tone, like 2Sg *-só-ŵ* in (xx1.c). The Perfective-2 is the only positive indicative inflection with a final high tone on the suffix, so one can generalize that all positive indicative verbs are followed by low-toned *mà*.

- (xx1) a. é:ŋí yé:-nè-^w mà
 tomorrow come-Impf-2SgS Q
 ‘Are you-Sg coming tomorrow?’

- b. **é:ŋí** **yé:-m-ùw** **mà**
 tomorrow come-Impf-2PlS Q
 ‘Are you-Pl coming tomorrow?’
- c. **yě:-só-ń** **mà**
 come-Perf2-2SgS Q
 ‘Did you come?’ (likewise 1Sg **yě:-só-ý** **mà**, 3Sg **yě:-só-∅** **mà**)
- d. **dúsû** **mà**
 be.heavy Q
 ‘Is he/she heavy?’
- e. **yé:-ŋò-Ẁⁿ** **mà**
 come-ImpfNeg-2SgS Q
 ‘You-Sg will not come?’

High-toned **má** occurs after all other words ending in a high tone. For example, it occurs after final-high-toned words containing (or ending in) any of the main negative forms except the Imperfective Negative **-ŋò:-**. High tone is heard after forms ending in a high tone based on a negative predicate: Perfective Negative **-rí-**, **ŋgó-** ‘not be’, Stative Negative **-ndó-** (with adjectives or Stative verbs), or **-ndǒ:-** ‘not be’ (with nouns).

- (xx2) a. **yè:-rí-∅** **má**
 come-Perf.Neg-3SgS Q
 ‘Did he/she not come?’
- b. **ńǎ:** **kò:-rú-ń** **má**
 meal eat-Perf.Neg-2Sg Q
 ‘Have you-Sg not eaten?’
- c. **ŋgá** **ŋg-é:** **má**
 here not.be-3PlS Q
 ‘Are they not here?’
- d. **dùsù=ndó-∅** **má**
 heavy.L=StatNeg-3SgS Q
 ‘Is he/she not heavy?’
- e. **dógò=ndǒ:-ń** **má**
 Dogon=not.be-2SgS Q

‘You-Sg are not a Dogon?’

The high-toned form is also used after predicative adjectives that end in a high tone: *dùgú má* ‘is he/she big?’

When both polar alternatives are presented, /*ma*/ appears after the first segment with pitch raised (↑) and often with the vowel prolonged (⇒). The second segment may be complete, exactly parallel to the first (but ending in /*ma*/ without much intonational modification). Alternatively, the second segment may omit /*ma*/ (this is rather common), and may also show other simplifications.

- (xx3) a. *nĩmĩ* *jóró-m̃^w* *mà⇒↑*, *nàmâ* *jóró-m̃^w*
 cow-peas want-Impf-2SgS Q, meat want-Impf-2SgS
 ‘Do you like cow-peas, (or) meat?’
- b. *ńńí-m̃^w* *mà⇒*, *bé:-m̃^w* *mà*
 go-Impf-2SgS Q, stay-Impf-2SgS Q
 ‘Will you-Sg go, (or) will you-Sg stay?’

As also noted in (§7.2), there is no clear distinction between interrogative *mà* and the ‘or’ disjunctive particle *mà* in such parallel polar interrogatives.

13.2.2 ‘Who?’ (ǎŋ)

In WH-interrogatives, the interrogative particle *mà* occurs optionally (but redundantly) at the end of the clause.

The ‘**who?**’ word is /ǎŋ/. It is (less often) expanded as *nù ǎŋ*, with the pre-adjectival form of *nũ*: ‘person’. The /ŋ/ is subject to assimilation to the position of a following consonant, hence [ǎm], [ǎn], and [ǎjⁿ] before various following consonants. In isolation it can also be pronounced [ǎŋ] or [ǎ:ⁿ]. I normalize transcription as ǎŋ.

- (xx1) a. [kè:rè gú] [ǎŋ báy] òdĩ-w̃
 [money.L Def.InanSg] [who? Dat] give.Perf.L-2SgS
 ‘To who(m) did you-Sg give the money?’
- b. ǎŋ yè:-∅ mà
who? come.Perf.L-3SgS Q
 ‘Who came?’
- c. ǎŋ nàjá jè:-∅ mà

who? cow bring.Perf.L-3sgS Q
 ‘Who brought the cow?’

d. **ǎŋ** **ŋgà-gá** **yĩ:-w** **mà**
who? there see.Perf.L-2SgS Q
 ‘Who(m) did you-Sg see there?’

e. **[[nù** **ǎŋ]** **yàŋà]** **y-ò:**
 [[person.L who? with] come.Perf.L-3PlS
 ‘Who did they come with?’

Predicative function (‘who is ...’) is expressed by **ǎŋ=ì** (pronounced **ǎŋ**). This presumably includes some form of the 3Sg form of the ‘it is’ clitic (§11.xxx). However, one cannot reliably hear the second velar nasal, especially since the velar nasal(s) assimilate to a following consonant. The only reliably audible indicator of predicative status is the <LHL> tone of the syllable, and there is evidence (see below) that a final low-tone element is the real morphological feature here.

(xx2) a. **ǎŋ=ì**
 who?=it.is.3SgS
 ‘Who is he/she?’

b. **ǎŋ=ì** **mà**
 who?=it.is.3SgS Q
 ‘Who is it?’ (pronounced [ànmà])

If an overt “subject” NP is present, it is topicalized (xx3).

(xx3) **wǒŋ** **[ǎŋ=ì]** **mà]**
 Dem.AnSg [who?=it.is.3SgS Q]
 ‘This/that (person), who is it?’ (= ‘Who is that?’)

There is a **plural predicative** ‘who-Pl is/are ...?’ form **ǎ:=yè** (xx4). Again, note the final low tone.

(xx4) **ǎ:=yè** **mà**
 who?=it.is.3Pl Q
 ‘Who-Pl is it?’

With first or second person “subject,” we get forms like those in (xx5), where conjugated clitic **=m-** ‘it is’ is added to **ǎŋ**. The **nù** in (xx5.a) is optional.

Note especially the final falling tone in the 2Sg form (xx5.a) and the 1Sg form (xx5.b), which are therefore followed by low-toned *mà*. So there are clear indications that a final low-tone element is characteristic of predicative forms of ‘who?’.

- (xx5) a. *ú* [nù] *ǎŋ]=m-ùw* *mà*
 2Sg [person.L who?]=it.is-2SgS Q
 ‘Who are you-Sg?’
- b. *û:* *ǎ:=yè=m-ùw* *mà*
 2Pl who?=*Pl*=it.is-2PlS who?
 ‘Who are you-Pl?’
- c. *ĩ:ⁿ* *ǎŋ=m-îy* *mà*
 1Sg who?=*it.is*-1SgS Q
 ‘Who am I?’
- d. *î:* *ǎ:=yè=m-îy* *mà*
 1Pl who?=*Pl*=it.is.-1PlS Q
 ‘Who are we?’

13.2.3 ‘What?’ (*kò-ŋé*), ‘with what?’, ‘why?’

‘What?’ is *kò-ŋé* (xx1). The first syllable is presumably related to *kó ~ kón* ‘thing’, leaving *-ŋé* as the real interrogative element (historically). The combination is rather frozen synchronically.

- (xx1) a. *kò-ŋé* *bírè:-sò-w*
 what? work-Prog-2SgS
 ‘What are you-Sg doing?’
- b. *kò-ŋé* *kó:-m-îy*
 what? eat-Impf-1PlS
 ‘What are we going to eat?’

‘With what?’ (instrumental) is *kò-ŋé òŋà* (xx2), contracted from **kò-ŋé yàŋà*.

- (xx2) [*kòŋé:-òŋà*] *wára-m-w*
 [what?-with] farm-Impf-2SgS
 ‘With what do you-Sg farm?’

‘For what?’ = ‘**why?**’ is *kò-ŋé dèrⁿí*, with Purposive postposition (xx3).

- (xx3) [*kò-ŋé* *dèrⁿí*] *yè-w*
 [what? for] come.Perf.L-2SgS
 ‘Why did you-Sg come?’

/ŋŋé/ by itself can be used as the **plural** ‘what (things)?’, but it is fairly uncommon (xx4). The initial */ŋŋ/* cluster is of historical phonological interest; see §

- (xx4) [*ŋŋé* *ỳŋà*] *wára-m-^w*
 [what?.Pl with] farm-Impf-2SgS
 ‘With what (tools) do you-Sg farm?’

The **predicative** form is seen in (xx5)

- (xx5) *kò-ŋé=Ẁⁿ* (*mà*)
 what?=it.is.Inan (Q)
 ‘What is it?’

The ending in *kò-ŋé=Ẁⁿ* is the Inanimate conjugated form of the ‘it is’ clitic, namely */=w/*, which elsewhere gets its tone from the preceding morpheme (§11.2.1.1). The fact that it appears as low-toned *=Ẁⁿ* in *kò-ŋé=Ẁⁿ* is more evidence for a final low-tone feature in predicative interrogatives; compare the predicative forms of ‘who?’ discussed in the preceding section.

13.2.4 ‘Where?’ (*àⁿájá*)

‘Where?’ is *àⁿájá*. Adverbial examples are in (xx1).

- (xx1) a. *àⁿájá* *ńní-m-^w*
 where? go-Impf-2SgS
 ‘Where are you-Sg going?’
- b. *yĩ-tègè* *bû:* *àⁿájá* *yèg-à*
 child-Pl Def.AnPlwhere? fall-3PIS
 ‘The children [topic], where did they fall?’

Predicative ‘(someone/something) be where?’ is the same *àⁿájá* plus the regular form of locational ‘be’ (§11.xxx) (xx2.a-b). ‘Where is it?’ with

unspecified topic is àⁿáǰá=ǰ, with the by-now familiar final low tone element (xx2.c).

- (xx2) a. bòndí àⁿáǰá bù-Ø
rain where? be-3SgS
‘The rain [topic], where is it?’ (=‘Where is the rain?’)
- b. àⁿáǰá bù-w
where? be-2SgS
‘Where are you-Sg?’
- c. àⁿáǰá=ǰ
where=it.is.3SgS
‘Where is it?’

13.2.5 ‘When?’ ([àǰú tú:] gò, wàgàǰi àⁿáǰá)

‘When?’ is expressed as [àǰú tú:] gò, which ends in Locative gò. It begins with àǰú, which can be connected to àǰú ‘which?’ (but the latter is an adjective that follows its modified noun). This suggests that tú: (perhaps a possessed noun?) should mean ‘time’, but no such noun with this meaning occurs elsewhere in Nanga. (Compare, however, Toro Tegu tùwó ‘time’.)

- (xx1) a. á:mádù [[àǰú tú:] gò] yé:-ǰ
A [[which? time.L] in] come-Impf.3SgS
‘When is Amadou coming?’
- b. [[àǰú tú:] gò] tò-ò
[[which? time.L] in] sow.Perf.L-3PlS
‘When did they sow (= plant the seeds)?’

An alternative ‘when?’ interrogative is wàgàǰi àⁿáǰá, which consists of a low-toned form of wàgàǰi ‘time, moment’, an Arabic loan that is widespread in languages of the zone (Fulfulde, Songhay, etc.), plus àⁿáǰá ‘where?’.

- (xx2) a. [wàgàǰi àⁿáǰá] bòndí wòè-Ø
[time.L which?] rain rain.fall.Perf.L-3Sgs
‘When did the rain fall?’
- b. [wàgàǰi àⁿáǰá] á:ndé níni-m-w
[time.L which?] Anda go-Impf-2SgS

‘When are you-Sg going to Anda?’

13.2.6 ‘How?’ (àmâyⁿ)

‘How?’ can be expressed by the interrogative adverb àmâyⁿ, or its reduplication àmâyⁿ-àmâyⁿ. These forms are subject to phonetic attrition in sentential context; the yⁿ is often elided, and the reduplication may be reduced to àmâyⁿ-mâyⁿ.

- (xx1) a. àmâyⁿ ñní-m-^w
how? go-Impf-2SgS
‘How will you-Sg go?’
- b. tóndí àmâyⁿ-àmâyⁿ ké:ndé-m-^w
basket how?-how? fix-Impf-2SgS
‘How are you-Sg going to fix the basket?’

àmâyⁿ is often combined with kárⁿá ‘do’ in the sense ‘do what?’, and this phrase as a whole can be used in ‘how?’ interrogatives.

- (xx2) [àmâyⁿ kàⁿ’i gáy] úmí lá:rá-m-’iy
[how? do- and.then.SS] mosquito chase.away-Impf-1PlS
‘How (= doing what?) will we chase away the mosquitoes?’

13.2.7 ‘How much/many?’ (à:ngǎy)

‘How much?’ or ‘how many?’ is à:ngǎy. It can be used like a numeral, following a noun (without plural marking) that keeps its normal tones (xx1.a). It can also be used absolutely (xx1.b).

- (xx1) a. [pèrgé à:ngǎy] sò-w
[sheep how.many?] have-2SgS
‘How many sheep do you-Sg have?’
- b. à:ngǎy jóró-m-^w
how.much? want-Impf-2SgS
‘How much (or: how many) do you-Sg want?’

A complement may also be expressed by a topicalized NP (xx2).

- (xx2) nàṅá yě:, à:ngǎy màrà-Ø

cow 1 SgP.Poss.AnPl, how.many? be.lost.Perf.L-3SgS
 ‘My cows, how many (of them) were lost?’

The distributive reduplication, used in markets to indicate price per unit of sale, is à:ngǎy-à:ngǎy.

(xx3) [éwé gá] mǎngórò à:ngǎy-à:ngǎy túró-m-è
 [market in] mango how.much?-how.much? sell-Impf-3PlS
 ‘They sell mangoes for how much apiece in the market?’

13.2.8 ‘Which?’ (àngú)

As interrogative modifying adjective, ‘which?’ is expressed as àngú (xx1.a). It may also be used absolutely (xx1.b). Before a Cv onset it optionally reduces to ǎŋ, and the velar nasal may then assimilate (xx1.c).

- (xx1) a. [màngòrò àngú] jóró-m-^w
 [mango.L **which?**] want-Impf-2SgS
 ‘Which mango do you-Sg want?’
- b. àngú jóró-m-^w
which? want-Impf-2SgS
 ‘Which (one) do you-Sg want?’
- c. [nàǎá ú yê] ǎŋ túró-m-^w
 [cow 2SgP Poss.AnPl] **which?** sell-Impf-2SgS
 ‘Which of your cows are you-Sg selling?’
 (can also mean ‘You will sell your cows to whom?’)

àngú gets some competition from other interrogatives. In (xx2.a), àrⁿǎǎá ‘where?’ is used as a modifier (or perhaps compound final), with preceding L-toned noun, since a fixed location is involved. In (xx2.b), a possessive construction is used with kò-jé ‘what?’ as the possessor, since the question concerns the substance (i.e. fruit) from which the possessed noun is constituted.

- (xx2) a. [ú tíyà] [ndò àrⁿǎǎá] sígè-ì
 [2SgP friend] [house.L **where?**] go.down-Impf.3SgS
 ‘In which house does your-Sg friend go down (=lodge)?’
- b. [kò-jé ní:] kárⁿi-m-ìy
 [**what?** water] make-Impf-1PlS

‘Which juice (=juice of what) will we make?’

13.2.9 ‘So-and-so’ (àmá:nà)

The word for so-and-so, substituting for any of a range of personal names, is àmá:nà.

- (xxx) [nàŋà wǒŋ], [àmá:nà yè]=ŋ
 [cow.L Dem], [so.and.so Poss.AnSg]=it.is.3SgS
 ‘This cow belongs to so-and-so.’

13.2.10 Embedded interrogatives

Embedded WH-interrogatives can take the same form as unembedded ones, with the original WH-interrogative word and with the interrogative particle, which is typically pronounced with some prolongation and with falling pitch in this construction (xxx).

- (xx1) a. [ǎŋ yè:-Ø mà⇒] yè-rí-y
 [who? come.Perf.L Q] see-Perf.Neg-1SgS
 ‘I didn’t see who came.’
- b. [à:ŋgǎy èwè-Ø mà⇒] júgó-ŋò-y
 how.much? pay.Perf.L-3SgS Q know-Impf.Neg-1SgS
 ‘I don’t know how much he/she paid.’
- c. [àⁿájá ònè-Ø mà⇒] júgó-ŋò-y
 [where? go.Perf.L-3SgS Q] know-Impf.Neg-1PlS
 ‘I don’t know where he/she went.’

The construction gets some competition from relative clauses, such as the object relative clause in (xx2). For -m-sè, see the temporal adverbial clause type with -m-sè gá (§15.2.3, below).

- (xx2) [kò ɿⁿ jóró-m-sè gú] ɿré bèsí-y
 [NonhO 1SgS look.for-Impf-PplPerf Def] forget bury.Perf-1SgS
 ‘I have forgotten that which (=what) I was looking for.’

14 Relativization

14.1 Basics of relative clauses

Relative clauses have the features in (xxx).

- (xxx)
- the head NP remains in its clause-internal position (internal head), but (except for a possessor within the NP) it drops tones;
 - the verb ends in a special participle, which is marked for a reduced set of aspectual and polarity categories; except in negatives with 3Pl subject, the participle contains no marking in the verb of the pronominal subject category, and no agreement with the head NP in nominal features
 - subject pronominals are expressed by preverbal independent pronouns;
 - in the predominant case where the relative clause is semantically definite, the clause ends in a postverbal determiner, agreeing in animacy and number with the head noun.

14.1.1 Coordinated relatives with a shared head

In (xx1), the head noun (nũ: ‘person’) appears once, but is understood to be the unexpressed head of the second relative clause (‘who go’) as well. The first relative clause is structurally complete, including a final Definite morpheme. The second clause contains a resumptive 3Pl pronoun.

- (xx1)
- | | | | |
|-------------------------------------|------|----------------------|-----------|
| [nũ | ɲgá | nà:-mĩ | bũ:] |
| [person.L | here | spend.night-Ppl.Impf | Def.AnPl] |
| [kòr ⁿ óɲòy ⁿ | bũ: | íní-mĩ] | |
| [morning | AnPl | go-Ppl.Impf] | |
| jóró-m-Ø | | | |
| want-Impf-1SgS | | | |
- ‘I like people who spend the night here and go (away) in the morning.’

In (xx2), even the main clause (‘I dislike’) is adjacent to the first relative clause, suggesting a kind of extraposition of the second relative clause.

possessed noun is not tone-dropped. Rather, the possessive classifier (originally a noun meaning ‘thing’ or ‘animate being’) is tone-dropped, if not already low-toned. The tone-dropping is easiest to hear in the 1Sg forms, where the 1Sg possessor fuses with the classifier (adding only an initial low tone to the basic {HL} possessed-noun contour of the classifier).

- (xx2) a. $\acute{n}d\hat{o}$ \acute{u} $g\hat{o}$
house 2SgP Poss.InanSg
‘your-Sg house’
- b. [$\acute{n}d\hat{o}$ \acute{u} $g\hat{o}$] $y\grave{e}g\grave{e}-s\grave{e}$ $g\acute{u}$
[house 2SgP Poss.InanSg.L] fall-Ppl.Perf Def.InanSg
‘your house that fell’
- c. $p\grave{e}rg\acute{e}$ $y\tilde{e}:$
sheep 1SgP.Poss.AnSg
‘my sheep-Sg’
- d. [$p\grave{e}rg\acute{e}$ $y\grave{e}:$] $y\grave{e}g\grave{e}-s\grave{e}$ $n\acute{e}$
[sheep 1SgP.Poss.AnSg.L] fall-Ppl.Perf Def.AnSg
‘my sheep-Sg that fell’

In other words, the possessed noun in (xx2.b,d) is a **tonosyntactic island**, protected from the tone-dropping power of the relative-clause construction. So is the possessor pronoun, as we see from the high tone of \acute{u} in (xx2.b).

A **pronominal possessor** may be any nonpronominal NP, and may be a pronoun in the case of inalienable possession (kin terms). The data in (xx3) show that the entire possessor-possessed NP is again a tonosyntactic island with respect to relativization. That is, neither the possessor NP nor the possessed noun drops its tones. In (xx3.a), ‘house’ is already tone-dropped within the possessed NP since the possessor ends in a low tone (§xxx), so its low tone is not attributable to the relative construction. In the other examples in (xx3), the possessed NP has {HL} possessed-noun tone since the possessor ends in a high tone, and there is no change when the entire NP functions as relative-clause head.

- (xx3) a. [$\acute{a}:\acute{d}\acute{a}m\grave{a}$ $\grave{n}d\hat{o}$] $y\grave{e}g\grave{e}-s\grave{e}$ $g\acute{u}$
[A house.L] fall-Ppl.Perf Def.InanSg
‘Adama’s house that fell.’
- b. [$y\check{a}-\eta$ $p\acute{e}rg\grave{e}$] $y\grave{e}g\grave{e}-s\grave{e}$ $n\acute{e}$
[woman-Sg sheep.HL] fall-Ppl.Perf Def.AnSg
‘a/the woman’s sheep-Sg that fell’

- c. [[àr"à wǒŋ] pégè] yègè-sè né
 [[man.L Dem.AnSg] sheep.HL] fall-Ppl.Perf Def.AnSg
 ‘this man’s sheep-Sg that fell’
- d. [ú dérè] bàmakô:≠∅ bù-mĩ né
 [2SgP elder.sibling.HL] B=in be-Ppl.Stat Def.AnSg
 ‘your-Sg elder sibling who is in Bamako’

The possessive NP data need to be completed by adding modifying adjectives and numerals. If the possessor is **postnominal**, a **modifying adjective** is adjacent to the noun, so e.g. ‘your big house’ is expressed by the linear sequence [[house.L big] 2SgPossessor Classifier]. Since ‘big’ is tightly bound to the noun, it is of course included in the tonological island and is not tone-dropped in relatives (xx4.a). A **numeral** may precede or follow the postnominal possessor, and which choice it makes determines whether it is in the tonological island and is protected from relative-clause tone-dropping (xx4.b), or is vulnerable to this tone-dropping (xx4.c).

- (xx4) a. [ndò ðwó ú gò] yègè-sè gú
 [house.L **big** 2SgP Poss.InanSg.L] fall-Ppl.Perf Def.InanSg
 ‘your-Sg big house that fell’
- b. [ndô kúrê ú yè] yègè-sè ý
 [house **six** 2SgP Poss.InanPl.L] fall-Ppl.Perf Def.InanPl
 ‘your-Sg six houses that fell’
- c. [[ndô ú yè] kùrè] yègè-sè ý
 [house 2SgP Poss.InanPl.L] **six.L**] fall-Ppl.Perf Def.InanPl
 [= (b)]

When an adjective is part of a possessed NP with **preposed possessor** (whether nonpronominal or pronominal), the **adjective is already tone-dropped** as an extension of the {HL} or all-low possessed noun tone imposed by the possessor (xx5.a,b), so there is no way to determine whether the relative-clause construction would otherwise have induced tone-dropping on the adjective (xx5.b,d).

- (xx5) a. wǒŋ [ndò ðwò]
 Dem.AnSg [house.HL big.L]
 ‘a big house of this (person)’ (ðwó)
- b. [wǒŋ [ndò ðwò]] yègè-sè gú
 [Dem.AnSg [house.HL big.L]] fall-Ppl.Perf Def.InanSg

‘a big house of this (person) that fell’

- c. **ú** [dérè m̀̀sì]
2SgP [elder.sibling.HL bad.L]
‘your bad (older) brother’
- d. **ú** [dérè m̀̀sì] yègè-sè **né**
2SgP [elder.sibling.HL bad.L] fall-Ppl.Perf Def.AnSg
‘your bad (older) brother who fell’

When a numeral follows a noun that has a pronominal possessor, whether the numeral is tone-dropped under the influence of the possessor depends on whether the possessor is nonpronominal (tone-dropping occurs) or pronominal (no tone-dropping) (§6.2.2.2). In the former case, whether any further tone-dropping in relatives would occur is moot. In the latter case, we get audible tone-dropping on the numeral when the NP is head of a relative (xx6).

- (xx6) [ú dérè k̀̀rè] yègè-sè **bù:**
[2SgP elder.sibling.HL **six.L**] fall-Ppl.Perf Def.AnPl
‘Your-Sg six older brothers who fell’ (**k̀̀rè**)

Determiners and non-numeral quantifiers are not relevant to this section, since they are relocated after the verbal participle; see §14.xxx, below.

14.1.3 Restrictions on the head noun in a relative clause

A pronoun may not directly head a relative clause. Instead, **nù:** ‘person’ (for humans) occurs as head NP (low-toned **nù**), and the pronoun is preposed, in apposition.

- (xx1) **î:** [ngá nù b-è-m **bù:**]
1Pl [here person.L be-3Pl-Ppl.Stat Def.AnPl]
‘we who are here’ (lit. “we [the people who are here]”)

14.1.4 Relative clause with conjoined NP as head

A conjoined NP behaves as a tonological island with respect to relative-clause tone-dropping, so there is no audible effect in cases like (xx1). However, the conjunction **yò** is already low-toned, so it is conceivable that it might have been subject to tone-dropping if it had been high toned.

- (xxx) [[yǎ: yò ár^{nà} yò] jòřyè-sè bû:] àrⁿáǵá b-è
 [[woman and man and] fight-Ppl.Perf Def.AnPl] where be-3PIS
 ‘Where are the men and the women who squabbled?’

14.1.5 Headless relative clause

In idiomatic Nanga, a relative head NP that is understood to refer to an animate or inanimate object is normally expressed by at least a semantically light noun, such as *nũ*: ‘person’, *kó*: ‘thing’, or *yé* ‘things; critter’ (in low-toned form as *nù*, *kò*, *yè*). However, relative clauses with no overt head are acceptable. In a case like *jòřyè-sè bû*: ‘the ones who squabbled’, the Definite Animate Plural determiner at the end gives some clues to the identity of the omitted head.

14.1.6 Preverbal subject pronominal in relative clause

In non-subject relatives, if the subject is a pronoun, it is expressed by an independent pronoun **immediately preceding the verb**. In (xx1.c), the subject pronoun follows a direct-object pronoun, and in (xx1.d) it intervenes between two directly chained verbs (‘fall’ and ‘go down’). The forms used include 1Sg *ĩⁿ* and 3Sg *íné*.

- (xx1) a. *kò* *ú* *júǵó-ǵò*:
 thing.L 2SgS know-Ppl.ImpfNeg
 ‘something that you-Sg do not know’
- b. *ùsĩ* *ĩⁿ* *yè:-sè* *ǵú*
 day.L 1SgS come-Ppl.Perf Def.InanSg
 ‘the day (when) I came’
- c. *ùsĩ* *ńǵí-ǵ* *íné* *sùyò-sè* *ǵú*
 day.L 1Sg-Acc 3SgS hit-Ppl.Perf Def.InanSg
 ‘the day (when) he/she hit me’
- d. *ùsĩ* *yèǵé* *ú* *sǵè-sè* *ǵú*
 day.L fall 2SgS go.down-Ppl.Perf Def.InanSg
 ‘the day you-Sg fell down’

14.1.7 Verbal participle

Participles replacing inflected verb forms are a defining feature of relative clauses. Excluding some issues involving 3Pl head NP combined with a negative participle, the four basic participial suffixes reflect the intersection of aspect (Perfective/Imperfective) and polarity (positive/negative), i.e., a simplified version of the fuller aspect-negation (AN) system seen with inflected forms. Each of the four Participial suffixes in (xx1) is in fact closely related in phonological form to an inflectable AN suffix, and requires the same stem-tone pattern and any applicable stem-final vocalic shifts as that AN suffix. The negative participles in particular are identical in form to the corresponding negative inflectable stems.

(xx1) Participles (four basic suffixes)

| category | suffix | related AN suffix |
|--------------|--|------------------------------|
| Perfective | -sɛ̀ | Perfective-2 -só- |
| PerfNeg | -rí | Perfective Negative -rí- |
| Imperfective | -mĩ ~ -m̀ | Imperfective -m̀- |
| | [for -m̀- <i>sɛ̀</i> , see discussion below] | |
| ImpfNeg | -ɲɔ̀: | Imperfective Negative -ɲɔ̀:- |

The (positive) Imperfective Participial suffix has a broader range than its inflectable counterpart. Specifically, it is used with Stative verbs and quasi-verbs, as well as with active verbs in imperfective aspect. It may also be added to a verb already containing Progressive suffix -sò- to produce the suffix complex -só-mĩ (note the change in tone).

Likewise, the (positive) Perfective Participial suffix has a broader range than any specific inflectable counterpart. It corresponds to the amalgamation of Perfective-1a -èrè-, Perfective-1b -fi-, and Perfective-2 -só-. It may also be added to Recent Perfect jɛ̀- to produce the sequence jɛ̀-*sɛ̀*, and to Experiential Perfect tá:- (really a chained verb) to produce tá:-*sɛ̀*.

Including these combinations, and some similar combinations with negative Participial suffixes, (xx1) can be expanded as (xx2).

(xx2) Participles (all categories of active verbs)

| category | suffix(es) | similar AN morpheme |
|------------|------------|---------------------|
| Perfective | -sɛ̀ | Perfective-2 -só- |

| | | |
|--------------------------|-----------|------------------------------|
| Recent Perfect | jè-sè | Recent Perfect jè- |
| Experiential Perfect | tá:-sè | ExpPerf tá:- |
| Perfective Negative | -rí | Perfective Negative -rí- |
| Recent Perfect Negative | jè-rí | Recent Perfect Neg jè-rí- |
| Experiential Perfect Neg | tà:-rí | ExpPerfNeg tà:-rí- |
| Imperfective | -mǐ ~ -m̀ | Imperfective -m̀- |
| Progressive | -só-mǐ | Progressive -sò- |
| Imperfective Negative | -ɲ̀: | Imperfective Negative -ɲ̀:- |
| Progressive Negative | -sò-ndó | Progressive Negative -sò-ndó |

14.1.7.1 Participles of positive perfective-system verbs

Before getting into examples, it is necessary to point out that the participle is very frequently tone-dropped by a following determiner. Therefore the tones described here as basic are often overridden.

Examples of the basic **Perfective Participial** suffix *-sè* are in (xx3). The suffix is added to the unmodified bare stem (with lexical vocalism and tone contour). When followed by a Definite morpheme or other determiner, all tones in the participial (audibly, those of the verb stem) drop, hence *nù yè:-sè né* ‘the person who came’, etc.

