Short grammar of Tiefo-N of Nyafogo (Gur, Burkina Faso)

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color code:

dark red	regular transcriptions for Tiefo-N
blue	regular transcriptions for Tiefo-D, including < Winkelmann
green	not italic, in […] : phonetic transcriptions (IPA)
	not italic, in /…/ : pre-surface representations
	not italic, after * : reconstructions
	italic: regular transcriptions for other languages

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1 Introduction

1.1 Language background

1.1.1 Gur languages

Gur (in French usually *voltaïque*) is a large family, consisting of approximately 50 languages. Dense concentrations of these languages are in SW Burkina and in adjacent parts of neighboring countries. The major city in SW Burkina is Bobo Dioulasso; other cities are Banfora, Diébougou, Gaoua, and Sindou. Large swaths of northern Burkina are occupied by the Gur languages Mooré and Gourmantche. The family extends across northern Ghana to Togo, Benin, and western Nigeria. Gur is thought to be most closely related to the Senoufo languages, which straddle the border area between Mali, Burkina, and Côte d'Ivoire. Together, they are thought to be part of the vast Niger-Congo superfamily which also includes Kwa, Kru, Bantoid, Bantu, Dogon, Ijoid, and (according to some) Mande and Atlantic.

The linguistic geography and the substantial differences among neighboring Gur languages suggest that SW Burkina might be part of the original homeland of Gur languages. However, SW Burkina is now also home to several Mande languages, which likely spread into the area more recently.

Jula (Dioula) in particular has become the dominant lingua franca of SW Burkina, and it and closely related varieties, such as Bambara, are lingue franche in neighboring Mali and northern Côte d'Ivoire. The non-Jula languages of SW Burkina are at various stages of endangerment due to the Jula juggernaut. In the case of Tiefo, the process of Jula-ization dates from the end of the 19th Century. The result is that all Tiefo varieties are now threatened with extinction. For fuller discussion of current Tiefo sociolinguistics, see Hantgan (in press).

1.1.2 The Tiefo (*cèfɔ̀*) languages

We distinguish two languages, Tiefo-N treated in this document, spoken in Niafogo and with dialectal differences until recently in Noumoudara, and Tiefo-D, spoken in Daramandougou. The distinction (using different labels) was established by Winkelmann (1998), who studied Tiefo-D in some detail.

Neither Manessy (1981, 1982) nor Naden (1989) was able to place Tiefo (then treated as a single language) within the main genetic subgroups of Gur. Naden includes Tiefo, Viemo, Toussian, Wara, and Natioro in a loose category of SW Burkina languages whose genetic subgrouping within "Central Gur" is "improbable" (p. 149). Naden does not address the issue whether this set of languages might itself constitute a genetic subgroup, or is just a basket of languages awaiting classification. We therefore tentatively assume that Tiefo constitutes its own peripheral subgroup of Gur.

The ethnic name in Nyafogo is *cèfɔ̂* 'Tiefo (person)', plural *cèfɔ̂ɔ̀→*, and 'Tiefo language' is the compound *cèfɔ́-mìì* (or *cèfɔ́-mìyì*).

1.1.3   Tiefo villages

The Tiefo villages with their Tiefo-N names are in (1). In *ɲáɣáfɔ̀ɣɔ̀ⁿ \\ ɲáɣáfɔ̀ɣɔ̀→* etc., the form following \\ is plural.

(1)   Names of Tiefo villages

	official name	village	people
a. Tiefo-N			
	Nyafogo	*ɲáɣáfɔ̀ɣɔ̀ⁿ*	*ɲáɣáfɔ̀ɣɔ̀ⁿ \\ ɲáɣáfɔ̀ɣɔ̀→*
	Noumoudara	*tɔ́ráʕā̄ⁿ*	*tɔ́ráʕā̄ⁿ \\ tɔ́ráʕā̄→*
b. Tiefo-D			
	Daramandougou	*káɣà(-lɛ̌)*	*káɣà \\ káɣà→*
c. formerly Tiefo-speaking, on the plateau above and west of the cliffs			
	Me	*mèɛ́*	*màɣá \\ màɣá→*
	Maturku	*mátòò ~ mátyòò*	*mát(y)òò \\ mát(y)òò→*
	Samogan	—	
	Tien	—	
	Kodala	—	

d. formerly Tiefo-speaking, in the plains below and east of the cliffs

Koumandara	*ʃíyèyⁿ*	*ʃíyɔ̀ⁿ* \\ *ʃíyɔ̀→*
Dege-dege	*dègèdègè*	*dègèdègè-ɲɔ́ⁿ* \\ *-by-ó→*
Derege	*dèrègbè*	*dèrègbè* \\ *dèrègbɔ̀→*
Laranfiera	*làɣàⁿfyèlá*	*làɣàⁿfyè* \\ *làɣàⁿfyɔ̀→*
Musubadugu	*ʃíkìyàʕà*	
Sidéradougou	—	(partially Tiefo)

Despite its name and geographical proximity, Tiéfora village on the highway from Banfora to Gaouwa is of Karaboro (subgroup of Senoufo) rather than Tiefo ethnicity (and language), as Winkelmann already observed.

The Tiefo-N name for Bobo Dioulasso, the biggest city in the zone, is *sàmìyàʕàⁿ*.

Our GPS coordinates for the main villages follow. The *quartiers* of Daramandougou are separated from each other by several kilometers. Coordinates are in degrees (north latitude, west longitude), minutes, and decimal fractions of minutes.

(2)   a. Tiefo-N

Nyafogo	10 53.203	04 22.725
Noumoudara	10 58.936	04 25.375

       b. Tiefo-D (*quartiers* of Daramandougou)

Sounougou	10 49.745	04 30.982
Santoko	10 50.005	04 32.013
Flaso	10 49.245	04 32.544
Jinejan	10 49.267	04 33.648
Biton	10 48.707	04 31.190
Bofoboso	10 49.426	04 30.997
Masaso	10 50.200	04 32.594

Winkelmann's map (1998: 17) may be consulted for further detail.

The people of Nyafogo participate in a five-day market cycle that defines their traditional "week". The sequence is Péni, Nyafogo, Bobo Dioulasso, Dar Salami, and Noumoudara. All but Nyafogo are on the Bobo to Banfora highway on the plateau above and just west of the cliffs.

While Nyafogo is oriented to the west and north, Daramandougou is oriented toward the south. The only local market they participate in is that of Tiéfora, and the large city they are oriented toward is Banfora rather than Bobo. Therefore even today Nyafogo and Daramandougou have relatively little contact with each other, despite their physical proximity. The *pistes* between Nyafogo and Daramandougou are very poor and are used

mainly by motorcycles and the odd lumbering, overloaded market-day van. Our 4x4 made the trip from Nyafogo to the center of Daramandougou in about 1.5 hours.

1.1.4   Neighboring languages

Besides Jula, the dominant lingua franca which is eating up the native languages of the zone, neighboring languages are the following:

- to the NW on the plateau: Northern Toussian (peripheral Gur)
- to the north: Bobo (Mande)
- farther to the NE: Viemo (peripheral Gur)
- to the south: Eastern Karaboro (Senoufo)
- to the SE (beginning with Sidéradougou): Dogosé (Gur)

Nyafogo and the other predominantly Tiefo villages also host minorities speaking the Mande languages Bobo and Seenku (aka Sembla, Seeku), and the Gur languages Moore (ethnicity Mossi) and Turka. There are small groups of Fulbe cattle herders in the bush near Nyafogo. Fulbe women come into the villages to sell milk and butter.

Jula is the lingua franca for nearly all interethnic communication.

1.2   Environment

There is a heavy rainy season May to September, followed by a long dry season from October to April.

The cliffs that run just east of and parallel to the Bobo-Banfora highway define the geography. The cliffs range from high and steep to lower and more gentle, and there are two passes north of Nyafogo where a 4x4 or a motorcycle can navigate the slopes going up or down. Daramandougou is cut off by particularly steep cliffs and it is too far from the passes to make much use of them.

The "plateau" west of the cliffs can therefore be distinguished from the "plains" to their east. The Bobo to Banfora highway and villages including Noumoudara are up on the plateau, while both Nyafogo and Daramandougou are down in the plains. In Tiefo-N, *pètèɛ́ⁿtɔ́ⁿ* denotes the plains, and *jáá-ʃĩⁿ* the plateau.

Both on the plateau and in the plains, the main crops cultivated are maize (the staple grain) and cotton (the main cash crop), followed by sorghum, sesame, peanut, okra, cowpea (*Vigna unguiculata*), and roselle (*Hibiscus sabdariffa*). During the dry season, some vegetable gardening is practiced: onion, garlic, lettuce, tomato, chili pepper, sweet potato, and cassava.

1.3 History

The Tiefo were a locally formidable military power until the late 19th Century. There exists to this day a small military museum in Noumoudara, the former center of Tiefo power, where visitors are shown weapons and torture instruments. This village still boasts a "war chief" in addition to an administrative chief.

The key event in the history of the Tiefo was the invasion led by the Jula chief Samori Touré in 1897. Some Tiefo on the plateau were massacred (Hébert 1958; Winkelmann 1995, 1996). This led to the rapid linguistic Jula-ization of Tiefo country. The remaining vestiges of Tiefo languages occur in Nyafogo (Tiefo-N) and Daramandougou (Tiefo-D) on the plains below and east of the cliffs, which were spared the worst of the massacres.

1.4 Previous scholarship on Tiefo

Gabriel Manessy, the leading comparative Gur scholar of the early 1980's, feared even then that Tiefo (not then subdivided) was dead: "Le tyefo est selon toute apparence une langue en voie d'extinction, peut-être éteinte aujourd'hui" (Manessy 1982: 143). He lamented the sad state of its documentation, which at that time consisted of one manuscript (not available to us) by R. P. André Prost with 140 words and 80 short sentences collected, as Manessy put it, "dans des conditions difficiles auprès d'un vieillard édenté, par l'intermédiaire d'un interprète qui parlait le dyula, mais non le tyéfo" (1982: 143). Manessy was nonetheless able to confirm that Tiefo belonged to Gur by lexical comparisons.

Fortunately, Tiefo (like Mark Twain) outlived its obituary. The first major work on a Tiefo language was Kerstin Winkelmann's important dissertation on Tiefo-D (Winkelmann 1996). She was part of a German research group that worked on Gur languages of SW Burkina. They that had a special interest in class markers in nouns (Miehe et al. eds. 2012), which are important in wider Niger-Congo studies.

Winkelmann's fieldwork was done in the period 1990-1994, more than twenty years ago. She focused heavily on Tiefo-D in Daramandougou, but she also made short visits to Noumoudara and Nyafogo. She gathered enough Tiefo-N material to conclude (correctly) that it was a different language from, and mutually unintelligible with, Tiefo-D. However, she also concluded (incorrectly) that Tiefo-N was already then beyond salvation, especially in Nyafogo. She found it impossible to elicit Tiefo-N noun plurals ("die von den Informanten nicht gebildet werden konnten") or more than very few forms ("nur sehr wenige Formen") from verb paradigms. She therefore described the informants as "Semisprecher" (Winkelmann 1995:3,14).

Winkelmann's dissertation (1998) consists of a grammar (pp. 1-215) focusing on phonology and basic morphology of Tiefo-D, a Tiefo-D/German lexicon (pp. 216-249) with

some comparisons to Tiefo-N, and a reverse German-Tiefo-D index (pp. 250-259). This work is cited henceforth as W98. Winkelmann has since changed careers.

An SIL sociolinguistic survey (Berthelette & Berthelette 2001) based on interviews in Daramandougou and briefly in Noumoudara, gave an overly optimistic picture of the vitality of Tiefo-D, confirmed that Tiefo-N of Noumoudara was down to a few old people, and did not report any signs of linguistic life at Nyafogo.

Tiefo studies reached their low point in 2008, when the Endangered Languages Documentation Project at SOAS funded a Burkina scholar to the tune of £6000 to do fieldwork on Tiefo. The individual in question produced no documents, deposited no data, and his current whereabouts are not known to our sources in the Burkina linguistic community.

1.5   Our fieldwork on Tiefo-N

The project Heath has led since 2005 on Dogon and other languages and with which Hantgan was affiliated made a "strategic withdrawal" to the safe haven of Bobo Dioulasso during the Tuareg rebellion of 2012 in Mali. In SW Burkina, we not only continued our ongoing work with Malian informants who traveled with us, we also began sniffing around for possible local fieldwork opportunities. In this context we took a chance and checked out the Tiefo situation.

Hantgan and Heath had the good fortune to encounter Ouattara, a linguistics student at the University of Ouagadougou and an ethnic Tiefo (but not a native speaker) who was interested in documenting Tiefo-N in particular. It turned out, to our pleasant surprise, that not only was Tiefo-D still somewhat viable (being used within a large extended family in Daramandougou), but there were also a couple of elderly people in Nyafogo who could still serve as Tiefo-N informants. We did, however, confirm that the Tiefo-N variety of Noumoudara was extinct and unrecoverable.

Based on our initial division of labor, Heath elicited the flora-fauna terminology for Tiefo-N (as he did for several other SW Burkina languages) and did most of the species identifications; Hantgan (who can communicate in Jula) began informant work with the Nyafogo speakers (mostly at our base in Bobo); and the project supported Ouattara's studies in Ouagadougou and brief field trips by her to Nyafogo.

Completion of the fieldwork was delayed by Ouattara's family obligations, which led her to take an NGO job in northern Burkina in 2013-'14, and by Hantgan's departure in January 2014 to a new postdoc position at SOAS involving fieldwork in Senegal. Hantgan left behind materials for a Tiefo-N dictionary and grammar (2013ms, 2014ms) but no finished works.

After Ouattara returned to her linguistic studies in 2015, Heath was able to reunite with her and carry out joint fieldwork. They spent a few days in Nyafogo during Heath's Christmas break in January 2016. They then brought the two elderly speakers to the project's

Bobo base for intensive joint fieldwork totalling 5-6 weeks in August and again in October 2016. During this time they went over Hantgan's manuscripts to glean items, especially lexical, that were not already in their own materials.

This English-language document was written by Heath. Most of the Tiefo-N data in it was collected in joint elicitation sessions including Heath and Ouattara, though it builds on earlier work by Hantgan. During these sessions, Ouattara played a crucial role in clarifying morphosyntax, lexical semantics, and tones. Heath is responsible for errors and mistranscriptions. We are disseminating this work now in order to make our results available in a timely fashion. Ouattara will continue to work on Tiefo-N independently and her dissertation and other works (in French) may supercede this document in part. She has been transcribing texts as well as adding to her grammatical and lexical materials, and we plan to disseminate the texts when ready.

The fieldwork has required considerable patience on all of our parts, given the age of our speakers and the fact that their only other language is Jula. Nevertheless, thanks to their enthusiasm, Hantgan's willingness to undertake a demanding fieldwork task, and Ouattara's perseverence, we have been able to put together a basic grammar and a substantial lexical spreadsheet for Tiefo-N that would (we like to think) have pleased and surprised Manessy and Winkelmann.

1.6 Acknowledgements

2 Phonology

2.1 Consonants

The inventory is (3), in IPA.

(3)   IPA

stops/affricates

voiceless	*p*	*t*	*tʃ*	*k*	*k͡p*
voiced	*b*	*d*	*dʒ*	*g*	*g͡b*

fricatives/approximants

voiceless	*f*	*s*			
voiced				*ɣ*	*ʕ*

nasal stops	*m*	*n*	*ɲ*	*ŋ*	*ŋ͡m*
lateral		*l*			
tap		*ɾ, ɾ^n*			
glides (semivowels)	*w, w^n*	*j, j^n*			
glottal					*ʔ*

Comments:

- *ɾ* (tap) occurs only intervocalically (VrV, CərV, VCrV);
- intervocalic n is optionally realized as tap ɾ plus vocalic nasalization (§2.6.8);
- /g/ between two *a* or *ɔ* vowels spirantizes to *ɣ* especially in #Cv_v position (second syllable onset) in a stem (§2.6.7);
- /g/ sometimes varies with *ŋ* in a nasalized environment (§2.6.7);
- in nouns, pharyngeal *ʕ* is common intervocalically at the onset of third and fourth syllables from the left, and is arguably a positional allophone of *ɣ* ;
- glottal stop *ʔ* occurs word-fnally as a negative enclitic on verbs.
- labial velars (*k͡p*, *g͡b*, *ŋ͡m*) occur stem-initially, and in a few cases are synchronically derivable from /kw/ etc. (§2.6.4).

This grammar uses the practical orthography in (4). The consonants for which non-IPA symbols are used are preceded by →. Ligatures are omitted for labial velars. Note especially *y* = IPA [j] and *j* = IPA [dʒ].

(4)   Orthography

stops/affricates
    voiceless   *p*   *t*   → *c*   *k*   → *kp*
    voiced   *b*   *d*   → *j*   *g*   → *gb*
fricatives/approximants
    voiceless   *f*   *s*
    voiced   *ɣ*   *ʕ*
nasal stops   *m*   *n*   *ɲ*   *ŋ*   → *ŋm*
lateral   *l*
tap   → *r*
glides (semivowels)   *w, wⁿ*   → *y, yⁿ*
glottal   *ʔ, h*

The three authors have at times differed in their interpretations of laryngeal and pharyngeal consonants. Heath's practice, followed here, is to recognize glottal stop *ʔ* only in clause-final negative enclitic =*ʔ*, and does not recognize *h* except word-initially in a few borrowings like *hákírīī* 'intelligence' (< Jula). Hantgan has transcribed medial glottal stop, and Ouattara has transcribed medial glottal stop and *h*, in a number of words, arguably to mark a weak syllabic boundary between vowels.

Heath considers velar fricative *ɣ* and pharyngeal approximant *ʕ* to be in partial but not complete complementary distribution, with *ʕ* typically in third and later syllables from the left (very common in A-class CvCvʕv nouns) and *ɣ* typically medial in Cv_v. He transcribes *ɣ* when he hears actual frication as opposed to pharyngeal narrowing; if the complementarity hypothesis is correct it means that in third and later syllables the frication is relaxed and replaced by pharyngealization, which is partially diffused into the flanking vowels. Both *ɣ* and *ʕ* are strongly associated with *a_a* and *ɔ_ɔ* frames. However, some high frequency CvCv words appear to have *ʕ* instead of *ɣ*, as with postposition *bāʕā* 'having' versus postposition *bàɣà* 'wanting' (§10.2.5.1, §10.3.2), *yáʕá* '1Pl inclusive' (§3.2.1), and *kàʕà* A-class 3Sg pronoun in some predicate types (§3.3, §9.4.1). Hantgan's *ʕ* generally corresponds to both Heath's *ʕ* and *ɣ*.

Some consonants reconstructed for Proto-Gur (Naden 1989) are absent from Tiefo-N. These are *v and voiced implosives *{ɓ ɗ ʄ}.

2.2   Vowels

2.2.1   Vowel length and prolongation

Vowel length is phonemic in all positions in a word. Cvv is distinct from Cv, CvCvv is distinct from CvCv, etc.

In addition, Tiefo-N uses intonation-like prolongation as the productive pluralization of nouns. Even already long vowels can be prolonged, as with *wùú* 'house', plural *wùú→*. In cases like this, the prolongation may include a quasi-syllable break, as in [wù.ú→] ~ [wù-wú→].

2.2.2   Oral vowels

Like other languages of the zone, Tiefo-N has seven vowel qualities. The ATR opposition is limited to mid-height. The vowel qualities in (5) have phonemically distinct short and long forms.

(5)   high   *i*   *u*
         mid +ATR   *e*   *o*
         mid -ATR   *ɛ*   *ɔ*
         low   *a*

High vowels are ATR-neutral and may combine with either +ATR or -ATR vowels within a stem. Proto-Gur is reconstructed with ±ATR extended to high and low vowels (Rennison 1992). Winkelmann (1998: 35-37) astutely identifies vestiges of *a (-ATR) versus *ʌ (+ATR) in Tiefo-D imperfective/perfective alternations, which for some Ca verbs are *e/a* and for others are *ɛ/a*. One of the *e/a* cases is Tiefo-D *bē\\bà* 'come'; see the discussion of irregular Tiefo-N *bà* and *bé* in §8.3 below. The abundant Tiefo-N alternations involving imperfective *a* and (as a lexical choice) perfective *e* or *ɛ* are also relevant; see the lists of verb alternations in (91-93) in §8.5.1 below. If we assume stem-internal ATR harmony, following the same logic we might internally reconstruct possible original ATR oppositions for high vowels. Verbs like *dúgā* 'become heavy' and *ʃírá* '(day) break' might be reconstructed as +ATR *CuCʌ and *CiCʌ on the basis of perfectives *dúgè* and *ʃírè*, while other verbs like *túrá^n* '(burned skin) peel off' and *jínà* 'kick' might be internally reconstructed as -ATR *CʊCa and and *CɪCa based on perfective *túrè^n* and *jínè*.

The sequence /eo/, which occurs in combinations of a verb ending in *e* plus an encliticized object pronoun *=ò* or nominal prefix *ò*, is sometimes pronounced [øː] with a front rounded articulation.

(6) $pló=ò \sim plǿ=ǿ$ 'jabbed him/her'
      $< /plê=ò/$

2.2.3   Nasal vowels

Nasalization is indicated by superscript ^{n} after the vowel. Mid vowels can be nasalized only if -ATR (ε^n or $ɔ^n$).

(7)   Nasalized vowels

    i^n u^n
         ε^n $ɔ^n$
               a^n

Many bisyllabic and longer nouns show stem-wide nasalization of vowels. The noun $díyáʕā^n$ 'fire' (also 'gun') is heard as [$di^nj^náʕā^n$] with all vowels and semivowels nasalized. We hesitate between phonological transcription $díyáʕā^n$ and one with more explicit nonterminal nasalization, e.g. $díy^náʕā^n$ or even $dí^ny^ná^nʕ^nā^n$. In the former case, we can either take the transcription as underlying and assume regressive nasalization, or treat the final ^{n} diacritic as implying stem-wide nasalization. In $sɔ̀ɛ̀ɛ́^n$ 'work (n)', nasalization peaks early in the long syllable, apparently attracted by the more conducive ɔ vocalism. An important morphophonological process in nominal plurals is denasalization of at least the end of an otherwise nasalized stem (§3.1.2).