Perfective Participial *-sè* is the relative-clause counterpart of the Perfective-1a, Perfective-1b, and Perfective-2 forms in main clauses. In practice it is also the usual counterpart of Recent Perfect *jè-* as well.

(xx3) Perfective participles

| bare stem | Perf participle | gloss |
|---------------------|-----------------------|----------|
| yě:- | yě:-sè | ‘come’ |
| gǒ:- | gǒ:-sè | ‘go out’ |
| yǐ:- | yǐ:-sè | ‘see’ |
| núy ⁿ - | núy ⁿ -sè | ‘go in’ |
| íné- | íné-sè | ‘go’ |
| yègè- | yègè-sè | ‘fall’ |
| kár ⁿ í- | kár ⁿ í-sè | ‘do’ |
| bǎ:rí- | bǎ:rí-sè | ‘help’ |
| bègírí- | bègírí-sè | ‘winnow’ |

Examples are in (xx4). (xx4.b) shows the tone-dropping on the participle before a determiner.

- (xx4) a. *nàŋà* *bû:* *émé-sè*
 cow.L 3AnPlS milk-Ppl.Perf
 ‘a cow (or: cows) that they milked’
- b. *nàŋà* *ĩ:ⁿ* *èmè-sè* *né*
 cow.L 1SgS milk-Ppl.Perf.L Def.AnSg
 ‘the cow that I milked’

Recent Perfect *jè-* has participial form *jè-sè*. It is used sparingly, since Perfective Participial *-sè* is often used as a relative-clause counterpart of *jè-* in main clauses. Like inflected *jè-*, the participial complex *jè-sè* follows the bare stem with its lexical tones. When a determiner is added, there is no change to the tones. In other words, the tone-dropping effect of the determiner does not reach beyond the *jè-*, which is already low-toned. This is evidence that *jè-* is phonologically similar to a chained verb, rather than a simple suffix. This view is reinforced by the fact that a subject pronominal intervenes between *jè-* and the preceding verb (xx5.c).

- (xx5) a. *àrⁿà* *ŋă:* *kó:* *jè-sè*
 man.L meal eat RecPf-Ppl.Perf
 ‘a man who has already eaten (or: who has finished eating)’
- b. *àrⁿà* *ŋă:* *kó:* *jè-sè* *né*
 man.L meal eat RecPf-Ppl.Perf Def.AnSg
 ‘the man who has already eaten (or: who has finished eating)’
- c. *àrⁿà* *súyó* *ĩ:ⁿ* *jè-sè* *né*
 man.L hit 1SgS RecPf-Ppl.Perf Def.AnSg
 ‘the man who(m) I have already hit (or: whom I have finished hitting).’

Experiential Perfect *tá:-* with its long vowel is prosodically even more clearly a chained verb phonologically. A simple example of a participle is (xx6.a). If a determiner is added, *tá:-* is tone-dropped but the preceding verb is not (xx6.b). A pronominal subject intervenes between the two verbs (xx6.c).

- (xx6) a. *yà:* [*isè* *gó*] *íné* *tá:-sè*
 woman.L [village.L in] go ExpPerf-Ppl.Perf
 ‘a woman who has (ever) gone to the village’

- b. yà: [isè gó] néné tà:-sè né
 woman.L [village.L in] go ExpPerf-Ppl.Perf.LDef.AnSg
 ‘the woman who has (ever) gone to the village’
- c. yà: yĩ: ĩ:ⁿ tà:-sè né
 woman.L see 1SgS ExpPerf-Ppl.Perf.L Def.AnSg
 ‘the woman who has (ever) gone to the village’

Although **Perfective-1b -ĩ-** was not observed in spontaneously produced relative clauses, it was possible with some effort to elicit **-ĩ-** in relatives. In nonsubject relatives, my assistant tended to allow a preverbal subject pronominal to intervene between the main verb stem and **ĩ-**, suggesting that the latter is a separate word (i.e. a chained verb) rather than a suffix (xx7). However, he sometimes repeated such elicited sentences with the subject pronominal preceding the main verb. The construction does not seem to be fully productive and it is not surprising that its syntax is inconsistent.

- (xx7) [wàgàdĩ ñjĩ:ⁿ súyó néné ĩ:-sè] gà
 [time.L 1SgO hit 3SgS Perf1b-Ppl.Perf] in
 ‘at the time when he/she hit me’

14.1.7.2 Participles of positive imperfective-system and stative verbs

Here the basic Participial suffix is **-mĩ** ~ **-m**. The syllabic allomorph is usual in simple participles not followed by a determiner. The nonsyllabic allomorph is usual before a determiner.

Examples showing the stem-shapes of Imperfective participles from verbs that end in a non-high vowel are in (xx1). Here the stem used in the participle is identical (segmentally and tonally) to the stem used for the same verb before inflected Imperfective **-m̀-**. However, the participle is **never reduplicated**.

- (xx1) Imperfective participles (stem ends in non-high vowel)

| bare stem | Impf participle | gloss |
|-----------|-----------------|----------|
| yě:- | yé:-mĩ | ‘come’ |
| gǔ:- | gǔ:-mĩ | ‘go out’ |
| yègè- | yègè-mĩ | ‘fall’ |

When a determiner is added, aside from the tone-dropping effect there is no change in the participial forms for the verbs illustrated in (xx1) that end in a

non-high vowel. However, for those verb stems that end in /i/ in this participial form, the /i/ shifts to a non-high vowel when a determiner is added (in addition to the tone-dropping). In (xx2), therefore, an extra column is added. Note that the longer verbs (those of more than two vocalic moras) whose stem ends in /i/ have already shifted the /i/ to a non-high vowel in the simple form of the Imperfective participle, so for these verbs the forms in the two columns have identical vocalism.

(xx1) Imperfective participles (stem ends in /i/)

| bare stem | Impf participle | | gloss |
|--------------------------------|-----------------------|----------------------|----------|
| | simple | before determiner | |
| a. two vocalic moras | | | |
| yǐ:- | yí:-mǐ | yè:-m | ‘see’ |
| núy ⁿ - | núy ⁿ -mǐ | nùy ⁿ ḁ-m | ‘go in’ |
| ńné- | ńńí-mǐ | ńńè-m | ‘go’ |
| kár ⁿ í- | kár ⁿ í-mǐ | kàr ⁿ à-m | ‘do’ |
| b. more than two vocalic moras | | | |
| bǎ:rí- | bǎ:rá-mǐ | bà:rà-m | ‘help’ |
| bègírí- | bègíré-mǐ | bègìrè-m | ‘winnow’ |

Examples are in (xx3). (xx3.b,d) end in determiners.

- (xx3) a. **nàṅà** **ĩ:ⁿ** **émé-mǐ**
 cow.L 1SgS milk-**Ppl.Impf**
 ‘a cow (or: cows) that I will milk’
- b. **nàṅà** **bû:** **èmè-m** **bû:**
 cow.L 1SgS milk-**Ppl.Impf.L** Def.AnPl
 ‘the cows that they will milk’
- c. **àrⁿànúyⁿ-mǐ**
 man.L go.in-Ppl.Impf
 ‘a man who goes in’
- d. **àrⁿà** **nùyⁿḁ-m** **né**
 man.L go.in-Ppl.Impf.L Def.AnSg
 ‘the man who goes in’

The same Imperfective Participial suffix is used with stative verbs, which are (in other respects) aspect-neutral but generally include present-time

reference (in the absence of the Past clitic). Representative forms are in (xx1), with examples in (xx4). A determiner forces tone-dropping on the whole participle as for the imperfectives (xx4.b). *éwé-mĩ* ‘who is sitting’ has medial /e/ from /o/ by assimilation.

(xx3) Stative participles

| bare stem | Stative | Stative participle | gloss |
|----------------|-----------------|--------------------|----------------|
| <i>éw-yé-</i> | <i>é-èwò-</i> | <i>éwé-mĩ</i> | ‘be sitting’ |
| <i>í-yí-</i> | <i>í-ìyà-</i> | <i>íyá-mĩ</i> | ‘be standing’ |
| <i>sów-yé-</i> | <i>só-sòwò-</i> | <i>sówó-mĩ</i> | ‘be squatting’ |
| <i>ú:-yí-</i> | <i>ú-ùwà-</i> | <i>úwá-mĩ</i> | ‘be afraid’ |

- (xx4) a. *àrⁿà* *úwá-mĩ*
 man.L fear.Stat-Ppl.Impf
 ‘a man who is afraid’
- b. *àrⁿà* *ùwà-m* *né*
 man.L fear.Stat-Ppl.Impf.L Def.AnSg
 ‘the man who is afraid.’

Representative **Progressive** participle forms are in (xx5). The stem has the same form as in the inflected Progressive, but the reduplication is gone. The suffix *-sò-* shifts to high-toned *-só-* in the participle. Examples are in (xx6). Tone-dropping forced by a determiner applies to *-só-* (which reverts to *-sò-*) but not to the preceding verb stem (xx6.b).

(xx5) Progressive participles

| bare stem | Progressive | Progr participle | gloss |
|--------------------------|-----------------------------------|----------------------------------|----------|
| <i>yě:-</i> | <i>yè-yê:-sò-</i> | <i>yê:-só-mĩ</i> | ‘come’ |
| <i>gǔ:-</i> | <i>gò-gô:-sò-</i> | <i>gô:-só-mĩ</i> | ‘go out’ |
| <i>yĩ:-</i> | <i>yĩ-yĩ:-sò-</i> | <i>yĩ:-só-mĩ</i> | ‘see’ |
| <i>núyⁿ-</i> | <i>nù-nũyⁿ-sò-</i> | <i>nũyⁿ-só-mĩ</i> | ‘go in’ |
| <i>ńné-</i> | <i>ĩ-ńńĩ:-sò-</i> | <i>ńńĩ:-só-mĩ</i> | ‘go’ |
| <i>yègè-</i> | <i>yè-yègè(:)-sò-</i> | <i>yègè(:)-só-mĩ</i> | ‘fall’ |
| <i>kárⁿĩ-</i> | <i>kà-kárⁿĩ(:)-sò-</i> | <i>kárⁿĩ(:)-só-mĩ</i> | ‘do’ |
| <i>bǎ:rí-</i> | <i>bà-bǎ:rà(:)-sò-</i> | <i>bǎ:rà(:)-só-mĩ</i> | ‘help’ |
| <i>bègírí-</i> | <i>bè-bègírè(:)-sò-</i> | <i>bègírè(:)-só-mĩ</i> | ‘winnow’ |

- (xx4) a. *yà:* *gô:-só-mĩ*
 woman.L go.out-Progr-Ppl.Impf
 ‘a woman who is going out’
- b. *yà:* *gô:-sò-m* *né*
 woman.L go.out-Progr-Ppl.Impf.LDef.AnSg
 ‘the woman who is going out.’

14.1.7.3 Participles of negative perfective-system verbs

The basic **Perfective Negative** suffix *-rí-* occurs in participles, but without the following pronominal-subject suffix. As with the inflectable suffix (in the 1Sg, 2Sg, and 3Sg), the corresponding participles have a low-toned stem, and shift a stem-final /i/ to a non-high vowel. As usual, the /r/ is nasalized to /rⁿ/ after a nasal syllable. When a determiner follows, the suffix *-rí* drops its tones (the stem is already low-toned so we cannot tell whether the determiner would have also dropped any high tones on the stem). Some examples are in (xx1).

- (xx1) a. *nàṅà* *ĩ:ⁿ* *èmè-rⁿĩ*
 cow.L 1SgS milk-**Ppl.PerfNeg**
 ‘a cow that I didn’t milk’
- b. *nàṅà* *î:* *èmè-rⁿĩ* *bû:*
 cow.L 1Pl milk-**Perf.Neg.L** Def.AnPl
 ‘the cows that we didn’t milk’
- c. *yà:* *nùyⁿḍ-rⁿĩ*
 woman.L go.in-**Ppl.PerfNeg**
 ‘a woman who didn’t go in’
- d. *àrⁿàsóy* *ḥḍè-rí*
 man.L all give-**Ppl.PerfNeg**
 ‘a man who didn’t give anything’ (*ḥḍí-* ‘give’)

In the inflectable Perfective Negative, the 3Pl subject form is rather irregular, replacing *-rí-* by a 3Pl Perfective Negative portmanteau *-àndú*, as in *èm-à:ndú* ‘they didn’t milk (cow)’, cf. *èmè-rí-Ø* ‘he/she didn’t milk (cow)’. This peculiarity extends to the corresponding participles, but here the unusual form is associated with an **Animate Plural head NP**. Compare the participial forms in (xx2.a) and (xx2.b).

- (xx2) a. *nàṅà* *bû:* *èmè-rⁿĩ*
 cow.L 3PIS milk-**Ppl.PerfNeg**
 ‘a cow that they didn’t milk’
- c. *nàṅà* *bû:* *èm-à:ndú*
 cow.L 3PIS milk-**Ppl.PerfNeg.AnPl**
 ‘cows that they didn’t milk’

There is no similar suffixal switch with **inanimate** head NPs. Therefore (xx3.a) is ambiguous as to number, in the absence of a final determiner. The explicitly plural (xx3.b) has the same *-rí* Participial suffix as (xx3.a), though in low-toned form before the determiner.

- (xx3) a. *kùrⁿò* *ĩ:ⁿ* *gǐsè-rⁿĩ*
 stone.L 1SgS throw-**Ppl.PerfNeg**
 ‘a stone (or: stones) that I didn’t throw’
- b. *kùrⁿò* *ĩ:ⁿ* *gǐsè-rⁿĩ* *ý*
 stone.L 1SgS throw-**Ppl.PerfNeg.L** Def.InanPl
 ‘the stones that I didn’t throw’

The **Recent Perfect Negative** *jè-rí-*, which often means ‘has not finished VP-ing’, can be participialized. The form of the stem is the same as in the inflected paradigm; in particular, *-rí-* (which elsewhere forces tone-dropping on a preceding verb stem) does not affect the tones of the stem preceding *jè-*. Much less does a following determiner force tone-dropping on this stem, though as usual it does drop the tones of *-rí-*.

- (xx4) a. *nù* *ṅǎ:* *kó:* *jè-rí*
 person meal eat RecPf-**Ppl.PerfNeg**
 ‘a person who has not finished eating’
- b. *nù* *ṅǎ:* *kó:* *jà:-ndù* *bû:*
 person meal eat RecPf-**Ppl.PerfNeg.L** Def.AnPl
 ‘the people who have not finished eating’

The **Experiential Perfect Negative** based on chained verb *tá:-* has a similar pattern. The negative inflectable form is *tà:-rí-*, including Perfective Negative *-rí-*, and this is copied in Participial *tà:-rí-*. The participles also copy the unusual tone-dropping pattern seen in the inflected forms, by which *-rí-* induces tone-dropping not only on *tá:-* but also on the preceding verb stem.

- (xx5) a. yà: [isè gó] ònè tà:-rí
 woman.L [village in] go.L ExpNeg-Ppl.PerfNeg
 ‘a woman who has never gone to the village’
- b. yà: [isè gó] ònè tà:-rí né
 woman.L [village in] go.L ExpNeg-Ppl.PerfNeg Def,AnSg
 ‘a woman who has never gone to the village’

14.1.7.4 Participles of negative imperfective-system and stative verbs

The Imperfective Negative suffix *-ɲò:* is also used in participles, with the same stem-shapes as with the inflected stems. A few examples are in (xx1). The same irregularities with ‘hear’, ‘see’, and ‘go’ as in the inflected forms are observed in the participles. The 3Pl agreement forms are discussed below.

(xx1) Imperfective Negative participles

| bare stem | ImpfNeg | ImpfNeg participle | gloss |
|----------------------|--------------------------|-------------------------|-----------------|
| gǒ:- | gó:-ɲò:- | gó:-ɲò: | ‘go out’ |
| ńné- | ńné-ɲò:- | ńné-ɲò: | ‘go’ |
| nǔy ⁿ - | nù-ɲó- | nù-ɲó- | ‘hear’ |
| yí:- | ɲù-ɲó- | ɲù-ɲó | ‘see’ |
| gě:r ⁿ í- | gě:r ⁿ é-ɲò:- | gě:r ⁿ é-ɲò: | ‘take, deliver’ |

Examples are in (xx2). When a determiner follows, the verb stem is tone-dropped (xx2.b).

- (xx2) a. nàɲà ú émé-ɲò:
 cow.L 2SgS milk-Ppl.Impf.Neg
 ‘a cow that you-Sg do (will) not milk’
- b. nàɲà û: èmè-ɲò: bú:
 cow.L 2PlS milk-Ppl.Impf.Neg.L Def.AnPl
 ‘the cow that you-Sg do (will) not milk’

As with the Perfective Negative Participle, there is a special form used for Animate Plural head-NP agreement with the Imperfective Negative Participle. In the inflected paradigm, the 3Pl form of *-ɲò:-* is *-ɲ-è:-*, as in *yé:-ɲ-è:-* ‘they don’t/won’t come’. The form *-ɲ-è:-* is used in the participles for Animate Plural head NPs (xx3).

- (xx3) a. **nàŋà** **bû:** **émé-ŋ-è:**
 cow.L 3PIS milk-Ppl.Impf.Neg-3PIS
 ‘cows that they will not milk’
- b. **nàŋà** **bû:** **èmè-ŋ-è:** **bû:**
 cow.L 3PIS milk-Ppl.Impf.Neg-3PIS.L Def.AnPl
 ‘the cows that they will not milk’

Stative Negative **=ndó-** also has a participial counterpart with the identical ending, though without pronominal-subject agreement (**=ndó**). This allows participles to be created from negative forms of Stative verbs and of predicate adjectives. Similarly, a participle can be directly constructed from ‘not be (noun)’ clitic **=ndǒ:-**.

- (xx4) a. **àrⁿà** **èwò=**ndó****
 man.L sit.Stat=Ppl.StatNeg
 ‘a man who is not sitting’
- b. **àrⁿà gàwà=**ndó****
 man.L tall=Ppl.StatNeg
 ‘a man who is not tall’
- c. **àrⁿà dógô=**ndǒ:****
 man.L Dogon=Ppl.not.be
 ‘a man who is not a Dogon (person)’

The counterparts of (xx4.a-c) with Animate Plural head NP are in (xx5). They show the usual imitation of the 3Pl subject form of the inflected clitics.

- (xx5) a. **àrⁿà** **èwè=**nd-é****
 man.L sit.Stat=Ppl.StatNeg-AnPl
 ‘men who are not sitting’
- b. **àrⁿà gàwà=**nd-é****
 man.L tall.L=Ppl.StatNeg-AnPl
 ‘men who are not tall’
- c. **àrⁿà dógô=**nd-ě:****
 man.L Dogon=Ppl.not.be-AnPl
 ‘men who are not Dogon (people)’

The Progressive Negative inflected form ends in Stative Negative =ndó and is participialized accordingly (xx6.a). sò-ndó- ‘not have’ and other negative forms of stative verbs and quasi-verbs are also participializable in the same way.

| | | | |
|-------|-----------------------------|------------|-------------------------|
| (xx6) | àr ⁿ à | sémí-ndé | sémbì-sò=ndó |
| | man.L | sweep-VblN | sweep-Progr=Ppl.StatNeg |
| | ‘a man who is not sweeping’ | | |

14.1.7.5 Participle of Past =bε

Since everything else can be participialized, it is no surprise that verbs and other predicates with Past clitic =bε can be participialized.

For positive categories, the relationship between the inflected stem and the participle is summarized in (xx1). These are rather uncommon in actual use.

| | | | |
|-------|----------------|--------------|--|
| (xx1) | AN category | inflected | participle |
| | positive | | |
| | Imperfective | -m̀=̀b̀è- | -m̀=̀b̀è-s (but -m̀=̀s̀è before determiner) |
| | Progressive | -s̀ò=̀b̀è- | -s̀ò-m̀=̀b̀è ~ -s̀ò=̀b̀è |
| | Past Perfect | =̀b̀é- | -ỳé-m̀=̀b̀è ~ -ỳé=̀b̀è |
| | Perfective-1b | -t̀í=̀b̀é- | -t̀í=̀b̀é |
| | Perfective-1a | -è̀r̀è=̀b̀è- | -è̀r̀è=̀b̀è |
| | Perfective-2 | -s̀ó=̀b̀é- | -s̀ó=̀b̀è |
| | Recent Perfect | j̀è=̀b̀è- | j̀è=̀b̀è |

For negative forms of =bε-, the participial forms in (xx2) were recorded. The special Animate Plural head NP forms are in the far right column.

| | | | | |
|-------|--------------|---------------|--------------|---------------|
| (xx1) | AN category | inflected | participle | |
| | | | regular | AnPl |
| | negative | | | |
| | Past Perfect | -r̀í=̀b̀é- | -r̀í=̀b̀é | -àndú=b-á |
| | Imperfective | -r̀j̀:̀=̀b̀è- | -r̀j̀:̀=̀b̀è | -r̀j̀:̀=̀b̀-à |

14.1.8 Relative clause involving verb- or VP-chain

When verbs (and VPs) are chained, only the final verb is participialized, the nonfinal ones remaining in their usual form. In the case of direct chains (without a chaining morpheme), the nonfinal verbs have their usual bare stem form with lexical vocalism and tones. In a non-subject relative, if a subject pronominal is present, it intervenes between the penultimate verb in the chain and the final verbal participle. In (xx1), *éwé* ‘buy’ is the nonfinal chained verb.

- (xx1) *nàṅà* *éwé* *ĩ:ⁿ* *jè:-m* *né*
 cow.L buy 1SgS bring-Ppl.Impf.L Def.AnSg
 ‘the cow that I will buy and bring.’

A nonpronominal NP does not intervene between the verbs of a direct chain. However, in non-subject relatives involving directly chained verbs (the final verb, therefore, being a participle), if the subject is a nonpronominal NP, it is optionally (but often) resumed by a 3Sg or 3Pl subject pronoun that directly preceded the final verb. Note the parenthesized, optional pronouns in (xx2), each of which is coindexed with the subject NP of the relative clause (‘the man’, ‘some women’).

- (xx2) a. *nàṅà* [*àrⁿà* *né*] *éwé* (*ńné*)
 cow.L [man.L Def.AnSg] buy (3SgS)
jè:-sè *né*
 bring.Ppl.Perf.L Def.AnSg
 ‘the cow that the man bought and brought’
- b. *nàṅà* [*yà:* *bû:]* *éwé* (*bû:*)
 cow.L [woman Def.AnPl] buy (3PlS)
jè:-sè *né*
 bring.Ppl.Perf.L Def.AnSg
 ‘the cow that some women bought and brought’
- c. [*àrⁿà* *né*] *ùsù* *nàṅá* *éwé* (*ńné*)
 [man.L Def.AnSg] day cow buy (3SgS)
jè:-sè *gú*
 bring.Ppl.Perf.L Def.InanSg
 ‘the day the man bought and brought a cow’

14.1.9 Determiners following the participle

If the head NP (and therefore the entire NP including the relative) is definite, the relevant Definite morpheme is added after the participle. Definite morphemes have tone-dropping effects on preceding words within simple NPs. In relatives, Definite morphemes have some tone-dropping effects on the participles themselves. The limitations of these tone-dropping effects are described in detail in the preceding sections on the form of participles for various inflectional categories. Abundant examples with and without Definite morphemes are given there.

In careful pronunciation, or before the ‘it is’ clitic or other particle, the Definite morphemes at the end of relatives have their regular pronunciation including high or falling tones. In rapid speech they tend to be articulated casually and the high or falling tone is not always audible.

Less often, a demonstrative pronoun is present, again at the end of the relative clause following the participle. A demonstrative has the same tone-dropping effects as a Definite morpheme,

- (xx1) àrⁿà ú yè:-m wǒŋ
 man.L 2SgS see-Ppl.Impf Dem.AnSg
 ‘this man whom you-Sg see’

14.1.10 Non-numeral quantifiers following the participle

Universal and distributive quantifiers (‘all’, ‘each’) are also shifted from NP-final position (on the head NP) to post-participial position. *kéréw* ‘all’ may also follow a determiner (xx1.a). *kámâ* ‘each’ directly follows the participle, and forces tone-dropping on it (xx1.b-c).

- (xx1) a. [nàŋà ú èmè-rⁿi bû: kéréw] jô:
 [cow.L 2SgS milk-Ppl.PerfNeg.L Def.AnPl all] bring.Imprt
 ‘Bring-2Sg all the cows that you-Sg have not milked.’
- b. [ñdò yègè-sè kámâ],
 [house.L fall-Ppl.Perf.L each]
 [milyó wòy] jóró-m-ì:y
 [million two] look.for-Impf-1PIS
 ‘(For) each house that fell, we are seeking two million (francs).’
- c. nù ñǎ: kó: jè-rǐ kámâ
 person meal eat RecPf-Ppl.PerfNeg.L each

‘any person who has not finished eating’

14.1.11 Indefinite relatives

These relatives omit the Definite morpheme, and therefore end with a participial.

- (xxx) a. [nàŋà ú èmè-rⁿí] jóró-sò-y
 [cow.L 2SgS milk-Perf.Neg] look.for-Impf-1SgS
 ‘I’m looking for a cow that you-Sg haven’t milked.’
- b. [[nàŋà wǒy] ú èmè-rⁿí] jóró-sò-y
 [[cow.L two.L] 2SgS milk-Perf.Neg] look.for-Impf-1SgS
 ‘I’m looking for two cows that you-Sg haven’t milked.’

14.2 Subject relative clause

14.2.1 Ordinary subject relative clause

To resume the comments scattered across several preceding sections, a subject relative is characterized by the following: a) head NP is clause-internal but is marked by tone-dropping; b) no preparticipial subject pronominal is present; c) verb is replaced by a participle; d) determiners and non-numeral quantifiers that would normally be part of the head NP are repositioned after the participle. The examples in (xx1) involve positive participles.

- (xx1) a. [éwé gá] àrⁿà òjì-íj yí:-sè né
 [market in] man.L 1Sg-Acc see-Ppl.Perf.L Def.AnSg
 ‘the man who saw me in the market’
- b. [éwé gá] àrⁿà òjì-íj yí:-sè
 [market in] man.L 1Sg-Acc see-Ppl.Perf
 ‘some men who saw me in the market’
- c. [kùrⁿò òjì-íj bàrⁿimì-sè gú]
 [stone.L 1Sg-Acc injure-Ppl.Perf.L Def.InanSg]
 àrⁿáŋá bù-Ø
 where? be-3SgS
 ‘Where is the stone that injured me?’

- d. [kùrⁿò nǐ-ǐ bàr^rimǐ-sè ý]
 [stone.L 1Sg-Acc injure-Ppl.Perf.L Def.InanPl]
 àrⁿáǵá b-è
 where? be-3PIS
 ‘Where are the stones that injured me?’
- e. nù ñǐ-ǐ súyó-sè
 person.L 1Sg-Acc hit-Ppl.Perf
 ‘a person who hit me’
- f. nù ñǐ-ǐ sùyò-sè bú:
 person.L 1SgO-Acc hit-Ppl.Perf.L Def.AnPl
 ‘the people who hit-Past me’
- g. nù ñǐ-ǐ sùyò-m né
 person.L 1SgO hit-Ppl.Impf.L Def.AnSg
 ‘the person who hits me’
- h. nù ñǐ-ǐ súyó-mǐ
 person.L 1SgO hit-Ppl.Impf.L
 ‘a person (or: people) who hit-Present me’

In the negative categories, the participle has a distinctive form for Animate Plural head NP, as in (xx2.b) and (xx2.d).

- (xx2) a. nù ñǐ-ǐ sùyò-rǐ né
 person.L 1Sg-Acc hit-Ppl.Perf.Neg.L Def.AnSg
 ‘the person who didn’t hit me’
- b. nù ñǐ-ǐ sùyò-ndù bú:
 person.L 1Sg-Acc hit-Ppl.Perf.Neg.AnPl Def.AnPl
 ‘the people who didn’t hit me’
- c. nù ñǐ-ǐ sùyò-ǵò: né
 person.L 1Sg-Acc hit-Ppl.ImpfNeg Def.AnSg
 ‘the person who doesn’t hit me’
- d. nù ñǐ-ǐ sùyò-ǵ-è: bú:
 person.L 1Sg-Acc hit-Ppl.ImpfNeg-AnPl Def.AnPl
 ‘the people who don’t hit me’

14.3 Object relative clause

14.3.1 Ordinary object relative clause

Again the verb is replaced by a participle. The head NP is tone-dropped, and any determiners or non-numeral quantifiers belong to the head NP are placed following the participle. There is **no Accusative marking**. If the subject is pronominal, it is expressed by an independent pronoun immediately before the participle. Positive examples are in (xx1).

- (xx1) a. [éwé gá àrⁿà ǐ:ⁿ yǐ:-sè né
 [market in] man.L 1SgS see-Ppl.Perf.L Def.AnSg
 ‘the man who(m) I saw in the market’
- b. [éwé gá àrⁿà ǐ:ⁿ yǐ:-sè bú:
 [market in] man.L 1SgS see-Ppl.Perf.L Def.AnSg
 ‘the men who(m) I saw in the market’
- c. [éwé gá mànḡòrò ǐ:ⁿ yǐ:-sè gú
 [market in] mango.L 1SgS see-Ppl.Perf.L Def.InanSg
 ‘the mango that I saw in the market’
- d. [éwé gá mànḡòrò ǐ:ⁿ yǐ:-sè ÿ
 [market in] mango.L 1SgS see-Ppl.Perf.L Def.InanPl
 ‘the mangoes that I saw in the market’
- e. [lèḡè-sò ú èwè-sè gú]
 [bicycle.L 2SgS buy-Ppl.Perf.L Def.InanSg]
 nàmá-èrè-Ø
 be.ruined-Perf-3SgS
 ‘The bike that you-Sg bought has malfunctioned.’
- f. [lèḡè-sò ǐ:ⁿ èwè-m kù] ḡgú kúⁿ
 [bicycle.L 1SgS buy-? Def] Dem be
 ‘This is the bike that I will buy.’
- g. [ǐ: kò:-sè gú] nàmâ=w̃=ndǒ:
 [1PIS eat-Ppl.Perf.L Def] meat=it.is=not.be
 nīmī=w̃ nà
 cow.pea-be rather
 ‘What we ate was not meat, rather cow-peas’.

Negative examples are (xx2).

- (xx2) a. *kò* *û:* *kó:-nò:*
 thing.L 2PlS eat-Ppl.ImpfNeg
 ‘what you-Pl do not eat’
- b. *nàṅà* *ĩ.ⁿ* *tùrò:-ndù* *bû:*
 cow 1SgS sell-Ppl.PerfNeg.AnPl Def.AnPl
 ‘the cows that I did not sell’

14.4 Possessor relative clause

The possessor (always nonpronominal and always preceding the possessed noun) is tone-dropped, while the possessed noun reverts to its regular (non-possessed) tone contour. Especially with kin and other inalienable relationship terms, a pronominal postnominal possessor may also appear.

- (xx1) a. [*àrⁿà* *ńdò*] *yègè-sè* *né*
 [man.L house fall-Ppl.Perf.L Def.AnSg
 ‘the man whose house fell’
- b. [*àrⁿà* *nàṅá*] *sà:ḍí-sè* *bû:*
 [man.L cow] die.without.slaughter-Ppl.Perf.L Def.AnPl
 ‘the men whose cow died (naturally)’
- c. *àrⁿà* [*bă:* *nò*] *nnè-sè* *né*
 man.L [father 3SgP] go-Ppl.Perf.L Def.AnSg
 ‘the man whose father has gone’
- d. *àrⁿà* [*bă:* *bû:* *yè*] *nnè-sè* *bû:*
 man.L [father AnPIP Poss.AnPl] go-Ppl.Perf.L Def.AnPl
 ‘the men whose fathers have gone’

14.5 Relativization on the complement of a postposition

In (xx1.a), the head NP is logically the dative indirect object, but there is no sign of the Dative postposition /bay/. Likewise, in (xx1.b), ‘daba’ (native hoe) is logically instrumental, but the usual Instrumental postposition *yàṅà* is absent. And in (xx1.c), ‘honey’ is purposive, cf. (xx1.a) in §8.3, above, but Purposive postposition *dèrⁿi* is nowhere to be seen. Clearly the regular way to form a

relative clause with the complement of a basic postposition as head NP is to delete the postposition entirely and then treat the head NP in the usual way.

- (xx1) a. *yà:* *ṅgú* *ĩ:ⁿ* *kĩyè-sènέ*
 woman.L Dem.InanSg 1SgS say-Ppl.Perf.L Def.AnSg
 ‘the woman to whom I said that’
- b. *wàrà* *yû:* *ĩ:ⁿ* *wàrà-m̀* *gú*
 daba.L millet 1SgS do.farm.work-Ppl.Impf.L Def.InanSg
 ‘the daba (hoe) with which I do farming’ (*wárâ*)
- c. *ò:ndò* *bû:* *yè:-sè* *gú*
 honey.L 3PlS come-Ppl.Perf.L Def.InanSg
 ‘the honey for which they came’

15 Verb (VP) chaining and adverbial clauses

I use the term **chain** to denote a sequence of two or more verbs, or VPs, where the nonfinal verbs are not inflected for pronominal subject. **Direct chains** have nonfinal verbs in their bare form (with lexical tone and vocalism), usually directly adjacent to the following (perhaps final) verb in the chain, except that (in non-subject relative clauses) a subject pronominal may intervene. Looser chains, often involving more complete VPs or clauses, make use of VP-final chaining morphemes, which to some extent distinguish same-subject from different-subject clause sequences (switch-reference).

15.1 Direct chains (without chaining morpheme)

An example of a direct chain is *tómbó sígè-* ‘fall go.down’, i.e., ‘fall down’. In such cases, we can speak of two co-events that fuse into a single complex cognitive scenario. Since direct chaining of verbs is fairly productive in Nanga, a direct chain in Nanga may correspond to a single clause with an adverbial phrase in English.

15.1.1 Verbal Noun of directly chained verbs

When a direct verb chain is converted into a verbal noun, the Verbal Noun suffix *-ndé* is added to the final verb only. The nonfinal verbs have their regular form (there is no tone-dropping). Thus *tómbó sígè-ndé* ‘fall(ing) and going down’ = ‘falling down’.

15.1.2 Presence of AN suffix in nonfinal verb in direct chains

In my data, the basic AN suffixes that do not pattern phonologically as chained verbs (i.e. Perfective-1a *-èrè-*, Perfective-1b *-tí-*, Perfective-2 *-só-*, Perfective Negative *-rí-*, Imperfective Negative *-ɲò:-*) do not occur in nonfinal verbs in chains, without an overt chaining morpheme. Nanga uses other devices to specify temporal relations among fuller, more loosely chained VPs and clauses, and generally does not allow separate negation of nonfinal verbs or VPs in chains.

However, Imperfective *-nè-* (3Sg form *-ḥ*) does correspond to an Imperfective subordinator *-ḥ* used in durative clauses (§15.xxx, below).

15.1.3 Arguments of directly chained verbs

Consider a chain consisting of two transitive verbs, with a direct object, as in (xx1).

- (xx1) *pèrgé-ḥ* *súyó* *j̄yè-Ø*
 sheep-Acc hit kill.Perf.L-3SgS
 ‘He/She hit and killed the sheep.’

In effect, ‘hit’ and ‘kill’ fuse into a single scenario, and it may not be meaningful to ask whether ‘sheep’ should be bracketed with ‘hit’ or with ‘kill’. My assistant rejected a version of (xx1) with ‘sheep’ intervening between the verbs (which would favor bracketing specifically with ‘kill’). Replacing ‘sheep’ by a pronoun results in no change in order (*ú-ḥ súyó j̄yè-ḥ* ‘he/she will hit and kill you-Sg’).

15.1.4 Negation of direct verb chains

Morphologically, a direct verb chain is negated as a whole, with the negative morpheme appearing on the final verb.

- (xx1) *tómbó* *sùgò-ndú*
 jump go.down-PerfNeg.3PlS
 ‘They didn’t jump down.’

15.1.5 Direct chains including *dògó-* ‘leave’

As usual in Dogon languages, the transitive verb ‘leave, abandon’ is often added after another verb that states (or implies) fixing the position of the object NP. In a free English translation, ‘leave’ could easily be omitted.

- (xx1) a. *[j̄injà gú]* *ḥgá d̄ḥj* *dòg-ò*
 [water.jar.L Def.InanSg] here put.down leave.Perf.L-3PlS
 ‘They put down (and left) the water jar.’ (*dùḥí*)
- b. *nàḥá* *págí* *dògó-só-y*

cow tie leave-Perf2-1SgS
 ‘I tied up and left the cow.’

15.1.6 Direct chains including a motion verb or ‘pick up, take’

‘Come/go and VP’ can be expressed by a nonfinal motion verb plus a chained VP. The motion verb directly precedes the final verb, and if the latter is transitive the complements occur to the left of the two-verb chain. This construction is especially common in imperatives and hortatives.

yě:- ‘come’ takes the low-toned, short-voweled form *yè* in this type of chain (xx1.a). *ńné*- ‘go’ has its regular form (xx1.b).

- (xx1) a. *ńǎ:* *yè* *kô:*
 meal come eat.Imprt
 ‘Come eat (a meal)!’
- b. *pèrgé-ŋ* *ńné* *sémâ*
 sheep-Acc go slaughter.Imprt
 ‘Go slaughter (the) sheep-Sg!’
- c. *pèrgé-ŋ* *ńné* *sémé-màyⁿ*
 sheep-Acc go slaughter-Hortative.1Pl
 ‘Let’s-1Pl go slaughter (a/the) sheep-Sg!’
- d. *é:ŋí* *pèrgé* *ńné* *sémé-m-∅*
 tomorrow sheep go slaughter-Impf-1SgS
 ‘Tomorrow I will go and slaughter (a/the) sheep-Sg.’

15.1.7 Durative verb-iterations chained to a motion verb

One type of durative adverbial clause (or its functional equivalent) is constructed by iterating the uninflected verb stem, with {HL} tone on the first occurrence and all-low tone on the second and (if present) later iterations. In (xx1), the initial *gǐyé* is a cognate nominal and is not part of the iteration, which begins with the following verb stem.

- (xx1) [*gǐyé* *gǐyè-gǐyè*] *yè:-∅*
 [dance(noun) dance.HL-dance.L] come.Perf.L-3SgS
 ‘He/She came (while)dancing.’

My assistant regularly produced examples of this type when combining a final motion verb with a VP denoting a co-occurring activity. For more examples of this tonally defined iterative pattern and a discussion of tonal contours, see §xxx.

15.1.8 Chains including *mǔ:ndí:-* ‘be/do together’

By itself, the verb *mǔ:ndí-yí-* [*mǔ:ndí:*] is an intransitive verb meaning ‘gather together, assemble’. It occurs chained with another VP to translate adverbial ‘together’. Thus ‘work together’ is expressed as ‘get together and work’.

- (xx1) a. *mǔ:ndí-yí* *bírè-m-è*
gather-MP work-Impf-3PIS
 ‘They work together.’
- b. *mǔ:ndí-yí* *ńńí-m-è*
gather-MP go-Impf-3PIS
 ‘They will go together.’

15.1.9 Chaining with *jéjè⇒* ‘go with’

The stem *jéjè⇒* is a specialized element (cf. Jamsay *jíjè*) that functions syntactically like a transitive verb with a sense like ‘have/take (something) with oneself’, but occurs only in nonfinal position in chains, chiefly with motion verbs. It may take a direct object (denoting anything from an inanimate object to a human) that is not otherwise part of the argument structure of the following verb. The object may take Accusative marking.

- (xx1) a. *sùmǎylâ* *pèrgé* *jéjè⇒* *ńńè-∅*
 S sheep have.with go.Perf.L-3SgS
 ‘Soumaila went with (a/the) sheep.’
 or: ‘Sumaila took (a/the) sheep along with him.’
- b. *ńńé-ń* *jéjè⇒* *ńń-ò*
 3SgS-Acc have.with go.Perf.L-3PIS
 ‘They took him/her along.’

15.2 Adverbial clauses with overt chaining or subordinating morpheme

This section begins with a number of alternative durative or imperfective VP or clause types. See also the direct chain type with iterated uninflected verb (§15.1.xxx, above). After covering these constructions, we look at others involving a temporal separation between the chained eventualities.

15.2.1 Backgrounded durative clauses (m̀̀)

Particle *m̀̀* is used in backgrounded durative clauses. That is, the eventuality denoted by the */m̀̀/* clause persists through a temporal extent T that leads up to (and may overlap with) a following foregrounded event.

/m̀̀/ is added directly to the same form of the stem used before Imperfective *-m̀̀* (-̀̀). It would be possible to analyse */m̀̀/* as containing, or as a variant form of, Imperfective *-m̀̀*, but the vowel is obscure. Some examples showing the stem form are in (xx1).

| (xx1) | bare stem | with <i>m̀̀</i> | gloss |
|-------|-----------|-----------------|----------|
| | yě:- | yé: m̀̀ | ‘come’ |
| | yǐ:- | yí: m̀̀ | ‘see’ |
| | ńné- | ńní m̀̀ | ‘go’ |
| | yègé- | yégé m̀̀ | ‘fall’ |
| | g̀̀njó- | g̀̀njó m̀̀ | ‘dig’ |
| | bǎ:rí- | bǎ:rá m̀̀ | ‘help’ |
| | bègírí- | bègíré m̀̀ | ‘winnow’ |

In elicited examples, the subjects of the */m̀̀/* clause and the following clause may or may not be coindexed. If they are coindexed, the subject is omitted in the */m̀̀/* clause (xx2.b). If the two subjects are not coindexed, the subject is marked in the */m̀̀/* clause, and if this subject is pronominal it is expressed by an independent pronoun (xx2.a).

- (xx2) a. [í: yé: m̀̀] [b̀̀ndí ẁ̀è-Ø]
 [1PIS come while] [rain(n) rain.fall.Perf.L-3SgS]
 ‘As we were on our way here, it rained.’
- b. [yé: m̀̀] yèbùmbà yǐ:-só-ý
 [come while] snake see-Perf2-1SgS
 ‘On my way (= while coming) here, I saw a snake.’

In the sample text presented at the end of this work, the occurrences of *m̀̀* are used in specific narrative contexts. An activity verb (such as a motion verb) is introduced in one clause (with its subject NP or pronominal), then from two to four identical *m̀̀* clauses occur with background-clause intonation to indicate prolongation of this activity (usually with no repetition of the subject pronominal), then a new foregrounded event is introduced:

‘The two of them were coming; **come *m̀̀*, come *m̀̀*, come *m̀̀*** [= they kept coming and coming]. (Then) a storm arose.’ (xxx).

‘The two of them **come *m̀̀*, come *m̀̀*** [= were coming and coming], (and) when they had gone a little way, he (= hyena) said to hare: ...’ (xxx)

m̀̀ may also be used after quasi-verb *bú* ‘be’ when the latter functions as an auxiliary verb, following another imperfective verb. A pronominal subject is again expressed by an independent pronoun. In the sample text we find *básâ-ⁿ íné bú m̀̀* ‘while he (= hyena) was pulling’ (followed by: ‘the goat lay down motionless’) (xxx).

See also /*m̀̀*/ in durative complements of ‘see’ and ‘find’ (§17.2.2.1).

15.2.2 Imperfective *-̀̀* as subordinator

15.2.2.1 Imperfective *-̀̀* on activity verb plus time-of-day verb

A time-of-day verb (‘spend the night’, ‘spend the mid-day’, etc.) may be chained with a preceding activity VP. The verb of the activity VP takes Imperfective subordinating suffix *-̀̀*, which is not inflected for pronominal subject. The verb stem has the same form as in the inflected Imperfective.

- (xx1) a. [*g̀̀yé* *g̀̀yé-̀̀*] *nàè-∅*
 [dance(noun) dance-**Impf**] **spend.night**.Perf.L-3SgS
 ‘He/She spent the night dancing.’ (= ‘danced all night’)
- b. [*g̀̀yé* *g̀̀yé-̀̀*] *nà:-y*
 [dance(noun) dance-**Impf**] **spend.night**.Perf.L-1SgS
 ‘I spent the night dancing.’ (= ‘danced all night’)
- c. [*wórí* *wára-̀̀*] *đírⁿè-∅*
 [**farming** do.farm.work-**Impf**] **spend.midday**.Perf.L-3SgS
 ‘He/She spent the (mid-)day farming.’

15.2.2.2 Imperfective *-ḥ* (*-m̀*) plus *b̀*- ‘be’

This combination does not seem to be common, since there is a more productive Progressive verb form with *s̀*- (§10.xxx). However, it was elicitable. From my assistant’s comments, the *b̀*- here has its literal meaning ‘be present, be (in a place)’, so the *-m̀* clause can be taken as subordinated.

An example is (xx1.a). When directly preceding *b̀*-, the Imperfective subordinator is always pronounced [m], which I take to reflect assimilation to the following labial. The negative counterpart has [ŋ] before *ḥg̀*- ‘not be’, and the two velar nasals contract. This too could be a point-of-articulation assimilation, but in view of the clear *-ḥ* in the time-of-day construction (see just above) I normalize transcription as *-ḥ*.

- (xx1) a. [[*t̥i*yá yê:] nǎ: kó:-m̀] b̀-Ø
 [[friend 1SgP.Poss.AnSg] meal eat-**Impf**] be-3SgS
 ‘My friend is (present) eating a meal.’
- b. nǎ: kó:-ḥ] ḥg̀-ý
 [meal eat-**Impf**] not.be-1SgS
 ‘I am not (present) eating a meal.’

15.2.3 Imperfective adverbial clause with *-m̀-*s̀* gà*

In this construction, the verb ends in Imperfective *-m̀* followed by *-s̀ gà*. The clause is otherwise in relative-clause form, with *wágáđi* (or *wágátí*) ‘time’ in low-toned form as the head NP. A pronominal subject is expressed as an preverbal pronoun.

The clause can be translated as ‘while’ or ‘when’, with a progressive, stative, or other durative VP. The *-s̀ gà* clause and the main clause may have coindexed or disjoint subjects. Morphologically, *gà* can be taken as the Locative postposition, here ‘at (the time when...)’. This leaves *-s̀*, which is identical in form to the Perfective Participial suffix. I will gloss it accordingly. It is difficult to make sense of the combination of imperfective and perfective, but perhaps *-s̀* here functions as a past-time marker here, rather than as a conventional perfective. If so, the construction might be parsed as ‘at [the time when X was VP-ing]’. However, another option would be to take *s̀gà* as a fused morpheme.

- (xx1) a. wágáđi yú: ǐ:ⁿ wára-m̀-*s̀* gà,
 time.L millet 1SgS do.farm.work-**Impf**-Ppl.Perf at,
 b̀ndí ẁè-Ø
 rain rain.fall.Perf.L-3SgS
 ‘While I was (in the fields) farming millet, it rained.’

- b. [têgɛ́ gá] ú bú-m-sɛ̀ gá,
 [childhood in] 2SgS be-Impf-Ppl.Perf while,
 ñgá yé:-m̀=ɓɛ̀-w̃
 here come-Impf=Past-2SgS
 ‘When you were a child, you used to come here (often).’

-m̀-ɓɛ̀ is attested without gá. See (xx2) in §13.2.10, above. Historically, -m̀-ɓɛ̀ may have originated as a participial (i.e. relative-clause) form of the Progressive. The latter is now expressed by a suffix -sò- following a form of the verb stem with lengthened final stem vowel with a final L-tone element, with a less common variant -ŋ-sò- that retains an audible variant of Imperfective -m ~ -ŋ (§10.2.2.4). However, the Progressive now has a distinct participial form in -só-m̃ (§14.1.7.2), so there is no clear synchronic connection between it and -m̀-ɓɛ̀.

15.2.4 Simultaneous same-subject jè: before motion verb

A construction with -jè: added to a VP with its verb in bare-stem form, followed by a motion verb, denotes simultaneous co-events with the same subject. jè: has some resemblance to Recent Perfect jè- (§10.xxx), which also follows the bare stem, but it cannot be identified with any specific form of jè-. There is no obvious semantic connection since the co-events are simultaneous. Another possible connection is with jéjè⇒ ‘have/take (something) with oneself’ (§15.1.9).

- (xx2) a. [háfi mó:tí=yè] [yògó jè:] ñnè-∅
 [all.the.way.to M=Loc] [run while.SS] go.Perf.L-3SgS
 ‘He/She ran all the way to Mopti.’
 (lit. “He/She went all the way to Mopti while running.”)
- b. [bàrkô dambí jè:] yè-y
 [gas.drum push while.SS] come.Perf.L-1SgS
 ‘I came (here) pushing a gas drum (large barrel).’

My assistant rejected combinations of jè: with following non-motion verbs.

15.2.5 Durative ...é: on complement of /dǎ:-/ ‘be tired/do long time’

The usual verb ‘become tired (weary)’ (or more generally ‘suffer physically’) is *áyá-*. Another verb, *dǎ:-*, is used in contexts like ‘I worked until I got tired’, or more freely ‘I worked a very long time’.

In (xx1), from the sample text, the complement of *dǎ:-* is a verb with suffix *-é:*. As we will see, the suffix is actually based (segmentally) on the unsuffixed Perfective (ending in {*ε e i*} depending on the verb), but with lexical onset tone, and with the final vowel high-toned and (for mono- and bisyllabic verbs) long. I will gloss the ending in interlinears as “Dur[ative],” but will not hyphenate it.

- (xx1) [tâ-tâ: [bêr á yê]
 [hyena [goat ReflSgP Poss.AnSg]
bàsé: *íné* *dǎ:* *nà*] *íní-ŋò:-∅*
 pull.**Dur** 3SgS **be.tired** then.DS] go-ImpfNeg-3SgS
 ‘Hyena tugged on his goat until he (= hyena) was exhausted (= for a long time), (but) it wouldn’t go.’

I have found no syntactic context other than the construction with *dǎ:-* that calls for this form of the complement. Similar examples with other verbs were readily elicited. They show that a non-3Sg pronominal subject is expressed by an independent pronoun in complement, not as a pronominal-subject suffix on the *dǎ:-* verb (xx2). This suggests that even in (unsubordinated) main clauses, *dǎ:-* in this construction is impersonal, rather than constituting a typical verb-chain (with shared subjects).

- (xx2) [ɪⁿ *bírá* *bǐré:]* *dǎ:-∅*
 [1Sg work(noun) work(verb).Dur] be.tired.Perf.L-3SgS
 ‘I worked until getting tired (= for a very long time).’

Forms of the complement verb from various stems are in (xx3). Observe that the lexical tone of the stem is always preserved in the onset. Also note the absence of lengthening of the final vowel in trisyllabic and longer stems.

- (xx3) stem Perfective before *dǎ:-* gloss
- a. bisyllabic, final *é:*
- | | | | |
|--------------|--------------|--------------|--------|
| <i>bàsá-</i> | <i>bàsè-</i> | <i>bàsé:</i> | ‘pull’ |
| <i>bǐrè-</i> | <i>bǐrè-</i> | <i>bǐré:</i> | ‘work’ |
| <i>súyó</i> | <i>sùyè-</i> | <i>súyé:</i> | ‘hit’ |
- b. bisyllabic, final *é:*

| | | | |
|--|--|--|---|
| kóyó- péré- gùnjó- | kòyè- pèrè- gùnjè- | kóyé: péré: gùnjé: | ‘weep’ ‘jump off’ ‘dig’ |
| c. bisyllabic, final í: | | | |
| págí- kó:sí- dèwí- [dèw] | pàgĩ- kò:sì- dèwĩ- | págí: kó:sí: dèwí: | ‘tie’ ‘scratch’ ‘cover’ |
| d. monosyllabic | | | |
| kó:- ká:- nǎ:- gǒ:- té:- yĩ:- | kòè- kàè- nǎè- gòè- tè:- yĩ:- | kóé: káé: nǎé: gòé: té: yĩ: | ‘eat (meal)’ ‘shave’ ‘go out’ ‘go out’ ‘lay out (mat)’ ‘see’ |
| e. Cvy | | | |
| nũy- núy- | nùy- nùy- | nũy núy | ‘hear’ ‘go in’ |
| f. nCv | | | |
| ńné- ńdí- ńdé- | ńnè- ńđi- ńdè- | ńné: ńdí: ńdé: | ‘go’ ‘go’ ‘go’ |
| g. trisyllabic with final /i/ | | | |
| bègírí- yàgíbí- | bègĩrĩ- yàgĩbĩ- | bègírí yàgíbí | ‘winnow by shaking’ ‘shake (grain)’ |
| h. trisyllabic with final /e/ | | | |
| bògóró- mònjúró- | bògòrè- mònjùrè- | bògóre mònjúré | ‘bellow’ ‘dream’ |

A **negative** counterpart can be formed by adding the same 3Sg Perfective **dè:-** ‘be tired’ to a pronominally inflected Perfective Negative verb (xx4).

- (xx4) [nàmâ kùwò-rí-ý] dè:-Ø
 [meat eat-Perf.Neg-1 SgS] be.tired.Perf.L-3SgS
 ‘I didn’t eat meat for a long time.’
 (= ‘I went a long time without eating meat.’)

15.2.6 Clauses with /nà/ ‘and then’ (different subject, anterior)

Clauses with /nà/ denote eventualities that precede in time the reference time (in the main clause). The subject of the /nà/ clause is referentially disjoint from that of the main clause, and is therefore overtly expressed (for example, by an independent pronoun). This different-subject (“DS”) subordinator follows a **bare verb stem** with lexical vocalism and tone, hence *yí: nà* ‘see and’, *íné nà* ‘go and’, *bǎ:rí nà* ‘help and ...’, etc. A pronominal subject, if present, is expressed by an **independent pronoun** (as in a non-subject relative clause.) There are some examples in the sample text. Other examples are in (xx1).

- (xx1) a. [á:mádù [sèŋ gú] íné bàsá nà]
 [A [rope.L Def.InanSg] 3SgS pull and.DS]
pàrè-Ø
 snap.Perf.L-3SgS
 ‘Amadou pulled the rope and (then) it snapped.’ (*sèŋí*)
 (lit. “Amadou having pulled the rope, it snapped.”)
- b. [[íné báy] ú íné nà]
 [[3Sg Dat] 2SgS go and.DS]
[ú-ⁿ òdè-rí-Ø]
 [2Sg-Acc give-PerfNeg-3SgS]
 ‘You-Sg went to him, but (then) he didn’t give (it) to you.’

15.2.7 Clauses with /ŋ/ (same-subject, anterior)

/ŋ/ appears at the end of a clause whose time frame precedes that of the main clause. The subjects are coindexed, and the interlinear gloss is ‘and.SS’ (for “same subject”). The subject is normally expressed only once in the two-clause sequence. This form is extremely common and is clearly the basic same-subject subordinator involving chronologically sequenced events. The verb always has its **bare-stem form**, with no tone changes or vocalic irregularities: *wàrá ŋ* ‘do farm work ...’, *bǎ:rí ŋ* ‘help and ...’, *yí: ŋ* ‘see and ...’, *íné ŋ* ‘go and ...’. Examples, in addition to several in the sample text, are in (xx1).

- (xx1) a. [yě: ŋ] èwy-à
 [come and.SS] sit.Perf.L-3PIS
 ‘They came and sat.’
- b. [[íné báy] íné ŋ] [íné-ŋ tèm̀bè-rú-w̄]
 [[3Sg Dat] go and.SS] [3Sg-Acc find-PerfNeg-2SgS]

‘You-Sg went to him (= to his place), and (= but) you didn’t find him (there).’

15.2.8 /gáy/ or /-wàndé/ ‘(and) then’ (same-subject, anterior, future time)

/gáy/ is another same-subject subordinator. It can be glossed ‘and then’, and specifies that the events of the two chained clauses are temporally sequenced (but not separated by a lengthy interval). In elicitation, my assistant allowed it only in future contexts, above all when the subsequent clause is an imperative or hortative, but he also accepted indicative clauses like that in (xx1.b). This type of context is also seen in the occurrence of gáy in the [sample text \(xxx\)](#). See also [\(xx1\) in §8.4.6.2](#) (‘we’ll work first, then we’ll eat’) and [\(xx2\) in §13.2.6](#).

The verb in the gáy clause is in bare-stem form, and **drops its tones**.

- (xx1) a. [nǎ: kò: gáy] ríné-má
 [meal eat.L then.SS] go-Hort.1Dual
 ‘Let’s eat and then go!’ (kó:)]
- b. [wàrà gáy] ríní-ḡ
 [do.farm.work then.SS] go-Impf.3SgS
 ‘He/She did farm will work (= worked in the field) and then go.’
 (wàrá)
- c. [ḡgá sèmbì gáy] ònò
 [here sweep.L then.SS] go-Impf.3SgS
 ‘Sweep up here and then go!’ (sèmbí)

Combinations with verbs that show irregularities elsewhere have regular form: yì: gáy ‘see and then ...’, ònè gáy ‘go and then ...’.

An alternative to gáy with similar restrictions is -wàndé, which also controls tone-dropping on the preceding verb. It is attested in nonfinal verbs in chains ending with an imperative.

- (xx2) a. yè:-wàndé bínò
 come.L-then.SS go.back.Imprt
 ‘Come-2Sg (here) and then go back!’
- b. ònè-wàndé yô:
 go.L-then.SS come.Imprt
 ‘Go-2Sg and then come (back)!’

-wùndé most likely contains *-nde* ‘if’ (Chapter 16), but it is semantically specialized and has no conditional nuances.

15.3 Other temporal adverbial clauses

15.3.1 ‘Since ...’ clauses (*sê dáyⁿ*)

The bare verb stem of a ‘since’ clause is followed by /*sê*/ and then optionally by *dáyⁿ* (cf. noun *dáyⁿ* ‘limit, bounds’). The clause is normally positive. However, a negative ‘since’ clause can be constructed using a Perfective Negative

- (xxx) a. [*bû: yě: sê dáyⁿ*] [*rî: ðiyò-ndú*]
 [3PIS come since since] [water bathe-PerfNeg.3PIS]
 ‘Since they came, they have not bathed.’
- b. [*mùrⁿá ñné-ń wǒ: sê dáyⁿ*] *gò:-rí-Ø*
 [sickness 3Sg-Acc catch since since] go.out-PerfNeg-3SgS
 ‘Since she got sick (“sickness caught her”), she has not gone out.’
- c. [*làwà-rí â: kárⁿí sê dáyⁿ*] *gò:-ndú*
 [pass-PerfNeg 3PILogo do since since] go.out-PerfNeg.3PIS
 ‘Since (the day when) they did not pass (= they failed exams), they haven’t gone out.’

‘Since X’ with a temporal NP as X is expressed as [*X bá:*] or (less often) [*X dáyⁿ*]. Thus *yéñirⁿi: bá:* ‘since yesterday’, less often *yéñirⁿi: dáyⁿ*.

15.4 Noun-headed temporal clause (‘the time when ...’)

wágádí ‘time, moment in time’ (a regional word ultimately from Arabic) can be used as the (low-toned) head of a relative clause that functions as a temporal adverbial clause. The relative clause as a whole takes the Locative postposition, which fuses with a Definite morpheme (e.g. /*gú gá/ > gá*). The tone-dropping on the participle is attributable to the Definite morpheme.

- (xx1) *wágádí ñné yègè-sè gá*
 time.L 3SgS fall-Ppl.Perf.L Def.InanSg.Loc
 ‘at the time when he fell’ (= ‘when he fell’)

Of course any temporal noun such as ‘day’, ‘morning’, ‘month’, ‘year’, etc. can also be the head a temporal adverbial relative clause.

15.4.1 Reverse anteriority clause with final *múgò* ‘before ...’

‘Before’ clauses are expressed by clause-final *múgò*, with tone-dropping on the preceding bare verb stem. Although I struggle to segment or parse it, my assistant’s intuition is that *múgò* is the combination of a suffix *-mí* on the verb (which drops tones), followed by /gò/. If forced to gloss each morpheme, one might connect *-mú* (*-mí*) with the Imperfective suffixes (e.g. *-mĩ* in relative-clause participles), and /gò/ with the Locative postposition (*gó* and allomorphs). However, the tone pattern makes no sense in this interpretation, and I consider it to be unanalysable.