2.2.4   Vowel sequences

In addition to combinations of vowels with peripheral glides (Cyo, Coy, etc.), there are some cases of Cɔɛ that have a partially desyllabified mid-height vowel. Words like this with a final *y*, which we write as Cɔɛy, could alternatively be analysed as /Cɔy/, with labialization decreasing during the syllabic nucleus.

2.2.5   Cya versus Ci(y)a etc.

Distinctions of this type can be difficult to hear. Cases in question include perfective forms of certain Cv verbs. We transcribe $fyâ^n$ '(seed) germinate' and $fwâ$ 'say', but $dìyà$ 'do' and $dùwà^n$ 'bite' (variant); see (94b,e) in §8.5.2. The latter could also be transcribed $dìà$ and $dùà^n$,

as they have no conspicuous semivowel linkers. The distinction between Cya and Ci(y)a is based on whether we hear the initial *y/i* element as syllabic.

2.3   Syllables

Syllables are Cv, Cvv, , Cvw (or Cvwⁿ), Cvy (or Cvyⁿ), Cvŋ, and Cvvŋ, plus counterparts of any of these with initial CL (L = *l w y*) replacing simple C. While *l* may form part of a Cl cluster, tap *r* cannot form #Cr clusters. However, in Cvrv and longer stems, the first vowel is often reduced to a schwa before the tap *r* (§2.6.2). In all these formulae, vv represents a long vowel or tautosyllabic vowel sequence.

2.4   Correspondences between Tiefo-N and -D

Although the two languages have similar consonant and vowel inventories, and many cognates, the relationship between cognate words is often disguised by sound changes. W98 gives the examples in (8); we use blue for Tiefo-D. The Tiefo-N examples (mostly from Noumoudara) are shown here with the tone markings from W98 (except that M-tone is overtly marked). One important correspondence is Tiefo-D intervocalic glottal stop *ʔ* for Tiefo-N *g*. We note also *c* for *s*, and *d* for affricate *j*.

(8)   gloss   Tiefo-D (W98)   Tiefo-N (W98)

        'river'   *blāʔā ~ blā*   *bárágà ~ bálágà*
        'household'   *dráⁿ*   *dárāgá*
        'hair'   *brà(ʔà)*   *bàgàlē, bàràì*
        'dog'   *būɔ̰̄*   *bɔ̄ⁿʔɔ̄ⁿ, bɔ̄ⁿɔ̄ⁿ*
        'skin'   *cēʔē*   *sērēgē*
        'urine'   *cīcí*   *sīsīū*
        'millet cake'   *cùrū*   *sūrū*
        'sun(light)'   *dè*   *jàgā, yèà*
        'elder brother'   *dē̄*   *jɔ́*

2.5   Tones: Inventory and transcription

W98 reports three tone levels for Tiefo-D. Using *a* as the vowel, she transcribes *á* (high), *a* (mid), and *à* (low). We will use *á*, *ā*, and *à* for Tiefo-D, even in citing data from Winkelmann, making the mid tone explicit. Tiefo-D has some atonal morphemes that really should be

transcribed without tonal diacritics in their lexical form to distinguish them from M-toned forms. Tiefo-N has no atonal morphemes.

Changing the color from blue (Tiefo-D) to dark red (Tiefo-N), we transcribe *á*, *ā*, and *à* . This applies to our own data and to the occasional Tiefo-N datum cited from Winkelmann. Tiefo-N too has three tone levels, but they pattern differently. Whereas W98 reports many M-toned nouns for Tiefo-D, Tiefo-N has none (except in HM-toned stems). (9) shows two minimal trios reported by W98 (p. 71) for Tiefo-D, and gives their Tiefo-N counterparts in our transcription. Parenthesized Tiefo-N words are not cognate and should be disregarded here.

(9) Tiefo-D Tiefo-N

		Tiefo-D			Tiefo-N
a.	*dé*	'body'		(*kɛ́dì*)
	dɛ̄	'brother'	*dɛ̌*	'elder sibling'
	dɛ̀	'field'		(*fíyáʕā*)
b.	*só*	'pail'		*sóóŋ*
	sō	'pig'		*sòý*
	sò	'horse'		*sòóŋ̀*

In these and some other cases, Tiefo-D M-tone corresponds to rising tone (orthographic ˇv or ˇvv́) in Tiefo-N. As this suggests, M-tone is not regular for monosyllabic nouns in Tiefo-N. For nouns, it occurs only as part of HM sequences. On the other hand, grammatical particles and verb forms may be M-toned.

Contoured tones within a syllable in Tiefo-N are limited to two falling contours (<HL> and <HM>), one rising contour <LH>, and (rarely) a bell-shaped contour <LHL>. Examples of all the Tiefo-N syllable tone possibilities using monosyllabic words are in (10).

(10) type example gloss

a. monotonal

H	*wúú*	'death' (compare *wùú* 'house')
M	*gō*	'be (present)'
L	*mɛ̀ɛ̀*	'okra'

b. contoured
bitonal

HL	*yáà*	'co-wife'
HM	*bíí^n*	'roof'
LH	*dɛ̀ɛ́*	'sauce'

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tritonal

LHL   *sòóŋ*   'horse'

2.6   Phonological processes

2.6.1   Affrication and palatalization

As in Tiefo-D, there is partial (subphonemic) affrication of *t* and *d* before *i* and *y*. However, *ti* remains distinct from *ci,* and so forth. We will disregard subphonemic affrication in transcriptions.

2.6.2   Reduction of vowel to schwa

A short vowel is typically reduced in the direction of schwa, but not syncopated entirely, in the environment C_rv with a tap *r* and word-initial C. These sequences typically surface as Cərv with a shortened but still audible schwa-like vowel. A full pronunciation with one of the regular short vowels is usually also possible.

An example with a verb stem is *tə̀rà\\tə̀rè* 'ask (sb, to do sth)'; additional examples are in (91c) in §8.5.1.

2.6.3   Syncope

Historically, *Cvlv is the probable source for stems that are now Clv in Tiefo-N. In such cases there is no synchronic evidence for a /Cvlv/ underlying representation. An example is the verb *klē\\klè* 'clap (hands)'; for more examples see (91d) in §8.5.1. If this historical interpretation is correct, the difference between *Cvrv and *Cvlv is that the reduction of the first vowel is partial (to schwa) in the first case and total in the second. See the actual verb-stem alternations of the type Cərv\\Clv in §2.6.6 below. Bisyllabics like *blákā\\blékè* 'be cured' may likewise derive from trisyllabic etyma via syncope before *l.*

However, there is no fully productive synchronic rule of the type word-initial Cvlv → Clv. Counterexamples include *wúlà\\wúlè* 'flip, turn over (calabash)' *kúlā\\kúlè* '(baby) crawl', and *jōlà\\jōlè* 'sleep (v)'. Nor is syncope required in the medial syllable of CvCvlv, as shown by numerous trisyllabic verbs like *sɔ̄ɣɔ̄lā\\sɔ̄ɣɔ̄lè* 'fear, be afraid'; see (92a) in §8.5.1.

2.6.4 Secondary formation of labial velars from /kw gw ŋw/

Two synchronically irregular perfective/imperfective alternations of the type *ko/kp* and *ku/kp* suggest a no longer productive process converting velar plus *w* (representing desyllabified *o* or *u*) into a labial velar: /kw/ → *kp* (11a). However, there are other cases of *kw* etc. that do not fuse into labial velars, as with *kɔⁿ\\kwɛ̀ⁿ* 'understand' (11b), compare *kwɔ́làʕá* 'good' versus predicative *kò* 'be good'. Conversely, many stems have invariant labial velar {*kp gb ŋm*} that does not alternate with a Cw cluster (11c).

(11)		imperfective	perfective	gloss
	a.	*kō*	*kpà*	'hit'
		kú	*kpâ*	'cut'
	b.	*kɔ̀ⁿ*	*kwɛ̀ⁿ*	'understand'
		kɔ̄ ~ kwɔ̄	*kā-bà*	'end, be used up'
	c.	*ŋmā*	*ŋmɛ̀*	'(baby) suckle'
		gbā	*gbà*	'split (wood)'
		kpá	*kpá-là*	'weep'

See W98: 62 for comparable cases in Tiefo-D, including two *gu/gb* alternations.

In these labial velars, the velar and labial articulations overlap and a click-like effect is produced by suction. There is no distinction between velar-labial consonant cluster sequences and labial velars, so we omit the ligature in transcriptions.

However, occasional fluctuation between co-articulated *ŋm* or *gb* and sequential *ŋw* or *gw* was observed in less common stems. For example, 'sparrowhawk' was heard both as *gbéy* with labial velar and as *gwéy* with stop-semivowel sequence.

2.6.5 Intervocalic liquid-deletion

Tap *r* is subject to sporadic deletion intervocalically, resulting in vowel contraction (vrv → vv). There are some doublets with and without medial r in the vocabulary. The nominal plural by prolongation of the final vowel or sonorant likely originated as reduction of plural suffix *-rv (with echo vowel copied from the stem-final) and contraction, usually forming a pure long vowel. The rhotic suffix is well-preserved in Tiefo-D.

There are also some perfective/imperfective verb stem alternations in which one form lacks a medial *r* found in another form. The *r*-less form appears to "grow" a final *y* (12a). In a few cases it is *l* rather than *r* that drops (12b).

(12)   imperfective   perfective   gloss

    a.   *déy*   *də́rà*   'be full'

	imperfective	perfective	gloss
a.	*déy*	*də́rà*	'be full'
	dōy ~ dɔ̄rɔ̄ ~ dɔ̄rē	*də̀rà*	'buy'
	kpɔ̄rɔ̄ ~ kpɔ̄y	*kpə̀rà*	'uproot' or 'fall out'
	géȳⁿ ~ gérēⁿ ~ gə́rēⁿ	*géré-mà*	'stir with stirring stick'
	jɔ̄y	*jɔ̀rà*	'(bird) peck'
b.	*méyⁿ*	*mlâⁿ*	'inflate'
	pòyⁿ	*plàⁿ*	'succeed'
	tú	*túlè*	'spit'

For cases where medial *r* is stable in a verb stem, see the following section.

    In the case of *bə́rí\\bí-là* 'ask', if we take *-là* as a perfective suffix (as with many other verbs), we have a further example of *r*-deletion.

2.6.6   *r/l* alternations

Some verbs show *r/l* alternations in their perfective/imperfective pairings (13a). Some of the alternations are of the form Cərv versus Clv, the latter likely syncopated from original *Cəlv. Several other verbs have stable *l* (13b) or stable *r* (13c).

(13)	imperfective	perfective	gloss
a.	*bə́rú*	*blâ*	'be wrong'
	fɛ̀rè	*flà*	'cover'
	gə́rú	*glâ*	'exit (v)'
	kə́rù	*klâ*	'touch'
	kə́rɔ́ⁿ ~ ká	*klâⁿ*	'chew'
	sírí	*sílà*	'be/do for a long time'
b.	*klàⁿ*	*klɛ̀ⁿ*	'tilt'
	plé	*plê*	'jab'
c.	*kpérɛ́*	*kpérɛ̀*	'descend'
	mə́rɛ́ⁿ	*méràⁿ*	'throw'
	pɔ̄rē	*pèrɛ̀*	'adhere'

2.6.7   *g/ŋ* and *g/ɣ/ʕ* alternations and *g/ŋ*-deletion

Intervocalic *g* may shift to *ŋ* in a nasalized environment.

(14)   imperfective   perfective   gloss

          sìgì^n ~ sìŋì   *sìgì-mà*   'run'

Voiced fricative *ɣ* (velar, approximately) patterns as a spirantized allophone of *g* between two
a or *ɔ* vowels. The degree of frication (turbulence) is slight in any position (see below on
further lenition to *ʕ*). Actual alternations occur in verb stems, correlating with vocalism
(15a). The relationship between the two may be obscured by the independent alternation of *g*
with *ŋ* (15b). For example the perfective of 'pay' likely derives from *nìgè^n, compare the
variants for 'shout' (15b).

(15)   imperfective   perfective   gloss

     a.   *dɔ̀ɣɔ̀*   *dìgè*   'follow; hear'
          kláɣā   *klégè*   'become short(er)'
          sáɣá^n   *sígè^n*   'rub on, apply (oil to skin)'
          súgú   *sɔ́ɣɔ́*   'catch'
          tígɛ̄^n   *tígè^n ~ tíŋè*   'heat (sth)'

     b.   *nàɣà^n*   *nìŋè*   'pay (sb)'
          fàɣà^n   *fìgè^n ~ fìŋè*   'shout'
          tàɣà^n ~ tìgè^n ~ tìŋè   *tìŋè ~ tàɣà^n*   'ignite'

In 'fall' (16a) below, medial *g* appears to have disappeared entirely. The same is true of *ŋ* in
(16b), but given the *g/ŋ* alternations we have seen, it may be that what was originally deleted
was *g in *sùgè^n or *sùgà^n. In neither of these cases was the *g in the vocalic environment
that favored spirantization to *ɣ*, so what actually happened diachronically is obscure.

(16)   imperfective   perfective   gloss

     a.   *só*   *súgà*   'fall'
     b.   *sɔ̀^n*   *sùŋè ~ sùŋà*   'work (v)', cf. noun *sɔ̀ɛ́^n*

Tiefo-N has many nouns and adjectives with shapes like CvCaʕa and CvCɔʕɔ, where *ʕ* is our
effort to capture the similarity between a lenited *ɣ and the famous Arabic pharyngeal
consonant. In this position, i.e. at the onset of the third or later syllable of a polysyllabic word,

frication is inaudible, and the phonetic output is best described as having a long pharyngealized [aˤ] or [ɔˤ], i.e. as [CvCaˤ:] or [CvCɔˤ:]. The relationship between this and the glottal stop reported by W98 for Tiefo-D in similar positions is worth exploring.

2.6.8   *n/r* alternations

Intervocalic *n* optionally lenites slightly to a tap *r*, preserving nasality in (at least) the following vowel. Presumably the actual process is reduction of nasal stop *n* to nasalized tap *rⁿ*, followed by redistribution of the nasal feature. Examples involving aspect pairings for verbs are in (17). We noticed quite a few cases like these in our lexical work but did not collect them intensively.

(17)   imperfective   perfective   gloss

    a.   *nānà ~ nāràⁿ*   *nènè ~ nèrèⁿ*   'make (sth); fix'
    b.   *ɲínà ~ ɲíràⁿ*   *ɲínè ~ ɲírèⁿ*   'receive, accept'

2.6.9   Denasalization

This is a morphophonological process that is part of plural formation in nouns, along with prolongation of the final syllable. See §3.1.2 for discussion and examples.

2.7   Tonology

There are three tone levels: H, M, and L. We acknowledge that there are occasional differences in tone transcriptions among the three authors. After Hantgan's departure, much of the lexicon including tone marking was reviewed by Ouattara on her own, and by Heath and Ouattara in joint sessions in which we attempted and in most cases reached consensus on tone. The tone markings here are Heath's based on these joint sessions but have benefitted greatly from Ouattara's input.

2.7.1   Tonal melodies of nouns

Slashes /…/ enclose lexical tone melodies. Monosyllabic Tiefo-N nouns may be /H/, /HL/, /HM/, and /LH/. Nonmonosyllabics may be any of these, plus /HLH/, /LHL/, or /LHM/. There is no pure /M/ melody for noun stems.

The lexical melody is usually realized without change. However, tones of nouns are dropped to {L} after *dí* in possessive constructions (§2.7.3.4). Curly brackets {…} enclose grammatically conditioned (ablauted) tone overlays.

Since there is no distinction between /HL/ and /ML/ in nouns, an argument could be made that what we transcribe as /HL/ might alternatively be analysed as /ML/. However, HL and ML patterns are distinguishable in verbs, and we hear the relevant nouns as HL-toned.

Examples of the lexical melodies with light stems:

(18)   a. Cv

/H/	*bá^n*	'sheep'
/HL/	*kâ*	'day' (as locator in time)
/L/	*pù^n*	'powder'
/LH/	*cǒ*	'hole'
/M/	—	—

   b. CLv

/H/	*bló*	'rain (n)'
/L/	*flɔ̀*	'baobab (tree)'
/LH/	*fwɔ̌^{n}*	'fish'
/M/	—	—

   c. CvL

/H/	*tɔ́w^n*	'iron'
/HL/	*búỳ^n*	'spring (water)'
/HM/	*bɛ́ȳ^n*	'winnowing van'
/L/	*pɛ̀y^n*	'foot'
/LH/	*dɔ̀ẃ*	'cut (wound)'
/M/	—	—

   d. Cvv

/H/	*tíí^n*	'straw roof of granary'
/HL/	*yáà*	'co-wife'
/L/	*mɛ̀ɛ̀*	'okra'
/LH/	*dɛ̀ɛ́*	'sauce'
/M/	—	—

   e. CvvN (N = *ŋ*, all known examples)

/H/	*kóóŋ*	'door (as object)'
/HM/	*dóōŋ*	'fontanel'
/LHL/	*sòóŋ̀*	'horse'

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f. CvCv

/H/	*gbéné*	'cassava'
/HL/	*bíkà*	'fetish (idol)'
/HM/	*ládɔ̄ⁿ*	'mistletoe'
/L/	*jàkà*	'manner'
/LH/	*bàwáⁿ*	'elephant'
/M/	—	—

g. CLvvN (only example)

/LHM/	*plòóŋ̄*	'grasshopper'

Examples with trisyllabic and other heavy stems are in (19). For these stems, the /H(M)/ type, e.g. 'groundnut' in (19a), is really a long /H/ stem whose final syllable drops to M-tone in isolation and prepausally. Such nouns flatten to all-H when phrased with following words. They are best interpreted structurally as having /H/ melody structurally, with terminal downstep before pause; we sometimes represent this as /H(M)/ melody. Ouattara prefers to transcribe such words with all-H tones.

Heavy stems also require us to subdivide /LH/ and /HL/ melodies. Since these melodies require a tone break and since the stems have two or more places where the break could occur. An asterisk indicates that the preceding tone extends into the middle. For example, CvCvCv can be /L*H/ C*vC*vCv, /LH*/ CvCvCv, /H*L/ CvCvCv, or /HL*/ CvCvCv. Monosyllabics and short (CvCv) bisyllabics cannot make these distinctions, so for them we just use /LH/ and /HL/.

(19) a. CvCvCv

/H(M)/	*búgúnē*	'groundnut'
/H*L/	*sɔ́ɣɔ́kà*	'hawk'
/HL*/	*sísɔ̀ɣɔ̀*	'young man'
/HLH/	*sákɔ̀ʕɔ́ⁿ*	'enemy'
/L/	*kòròbà*	'parrot'
/LH*/	*lèmúrú*	'lemon'
/L*H/	*dìyɔ̀ʕɔ́*	'cockroach'
/LHM/	*sèdúdū*	'coucal (bird)'
/LHL/	—	—

b. other

/HLH/	*báráʕàá*	'pond'
	wáàm-bí	'orphan' (compound)

CvCvv and CvCvL (with L = *w*, *y*, *ŋ* are mid-heavy, i.e. somewhere between light and heavy. They do have alternative tone-break locations for /LH/ and /HL/ melodies, so we make use of asterisks in their melodic formulae (20a-b) as with trisyllabics. For CvCvL, /H/ and /HM*/ are clearly distinct (20b). For CvCvv, there is a distinct /H*M/ type with tone break medially in the long vowel, see 'leaf' in (20a). However, the distinction between /H(M*)/, i.e. /H/ with a prepausal drop of the final syllable to M, and true /H*M/, is less consistent in our data (20a). In addition to nouns *kúrúú*, *kúrūū^n*, and *kùrùú* with different senses in (20a), we can add *kúr=ūū* 'hit(s) them' from (41) below.

(20)   a. CvCvv

/H(M*)/	*dímīī*	'large oven'
	kúrúú	'navel'
/HM*/	*kúrūū^n*	'boat'
/H*M/	*bítɔ́ɔ̄*	'leaf'
/HL*/	*ʃítòò^n*	'middle'
/LH*/	*bìtíí^n*	'saddle'
	kùrùú	'belly; ball'
/L*H/	*fùwàá^n*	'aluminum'
/LHM/	*kàkóō^n*	'donkey'
/LHL/	*bìtáà^n* ~ *bìtɔ́ɔ̀^{n}*	'leopard'

    b. CvCvL

/H/	*ɲɔ́rɔ́w^n*	'thirst'
/HM*/	*kɔ́tɔ̄w*	'scraping tool'
/HL*/	*ɲóròw^n*	'shade'
/L/	*pɔ̀rɔ̀w*	'shoulderbag'
/LH*/	*gbɔ̀yɔ́w^n*	'African eggplant'
/L*H/	*kòròẃ^n*	'forehead (bone)'
/LHL/	*sàwóẁ^n*	'cat'

2.7.2   Tonal and segmental ablaut in verbs

Verbs have two stem forms, which we label perfective and imperfective although this oversimplifies their respective distributions. The relationship between perfective and imperfective forms is rather irregular, with many pairings that are clearly learned as such rather than being predictable by productive morphophonological processes. Both tones and segments are typically involved in the stem alternations. Because of these irregularities, we do not speak of lexical melodies of verbs. Details are reserved for chapter 8 on verb morphology.