The subject may be expressed by an independent pronoun, like *bû*: ‘they’ in (xx1.a). The subject is usually omitted when the subject of the ‘before’ clause and that of a juxtaposed main clause are coindexed (xx1.b).

- (xx1) a. [bǐndé bû: yè: múgò] dǎwí-yí-èrè
 [go.back 3PIS come.L before] hide-MP-Perf1a-1SgS
 ‘Before they came back, I hid (myself).’
- b. [jǎ: kò: múgò] bíré-m-ÿy
 [meal eat.L before] work-Impf-1PIS
 ‘We will work before eating.’

15.4.2 ‘No sooner ..., than ...’ (*bú⇒*, *pú⇒*)

In (xx1), the particle *bú⇒* (variant *pú⇒* or *fú⇒*) with H-tone is added to a headless definite adverbial relative clause ending in Definite Inanimate Singular /gú/. *pú⇒* varying with *fú⇒* (less often *bú⇒*) is elsewhere one of the ‘all’ quantifiers. In this construction, Definite /gú/ itself is pronounced with low pitch, which I interpret to be an intonational effect on an element followed by the emphatically pronounced /*bú⇒*/. The pronominal subject of the ‘as soon as’ clause is expressed as an independent pronoun. The subjects of the two clauses may be the same or different.

- (xx1) a. [í: yè:-sè gú↓ bú⇒]
 [1Pl come-Ppl.Perf.L Def.InanSg all]
bí-bìyè-y.:

Rdp-lie.down.Perf.L-1PlS

‘As soon as we came (= arrived), we went to bed.’

- b. [ñǎ: ǐ:ⁿ kò:-sè gù bú⇒] ñnè-yⁿ
 [meal 1Sg eat-Ppl.Perf.L Def.InanSg **all**] go.Perf.L-1SgS
 ‘As soon as I had eaten the meal, I went away.’
- c. [í: yè:-sè gú↓ bú⇒]
 [1Pl come-Ppl.Perf.L Def.InanSg **all**]
 [bòndí wǎ̀-Ø]
 [rain rain.fall.Perf.L-3SgS]
 ‘As soon as we came, the rain fell.’

In (xx2), bú⇒ (pú⇒) occurs at the end of temporal clause with bare verb stem and Different-Subject subordinator /nà/. The pronominal subject of the ‘as soon as’ clause is expressed by an independent pronoun. This construction is only used when the **subjects are disjoint** and the time reference is past.

- (xx2) [búrá: ǐ:ⁿ táwá nà pú⇒] kòyè-Ø
 [B 1Sg touch and.DS **all**] weep.Perf.L-3SgS
 ‘As soon as I touched Boura, he wept (=began weeping).’

In (xx3), bú⇒ with L-tone follows a **regular inflected verb** (Perfective aspect). The subjects of the two clauses may be coindexed (xx3.a) or disjoint (xx3.b). This construction is used when the time frame is **in the future** or is **gnomic** (denoting a recurrent event).

- (xx3) a. [séwá:ré dǒ-èrè-y.: bú⇒] bíyè-m-ìy
 [S arrive-Perf-1PlS **as.soon**] lie.down-Impf-1PlS
 ‘As soon as we arrive in Severe, we will go to bed.’
- b. [búrá: táwá-tù-w bú⇒] kóyô-ⁿ
 [B touch-Perf-2SgS **as.soon**] weep-Impf.3SgS
 ‘As soon as you-Sg touch Boura, he will weep.’ (warning)
- c. [fántà éwyé-èrè-Ø bú⇒] níyⁿê-ⁿ
 [F sit-Perf-3SgS **as.soon**] sleep-Impf.3SgS
 ‘As soon as Fanta sits down, she falls asleep.’ (general statement)

Other ‘all’ quantifiers are more common in postnominal position (*kéréw*, *bé:ndè*). Variants of pú=> or fú=> occur in other languages of the zone in both ‘as soon as’ and ‘all’ functions (Jamsay, Fulfulde, etc.).

A less common ‘as soon as’ construction is with final **tán** (§16.2.2).

15.5 Spatial and manner adverbials

15.5.1 Spatial adverbial clause (‘where ...’)

The noun /ɔ:/ ‘place’ occurs in L-toned form /ɔ:/ as the relative head.

- (xx1) a. [[bèrèmbí ɔ: bèrè-mbè-m] gá]
 [[herder place.L graze-Caus-Ppl.Impf.L] Def.InanSg.Loc]
 ñnô
 go.Imprt
 ‘Go to the place where the herders are having (the livestock) graze!’
- b. [[ɔ: ñné yègè-sè gú] wàgá]
 [[place.L 3Sg fall-Ppl.Perf.L Def.InanSg] be.far]
 ‘The place where he/she fell is far away.’

15.5.2 Manner adverbial clause (‘how ...’)

A relative clause with **dǎyⁿ** ‘manner’ may function as a NP (xx1.a). With **mayⁿ** ‘like’ this can become a manner adverbial clause (xx1.b).

- (xx1) a. [dǎyⁿ ñné bíré-m] èsù=ndó-Ø
 [manner.L 3SgS work-Ppl.Impf] be.good=not.be-3SgS
 ‘The way he/she works isn’t good.’
- b. [[dǎyⁿ ñné bíré-m] mayⁿ] bíré-m-Ø
 [[manner.L 3SgS work-Ppl.Impf] like] work-Impf-1SgS
 ‘I work the (same) way he/she works.’

15.5.3 Headless adverbial clause as spatiotemporal or manner clause

The ‘time’, ‘place’, or ‘manner’ head noun may be omitted. The result is a headless adverbial relative clause whose exact interpretation requires contextual decipherment. In some cases there may be no determinable specific head noun, and something like ‘situation’ may be useful in translation. In cases like (xx1.a), my assistant preferred a temporal reading even though ‘be far’ might have

hinted at a spatial reading. In (xx1.b), the ‘like’ particle forces a manner adverbial reading.

- (xx1) a. [[**ńńé** **yègè-sè** **gú**] **wàgá**
 [[3Sg fall-Ppl.Perf.L Def.InanSg] be.far
 ‘(The time) when he/she fell is far away (= was long ago).’
- b. [[**ńńé** **bíré-m̀**] **màyⁿ**] **bíré-m̀-Ø**
 [[3SgS work-Ppl.Impf] like] work-Impf-1SgS
 ‘I work like (the way) he/she works.’

15.5.4 ‘From X, until (or: all the way to) Y’

Parallel adverbial relatives ending with **dàyⁿ** (possessed, low-toned form of **dãyⁿ** ‘limit’) can be used to specify initial and terminal points of an extended duration. **hálè** ‘all the way to’ is optional at the beginning of the second clause.

- (xx1) [[**bû:** **bû:-ḡ** **nàⁿá-sè**] **dàyⁿ**]
 [[3PIS 3PI-Acc bear.child-Ppl.Perf] limit.L]
 [[**hálè**) **â:** **túwé-m̀**] **dàyⁿ**]
 [[(until) ReflPI die-Ppl.Impf] limit.L]
m̀sí-yé
 be.bad-3PIS
 ‘From when they (= their mothers) bear them_x, until when they_x die, they are wicked.’

15.5.5 ‘As though ...’ clause

A clause may be followed by /may/ ‘like’ (§xxx) in an ‘as though’ manner adverbial. Since there is no subjunctive in Nanga, there is no distinction between ‘as/like ...’ clauses and ‘as though ...’ clauses (with the special pragmatic force of the latter). If the manner adverbial has a pronominal subject, it appears as an independent pronoun, and there is no pronominal-subject suffix on the verb, except for 3PI subject (xx1.b).

- (xx1) a. [[**ú** **ńă:** **k̀:-rí**] **máy**] **kóyò-sò-ẁ**
 [[2SgS meal eat-PerfNeg] like] weep-Progr-2SgS
 ‘You-Sg are crying as though you hadn’t eaten.’
- b. [[**ńă:** **k̀:-ndú**] **máy**] **kóyò-s-è**

[[meal eat-PerfNeg.3PIS] like] weep-Progr-3PIS
'They are crying as though they hadn't eaten.'

yò-yógó-m-Ø

Rdp-run-**Impf**-1SgS

‘If I see Amadou in the market, I will flee.’

- c. háwâ ńă: kó:ŋ̀̀:-Ø-ndè, túwé-ŋ̀̀
H meal eat-**Impf.Neg**-3SgS-if, die-**Impf**.3SgS
‘If Hawa doesn’t eat, she will die.’

The antecedent may have almost any form from the perfective-system arsenal, including the unsuffixed perfective (xx2.a), Perfective-1a -èrè-, Perfective-1b -tĩ- (xx2.b), and Recent Perfect jè-. The verb may also be stative, for example with quasi-verb ‘be’ or ‘have’ (xx2.c-d).

Perfective-2 -só- is avoided in this construction with verbs like yĩ:- ‘see’ that, in main clauses, regularly take -só- in preference to other perfectives; these verbs switch to Recent Perfect jè-. However, -só- is recorded in kíyé-só-Ø-ndè ‘if he/she says’, so there is no strict grammatical constraint against this combination.

- (xx2) a. á:mádù yĩ:-w-ndè
Amadou see.Perf.L-2SgS-if
‘if you-Sg see Amadou’
- b. yĩ: súyó-tĩ-w-ndè
child hit-Perf-2SgS-if
‘if you-Sg strike the child’
- c. nàŋá yá sò-w-ndè
cow Exist have-2SgS-if
‘if you-Sg have a cow’
- d. yá b-è-ndè
Exist be-3PIS-if
‘if they are (there)’
- e. ñjĩ-ŋ̀̀ yĩ: jè-w-ndè
1Sg-Acc see RecPf-2SgS-if
‘if you-Sg see me’
- f. [kò kámâ] sò-ndó-w-ndé
[thing.L any] have-Neg-2SgS-if
‘if you-Sg have nothing’

- g. $d\acute{o}g\grave{o}\Rightarrow\grave{n}d\check{o}:-\emptyset\text{-}nd\acute{e}$
 Dogon=not.be-3SgS-if
 ‘if he/she is not a Dogon (person)’

As usual, pronominal-subject suffixes consisting of a semivowel (1Sg *-y*, 1Pl *-y*∴, 2Sg *-w*, 2Pl *-w*∴) monophthongize with a preceding homorganic vowel (*i*, *u*). In addition, before *-ndè* ‘if’, 1Sg *-y* is sometimes monophthongized with a preceding {*e* *ε*}, resulting in a long vowel with no clearly articulated upglide. The fact that *ynd* is a triple cluster is undoubtedly behind this. In (xx3.a), 1Sg $\acute{r}\acute{n}\grave{e}\text{-}r\grave{e}\text{-}y\text{-}nd\acute{e}$ varies with monophthongized $\acute{r}\acute{n}\grave{e}\text{-}r\grave{e}:-\emptyset\text{-}nd\acute{e}$. The latter is still audibly distinct both from 3Sg $\acute{r}\acute{n}\grave{e}\text{-}r\grave{e}:-\emptyset\text{-}nd\acute{e}$ ‘if he/she goes’ and from 1Pl $\acute{r}\acute{n}\grave{e}\text{-}r\grave{e}:-y\text{-}nd\acute{e}$ ‘if we go’.

- (xx3) $\acute{a}:\text{nd}\acute{e}=\emptyset$ $\acute{r}\acute{n}\acute{e}\text{-}\grave{e}r\grave{e}:-\emptyset\text{-}nd\acute{e}$,
 Anda=in go-Perf-1SgS-if,
 $[[\acute{a}mb\acute{e}r\check{i}$ $\grave{n}d\grave{o}]$ $g\grave{o}]$ $s\acute{i}g\acute{e}\text{-}m\text{-}\emptyset$
 $[[\text{chief}$ $\text{house.L}]$ $\text{in}]$ go.down-Impf-1SgS
 ‘If I go to Anda, I will go down (= lodge) at the chief’s home.’

16.1.2 ‘Unless’ antecedent

This is simply a regular hypothetical conditional in which the the antecedent clause is negative.

- (xx1) a. $[[b\grave{o}nd\acute{i}$ $\grave{e}s\acute{i}\Rightarrow$ $w\grave{o}:-r\acute{i}\text{-}\emptyset\text{-}nd\acute{e}]$,
 $[\text{rain}$ very.much $\text{rain.fall-PerfNeg-3SgS-if}]$,
 $t\check{o}:$ $t\acute{o}:$ $b\acute{e}r\acute{e}\text{-}\eta\grave{o}\text{-}y^n \therefore$
 sowing sow can-Impf.Neg-1PIS
 ‘Unless the rain falls (“if the rain didn’t fall”) heavily, we cannot sow (millet).’
- b. $[\acute{a}mb\acute{e}r\check{i}$ $\eta\grave{g}\text{-}\acute{e}\text{-}nd\acute{e}]$ $[p\grave{e}rg\acute{e}$ $s\acute{e}m\acute{e}$ $b\acute{e}r\acute{e}\text{-}\eta\grave{o}\text{-}y \therefore]$
 $[\text{chief}$ $\text{not.be-3PIS-if}]$ $[\text{sheep}$ slaughter $\text{can-ImpfNeg-1PIS}]$
 ‘Unless the chiefs are here (“if the chiefs are not present”), we cannot slaughter a sheep.’
- c. $[w\grave{a}r\acute{a}\text{-}r\acute{u}\text{-}w\text{-}nd\acute{e}]$
 $[\text{do.farm.work-PerfNeg-2SgS-if}]$
 $[\acute{u}$ $\grave{a}m\acute{a}y^n$ $\eta\check{a}:$ $k\acute{o}:-m\text{-}^w]$
 $[\text{2Sg}$ how meal $\text{eat-Impf-2SgS}]$

‘Unless you-2Sg do (“f you-2Sg don’t do) the farm work, how will you eat?’

16.2 Alternative ‘if’ particles

16.2.1 ‘Even if ...’ (dèr^ri, m̀)

Elicited ‘even if ...’ examples have (what looks like) Purposive postposition **dèr^ri** at the end of the ‘if’ clause, replacing the usual ‘if’ morpheme. The verb of the ‘even if’ clause has regular pronominal-subject inflections (xx1.a-c).

- (xx1) a. [yě:-só-Ø dèr^ri] [ɲgá ɲă: kó:-ɲð:-Ø]
 [come-Perf2-3SgS **even**] [here meal eat-Impf.Neg-3SgS]
 ‘Even if he/she comes, he/she won’t eat here.’
- b. [yě:-s-é dèr^ri] [ɲgá ɲă: kó:-ɲ-è:]
 [come-Perf2-3PIS **even**] [here meal eat-Impf.Neg-3PIS]
 ‘Even if they come, they won’t eat here.’
- c. [yě:-só-w dèr^ri] [ɲgá ɲă: kó:-ɲð-wⁿ]
 [come-Perf2-2SgS **even**] [here meal eat-Impf.Neg-2SgS]
 ‘Even if you-Sg come, you won’t eat here.’
- d. [bòndí wǎ:-só-Ø dèr^ri] [íní-m-iy]
 [rain rain.fall-Perf2-3SgS **even**] [go-Impf-1PIS]
 ‘Even if it rains, we’ll go.’

16.2.2 ‘As soon as ...’ (tán)

tán (variant **tán**) is a Fulfulde particle meaning ‘only’. It is widely used in other nearby Dogon and Songhay languages, but only as an alternative clause-final ‘if’ particle. It does not appear to be very common in Nanga but examples were elicited, with the meaning ‘as soon as’. In this function it combines with preceding same-subject subordinator **ɲ** or different-subject subordinator **nà**, depending on whether the two clauses have the same subject.

- (xx1) [ú yě: **nà** **tán**]
 [2SgS come and.DS as.soon.as]
 [bòndí wó:-ndé t̀r̀è-Ø]
 [rain rain.fall-VblN begin.Perf.L-3SgS]

‘As soon as you-Sg came, the rain began.’

The more common ‘as soon as’ construction is with clause-final **bú⇒** (§15.4.2).

16.3 Willy-nilly and disjunctive antecedents (‘whether X or Y ...’)

In this construction, the two mutually incompatible conditions (both irrelevant to the consequent) are spelled out, sometimes with a final **kêw** ‘each/all’. (xx1.a) is a simple example where the second condition is the negation of the first. In (xx1.b), the two conditions are understood to be thought quotations from the reported agent’s perspective, and each of the conditions is framed by ‘he looks (= considers)’.

(xx1) a. [bòndí wó:-ṅ wó:-ṅ̀̀:-Ø kêw]
 [rain rain.fall-Impf.3SgS rain.fall-Impf.Neg-3SgS all]
 ní-m-ĩy
 go-Impf-1PIS
 ‘Whether it rains or not, we are going.’

b. [[nú: gô] níⁿé-ṅ̀̀:-Ø]
 [[person Poss.InanSg] look-Impf.Neg-3SgS]
 [[á gô] níⁿé-ṅ̀̀:-Ø]
 [[LogoSgP Poss.InanSg] look-Impf.Neg-3SgS]
 [né gá] kéréw kò-kó:-ṅ̀̀
 [3Sg Topic] all Rdp-eat-Impf.3SgS
 ‘He doesn’t look at (= care whether) “it somebody’s”, he doesn’t look at “it is mine,” as for him, he eats everything.’

16.4 Counterfactual conditional

In this construction, the antecedent clause has **-ndè** ‘if’ as with hypothetical conditionals. However, now both the antecedent and the consequent have Past clitic **=bɛ-**. Examples are in (xx1).

(xx1) a. kà-kâ: yò:-ndú=b-á-ndè,
 Rdp-grasshopper come-Perf.Neg.3PIS=Past-3PIS-if,
 [tàrá gá] yû: èsí⇒ béré-m=bè-y.:
 [granary in] millet very.much get-Past-1PIS

‘If the locusts hadn’t come, we would have gotten (= were going to get) a lot of millet in the granary.’

- b. $d\grave{o}g\grave{o}t\acute{o}r\hat{o}$ $y\acute{a}$ $b\grave{u}-m=b\grave{e}-\emptyset-nd\grave{e}$,
doctor Exist be-3SgS=Past-3Pl-if,
 $b\grave{a}y\acute{a}-\grave{e}-r\grave{e}=b\grave{e}-\grave{y}$
be.cured-Perf=Past-1SgS
‘If the doctor had been there, I would have been cured.’

17 Complement and purposive clauses

17.1 Quotative complement

Quotations are marked by up to three distinct features:

- (xx1) a. inflectable ‘say’ verb (**kíyé-**), preceding or following the quotation, §17.1.2;
b. invariable **quotative particle** /*wa*/ (i.e. *wà* or *wá*) following the quotation (or multiple segments of the quotation), §17.1.3;
c. **logophoric** pronouns substituting for (original) first person pronouns, §18.xxx.

17.1.1 Direct versus indirect in quotative complements

write

17.1.2 ‘Say that ...’ with inflectable ‘say’ verb (**kíyé-**)

kíyé- ‘say’ may precede or follow the quotation. When it precedes, it is set off prosodically from the quotation. When it follows, there is no obligatory prosodic break.

In normal perfective positive use (‘X said that ...’), a common form of the verb is invariant **kíyêsêwndè**, with variant **kíyêsègúndé**. Morphologically, this looks like a sequence beginning in **kíyé-** ‘say’ and ending with **-ndè** ‘if’. The middle portion is not easily parsable, though we might see Perfective Participial **-sè**, Inanimate **-w**, and Inanimate Singular Definite **gú**, as components of one or both variants. Since it has no conditional-antecedent modal quality, the morphemic identification of the final ...nde as the ‘if suffix raises more questions than it answers. I will therefore transcribe without morphemic hypotheses.

This ‘say’ form is preceded by an independent pronoun, even when this pronoun merely resumes an immediately preceding nonpronominal NP. This suggests that the nonpronominal NP is topicalized, and provides further evidence that **kíyêsêwndè** at least originated as a non-subject relative (cf. ‘what I said [was]: ...’).

- (xx1) a. [mò:ḍibò bû:] bû: kiyésêwndè
[holy.man.L Def.AnPl] AnPlS **say**
kà-kâ: yé:-ŋ-è: wà
Rdp-grasshopper come-Impf.Neg-3PlS say
‘The holy men (= clerics) said that the locusts won’t come (back).’
- b. **nné** kiyésêwndè, á é:ŋí nní-ŋ wà
3Sg **say**, LogoSgS tomorrow go-Impf.3SgS say
‘He_x said that he_x is going tomorrow.’
- c. ǐ.ⁿ kiyésêwndè, nní-ŋ-ò-yⁿ
1SgS **say**, go-Impf.Neg-1SgS
‘I said that I am not going.’

In imperfective positive (e.g. present or future) contexts, the morphologically regular imperfective of **kiyé-** is used (xx2). If a subject NP for ‘say’ is present, there is no resumptive subject pronoun (xx2.b).

- (xx2) a. **nné** kǐ-kiyé-ŋ, á mùrⁿá=ŋ wà
3SgS Rdp-**say**-Impf.3SgS, LogoSgS sick.one=it.is.3SgS say
‘She_x will say that she_x is sick.’
- b. nũ: kǐ-kiyé-m-è, â: bàyá-èrè wà
person Rdp-say-Impf-3PlS, LogoPlS be.cured-Perf1a say
‘(The) people will say that they are cured.’

The ‘say’ verb may also **follow the quoted clause**. This is usual when the ‘say’ verb itself is negated or hypothetical.

- (xx3) a. [kà-kâ: ǐ:-yé-m béré-m-Ø] kiyè-rí-ý
[Rdp-grasshopper stand-Caus can-Impf-1SgS] **say**-Perf.Neg-1SgS
‘I didn’t say that I can stop the locusts.’
- b. bû: [ǐ.ⁿ wá ú dé:rè-w] kiyé-ŋ-è:
3PlS [1SgS say 2Sg more] **say**-Impf.Neg-3PlS
‘They don’t say that I am better than you-Sg.’
- c. [iyé ŋgá kó:-ŋ-ò-yⁿ] [nné báy] kiyâ
[today here eat-Impf.Neg-1SgS] [3Sg Dat] **say**.Imprt
‘Tell him/her that I will not eat here today.’
- d. **nné** [á sǐrⁿé-só-Ø] kiyé-só-Ø-ndè,

3SgS [LogoSgS be.sated-Perf2-3SgS] **say**-Perf2-3SgS-if
 kà-kǎr kára-ṅ
 falsehood lie-Impf.3SgS
 ‘If he says that he is full (of food), he is lying.’ (kà-kàrú)

- e. yé:-m-è kiyè-rí-Ø
 come-Impf-3PIS say-Perf.Neg-3SgS
 ‘He_x didn’t say that they_y will come.’

The complement of **kúyé-** ‘say’ may also be an NP such as interrogative ‘what?’ or a demonstrative. In this case, the ‘say’ verb follows the complement, behaving like a normal transitive.

- (xx4) a. kò-ṅé kiy-à
 what? **say**.Perf.L-3PIS
 ‘What did they say?’
 b. ṅgú kiyè-rú-w
 Dem.InanSg **say**-Perf.Neg-2SgS
 ‘You-Sg didn’t say that.’

The ‘say’ verb **kíyé-** is often omitted when the quotative particle /wa/ (see below) is present. When entire back-and-forth conversations are quoted, as happens often in tales, **kíyé-** is largely absent, while /wa/ occurs constantly.

17.1.3 Quotative clitic /wa/

This particle is very common when the quoted speaker is a third person. When the embedded quotation is propositional in nature, the particle can therefore have ‘hearsay’ evidential quality, suggesting that the present speaker does not vouch for the truth of the quoted proposition. However, the particle is also used with jussive complements (embedded imperatives), where truth is not at issue.

The particle occurs **at the end** of the quotation, with no prosodic break. When the preceding word ends in low tone (including falling tone), /wà/ has L-tone. When the preceding word ends in high tone (including rising tone), which occurs in negative predicates and some ‘it is’ predicates, we hear /wá/ with high tone. In other words, /wa/ is intrinsically atonal, but allows spreading of the preceding tone segment. Even after the phonological tone is determined in a given context, the pitch is subject to intonational modification.

- (xx1) a. **nné** kiyésêwndè,

3SgS say,
 á síkórò sò-ndó-Ø wá
 LogoSgS sugar have-Neg-3SgS say
 ‘He/she_x said that he/she_x has no sugar.’

b. á síkórò yá sò-Ø wà
 LogoSgS sugar Exist have-3SgS say
 ‘(He/she_x) said that he/she_x has some sugar.’

c. á:mádù nné kiyésêwndè,
 Amadou 3SgS say,
 [nù bû:] tǒ: tó:-s-é wá
 [person.L Def.AnPl] sowing sow-Perf2-3PIS say
 ‘Amadou said that the people have sown (the millet).’

If the quotation is itself multi-clausal, /wa/ is repeated after each clause (xx2.a). In addition, /wa/ is optionally repeated after an overt subject NP, if any, in a quoted clause. This is analogous to the **subject-quotative** particles in languages like Ben Tey. In addition, many quotations begin with an initial **quoted vocative** of the ‘(hey) you!’ type, converted to third person pronoun (unless the original addressee is also a participant in the present speech act). This quoted vocative is obligatorily followed by /wa/. The effect is to indicate who the original quotation was directed to, and also to index a switch in speaker in narrative reporting a back-and-forth conversation.

In (xx2.a), we see /wa/ at the end of both quoted clauses, and optionally following the overt subject NP in the first clause. In (xx2.b), since ‘you-Pl have’ is conjugated, the clause-initial 2Pl *û:* is interpreted as a quoted vocative. The conversion to third person does not take place here, indicating that the original addressees are also the addressees in the current speech event. Therefore such a vocative makes it unnecessary to specify the original addressee in a dative complement to the ‘say’ verb (‘He said, hey you, ...’ = ‘He said to you, ...’). In (xx2.c), the original addressee is not a participant in the current speech event, so the original ‘hey you!’ is expressed with a 3Sg pronoun (there are many examples like this in the sample text). The alternative is to quote the actual appellation of the original addressee as the quoted vocative (xx2.d).

(xx2) a. nné kiyésêwndè,
 3SgS say,
 [nù bû: (wà)] yé:-m-è wà
 [person.L Def.AnPl] (say) come-Impf-3PIS say
 ñgá ñǎ: kó:-ñ-è: wà
 here meal eat-Impf.Neg-3PIS say

‘He/she said that the people will come, (but that) they won’t eat here.’

- b. *ńné* *kíyészēwndè*,
 3SgS say,
 [ú: (wà)] *síkorò* *sò-ndó-w̄:* *wà*
 [2PIS (**say**)] sugar have-Neg-2PIS **say**
 ‘He/she_x said (to you-Pl) that you-Pl [topic] have no sugar.’
- c. *tà-tâ:* [jòmó *báy*] *ńné* *kíyészēwndè*,
 hyena [hare Dat] 3SgS say,
 [ńné *wá*] *ńńí* *wà*
 [3Sg say] go.Hort.3Sg say
 ‘Hyena said to hare: hey you, go!’
- d. *tà-tâ:* *ńné* *kíyészēwndè*,
 hyena 3SgS say,
 [jòmó *wá*] *ńńí* *wà*
 [hare say] go.Hort.3Sg say
 ‘Hyena said: hey hare, go!’

The particle /*wa*/ is omitted (because redundant) when it would otherwise be **adjacent to the ‘say’ verb**, i.e., when the latter immediately follows the quotation (xx3.a). Even an intervening subject pronominal is enough to allow both the particle and the ‘say’ verb to appear (xx3.b).

- (xx3) a. *á:mádù* [[*nù* *bû:* (wà)] *tõ:* *tó:-s-é*
 Amadou [[person.L Def.AnPl (say)] sowing sow-Perf2-3PIS
 (#wà) *kíyészó-Ø*
 (**#say**) **say-Perf2-3SgS**
 ‘Amadou said that the people have sown (the millet).’
- b. [*nù* *bû:*] *tõ:* *tó:-s-é* *wà*
 [person.L Def.AnPl] sowing sow-Perf2-3PIS **say**
ńné *kíyészó-Ø*
 3SgS **say-Perf2-3SgS**
 ‘He said that the people have sown (the millet).’

The particle is also omitted when the ‘say’ verb is negated, even when the ‘say’ verb is (atypically) preposed, so that adjacency of ‘say’ verb and quotative particle is not possible (xx4.a). The particle is also omitted when the ‘say’ clause is a polar interrogative (xx4.b), or a conditional antecedent (xx4.c). In

other words, when the fact of the quoted speech event is itself **modally problematic**, the quotative particle is not added to the quotation.

- (xx4) a. *á:mádù* *ńné* *kǐyè-rí-Ø*,
 Amadou 3SgS **say**-Perf.Neg-3SgS,
 [nù *bû:*] *tǒ:* *tó:-s-é* (#wá)
 [person.L Def.AnPl] sowing sow-Perf2-3PIS (#say)
 ‘Amadou did not say that the people have sown (the millet).’
- b. *ńné* *kíyè-só-Ø* *má*
 3SgS **say**-Perf2-3SgS Q
 [nù: *tǒ:* *tó:-s-é* (#wá)]
 [person sowing sow-Perf2-3PIS (#say)]
 ‘Did he say that the people have sown (the millet)?’

When the quoted material takes the form of a factive complement (§17.xxx), with final Definite morpheme /*gú*/, the quotative particle is not used.

- (xx5) *ńné* *kíyèsêwndè*, [[nù *bû:*]
 3SgS **say**, [[person.L Def.AnPl]
tǒ: *tò:-sè* *gú* (#wà)], *kà-kàrú:≅Ø*
 sowing sow-Ppl.Perf.L Def.InanSg (#say)], Rdp-lie-it.is.3SgS
 ‘If he says (= claims) that the people have sown (the millet), it’s false.’

Quotative /*wa*/ is possible, but less systematic, when the quotation is attributed to the current addressee (xx6.a). In ordinary contexts (with no special modal attributes), it is absent when the addressee is also the subject of the quoted clause (xx6.b). The particle can be used in repetitions of what the addressee has just said if the speaker needs confirmation, but in this case there is usually no overt 2Sg pronominal.