2.7.3   Tone sandhi processes

2.7.3.1   LH#H-to-LL#H and LH#L-to-LL#H

LH-toned words whose final H is limited to a terminal mora or syllable, such as nouns with /LH/ or /L*H/ melodies, flatten to L-toned when closely phrased with a following word that begins with an H-tone. This is observable in N-Adj combinations and in N-N compounds. The initial element ranges from monosyllabics like *dɛ̀ɛ́* 'sauce' to trisyllabics like *fɔ̀ⁿfɔ̀ní* 'viper'. Examples of LH#H-to-LL#H with *dígínā* 'one' are *fɔ̀fɔ̀nì dígínā* 'one viper' and *dèè dígínā* 'one sauce'. The process also applies before adjectives, as in *fɔ̀ⁿfɔ̀nì sáŋgbɔ́ráʕáⁿ* 'a big viper', and broadly before any word beginning in H-tone.

In a related process, LH#L-to-LL#H, the H-tone shifts from the final syllable or mora of the first element onto the second element. As a result, many adjectives have at least two tonal forms, one of which (following an /…LH/ noun) is due to this process. In N-Adj combinations affected by this, the adjective sometimes has an HL pattern with just the first syllable raised to H. In other N-Adj combinations, the adjective has an all-H or HM pattern, suggesting that the entire stem is raised. An example of the latter type is 'white', which occurs in L-toned form in *sày fìyàʕàⁿ* 'white earth' and in HM-toned form in *yèyàʕà fíyāʕāⁿ* 'white ax' < *yèyàʕá*.

The delinking of the final H-tone from the first element does not apply to LH* nouns such as *lèmúrú* 'lemon' whose H-tone extends over two or more syllables: *lèmúrú dígínā* 'one lemon'.

2.7.3.2   HM#(H)-to-HH#(ꜜH)

HM-toned nouns with a single M-toned syllable or mora, including those of true /HM/ melody, flatten to H-toned when closely phrased with a following word, as in N-Adj combinations. If the following word is all-H-toned, it is downstepped.

(21)   a.   *bɔ́ɣɔ̄ⁿ*   'dog'
       b.   *bɔ́ɣɔ́ⁿ ꜜfɔ́ⁿ*   'white dog'

2.7.3.3   <LH>-to-H

Under conditions not well understood, a monomoraic <LH>-toned word like *ɲǔ* 'water' or a final <LH> syllable flattens to H-toned (*ɲú*) before another word. An example is *ɲú bàɣà* 'wanting water' in (155a) in §10.3.2. Another is the final syllable of *yìrǐ* 'song' in agentive compound *yìrí-wólá-wì* 'singer' (§4.2.3). This process applies regularly to 3Sg independent

pronoun *bǒ* in nonfinal position in clauses, for example in *bó lè* with the focus morpheme (§11.1).

However, monomoraic <LH>-toned words may alternatively undergo LH#H-to-LL#H or LH#L-to-LL#H (§2.7.3.1), i.e. flattening in the other direction, when phrased with a following word. An example of this is *ʃì fíyèy^n* 'white millet' from *ʃǐ* 'millet', see (68c) in §5.3.

2.7.3.4 Tone-dropping after possessive *dí*

Nouns drop to L-toned after *dí* in the possessive sequence *X dí Y* 'the Y of X'.

(22)	noun	3Sg possessor	gloss
	lèmúrú	*ŋ̀ dí lèmùrù*	'his/her lemon'
	kèyàʕá	*ŋ̀ dí kèyàʕà*	'his/her meat'
	díyáʕā^n	*ŋ̀ dí dìyàʕà^n*	'his/her fire'

3 Nouns, pronouns, and nominal modifiers

3.1 Nouns

3.1.1 Noun classes

Manessy (1982: 144) already identified several Tiefo-D nouns that contain now-frozen noun-class suffixes:

   -gV ~ -ŋV, -de, -nu ~ -ru, -ne ~ -ni, -e, -a, -ɲo, -ri, -n.

See the detailed commentary in W98: 106.

   However, the synchronic system of noun classes revolves around the "vocalic prefix," either *à*, *ò*, or *è*. We write it as a separate word since it tends to encliticize to the preceding word if there is one. Often the vocalic prefix is absent clause-initially (i.e. for subject NPs). The class determines which 3Sg pronominal proclitic is used to represent the nouns, for example as subject proclitics in positive inflections: O-class and all humans take *ŋ̄*, A-class nonhumans take *ā*, and E-class nouns (all nonhuman) take *ē*. There is still a semi-productive concord system in certain adjectives and the demonstratives.

   Kin terms are difficult to elicit with a prefix since they are normally possessed. Possessors precede possessums and do not allow a vocalic prefix.

3.1.1.1 O-class nouns

The O-class is common for adult humans (23a) and animals (23b). There are also several important inanimates (23c). There is no consistent phonological signature for the O-class, but a fair number of the stems do end in a back rounded vowel or *w*.

(23)   a. human O-class

ò yǎ	'woman'
ò dɔ�ˌèý	'man'
ò sù^n	'blacksmith'
ò tòmí	'chief'
ò dě	'elder sibling'
ò ná-mí	'child'

b. nonhuman animate O-class

ò sɔ́rɔ́mɔ̄ⁿ	'fly (n)'
ò wú	'duiker (mammal)'
ò plòóŋ̄	'grasshopper'
ò bárákà	'animal (any)'
ò ḿlāāⁿ	'chicken'
ò cɔ̀ⁿ	'bird (any)'
ò fwɔ̌ⁿ	'fish (any)'
ò bɔ́ɣɔ̄ⁿ	'dog'
ò dìdú	'louse'
ò sàwɔ́ẁⁿ	'cat'
ò bìŋɔ́	'baboon'
ò sɔ̌mbì	'ground squirrel'

c. inanimate O-class

ò ŋɔ́ɣɔ́ⁿ-bī	'star'
ò sùúⁿ	'medication'
ò ɲǔ	'water'
ò nǔ	'oil, butter, (animal) fat'
ò bló	'rain (n)'
ò yó	'tree'
ò sà-pùⁿ	'sand'
ò fɛ́ⁿ	'fonio (cultivated grain)'
ò pɔ́ẁⁿ	'grass, (any) herbaceous plant'
ò míyɔ́nɔ̄	'rice' (also 'hippo')
ò jùsúūⁿ	'thread; cotton'
ò kàsù	'sorghum'
ò tìgícɔ̀ⁿ	'sesame'
ò pɔ̀ⁿ	'rear end'

3.1.1.2   A-class nouns

The A-class has some human nouns (24a). It is the favored class for body parts (24b). There are many A-class inanimates (24c). A recognizable subset of A-class nouns have final *ʕa* or *ʕɔ*, often more specifically final *yaʕa* or *yɔʕɔ*, and are trisyllabic or longer (sometimes CCvʕv by syncope < *CvCvʕv) . It is possible that this ending is related to the noun *à yáɣá* 'thing' (24c). However, many A-class nouns have no special phonological signature.

(24)   a. human A-class

        à ɲɔ́ⁿ   'person' (plural *ò ɲɔ́→* or *ò dyó→*)

        à kásɛ̀ⁿ   'white person' (plural *ò kásɔ̀→*)

        à kà ~ kàɣà   'mother'

        à ténɛ́   'aunt'

    b. A-class body parts and inalienables

        à ŋmá   'head'

        à kɛ́dì   'body'

        à mɔ̰ḛ́ỳⁿ   'nose'

        à júgú   'eye(s)'

        à wíí   'bone'

        à tòy   'ear'

        à kùrùú   'belly; ball'

        à kúrúú   'navel'

        à ɲɔ̰ɛ́yⁿ   'heart'

        à kèrèý   'hand'

        à pèyⁿ   'foot'

        à yéyⁿ   'name'

    c. nonhuman A-class

        à yáɣá   'thing' (plural *è yɛ́→*)

        à júú   'dance'

        à níí   'odor'

        à sɔ́ẁ   'hat; head shawl'

        à wùú   'house'

        à díⁿ   'cloud' or 'filth'

        à dí   'food'

        à fə́réy   'moon'

        à fə̀rèý   'garment'

        à sùŋá   'morning'

        à dòẃⁿ   'disease'

        à bítɔ́ɔ̄   'leaf'

        à dɔ̀ɣɔ́   'kola nut'

        à dáɣánī   'wood'

        à tə̀rèýⁿ   'ladder'

        à kàméyⁿ   'yam'

        à nèréyⁿ   'large grindstone'

        à kúrūūⁿ   'boat'

        à sèrèyⁿ   'rock' (diminutive *sèrè-bì*)

à pɔ́ɣɔ̀w	'stick (n)'
à pɔ̀rɔ̀w	'shoulderbag'
à bìrgíí	'mud brick'
à sàràbɔ́wⁿ	'charcoal'

d. nonhuman A-class, with final *ʕa* or *ʕɔ*

à ŋmìyàʕá	'market'
à ɲùyɔ̀ʕɔ́ⁿ	'wind (n)'
à pìyàʕáⁿ	'knife'
à léyáʕā	'smoke'
à yèyàʕá	'ax'
à yèyàʕà	'sun, day'
à kàràʕá	'rainy season'
à fíyáʕā	'field'
à wíyàʕà	'snake'
à tìyàʕá	'place'
à tìyàʕáⁿ	'vagina'
à nìyɔ̀ʕɔ́ⁿ	'mouth'
à díyáʕāⁿ	'fire'
à dìyɔ̀ʕɔ́	'cockroach'
à dɘ́ráʕā	'courtyard' (variant *à dɘ́rìɩ̀ⁿ*)
à ʃìɲɔ̀ʕɔ́ⁿ	'ashes'
à kèyàʕá	'meat'
à b(í)láʕā	'dust'
à p(ù)wɔ̀ʕɔ́	'porridge'
à pàràʕàⁿ	'hunger'
à báráʕàá	'pond'
à kàníyáʕá	'sickle'

3.1.1.3 E-class nouns

All E-class nouns are inanimate. Nearly all to end in a front vowel or *y*, which likely reflecting an original suffix (word-final *y* often alternates with *e/ε*, including E-class object clitics). However, other nouns ending in these segments are O- or A-class (see the lists above).

(25)   a. human E-class
        [none]

b. E-class body parts (final front vowel or *y*)

è káɣáyⁿ	'tooth'
è bàɣày	'hair'

c. other E-class inanimates (final front vowel or *y*)

è lĕ	'house compound with courtyard'
è píⁿ	'excrement'
è ʃîⁿ	'time, moment'
è ŋmɛ́	'egg'
è yéé	'gear'
è dɛ̀ɛ́	'sauce'
è ɲwɛ̀ɛ́	'balafon (native xylophone)'
è sɔ�̀ɛ́ⁿ	'work (n)'
è bóȳⁿ	'granary'
è dɛ̀ýⁿ	'twig'
è tɛ̀ýⁿ	'daybreak'
è sàýⁿ	'thorn'
è júwìⁿ	'fun, amusement'
è sìgɛ́	'fatigue'
è sùŋɛ̀ɛ́	'shea tree (*Vitellaria*)'
è bàràýⁿ	'daba (hoe)'
è sáŋày	'maize, corn'
è káràу	'calabash'
è bíklé	'money'
è lékpàʕày	'prayer, holy day'

d. other E-class inanimates (not ending in front vowel or *y*)

è sùsú	'millet cakes'

3.1.1.4   Class changes from singular to plural

Scattered in the lists above are a few nouns that change classes between singular and plural. The most important cases are in (26). These may be vestiges of a once more productive system of classes distinguishing singular from plural.

(26)	singular	plural	gloss
a.	*à yáɣá*	*è yɛ́→*	'thing'

b. *à ɲɔ́ⁿ*   *ò ɲɔ́→*   'person' (see below)

   à kásèⁿ   *ò kásɔ̀→*   'white person'

3.1.1.5   'Person' (*à ɲɔ́ⁿ*) and suppletive plurals (*ò ná-wò, ò dyó→*)

This noun was mentioned in the preceding subsection as one that changes from singular A-class *à ɲɔ́ⁿ* to plural O-class *ò ɲɔ́→*. However, the morphologically regular (prolongation) plural *ò ɲɔ́→* is less common than two suppletive plurals.

(27)   a. singular

           (à) ɲɔ́ⁿ

        b. plural

           (ò) ɲɔ́→   (uncommon)

           (ò) ná-wò

           (ò) dyó→

"Singular" *(à) ɲɔ́ⁿ* is used with a following numeral: *(à) ɲɔ́ⁿ ꜛsáⁿ* 'three people'. An irregular plural *(ò) ná-wò* occurs in universally quantified *(ò) ná-wò byɛ́* 'everyone'. In the absence of a quantifier, either *(ò) ná-wò* or *(ò) dyó→* may mean 'people'.

The initial root in *ná-wò* is etymologically related to that of singular *ná-mí* 'child', plural *ná-my-ó→* 'children'. Compare Tiefo-D *ná-bí* 'person' (whose plural can also mean 'children') and *ná-dὲ* 'old person' (W98: 237, hyphens added).

(ò) dyó→ strikingly resembles the human and O-class plural form *díò→* of the specific indefinite quantifier 'a certain (one)' (§5.7). However, the two differ tonally and cannot be directly equated synchronically.

3.1.2   Nominal plurals

The "plural" form is most common with count nouns. It can also be used with mass nouns to denote increased volume ('lots of X').

Most nouns are pluralized by prolongation of the final vowel or sonorant nucleus. This ranges from simple vowel length to a more intonation-like prolongation (even of already long vowels). We represent this by → (28). Short contour-toned vowels are split orthographically into two vowels in these plurals, as with 'woman'.

(28)   Sg   Pl   gloss

    yǎ   *yàá*→   'woman'
    ɲɔ́ⁿ-yà   *ɲɔ́ⁿ-yà*→   'female friend'
    ŋmá   *ŋmá*→   'head'
    kɛ́dì   *kɛ́dì*→   'body'
    wúú   *wúú*→   'bone'
    tòy   *tòy*→   'ear'
    cèfɔ̂   *cèfɔ́ɔ̀*→   'Tiefo (person)'

Prolonged forms of already long vowels may introduce quasi-syllabic breaks, detected by observing a stress-like pulse in the middle of the long vowel. For example, *wúú*→ can be realized as [wú.ú→] or even as [wú.wú→]. This weak syllable break is sometimes represented by *ʔ* or *h* by some of the authors, but there is no clear glottal stop or aspiration.

    Most nouns that end in nasalized vowels in the singular denasalize them in the plural. Examples from among many are in (29a). All known exceptions are in (29b). Most of these are Cvv monosyllabics that transition to *e* or *o* quality at the end of the prolongation. In 'totem', the nasalization originated in the rhotic (*n → r^n) rather than in the vowels, which could account for the preservation of nasalization in the plural.

(29)   Sg   Pl   gloss

    a. denasalized plurals (selected examples, productive)
      bɔ̌ⁿ   *bɔ̀ɔ́*→   'monitor lizard'
      cɔ̀ⁿ   *cɔ̀*→   'bird (any)'
      m̀láⁿ   *m̀lá*→   'millet beer'
      yóō ⁿ   *yóō*→   'crocodile'
      bɔ́ɣɔ̄ⁿ   *bɔ́ɣɔ̄*→   'dog'
      ɲɔ́-rɔ̀ⁿ   *ɲɔ́-rɔ̀*→   'friend'
      kàkóō ⁿ   *kàkóō*→   'donkey'

    b. nasalization retained in plural (all known examples)
      díⁿ   *díⁿé*→   'filth' or 'manure'
      fɛ́ⁿ   *fɛ́ⁿɔ́*→   'fonio (grain)'
      píⁿ   *píⁿé*→   'excrement'
      tǝràýⁿ   *tǝràýⁿ*→   'totem'

Two nouns have irregular plurals with a suffix *-rɔ*, matching a much more productive plural type in Tiefo-D. The noun 'man' in (30a) also occurs as a compound final or adjectival modifier denoting males.

30

(30)   Sg   Pl   gloss

   a.   *dɔ̰èý*   *dɔ̀-rɔ̀ɔ́→*   'man'
        ɲɔ́ⁿ-dɔ̰èy *ɲɔ́ⁿ-dɔ̀-rɔ̀→*   'male friend'

   b.   *gbéý*   *gbɔ́-rɔ́→*   'sparrowhawk'

Nouns ending in agentive *-wì* or diminutive *-bí* (or tonal variant), and *ná-mí* 'child' and related forms, have a plural with *-yo→*, whose *y* is probably the desyllabified final *i* of the stem or suffix. In addition, *ɲɔ́ⁿ* 'person' may be pluralized either directly as (denasalized) *ɲɔ́→*, or suppletively as *dyó→*.

(31)   Sg   Pl   gloss

   a.   *kwáⁿ-wì*   *kwáⁿ-dyó→*   '(an) acquaintance'
        (also *kɔ́ⁿ-wì* etc.)

   b.   *ŋɔ́ɣɔ́ⁿ-bī* *ŋɔ́ɣɔ́ⁿ-b-yō→*   'star'

   c.   *ná-mí*   *ná-m-yó→*   'child'/'children'

   d.   *ɲɔ́ⁿ*   *ɲɔ́→, dyó→*   'person'/'people'

A few nouns are attested with different final vowel qualities in the singular and plural (the latter sometimes functioning more as a collective). 'Hunter' and 'white person' also show denasalization of the final syllable.

(32)   Sg   Pl   gloss

   a.   *káⁿsɔ̀ʕɔ̀ⁿ* *káⁿsàʕà*   'hunter'
   b.   *bítɔ́ɔ̄*   *bítéē*   'leaf'
   c.   *kásɛ̀ⁿ*   *kásɔ̀→*   'white person'
   d.   *blákē̄*   *blákā→*   'hare'

3.1.3   Deverbal agentives (*-wì*)

Verbs form agentives with suffix *-wì*, distinct from H-toned *-wí* in denominal 'owner of Y' compounds (§4.2.2). The verb stem is raised to {H} overlay. The examples in (33) have no compound initials.

(33)   agentive   gloss   verb (Ipfv\\Pfv)   gloss (verb)

     dɔ́rɔ́-wì   'buyer'   *dɔ̄rɔ̄* (etc.)*dèrù*   'buy'
     byélá-wì ~ byérá-wì   'farmer'   *byé**byé-là ~ -rà*   'cultivate'
     júlá-wì   'seller'   *jō**jōlà*   'sell'
     séré-wì   'woodworker'   *sērē**sèrè*   'carve'
     dúwáⁿ-wì ~ dúgáⁿ-wì   'sick person'   *dɔ̄ⁿ**dùwàⁿ ~ dàⁿ*   'hurt'
     júrá-wì   'dancer'   *jú**jú-là*   'dance'
     kɔ́ⁿ-wì   'acquaintance'   *kɔ̀ⁿ* (stative)   'know'
     ʃyáⁿ-wì   'weaver'   *ʃíⁿ**ʃyâⁿ*   'weave'
     téré-wì   'child beggar'   *tɘ̀rà**tɘ̀rè*   'ask'
     túgáⁿ-wì   'teacher'   *tùŋà**tùŋà*   'teach'

In spite of some moderately irregular correspondences, it is clear from (33) that the perfective stem is the usual basis for the agentive.

    Both simple and compound agentives can function as modifiers of other nouns. (34) exemplifies with head nouns *cɔ̀ⁿ* 'bird' and *kàɣá* 'griot, person of caste'.

(34)   agentive   gloss   verb (Ipfv\\Pfv)   gloss (verb)

     cɔ̀ⁿ yó-plá-wì   'woodpecker'   *plá**plê*   'jab' (with *yó* 'tree')
     kàɣá tá-wì   'leatherworker'   *tà**tà*   'join, link'

For agentives with a compound initial, see §4.2.3.

3.1.4 Infinitive (*ná*)

A verb, or a verb phrase such as verb plus object (pronominal or nominal), may be nominalized by preposing *ná* to the imperfective stem of the verb. An H-toned monosyllabic imperfective is dropped a notch to M-toned. There is no subject marking. For 'come', of the two imperfective stems available, *bà* rather than the highly restricted *bé* (used after progressive *wɔ̀ɣɔ̀*) occurs in the infinitive (35b). Transitive infinitives occur preferentially with an overt pronominal or NP object, though object-less infinitives can be elicited (35c).

(35)   infinitive   Ipfv   Pfv   gloss of verb

  a. *ná sē*   *sē*   *sà*   'go'
      ná sìgìⁿ   *sìgìⁿ ~ sìŋì*   *sìgì-mà*   'run'
      ná cīⁿ   *cíⁿ*   *cí-nà*   'become small'

b.	*ná bà*	*bà, bè*	*bà*	'come'

c.	*ná plā*	*plá*	*plê*	'jab'
	ná plɔ̄=ɔ̄	*pló=ō*	*pló=ò*	'jab him/her'
	ná fī zàkí	*fí zàkí*	*fíyà zàkí*	'take Zaki'

Infinitival VPs occur in same-subject event sequences (§13.2.2.1) and in purposive clauses (§13.5).

3.2 Pronouns

3.2.1 Independent and proclitic pronouns

Array (36) presents the independent forms of pronouns, along with proclitics in subject function (preceding verbs or auxiliaries) and in possessive function (directly preceding nouns). Notice the delicate tonal distinctions in singular subject proclitics, which are partially flipped in possessor function. The *kà* variant 3Sg subject proclitic occurs in negative inflections (§9.1.2, §9.2.2, §9.3.2) and optionally in the future positive (§9.4.1).

(36)		independent	proclitic	
			subject	possessor
	1Sg	*ɲí*	*ŋ́*	*ŋ̀*
	2Sg	*mì*	*ŋ̀* (< *m̀)	*ŋ̀ ~ m̀*
	3SgHum, 3SgO	*kā*	*ŋ̄, kà*	*ŋ̄*
	3SgA	—	*ā, kà*	—
	3SgE	—	*ē, kà*	—
	3Sg (strong)	*bǒ*	—	—
	1PlExcl	*é-yò*	*é*	*è*
	1PlIncl	—	*yá(ʕ)á*	—
	2Pl	*nā-yò, nó-yò, nɔ̄-yɔ̀*	*nā*	*nā*
	3Pl	—	*ō*	*ō*
	3Pl (strong)	*bòó*	—	—

The inclusive form *yá(ʕ)á* is not obligatory. Proclitics of segmental form *ŋ* are syllabified postpausally before a consonant as syllabic labialized [ŋʷ].

As subject, independent 3Sg *bǒ* surfaces with rising tone in isolation and prepausally (e.g. as clause-final object). When not prepausal, it normally flattens to H-toned *bó* (§2.7.3.3).

Combinations with inflectional particles are future *bó bī*, imperfective *bó wɔ̀ɣɔ̀*, perfective negative *bó kà ~ bó wà*, and imperfective negative *bó máɣàⁿ*.

bèé, likely an original E-class variant of *bǒ*, functions as a discourse-definite pronoun ('it') or demonstrative ('that'), denoting a state of affairs already introduced into the discourse (§5.4.2).

Independent forms optionally replace proclitics, which helps to distinguish 1Sg, 2Sg, and 3Sg proclitics. The independent third person pronouns *bǒ* and *bòó* are here labeled "strong." When they replace regular third person proclitics, they may have logophoric-subject functions (§14.3). In (37a), *bǒ* (here *bó*) functions logophorically since it is coindexed with the quoted author (Zaki). In (37b), *kà* is the regular 3Sg pronominal since it is not coindexed.

(37)   a.   *zàkí*   *fó = é*   *[dè*   *bó*   *bī*   *bà]*
            Zaki   say.Ipfv=3SgE [that **3Sg** Fut   come.Pfv]
            'Zaki says/said that he (=Zaki) will come.'

       b.   *ŋ́*   *fó = é*   *[dè*   *kà*   *bí*   *bà]*
            1Sg   say.Ipfv=3SgE [that **3Sg** Fut   come.Pfv]
            'I said that he/she will come.'

3.2.2   Object enclitics

In object function, pronominals are encliticized to the verb. The nonhuman form *=(y)aʕa* occurs chiefly in the perfective as an indefinite inanimate object marker. The 3Sg nonhuman forms are used with certain verbs like 'know', 'say', and 'see', while some others use the human 3Sg for all objects.

(38)   Enclitic object pronouns

      1Sg   *=ý ⁿ*
      2Sg   *=w ⁿ* (requires preceding *o* or *ɔ*)
      3SgHum, 3SgO   *=ò, =ɔ̀*
      3SgA   *=(y)àʕà*
      3SgE   *=ỳ* (after *ɔ ɛ a*)
                                  =è (after *o e*)
                                  =ˋ (tone, after *u i*)

      1Pl   *=é, =ɛ́*
      2Pl   *=nā*
      3Pl   *=ɔɔ, =oo*

The vowel-initial clitics contract with the stem-final vowel of the verb, and there is some tone sandhi. These processes are exemplified by the paradigms below, beginning with 'look at' in perfective and imperfective form in (39). The perfective of this verb ends in +ATR *e*, and induces harmonization of the mid-height vowels in 2Sg, 3Sg, 1Pl, and 3Pl forms. The imperfective ends in *a*, which is treated as -ATR, so the contracted mid-height vowels are -ATR. The orthographic position of the clitic boundary = is somewhat arbitrary.

(39) 'look at' *círè* (Pfv) *cə́rá* (Ipfv)

 1Sg *círè = ý^n* *cə́r = āy^n*
 2Sg *cír = òw(^{n})* *cə́r = ɔ̄w^n*
 3SgHum, 3SgO *cír = ò* *cə́r = ɔ̄*
 3SgA *cír = àʕà*

 1Pl *círè = é* *cə́r = ɛ̄ɛ̄*
 2Pl *círè = nā* *cə́rá = nā*
 3Pl *cír = òò* *cír = ɔ̄ɔ̄*

Combinations with 'hit', perfective and imperfective, are these:

(40) 'hit' *kpà* (Pfv) *kō* (Ipfv)

 1Sg *kpà = ý^n* *kò = ý^n*
 2Sg *kp = òw^n* *kò = w^n*
 3SgHum, 3SgO *kp = ɔ̀* *k = ò*
 3SgA *kpì = yàʕà* —

 1Pl *kp = ɛ̀ɛ́* *kò = é*
 2Pl *kpà = nā* *kó = nā*
 3Pl *kp = ɔ̀ɔ̀* *k = òò*

Combinations with 'touch', perfective and imperfective, are these:

(41) 'touch' *klâ* (Pfv) *kə́rù* (Ipfv)

 1Sg *kl = áȳ^n* *kúrū = ȳ^n*
 2Sg *kl = ɔ́w̄^{n}* *kúrū = w̄^{n}*
 3SgHum, 3SgO *kl = ɔ̂* *kúr = ū*
 3SgA *kl = áʕà* —

1Pl	*kl=ɛ́ɛ̄*	*kúr=ēē*
2Pl	*klá=nā*	*kúrú=nā*
3Pl	*kl=ɔ́ɔ̀*	*kúr=ūū*

There is no logophoric third person object pronoun. In (42), the 3Sg object clitic on the verb may refer either to the clausemate subject 'Zaki' or to another third person.

(42)	*zàkí*	*jà*	*[ŋ́*	*k=ò]*
	Zaki	say.Pfv	[1Sg	hit.Pfv=3Sg]
	'Zaki said that I hit him/her.'			

3.3   Adjectives

Adjectives may function as postnominal modifiers or as predicates. Several modifying adjectives have multiple forms. To some degree they still correlate with the prefix class of the noun (*è*, *à*, or *ò*), but there is much flux in usage.

Examples of modifying adjectives after *wùú* 'house' are in (43). The /LH/-melody noun drops to L-tone before an H tone, due to a regular tone sandhi process (§2.7.3.1). The nominal prefix, if present, is not repeated on the adjective.

(43)	*(à)*	*wùù*	*yíbī→* / *bí→* / *sáŋbɔ́ráʕáⁿ* / *kwɔ́làʕá* / *yɔ́bàʕá*
	(Pref)	house	small / tiny / big / good / black
	'une maison petite/grosse/bonne/noire'		

There are three ways to make an adjective into a predicate (10.1.2.3). First, there are two distinct stative predicate constructions. For some adjectives, the same form of the adjective that is used as modifier is preceded (for 3Sg subject) by *kàʕà*. For other adjectives the stative predicate has what appears to be an original nominalization plus *gō* 'be', e.g. "its redness exists." Many adjectives also have a third predicative strategy, namely an associated inchoative verb (e.g. 'become big' or 'become bigger') that primarily denotes a completed or incremental change of state. These behave like ordinary intransitive verbs, with full perfective and imperfective paradigms. Inchoatives are included in (44) just below.

The paradigms of adjectives can be messy, with unpredictable phonological changes or even outright suppletion. Where no dedicated modifying adjective is shown, one can be concocted in the form of a participle from the inchoative verb. Likewise, if a stative predicate is absent it can be replaced by a perfective inchoative ('has become ADJ').

We present adjectives in small semantically based groups. The first group denotes overall size (44). For 'big', the longest form *sáŋbɔ́ráʕáⁿ* tends to be emphatic. Likewise, *yíbí* 'small' is regularly prolonged as *yíbī→* for emphasis, showing that this is the source of *bí→* 'tiny'

(44c). Recall that prosodically heavy stems with HM tone contours are structurally H-toned and may be phonetically H-toned when phrased with a numeral or other following word. The labels O, A, and E are suggestions as to the original noun-class concord function of the variants, but they do not consistently correlate with the noun-class of the nouns they modify. See §5.3 for arrays of actual N-Adj combinations, which bring out the imperfect concord between the classes of nouns (defined by their vocalic prefixes) and modifying adjectives.

Stem-wide tone alternations like that in *sáŋbɔ́ráʕá^n* ~ *sàŋbɔ̀ràʕà^n* is at least partially explained by the LH#L-to-LL#H process (§2.7.3.1), whereby the final H-tone of an /LH/ or /L*H/ melody noun shifts onto the following word. In some cases it affects the onset of that word, in others is spreads rightward to the end of the stem.

(44)　　　modifying　　　　　　　　　　stative 3Sg　inchoative　gloss

　　a.　*sáŋgbwē y^n* ~ *sáŋbɔ́ráw^n* (O)　*kàʔà tû*　*túgà\\túgè*　'big'
　　　　sáŋbɔ́ráʕá^n ~ *sàŋbɔ̀ràʕà^n* (A)
　　　　sáŋgbɔ́ráy^n (E)

　　b.　*yíbí* ~ *yíbī→*　　　　　　　*à cíí^n gō*　*cí^n\\cí-nà*　'small'

　　c.　*bí→*　　　　　　　　　　　　—　　　　—　　　'tiny'

　　d.　—　　　　　　　　　　　　　　—　　*kábá\\kɛ́bè*　'many'

'Big' and 'small' are suppletive. In each, the stative and inchoative are phonologically related to each other, but both are unrelated to the modifying adjective. *yíbī→* and *bí→* 'tiny' have the prolonged pronunciation typical of expressive adverbials ("ideophones"). The verb *kábá\\kɛ́bè* 'multiply, increase, become abundant' has no modifying or stative counterpart, cf. the adverbial quantifer *pyɛ́→* 'many, much, a lot' (§5.6).

Next are scalar dimensions (45). 'Long' is suppletive. Tonal variants for 'long' are mostly due to LH#L-to-LL#H as explained above. *kàʕà* is the 3Sg pronominal variant used in stative predicates. 'Long' also shows the effects of liquid-deletion (§2.6.5). All of these adjectives have the stative type with 3Sg *kàʕà*.

(45)　　　modifying　　　stative 3Sg　　　　inchoative　　　gloss

　　a.　*sɔ̀y^n* (O)　　　*kàʕà sɔ̀èy^n*　　*jāŋà\\jēŋè*　'long, tall, far'
　　　　sɔ̀rɔ̀w^n ~ *sɔ́rɔ̄w^n* (A)
　　　　sɔ́rēy^n ~ *sɔ́rɔ̄y^n* ~ *sɔ̀rɔ̀y^n* ~ *sɔ̀èy^n* (E)

　　b.　*klá*　　　　*kàʕà klá*　　　*kláyā\\klégè*　'short'

c. — — *nɔ̌\\nɔ́-mà* 'thin, slender'

d. *jìràày* *kàʕà jírā̄* (~ *jílā̄*) — 'thin, meager'

e. *cɔ́ⁿ* *kàʕà cɔ̂ⁿ* *cɔ́ŋē̄\\cɔ́ŋè* 'deep'

Next is taste (46). Food terms are mostly A-class, so these adjectives are usually in the A-class form. However, some nouns that can combine with taste adjectives, like *ŋmé* 'egg', are E-class.

(46)	modifying	stative 3Sg	inchoative	gloss
a.	*díyā̄ʕā̄ⁿ* (A) *dáyī̄ⁿ* (E)	*kàʕà dáⁿ*	*dáɣā̄ⁿ\\dígèⁿ*	'sweet, delicious'
b.	*tɛ̂ⁿ*		*tɛ̂ⁿ\\tɛ̂ⁿ*	'bitter'
c.	*ɲáɣámē̄yⁿ*	*à ɲáɣámá gō̄*	*ɲáɣámá\\ɲáɣámè*	'sour'

Next is color (47). All three primary color terms have clearly distinct O, A, and E variants. However, their forms do not always match the actual class of the modified noun. 'Red' (which includes brown) has suppletive predicates, while 'white' and 'black' merely have phonological irregularities. Color adjectives have the stative form with *gō̄*.

(47)	modifying	stative 3Sg	inchoative	gloss
a.	*fyɔ́ⁿ* ~ *fǐyɔ̄wⁿ* (O) *fíyáʕā̄ⁿ* ~ *fìyàʕàⁿ* (A) *fìyèyⁿ* ~ *fǐyèyⁿ* (E)	*à fíyéyáʕáⁿ gō̄*	*fíɲá\\fíɲè*	'white'
b.	*sɛ̀ⁿ* ~ *syɔ̀ⁿ* ~ *sìyɔ̀ɔ́ⁿ* (O) *sìyàʕáⁿ* ~ *síyā̄ʕā̄ⁿ* ~ *sìyàʕàⁿ* (A) *síyéyⁿ* ~ *síyē̄yⁿ* ~ *sìyèyⁿ* (E)	*à ɲáɣáⁿ gō̄*	*ɲáɣáⁿ\\ɲáɣàⁿ*	'red'
c.	*yɔ̀bɔ̀* ~ *yɔ́bɔ́* ~ *yɔ́bɔ̄w* (O) *yɔ́bā̄ʕā̄* ~ *yɔ̀bàʕà* ~ *yɔ́báʕá* (A) *yɔ́báy* ~ *yɔ́bày* ~ *yɔ́bā̄y* (E)	*à yɔ́w gō̄*	*yɔ́\\yɔ́-bà*	'black'

Next, temperature and speed. 'Cold' and 'slow' are expressed by the same adjective, but 'hot' and 'fast' are lexically distinct.

(48)

	modifying	stative	inchoative	gloss
a.	*ɲúrɔ̄wⁿ*	*à ɲíríⁿ gō*	*ɲíní\\ɲínā ~ ɲírāⁿ*	'cold, slow'
b.	*fùú ~ fúū ~ fùù*	*à tígɛ̀ⁿ gō*	*tígɛ̄ⁿ\\tígɛ̀ⁿ ~ tíŋɛ̀*	'hot'
c.	*páɣánī*	—	*páɣánī\\páɣánī*	'fast'

Next, texture including wetness (49). 'Wet (garment)' and 'fresh (grass)' are related modifying adjectives. There is a suppletive verb for 'wet', though its participle *pá dɔ̀ɣɔ̀* can also be used as a modifier. Most of the statives have *gō*.

(49)

	modifying	stative	inchoative	gloss
a.	*kàʕá-nà*	*à kàʕá-là*		'coarse'
b.	*náʕánā ~ náʕánāyⁿ*	*à náʕá-nàʕàŋ gō*		'hard, difficult'
c.	—		*fɔ̃yⁿ\\flàⁿ*	'smooth'
d.	*bɘ́ríī ~ bɘ̀rìì*		*pā\\pà*	'wet; 'fresh (grass)'
e.	*wálāw* (O, E) *wálāʕā* (A)	*à wáláʕá gō*	*wálá\\wálè*	'dry'

The remaining adjectives are lumped together in (50).

(50)

	modifying	stative	inchoative	gloss
a.	*dɛ̀* *díyáʕá ~ dìyàʕà* (A)	*ŋ̀ yìràà gō*	*yɘ̀rà\\yɘ̀rɛ̀ ~ yɛ̀*	'old'
b.	*fùɔ̀ⁿ ~ fúɔ̀ⁿ* (OA) *fùɛ̀yⁿ ~ fúɛ̀yⁿ* (E)	*ā gō fúɔ̀ⁿ*	*jà fúɔ̀ⁿ*	'new'
c.	*dúgú-māʕāⁿ*	*kàʕà dúgū ~ à dúwàʕà gō*	*dúgā\\dúgè*	'heavy'
d.	*fɔ́ɣɔ́-māʕāⁿ*	*kàʕà fɔ́ɣɔ́-mā*	*fɔ́ɣɔ́mā\\fɔ́ɣɔ́mɛ̀*	'soft; lightweight'

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e. *kòlò* (O) *kàʕà kò* 'good'
   kwɔ́lāʕā ~ kwɔ̀làʕà (A)
   kwólāy (E)

f. *kàɣàý* (E) ~ *káɣāy* *è kàɣàý yè* 'unripe'

g. *blákà* *kaʕà blâ* *(blákā\\blékè)* 'easy'
   ('be cured')

h. *dîî* 'other'

3.4 Numerals

3.4.1 '1'

The numeral '1' is *dígínā*. It follows the noun, if the noun is overt. The same form is used in the counting cycle '1, 2, 3, …'. W98 (p. 145) reports *díɲá* for the extinct Noumoudara dialect.

3.4.2 '2' to '9'

Array (51) presents our data (from Nyafogo) in the far-right column, alongside Winkelmann's transcriptions for the two Tiefo-N dialects (W98: 145-146). Unlike nouns, numerals allow M-tone (see '2').

(51) W98: Noumoudara W98: Nyafogo our Tiefo-N

'2'	$j\bar{ɔ}^n$	$j\bar{u}ʔ\bar{ɔ}^n$	$j\bar{ɔ}^n$
'3'	$sá^n$	*sáá*	$sá^n$
'4'	$ŋ\bar{ɔ}\bar{ɔ}$	$ŋw\bar{o}ʔ\bar{o}$	$ŋ(w)\bar{ɔ}ʕ\bar{ɔ}^n$
'5'	$k\bar{a}^n$	$kà^n$	$kà^n$

In isolation, '2' has an extended form $j\bar{ɔ}^n\text{-}m\bar{i}$ '2'. This form is optionally used in the counting cycle.

'6' to '9' consist of '5' plus '1' to '4'. $kà^n$ mutates slightly to $kè^n$ in this combination. There is a suppletive, or at least heavily phonologically distorted, form for '1' in the composite numeral '6' (cf. *dígínā* '1'). '3' is denasalized from $sá^n$ to *sá*, as in Tiefo-D (W98: 145-146).

(52) '6' *kè-ní*
      '7' *kèⁿ-jɔ̄ⁿ*
      '8' *kèⁿ-sá*
      '9' *kàⁿ-ŋɔ̄ʕɔ̄ⁿ*

3.4.3 '10' to '100'

kěy '10' is presumably part of the etymological content of *kpàýⁿ* '20'. This in turn, in the slightly mutated form *kpèýⁿ*, is the base for '40', '60', '80', and '100', which simply add digits from '2' to '5' to the '20'-based term. A 20-based numeral system is known as vigesimal. The odd-numbered decimals '30', '50', '70', and '90' add *nà támí* to the next lower vegesimal term. This consists of *nà* 'and, with' plus what functions as a suppletive term for '10'. The incomplete Noumoudara and Nyafogo data from W98 are included in the inner columns. The apparent tap *r* in the W98 Nyafogo forms is interesting historically given the frequent replacement of the final rhotic syllabic in bisyllabic verb stems by word-final *y* (Cvrv → Cvy), see §2.6.5 above.

(53)   W98: Noumoudara   W98: Nyafogo   our Tiefo-N

'10'	*kɛ̄ⁿ*	*kɛ̄r̀*	*kěy*
'20'	*kpā ⁿ*	*kpār̀*	*kpàýⁿ*
'30'			*kpàýⁿ nà támí*
'40'	*kpā ⁿ-jɔ̄ⁿ*	*kpɛ̄ⁿ-jɔ̄ⁿ*	*kpèýⁿ-jɔ̄ⁿ*
'50'			*kpèýⁿ-jɔ̄ⁿ nà támí*
'60'			*kpèýⁿ-sā ⁿ*
'70'			*kpèýⁿ-sā ⁿ nà támí*
'80'			*kpèýⁿ-ŋɔ̄ʕɔ̄ⁿ*
'90'			*kpèýⁿ-ŋɔ̄ʕɔ̄ⁿ nà támí*
'100'			*kpèýⁿ-kà ⁿ*

nè, a variant of *nà* 'and, with', is used in combinations of a decimal or vigestimal term and a single-digit term: *kěy nè dígínā* '11', *kěy nè jɔ̄ⁿ* '12'.

3.4.4 'Thousand' and 'million'

'Thousand' is *wɔ̀ɣɔ́* in combination with a following single-digit or other numeral. The LH tone pattern drops regularly to all-L before an H-tone by regular tone sandhi (§2.7.3.1). Examples are *wɔ̀ɣɔ̀ dígínā* 'one thousand' and *wɔ̀ɣɔ́ jɔ̄ⁿ* 'two thousand'.

3.4.5 Ordinals

'First' as ordinal adjective is *yènɔ́*, which has no phonological relationship to *dígínā* '1'. Its mix of +ATR and -ATR vowels suggests that it may have originally been composite.

Other ordinals are formed by adding suffix *-dó* to the numeral: *jɔ̄ⁿ-dó* 'second', *sáⁿ-dó* 'third', *ŋɔ̀ɣɔ̀ⁿ-dó* 'fourth'.

4 Nominal compounds

4.1 Ordinary compounds

Below are some compounds whose initial is *bɛ̌yⁿ* 'the bush, the brousse'. This initial, like other /LH/ stems, appears with level L-tone before an H-tone (54d-e) by the tone sandhi rule LH#H-to-LL#H (§2.7.3.1).

(54)   a.   *bɛ̀ýⁿ-nɔ̰ɛ̀ýⁿ*
           the.bush-guinea.fowl
           'wild guinea-fowl' (< *bɛ̌yⁿ*, *nɔ̰ɛ̀ýⁿ*)

        b.   *bɛ̀ýⁿ-sàwóō*
           the.bush-cat
           'wild cat' (< *bɛ̌yⁿ*, *sàwóò*)

        c.   *bɛ̀ýⁿ-sɔ̀ý*
           the.bush-pig
           'warthog (*Phacochoerus*)' (< *bɛ̌yⁿ*, *sɔ̀ý*)

        d.   *bɛ̀yⁿ-bɔ́ɣɔ̄ⁿ*
           the.bush-dog
           'wild dog, jackal' (< *bɛ̌yⁿ*, *bɔ́ɣɔ̄ⁿ*)

        e.   *bɛ̀yⁿ-yó*
           the.bush-tree
           'tree(s) of the bush (< *bɛ̌yⁿ*, *yó*)

Examples ending in body-part terms are in (55a-e). The final is lexically H-toned, but it drops to L-toned as compound final after an initial that is H-, HM-, or LH-toned (55a-c). The HM-toned initial flattens to H-toned in this combination (55b). The LH-toned initial flattens to L-toned, as though the final were still H-toned. Initials of other tone classes do not result in special morphotonological processes (55d-f).