- (xx6) a. [*ńné* *báy*] *kíyâ*, *á:mádù* *ńné-èrè-Ø* (*wà*)
 [3Sg Dat] say.Imprt, Amadou go-Perf1a-3SgS (**say**)
 ‘Tell her that Amadou has gone.’
- b. [*bàrⁿⁱ* *ú* *kíyèsêwndè*]
 [1SgDat 2SgS say]
ú *yègè-w* (?#wà)
 2SgS fall.Perf.L-2SgS (**say**)
 ‘You-Sg told me that it was you [focus] who fell down.’
- c. *é:ŋí* *wá*

tomorrow say
 ‘(Did you say) “tomorrow”?’

The quotative particle is generally not used in citations of the speaker’s own previous speech.

(xx7) [fántà báy] kiyé-só-y,
 [Fanta Dat] say-Perf2-1SgS,
 á:mádù nné-èrè-Ø (?#wà)
 Amadou go-Perf1a-3SgS (say)
 ‘I told Fanta that Amadou has gone.’

In (xx8.a), presence of /wà/ is possible (though not obligatory). If the subject of the quoted proposition is switched to first person (xx8.b), absence of /wà/ is preferred.

(xx8) a. [nné báy] kiyâ, á:mádù nné-èrè-Ø wà
 [3Sg Dat] say.Imprt, Amadou go-Perf1a-3SgS say
 ‘Tell her that Amadou has gone.’

b. [nné báy] kiyâ, nné-èrè-ÿ (?#wà)
 [3Sg Dat] say.Imprt, go-Perf1a-1SgS (?#say)
 ‘Tell her that I have gone.’

The difference is undoubtedly due to the different **epistemic status** of the quoted proposition in the two cases, rather than an automatic effect of subject type. If the context in (xx8.b) is adjusted so that it involves telling a falsehood, e.g. to escape arrest in (xx9), /wà/ reappears.

(xx9) [gendarme báy] kiyâ, nné-èrè-ÿ wà
 [policeman Dat] say.Imprt, go-Perf1a-1SgS say
 ‘Tell the policeman that I have gone away.’

Similar nuances have been found with second person (=current addressee) as subject of the quoted proposition. (xx10.a) was elicited in the following context: the addressee has been injured in an accident, and is being informed that help is on the way. Quotative wà was usually absent, though possible, in this context. Here the speaker and especially the addressee are quite well aware of the injury having occurred. When the context was changed, so that the injury report was in fact a lie, presence of wà was consistent (xx10.b).

(xx10) a. á:mádù [dògòtórô báy] kiyé jè-Ø,

Amadou [doctor Dat] say RecPf-3SgS
 [ú (wá) b̄arⁿim-y-èrè-w̄ (?#wà)]
 [2SgS (say) be.hurt-MP-Perf1a2SgS (?#say)]
 ‘Amadou has already told (= informed) the doctor that you-Sg are injured.’

- b. á:mádù [dògòtórô b̄ay] kíyé-só-Ø,
 Amadou [doctor Dat] say-Perf-3SgS,
 [ú b̄arⁿimíyⁿ-èrè-w̄ wà]
 [2SgS be.hurt-Perf-2SgS say]
 ‘Amadou has told the doctor (falsely) that you-Sg are injured.’

17.1.4 Jussive complement (reported imperative or hortative)

17.1.4.1 Quoted imperative

rewrite (third person Hortative)

When the quoted material represents an original **positive imperative**, the verb is not in the original Imperative form (§10.6.1). Instead, the verb appears in the same form as that used for third-person subject hortative as in wishes of the ‘may God VERB you!’ type. The morpheme in question is expressed segmentally as a suffix *-y* with *Cv:-* verbs (with shortened vowel), a mutation of a final vowel to /i/, or no segmental change. There is also a characteristic tonal contour. Examples: *gǒ-y* ‘(told X) to go out’ (*gǒ:-*), *gùrí* ‘(told X) to steal’ (*gùró-*), *pígirè* ‘(told X) to screw in’ (*pígiré-*). For the forms, see (xx1) in §10.6.4.

In quoted imperatives, this suffix is used regardless of original addressee number. The quotative particle /*wa*/ is added clause-finally, without a prosodic break, and it constitutes part of the phonological environment for syncope of the stem-final /i/ in forms like *gùrí*.

An overt pronominal referring to the original addressee is not obligatory, as seen in (xx1).

- (xx1) [íné báy] kíyâ,
 [3Sg Dat] say.Imprt,
 [tè: gú] náj wá
 [tea.L Def.InanSg] put.up.Hort.3rd say
 ‘Tell him to put the tea (kettle) up (on the burner)!’ (*náji-*)

Very often, however, the original addressee is indexed in the form of a preverbal **independent pronoun**. This is a somewhat pro forma quoted vocative (‘hey you!’), converted to the appropriate pronoun in the current speech event’s deictic structure (hence usually converted from second to third person).

- (xx2) a. [yì-tègè bû: bày] kiyé-só-y,
 [child-Pl.L Def.AnPl Dat] say-Perf2-1SgS,
 [bû: wà] [gó-ý wá]
 [3Pl say] [go.out-Hort.3rd say]
 ‘I told the children to go out.’
 (lit.: ‘I told the children: hey them! Go out!’)
- b. [ńné báy] kiyâ, [ńné wá] yé-ý wá
 [3Sg Dat] say.Imprt, [3SgS say] come-Hort.3rd say
 ‘Tell him/her to come.’
- c. ńné kiyésêwndè, [ĩ:ˀ wá] [yé-y wá]
 3SgS say, [1Sg say] [come-Hort.3rd say]
 ‘He/She told me to come.’
- d. [bû: bày] kiyé-só-ý
 [3Pl Dat] say-Perf2-1SgS
 [bû: wà] yû: tór wá
 [3Pl say] millet pound.Hort.3rd say
 ‘I told them them to pound the millet!’ (/tóri/ <tóro-)

In a **reported prohibitive**, the verb appears in singular-subject prohibitive ((i.e., negative imperative) form, regardless of embedded-subject number. An independent pronoun denoting the original addressee, ostensibly a quoted vocative but somewhat pro forma, is often present as in reported positive imperatives. (xx3.a) has a singular embedded addressee, (xx4.b) a plural one.

- (xx3) a. [ńné báy] kiyâ,
 [3Sg Dat] say.Imprt,
 (ńné wá) [tè: gú] náńí-rⁿá wá
 (3Sg say) [tea.L Def.InanSg] put.up-Imprt.Neg say
 ‘Tell him not to put the tea (kettle) up (on the burner)!’
- b. [bû: bày] kiyâ,
 [3Pl Dat] say.Imprt,
 (bû: wà) [tè: gú] náńí-rⁿá wá

(3Pl **say**) [tea.L Def.InanSg] put.up-Imprt.Neg **say**
 ‘Tell them not to put the tea (kettle) up (on the burner)!’

17.1.4.2 *Embedded hortative*

In **reported positive hortatives** attributed to a third person speaker, the originally imperative verb appears with suffix **-ń**, regardless of original first-person inclusive number. Like other /ń/ suffixes and clitics, this suffix may be reduced to nasalization of the final vowel. Examples of this form, which I called Quotative Hortative (QHort), are in (xx1), along with the dual and 3+ first person inclusive hortatives for comparison. The vocalism and tone contours of the stem are identical in the three cases. It is therefore reasonable to think of **-ń** as historically a reduction of one or both of the Hortative suffixes. Compare the **m/ń** alternation in the Imperfective verb paradigm, or in the conjugated ‘it is’ clitics.

| (xx1) | gloss | dual hortative | 3+ hortative | QHort |
|-------|----------|-----------------------|-------------------------------------|---------------------------|
| | ‘run’ | yògò-má | yògò-mày ⁿ | yògò-ń (wà) |
| | ‘go out’ | gǔ:-má | gǔ:-mày ⁿ | gǔ:-ń (wà) |
| | ‘buy’ | éwé-má | éwé-mày ⁿ | éwé-ń (wà) |
| | ‘go’ | ńné-má | ńné-mày ⁿ | ńné-ń (wà) |
| | ‘give’ | ńdé-má | ńdé-mày ⁿ | ńdé-ń (wà) |
| | ‘go in’ | núy ⁿ ó-má | núy ⁿ ó-mày ⁿ | núy ⁿ ó-ń (wà) |
| | ‘scrub’ | púgúsó-má | púgúsó-mày ⁿ | púgúsó-ń (wà) |

The Quotative Hortative suffix It is followed by the quotative particle /wà/, which has low tone in spite of the preceding high-toned suffix. (This detail suggests that **-ń** is specifically a reduction of the 3+ Hortative suffix **-màyⁿ**, rather than Dual **-má**.) There is usually no preverbal independent pronoun.

- (xx2) a. **ńné** **kíyészèwndè**, [**ńné-ń** **wà**]
 3SgS say, [go-QHort **say**]
 ‘He/She said, let’s go!’
- b. **ńné** **kíyészèwndè**, [pèrgé **éwé-ń** **wà**]
 3SgS say, [sheep buy-QHort **say**]
 ‘He/She said, let’s buy a sheep!’
- c. **á:mádù** **bàrⁿi** **ńné** **kíyészèwndè**, [gǔ:-ń **wà**]

Amadou 1Sg.Dat 3Sg say, [go-QHort say]
 ‘Amadou said to me, let’s (=him and me) go out!’

A second person attributed speaker gets the same treatment, as long as the original first inclusive did not include the current speaker (xx3).

(xx3) [á:mádù báy] ú kiyésêwndè [íné-ń wà]
 [Amadou Dat] 2Sg say, [go-QHort say]
 ‘You-Sg said to Amadou, let’s (= you and Amadou) go!’

With attributed first-person speaker (self-quotation), which entails that the speaker was also part of the original group of prospective agents, the -ń suffix is not used. Instead, we get the original Hortative verb form, with suffix -má for first inclusive dual and -màyⁿ for 3+ first inclusive plural. Quotative /wa/ is absent.

(xx4) a. [á:mádù báy] ǐ:ⁿ kiyésêwndè íné-má
 [Amadou Dat] 1Sg say go-Hort.Du
 ‘I said to Amadou, let’s (= the two of us) go!’

b. [yǐ-tègê báy] ǐ:ⁿ kiyésêwndè íné-màyⁿ
 [child-Pl Dat] 1Sg say go-Hort.3+
 ‘I said to the children, let’s (= all of us) go!’

When the attributed speaker is second (but not third) person, if the original first inclusive included the current speaker, we again revert to the original hortative form used. Therefore (xx4.a) has the (unembedded) hortative form. By contrast, (xx4.b) with third person attributed speaker has the -ń suffix.

(xx4) a. bàrⁿǐ ú kiyésêwndè íné-mà
 1Sg.Dat 2Sg say go-Hort.Du
 ‘You-Sg said to me, let’s (= you and me) go!’

b. bàrⁿǐ íné kiyésêwndè íné-ń wà
 1Sg.Dat 2Sg say go-QHort say
 ‘He said to me, let’s (= him and me) go!’

For **reported hortative negative**, the original hortative negative -ndǎ:-má or (3+ plural) -ndǎ:-màyⁿ, with variants -rá-má\ -rá-màyⁿ and -ndá-má\ -nd-màyⁿ depending on stem shape, is simplified to invariant -ndà:, which I gloss as Quotative Hortative Negative (QHortNeg). It is followed by the quotative particle /wa/. This -ndǎ:- pattern is used under the same syntactic conditions as

is the reported positive hortative in -*ń* (xx5.a-b). With e.g. first person attributed speaker (self-quotation), the original full form (dual or 3+ plural) is used (xx5.c).

- (xx5) a. *tà-tâ:* *ńné* *kíyészéwndè*
 hyena 3SgS say
[jòmó *wá]* *ńné-ndà:* *wà*
 [hare say] go-QHortNeg say
 ‘Hyena said: hey hare, let’s not go!’
- b. *bàrⁿi* *ńné* *kíyészéwndè* *ńné-ndà:* *wà*
 1Sg.Dat 3SgS say go-Hort.Neg say
 ‘He/She said to me, let’s (= the two of us) not go!’
- c. *ĩ:ⁿ* *kíyészéwndè* *ńné-ndà:-má*
 1SgS say go-Hort.Neg-Hort.Du
 ‘I said (to one other person), let’s go!’

17.2 Factive (indicative) complements

17.2.1 ‘Know that ...’ complement clause

The factive complement of ‘know’ contains a verb with regular AN (aspect-negation) inflection, but without pronominal-subject marking (except for 3Pl). A pronominal subject is expressed by an independent pronoun, as in relative clauses. The complement clause as a whole functions as a noun, and is followed by a pronominal possessor agreeing with the subject of the complement clause, along with an inanimate singular possessive classifier, even though this subject is already expressed by a NP or pronoun at the beginning of the clause.

An example with **Imperfective Negative** verb is (xx1). A super-literal gloss would be “I know [your [you not coming]].”

- (xx1) [*ú* *yé:-ń̀̀:* *ú* *g̀̀]* *júg̀̀-̀̀-∅*
 [2SgS come-Impf.Neg 2SgP Poss.InanSg] **know**-Impf-1SgS
 ‘I know that you-Sg are not coming.’

If we replace the 2Sg subject in (xx1) with the various other pronominal categories, we get the factive complements in (xx2), in all cases subordinated to a ‘know’ matrix clause (not shown). The various first and second person categories, and 3Sg, have their usual postnominal possessor forms with Inanimate Singular possessive classifier /*g̀̀*/ (*k̀̀*). In the 3Pl, we get a low-

toned, short-voweled form *bù gò*, distinct from the usual 3Pl possessor combination *bû: gò* seen e.g. in [*ńdô bû: gò*] ‘their house’. Note also that the 3Pl subject form has subject agreement on the verb (*-ŋ-è:*), whereas all other categories have invariant *-ŋò:*. The special treatment of 3Pl subject in negative forms is also found in relative-clause participles (§14.xxx).

- (xx2) a. [*ĩ:ⁿ yé:-ŋò: kò:*] ‘that I am not coming’
 [*ĩ: yé:-ŋò: ń: gò*] ‘that we are not coming’
 [*û: yé:-ŋò: û: gò*] ‘that you-Pl are not coming’
- b. [*ńné yé:-ŋò: nò*] ‘that he/she is not coming’
- c. [*bû: yé:-ŋ-è: bù gò*] ‘that they are not coming’

An example with the **Perfective Negative (-rí)** is (xx3).

- (xx3) [*ú yè:-rí ú gò júgò-m-∅*]
 [2SgS come-PerfNeg 2SgP Poss.InanSg] **know**-Impf-1SgS
 ‘I know that you-Sg did not come.’

Replacing 2Sg by other pronominal-subject categories, we have the data in (xx4). Again, the 3Pl is the only category requiring its specific pronominal-subject suffix on the verb.

- (xx4) a. [*ĩ:ⁿ yè:-rí kò:*] ‘that I did not come’
 [*ĩ: yè:-rí ń: gò*] ‘that we did not come’
 [*û: yè:-rí û: gò*] ‘that you-Pl did not come’
- b. [*ńné yè:-rí nò*] ‘that he/she did not come’
- c. [*bû: yè:-ndú bù gò*] ‘that they did not come’

An example with **(positive) reduplicated Imperfective** verb is (xx5). The Imperfective ending is *-m* (not *-ŋ*).

- (xx5) [*ú yè-yé:-m ú gò júgò-m-∅*]
 [2SgS come-Impf 2SgP Poss.InanSg] **know**-Impf-1SgS
 ‘I know that you-Sg will come.’

With the other pronominal categories, the outputs are in (xx6). The 3Pl form again has its inflection on the verb.

- (xx6) a. [*ĩ:ⁿ yè-yé:-m kò:*] ‘that I will come’

- [í: yè-yé:-m̄ í: gò] ‘that we will come’
 [û: yè-yé:-m̄ û: gò] ‘that you-Pl will come’
- b. [ńné yè-yé:-m̄ n̄] ‘that he/she will come’
- c. [bû: yè-yé:-m-è bù gò] ‘that they will come’

A (positive) **Perfective-2** example is (xx7). With pronominal categories other than 2Sg, the forms are in (xx8). Again, the 3Pl form stands out.

(xx7) [ú yě:-só ú gò] júgó-m̄-∅
 [2SgS come-Perf2 2SgP Poss.InanSg] **know**-Impf-1SgS
 ‘I know that you-Sg came.’

- (xx8) a. [í:ⁿ yě:-só k̄:] ‘that I came’
 [í: yě:-só í: gò] ‘that we came’
 [û: yě:-só û: gò] ‘that you-Pl came’
- b. [ńné yě:-só n̄] ‘that he/she came’
- c. [bû: yě:-s-é bù gò] ‘that they came’

Other AN inflections beyond the four illustrated above can also be used in this construction. I have verified this for the Perfective-1a (-èrè), Perfective-1b (-fī), and the Progressive (-sò), in each without pronominal-subject suffixation except in the 3Pl.

In English, there is a basic distinction between ‘**X know that P**’ and ‘**X know whether P**’ for some proposition P. In the first case, but not the second, the current speaker presupposes the truth of P (cf. also ‘X realize that P’). In Nanga, as generally in languages of the region, this distinction is not made. Therefore e.g. ‘X doesn’t know that [Y is sick]’ (when Y is in fact sick) is often expressed by the same construction that translates ‘X doesn’t know whether [Y is sick]’. In this construction, the factive complement is followed by polar interrogative particle /ma/. The philosophical significance of this distinction between English and Nanga is evident; in Nanga, one simply reports the state of mind of X, while in English the speaker superimposes his/her own knowledge on X’s state of mind.

(xx9) ńné [ú sèllè-rí mà.:]
 3SgS [2SgS be.healthy-Perf.Neg Q]
 júgó-ḡò:-∅
know-Impf.Neg-3SgS
 ‘He/She doesn’t know whether (= that) you-Sg are sick.’

The same factive clause type is used under some conditions with ‘see’ (§17.2.2.2).

17.2.2 ‘See (find, hear) that ...’

17.2.2.1 *Direct-perception type (relative-clause complement)*

When the complement of ‘see’ denotes a durative activity (or an imminent event at the point where it was about to happen) that was viewed by the agent, we get the construction in (xx1) with Durative subordinator /m̀/ (§15.2.1).

- (xx1) a. [nàṅá yégé m̀] yĩ:-só-ý
 [cow.L fall while] see-Perf2-1SgS
 ‘I saw the cow falling (or: about to fall).’
- b. [yĩ-tègê g̃iyé bũ: g̃iyé m̀] yĩ:-só-ý
 [child-Pl dance(noun) 3PlS dance while] see-Perf2-1SgS
 ‘I saw the children dance (= dancing).’

17.2.2.2 *Recognition (inference, hearsay) construction*

When the agent sees that an event has already taken place, the **passive construction** with -yé after a high-toned verb stem, and with tone-dropped subject NP (§9.3.2), may be used. In (xx1), what the agent sees is a cow on the ground in a position other than the usual resting position.

- (xx1) [nàṅà yégé-yé] yĩ:-só-ý
 [cow.L fall-Pass] see-Perf2-1SgS
 ‘I saw the fallen cow.’ (or: ‘I saw that a cow had fallen.’)

In (xx2), the speaker (who had expected the addressee to take the motorcycle away), arrives and sees that the motorcycle is still in its normal place. Here we get a **factive** complement of the same type used with ‘know’ (§17.2.1, above).

- (xx2) [ú [m̀tò: gú] gè:r^{ri}-r^{ri}
 [2SgS [motorcycle.L Def.InanSg] take.away-PerfNeg
 [ú g̃ô] yĩ:-só-ý
 [2SgP Poss.InanSg] see-Perf2-1SgS

‘I saw (= see) that you-Sg didn’t take the motorcycle away.’

In (xx3), the speaker reports what he/she has heard from others. Again, the complement is **factive** in form.

- (xx3) [ú bàmàkâ=Ø ní-m ù gô] nŷyⁿ-só-ý
 [2SgS B=in go-Impf 2SgP Poss.InanSg] hear-Perf2-1SgS
 ‘I heard (= hear) that you-Sg are going to Bamako.’

17.2.3 Factive complement with tílây=Ø ‘it is certain’

tílây=Ø ‘it is certain’ may precede an ordinary indicative clause, denoting a future event that is (all but) certain, or a situation or a past event that one infers from strong evidence or reasoning. tílây is a regionally ubiquitous form.

- (xx1) a. tílây=Ø á:ndê=Ø ní-m-Ø
 certainty=it.is Anda=in go-Impf-1SgS
 ‘It’s certain (definite) that I will go to Anda.’
- b. tílây=Ø séwá:rĩ=yè gó-èrè-Ø
 certainty=it.is S go.out-Perf1a-3Sgs
 ‘He/She has certainly left Severe (by now).’

17.3 Verbal Noun (and other nominal) complements

17.3.1 Structure of Verbal Noun Phrase

Subjects, objects, and other preverbal phrases are unchanged from main clauses to verbal-noun clauses. There is no compounding (or incorporation) of object nouns. A direct object may optionally have Accusative marking, and this is obligatory for 1Sg pronoun objects (which have a different stem-shape in the accusative) (xx1.a-c). A subject NP may also be present, in its usual form (xx1.d).

- (xx1) a. [yí: súyó-ndé] èsĩ=ndó-Ø
 [child hit-VbIN] good=not.be-3SgS
 ‘Hitting a child is not good.’
- b. [ñjĩ-ř] súyó-ndé] èsĩ=ndó-Ø
 [1Sg-Acc hit-VbIN] good=not.be-3SgS
 ‘Hitting me isn’t good.’

- c. [nàmá kúwó-ndé] jóró-m-Ø
 [meat eat.meat-VblN] want-Impf-1SgS
 ‘I want to eat some meat.’
- d. [árⁿà yǎ-ń sáyó-ndé] èsì=ndó-Ø
 [man woman-Sg hit-VblN] good=not.be-3SgS
 ‘A man’s hitting a woman isn’t good.’

In construction involving a different subjects in the main clause and the subordinated clause, other than those of the type (xx1.a), the verbal-noun clause is additionally followed by a pronominal possessor, as with ‘prevent’ (see just below).

17.3.2 ‘Prevent’ (késé-, gǎ:ndí-)

The verb **késé-** ‘cut’ can be used in the sense ‘prevent (motion), block’, and more generally ‘prevent (an activity)’. The complement is expressed as a verbal-noun clause, with the agent appearing as a postnominal possessor. The possessed NP as a whole is optionally followed by Definite Inanimate Singular **gù** (low-toned form).

- (xx1) a. [wàgáŕí=yè] ńné-ndé kǎ: gù]
 [[W=in go-VblN 1SgP.InanSg Def.InanSg]
 bòndí kèsè-Ø
 rain cut.Perf.L-3SgS
 ‘The rain prevented me from going (= blocked my going) to Wakara.’
- b. [yù:-wófí kǎ: gù]
 [millet.L-farming 1SgP.InanSg Def.InanSg]
 ùsú kú-ń kèsè-Ø
 sun InanSg-Acc cut.Perf.-3SgS
 ‘My farming millet, the (hot) sun blocked me from doing it (= farming).’

Another ‘prevent’ verb is **gǎ:ndí-**, which also takes verbal-noun complements ending in a possessor (xx2).

- (xx2) á:mádù níyé-ndé nò bú: gǎ:nd-à
 A sleep-VblN 3SgPoss 3PIS prevent.Perf.L-3PIS

‘They prevented Amadou from sleeping.’

17.3.3 ‘Dare’ (dǎ:rí-)

This verb takes verbal noun complements. The subjects of the two clauses are coindexed. There is no possessor following the verbal noun.

- (xx2) a. **sígé-ndé** **dǎ:rǎ-ŋ-è:**
 go.down-VblN dare-Impf.Neg-3PlS
 ‘They don’t dare go down.’
- b. **[pà:ŋǒ: báy]** **bèrè-ndíyè-ndé** **dǎ:rǎ-m-^w** **mà**
 [elephant Dat] approach-Inch-VblN dare-Impf-2SgS Q
 ‘Do you-Sg dare get close to the elephant(s)?’
- c. **[bǎrⁿ tíŋ-ndé]** **dǎ:r-só-Ø**
 [1SgDat speak-VblN] dare-Perf2-3SgS
 ‘He/She dared to speak to me.’ (bǎrⁿi)

17.3.4 ‘Consent’ (àwá)

The verb **àwá-** ‘accept, receive, take (sth given)’ is also used in the sense ‘consent, give one’s agreement’ with a clauseal complement. In (xx1), the complement’s subject is coindexed with that of the higher clause, and there is no possessor of the verbal noun.

- (xx1) **ámberì** **yé:-ndé** **àwá** **jè-Ø**
 chief come-VblN accept RecPf-3SgS
 ‘The chief has agreed to come.’

In (xx2), the two subjects are not coindexed. In one construction, the lower-clause is a verbal noun with following possessor (xx2.a). In another, the complement takes Imperfective **-mǐ** on the verb.

- (xx2) a. **[í:** **bà:]**
 [1PIP father.L]
[síkásò **î:** **íné-ndé** **î:** **gò]**
 [Sikasso 1PlS go-Impf 1PIP Poss.InanSg]
àwá **jè-Ø**
 accept RecPf-3SgS

‘Our father has consented to our going to Sikasso.’

- b. [yà:ǰi: î: kár^mi-mì] àwà-rí-Ø
 [marriage 1PIS do-Impf] accept-PerfNeg-3SgS
 ‘He did not agree that we do the marriage.’

17.3.5 ‘Cease’ (dògó-)

dògó- means ‘cease, stop (an activity)’. In many contexts it implies an abrupt or definitive abandonment of the activity, as opposed to ‘finish, complete’. It takes a verbal-noun complement, without a possessor (xx1.a). In the perfective positive, the preferred inflection is Perfective-1a **-tì-** rather than Perfective-2 **-só-**. This construction gets some competition from a monoclausal transitive construction with a cognate nominal of a verb (xx1.b).

- (xx1) a. [námá kúwó-ndé] dògó-tì-Ø
 [meat eat-VbIN] **cease**-Perf-3SgS
 ‘He/She has ceased to eat meat.’
- b. nùǰá dò-dógó-m-Ø
 song Rdp-**cease**-Impf-1SgS
 ‘I will stop singing.’

17.3.6 ‘Want’ (jòró)

jòró- ‘want’ also takes verbal noun complements. In (xx1), the lower-clause subject is coindexed with the higher-clause subject.

- (xx1) a. nné-ndè jòró-m-Ø
 go-VbIN want-Impf-1SgS
 ‘I want to go.’
- b. [nné-ǰ yí:-ndé] jòró-ǰò-y.∴
 [3Sg-Acc see-VbIN] want-Impf.Neg-1PIS
 ‘We don’t even want to see him/her.’

In (xx2), the two clauses have different subjects, so the lower-clause subject is expressed as a possessor of the verbal noun.

- (xx2) [ú bâ:] [ǰǰá yé:-ndé ú gò]

[2SgP father] [here come-VblN 2Sg Poss.InanSg]
 jóró-ηò:-Ø
 want-Impf.Neg-3SgS
 ‘Your-Sg father doesn’t want you-Sg to come here.’

17.3.7 ‘Forget’ (íré)

A partial paradigm of this verb is (xx1). It is transitive, taking an Accusative object, but it uses the Perfective-1a.

(xx1) ‘Forget’

| | |
|-----------------------|----------|
| Perfective-1a | íré-èrè- |
| Perfective Negative | írè-rí- |
| Imperfective | ĩ-íré-m- |
| Imperfective Negative | írè-ηò:- |
| Imperative | irà |
| Imperative Negative | ĩrĩ-ndá |

In the Perfective positive, this verb is commonly chained with a following unsuffixed Perfective *bèsĩ-* (xx2.a,c). The verb *bèsĩ-* elsewhere means ‘bury’ or ‘set down (for storage)’, implying that the item in question will be not be removed from its storage place any time soon.

The ‘forget’ verb takes **verbal noun complements** when the lower-clause subject is coindexed to the higher-clause subject and the complement denotes an action that was intended to be carried out.

- (xx2) a. [[bìdò:ⁿ gú] témbírí-ndé]
 [[jug.L Def.AnSg] moisten-VblN]
 írè bèsĩ-ÿ
 forget bury.Perf.L-1SgS
 ‘I forgot to moisten the jug.’
- b. [[sá:gù ú gô] jé:-ndé] írĩ-ndá
 [[sack 2Sg Poss.InanSg] bring-VblN] forget-Imprt.Neg
 ‘Don’t forget to bring your sack.’
- c. yé:-ndé írè bèsĩ-Ø
 come-VblN forget bury.Perf.L-3SgS
 ‘He/She forgot to come.’

When the complement denotes a fact that the agent has forgotten, as opposed to an intended action that slipped his or her mind, ‘forget’ takes a different type of complement. In one construction, the complement is a headless relative clause ending in Inanimate Singular Definite *gú*, which forces tone-dropping on the verbal participle (xx2.a). In another, the complement-clause verb has an AN suffix but no pronominal-subject marking, as in relatives, but ends in a postnominal possessor expressing the subject (xx2.b-c). This pattern is possible even when the subject of the complement clause is coindexed with the possessor (xx2.d). A third construction is translatable ‘forget whether P’ rather than ‘forget that P’, and the complement contains polar interrogative /ma/ (xx2.e).

- (xx2) a. *[íné sèllè-rĩ gú]*
 [3SgS be.healthy-Ppl.PerfNeg.L Def.InanSg]
ĩré bèsĩ-ỳ
 forget bury.Perf.L1SgS
 ‘I forgot that he/she was sick.’
- b. *[sèllè-rĩ nò] ĩré bèsĩ-ỳ*
 [be.healthy-PerfNeg 3SgPoss] forget bury.Perf.L1SgS
 [= (a)]
- c. *[bú: sèllà-ndú bú: gò]*
 [3PIS be.healthy-PerfNeg.3PIS 3PIP Poss.InanSg]
ĩré bèsĩ-ỳ
 forget bury.Perf.L1SgS
 ‘I forgot that they were sick.’
- d. *[sèllè-rĩ kò:] ĩré bèsĩ-ỳ*
 [be.healthy-PerfNeg 1SgP.Poss.InanSg] forget bury.Perf.L-1SgS
 ‘I forgot that I am sick.’
- e. *[ú yě:-só-w mǎ:] ĩré bèsĩ-ỳ*
 [2SgS come-Perf2-2SgS Q] forget bury.Perf.L-1SgS
 ‘I forgot whether (= that) you-Sg came.’