(55)   a.   *báⁿ-ŋmà*
           sheep-head
           'sheep's head' (< *báⁿ*, *ŋmá*)

b. *bɔ́ɣɔ́ⁿ-ŋmà*
dog-head
'dog's head' (< *bɔ́ɣɔ̄ⁿ* , *ŋmá*)

c. *sòɣ-ŋmà*
pig-head
'pig's head' (< *sòɣ́* , *ŋmá*)

d. *sàwóẁⁿ-ŋmá*
cat-head
'cat's head' (< *sàwóẁⁿ*, *ŋmá*)

e. *[sé-nɔ̀]-ŋmá*
[catfish]-head
'catfish's head' (< *sé-nɔ̀*, *ŋmá*)

f. *cɔ̀ⁿ-ŋmá*
bird-head
'bird's head' (< *cɔ̀ⁿ*, *ŋmá*)

Before an L-toned final like 'foot', initials present their regular tones.

(56) a. *bɔ́ɣɔ̄ⁿ-pèyⁿ*
dog-foot
'dog's foot' (< *bɔ́ɣɔ̄ⁿ*, *pèyⁿ*)

b. *báⁿ-pèyⁿ*
sheep-foot
'sheep's foot' (< *báⁿ*, *pèyⁿ*)

c. *cɔ̀ⁿ-pèyⁿ*
bird-foot
'bird's foot' (< *cɔ̀ⁿ*, *pèyⁿ*)

The prefix vowel that precedes the compound (especially as post-verbal object) is determined by the initial.

4.2   Possessive-type compounds

4.2.1   'X's Y'

Other compounds take the form of a possessor-possessum NP.

(57)   *sàɲèyàʕà-wùú*
       God-house
       'God's house; sacrificial altar' (< *sàɲèyàʕà* 'God', *wùú* 'house')

4.2.2   'Owner of Y' (*-wí*)

These compounds (or derivatives) end in *-wí.* After a heavy H-toned noun it is heard as *-wī* with the usual automatic H-to-M drop.

(58)	initial	gloss	'owner of Y'	gloss
	wùú	'house'	*wùù-wí*	'homeowner, head of household'
	lě	'compound'	*lè-wí*	'head of housing compound'
	sàýⁿ	'thorn'	*sàyⁿ-wí*	'thorny'
	də́rì̀ⁿ	'courtyard'	*də́rì̀ⁿ-wí*	'courtyard owner'
	búỳⁿ	'spring'	*búỳⁿ-wí*	'owner of a spring'
	tìyàʕá	'place'	*tìyàʕà-wí*	'owner of a landholding'
	béréyⁿ	'tomtom'	*béréyⁿ-wī*	'owner of tomtom(s)'
	bíklé	'money'	*bíklé-wī*	'owner of money'

The plural is *-wí-yō→* or with prolonged vowel.
    The 'owner' construction is distinct from the deverbal agentive with L-toned suffix *-wì* (see below and §3.1.3).

4.2.3   Compound agentives (*-wì*)

For simple agentives with *-wì* added to an {H}-toned verb, see §3.1.3. Agentives lend themselves to compounding, with incorporated objects that designate a typical or pro-forma object.

(59)   agentive   gloss   verb   gloss (verb)   initial

yìrí-wólá-wì   'singer'   wō‖wō-là   'sing'   yìrìí 'song'
ná^n-dáná-wì   'cowherd'   ná^n‖ná-nà   'drive (livestock)' ná^n 'cow'
wɔ̀ɣɔ̀-náná-wì   'goatherd'   ná^n‖ná-nà   'drive (livestock)' wɔ̀ɣɔ́ 'goat'
béréy^n-blá-wì   'drummer'   bɔ́rí‖bɔ́rí-mà   'beat (tomtom)'   béréy^n 'tomtom'
sùú^n-dìyà-wì   'healer'   dē‖dyà   'do'   sùú^n 'medication'
sùù^n-glé-wì   'herbalist' glâ‖glê   'take out'   sùú^n 'medication'

4.3   Bahuvrihi compounds

In a bahuvrihi, both initial and final have their regular tonal form, except for low-level tone sandhi.

(60)   a.   ɲɔ́^{n} kùrù-sáŋbɔ́rá^n
            person   belly-big
            'fat person' (< kùrùú)

       b.   ɲɔ́^{n} ŋmá-sáŋbɔ́rá^n
            person   head-big
            'big-headed person' (< ŋmá)

4.4   Diminutives

The basic diminutive noun 'child' is (à) ná-mí 'child' (plural ná-my-ó→). This may already be a diminutive in form, since uncompounded ná^n 'child' is also attested (but uncommon, and regrettably homophonous with 'cow').

Some other lexified diminutives are sɔ́-mìì 'pestle' (cf. sɔ́ɛ́y 'mortar'), kɔ́-mìì 'finger' (cf. kèrèý 'hand'), and ɲɔ́-mìì 'toe'. These all have singular -mìì becoming plural -my-ò→.

A somewhat more productive diminutive is with -bì (61) or -bí (62). The latter includes -bī after a heavy H-toned stem ('star').

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(61) Diminutive *-bì*

  diminutive   gloss   related

  a. /HL/ or /HM/ to {H}
   tígɛ́ⁿ-bì   'honey bee'   *tígèyⁿ* 'honey'
   kárá-bì   'small calabash' *kárày* 'calabash'
   bɔ́ɣɔ́ⁿ-bì   'puppy'   *bɔ́ɣɔ̄ⁿ* 'dog'

  b. /LH/ to {H}
   nérɛ́ⁿ-bì   'small grindstone' *nèréyⁿ* 'large grindstone'
   núnúⁿ-bì   'tongue'   *nùnúⁿ* 'tongue'

  c. no tone change
   júgú-bì   '(an) eye'   *júgú* 'eyes'
   kónèy-bì   '(a) word'   *kónèy* 'talk (n)'
   pɔ̀ⁿ-téréy-bì '(one) buttock' *pɔ̀ⁿ-téréy* 'buttocks'
   sèrè-bì   'small stone'   *sèrèyⁿ* 'rock'
   sìɲíríⁿ-bì   'young gecko'   *sìɲíríⁿ* 'house gecko'

  d. no independently attested source
   wáàm-bí ~ wɔ́m-bì 'orphan'
   yú-bì   'ring (on finger)'
   búwɔ́ⁿ-bì   'kidney'   *búwɔ́ʕɔ̄ⁿ* 'back'
   dáⁿ-ɲíríⁿ-bì 'ember'   *díyⁿáʕā̄ⁿ* 'fire'

(62) Diminutive *-bí*

  diminutive gloss   related

  ʃèm-bí   'cross-beams'
  ŋɔ́ɣɔ́ⁿ-bī 'star'
  bátyàà ̀ⁿ-bí 'arrow'   *bátyààⁿ* 'bow'
  dìgè-bí   'pit of shea-tree fruit'
  dɔ̀ɣɔ̀-bí   '(one) kola nut' *dɔ̀ɣɔ́* 'kola (nuts)'
  dúléyⁿ sàⁿ-bí 'point of fishhook' *sàýⁿ* 'thorn'

The plural of *-bì* is *-by-ò→*. The plural of *-bí* is *-by-ó→*.

5 Noun phrase (NP)

5.1 Order of elements within an NP

The maximal linear structure of an unpossessed NP is:

(63)   vocalic prefix - noun - adjective - numeral - demonstrative - quantifier

Examples are in (64).

(64)   a.   *à*   *wùú*   *kwɔ́-làʕá*

          Pref   house   good

          'a good house'   [pref n adj]

    b.   *à*   *wùú*   *kwɔ́-làʕá*   *jɔ̄ⁿ*

          Pref   house   good   two

          'two good houses'   [pref n adj num]

    c.   *à*   *wùú*   *jɔ̄ⁿ*   *ŋwɔ́ʕɔ̀ⁿ*

          Pref   house   two   Dem

          'these two houses'   [pref n num dem]

    d.   *à*   *wùú*   *ŋwɔ́ʕɔ̀ⁿ*   *byɛ́*

          Pres   house   Dem   all

          'all these houses'   [pref n dem quant]

5.2 Vocalic prefix before noun

Most nouns may be preceded by a "vocalic prefix." We use the term "prefix" loosely, since it often encliticizes to a preceding word, and we therefore transcribe it as a separate word. The prefix is either *à*, *ò*, or *è* depending on the noun class. There is no consistent phonological principle for the choice of vowel. Some generalizations can be made based on meaning. Most human nouns have *ò*. *è* is the least common, does not seem to occur with human nouns, and tends to occur with nouns that contain an *e* or *ɛ* vowel. Another observation is that nouns (mostly trisyllabic) ending in *ʕa* usually have *à* as prefix. So there are hints of an original noun-class agreement system involving suffixes as well as prefixes, but it is far from

systematic synchronically. Entries for noun stems in our lexicon indicate the vowel, if we have been able to elicit it.

Elicitation is not easy since some nouns are in practice not pronounced with a prefix in isolation (citation form) or clause-initially. For other nouns, the prefix is common though not obligatory in these positions. For example, 'snake' but not 'elephant' has an overt prefix in (65a) below. The vocalic prefix (if the noun has one) is most reliably elicitable when the noun functions as direct object following a verb like *ɲɛ̄\\ɲà* 'see'. In this combination, however, the prefixal vowel contracts with the final vowel of the verb. The quality of the contracted vowel depends on that of the prefix vowel (except for its ATR value), so it allows us to identify the noun's prefixal vowel quality. In other words, the prefix ends up as a kind of object-agreement enclitic on the preceding verb. For example, we identify the prefix as *ò* for 'elephant' based on (65c) and as *è* for 'granary' based on (65d), extrapolating from the surface vowel quality of 'see' (perfective). With some difficulty, we then elicit *ò bàwá^n* 'elephant' and *è bóĩ^n* 'granary' as independent forms. (65b) confirms *à* for 'snake'.

(65)   a.   *bàwá^n / à wíyáʕà*　　　　　*ɲà = ý^n*
　　　　　　 elephant / Pref snake　　　　　　 see.Pfv=1Sg
　　　　　　 'A/The elephant/snake saw me.'

　　　　b.　 *ŋ́*　　　*ɲà = [à*　　　　*wíyàʕà]*
　　　　　　 1Sg　　 see.Pfv[=Pref　 snake]
　　　　　　 'I saw a/the snake.'

　　　　c.　 *ŋ́*　　　*ɲɔ̀ = [ɔ̀*　　　　*bàwá^n]*
　　　　　　 1Sg　　 see.Pfv=[Pref　 elephant]
　　　　　　 'I saw an/the elephant.'

　　　　d.　 *ŋ̀*　　　*ɲɛ̀ = [ɛ̀*　　　　*bóĩ^n]*
　　　　　　 1Sg　　 see.Pfv=[Pref　 granary]
　　　　　　 'I saw a/the granary.'

Personal names normally lack vocalic prefixes. However, in postverbal object position they are sometimes treated like 'elephant'.

Elicitation of examples involving verbs, like (65b-d), was difficult with our informants. There was a tendency to replace forms like *ɲɔ̀ = ɔ̀*, *ɲà = à*, and *ɲɛ̀ = ɛ̀*, including the prefix for the following noun, with a 3Sg pronominal object form. In this case, it meant a tendency to generalize *ɲɔ̀ = ɔ̀*, which is the form for 'saw him/her', without a nominal object. This is likely an artefact of elicitation, where an informant switched between NPs and 3Sg pronouns as utterances were repeated. The object may be indefinite on the first occurrence ('I saw an elephant'), but beginning with the second it has become definite and may be pronominalized.

So the whole sequence could go something like 'I saw an elephant' repeated as 'I saw it', followed in turn (after we asked the informant to include 'elephant') by 'I saw him/her/it, the elephant'.

Hantgan noticed that the vocalic prefix is absent when the noun is followed by a numeral or other quantifier (2014ms: 28). We confirm that although 'snake' usually has the prefix clause-initially, see (65a) above, the prefix is dropped when a numeral is added, as in (66a) below. Similarly, the distinction in contracted vowel features in (65b-c) above disappears when a numeral is added to 'elephant' and to 'snake' (66b-c). However, the issues described in the preceding paragraph concerning repetitions make isolation and clause-initial forms most reliable whenever they can be elicited with a prefix.

(66) a. *[(# à)   wíyáʕà   jɔ̃ⁿ]   ɲà = ý ⁿ*
          [(#Pref)   snake   two]   see.Pfv=1Sg
          'Two snakes saw me.'

      b. *ń̄   ɲà   [bàwá ⁿ   jɔ̃ⁿ]*
          1Sg   see.Pfv   [elephant   two]
          'I saw two elephants.'

      c. *ń̄   ɲà   [wíyàʕà   jɔ̃ⁿ]*
          1Sg   see.Pfv   [snake   two]
          'I saw two snakes.'

Some nouns have an optional nasal onset that can appear in isolation and that functions roughly like a vocalic prefix. Compare *dùrú* in (67a) with *ǹ-dùrú* in (67b). These nouns also appear to have the usual vocalic prefix that encliticizes to a preceding verb, even when the noun has the nasal element (67c).

(67) a. *dùrú   dígínā*
          mouse   one
          'one mouse'

      b. *ǹ-dùrú   ɲà = ý ⁿ*
          Nasal-mouse   see.Pfv=1Sg
          'A/The mouse saw me.'

      c. *ń̄   ɲɔ̀ = [ɔ̀   ǹ̀-dùrú]*
          1Sg   see.Pfv=[Pref   Nasal-mouse]
          'I saw a/the mouse.'

See also *ǹ-bló* 'rain (n)', pronounced [m̀bló], in (201) in §13.6.3.

For the extinct dialect of Noumoudara, Winkelmann reported (W98: 135) that the "articles" *ʔē* (singular) and *ʔō* (plural, not common) were homophonous with the corresponding third person possessor forms: *ʔē nābī* '(a/the) child' or 'his/her/its child', *ʔō yāā nā^{n}bīō* 'the children of the women'.

5.3 Noun and adjective

Adjectives and similar modifiers such as relative clauses follow the noun. As indicated in §3.3 above, some adjectives still have up to three distinct segmental forms, one roughly associated with human and O-class nouns, one roughly associated with A-class nouns, and one roughly associated with E-class nouns. In other words, what was probably once a productive class-concord system has not completely disappeared. However, even adjectives that still have two or three forms do not deploy them strictly in this manner. Depending on the adjective, the old O-class or the old A-class form may be generalizing, or one or other of the forms may have become semantically specialized (e.g. emphatic in the cases of 'big' and 'small').

(68) below presents examples of how nouns and adjectives combine, with emphasis on tones. Nouns ending in rising /LH/ tones ('house', 'millet', 'ax') shift the H-tone onto the adjective by a regular tone sandhi process (§2.7.3.1). Nouns ending in falling /HM/ tones ('dog') flatten to H-toned, but induce downstep on a following H-toned adjective ('white', 'small'). See HM#(H)-to-HH#(ꜜH) (§2.7.3.2).

The data here show partial correlations of adjectival forms with nominal classes (O, A, and E). Among the O-class nouns in (68a), 'tree' is the strictest in respecting concord, while 'dog' and 'bird' seem to stray from this in the adjective 'long'. Among the A-class nouns in (68b), 'house' and 'ax' obey regular concord the most, while 'stone' has some E-class adjectives. Among the E-class nouns in (68c), 'millet' and 'chewstick' obey regular concord, while 'earth' has A-class forms. Elicitation of these combinations was difficult and there is more variation in adjectival forms than is presented here.

(68)	noun	gloss	'white' *fyɔ́^{n}*	'small' *yíbī*→
			'red' *sɛ̀^{n}*	'black' *yɔ̀bɔ̀*
			'long' *sɔ̀y^n*	'hot' (*fùú*)

a. O-class

(*ò*) *bɔ́ɣɔ̄^{n}*	'dog'	*bɔ́ɣɔ́^{n}* ꜜ*fyɔ́^{n}*	*bɔ́ɣɔ́^{n}* ꜜ*yíbí*→
		bɔ́ɣɔ́^{n} sɛ̀^{n}	*bɔ́ɣɔ́^{n} yɔ̀bɔ̀*
		bɔ́ɣɔ́^{n} sɔ̀y^n	*bɔ́ɣɔ́^{n} fùú*

(ò) *cɔ̀ⁿ* 'bird' *cɔ̀ⁿ fyɔ̀ⁿ*   *cɔ̀ⁿ yíbī→*

cɔ̀ⁿ syɔ̀ⁿ ~ sὲⁿ   *cɔ̀ⁿ yɔ̀bɔ̀*

cɔ̀ⁿ sɔ̀ὲyⁿ   *cɔ̀ⁿ fùú*

(ò) *yó* 'tree' *yó fĭyɔ̄wⁿ*   *yó yíbī→*

yó sìyɔ̀ɔ́ⁿ ~ sὲⁿ   *yó yɔ́bɔ̄w*

yó sɔ̀rɔ̀wⁿ   *yó fùú*

b. A-class

(à) *wùú* 'house' *wùù fĭyáʕā̄ⁿ*   *wùù yíbī→*

wùù síyāʕā̄ⁿ   *wùù yɔ́bāʕā*

wùù sɔ́rɔ̄wⁿ   *wùù fúū*

(à) *wíyàʕà* 'snake' *wíyàʕà fyɔ́ⁿ*   *wíyàʕà yíbī→*

wíyàʕà sìyàʕáⁿ   *wíyàʕà yɔ̀bàʕà*

wíyàʕà sɔ̀rɔ̀wⁿ   *wíyàʕà fùú*

(à) *sὲrὲyⁿ* 'stone' *sὲrὲyⁿ fyɔ́ⁿ*   *sὲrὲyⁿ yíbī→*

sὲrὲyⁿ síyéyⁿ   *sὲrὲyⁿ yɔ́báy*

sὲrὲyⁿ sɔ̀rɔ̀wⁿ   *sὲrὲyⁿ fùù*

(à) *yèyàʕá* 'ax' *yèyàʕà fĭyāʕā̄ⁿ*   *yèyàʕà yíbī→*

yèyàʕà síyāʕā̄ⁿ   *yèyàʕà yɔ́bāʕā*

yèyàʕà sɔ́rɔ̄wⁿ   *yèyàʕá fùú*

c. E-class

(è) *ʃĭ* 'millet' *ʃì fĭyὲyⁿ*   *ʃí yíbī→*

ʃì síyēyᵐ   *ʃì yɔ́bày*

ʃì sɔ́rɔ̄yⁿ   *ʃì fúū*

(è) *sày* 'earth' *sày fĭyàʕàⁿ*   *sày yíbī→*

sày sìyàʕàⁿ   *sày yɔ́báʕá*

—   *sày fùú*

(è) *gbéséyⁿ* 'chewstick' *gbéséyⁿ fĭyὲyⁿ*   *gbéséyⁿ yíbī(→)*

gbéséyⁿ sìyὲyⁿ   *gbéséyⁿ yɔ́bāy*

gbéséyⁿ sɔ̀rɔ̀yⁿ   *gbéséyⁿ fùú*

wíyàʕà 'snake' is optionally truncated to *wá* before an adjective: *wá yɔ̀bàʕa* 'black snake'.

The plural is marked (by prolongation and sometimes by vowel-quality change) on the adjective (69b,d,e). The noun is generally not overtly pluralized (69b,e), but nouns like 'man' that have a segmentally distinct plural optionally use it before the adjective (69d).

(69) a. *wùù*   *fĭyáʕā̄ⁿ*

house   white

'(a/the) white house'

b. *wùù*   *fìy$^n\bar{\varepsilon}$→*
house   white.Pl
'white houses'

c. *dˌɔ̀èý*   *sὲ^n*
man   red
'a red (=brown-skinned) man

d. *dɔ̀-rɔ́ɔ́→ / dˌɔ̀èý*   *sìyɔ̀→*
man.Pl / man   red.Pl
'red (=brown-skinned) men'

e. *cɔ̀^{n}*   *sìyɔ̀→*
bird   red.Pl
'red birds'

5.4 Demonstratives

5.4.1 Deictic 'this, that' (*ŋɔ́ɔ̀^{n}*, *ŋˌɔ́ɛ̀^{n}*)

There is only one demonstrative category, and no distinction between proximate and distant. The form is normally *ŋɔ́ɔ̀^{n}*, always so for O and A classes of noun. A specifically E-class form *ŋˌɔ́ɛ̀^{n}* is attested in *è sˌɔ̀ɛ̀^{n} ŋˌɔ́ɛ̀^{n}* 'this work' (< *sˌɔ̀ɛ́^{n}*).

The demonstrative is used by themselves, or it is added to an already number-specified noun. The demonstrative itself does not not mark number. Examples: *dˌɔ̀èy ŋɔ́ɔ̀^{n}* 'this man', *dɔ̀-rɔ̀ ŋɔ́ɔ̀^{n}* 'these men', *yà ŋɔ́ɔ̀^{n}* 'this woman', *wùù ŋɔ́ɔ̀^{n}* 'this house' (< *dˌɔ̀èý, dɔ̀-rɔ́ɔ́, yǎ, wùú*). Nouns like *wùú* 'house' that have a final rising tone flatten to L-tone by regular tone sandhi before the initial H-tone of the demonstrative.

5.4.2 Discourse-definite 'that' (*bèé*)

bèé is used by itself absolutely (i.e. without a noun) as a discourse-definite 'it' or 'that' denoting a state of affairs that has been presented in preceding discourse. It occurs in expresseions like 'I said that (to …)', referring to a fact or state of affairs already alive in the discourse. It is likely an E-class form of third person independent pronoun *bŏ*.

5.4.3   Demonstrative adverbs

The common ones are *fǎⁿ* 'here', *fánè* ~ *fándè* 'around here' or 'over there', and *mā* 'there (discourse-definite)'.

5.5   Possession

A pronominal possessor may be expressed by a proclitic preceding the possessum. For 2Sg there is also another option, a suffix *-ὲ*. For all pronominal categories it is also possible to use the independent form of the pronoun as possessor.

The proclitic series differs tonally from the segmentally similar subject proclitics. First person proclitics are L-toned as possessors versus H-toned as subjects. Second person proclitics are L-toned as possessors, like the L-toned subject proclitic for 2Sg, but unlike the M-toned subject proclitic for 2Pl.