‘Remember’ is *ĩllí-rí-* (an irregular reversive of ‘forget’), or an unrelated verb stem *nángírí-*. The more general verb *mǎ:ndí-* ‘think’ can also be used in the sense ‘remember’ (cf. English *think of*). Yet another expression for ‘remember’ is *ĩré bèllí-*, where *ĩré-* ‘forget’ is chained to what appears to be an irregular reversive of *bèsí-*.

17.3.8 Obligational (wá:jíbì ‘duty’)

The noun wá:jíbì ‘duty, obligation, ultimately from Arabic and familiar in languages of the zone, indicates that the agent in question has a duty to carry out the activity. The free translation is of the type ‘X must VP’. In Nanga, the complement is expressed by a **verbal noun** clause, the agent appearing as a postnominal possessor. The NP headed by the verbal noun can be taken as the subject (or topic) of wá:jíbì=ɲ ‘it is a duty’ (xx1.a). Alternatively, wá:jíbì can take the Purposive postposition to form an adverbial phrase within a larger indicative clause. This construction is useful when the event in question has already transpired (xx1.b).

- (xx1) a. [séwá:ri=yè ńné-ndé kɔ:] wá:jíbì=ɲ
 [S=in go-VbIN 1SgP.Poss.InanSg] duty=it.is
 ‘I must go to Severe.’ (‘My going to Severe is a duty.’)
- b. [ò: gó] [wá:jíbì dɛrⁿ] ńnè-yⁿ
 [field.L in] [duty for] go.Perf.L-1SgS
 ‘I had to go to the field.’ (‘I went to the field out of a duty.’)

17.3.9 ‘Be afraid to’ (ú:-yé-)

When the complement denotes a hypothetical act whose subject is coindexed with the subject of ‘fear’ (‘be afraid to ...’), we get a **verbal noun** complement.

- (xxx) a. ɲgá yé:-ndé ú:-y-èrè-Ø
 here come-VbIN be.afraid-MP-Perf1a-3SgS
 ‘He/She was afraid to come here.’

When the complement denotes any other type of eventuality, we get an **Imperfective relative complement**, with a pronominal-subject (if any) expressed as an independent pronoun.

- (xx1) a. [ɲjì-ɲ bû: súyó-mǐ] ú-ùwà-y
 [1Sg-Acc 3PlS hit-Impf] Rdp-fear.Stat-1SgS
 ‘I’m afraid he/she will hit me.’
- b. [ńné-ɲ ǐ: súyó-mǐ] ú-ùwà-Ø
 [3Sg-Acc 1SgS hit-Impf] Rdp-fear.Stat-3SgS
 ‘He_x’s afraid I will hit him_{x/y}.’

17.3.10 ‘Begin’ (tóró-)

The ‘begin’ verb is tóró-. It is paired with its antonym díímé- ‘finish, end’ in (xx1), which has no overt complement clause for either.

- (xx1) wàgàtì àrⁿájá tóró-mè-^w,
 time.L where? begin-Impf-2SgS
 wàgàtì àrⁿájá díímé-mè-^w
 time.L where? finish-Impf-2SgS
 ‘What time do you-Sg begin, (and) what time do you end?’

The complement clause can end in a bare verb stem that is **chained** with the ‘begin’ verb (xx2).

- (xx2) [jà: kó:] tóró-só-Ø
 [meal eat.meal] begin-Perf2-3Sgs
 ‘He/She began to eat (the meal).’

However, the bulk of my examples involve a **verbal-noun or other nominal complement**. If there is a cognate nominal associated with a verb, the cognate nominal by itself is sufficient as complement of ‘begin’ (xx2.a). A compound including an incorporated object can also serve as the complement (xx2.b). The verbal noun in -ndé can be used with any verb (xx2.c-e).

- (xx2) a. kòyô tóró-tì-Ø
 weeping **begin**-Perf-3SgS
 ‘He/She began to weep.’ (cognate nominal, cf. kòyô kóyó-)
- b. íné pèrgè-sémê tóró-só-Ø
 3SgS sheep.L-slaughter **begin**-Perf2-3SgS
 ‘He/She began to slaughter the sheep.’
- c. [jà: kó:-ndé] tóró-tì-Ø
 [meal eat-VbIN] **begin**-Perf1b-3SgS
 ‘He/She began to eat (the meal).’
- d. [nùjá nújú-ndé] tóró-tì-Ø
 [song sing-VbIN] **begin**-Perf1b-3SgS
 ‘He/She began to sing (a song).’
- e. [íné pèrgé sémé-ndé] tóró-só-Ø

[3SgS sheep slaughter-VbIN] **begin-Perf2-3SgS**
 ‘He/She began to slaughter the sheep.’

17.3.11 ‘Finish’ (dīmé-)

The complements are parallel to those of ‘begin’ (just above). Verbal-noun complements are exemplified in (xx1).

- (xx1) a. [nǎ: kó:-ndé] dīmé-ηò:-Ø
 [meal eat-VbIN] finish-Impf.Neg-3SgS
 ‘He/She doesn’t stop (= keeps on) eating.’
- b. [bû: wára-ndé] dīmé-èr-à
 [3PlS do.farm.work-VbIN] finish-Perf1a-3PlS
 ‘They have finished farming (=weeding).’
- c. [tòṅó tóṅ-ndé] dīmè-rⁿi-ý
 [writing write-VbIN] finish-Perf.Neg-1SgS
 ‘I haven’t (yet) finished writing.’

It is also possible to express similar concepts using a possessed verbal noun or other nominal that functions as the subject of ‘finish’.

- (xx2) [wóri bú: gò] dīmé-èrè-Ø
 [farming 3Pl Poss.InanSg] finish-Perf-3SgS
 ‘Their farming work is finished.’ (= ‘They have finished farming.’)

Recent Perfect *jè-* (§10.xxx) is sometimes used in senses approaching ‘finish VP-ing’, as in *kó: jè-y.:*, which can mean ‘we have (already) eaten’ or ‘we have finished eating’.

17.4 Locative verbal noun or other nominal complement

17.4.1 ‘Help’ (bǎ:rí-)

This verb normally takes nominal complements with final **Locative** postposition /gá/ or variant ‘in’ (§8.2.3), added to a verbal noun (which allows complements), or to some other nominal. Verbal-noun examples are in (xx1).

- (xx1) a. [éw-yé-ndé gá] ñjì-íj bǎ:rí-só-Ø

[sit-MP-VblN in] 1Sg-Acc help-Perf2-3SgS
 ‘He/She helped me to sit down.’

b. á:mádù [ú-ŋ jón-ndé gá] ñjĩ-ŋ bã:rí-só-Ø
 Amadou [2SgO treat-VblN in] 1SgO help-Perf2-3SgS
 ‘Amadou helped me to treat you-Sg (medically)’

c. [nàŋá págĩ-ndé gá] ñjĩ-ŋ bã:rí-só-Ø
 [cow tie-VblN in] 1SgO help-Perf2-3SgS
 ‘He/She helped me to tie up the cow.’

In (xx2), the nominal takes the form of a compound with incorporated object (§5.1.3).

(xx2) a. [lè:tèrè-tónô ñò] ú-ŋ bã:rá-m-Ø
 [letter.L-write.Nom.HL in] 2Sg-Acc help-Impf-1PlS
 ‘I will help you-Sg to write the letter.’

b. [pèrgè-sémê ñà] ñjĩ-ŋ bã:rã
 [sheep.L-slaughter in] 1Sg-Acc help.Imprt
 ‘Help-2Sg me to slaughter the sheep!’

c. [nàŋà-págâ gá] ñjĩ-ŋ bã:rí-só-Ø
 [cow.L-tie in] 1Sg-Acc help-Perf2-3SgS
 ‘He/She helped me to tie up the cow.’

A noun *wórfi*, elsewhere used mainly as cognate nominal for *wàrá-* ‘do farm work’, is the complement in (xx3).

(xx3) á:mádù [wór gó] ú-ŋ bã:r-só-Ø
 Amadou [farming in] 2Sg-Acc help-Perf2-3SgS
 ‘Amadou helped you-Sg do the farming.’

17.5 Chained-verb complement clause

These are simply special cases of direct verb chains (§15.1), but with a fixed final verb.

For the occasional chain construction with ‘begin’ and ‘help’, see §17.3.10 and §17.xxx, respectively. However, the most consistent use of this construction is with the ‘can (be able to)’ verb.

17.5.1 ‘Be able to, can’ (b̀́r̀́-)

The verb **b̀́r̀́-** ‘get, obtain’ is also used with VP complement in the sense ‘can, be able to’. The VP complement ends in a bare verb stem. The lower-clause subject must be coindexed to that of the higher-clause, and the single audible occurrence is attributable to the higher clause, although it appears to the left of the first VP.

- (xx1) a. **[b́ŕá b̀́r̀́]** **b̀́r̀́-ŋ̀̀:-Ø**
 [work(noun) work] **can-Impf.Neg-3SgS**
 ‘He/She cannot work.’
- b. **̀̀́é b̀́r̀́-m^w** **m̀̀**
 go.up **can-Impf-2SgS** Q
 ‘Can you-Sg go up?’
- c. **[é:ŋ́ yě:]** **b̀́r̀́-ŋ̀̀-yn**
 [tomorrow come] **can-Impf.Neg-1SgS**
 ‘I can’t come tomorrow.’
- d. **[kúrⁿô íŕyé-ḿ]** **b̀́r̀́-m^w** **m̀̀**
 [stone rise-Caus] **can-Impf.2SgS** Q
 ‘Can you-Sg lift the stone?’
- e. **[̀̀́-í b̀̀:r]** **b̀́r̀́-m^w** **m̀̀**
 [1SgO help] **can-Impf.2SgS** Q
 ‘Can you-Sg help me?’ (**b̀̀:ŕ**)

A relative-clause example is (xx2), showing that a subject pronoun in a non-subject relative has its usual position just before the final verb in the chain (i.e. the participle).

- (xxx) **̀̀̀ yě: ́** **b̀́r̀́-m̀̀**
 day.L come 2SgS can-Ppl.Impf
 ‘the day you-Sg can come’

17.6 Purposive, causal, and locative clauses

17.6.1 Purposive clauses with postposition *dèrⁿi* ‘for’

17.6.1.1 Positive purposive clause with Imperfective *-m̀* and *dèrⁿi*

In the basic purposive-clause type, the Purposive postposition *dèrⁿi* ‘for’ is added to a clause whose verb is in pronominally-uninflected Imperfective form, e.g. ending in invariant *-m̀*. In the frequent case where the two clauses have the same subject, the subject is not overtly expressed in the purposive clause. Therefore the purposive clause *[[ńdô pò:-m̀] dèrⁿi]* ‘in order to replaster the house’ in (xx1) remains unchanged when the pronominal category of the subject (expressed on ‘go up’ at the end) is changed to 3Sg, 1Pl, or whatever.

- (xx1) *[[ńdô pò:-m̀] dèrⁿi] [[bàrkô: gò] ńdé-m-è]*
 [house replaster-Impf] for] [[barrel in] go.up-Impf-2PlS]
 ‘They will go up (and stand) on the barrel in order to replaster the house (= ceiling).’

Another example of this construction is (xx2).

- (xx2) *[[ámberĩ báy] dàmá dámá-m̀] dèrⁿi]*
 [[chief Dat] speaking speak-Impf] **for]**
yè-ỵ.:
 come.Perf.L-1PlS
 ‘We have come in order to speak with the chief.’

When the main clause and the purposive clause have distinct subjects, the purposive clause expresses a pronominal subject as an independent pronoun, leaving the Imperfective verb unconjugated.

- (xx3) a. *[[ńă: bũ: kó:-m̀] dèrⁿi]*
 [[meal 3PlS eat-Impf] **for]**
[[bàrmà gú] dùŋĩ-ỵⁿ]
 [[pot.L Def.InanSg] put.down.Perf.L-1SgS]
 ‘I put the pot down, so that they (could) eat.’
- b. *[[á:ndê=∅ î: ńní-m̀] dèrⁿi]*
 [[Anda=in manner.L 1PlS go-Impf] **for]**
[[ègèsô: á gô] î:-ŋ ńdí-só-∅]
 [bicycle ReflSgP Poss.InanSg] 1PlO give-Perf2-3SgS
 ‘He_x gave us his_x bicycle, so that we (could) go to Anda.’

A low-toned *dàyⁿ* (cf. noun *dăyⁿ* ‘limit, boundary’ or ‘manner’) occurs in (xx3.b). This form occurs optionally in any purposive clause with *dêrⁿi*, whether or not the subjects of the two clauses are identical. This suggests that the purposive construction can be analysed syntactically as a PP with a relative clause as complement, e.g. ‘for [(a) limit that ...]’, cf. English *toward the end that ...*. For *-mĩ* ~ *-m* in Imperfective relative-clause participles, see §14.1.7.2. However, in Nanga, *dàyⁿ* occurs in only a minority of my elicited purposive clause examples.

17.6.1.2 Negative clause with Imperative Negative *-rá* and *dêrⁿi*

Purposive *dêrⁿi* may follow a prohibitive (Negative Imperative) clause to produce a negative purposive clause. The verb has *-rá* suffix, which (in this construction) is used for plural as well as singular subject. In other words, Negative Imperative Plural *-rá-ndĩ* is not used in such clauses.

In (xx1.a-b), the subjects of the two clauses are distinct. In (xx1.b), note suffix *-rá* even with (animate) plural subject.

- (xx1) a. *dêwí* *ké:ndé-m-iy*
 roof fix-Impf-1PIS
 [[*gã:ⁿ* *yègì-rá*] *dêrⁿi*]
 [[beam fall-ImprtNeg] for]
 ‘We’ll fix the roof, so the roof beam(s) won’t fall.’
- b. [*ñdò-nè:* *gú*] *késé* *dògò-y.:.*,
 [house.L-mouth.L Def.InanSg] cut leave.Perf.L-1PIS,
 [[*pèrgè* *bû:*] [*màngòrò* *gú*]
 [[sheep.L Def.AnPl] [mango.L Def.InanSg]
kó:-rá *dêrⁿi*]
 eat-Imprt.Neg for]
 ‘We (have) blocked the doorway, so that the sheep-Pl will not eat the mango(s).’

A same-subject example is (xx2).

- (xx2) [*ñă:* *áyá-m-iy*] [[[*ósú* *gó*] *túy-rá*] *dêrⁿi*]
 [meal take-Impf-1PIS] [[[road in] die-ImprtNeg] for]
 ‘We’ll take food (along), so as not to die (= starve) on the way.’

- (xxx) a. [[á bâ:] jè: gó] ònè-Ø
 [[ReflSgP father] bring.L Purp] go.Perf.L-3SgS
 ‘She_x went to in order to bring her_x father.’ (jè:)
- b. [gõ: gǐyè gó] ònè-ȳ
 [fire kill.L Purp] go.Perf.L-1SgS
 ‘I went in order to put out the fire.’
- c. [ní: nò: gó] y-ò:
 [water drink.L Purp] come.Perf.L-3PlS
 ‘They came in order to drink the water.’

This construction has no negative counterpart.

17.6.4 Causal (‘because’) clause (ságù)

ságù ‘because’ follows the ‘because’ clause, which has the form of a normal main clause.

- (xx1) ósí èsĩ=òndó-Ø ságù,
 road good=StatNeg-3SgS because,
 [isè gó] òné béré-ḡò-y.∴
 [village.L in] go can-ImpfNeg-1PlS
 ‘We can’t go to the village because the road isn’t good.’

17.6.5 ‘Because of’ (dèrⁿí)

The Purposive postposition dèrⁿí can be glossed ‘because of X’, with NP complement X, in examples like (xx1).

- (xx1) [ndó gó] [bòndí dèrⁿí] nù-yⁿ.∴
 [house in] [rain for] go.in.Perf.L-1PlS
 ‘We went into the house because of the rain.’

17.7 Clause-final nà: ‘though’

write

18 Anaphora

The most important anaphoric morphemes are Singular **á** and Plural **â:**. They can be third-person reflexive (generally coindexed to a clausemate subject), or logophoric (coindexed to the author of a quoted utterance or thought). Their functions are covered in this chapter, along with Reciprocals and certain emphatic pronoun.

18.1 Reflexive

18.1.1 Reflexive object (**á-ń**, Plural **â:-ń**)

If the subject is first or second person, the regular object form of the pronominal is used for a coindexed direct object, with no explicit reflexive marking (xx1). As always, the Accusative suffix **-ń** may or may not be audible. For 1Sg, the accusative form has a special stem shape, so it is always recognizable even when the **-ń** is not audible.

- (xx1) a. **ńĩ-ń** **késé-só-ý**
 1Sg-Acc cut-Perf2-1SgS
 ‘I cut myself.’
- b. **î:-ń** **késé-só-ý.:** ‘We cut ourselves.’
 c. **ú-ń** **késé-só-ŵ** ‘You-Sg cut yourself.’
 d. **û:-ń** **késé-só-ŵ.:** ‘You-Pl cut yourselves.’

If the subject is anything other than first or second person (NP, third person pronominal), the coindexed direct object is the accusative form of Reflexive Singular **á** or Reflexive Plural **â:**, depending on grammatical number. In (xx2.d), the Reflexive pronoun could also be interpreted as Logophoric, since both coindexation relationships are present. I gloss **á** and **â:** as “ReflSg” and “ReflPl,” respectively, in interlinears, but it should be kept in mind that they are specifically third person forms.

- (xx2) a. **á-ń** **késé-só-∅**
 ReflSg-Acc cut-Perf2-3SgS
 ‘He cut himself.’ or ‘She cut herself.’

- b. $\hat{a}:-\grave{\eta}$ $k\acute{e}s\acute{e}-s-\acute{e}$
 ReflPl-Acc cut-Perf2-3PlS
 ‘They cut themselves.’
- c. $\acute{a}:\acute{m}\acute{a}d\grave{u}$ $\acute{a}-\grave{\eta}$ $k\acute{e}s\acute{e}-s\acute{o}-\emptyset$
 A **ReflSg-Acc** cut-Perf2-3SgS
 ‘Amadou cut himself.’
- d. $\acute{a}:\acute{m}\acute{a}d\grave{u}$ $\acute{n}\acute{n}\acute{e}$ $k\acute{i}y\acute{e}s\acute{e}w\acute{n}d\acute{e}$ $[\acute{a}-\grave{\eta}$ $k\acute{e}s\acute{e}-s\acute{o}-\emptyset]$ $w\acute{a}$
 A 3SgS say [**ReflSg-Acc** cut-Perf2-3SgS] say
 ‘Amadou said that he cut himself.’

18.1.2 Reflexive PP complement (\acute{a} , \hat{a} ː)

The examples in (xx1) involve dative complements that are coindexed to the clausemate subject. With a first or second person pronominal, like 1Sg in (xx1.a), the regular dative form is used. When a third person pronominal is coindexed to the subject, the regular 3Sg $\acute{n}\acute{n}\acute{e}$ is replaced by Reflexive Singular \acute{a} (xx1.b), and the regular 3Pl $b\acute{u}$ ː is replaced by Reflexive Plural \hat{a} ː (xx1.c).

- (xx1) a. $k\check{e}:\acute{r}\acute{e}$ $b\acute{a}r^{\prime}i$ $t\acute{i}y-s\acute{o}-\acute{y}$
 money 1Sg.Dat send-Perf2-1SgS
 ‘I sent the money to myself.’
- b. $\acute{a}:\acute{m}\acute{a}d\grave{u}$ $k\check{e}:\acute{r}\acute{e}$ $[\acute{a}$ $b\acute{a}y]$ $t\acute{i}y-s\acute{o}-\emptyset$
 Amadou money [**ReflSg** Dat] send-Perf2-3SgS
 ‘Amadou sent the money to himself.’
- c. $k\check{e}:\acute{r}\acute{e}$ $[\hat{a}:$ $b\acute{a}y]$ $t\acute{i}y-s-\acute{e}$
 money [**ReflPl** Dat] send-Perf2-3PlS
 ‘They sent the money to themselves.’

The same third person reflexive forms occur with other postpositions (adpositions), like ‘under’ in (xxx).

- (xxx) $\acute{a}:\acute{m}\acute{a}d\grave{u}$ $[\acute{d}\acute{o}s\acute{i}$ \acute{a} $g\acute{o}]$ $s\grave{u}ng\acute{o}$ $b\grave{e}r\acute{e}-\emptyset$
 Amadou [under **ReflSg** Poss.Inan] boubou get.Perf.L-3SgS
 ‘Amadou found (a/the) boubou under himself.’

18.1.3 Reflexive possessor (á, â:)

When the possessor of a direct object or other non-subject NP is coindexed to the clausemate subject, if the possessor is pronominal we get the same patterns seen for accusatives. For first or second person, the regular possessor forms are used (xx1). As a reminder, some pronominal possessors precede the possessed noun if it is a kin term (§6.2.2), otherwise the pronominal possessor combines with a possessive classifier and follows the noun (§6.2.1).

- (xx1) a. [nèr^mi yê:] yĩ:-só-y
 [dog 1SgP.Poss.AnSg] see-Perf2-1SgS
 ‘I saw my dog.’
- b. [ú bâ:] yĩ:-só-w
 [2SgP father.HL] see-Perf2-2SgS
 ‘You-Sg saw your father.’

For third person possessor, if the possessor is coindexed to the clausemate subject, we get Reflexive pronouns (á, â:) as possessors. The positioning of the reflexive-possessor pronoun is the same as for those other pronominals (1Pl, 2Sg, 2Pl, and 3Pl) that precede kin terms but follow other nouns.

- (xx2) a. [nèr^mi á yê] yĩ:-só-Ø
 [dog RefIP Poss.AnSg] see-Perf2-3SgS
 ‘She saw her (own) dog.’
- c. [nèr^mi â: yè] yĩ:-s-ε
 [dog RefIP Poss.AnPl] see-Perf2-3PlS
 ‘They saw their (own) dog.’
- d. [ńdô á gô] yĩ:-só-Ø
 [house RefIP Poss.InanSg] see-Perf2-3SgS
 ‘He saw his (own) house.’
- d. [ńdô â: yè] yĩ:-s-é
 [house RefIP Poss.InanPl] see-Perf2-3PlS
 ‘They saw their (own) houses.’
- e. [á bâ:] yĩ:-só-Ø
 [RefISgP father.HL] see-Perf2-3SgS
 ‘She saw her (own) father.’

- f. [â: bâ:] yĩ:-s-é
 [ReflPIP father.HL] see-Perf2-3PlS
 ‘They saw their (own) father(s).’

18.1.4 Emphatic pronouns

18.1.4.1 With *màrⁿá* ‘self’

Emphatics with adverbial *màrⁿá* following an independent pronoun are in (xx1.a-b). When the referent is spelled out by a name or other nonpronominal NP, this is topicalized and is followed by a pronoun with *màrⁿá* (xxx.c). The specific type of emphasis here is **exclusionary**. Where it might have been expected that X will perform the activity with the help of others, he/she does it without help (for this sense, see also the construction with *tùmâ*, discussed below). Or, where it might have been expected that X would have someone else perform the activity, he/she does it in person.

- (xx1) a. [yĩ: á yê] ãiyè-rí-Ø,
 [child ReflSg Poss.Qn] send-Perf.Neg-3SgS,
 [íné màrⁿá] yè:-Ø
 [3SgS **self**] come.Perf.L-3SgS
 ‘He didn’t send his son, (rather) he came himself.’
- b. [ĩ: màrⁿá] wára-m-ÿy
 [1Pl **self**] farm-Impf-1PlS
 ‘We will do the farming ourselves.’
- c. *hàmídû* [íné màrⁿá] ñnè-Ø
 Hamidou [ReflSg **self**] go.Perf.L-3SgS
 ‘Hamidou went himself (in person).’

Most examples involve subjects, but this is not a syntactic requirement. In (xx2), the relevant pronoun is an accusative functioning as direct object.

- (xx2) [yĩ: yê:] ñà:rⁿà-rⁿĩ-Ø,
 [child 1SgPoss.Anim] call-Perf.Neg-3SgS
 [ñjĩ-íj màrⁿá] ñà:rⁿĩ-Ø
 [1Sg-Acc **self**] call.Perf.L-3SgS
 ‘She didn’t call my son, she called me myself (i.e. directly).’

18.1.4.2 With *tùmâ* (*tùmáyⁿ*) ‘one/alone’

The stem *tùmâ* ‘one’, which elsewhere patterns as a modifying adjective, figures in expressions of the type ‘X alone’, ‘X by him/herself’ (i.e. without accompaniment or assistance). In one pattern, *tùmâ* ‘one’ (hence ‘single’, ‘alone’) follows an independent pronoun. Here, *tùmâ* is optionally followed by *sày* ‘only’, though this is somewhat redundant.

In this construction, *tùmâ* has a specifically adverbial variant form *tùmáyⁿ* that is not used as a numeral (xx1.b).

- (xx1) a. [ú *tùmâ* (*sày*)] *késé* *béré-ŋ̀-ⁿ*
 [2Sg alone (only)] cut.up can-Impf.Neg-2SgS
 ‘You can’t cut up the meat alone.’
- b. [*i:ⁿ* *tùmáyⁿ*] [*ĩnjà* *gú*]
 [1Sg alone] [water.jar.L Def.InanSg]
ǎy *íríyé-m* *béré-ŋ̀-ⁿ*
 take rise-Caus can-Impf.Neg-1SgS
 ‘I can’t lift the water jar by myself.’

If the subject is nonpronominal, it is treated as a topicalized NP and resumed by a third person Reflexive pronoun (xx2).

- (xx2) a. [*yi-tègè* *bû:*] [*â:* *tùmâ*]
 [child-Pl.L Def.AnPl] [ReflPl alone]
ĩnjà *gú* *ǎy* *béré-ŋ̀-è:*
 [water.jar.L Def.InanSg] take can-Impf.Neg-3PlS
 ‘The children can’t pick up the water jar by themselves (=without help).’
- b. [*bă:* *yê:*] [*á* *tùmáyⁿ*] *wàrá*
 [father 1SgP] [ReflSg alone] do.farm.work
béré-ŋ̀:-∅
 can-Impf.Neg-3SgS
 ‘My father cannot do the farming by himself.’

18.1.4.3 With *kû:* ‘head’

Possessed forms of ‘head’ are used as emphatic alternatives to ordinary pronominal possessors (including third person reflexive possessors) when

coindexed to the clausemate subject. In (xx1.a-b), the possessed noun is a cognate nominal associated with the verb.

- (xx1) a. [[kû: î: gð] bǐrà] bǐré-m-ÿy
 [[**head** 1PIP Poss.InanSg] work(noun).L] work-Impf-1PIS
 ‘We work for ourselves.’ (lit.: “we do the work of our head”)
- b. [[kû: â: gð] bǐrà] bǐré-m-è
 [[**head** ReflPIP Poss.InanSg] work(noun).L] work-Impf-3PIS
 ‘They work for themselves.’
- c. [[kû: kð:] bǐrà] bǐré-m-∅
 [[**head** 1SgP.Poss.InanSg] work(noun).L] work-Impf-1SgS
 ‘I work for myself.’

18.2 Logophoric and indexing pronouns

18.2.1 True third person logophoric function

In a quotation (of speech or thought) attributed to one or more third persons (i.e. not the current speaker or addressee), any occurrence of a pronoun coindexed to the attributed speaker(s) takes logophoric form. The forms are singular *á* and plural *â:*, which we have already seen in third-person reflexive function (§18.xxx). In effect, *á* represents an embedded ‘I’, and *â:* an embedded ‘we’.

In non-subject functions, *á* and *â:* have the same linear positions as other pronouns. For example, they have regular accusative and dative forms (accusative *á-ŋ* and *â:-ŋ*, dative *á báy* and *â: bày*, respectively). They pattern with pronouns rather than with nouns as **possessors**, specifically by combining with possessive classifiers and following possessed nouns (except kin terms), whereas nonpronominal NPs precede the possessed noun (xx1).

- (xx1) a. *ńdô* *ú* *gð* ‘your-Sg house’
 ńdô *û:* *gð* ‘your-Pl house’
- b. *ńdô* *á* *gð* ‘his-Logo house’
 ńdô *â:* *gð* ‘their-Logo house’
- c. *á:mádù* *ńdò* ‘Amadou’s house’
 yă: *ńdò* ‘(a/the) house of women’

However, logophorics pattern like nouns in **subject** function, preceding the verb and requiring the verb (in a simple main clause) to agree with them, i.e. **á** requires a 3Sg suffix while **â:** requires a 3Pl suffix on the verb.

- (xx2) a. **nèr^{ní}** **súyó-só-w** ‘you-Sg hit (a/the) dog.’
 nèr^{ní} **súyó-só-w.∴** ‘you-Pl hit (a/the) dog.’
- b. **á** **nèr^{ní}** **súyó-só-∅** ‘He-Logo hit (a/the) dog.’
 â: **nèr^{ní}** **súyó-s-é** ‘They-Logo hit (a/the) dog.’
- c. **á:mádù** **nèr^{ní}** **súyó-só-∅** ‘Amadou hit (a/the) dog.’
 yă: **nèr^{ní}** **súyó-s-é** ‘(The) women hit (a/the) dog.’

In subject function in non-subject relative clauses, logophorics do not behave like nonpronominal NPs. The latter precede all verbs in a direct chain, frequently with a resumptive third person subject pronoun immediately preceding the final verb (i.e. the participle); see §14.1.8. Rather, logophorics take the same position as do other subject pronouns in relatives, i.e. immediately preceding the final participle. (xx3.a-c) are non-relative clauses, given for comparison. (xx4.a-c) are versions of the same as in adverbial (hence non-subject) relatives. Observe that 3Sg **íné**, either as simple pronominal subject (xx4.a) or as resumptive (xx4.b), and Logophoric pronouns, occur immediately before **sígé-** ‘go down’, following the chained verb **tómbó** ‘jump’. Therefore Logophoric **á** has a different position relative to the nonfinal chained verb in (xx3.c) and (xx4.c).

- (xx3) a. **tómbó** **sígé-só-∅**
 jump go.down-Perf2-3SgS
 ‘He/She jumped down.’
- b. **[àr^{nà} né]** **tómbó** **sígé-só-∅**
 [man.L Def.AnSg] jump go.down-Perf2-3Sgs
 ‘The man jumped down.’
- c. **á** **tómbó** **sígé-só-∅** **wà**
 LogoSg jump go-down-Perf2-3Sgs say
 ‘He_x said that he_x jumped down.’
- (xx4) a. **ùsù** **tómbó** **íné** **sìgè-sè** **gú**
 day.L jump 3SgS go.down.Ppl.Perf.L Def.InanSg
 ‘the day he/she jumped down’
- b. **ùsù** **[àr^{nà} né]**
 day.L [man.L Def.AnSg]

tómbó (ńné) sǐgè-sè gú
 jump (3SgS) go.down.Ppl.Perf.L Def.InanSg
 ‘the day the man jumped down’

- c. [ùsù tómbó á sǐgè-sè gú] wà
 [day.L jump LogoSgS go.down-Ppl.Perf.L Def.InanSg say
 ‘He_x said, the day he_x jumped down, ...’

So, overall, Logophoric pronouns have some pronominal features and some nonpronominal features, in those syntactic positions where pronouns and nonpronominal NPs behave differently.

A logophoric is not used when the attributed speaker is the current speaker or addressee.

- (xx5) a. yě: béré-ŋ̀-ⁿ wà
 come can-Impf.Neg-1SgS say
 ‘I said that I can’t come.’

- b. yě: béré-ŋ̀-^w wà
 come can-Impf.Neg-2SgS say
 ‘You-Sg said that you-Sg can’t come.’

If the pronominal is plural, and its reference includes the attributed speaker (along with at least other person), the logophoric plural category is applied. In other words, an embedded ‘we’ in a quotation attributed to a single speaker appears as logophoric plural.

- (xx6) a. á:mádù ńné kíyésêwndè
 Amadou 3Sg say
 [â: [móti yè] ní-m-è] wà
 [LogoPIS [Mopti to] go-Impf-3PIS] say
 ‘Amadou_x said that they_{xy} (e.g. Amadou and Seydou) are going to Mopti.’

18.2.2 Non-logophoric topic-indexing function

The subject of a relative clause can be expressed as a third person Reflexive pronoun to coindex it to the subject of the main clause. In (xx1.a), the subject of both clauses is 1Sg. As usual in non-subject relative clauses, a pronominal subject takes independent-pronoun form. When 1Sg is replaced by a singular

third person subject, the relative clause has Reflexive Singular *á* as subject (xx1.b). A plural third person subject requires Reflexive Plural *â:* (xx1.c).

- (xx1) a. [dàyⁿ ĩ:ⁿ gó^ró-mǐ] kárⁿi-m-Ø
 [limit.L 1SgS be.able-Ppl.Impf] do-Impf-1SgS
 ‘I will do as much as I can.’
- b. á:mádù [dàyⁿ á gó^ró-mǐ]
 Amadou [limit.L ReflSgS be.able-Ppl.Impf]
 kárⁿi-ⁿ
 do-Impf-3SgS
 ‘Amadou will do as much as he can.’
- c. [nù bú:] [dàyⁿ â: gó^ró-mǐ]
 [person Def.AnPl] [limit.L ReflSg be.able-Ppl.Impf]
 kárⁿi-m-è
 do-Impf-3PlS
 ‘The people will do what they can.’

Examples showing that the targeted relative-clause subject must be coindexed to the subject, not some other NP, in the main clause are in (xx2). The requirement is met in (xx2.a), but not in (xx2.b), which therefore has an ordinary 3Sg subject pronoun in the relative clause.

- (xx2) a. [lí:gì á jǐyé-sè] ñjǐ-ń ké:rí-só-Ø
 [bird.L LogoSgS kill-Ppl.Perf] 1Sg-Acc show-Perf2-3SgS
 ‘He_x showed me a bird that he_x (had) killed.’
- b. [ɲàmà ñné kà^ri-sè gú]
 [damage.L 3SgS do-Ppl.Perf.L Def.InanSg]
 ñné-ń ké:rí-só-ý
 3Sg-Acc show-Perf2-1SgS
 ‘I showed him_x the damage that he_x (or: she_y) had made.’

18.3 Reciprocal

18.3.1 Simple reciprocals (tũ:)

The Reciprocal is used when a plural direct object or other nonsubject NP is coindexed in a distributive fashion with a plural clausemate subject. The Reciprocal form is invariant *tũ:* for any pronominal category of subject. This

form differs (slightly) in tone from the noun **tũ:** ‘agemate’. It behaves like a noun, and may take a postposition or Accusative **-ŋ**.

- (xx1) a. **tũ:** **yĩ:-só-y.:**
 Recip see-Perf2-1PIS
 ‘We saw each other.’
- b. [**tũ:** **yàŋà]** **jòríyé-s-é**
 [Recip with] fight-Perf2-3PIS
 ‘They fought each other.’
- c. **tũ:-ŋ** **súyó-só-y.:**
 Recip-Acc hit-Perf2-1PIS
 ‘We hit each other.’

The Reciprocal pronoun is optionally preceded by a plural pronominal possessor. A preceding pronominal possessor is grammatically correct for possession of a kin term or similar relationship term (including **tũ:** ‘agemate’); see §6.2.2.1. The normal forms of such possessor pronouns are 1Pl **î:**, 2Pl **û:**, and (third person) Reflexive Pl **â:**, with {HL} tone. However, in combination with the Reciprocal the pronominal is H-toned. The Reciprocal morpheme is L-toned **tù:**, as it would have been as a possessed noun after a {HL}-toned possessor, and in this combination it does not allow the Accusative morpheme. Thus first person **î: tù:**, second person **û: tù:**, third person **â: tù:**. This tonal quirk permits audible distinctions between reciprocals like (xx2.a) and simple combinations of a pronominal possessor with ‘agemate’, as in (xx2.b). With a pronominal possessor other than 1Pl, 2Pl, or Reflexive Plural, only the latter reading would be possible anyway, as in (xx2.c).

- (xx2) a. [**î:** **tù:]** **yĩ:-só-y.:**
 [1PIP Recip] see-Perf2-1PIS
 ‘We saw each other.’
- b. [**î:** **tù:]** **yĩ:-só-y.:**
 [1PIP Recip/agemate.HL] see-Perf2-1PIS
 ‘We saw our agemate(s).’
- c. [**bû:** **tù:]** **yĩ:-s-é**
 [3PIP Recip/agemate.HL] see-Perf2-3PIS
 ‘They_x saw their_y (another group’s) agemate(s).’

18.3.2 ‘Together’ (bèndèy)

This is expressed with a morpheme **bèndèy** preceded by a pronominal denoting a nonsingular set. It is used in intransitive and transitive clauses where the subjects acted in concert. Since the subject is coindexed with the ‘together’ pronominal, the Reflexive Plural form of the pronominal is required for third persons. The forms are irregular and are given in (xx1). One expects **î: bèndèy**, **û: bèndèy**, and **â: bèndèy**, with the usual long vowel and falling tone of these pronouns. Instead, the vowel is short and high-toned. Nevertheless, the low tone on **bèndèy** is consistent with an original falling tone on a preceding possessor. In other contexts, the shortening of the plural pronoun’s vowel might lead to confusion with the corresponding singular (especially 2Sg **ú**, Reflexive Singular **á**), but since **bèndèy** is used only in the context of collective action, no misparsing is possible.

| (xx1) category | form |
|------------------|-----------------|
| 1PI | î bèndèy |
| 2PI | ú bèndèy |
| Reflexive Plural | á bèndèy |

Examples are in (xx2).

- (xx2) a. [**î bèndèy**] **yè-ỵ:**
 [1PI together] come.Perf.L-1PIS
 ‘We came together.’
- b. [**nù bû:**] [**á bèndèy**]
 [person.L Def.AnPl] [RefPl together]
yû: wàr-à
 millet farm.Perf.L-3PIS
 ‘The people farmed (= raised) millet together.’

The construction can also be used when the antecedent is the direct object (xx3).

- (xx3) [[**úwâ yò**] [**gâ:ⁿ yò**]]
 [[leaf.L and] [onion and]]
[á bèndèy] dàŋĩ-ỵ:
 [RefPl together] cook.Perf.L-1PIS
 ‘We cooked leaves and onions together.’

18.4 Restrictions on reflexives

18.4.1 No antecedent-reflexive relation between coordinands

Parallel to ‘I and my father’ (xxx.a), we have the third person pattern ‘Amadou_x and his_x father’ in (xxx.b), where (in the primary reading intended) the possessor of the right coordinand is coindexed with the left coordinand. Note that (xxx.b) uses the ordinary 3Sg possessor form **ǹ̀**, which does not specifically coindex the possessor to a particular antecedent. Therefore (xxx.b) also has a reading involving a possessor for ‘father’ other than Amadou.

- (xx1) a. [ĩ:ⁿ ỳ̀] [bǎ: yē: ỳ̀]
[1Sg and] [father 1SgP.Poss.AnSg and]
‘I and my father’
- b. [á:mádù ỳ̀] [bǎ: ǹ̀ ỳ̀]
[Amadou and] [father 3SgPoss and]
‘Amadou_x and his_x father.’
(or: ‘Amadou_x and her_y father’)

19 Grammatical pragmatics

19.1 Topic

19.1.1 Topic (gây, gâ)

This particle is especially common with pronouns, but may occur after other NPs and adverbials: [[ú dê:] gây] ‘as for your mother’, [[ârⁿà né] kây]. The final /y/ is often omitted in allegro speech but is common in careful styles. The particle has F-tone after a final high (including rising) tone on the preceding word, L-tone after a final L-tone (including F-tone).

The topicalized constituent may be presentential, in which case it may correspond to a resumptive pronoun that would not otherwise be necessary. Or it may be clause-internal. It is difficult to make the distinction with NPs that function as subject in the clause, since the “resumptive” pronoun in this case is just the obligatory pronominal-subject suffix on the verb.

Combinations with independent pronouns are in (xx1).

| (xx1) | category | independent (e.g. subject) |
|-------|----------|----------------------------|
| | 1Sg | ĩ: ⁿ gây |
| | 1Pl | î: gây |
| | 2Sg | ú gây |
| | 2Pl | û: gây |
| | 3Sg | íné gây |
| | 3Pl | bû: gây |
| | InanSg | kú gây |
| | InanPl | kû: gây |
| | LogoSg | á gây |
| | LogoPl | â: gây |

The Topic particle can also follow e.g. **accusative** nouns and pronouns, showing clearly that the NP containing the Topic particle can function as a clause-internal argument. This is easiest to hear with 1Sg object, which has a distinctive form.

| | | | | | |
|-------|------|--------|------------|----------------|------|
| (xx2) | íné | [t̪iá | yê:] | súyó-só-∅ | mè:, |
| | 3SgS | [fried | 1SgP.AnSg] | hit-Perf2-3SgS | but, |

[ñjĩ-ŋ] gây] sùyð-rí-Ø
 [1SgO **Topic**] hit-Perf.Neg-3SgS
 ‘He/She hit my friend, but me he/she didn’t hit.’

19.1.2 ‘Now’ (náyⁿ)

The temporal adverb ‘now’ is níŋèyⁿ. However, a shorter form náyⁿ (always high-toned) is used, in close conjunction with a preceding NP (often a pronoun), as an alternative to the Topic particle gây. Thus 1Sg ÿ:ⁿ náyⁿ ‘me now, ...’, 1Pl î: náyⁿ ‘us now, ...’, and so forth. This form is common in narratives.

When the ‘now’ particle functions as a topical element by itself, it appears in the form náyⁿ gây, with variants ná gây and né gâ.

19.1.3 ‘Also, even’ (yaŋa)

This particle can follow any NP or adverbial constituent. It must be distinguished from Instrumental yàŋà (§8.1.2).

When added directly to a noun or pronoun, the ‘also, even’ particle gets its tones by spreading from the left, and this high or low tone extends across both syllables: ÿ:ⁿ yáŋá ‘me too’, î: yàŋà ‘us too’, é:ŋí yáŋá ‘tomorrow too’. It is therefore analysed as **atonal**. However, it is also low-toned after the Accusative suffix -ŋ, even when the latter is high-toned due to spreading from its left (xx1).

(xx1) ñné-ŋ ní-dí-tĩ-w-ndè [ñjĩ-ŋ yàŋà] ní-dí
 3Sg-Acc give-Perf1b-2SgS-if [1SgO **too**] give.Imprt
 ‘If you give (some) to him/her, give (some) to me too!’

The particle may follow a PP, including one with the (partially) homophonous Instrumental postposition yàŋà.

(xx2) [nàŋá yàŋà] wára-m-Ø,
 [cow with] farm(verb)-Impf-1SgS,
 [[ðgðŋðŋó yàŋà] yàŋà] wára-m-Ø
 [[camel with] **too**] farm(verb)-Impf-1SgS,
 ‘I do farm work with an ox, (and) I do farm work with a camel also.’

My assistant did not allow /yaŋa/ after verbs, e.g. with clausal scope. Since every verb has a natural complement, often a referentially unspecific cognate nominal, it is probably always possible to find a nominal to serve as the

immediate scope of /yàṅà/. In (xx3), note ‘meal’ and ‘place’ in the interlinears (omitted from the free English translation).

- (xx3) **nǎ:** **dáṅí-ṅ,** **[ô:** **yàṅà]** **sémbí-ṅ**
 meal cook-Impf.3SgS, [place **also**] sweep-Impf.3SgS
 ‘He/She cooks, and he/she sweeps too.’

/yàṅà/ can also be used in the emphatic sense ‘even X’, which is closely related logically to ‘also, too’.

- (xx4) a. **[yí-tègè èwrè bú:** **yàṅà]** **wórí wára-m-è**
 [child-Pl.L small.L Def.AnPl **even**] farming farm-Impf-3PlS
 ‘Even the little kids will do farm work (= weeding).’
- b. **[pǒ:** **yáṅá]** **pò:-mè-rⁿi-∅**
 [greeting even] greet-Caus-Perf.Neg-3SgS
 ‘He/She didn’t even say hello.’

19.2 Presentential discourse markers

19.2.1 ‘As much as ...’ (**háfi ~ hálè**)

This particle, which occurs in various forms in all languages of the zone, may occur at the beginning of a constituent phrase (NP or adverbial). In this section the focus is on discourse extensions of the usual sense ‘as far as (location)’ or ‘up until (time)’. The clause itself may be negated, resulting in the sense ‘not as much as’ (hence ‘not even’).

- (xxx) a. **[háfi ñjǐ-ṅ pǒ:] kǐyè-rǐ-∅**
 [as.much.as 1Sg-Acc greeting] say-Perf.Neg-3SgS
 ‘He/She didn’t say as much as hello to me.’
- b. **[háfi bú:dù wǒy]** **ñjǐ-ṅ ñdè-rǐ-∅**
 [as.much.as riyal two] 1Sg-Acc give-Perf.Neg-3SgS
 ‘He/she didn’t give me as much as a red cent.’
- c. **[háfi nà tùmâ yàṅà]** **yè:-rí-∅**
 [as.much.as time one even] come-Perf.Neg-3SgS
 ‘He/She didn’t come as much as (=even) once.’
- d. **[háfi nùṅá]** **nùṅí-só-∅**

[as.much.as song] sing-Perf2-3SgS
 ‘He/She even sang (a song).’

19.2.2 ‘Well, ...’ (háya)

This is the common ‘well, ...’ expression, giving the speaker time to formulate a clause. This is a regional form also common in e.g. Fulfulde and Jamsay.

19.2.3 ‘So, ...’ (wála:)

French *voilà* appears in the form wála:, also in regional use.

(xx1) wála: jǎ: bèré jè-w
 so meal get RecPf-2SgS
 ‘So you have gotten a meal.’

19.2.4 Clause-initial emphatic particle (péy, fés)

péy can be used with positive and negative clauses. pés is used with negative clauses only (‘not at all’).

- (xx1) a. péy séllé-só-y
 Emph be.healthy-Perf2-1SgS
 ‘I’m perfectly healthy.’
- b. péy jǎ: kò:-rǐ-y
 Emph meal eat-Perf.Neg-1SgS
 ‘I haven’t eaten at all.’
- c. pés jǎ: kò:-rǐ-y
 [= (b)]

19.2.5 ‘But ...’ (mě:)

Younger speakers use mě: (French *mais*). Unlike the French original, mě: is pronounced at the end of the preceding clause.

(xx1) yě:-só-Ø mě: bè:-rí-Ø

come-Perf2-3SgS but remain-PerfNeg-3SgS
 ‘He/She came but did not stay.’

19.2.6 ‘Indeed’

19.2.7 ‘Lo, ...’ (jágà⇒)

This particle, which occurs in slightly different forms in most local languages, is used in narrative at the beginning of a clause introducing a dramatic or surprising new event.

19.3 Pragmatic adverbials or equivalents

19.3.1 ‘(Not) again’, ‘on the other hand’

‘Again’, i.e. ‘one more time’ or ‘a second time’, is expressed by the adverb **bëndí** (also the adjective ‘other’) or by the chained verb **bëndé** ‘go back, return’. **bëndí** is preferred in negative or other modally problematic contexts (xx1.a-b), while **bëndé** is usual in positive contexts (xx1.c).

- (xx1) a. **bëndí** **òmbòrí=yê** **íní-ṅò-yⁿ**
 other Hombori=in go-ImpfNeg-1SgS
 ‘I won’t go to Hombori again.’
- b. **bëndí ṅgá yè-w-ndè,** **há:jè** **béré-m^w**
 other here come.Perf.L-2SgS-if, problem get-Impf-2SgS
 ‘If you-Sg come here again, you’ll get trouble.’
- c. **[nǎ:** **[á** **báy]** **kó:-ṅ]**
 [meal [ReflSg Dat] eat-and.SS]
[bëndé **ṅgá** **kòè-Ø]**
 [go.back here eat.Perf.L-3SgS]
 ‘Having eaten at home, he ate here again.’

19.4 ‘Only’ particles

19.4.1 ‘Only’ (sǎy)

There is a particle **sǎy** (as in Jamsay) that follows the constituent (X), either an NP or an adverbial, that it has scope over. The sense is ‘only X’.

- (xxx) a. [tɛ:mdɛrɛ sǎy] sò-y
[hundred **only**] have-1SgS
‘I have only one hundred (riyals).’

sǎy can indirectly have scope over a VP by being added to a cognate nominal (or other conventionalized object associated with the verb).

- (xxx) a. bírɛ-ŋɔ̀:-Ø, [gírɛ-níyⁿɛ sǎy] níyⁿɛ-ŋ
work-Impf.Neg-3SgS, [eye-sleeping **only**] sleep-Impf.3SgS
‘He/She doesn’t work, he/she just sleeps.’

As is true in all languages of the zone, ‘only X’ is also expressed by a negated clause combined with an ‘if not’ (i.e. ‘unless’) conditional.

- (xxx) búrà [ò:ndó òdò:-Ø ndè] kò bɛndí mùrà-Ø
B [honey **not.be**-3SgS **if**] thing.L other not.want-3SgS
‘Boura wants nothing other than honey.’

19.4.2 ‘Just (one)’ (léŋ)

This is a colorful intensifier for tùmá ‘one’.

- (xxx) a. [nànà tùmá léŋ] sò-y
[cow.L single **mere**] have-1SgS
‘I have a single (=only one) cow.’

The stylistic flavor is along the lines of colloquial English ‘I have one lousy cow’, where ‘lousy’ has logical focus on ‘one’ (expressing the meager number of cows) rather than on ‘cow’.

19.5 Phrase-final emphatics

19.5.1 Phrase-final já:tĩ ‘exactly’

This emphatic, common in Fulfude and (through borrowing) some other languages of the zone, is often used as a single-word confirmation of a proposition uttered by an interlocutor (‘Exactly!’). It may also be added to a phrase or clause with similar sense.

- (xxx) a. kòkòsú-wⁿ já:ǽ
 viper-be.InanS exactly
 ‘Yes, indeed it is a viper.’
- b. ú já:ǽ
 2Sg exactly
 ‘precisely you-Sg’

19.5.2 Clause-final kòy

This clause-final emphatic particle is used to give strong assent to a proposition by an interlocutor, or to a polar interrogative.

- (xxx) kě:rè nǒm kòy
 money difficult Emph
 ‘Money is indeed hard to come by.’ (nòmí)

This is a regional word (Jamsay, Fulfulde, Humburi Senni, etc.).

19.5.3 Clause-final dè

This clause-final emphatic particle is more adversative or admonitive than kòy, suggesting that the addressee is unaware of something. (xxx) might be said to someone who had just announced plans to mount an expensive project.

- (xx1) a. kě:rê nǒm dè
 money difficult Emph
 ‘(But) money is hard to come by!’
- b. [gùrí báy] ú-ń háybà dè
 [thief Dat] 2SgS-Acc watch.over.Imprt Emph
 ‘Watch out for the thief (or: thieves)!’

19.6 Backchannel and uptake checks

19.7 Greetings

Time-of-day related greetings ('good morning!' etc.) and their responses (R) are in (xx1). In form, the unmarked *pǒ:* is used in the middle of the day, while the greetings used early in the day and at night have a retrospective time perspective: the 'good morning!' expressions are based on *ná:-* 'spend night', while the 'good night' expressions are based on *dèrⁿé-* 'spend mid-day'. By contrast, the late-afternoon greeting uses the term for 'late afternoon' (*dèndèsî*). The Imperative Plural suffix *-ndî* on the plural-addressee versions of the greetings suggests that all the greetings are imperative in form.

| (xx1) | greeting | situation |
|-------|--|---|
| | <i>náyⁿ</i> | morning 6-9 AM (Sg addressee) |
| | <i>ná:-ndî</i> | (Pl addressee) |
| | R: <i>àwâ:</i> | |
| | R: <i>ná:-kò:</i> | (archaic) |
| | <i>pǒ:</i> | mid-day 9AM to 4PM (Sg addressee) |
| | <i>pǒ:-ndî</i> | (Pl addressee) |
| | R: <i>àwâ:</i> | |
| | R: <i>pǒ: bèrè-mǐ</i> | (archaic) |
| | <i>dèndèsî pǒ:</i> | late afternoon 4PM to sunset (Sg addressee) |
| | <i>dèndèsî pǒ:-ndî</i> | (Pl addressee) |
| | R: <i>àwâ:</i> | |
| | R: <i>dèndèsî pǒ: bèrè-mǐ</i> | (archaic) |
| | <i>dèrⁿéyⁿ</i> | sunset to 4 AM (Sg addressee) |
| | <i>dèrⁿéyⁿ-ndî</i> | (Pl addressee) |
| | R: <i>àwâ:</i> | |
| | R: <i>dérⁿí bèrè-mǐ</i> | (archaic) |

The '(have a) good night!' expressions are in (xx2). They may be addressee-directed (imperative), or hortative and inclusive ('let's ...').

| | | |
|-------|----------------------------|---|
| (xx2) | <i>jáŋà nâ:</i> | final 'good night!' (Sg addressee) |
| | <i>jáŋà ná:-ndî</i> | (Pl addressee) |
| | R: <i>àmí:ⁿ</i> | |
| | <i>jáŋà ná:-má</i> | final 'good night!' Hortative ('we' dual) |

jáŋà ná:-màyⁿ Hortative ('we' 3+)
 R: àmí:ⁿ

Also using the verb *ná:-* 'spend night' are the questions in (xx3), which can be added to a 'good morning!' greeting.

(xx3) jáŋà nà:-wⁿ mà 'Did you sleep well?' (Sg addressee, familiar)
 jáŋà nà:-wⁿ (Sg addressee, respectful)
 (û:) jáŋà nà:-wⁿ ∴ (Pl addressee)
 R: ná:-só-ý 'I slept well' (from a friend)
 R: ná:-só 'I slept well' (respectful)
 R: ná:-s-é 'we slept well' (respectful)

Activity- and/or place-specific greetings and their responses are of two basic structures. One type is based on the locative form (postposition *gó*, *gá*, etc.) of a noun like 'field(s)', 'market', 'well', or 'work' (xx4). These greetings are primarily used when the addressee is at the relevant location or is performing the indicated activity, though [*ò: gó*] *pǒ:* can also be addressed to someone returning from the fields.

(xx4) [*ò: gó*] *pǒ:* (at, or returning from, fields)
 R: àwâ:

 [*éwé gá*] *pǒ:* (at the market)
 R: àwâ:

 [*ě: gá*] *pǒ:* (at the well)
 R: àwâ:

 [*bíré gá*] *pǒ:* (at work) (with *bíré*, not *bírá*)
 R: àwâ:

The greetings in (xx5) are of the form 'you and {fields, work, market, water}' and are generally addressed to someone returning from the place and activity in question.

(xx5) [*ú yò*] [*ǒ: yò*] (at, or returning from, fields)
 R: àwâ:

 [*ú yò*] [*bírá yò*] (coming back from work)
 R: àwâ:

 [*ú yò*] [*éwé yò*] (returning from the market)
 R: àwâ:

[ú yò] [ní: yò] (coming back from well)
R: àwâ:

A traveler arriving at a house is greeted with [[ńdó gó] d̂:] ‘arrive at (or: approach) the house!’, an invitation to come in and deposit one’s baggage. One who is leaving on a long trip is sent off with the phrase [jáṅà d̂:], literally ‘arrive (there) in health!’. The reply is à.mí:ⁿ ‘amen!’.

One gives condolences to a survivor of a deceased person with the phrase [[p̂rⁿó ńó] p̂:], literally ‘greetings in high worth’. The visitor who has presented condolences and is about to leave is told: [d̂njê [ú ĝ] gùró-ndíyé-m̂] ‘may God lengthen your (life)’, and/or [d̂njê [í b̂ndéy k̂] wàgá-ndíyé-m̂] ‘may God put distance between us (i.e. us and the dead person)’. On returning home from giving condolences in another village, one is greeted with [yógí gó] p̂:], literally ‘greetings in running’.

The usual **Islamic greetings** and similar formulaic phrases, from Arabic, are present. *ásâlâ:mâlê:kùm* (Arabic ‘peace to you-Pl’) is the formal greeting, especially on entering the presence of a group of men. The reply is *wă:lékùmâsâlâ:m*. The Islamic formula for inviting someone to come in, to join in a meal, etc., is *bîsímîlâ* (Arabic ‘in God’s name’). *àlbárkà* ‘thank you!’ (Arabic ‘blessing’) is used to thank someone for a meal or a gift, and in markets as a polite refusal to buy.

20 Text

Text recorded in 2007. Some direct quotations from hyena are in Jamsay, or in a peculiar Jamsay-Nanga mix. These foreign items are italicized, as is the odd French word (e.g. *donc*, *encore*).

(xxx) *té:njè:-nĩ:*,

[formulaic story opening phrase, cf. *té:njè* ‘tale’; audience should respond *yáwò*⇒]

(xxx) [jòmó yò tà-tã: yò] [sàmà^ri-bírá gá] òn-ò,
[hare and hyena and] [day.labor.L-work in] go.Perf.L-3PIS,

[â: wõy] [sàmà^ri-bírá gá] íné íj,
[RefIP1 two] [day.labor.L-work in] go and.SS,

[sàmà^ri-bírá gá] [bû: ñ] ày-à,
[wage.L-work in] [3Pl Obj] receive.Perf-3PIS

lògòrò-mé *kémé-m-ù*,
apiary build-Impf-3PIS

‘Hare and hyena went to (get) day-labor work. The two of them went to (get) paid work, and they (= people) took them in paid work. They were going to build apiaries (man-made beehives).’

[X yò Y yò ‘X and Y’ §xxx, topic-indexing Reflexive Plural â: §xxx; íj ‘and.SS’ in same-subject VP chains §xxx]

(xxx) *donc* [*lògòrò-mé* *kémè-kémè*] [*nã: dégé-ñ-è: wà*],
so [apiary build.HL-build.L] [hand lick-FutNeg-3PIS say],

wó:ĩ-yô: wà, [*lògòrò-mé* *kémè-kémè*]
all.right say, [apiary build.HL-build.L]

tà-tã: [nã: á kô] dégè-Ø,
hyena [hand RefIP Poss.InanSg] lick.Perf-3SgS

lògòrò-mé yègé sǐgè-Ø,
apiary fall go.down.Perf.L-3SgS,

donc [[*íné wá*] [*bèndí dègí-rá wá*]]
so [[3Sg say] [other lick-ImprtNeg say]]

[*wó:ĩ-yô: wà*], [*kú màyⁿ*]
[all.right say], [InanSg like]

kémè-kémè-kémè-kémè
build.HL-build.L-build.L-build.L

[**̀nd̀** **kú**] **kémé** **g̀d̀-nd̀-̀**,
 [house.L Def.InanSg] build go.out-Caus.Perf.L-3PlS
 ‘So (the bosses) said, when building the apiary, they (= hare and hyena) will (= must) not lick their hands. They said, all right. When building the apiary, hyena licked his hand. The apiary fell down (= collapsed). (The bosses) said, hey you (= hyena), don’t lick (your hand) again! In that way they kept building and building, and they finished building that house (= apiary).
 [iterated verb stem with {HL}] then all-low tones §xxx; ‘fall’ and ‘go down’ in verb chain §xxx; 3Sg pronoun for original 2Sg vocative ‘hey you!’]