(70)   proclitic   suffix

1Sg	*ŋ̀*	
1Pl	*è*	
2Sg	*m̀*	*-ὲ*
2Pl	*nà*	
3Sg	*ŋ̄*	
3Pl	*ō*	

The *-ὲ* suffix is optional for 2Sg possessor. It does not co-occur with proclitic *m̀*, so the speaker must choose one or the other. *-ὲ* occurs systematically for the 2Sg complement of postpositions (§7.3.2)

A genitive-like morpheme *dí* is optionally inserted between the possessor (even if a proclitic pronominal) and the possessum. It imposes {L} overlay on the following noun. It may be related etymologically to the noun *dì* (unpossessed) or *dɔ́ɣɔ́* ~ *dó* (possessed) meaning '(someone's) share', cf. also the possessive predicate pattern *X dé=ȳ* 'it belongs to X' (§10.2.5.2).

Examples of genitive function, also illustrating the tone-dropping of the possessum, are in (71).

(71)   a.   *è dí kìyàʕà*   'our meat'   < *kìyàʕá*
        b.   *ŋ̀ dí dìyⁿàʕàⁿ*   'my fire'   < *díyⁿáʕāⁿ*
        c.   *zàkí dí dìyⁿàʕàⁿ*   'Zaki's fire'   < *díyⁿáʕāⁿ*

Using *báⁿ* 'sheep' as possessum, there are no fewer than five ways to express 2Sg possessor: independent pronoun *mì* (72a), proclitic *m̀* (72b), proclitic plus genitive *dí* (72c), independent pronoun plus genitive *dí* (72d) and suffix *-ɛ̀* (72e). The suffix does not co-occur with any of the preposed possessives.

(72)   'your-Sg sheep'

        a.   *mì báⁿ*
        b.   *m̀ báⁿ*
        c.   *m̀ dí bàⁿ*
        d.   *mì dí bàⁿ*
        e.   *báⁿ-ɛ̀*

Further examples of possessor-possessum combinations:

(73)   a.   *ɲí / ŋ̀*   *báⁿ*
            1Sg   sheep
            'my sheep'

        b.   *bò*   *dí*   *bàⁿ*
            3Sg   Poss   sheep
            'his/her sheep' (with independent 3Sg pronoun *bǒ*)

        c.   *[ŋ̀*   *táⁿ]*   *báⁿ*
            [1Sg   father]   sheep
            'my father's sheep'

If the possessum is omitted (e.g. because already known in context), the semantically minimal noun *dɔ́ɣɔ́* 'possession; (someone's) share' is the default.

(74)   *ŋ̀*   *dɔ́ɣɔ́*
        1Sg   share(n)
        'mine' (French *le mien* etc.)

5.6   Quantification ('all', 'many/much', 'few/little')

Quantifiers follow the modified noun, and are compatible with a vocalic prefix preceding the noun. They include *byɛ́* 'all', *pyé* 'many/much', *jɔ́ʕɔ́* '(a) few/a little', and *yíbí* '(a) few/a little' (diminutive). Intonationally prolonged variants are regular with 'many/much' (*pyé→*),

fairly common with 'all' (*byɛ́→*), and possible with 'a few' (*jɔ́ɣɔ̄→*). There is no conspicuous final-vowel prolongation of plurals for nouns like 'dog' before these quantifiers (75a-c). However, nouns that have a segmentally distinct plural, like 'man', use the plural form before these quantifiers (75d).

(75) a. *ò* *bɔ́ɣɔ̄ⁿ* *byɛ́*
          Pref dog all
          'all (the) dogs'

      b. *ò* *bɔ́ɣɔ̄ⁿ* *pyé→*
          Pref dog many/much
          'many dogs'

      c. *ò* *bɔ́ɣɔ̄ⁿ* *jɔ́ɣɔ̄→*
          Pref dog a.few
          '(a) few dogs'

      d. *ò* *dɔ̀-rɔ̀ɔ̀* *byɛ́* / *pyé→* / *jɔ́ɣɔ̄→*
          Pref man-Pl all / many / a few
          'all the men/many men/a few men'

5.7   Specific indefinite *díî* ~ *dî* 'a certain' and plural *díò→* ~ *díê→*

These forms may follow a noun and any inner modifiers. They are indefinite but specific, and typically introduce discourse referents that will be referred back to later by regular 3Sg or 3Pl pronouns. They can be glossed as singular 'a certain X' or plural 'some (=certain) Xs'.

   Singular *díî* and plural *díê→* are used with E-class and nonhuman A-class nouns, while singular *dî* and plural *díò→* occur with human nouns and with nonhuman O-class nouns. These forms may be used with any noun but they are especially common with nouns *yáɣá* 'thing, object', *cě* 'matter, thing (abstract)', and *ɲɔ́ⁿ* 'person' (compare English *something*, *someone/somebody*). The noun may appear with its vocalic prefix as it would elsewhere.

(76) a. *(è) yáɣá díî*   'a certain thing/object' or 'something' (specific)
          (è) cè díî   'a certain matter'
          (è) cè díê→   'certain matters'

      b. *(à) wùù díî*   'a certain house'
          (à) wùù díê→   'certain houses'

c. *(à) ɲɔ́ⁿ dî*   'a certain person' or 'someone' (specific)

   (ò) ɲɔ́ⁿ díò→   'certain people' or 'some people' (specific)

díò→ differs tonally from suppletive plural noun *(ò) dyó→* 'people' (§3.1.1.5). Their historical relationship is unclear.

6 NP coordination

6.1 'X and/with Y' (*nà*)

The particle *nà* 'with, and' is placed between the two conjuncts.

(77)   *[dɔ̀ɛ́y   nà   yá]   bà*
       [man   with   woman]   come.Pfv
       'A man and a woman (< *yǎ*) came.'

nà also functions as an instrumental or comitative preposition (§7.2).

6.2 'X or Y' (*tà*)

Particle *tà* 'or' is placed between the two disjuncts. Disjunction is closely related to polar interrogation, so both disjuncts are normally accompanied by an interrogative particle.

(78)   *dɔ̀ɛ́y   wà   tà   yá   wà*
       man   Q   or   woman   Q
       'a man? or a woman?'

7 Adpositions

Most adpositions are postposed to NPs. For pronominal paradigms of the postpositions see §7.3.1-22. The exception is instrumental-comitative *nà* 'with, any' which is preposed; it is also the 'and' conjunction (§6.1).

7.1 Dative and benefactive

7.1.1 Indirect object with ditransitive verb

The indirect object in a typical ditransitive is expressed by a verb *ŋɔ́ⁿ\\ŋɔ̀ⁿ* combined with a preceding verb like 'give' or 'show'; see §10.1.5 for examples. *ŋɔ́ⁿ\\ŋɔ̀ⁿ*, which also occurs in benefactive constructions (see just below), by itself is a verb meaning 'help (with money)'.

7.1.2 Benefactive objects (*bāɣā, ŋɔ́ⁿ… nɔ̀*)

Two constructions are recorded in which a kind of benefactive object is added to an already complete clause.

In (79), the postposition *bāɣā*, also found in the 'have' construction (§10.2.5.1), functions like a benefactive, though literally it indicates that the referent in question will end up possessing the object given (79).

(79) *ŋ́*   *bà*   *nà*   *[ò   ɲŭ]*   *[[ŋ̀   kà]*   *bāɣā]*
      1Sg   come.Pfv   with   [Pref water]   [[1Sg mother] **Poss**]
      'I have brought water for my mother.'

The second construction includes *ŋɔ́ⁿ\\ŋɔ̀ⁿ* 'help (with money)', here in imperfective form *ŋɔ́ⁿ*, plus what appears to be a benefactive postposition *nɔ̀* (80). The verb *ŋɔ́ⁿ\\ŋɔ̀ⁿ* is also part of the two-part 'give' construction (§10.1.5). A motion verb in the first clause (in this example 'come') is repeated in infinitival form before *ŋɔ́ⁿ*, cf. the repetitions of motion verbs in (197a-b) in §13.5.

(80) *ń*　　*bà*　　　*nà*　　　*[ò*　　*ɲŭ]*
　　　1Sg　　come.Pfv　　with　　[Pref　water]
　　　[ná　　*bà*　　　*[ŋɔ̄ⁿ*　　*[[ŋ̀*　　*kà]*　　*nɔ̀]*
　　　[Infin　come.Ipfv　[**help.Ipfv**　[[1Sg　mother]　**for**]
　　　'I have brought water for my mother.'

7.2　Instrumental or comitative (*nà*)

7.2.1　Simple instrumental/comitative phrases

nà 'with' is a preposition (not a postposition). It may have instrumental or comitative function: *nà yèyàʕá* 'with (=by means of) an ax', *nà yǎ* 'with (=in the company of) a woman'.

(81)　a.　*ŋ̄*　　*kpà*　　*dáɣánī*　　*[nà*　　*yèyàʕá]*
　　　　　3Sg　hit.Pfv　wood　　　[**with**　ax]
　　　　　'He cut the wood with an ax.'

　　　b.　*ń*　　*byé-rà*　　　*[nà*　　*zàkí]*
　　　　　1Sg　cultivate-Pfv　[**with**　Z]
　　　　　'I cultivated (=farmed) with Zaki.'

For *nà* as the basic 'and' conjunction, see §6.1 above.

7.2.2　'Bring' and 'take (there)'

Directionally-specified predicates of conveyance ('bring', 'take/deliver [there]') are expressed by combining 'come' or 'go' with a comitative *nà* phrase. For centripetal (ventive) direction: *bà* 'come' (perfective=imperfective), *bà [nà X]* 'bring (=come with) X'. For noncentripetal (itive) direction, the stative (or resultative) *fyê* is preferred to dynamic (aspect-marking) *sē\\sà* 'go' in reports of recent events: *fyê* 'have gone, be gone', *fyé [nà X]* 'take/have taken X (there)'. Regular *sē\\sà* 'go' must be used in other inflectional contexts such as negatives and futures (82a-b).

(82)　a.　*zàkí*　　*kǎ*　　　*sē*　　　*nà=*　　*[à*　　*síkə̀rí]=ʔ*
　　　　　Z　　　PfvNeg　go.Ipfv　**with**　[Pref　sugar]=Neg
　　　　　'Zaki didn't take the sugar (there).

b. *zàkí   bī   sà   nà=*   *[à   síkə̀rìí]*
   Z   Fut   go.Pfv **with** [Pref   sugar]
   'Zaki will take the sugar (there).'

7.3   Spatial postpositions

7.3.1   Primary locative postpositions (*tɔ̀ⁿ* and *wúrí*)

Postposition *tɔ̀ⁿ* is a general locative 'in X' or 'at X'. Specifically 'inside X' is expressed by *wúrí*. These locative postpositions can be used in stative ('in') as well as dynamic ('to', 'from') contexts, the distinction being made by verbs.

(83)   a. *ŋ̄   gō   [[à   wùú]   tɔ̀ⁿ]*
      3Sg   be   [[Pref house] **in**]
      'He is in the house.'

    b. *zàkí   fyê   [[è   lè]   wúrí]*
      Z   go.Stat [[Pref compound]   **inside**]
      'Zaki has gone into the house (housing compound).' (< *lě*)

'Where?' interrogatives do distinguish allative-ablative 'whither?/whence?' from static 'where?', but by suppletion rather than by changing a postposition (§11.2.2.3).

7.3.2   Other spatial postpositions

The remaining postpositions are mostly spatial. Those in (84) appear to be single morphemes. We know of no decomposition of *pwèyⁿtɔ́* though it sounds like a compound. The postposition in (84b) is composite.

(84)   a. *X ʃyɛ́*   'behind X'
      X yèyⁿ   'in front of X' (< *yě* 'face')
      X sáɣáy   'under X; near X'
      X pwèyⁿtɔ́   'under X' (< *pwèyⁿtɔ́* 'lower buttocks')
      X kírīīⁿ   'beside X'
      X ʃīⁿ   'on X; over X'
      X&Y ʃítòòⁿ   'between X and Y'

    b. *X ŋmúⁿ-táʕày*   'above, over' (< *ŋmá* 'head', *tìyàʕá* 'place')

Postpositions can follow nonpronominal NPs or proclitic pronouns. The proclitics have the same tonal form as possessor proclitics (§5.5), as opposed to subject proclitics. Independent pronouns are also possible, but are less common than proclitics. For 2Sg the usual proclitic *ŋ̀* ~ *m̀* is not used with postpositions; instead, a suffix *-è* is added. This suffix is also possible, but not obligatory, for 2Sg possessor with a possessed noun. Sample paradigms for postpositions are in (85). H-toned 2Pl *ná* in the 'on' paradigm is unexpected but was double-checked.

(85)   'in front of'   'on'   'behind'

	'in front of'	'on'	'behind'
1Sg	*ŋ̀ yéyⁿ*	*ŋ̀ ʃíⁿ*	*ŋ̀ ʃyɛ́*
1Pl	*è yéyⁿ*	*è ʃíⁿ*	*è ʃyɛ́*
2Sg	*yɛ́-è*	*ʃíⁿ-yè*	*ʃyɛ́-è*
2Pl	*nà yèýⁿ*	*ná ʃīⁿ*	*nà ʃyɛ́*
3Sg	*ŋ̄ yɛ̄yⁿ*	*ŋ̄ ʃīⁿ*	*ŋ̄ ʃyɛ̄*
3Pl	*ō yɛ̄yⁿ*	*ō ʃīⁿ*	*ō ʃyɛ̄*

Examples of independent pronouns with 'on' are: 1Sg *ní ʃīⁿ*, 2Sg *mì ʃīⁿ*, and 3Pl *bòó ʃīⁿ*.

7.3.3   Absence of overt locative postposition

Especially in high-frequency locational expressions that do not focus on precise spatial configurations, a bare postverbal NP may be interpreted as locative.

(86)   a.   *ŋ́*   *gō*   *[è*   *sɔ̀èɛ́ⁿ]*
            1Sg   be   [Pref   work(n)]
            'I am at work.'

       b.   *ŋ́*   *gō*   *[è*   *lɛ̌]*
            1Sg   be   [Pref   house.compound]
            'I am at home.'

7.4   **Goal and cause**

The noun *yéyⁿ* 'name' may function as a postposition meaning 'in the name of X, on account of X, for the sake of X', where X is a person.

There is no dedicated purposive postposition 'for X'. However, the 'behind X' postposition can be used in a purposive context. Cf. English *what is he really after?*

(87)   ŋ̄   bà   [sɔ́ȳⁿ   lè   ʃyɛ́]

       3Sg   come.Pfv   [gold   Foc   **behind**]

       'It is/was <u>gold</u> [focus] that he/she came for.'

The 'why?' interrogative *bíè-já* contains *bíè* 'what?' plus an element *já*. In this context, *já* functions like a frozen purposive postposition. However, *já-* also occurs as an interrogative morpheme in a few combinations like *já-tàʕày* 'where?', so its synchronic function and even its etymological origin in *bíè-já* 'why?' are not transparent.

7.5   Possession and desire

Postpositional phrase *X bāʕā* occurs in predications of possession: Y is *[X bāʕā]* means 'X has Y'. See §10.2.5.1 for examples.

A distinct postposition *bàɣà* occurs in predications of desire: *X want [Y bàɣà]* means 'X wants Y'. See §10.3.2.

8 Verb morphology

The present chapter focuses on the forms of perfective and imperfective stems at word-level. The terms "perfective" and "imperfective" are misleading, since the two stems are distributed over the various phrase-level tense, aspect, mood, and negation (TAMN) categories in a somewhat complex fashion. For a quick summary of their distributions, see Table 1 at the beginning of chapter 9 below.

8.1 Imperfective and perfective stems

In general, the perfective stem is marked. Sometimes it has a -Cv or similar suffix not present in the imperfective stem. In other cases the two have the same syllabic shape and differ in some idiosyncratic way, if at all. The differences can be tonal, vocalic, and occasionally consonantal.

   The full citation form of a verb is exemplified by *gbā\\gbà* 'split (wood), shatter' and by *fwɔ\\fwɔ-là* 'blow'. The imperfective stem is given first, followed by the separator \\ and the perfective stem. In contexts where the meaning rather than morphology is relevant, we sometimes use the imperfective as the citation form.

8.2 Verbs with identical imperfective and perfective stems

Some verbs do not distinguish perfective and imperfective stems. Possible reasons for this are a) the verb is borrowed (from Jula or other source); b) an original aspectual split has been lost as the language declines in vitality; c) the imperfective is already tonally L- or HL-toned and ends in *a* or *e/ɛ*, so it already fits the tonal and vocalic targets typical of perfectives. Variants due to optional *n/r* alternations are disregarded in determining whether the stems are identical, but it is possible that individual speakers might specialize one variant as imperfective and the other as perfective.

(88) imperfective perfective gloss

a. L-toned
  monosyllabic
  dà dà 'crumple, wrinkle'
  tà tà 'join, link (end to end)'
  kɔ̀^{n} kɔ̀^{n} 'understand'

  bisyllabic
  bàɣà bàɣà 'hang (sth) up'
  də̀rà də̀rà 'lock (door)'
  dɔ̀ɣɔ̀ dɔ̀ɣɔ̀ 'boil (e.g. rice) in a pot'
  gbèrɛ̀ gbèrɛ̀ 'hold and lift (sb)'
  mànì mànì 'build'
  nɔ̀rɔ̀^{n} ~ nɔ̀y nɔ̀nɔ̀ ~ nɔ̀rɔ̀^{n} 'drive away, expel' (see §8.6.2.4)
  sòrò sòrò 'defecate'
  sɔ̀ɣɔ̀ sɔ̀ɣɔ̀ 'give; send (on mission)'
  ʃɔ̀nì ʃɔ̀nì 'guard, watch over'
  tàɣà^n ~ tìŋɛ̀ ~ tìgɛ̀^{n} tàɣà^n ~ tìŋɛ̀ 'ignite, light (fire)'
  tàmà tàmà 'measure; doubt'
  tə̀rɛ̀ tə̀rɛ̀ 'set (sth) next to (sth)'
  tə̀rà tə̀rà 'pinch and twist (sb's skin)'
  tɔ̀ɣɔ̀ tɔ̀ɣɔ̀ 'char, burn to a crisp'
  tùŋà tùŋà 'learn or teach (a trade)'
  trisyllabic
  mìyɔ̀nɔ̀ mìyɔ̀nɔ̀ 'pacify (weeping child)'

b. HL-toned
  monosyllabic
  tê tê 'put (pot) up on fire'
  tê^n tê^n 'become bitter-tasting'
  bisyllabic
  cónì cónì 'collect, gather together'
  dáɣà dáɣà 'marry (sb)'
  dálò dálò 'feed (sb)'
  páŋɔ̀ páŋɔ̀ 'taste'
  sókòy^n sókòy^n 'bark (v)'
  súnà súnà 'bump, head-butt'
  trisyllabic
  fɔ́rɔ́mà fɔ́rɔ́mà 'greet'

c. H-toned

dúrúⁿ	*dúrúⁿ*	'skim (water) from top'
páⁿ	*páⁿ*	'scoop out (e.g. sauce)'
pɛ́ɲɛ́	*pɛ́ɲɛ́*	'comb' (< Fr. *peigner*)
yáɣá	*yáɣá*	'squeeze, press'

Some other verbs initially appeared to belong to this verb type, but further study revealed a distinct form (usually perfective). We suspect that there is a process underfoot whereby aspect-marked forms of less common verbs are beginning to neutralize. The sign of this is usually that one variant is limited to the perfective, while another is imperfective but can spill into perfective functions.

Cases like those in (88) above are distinct from those where the verb has a defective paradigm and so does not even have two aspect-marked stems. This is the case with one of the 'say' verbs (89a), and expressively iterated stems like that in (89b) that only occur in strongly imperfective contexts.

(89)   a. *jà*   'say'   perfective only
         b. *kɘ́rú-kɘ́rū* 'grope along' imperfective only

In addition, statives do not mark aspect, so they lack an imperfective-perfective split. This applies both to derived statives (i.e. derived from dynamic verbs) and to defective stative-only (quasi-)verbs (§10.1.2.2).

8.3   *bà* and *bé* 'come'

This is the only verb that does not follow the normal distribution of imperfective and perfective stems across the various phrasal inflectional categories (TAMN) as described in the following chapter. The form is *bà* not in those TAMN categories that for other verbs require the perfective stem. It also occurs in several categories that call for the imperfective stem, such as imperative *bà* 'come!'. The exception is the imperfective with preverbal *wɔ̀ɣɔ̀*, which requires a special form *bé*, as in *ŋ́ wɔ̀ɣɔ̀ bé* 'I am coming'. For the *a/e* alternation, also found for the cognate in Tiefo-D, see §2.2.2 above.

8.4   Imperfective and perfective differ by tone only

In all cases where the two stems differ only by tone, the perfective is lower in tone than the imperfective. Since the perfective is generally marked, often by suffixes (§8.6), one can think of a tone-dropping process applied to the imperfective to produce the perfective.

One popular pattern for mono- and bisyllabic stems is M\\L, affecting both syllables of bisyllabics (90a). The two other patterns are for stems of at least two (usually exactly two) syllables. These are HM\\HL (90b) and H\\HL (90c), where the nonfinal syllables of the perfective remain H while the final syllable drops to L. The trisyllabics with HM\\HL in (90d) are probably of H\\HL rather than true HM\\HL type, since they are heavy enough to make the third of three H-toned syllables automatically drop a notch.

(90)　　　imperfective　　perfective　　gloss

　　　a. M\\L
　　　　monosyllabic
　　　　　gbā　　　　*gbà*　　　　'split, shatter'
　　　　　kā　　　　*kà*　　　　'chew' (synonym *kɔ́rɔ́ⁿ\\klâⁿ*)
　　　　　klē　　　　*klè*　　　　'clap (hands)'
　　　　　ŋɔ̄ⁿ　　　　*ŋɔ̀ⁿ*　　　　'give' (part of 'give' construction)
　　　　　pā　　　　*pà*　　　　'moisten'
　　　　　sɔ̄ⁿ　　　　*sɔ̀ⁿ*　　　　'implant'
　　　　　wā　　　　*wà*　　　　'rot, stink'
　　　　bisyllabic
　　　　　jāɣā　　　　*jàɣà*　　　　'put down, abandon'
　　　　　jɔ̄rɔ̄　　　　*jɔ̀rɔ̀ ~ jɔ̀rɔ̀*　　'swallow'
　　　　　kāɣāⁿ　　　*kàɣàⁿ*　　　'welcome (a guest)'
　　　　　pāɣā　　　　*pàɣà*　　　　'push'
　　　　　pɔ̄rē　　　　*pɔ̀rɛ̀*　　　　'stick, adhere'
　　　　　sāɣā　　　　*sàɣà*　　　　'tremble'
　　　　　sērē　　　　*sèrè*　　　　'carve out'
　　　　　yāɣā　　　　*yàɣà*　　　　'vomit'

　　　d. HM\\HL
　　　　bisyllabic
　　　　　cɔ́ŋē　　　　*cɔ́ŋè*　　　　'become deep'
　　　　　mánā　　　　*mánà*　　　　'rinse'
　　　　　mínā　　　　*mínà*　　　　'sprinkle'
　　　　　míŋ(g)áⁿ　　*míŋ(g)àⁿ*　　'fan (sb, sth)'
　　　　　tígɛ̄ⁿ　　　*tígɛ̄ⁿ ~ tíŋɛ̀ⁿ*　'get hot'
　　　　trisyllabic
　　　　　gbáɣánī　　*gbáɣánì*　　　'lay (sth) across (e.g. path)'

c. H\\HL

dɔ́rɛ́ ~ dérɛ́	dérɛ̀	'grow up'
kpérɛ́	kpérɛ̀	'descend'
ɲáɣáⁿ	ɲáɣàⁿ	'redden'
ɲíráⁿ	ɲínà ~ ɲíràⁿ	'build'
pɔ́ɣɔ́	pɔ́ɣɔ̀	'open (door)'
wɔ́ɣɔ́	wɔ́ɣɔ̀	'(butter) solidify'

d. heavy H(M)\\HL

dúgúmā	dúgúmà	'stir, mix, confuse'
páɣánī	páɣánì	'hurry'
sáɣánāⁿ	sáɣánà ~ sáɣánɛ̀	'wrestle (sb)'

e. M\\ML

kāɣāⁿ	kāɣàⁿ	'come to an agreement' (cf. 'welcome')
nāɣānā	nāɣànà	'coincide with, happen to find'
sōrōbā	sōrōbà	'insult (sb)'

8.5 Imperfective and perfective differ by vocalic ablaut (at least)

Other verbs distinguish imperfective from perfective by vocalic mutations (ablaut). The two most common subtypes are those where the perfective shifts at least its final vowel to *e/ɛ* (§8.5.1) and those where it shifts it to *a* (§8.5.2), but there are also a handful of cases with *ɔ* (§8.5.3). In bisyllabics, both vowels are affected by vocalic ablaut in some cases, in others only the final vowel is shifted.

Changes in vocalism can also lead to changes in consonants. Alternations involving *g* and either *ɣ* or *ŋ* are especially common. In addition, medial *l* and *r* may induce reduction or syncope of a preceding vowel, or they themselves may be zeroed in one of the aspect-marked forms.

Many of the verbs dealt with in the subsections below, under the rubric of vocalic ablaut, also show tonal changes like those that appear in pure form in the preceding section.

The distinction between stem-final *a*, *ɔ*, and *e/ɛ* can be blurred when the verb is transitive, since in this context it is normally followed either by a third person object enclitic (3Sg =*o* ~ =*ɔ*, 3Pl =*oo* ~ =*ɔɔ*) or by a noun which may be preceded by a vocalic prefix (*à ò* or *è*). The vocalic enclitic or prefix normally contracts with the stem-final vowel. The ATR value of the stem vowel dominates, but other features of the contracted vowel are those of the enclitic or suffix vowel. To identify the stem-final vowel of a transitive verb, it is best to elicit combinations of the verb with 1Sg clitic =*ýⁿ* or with a personal name. However, we had

some difficulty nailing down final vowels of transitives. There is no comparable difficulty with intransitive verbs.

8.5.1   Perfective with final *e/ε*

This vocalic mutation is very common. The final vowel, or both vowels of some bisyllabics, shift(s) in the perfective to *e* or *ε*, the choice depending on the ATR-harmonic value of the stem. If the imperfective has only *a*, its ATR-harmonic value is otherwise covert, and the perfective brings it out. Variation between *a* → *e* and *a* → *ε* is likely a vestige of an original distinction between *ʌ (+ATR) and *a (-ATR), which later fell together as *a* ; see §2.2.2 for discussion.

Mono- and bisyllabics that shift *a* to *e* or *ε* in all syllables (disregarding reduced or syncopated initial-syllable vowels) are in (91). The cases where imperfective C(L)aCa clearly becomes perfective C(L)eCe or C(L)εCε, so that both vowels mutate, are in (91b), along with one similar trisyllabic at the end. If we undo likely syncope in *blákā\\blékè* and *kláɣā\\klégè* at the top of (91b), these could also be considered trisyllabic (at least historically). The examples in (91c) with medial *r* and those in (91d) with (originally) medial *l* are probably of the same type as in (91b), but the original initial vowel is usually reduced to schwa (before *r*) and is syncopated (before *l*).

(91)   imperfective   perfective   gloss

        a. monosyllabics
           +ATR perfective e
             là   *lè*   'gather (things)'
             flɔ̂ ~ flâ   *flê*   'untie, undo'
           +ATR perfective e, applies to the initial in a verb-verb compound
             lá-báɣá   *lé-bàɣà*   'keep spinning (getting dizzy)'
           -ATR perfective ε
             ŋmā   *ŋmὲ*   '(baby) suckle'
           -ATR, extra semivowel in perfective before ε
             ʃĩⁿ   *ʃyὲⁿ*   'fart (v)'

        b. from *a…a* to *e…e* or *ε…ε*
           +ATR perfective e…e, but see also discussion of (180) below
             blákā   *blékè*   'be cured, recover from illness'
             kláɣā   *klégè*   'become short(er)'

69

-ATR perfective ɛ…ɛ

jāŋà	*jēŋὲ*	'become long(er)'
kábá	*kέbὲ*	'become many; increase'
nānà ~ nāràⁿ	*nὲnὲ ~ nὲrὲⁿ*	'make, manufacture; fix'
pámá	*pέmὲ*	'(people) assemble, gather'
sārāⁿ	*sὲrὲⁿ*	'(butter) melt; (sb) waste away'
tàrà	*tὲrὲ*	'collapse' (cf. *tàrà\\tὲrὲ* 'ask')
wàrà	*wὲrὲ ~ wᶕrὲ*	'break off a piece of; split (nut)'
yàɣà	*yàɣà ~ yὲgὲ*	'snap, break (twig)

trisyllabic +ATR perfective e…e…e

lákárā	*lékérè*	'change'

c. medial *r* inducing reduction to schwa

+ATR perfective …e

tàrà	*tᶕrè*	'ask (sb, to do sth)'

-ATR perfective …ɛ

bə́rā	*bə́rὲ*	'sweep'
dᶕrà	*dᶕrὲ ~ dὲrὲ*	'divide, rip'
kárá ~ kə́rá	*kə́rὲ*	'pour back and forth'
nə́ráⁿ ~ nᶕrāⁿ	*nέnὲ*	'wash (clothes)'
tə̄rāⁿ	*tᶕrὲⁿ*	'sit down'
yᶕrà	*yᶕrὲ ~ yὲ*	'get old'

d. original medial *l* has induced syncope

+ATR perfective …e

blā	*blè*	'carry (baby, sack) on back'
flâ ~ flɔ̂	*flê*	'untie'
glâ	*glê*	'take out'
klā	*klè*	'shell (e.g. peanuts); hatch (egg)'
plá	*plê*	'jab; puncture'

-ATR perfective …ɛ

klàⁿ	*klὲⁿ*	'tilt'

-ATR perfective …ɛ, syncope optional after m

ḿlàⁿ ~ mᶕ́làⁿ	*ḿlὲⁿ ~ mᶕ́lὲⁿ*	'show, indicate'

The bi- and trisyllabics in (92) limit the vowel mutation to the final syllable, even when all vowels in the imperfective are *a*. Most of the trisyllabics (and a few bisyllabics) end in *la\\le*, which may be a frozen derivational suffix.

(92)   imperfective   perfective   gloss

a. bisyllabic with final *a* to *e/ɛ*
  -ATR

jínà	*jínὲ*	'kick'
jūŋà	*jùŋὲ*	'speak, talk'
ɲə́rá^n	*ɲə́rὲ^n*	'stand, stop; (rain) cease'
ɲìŋà	*ɲìŋὲ*	'wake up'
túrá^n	*túrὲ^n*	'(skin) peel off (after burning)'

  +ATR CaCa

pālà	*pālè*	'forget about (sb, sth)'
wálá	*wálè*	'(sth) dry off'

  +ATR other

cə́rá ~ círá	*círè*	'look at'
cónā	*cónè*	'cook (meal)'
dúgā	*dúgè*	'become heavy'
jōlà	*jōlè*	'sleep (v)'
kōlà ~ kōrà	*kōlè ~ kōrè*	'turn out well, become good'
kúlā	*kúlè*	'(baby) crawl'
ɲínà ~ ɲírà^n	*ɲínè ~ ɲírὲ^n*	'accept, take possession of'
ŋúnā	*ŋúnè*	'groan'
ʃírá	*ʃīrè*	'(day) break'
ʃìrà ~ ʃə̀rà	*ʃīrè ~ ʃə̀rè*	'shave (sb's head)'
ʃùrà	*ʃùrè ~ ʃə̀rè*	'carry on head'
túgà	*túgè*	'become big(ger)'
wúlà	*wúlè*	'flip, turn over (calabash)'

b. trisyllabics
  -ATR, CaCaCa

ɲáɣámā	*ɲáɣámὲ*	'become sour'

  -ATR, other

fə́ɣə́mā	*fə́ɣə́mὲ*	'become light(er), lose weight'
sòròbà	*sòròbὲ*	'squat'
túgúnā	*túgúnὲ*	'blink (eyes)'

  +ATR, CaCala

jáɣálā	*jáɣálè*	'(chicken) push (debris) aside with feet'
kāɣālà	*kāɣālè*	'ruin, damage (sth)'
páɣálā	*páɣálè*	'entrust'
sàɣàlà	*sàɣàlè*	'lay out; set out to dry'
sɔ̄ɣɔ̄lā	*sɔ̄ɣɔ̄lè*	'fear, be afraid'

tàɣàlà	*tàɣàlè*	'stick, adhere'
tāɣālà	*tāɣālè*	'step on (sb's foot)'
wáɣálā	*wáɣálè*	'become robust; (grain head) ripen'
yáɣálā	*yáɣálè*	'accompany (departing guest); hold out (hand)'

+ATR, other CvCvla

dúgúlā	*dúgúlè*	'hide'
jígílā	*jígílè*	'shake; sift'
júgúlā	*júgúlè*	'rinse out (mouth)'

The verbs in (93a) have a medial velar. There are alternations opposing *ɣ* between two *a* or *ɔ* vowels in the imperfective, versus either *g* or, in nasalized environments, *ŋ* after *i*. The verb *sɔ̀ⁿ\\sùŋè* 'work' (§8.6.2.2) may have formerly been of a similar type but with *u* instead of *i*. The verbs in (93b), by contrast, have stable *ŋ*.

(93) imperfective perfective gloss

a. *g alternating with ɣ and/or with ŋ* (cf. §2.1, §2.6.7)

dáɣāⁿ	*dígèⁿ*	'be sweet, pleasing'
dɔ̀ɣɔ̀	*dìgè*	'follow'
dóɣɔ̀	*dígè*	'hear'
dūgàⁿ ~ dūŋà	*dùŋè*	'become angry'
fàɣàⁿ	*fìgèⁿ ~ fìŋè*	'shout'
nàɣàⁿ	*nìŋè*	'pay (sb)'
sáɣáⁿ	*sígèⁿ*	'apply, rub on (oil)'

b. *stable ŋ*

dúŋá	*dúŋè*	'lick'
fíŋá	*fíŋè*	'whiten, become white or clean'

8.5.2 Perfective with final *a*

This is the other common vocalic mutation. For some monosyllabic verbs, imperfective Cv changes to Ca (94a). Those of the form Ci, however, have perfective Cya as the high vowel is desyllabified. There are isolated cases of Cu → Cwa and of Cɛ → Cya (94c). In two verbs of Cu and Co shape where C is velar *k*, the expected #*kwa* fuses into *kpa* with labial velar [k͡pa] (94d). The Cv imperfectives in (94e) have bisyllabic perfectives Ciya, or in one case Cuwa ~ Ca. Finally, 'fall' in (94f) goes from Co to Cuga. Overall, these forms suggest that *a* can be considered as a perfective suffix rather than as an ablaut mutation.

(94)   imperfective   perfective   gloss

 a. *tú*   *tâ*   'slash earth (with pick-hoe)'
    wú   *wā*   'die'
    dû   *dâ*   'sow (seeds), plant'
    ɲɛ̄   *ɲà*   'see'
    ɲɔ̄   *ɲà*   'drink'
    sē   *sà*   'go'
    tú yē   *tá yè*   'bury (sth)' (compound verb)

 b. *fí^n*   *fyâ^n*   '(seed) germinate'
    pí^n   *pyâ^n*   'extinguish (fire)'
    ʃí   *ʃyâ*   'become dizzy'
    ʃĩ   *ʃyà*   'be born' or 'urinate'
    ʃî^n   *ʃyâ^n*   'wait'
    ʃí^n   *ʃyâ^n*   'weave; braid'

 c. *fó*   *fwâ*   'say'
    pɛ̄^{n}   *pyà^n ~ pyɛ̀^{n}* 'stay'

 d. *kō*   *kpà*   'hit; kill'
    kú   *kpâ*   'cut'

 e. *dē*   *dìyà*   'do'
    dí   *díyà*   'eat (meal)'
    fí   *fíyà*   'take, receive'
    dɔ̄^{n}   *dùwà^n ~ dà^n* 'bite'

 f. *só*   *súgà*   'fall'

Other examples of shift to final *a* in the perfective are bisyllabics (no trisyllabics are attested). Those in (95a) and the Cvrv verbs in (95b) are more or less regular, except for sporadic shifts from Cvrv to Cvy in the imperfective (§2.6.5).

(95)   imperfective   perfective   gloss

 a. *fyɛ̄^{n}*   *fyà^n*   'lean on; hold by squeezing'
    mánà ~ máỳ^n *mánà*   'winnow by shaking'
    mīyɛ̄^{n}   *mìyà^n*   'burn; roast'
    ɲíní   *ɲínā ~ ɲírā^n* '(sth) cool off' or 'moisten'

	imperfective	perfective	gloss
	tīgī	tìgà	'pour (sth) out; spit'
	yígí	yígà	'get up'
b.	də̀rì	də̀rà	'go across (river, pond)'
	də́rú^n	də́rà^n	'(water) drip' or 'scoop'
	déy	də́rà	'fill'
	dōy ~ dɔ̄rɔ̄ ~ dɛ̄rɛ̄	də̀rà	'buy'
	jɔ̄y	jɔ̀rà	'(bird) peck'
	kpɔ̄rɔ̄ ~ kpɔ̄y	kpə̀rà	'uproot' or 'fall out'
	mə́rɛ́^{n}	mə́rà^n	'throw'
	tə̀rɔ̀^{n}	tə̀rà^n ~ tə̀rɔ̀^{n}	'count, calculate'
	yúrō ~ yóȳ	yúrà ~ yīrà	'call'

In (96a-b), however, in addition to the same sporadic shift to imperfective Cvy, *r* in the imperfective is replaced by *l* in the perfective. In most such stems, expected #Cvla syncopates to Cla (96a), but in one example Cvla does surface without Syncope (96b).

(96)	imperfective	perfective	gloss
a.	bēy	blà	'get tired; ripen, be cooked'
	bə́rú	blâ	'be wrong'
	fə̀rè	flà	'cover; shut (door)'
	gúrú ~ gə́rú	glâ	'go out; depart, leave (a place)'
	kə́rù	klâ	'touch'
	kɔ́rɔ́^{n}	klâ^n	'chew' (synonym kā\\kà)
	méy^n	mlâ^n	'swell up; inflate'
	pòy^n	plà^n	'succeed (in doing)'
	fōy^n	flà^n	'become smooth; become powdery'
b.	sírí	sílà	'be/do long time'

8.5.3 Perfective with final ɔ

A small number of verbs have perfectives with final *ɔ* shifted from imperfective *o* (97a) or *u* (97b). 'Tie' and 'find' have homophonous perfectives.

(97)   imperfective   perfective   gloss

     a.   *bó*   *bwɔ̂*   'tie; braid'

     b.   *bú*   *bwɔ̂*   'find, obtain'
        súgú   *sɔ́ɣɔ́*   'catch; hold'
        súgú dɔ̄ɣɔ̄   *sɔ́ɣɔ́ dɔ̄ɣɔ̄*   'help (to do sth)' (compound verb)

8.6   Verbs with a perfective suffix

This section presents verbs that have a syllabic perfective suffix. Three basic types can be distinguished. One has *-là* (variants *-rà* and in nasal environments *-nà*), another has *-bà*, and a third has *-mà*. The fact that these suffixes are all of the shape -Cà makes one wonder whether the verbs with apparent mutation of the stem-final vowel to *a* (§8.5.2 above) might reflect a *-Cà suffix whose consonant has been lost.

8.6.1   Perfective *-là* ~ *-rà* or *-nà*

8.6.1.1   *-là* ~ *-rà* after unnasalized stem

The most common variant in this group is *-là*. For some verbs it is heard as *-rà*, and our two principal informants sometimes disagreed on which liquid was correct. The tone and segmental form are carried over from the imperfective.

    (98a) shows *-là* or *-rà* after monosyllabic stems. (98b) has bisyllabics. Perfective *bí-là* for 'ask' in (98b) is probably contracted from *bírí-là.

(98)   imperfective   perfective   gloss

    a. monosyllabic
      byé   *byé-rà* ~ *byé-là*   'cultivate (a field); whistle'
      fɔ́   *fɔ́-là*   'winnow in wind'
      fwɔ́   *fwɔ́-là*   'blow'
      jò   *jò-là*   'have fun'
      jō   *jō-là*   'sell; add'
      jú   *jú-là*   'dance (v)'
      kpá   *kpá-là*   'weep, cry'
      lā   *lā-rà*   'believe'
      tú   *tú-là*   'dig'
      wó   *wó-là*   'do the follow-up harvest'

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wō	*wō-là*	'sing; narrate (a tale)'
yē	*yì-rà*	'enter; put in; wear (garment)'
yɛ́	*yɛ́-rà ~ yɛ́-là*	'walk'
yī	*yī-rà ~ yī-là*	'jump; fly away'

b. bisyllabic

bə́rí	*bí-là*	'ask'
dāŋā	*dāŋā-là*	'curse (sb)'
ʃìrì	*ʃìrì-là*	'disperse (intr)'

Some bi- or trisyllabic verbs of this class have a rising tone pattern (99a-b) that is not found with verb stems of the invariant, tone-lowering, or final-vowel mutating classes described above. These may all be borrowings, especially (99a-b,e), and compounds, especially (99c-d). In compounds, both elements may show separate perfective ablaut.

(99)	imperfective	perfective	gloss

a. LH-tone

dònɔ́	*dònɔ́-rà ~ dònɔ́-là*	'injure, wound'
jà^{n}fá	*jà^{n}fá-là*	'betray (sb), renege on (sb)'
màkírí	*màkírí-là*	'(griot) praise (a noble)'
yàfá	*yàfá-là*	'forgive, pardon'
yèflá	*yèflá-là*	'fill, load'

b. MH-tone

wāwá	*wāwá-là*	'yawn' (Jula *wáɣá*)
yātóy	*yātóy-là*	'pass by'

c. apparent compounds with *-sā*

kāɣā^n-sā	*kàɣà^n-sā(-là)*	'reply' (compound verb)
nārā^n-sā	*nà(rà)^n-sā(-là)*	'escape' (frozen compound)

d. compounds

gbā-dɔ́	*gbà-dɔ́-rà*	'divide'
gbày-dūrù	*gbà-rà-dùrù*	'make fall'
jāɣā-bə́rú	*jàɣà-bə́rú-là*	'get lost'

e. iterative stem

lògò-lógó	*lògò-lógó-rà*	'tickle' (Jula *lègè-légé*)

8.6.1.2   Perfective *-nà* after nasalized stem

A number of mono- and bisyllabic verbs have perfective suffix *-nà*. In most cases the unsuffixed imperfective is nasalized (Nv or Cvⁿ). This indicates that *-nà* is the form taken by *-là* after a nasal syllable. Monosyllabics are in (100a), bisyllabics in (100b).