(xxx) **kémé** **g̀d̀-nd̀ó** **̀́**, *donc* [**sàrà** **bù:** **g̀**],
 build go.out-Caus and.SS, so [pay 3PIP Poss.InanSg]
̀né **ḍ̌:** **nà**,
 3SgS arrive then.DS,
 [**̀né** **wá**] [**tà-t̄:** **wà**] [**n̄:** **d̀g̀é=bé-Ø** **wá**],
 [3Sg say] [hyena say] [hand lick=Past-3SgS say],
 [[**tà-t̄:** **̀́**] **bêr** **sàrá** **̀́**]
 [[hyena Obj] goat pay and.SS]
 [[**j̀m̀ó** **̀́**] **nàgá** **̀d̀-à**],
 [[hare Obj] cow give.Perf.L-3PlS

‘Having finished building, their pay (= wages), when it (= payday) arrived, (they) said: hey you, hyena, you licked your hand previously. (So) having paid hyena (with) a goat, they gave (= paid to) hare a cow.’
 [Hyena was paid less because of his having licked; **nà** ‘then.DS’ in different-subject clause §xxx; Past clitic §10.xxx]

(xxx) [**̀:** **ẁy**] **yê:-yè:** [**̀d̀** **̀s̄**] **ẁ:** **̀́**,
 [ReflPl two] come.HL-come.L [house road.L] catch and.SS,
 [**̀:** **ẁy**] **yê:-yè:**, [**yé:** **m̀**] [**yé:** **m̀**] [**yé:** **m̀**],
 [ReflPl two] come.HL-come.L, [come Dur] [come Dur] [come Dur],
b̀nd̄i-úsúr^{n̄} **̀ry-Ø**, **b̀nd̄i-úsúr^{n̄}** **̀né** **̀ry** **nà**,
 rain.L-wind get.up.Perf-3SgS, rain.L-wind 3SgS get.up then.DS,
j̀m̀ó [**nàgá** **á** **yê**] **ǹnḡyè-Ø**,
 hare [cow ReflSgP Poss.AnSg] mount.Perf-3SgS,
 [**tà-t̄:** [**bêr** **á** **yê**]
 [hyena [goat ReflSgP Poss.AnSg]
bàsé: **̀né** **ḍ̌:** **nà**] **̀ní-̀̀-Ø**,
 pull.Dur 3SgS be.tired then.DS] go-ImpfNeg-3SgS
 [**j̀m̀ó** [**̀né** **wá**] **mà^{n̄}ándiyé** **yè** **̀né** **wá**]
 [hare [3Sg say] have.courage come.L go say]

[wó:ti-yô: wà],
[all.right say]

‘As the two of them were coming (back), they took the road of (= to) the houses (= village). The two of them were coming. They kept coming and coming, (then) a rain storm arose. When the storm arose, hare mounted his cow. Hyena tugged on his goat until he (= hyena) was exhausted (= for a long time), (but) it wouldn’t go. Hare said: hey you, have courage, come and (let’s) go! He (= hyena) said, all right.’

[m̀ in durative background clause §15.2.xxx; -é: §xxx; verb-verb chain with low-toned nonfinal verb ‘come’ §xxx]

(xxx) básâ-ⁿ ñné bú m̀]

pull-Impf 3SgS be while]

[b̀er né] b̀yé d̀: j̀-Ø,
[goat.L Def.AnSg] lie.down be.calm finish.Perf.L-3SgS,
b̀yé ñné d̀: j̀ nà,
lie.down 3SgS be.calm finish then.DS,
[[b̀er né] b̀yé ñné d̀: j̀ nà]
[[goat.L Def.AnSg] lie.down 3SgS be.calm finish then.DS]
[j̀m̀ [ñné wá] [ỳ ñní-ŋ̀: nd̀]
[hare [3Sg say] [come.L go-ImpfNeg if]
[á [ñné ń] d̀g̀ t̃ kày] ñní:-ⁿ wà],
[LogoSg [3Sg Obj] leave Perf1b Top] go-Impf.3SgS say]
[wó:ti-yô: wà],
[all.right say]

‘As he (= hyena) was pulling, the goat lay down motionless (refusing to budge). When it lay down motionless—, when the goat lay down motionless, hare said: hey you (= hyena), if you (= hyena) won’t come and go (with hare), I (= hare) will leave you (here) and go. He (= hyena) said: all right.’

[Imperfective plus bú ‘be’ §10.xxx; d̀: j̀- is fixed idiomatic verb chain; Logophoric pronoun indexing author of quotation §xxx; Perfective-1b t̃ as linker in VP chain §xxx; low-toned nd̀ ‘if’ §xxx]

(xxx) [básá ñné kán nà]
[pull 3SgS do then.DS]

[[b̀er né] ỳ:-ŋ̀: ñné kán nà]
[goat Def.AnSg] come-ImpfNeg 3SgS do then.DS]

[[b̀er né] l̀s̀ t̀m̀] [g̀wà t̀m̀]
[[goat.L Def.AnSg] leg.HL one.L] [front.leg.L one]

álá k̀ẁ-Ø, [álá k̀ẁ ń]
yank.off eat.meat.Perf.L-3SgS, [yank.off eat.meat and.SS]

[yè ínê-ⁿ wà], jòmó íné wá íyê *encore*,
 [come.L go-Impf say], hare 3Sg say again still,
 ní-*ḡ*:^{-Ø} wà,
 go-ImpfNeg-3SgS say,

‘When he (= hyena) had pulled and the goat wouldn’t come, he (= hyena) yanked off and ate one of the goat’s legs, one front leg. Having yanked it off and eaten it, (hare) said, come and (let’s) go. Hare said, hey you, once again, come and (let’s) go. He (= hyena) said: I am not going.’

[bare verb stem plus *kán*- ‘do’ §xxx; ‘one of goat’s legs’ possessed core NP with noun and adjective §xxx]

- (xxx) [básâ-ⁿ básâ-ⁿ básâ-ⁿ íné bú m̀] *àwà-rí-Ø*,
 [pull-Impf pull-Impf pull-Impf 3SgS be Dur]
 [[bèr né] yé:-ndé *àwà-rí-Ø*],
 [[goat.L Def.AnSg] come-VblN accept-PerfNeg-3SgS],
 [yé:-ndé *àwà-rí* íné *kán nà*]
 [come-VblN accept-PerfNeg-3SgS] 3SgS do then.DS]
 [bèr-dè: né *ḡ*]--
 [goat-mother Def.AnSg Obj]—
 íyê [gùwà tùmâ] alá kùwè-Ø,
 again [front.leg.L one] yank.off eat.meat.Perf.L-3SgS,
 [néy gày] [l̀s̀ wõy] wàsè-Ø,
 [now Top] [foot two] remain.Perf.L-3SgS,
 [[l̀s̀ tà:ndi:] ñdõ:] [néy gày] [l̀s̀ wõy] wàsè-Ø,
 [[foot three] not.be] [now Top] [foot two] remain.Perf.L-3SgS,
 [[l̀s̀ wòy gú] íné wàsá nà]
 [[foot.L two.L Def.InanSg] 3SgS remain then.DS]
 [bèr-dè: né màrⁿá] sémé j̄iyé *ḡ*,
 [goat-mother.L Def.AnSg entire] cut.throat.of kill and.SS,
 [bèr-sùḡrⁿ tùmâ] [jòmó *ḡ*] ñḡ-Ø,
 [goat.L-ear.L one] [hare Obj] give.Perf.L-3SgS,
 ‘As he (= hyena) was pulling and pulling, the goat refused to come. When it refused to come, he (= hyena) again yanked off and ate the whole goat— (or rather) one (= the other) front leg (of the goat). Now two hind legs remained. Not three legs, now (just) two remained. When the two legs remained, he (= hyena) cut its throat to kill it, and he gave one goat-ear to hare.’
 [*àwá* ‘accept’ with verbal-noun complement §xxx; negative clause plus *kán*- ‘do’ §xxx; “goat-mother” = ‘entire goat’ §xxx]

- (xxx) [italicized sequence is in Jamsay]

[néy gày] [á g̀]

[now Top] [ReflSgP Poss.InanSg]
 [bèr-dè: né] kúwó-jè ò]]
 [goat.L-mother.L Def.AnSg] eat.meat-RecPerf and.SS]
 [â: wòy] [yé: m̀] [yé: m̀]
 [ReflPl two] [come while] [come while]
 [dém̃⇒ òné nà]
 [a.little go then.DS]
 [j̀m̀ wá [bèr-sújúrⁿⁱ á g̀] ndí wá],
 [hare say [goat.L-ear LogoSgP Poss.InanSg] give say]
 [j̀m̀ wá kúwó-jè m̃:ndí wá]
 [hare say eat.meat-RecPerf think say]
 [j̀m̀ gò-ndó [òné í] òndí-Ø],
 [hare go.out-Caus [3Sg Obj] give.Perf.L-3SgS],
 hà: [nìj kè] d̀m gá:jè kún-á:rⁿⁱ-m wà,
 hah! [now Top] up.to.now joking do-Impf-1SgS say,
 wó:fi-yò: wà,
 all.right say,

‘Now, when he (= hyena) had finished eating his thing (= meal), (eating) the goat, the two of them (= hyena and hare) were coming, (and) when they had gone a little way, he (hyena) said to hare: give me (= hyena) (back) my goat-ear! He (= hyena) thought (= assumed) that hare had already eaten (it), (but) hare took (it) out and gave it to him (= hyena). (Hyena) said (in Jamsay): *I am just kidding!* (Hare) said: all right.’

(xxx) [â: wòy] [yé: m̀] [yé: m̀] [yé: m̀] [yé: m̀]
 [ReflPl two] [come Dur] [come Dur] [come Dur] [come Dur]
 iyê tà-tâ: [j̀m̀ wá] [sújúrⁿⁱ á g̀] ndí wá,
 again hyena [hare say] ear LogoSgP Poss.InanSg] give say,
 j̀m̀ iyê [òné í] gò-ndó òndí-Ø,
 hare again [3Sg Obj] go.out-Caus give.Perf.L-3SgS,
 d̀m gá:jè kún-á:rⁿⁱ-m wà,
 up.to.now kidding do-Impf-1SgS say,
 [yé: m̀] [yé: m̀] [yé: m̀] [yé: m̀] [yé: m̀],
 [come Dur] [come Dur] [come Dur] [come Dur] [come Dur]
 ‘The two of them were coming and coming. Again hyena said: hey hare, give (me) my (goat-)ear! Hare again took (it) out and gave it to him. (Hyena) said (in Jamsay): *I am just kidding!* They were coming and coming.’

(xxx) [[kú màyⁿ] yè: í] [[ndó gó] d-ò:],
 [[InanSg like] come and.SS] [house in] arrive.Perf.L-3PlS
 [ndó gó] yè: d̀: í--,

[house in] come arrive and.SS—,
 [ńdó gó] yě: dǔ: ń,
 [house in] come arrive and.SS,
 [jòmó wá] [bèr-nà má á gò] ńdí wá,
 [hare say] [goat.L-meat LogoSgP Poss.InanSg] give say,
 [jòmó [ńné ń!] gò-ndó ñđi-Ø]
 [hare [3Sg Obj] go.out-Caus give.Perf.L-3SgS]
 [á [ńíhèy ÿhà] gá:jè kúrⁿi-sò wà],
 [LogoSg [now with] kidding do-Perf2 say],

‘In that way they came and arrived at the houses (= village). Having come and arrived at the houses—. Having come and arrived at the houses, (hyena) said: hey hare, give (me) my goat meat (= ear). Hare took (it) out and gave it to him, saying that now he (= hare) was kidding (= joking).’
 [Hare speaks in Nanga]

(xxx) [[kú màyⁿ] [ùsú wòy] dǔ: ń]
 [[InanSg like] [day two] arrive and.SS]
 [jòmó [[[á dè:] sè:mbè-bi:ⁿ] ńò]
 [hare [[[ReflSgP mother.HL] cotton.basket.L] in]
 [ńné ń] kún dǔgè-Ø,
 [go and.SS] put.in leave.Perf.L-3SgS,
 [[sè:mbè-bi: ńò] kún dǔgò ń]
 [[cotton.basket in] put.in leave and.SS]

[jòmó gǔ: ńné èré nà],
 [hare go.out 3SgS Perf1a then.DS].

jòmó [[ńjó nò] yě: ń]
 hare [[younger.sibling 3SgP] come and.SS]
 [[sùhùrⁿi kú] gò-ndó kùwè-Ø],
 [[ear.L Def.InanSg] go.out-Caus eat.meat.Perf.L-3SgS],

‘When two days had arrived (= passed) in that way, hare went and put and left (the goat-ear) in his mother’s cotton-gear basket. When hare had put and left (it) in the cotton-gear basket, and had gone out (completely), hare’s younger brother came and took out the (goat) ear and ate (it).

[èré as linking equivalent of Perfective-1 -èrè- in chains, §xxx; ‘hare_x [his_x brother]’ with topicalized possessor, cf. the simpler phrasing jòmó ńjò ‘hare’s brother’]

(xxx) gò-ndó ńné kúwó nà,
 go.out-Caus 3SgS eat.meat then.DS,
 tà-tā: [yě: ń] [bèr-sùhùrⁿi á gò] ńdí wá,
 hyena [come and.SS] [goat.L-ear ReflP Poss.InanSg] give say,
 [jòmó [yě: ń] ńìrⁿé ńné kán nà]

[hare [come and.SS] look 3SgS do then.DS]
 kùrⁿḍ-ndó-Ø,
 be.put.in-StatNeg-3SgS,
donc [ńné wá] [bèr-súnjúrⁿi á gḥ] tósí wá,
 so [3Sg say] [goat.L-ear LogoSgP Poss.InanSg] pay say,
 jḥmó wó:fi-yô: wà,
 hare all.right say,
 jḥmó [[nàṅá á yê] bàsá ḥ]
 hare [[cow ReflP Poss.AnSg] pull and.SS]
 [[â: wǒy] [ò: gó] ńné ḥ]--,
 [[RefIP1 two] [fields in] go and.SS]—,
 [[â: wǒy] [ò: gó] ńné ḥ],
 [[RefIP1 two] [fields in] go and.SS],
 jḥmó [tà-tâ: wà] [ùsì túmbó yè:-mǐ gú]
 hare [hyena say] [sun.L sun.rise come-Ppl.Impf Def.InanSg]
 yî:-sò mâ: wà,
 see-Prog Q say,

‘After he took (it) out and ate (it), hyena came and said: give (me) my goat-ear! Hare came and looked, (but) it (= ear) wasn’t in (the basket). (Hyena) said: so, hey you, pay for (= replace) my goat-ear! Hare said, all right. Hare pulled his cow, the two of them (= hare and hyena) went to the field—. The two of them went to the field, and hare said: hey hyena, do you see that sun which is rising (and coming)?’

[kùrⁿḍ-ndó-, negation of stative *yá kùrⁿḍ-* ‘be (put) in’; same-subject ḥ in ‘went to the field’ with sloppy coindexation of subjects, singular versus plural §xxx; imperfective relative clause ‘sun which is rising and coming’ §xxx]

- (xxx) é tà-tâ: [á yî:-sò] wà,
 yes hyena [LogoSgS see-Impf] say,
donc [ńné wá] [ùsì túmbó yè:-mǐ gú]
 so [3Sg say] [sun.L sun.rise come-Ppl.Impf Def.InanSg]
 [[ùsì gú] gḥ:≡Ø wà]
 [[sun.L Def.InanSg] fire=it.is say]
 [ńné wá] [[kú ḥ] ńné jè: gáy] yě-y wá,
 [3Sg say] [[InanSg Obj] go get.coals.L then.SS] come-Hort.3Sg say,
 ‘Hyena said, yes, he saw (it). (Hare) said, that sun which was rising, the sun was fire; he (= hyena) should go get that (= fire, i.e. hot coals) and come.’
 [gáy ‘and then’ after tone-dropped verb §15.2.6; third-person Hortative in jussive, i.e. in quoted command, §10..6.4 and §17.1.4.1]

(xxx) tà-tâ: [gò: gú] [jè: gó] òné òné nà,
 hyena [fire.L Def.InanSg] [get.coals.L Purp] 3SgS go then.DS
 jòmó, jòmó [[nàṅá á yê] sémé ò],
 hare, hare [[cow ReflSgP Poss.AnSg] cut.throat.of and.SS]
 [[nàmà ý] úró jè ò]
 [[meat.L Def.InanPl] skin&butcher RecPf and.SS]
 [[nàmà èsì ý] gò-ndó ò] [símbí ò],
 [[meat.L good.L Def.InanPl] go.out-Caus and.SS] [roast and.SS]
 [[tùmà-pómbó gó] òdé ò] [kór dógó ò],
 [[tree.L-hole in] go.up and.SS] [hang.up leave and.SS]
 [[bĩdĩ ý⇒] [kù: ý] b̃yⁿ ò],
 [[entrails Def.InanPl] [head Def.InanPl] bury and.SS]
 kírâ k̃:y dógè-Ø,
 horn sticking.out leave.Perf.L-3SgS
 ‘When hyena had gone in order to get fire (= hot coals), hare—, hare
 slaughtered his cow, he finished skinning and butchering the meat cuts
 (= sections), he took out and roasted the choice meat cuts, he went up into
 a tree hollow, (and) he hung up and left (the choice meat cuts). He buried
 the entrails (and) the heads, and left the horns sticking out (of the ground).’
 [Purposive clause with Locative gó §17.5.2]

(xxx) [k̃:y dógó ò],
 [sticking.out leave and.SS]
 tà-tâ: [[òné ò] gòṅíⁿ dè:-Ø]
 hyena [[go and.SS] go.around be.tired.Perf.L-3SgS]
 [gò: bèrè-rí-Ø]
 [fire get.PerfNeg-3SgS]
 [ùsí nà:] [gò: òdò: yè],
 [sun rather] [fire not.be rather.than]
 [kú màyⁿ tà-tâ: [yè: ò]
 [InanSg like] hyena [come and.SS]
 [á kòy] gò: bèrè-rí wá,
 [LogoSg Top] fire get-PerfNeg say,
 jòmó wó:t̃yô: wà,
 hare all.right say,
 bèndĩ déyⁿ⇒ kò-kámâ òdò: wá,
 other apart thing-any not.be say,
 ‘He (= hare) left (the bones) sticking out. Hyena went walking around until
 he was exhausted (i.e. trying in vain to get fire from the sun), (but) he
 didn’t get any fire. It was the sun, not fire. In that way hyena came and
 said: as for me, I haven’t gotten any fire. Hare said, all right, it’s nothing
 special (= it doesn’t matter).’

[í] ‘and.SS’ at end of same-subject clause sequence; [[X nà:] [Y òdò: (yè)]]
 ‘it is X, rather than Y’ §xxx]

- (xxx) *donc* [[*íné wá*] [*kirà bù-mù gú*]
 so [[3Sg say] [horn.L be-Ppl.Impf Def.InanSg]
kěy⇒ yí:-sò mà] [*é yí:-sò wà*],
 sticking.out see.Prog Q] [yes see-Prog say],
[donc [[kú námà gù] kéréw]
 [so [[InanSg meat.HL Def.InanSg.L] all]
ká yá kùⁿò wà]
 there.Def Exist be.put.in say
[íné wá] [gò-ndê wà] wó:tiyô:,
 [3Sg say] [go.out-Caus-Hort.3Sg say] all.right,
 ‘(Hare) asked him: so, do you see those horns that are (there) sticking out?
 (Hyena) said: yes, I see it. (Hare) said: so, all that meat is in there
 (= underground), you (= hyena) should take it out. (Hyena) said, all right.’
 [combination of preposed possessor, noun, and low-toned Definite
 morpheme §xxx; Existential particle *yá* §xxx]

- (xxx) [[*kú màyⁿ*] *íné kán nà*]
 [[InanSg like] 3Sg do then.DS]
 [[*bòndĩ dùgí*] *yè:-Ø*], [[*bòndĩ dùgí*] *íné yè: nà*]
 [[rain.L big] come.Perf.L-3SgS,, [rain.L big] 3SgS come then.DS]
 [*jòmó [á gày] [témbè gà] ndêⁿ wà*],
 [hare [LogoSg Top] [above in] go.up-Impf.3SgS say],
 [*wò:tiyô: wà*] *tà-tâ: [á gày] [[dósú gó] bē:-ⁿ wà*],
 [all.right say] hyena [LogoSg Top] [[below in] stay-Impf.3SgS] say
 ‘After it happened like that, a big rain came. Hare said: as for me, I will go
 up above (= into the tree). (Hyena) said, all right. Hyena said: as for me, I
 will stay below.’

- (xxx) [*jòmó [témbè gà] ndé í]*
 [hare [above in] go.up and.SS]
 [*námá á gô*] *kùwò-ndé*,
 [meat ReflSgP Poss.InanSg] eat.meat-if,
 [*kĩⁿà gú*] [[*tà-tâ: kù:*] *gà gísêⁿ*],
 [horn.L Def.InanSg] [[hyena head.HL] in throw-Impf.3SgS,
wò⇒-wôy [iyé ké] [àⁿà démbéré] mĩrⁿá:-rⁿà-Ø kòy,
 ouch! [today Top] [rain.L big] rain.fall-Impf-3SgS Emph,
 [*dé jùmò} é:-rà-w mà*],
 [elder.sibling hare] see-Impf-2SgS Q,
òⁿhóⁿ jòmó [á yí:-sò] wà,

uhhuh hare [LogoSgS see-Prog] say,
 jòmó [námá á gô] kùwò ndé,
 hare [meat ReflSgP Poss.InanSg] eat.meat.L if,
 [kĩrⁿà gú] [[kú: nò] gà] tác! gísê⁻ⁿ,
 [bone.L Def.InanSg] [[head 3SgP] in] thud! throw-Impf.3SgS
 éy⇒ [àrⁿà démbéré] mĩrⁿá:-rⁿà-Ø wà,
 hey! [rain.L big] rain.fall-Impf-3SgS say,
 òⁿhóⁿ jòmó á yí:-sò wà,
 uhhuh! hare LogoSgS see-Prog say,
 ‘Hare went up above, and when he had eaten his meat, he was throwing the
 bones (down) on hyena’s head. (Hyena thought:) woo-woo, today a big
 rainstorm sure is falling! (Hyena mistakes the bones for hailstones.)
 (Hyena) said: elder brother hare, do you see? Uh-huh, hare said, I see (it).
 When hare had eaten his meat, he was throwing it down with a thud on his
 (= hyena’s) head. (Hyena) said, hey, a big rainstorm is falling! Uh-huh,
 hare said, I see (it).’
 [high-toned ndé ‘if’ §xxx]

(xxx) [[kú màyⁿ] kúwó ñ] ñ]
 [[InanSg like] eat.meat and.SS]
 [kĩrⁿà dèmbìrè gú] [tùndú gó],
 [bone.L big.L Def.InanSg] [down in],
 [[tà-tâ: kù:] gà] táy ñné gísé nà,
 [[hyena head..L] in] thud! 3SgS throw then.DS,
 tà-tâ: óⁿ⇒ [dé jòmó]
 hyena oh! [elder.sibling hare.L]
 [ú⇒y mí kám-á:rⁿà-wⁿ mà⇒] wà,
 2Sg=Foc 1SgO throw-Impf-2SgS Q] say,
 é⇒ wá, d’accord [yèré sígé wá]
 yes say, okay [come go.down say]
 [ñné wá] yĩ-yĩ:-ⁿ wà,
 [3Sg say] Rdp-see-Impf say,
 ‘In that way he ate, and at the end (of the meal) he threw the big bone
 down hard on hyena’s head. Hyena said: oh, elder brother hare, is it you
 [focus] who is throwing (bones) on me? (Hare) said: yes. (Hyena) said: all
 right, come down (here)! You (= hare) will see!’
 [yèré sígé is a mix of Jamsay and Nanga; yĩ-yĩ:-ⁿ reduplicated Imperfective
 §10.xxx]

(xxx) [kú màyⁿ] jòmó sígé ñné yě: nà,
 [InanSg like] hare go.down 3SgS come then.DS,
 á [ñné ñ] kúwô⁻ⁿ,

LosoSgS [3Sg Obj] eat.meat-Impf.3SgS,
 [ńné wá] ùmăy [á ń] kùwò ndé,
 [3Sg say] like.this [LogoSg Obj] eat.meat.L if,
 [á [dòsù ká] á yègè ndé]
 [LogoSg [down.L on] LogoSgS fall.L if]
 [ńné wá] [á ń] m̀̀nè-r̄i wá quoi,
 [3Sg say] [LogoSg Obj] get.even-PerfNeg say Emph,
donc [ńné wá],
 so [3Sg say],
 [ńné wá] [[pà:ndī sīrīdī] gò] [á ń] págí wá quoi,
 [3Sg say] [[thread.L thin] in] [LogoSg Obj] tie say Emph,
 [[pà:ndī sīrīdī] gò] [á ń] pàgī ndé,
 [[thread.L thin] in] [LogoSg Obj] tie.L if,
 [[t̄ir̄i èsī] ńné jè: ndé]
 [[firewood.L good] 3SgS bring.L if]
 [[á ń] d̀̀: ndé]
 [[LogoSg Obj] roast.L if]
 kúwí wá quoi,
 eat.Imprt say Emph,

‘In that way, when hare came down, (hyena said:) I will devour you (= hare). (Hare) said: if you devour me like that, if I fall down there, you won’t have gotten (back at) me. So, you there, tie me up with thin thread. When you have tied me up with thin thread, have brought some good firewood, and have roasted me, (then) eat me!’

[the final string of ‘if/when’ clauses is completed by an imperative; pragmatically the entire sequence is imperative]

(xxx) tà-tâ: < [[t̄ir̄i èsī] j̀̀r̀̀ gó]- >
 hyena < ... >

[[ńné ń] págí d̀̀gó ń]
 [[3Sg Obj] tie leave and.SS]
 [[[t̄ir̄i èsī] j̀̀r̀̀ gó] ńné ńné nà]
 [[[firewood.L good] look.for.L Purp] 3SgS go then.DS]
 [j̀̀mó párá-gí-t̄i-Ø], párá-gí ỳ̀gó màr̀̀-Ø,
 [hare snap-Caus-Perf1b-Ø, snap-Caus run be.lost.Perf.L-3SgS,
 tà-tâ: *encore* íyê [ńné ń] [j̀̀ró ń] ỳ̀i-Ø,
 hyena again again [3Sg Obj] [look.for and.SS] see.Perf.L-3SgS
 [[ńné ń] j̀̀ró ń] ỳ̀i: ń,
 [[3Sg Obj] look.for and.SS] see and.SS,
 [[ńné ń] j̀̀ró-j̀̀r̀̀-j̀̀r̀̀-j̀̀r̀̀]
 [[3Sg Obj] look.for.HL-look.for.L-look.for.L-look.for.L

‘Hyena tied up and left him, then he (= hyena) went in search of good firewood. Hare snapped (the rope). He snapped (it) and ran (away) and disappeared. Hyena looked for him (= hare) again. He looked for him, he was looking and looking and looking for him.’

[jírò-jòrò-... iteration of verb with HL then all-low tones (on the tape the speaker began with the lexical LH tone but corrected this during transcription)]

- (xxx) [yá rné ń] [[ndò-pìré gó] rné ń]
 [there go and.SS] [[house.L-inside in] go and.SS]
 [jòmó [séwrè gá] rné énjà mò]
 [hare [ceiling.pole in] 3SgS be.slipped.in.Stat while]
 [réné ń] tèmǐ-Ø quoi,
 [3Sg Obj] find.Perf.L-3SgS Emph,
 [séwrè gá] rné énjà mò]
 [ceiling.pole in] 3SgS be.slipped.in.Stat while]
 [dé jòmó wá] [yè sígí wá],
 [elder.sibling hare say] [come.L go.down say]
 jòmó á sígí-ń̀̀̀ wà,
 hare LogoSgS go.down-ImpfNeg say,

‘He (= hyena) went there, he went inside a house, and found him (= hare) slipped in among the thin ceiling poles. While he (= hare) was in among the thin ceiling poles, (hyena) said: elder brother hare, come down! Hare said: I won’t go down.’

[Stative form of verb §10.3]

- (xxx) [réné wá] [níń̀̀̀ á ùmǎy yègè sìgè ń̀̀̀]
 [3Sg say] [now LogoSgS like.this fall go.down.L if]
 [[námá á gò] námá-èrè-Ø]
 [[meat LogoSgP Poss.InanSg] be.ruined-PerfIa-3SgS]
 [réné wá] dùyá rné bàrá j̀̀̀̀ ń̀̀̀̀,
 [3Sg say] ashes go gather bring.L if,
 [dòsù gá] rné t̃iy ń̀̀̀̀,
 [below in] 3SgS dump.L if,
 [á [dùyà gá] yégê-ⁿ]
 [LogoSgS [ashes.L in] fall-Impf]
 [[á ń̀̀̀] bàrⁿùmè-rⁿǐ]
 [[LogoSg Obj] wound-PerfNeg-Ø]
 [réné wá] [námá á gò] wǒ: kúwô-ⁿ wà,
 [3Sg say] [meat LogoSgP Poss.InanSg] catch eat.meat-Impf say,
 wó:t̃iyô: [kò ké] t̃òyⁿó=yⁿ wà
 all.right [Nonh Top] truth=it.is say

‘(Hare) said: if I fall down like that now, my flesh will be ruined. When you (= hyena) have gone and gathered some ashes and brought them, and when you have dumped them down below (on the ground), (then) I will fall (= land) on the ashes and it will not have injured me, (then) you will catch me and eat my meat. (Hyena) said (in Jamsay): all right, that’s true.’

(xxx) *donc* *tà-tâ:* [*íné* *ɨ̃*] *dùyá* [*íné* *ɨ̃*]
 so hyena [go and.SS] ashes [go and.SS]
j̀òró *j̀ě:* *ɨ̃*
 look.for bring and.SS]
 [*dùyá* [*̀ndò-p̀irè* *gá*] *mâ:* *tíy* *ɨ̃*],
 [ashes [house.inside in] pouring.lots pour and.SS],
 [*j̀òmó* *gày*] [*séwrè* *gà*] *yá* *nà̀nà-Ø*,
 [hare Top] [ceiling.poles in] Exist be.up.on.Stat-3SgS,
 [*íné* *wá*] *k̀ûngà* *yè* *sígi* *wá*,
 [3Sg say] all.clear come go.down.Hort.3Sg say,
j̀òmó [*dùyà* *gá*] *p̀ûy* *íné* *kán* *nà*,
 hare [ashes in] thud! 3SgS do then.DS,
 [[[*tà-tâ:* *g̀irè*] *gò*] *dùyá* *yégi*⇒ *kà̀r^ri-Ø*]
 [[[hyena eye.L] in] ashes powder.get.in do.Perf.L-3SgS]
 [*j̀òmó* *ká* *ỳògò* *mà̀rè-Ø*],
 [hare there.Def run be.lost.Perf.L-3SgS]

‘So, hyena went and looked for ashes, and brought (them), and dumped (them) all around inside the house. Hare for his part was (still) up among the ceiling poles. (Hyena) said: the coast is clear, (now) to come (= drop) down! When hare made a thud (falling) on the ashes, the dust (kicked up from the ashes) got into hyena’s eyes (half-blinding him). Hare ran (from) there and disappeared.’

[*k̀ûngà*, used in contexts like ‘the coast is clear’, obscurely related to *kú=ɨ̃* ‘it’s that’]

(xxx) [*té:njè* *mélèm*] [*dùmá* *mélèm*] *quoi*
 [story submerged] [finish(noun) submerged] Emph
 [story-closing formula]