(100)   imperfective perfective   gloss

        a. monosyllabic
            báⁿ   *bá-nà*   'save (sb)'
            cíⁿ   *cí-nà*   'pull, drag'
            cíⁿ   *cí-nà ~ cí-ràⁿ*   'become small(er)'
            dàⁿ   *dà-nà*   'arrive'
            gbāⁿ   *gbā-nà*   'sew'
            kàⁿ   *kà-nà*   'reap (with sickle)'
            kpàⁿ   *kpà-nà*   'scrape, scratch'
            mà   *mà-nà*   'laugh (v)'
            nà   *nà-nà*   'stone-grind; crush'
            ná   *ná-nà*   'tend (livestock)'
            ɲá   *ɲá-nà*   'squash (e.g. insect)'
            pàⁿ   *pà-nà*   'clear (a field)'
            sāⁿ ~ sɔ̄ⁿ   *sà-nà*   'sort (grains)'

        b. bisyllabic
            fĩⁿtɔ̄ⁿ   *fĩⁿtɔ̀-nà*   'shut up, be quiet'
            kāɣāⁿ   *kāɣā-nà*   'encounter'
            kàràⁿ   *kàrá-nà*   'read' (also *kɛ̀ràⁿ*, *kàrɛ́-nà*)
            mɔ́ɣɔ́ⁿ   *mɔ́ɣɔ́-nà*   'suck'
            ɲānī   *ɲānī-nà*   'pester, annoy'
            ŋùnù   *ŋùnù-nà*   'murmur'
        loanword with unusual tone alternation
            kìrìⁿ   *kìrí-nà*   'lose consciousness' (< Jula)

8.6.2   Verbs with apparently truncated imperfectives

In a small number of verbs, it appears that the imperfective lost a final syllable due to sound shifts (deletion of medial nasal or *l), resulting in the synchronic appearance that the perfective has a suffix.

8.6.2.1 *ʃyáⁿ\\ʃyénè* 'lie down'

How this verb fits into verb classes is unclear. To take the *nè* as a variant of suffix *-nà* is one possibility, but the vocalism of both syllables would then be irregular. Etymologically there may have been a stem-medial *n* in the imperfective that has dropped (**ʃyáná*), in which case this would be a vowel-mutating verb with perfective CɛCɛ, see (91b) in §8.5.1 above.

8.6.2.2 *sɔ̀ⁿ\\sùŋè ~ sùŋà* 'work'

This verb also appears to have lost a medial nasal or possibly **ɣ* in the imperfective. The shift in vowel quality (*ɔ̀* versus *u*) resembles those between *a* or *ɔ* and *i* in some Cvg/ŋv stems with medial velar, such as *dɔ̀ɣɔ̀\\dìgè* 'follow' and other examples in (93a) in §8.5.1 above. One might therefore reconstruct the imperfective as bisyllabic **sɔ̀ɣɔ̀ⁿ* or **sɔ̀ŋɔ̀*.

This verb is regularly collocated with cognate nominal *sɔ̀èéⁿ* 'work (n)'.

8.6.2.3 *tú\\túlè* 'spit'

In this verb, it would seem that a medial *l* has been dropped in the imperfective (**túlv́*). Depending on what final vowel we reconstruct (e.g. **túlá* or **túlɛ́*) this would be a tone-only alternation (§8.4). A complicating factor is that *tú* (more than *túlè*) is onomatopoeically "correct" for this sense.

8.6.2.4 *nɔ̀rɔ̀ⁿ ~ nɔ̀yⁿ\\nɔ̀nɔ̀ ~ nɔ̀rɔ̀ⁿ* 'expel'

For 'expel, drive out, chase away', *nɔ̀rɔ̀ⁿ* and *nɔ̀y* are attested as imperfective and *nɔ̀nɔ̀* or *nɔ̀rɔ̀ⁿ* as perfective. Given that some bisyllabics with nasals have perfective suffix *-nà ~ -ràⁿ* (§8.6.1.2), there is a possibility that the perfective of 'expel' was originally suffixed **nɔ̀rɔ̀-nà*. However, this could alternatively just be another case of alternation of *n* and *r*.

8.6.3 Perfective *-bà* or *-mà*

These perfective suffixes are usually related to each other as nonnasal (oral) versus nasal, like *-là* versus *-nà* as described in §8.6.1 above.

8.6.3.1   Perfective *-bà* after unnasalized stem

None of the stems that take *-bà* in the perfective are nasalized, so there is clear basis for the contrast between it and *-mà* (see the following section). Verbs with *-bà* include a few monosyllabics with back rounded vowel (101a), one of which ('end') shifts to *a* before the suffix. There are several bisyllabics, several of which end in a high vowel (101b). HM flattens to HH before the suffix (§2.7.2.3); see 'fight' and 'gin' in (101b).

(101)   imperfective   perfective   gloss

   a. monosyllabic
    stable vowel and tone
     só   *só-bà*   'pound (sth) in mortar'
     yɔ́   *yɔ́-bà*   'become black; (night) fall'
     tɔ̄   *tɔ̄-bà*   'hide (oneself)'
    stable vowel but tone is lowered
     yɔ̄   *yɔ̀-bà*   'forge (blade)'
     yɔ̄ dūnū (~ dūrūⁿ)   *yɔ̀-bà dùnù (~ dùrùⁿ)*   'knock down'
    shifting vowel
     kɔ̄ ~ kwɔ̄   *kā-bà*   'end, be used up'

   b. bisyllabic
    HM becoming HH-L
     dáɣā   *dáɣá-bà*   'fight, quarrel'
     tə́rī ~ tírī   *tə́rí-bà ~ tírí-bà*   'gin (cotton)'
    other verbs (tones stable)
     fə́rɛ́   *fə́rɛ́-bà*   'steal' or 'knead (dough)'
     ʃírí   *ʃírí-bà*   'sneeze'
     tə́rí   *tə́rí-bà*   'rub on (sth)'
     tə́rú ~ tú   *túrú-bà*   'hunt fish, go fishing'
     yírí   *yírí-bà*   'shape into a ball'
    irregular (-bà spreading into imperfective)
     tə̀rì-bà ~ tə̀rì   *tə̀rì-bà*   '(sb) slip'
    *Cvy imperfective (probably < *Cvrv)*
     pēy   *pērē-bà, pēy-bà*   'lean shoulder against (wall)'
     wɔ̄y   *wɔ̄y-bà*   'cough (v)'

8.6.3.2   Perfective *-mà* after nasalized stem

In most cases, the suffix *-mà* occurs with verbs whose imperfective is nasalized, whether monosyllabic (102a) or bisyllabic (102b). However, there are also two verbs whose imperfectives end in oral *i* (102c). This raises the suspicion that this vowel was formerly nasalized in those verbs. In the case of 'beat (tomtom)', this is confirmed by Tiefo-D (*bɛ̄ⁿ\\bliⁿ\\blɛⁿ*). In the case of 'return' it is not (Tiefo-D *klá\\klá\\klɛ*).

(102)   imperfective   perfective   gloss

   a. monosyllabic
      nɔ́   *nɔ́-mà*   'become thin'
      sáⁿ   *sá-mà*   'thresh; beat'

   b. bisyllabic
   HM becoming HH-L
      gérēⁿ ~ gɔ́rēⁿ ~ géȳⁿ   *géré-mà*   'stir w. stick' or 'spin (thread)'
      máɣāⁿ   *máɣá-mà*   'roll up'
   other verbs (tones stable)
      būgūⁿ   *būgū-mà*   'look for'
      fɔ́ríⁿ ~ fíríⁿ ~ fíní   *fírí-mà ~ fíní-mà*   'think about'
      kéyⁿ   *kéré-mà ~ kéé-mà*   'ascend, go up'
      ɲúgúⁿ ~ ɲúŋú   *ɲúgú-mà ~ ɲúú-mà*   'press (oil, juice); choke'
      ɲúŋúⁿ   *ɲúŋú-mà*   'squeeze; draw (milk)'
      ŋɔ́rɔ́ⁿ   *ŋɔ́rɔ́-mà*   'fold, bend, curve, twist'
      sìgìⁿ ~ sìŋì   *sìgì-mà*   'run'
      tàɣàⁿ ~ tìŋè ~ tìgèⁿ   *tìgì-mà*   '(light) shine; flash'

   c. *bɔ́rí*   *bɔ́rí-mà*   'roll along; beat (tomtom)'
      kɔ́rī   *kɔ́rí-mà*   'go back; spin, turn'

One observation is that the medial *g/ŋ* alternation in imperfectives seems to be avoided in the perfective, which is attested only with *g*, see 'run' and 'shine', perhaps also 'press', in (102b). In other words, the suffixal *m* absorbs the nasalization of the stem.

8.7   Suppletion (*jà\\dē* 'happen')

The intransitive verb 'happen, occur, take place' is at least synchronically suppletive with imperfective *jà* and perfective *dē* (§10.2.3). The case for an original nonsuppletive verb

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whose two stems have diverged by sound changes is based on the phonetic proximity of *j* and *d*, and the vocalism which follows the *a/e* pattern found with many verbs (§8.5.1). On the other hand, L-toned imperfectives are not normally paired with M-toned perfectives, and a *j/d* split would be more plausible with *j* before a front vowel and *d* before a back or low vowel, rather than the opposite.

This 'become' verb may be related to transitive *dē\\dìyà* 'do'.

Another *jà*, also suppletive but this time perfective, is one of the 'say' verbs (§10.1.6).

Another *dē*, possibly related historically, occurs in a possessive predicate construction; see (151) in §10.2.5.2.

9 Phrase-level verbal inflection

The previous chapter showed that each nonstative verb has two forms at word level, imperfective (relatively unmarked) and perfective (relatively marked). At phrase-level, these word forms combine with preceding grammatical particles to express the following categories:

(103) a. indicative

        perfective   perfective negative

        imperfective   imperfective negative

        future   future negative

   b. modal

        imperative   prohibitive (imperative negative)

        hortative   hortative negative

The indicative inflections also have pronominal-subject conjugations, expressed by proclitics (optionally replaced by independent pronouns).

A schematic summary of the distribution of imperfective (Ipfv) and perfective (**Pfv**) stems within the phrase-level inflections and the productive deverbal derivations is Table 1. Given the use of the "perfective" form of the verb in the future, the labels "perfective" and "imperfective" for the verb-stem alternation are oversimplified.

	positive	negative
perfective	**Pfv**	Ipfv
imperfective	Ipfv	Ipfv
progressive	Ipfv	Ipfv
future	**Pfv**	**Pfv**
imperative	Ipfv	Ipfv
hortative	Ipfv	Ipfv
infinitive, §3.1.4	Ipfv	
agentive, §3.1.3	**Pfv**	

Table 1: Use of perfective & imperfective verb stems

The subject pronominals used in positive and negative inflections are summarized in (104) below, excluding cases where 1Sg *ŋ́* and 2Sg *ŋ̀* are deleted by (morpho-)phonological rule before the initial nasal of a negative marker. 2Pl shows a minor tonal change from positive to negative. 3Sg and 3Pl show suppletion, and 3Sg *kà* in negatives replaces three distinct class-marked positive pronominals. The "negative" forms are also optionally used in the future positive.

(104)   pronominal subject proclitic in perfective positive

positive	all	negative	category
	ŋ́		1Sg
	é		1Pl
	ŋ̀		2Sg
nā		*nà*	2Pl
ŋ̄		*kà*	3SgHum, 3SgO
ā		*kà*	3SgA
ē		*kà*	3SgE
ō		*wòɣɔ́ ~ wòɣɔ̀*	3Pl

3Pl pre-negative *wòɣɔ́ ~ wòɣɔ̀* are not free variants, rather there is some ambiguity as to which one is underlyingly correct. *wòɣɔ́* is the 3Pl perfective negative portmanteau; one can argue whether the final H-tone is due to contraction from e.g. /wòɣɔ̀ kǎ/ or whether it is an intrinsic part of the 3Pl morpheme. In 3Pl negative *wòɣɔ̀ má^n* and related forms, either *wòɣɔ́* or *wòɣɔ̀* could be the underlying form because of the LH#H-to-LL#H tone sandhi process.

All simple negative clauses end in a clause-final negative enclitic *=ʔ*. It is therefore hosted by the verb if there is no postverbal constituent. If there is a postverbal object or PP the enclitic is hosted by the final word.

9.1   Perfective

The perfective expresses events that are conceptualized as completed (bounded), generally in the past.

9.1.1   Perfective positive

The perfective positive is expressed by the perfective stem of the verb, with no inflectional particles. The stem is preceded by a nonpronominal subject NP or, in its absence, by a pronominal-subject proclitic (105), with no intervening inflectional morpheme.

(105)   Perfective positive paradigm

ń́   1Sg
é   1Pl
ǹ   2Sg
nā   2Pl
ŋ̄   3SgHum, 3SgO
ā   3SgA
ē   3SgE
ō   3Pl

A few examples are in (106). Observe the three-way tonal distinction between 1Sg *ń́* (reduced from *ɲí*), 2Sg *ǹ* (reduced from independent *mì*), and 3Sg *ŋ̄*.

(106)   'got up'

subject   perfective positive

1Sg   *ń́ yígà*
2Sg   *ǹ yígà*
3Sg   *ŋ̄ yígà*
NP (Zaki)   *zàkí yígà*

9.1.2   Perfective negative

After a nonpronominal subject, the preverbal perfective negative particle is *kàá* in careful pronunciation, but it is usually shortened to *kǎ* (phonetically sometimes *kā* without a clearly contoured pitch). The same form, beginning with *k*, is heard when the subject is a 3Sg pronoun (in this paradigm, zero). After a pronominal-subject proclitic that ends in a vowel or that consists of a nasal, the initial *k* is pronounced *g* or is elided entirely.

(107)   perfective negative

ń́ (g)ǎ ~ ń́ (g)à(á)   1Sg
é (g)ǎ ~ é (g)à(á)   1Pl
ǹ (g)ǎ ~ ǹ (g)àá   2Sg
nà gǎ ~ nà gàá   2Pl
kǎ ~ kàá   3Sg (all classes)
wɔ̀ɣɔ́   3Pl

Before an H-tone, the LH-toned negative particle (or a reduction thereof) drops to L-toned. Thus *kǎ bà-ʔ* 'he/she didn't come' with LH-toned particle, but *kà yígí-ʔ* 'he/she did not get up'. This is also the case with the 3Pl portmanteau: *wɔ̀ɣɔ́ bà-ʔ* 'they didn't come', but *wɔ̀ɣɔ̀ yígí-ʔ* 'they did not get up'. The L-toned variant *wɔ̀ɣɔ̀* is homophonous with progressive (positive) inflectional morpheme *wɔ̀ɣɔ̀* (§9.2.1 below). Aside from the final glottal stop in negative, the two can be distinguished since the 3Pl perfective negative *wɔ̀ɣɔ́ ~ wɔ̀ɣɔ̀* includes a pronominal subject and is therefore not preceded by a subject NP or pronoun, while imperfective *wɔ̀ɣɔ̀* is always preceded by a subject (such as 3Sg *ŋ̄* or 3Pl *ō*). Compare the three combinations in (108) that include *wɔ̀ɣɔ̀*.

(108) Selected pronominal-subject forms of 'get up'

subject	perfective negative	imperfective positive
3SgHum	*kà yígí-ʔ*	*ŋ̄ wɔ̀ɣɔ̀ yígí*
3Pl	*wɔ̀ɣɔ̀ yígí-ʔ*	*ō wɔ̀ɣɔ̀ yígí*
NP (Zaki)	*zàkí kà yígí-ʔ*	*zàkí wɔ̀ɣɔ̀ yígí*

9.2 Imperfective

There is a simple imperfective without a special inflectional particle. It is distinct from the future and from the progressive, both of which do involve inflectional morphemes.

9.2.1 Simple imperfective

The imperfective form of the verb stem may directly follow the subject to constitute an imperfective used as a general present (habitual or continuous).

(109) a. *ŋ́*   *sɔ̀ⁿ*   *[= ỳ   sɔ̰̀èɛ́ⁿ]*   *sàmìyàʕàⁿ*
       1Sg   work(v)   [Pref   work(n)]   Bobo
       'I work in Bobo Dioulasso.'

   b. *zàkí*   *ʃyáⁿ*   *fáⁿ*
       Z   lie.down.Ipfv   here
       'Zaki sleeps here (regularly).'

The progressive rather than the simple imperfective is used in some contexts where the English simple present (*he runs*) would be used.

9.2.2 Imperfective negative (*máⁿ*)

The imperfective negative morpheme is *máⁿ*. Its pronominal paradigm is (110). The initial 1Sg *ŋ́* and 2Sg *ŋ̀* are usually not heard. The distinction is made instead by the tones of the negative morpheme; we can think of the pronominals as having been reduced to floating H and L tones that dock on the negative morpheme. As in other negative paradigms, special forms are used for third person pronouns: 3Sg *kà* (for all noun classes) and 3Pl *wɔ̀ɣɔ̀*.

(110) Imperfective negative

máⁿ (< /ŋ́ máⁿ/)	1Sg
é máⁿ	1Pl
yáɣá máⁿ	1PlIncl
mǎⁿ (< /ŋ̀ máⁿ/)	2Sg
nà máⁿ	2Pl
kà máⁿ	3Sg (all classes)
wɔ̀ɣɔ̀ máⁿ	3Pl
NP *máⁿ*	NP

The verb takes the morphological imperfective form.

(111) a. *kà*   *máⁿ*   *ʃyáⁿ*
           3Sg   IpfvNeg   lie.down.Ipfv
           'He/She doesn't sleep (here)'

     b. *máⁿ*   *bárā = ʔ*
          1Sg.IpfvNeg   sweep.Ipfv=Neg
          'I don't sweep.'

     c. *wɔ̀ɣɔ̀*   *máⁿ*   *bárā = ʔ*
          3Pl   IpfvNeg   sweep.Ipfv=Neg
          'They don't sweep.'

máⁿ is (marginally) distinguishable from progressive negative *máɣàⁿ* ~ *mâⁿ* (§9.3.2). However, *máɣàⁿ* itself is likely a fusion of *máⁿ* with another morpheme; see (115) below.

9.3 Progressive

The progressive is somewhat more general than the English progressive, but is constrained by the imperfective (normal in habitual present contexts) and the future.

9.3.1 Progressive positive

The progressive positive is expressed by the inflectional morpheme *wɔ̀ɣɔ̀* preceding the verb, which takes its imperfective form. The subject (either a nonpronominal NP or a pronominal-subject proclitic) precedes *wɔ̀ɣɔ̀*. Examples are (112a-b).

(112)   a.   *zàkí*   *wɔ̀ɣɔ̀*   *sē / yígí*
             Z   Prog   go.Ipfv / get.up.Ipfv
             'Zaki is going / is getting up.'

       b.   *ŋ́*   *wɔ̀ɣɔ̀*   *bárā*
             1Sg   Prog   sweep.Ipfv
             'I am sweeping.'

The pronominal-subject paradigm is (113). The class-marked *ē wɔ̀ɣɔ̀* does not seem to be used frequently; E-class nouns may take the A-class form. There is an optional suppletive 1Sg subject form *ɲáɣàⁿ*, cf. independent pronoun form *ɲí*.

(113)   Progressive positive

        ŋ́ wɔ̀ɣɔ̀ ~ ɲáɣàⁿ   1Sg
        é wɔ̀ɣɔ̀   1Pl
        ŋ̀ wɔ̀ɣɔ̀   2Sg
        nā wɔ̀ɣɔ̀   2Pl
        ŋ̄ wɔ̀ɣɔ̀   3SgHum, 3SgO
        ā wɔ̀ɣɔ̀   3SgA
        ē wɔ̀ɣɔ̀   3SgE
        ō wɔ̀ɣɔ̀   3Pl

The examples below distinguish progressive *wɔ̀ɣɔ̀* (114a-b) from 3Pl perfective negative *wɔ̀ɣɔ́*, which becomes *wɔ̀ɣɔ̀* by tone sandhi in (114c). As mentioned earlier, one can parse correctly by observing the presence/absence of clause-final negative enclitic *=ʔ*, and by noting the absence of a distinct preverbal subject in (114c).

(114) a. *ŋ̄*   *wɔ̀ɣɔ̀*   *yígí*
           3Sg   Prog   get.up.Ipfv
           'He/She gets up.'

      b. *ō*   *wɔ̀ɣɔ̀*   *yígí*
           3Pl   Prog   get.up.Ipfv
           'They get up.'

      c. *wɔ̀ɣɔ̀*   *yígí-ʔ*
           3Pl.PfvNeg   get.up.Ipfv=Neg
           'They didn't get up.'

9.3.2 Progressive negative

The full form of the progressive negative has *máⁿ wɔ̀ɣɔ̀*, consisting of imperfective negative *máⁿ* and progressive *wɔ̀ɣɔ̀*. There are various assimilated and contracted variants: *mɔ́ⁿ wɔ̀ɣɔ̀*, *máɣàⁿ*, and *mɔ́ɣɔ̀ⁿ*.

    The pronominal proclitics that combine with *máⁿ wɔ̀ɣɔ̀* have the same forms as in the (simple) imperfective negative, including the special negative variants of the 3Sg and 3Pl pronominals. The 2Pl proclitic is L-toned. The 2Sg subject form is *màɣáⁿ* with the L-tone of 2Sg /m̀/ expressed on the first syllable of /máɣàⁿ/, pushing the latter's H-tone to its final syllable.

    The pronominal paradigm is (115), showing full and contracted variants.

(115) Progressive negative

full form	contracted	category
(*ŋ́*) *máⁿ wɔ̀ɣɔ̀*	(*ŋ́*) *máɣàⁿ*	1Sg
é máⁿ wɔ̀ɣɔ̀	*é máɣàⁿ*	1PlExcl
yáɣá máⁿ wɔ̀ɣɔ̀	*yáɣá máɣàⁿ*	1PlIncl
màɣáⁿ	—	2Sg
nà máⁿ wɔ̀ɣɔ̀	*nà máɣàⁿ*	2Pl
kà máⁿ wɔ̀ɣɔ̀	*kà máɣàⁿ* ~ *kà mɔ́ɣɔ̀ⁿ*	3Sg (all classes)
wɔ̀ɣɔ̀ máⁿ wɔ̀ɣɔ̀	*wɔ̀ɣɔ̀ máɣàⁿ*	3Pl
NP *máⁿ wɔ̀ɣɔ̀*	NP *máɣàⁿ*	NP

The verb takes its morphological imperfective form. A few examples are in (116). After 1Sg independent pronoun *ɲí* (not the proclitic), the negative morpheme is L-toned *màɣàⁿ* (116b).

(116) a. *máⁿ*   *wɔ̀ɣɔ̀*   *bárā = ʔ*
           1Sg.IpfvNeg   Prog   sweep.Ipfv=Neg
           'I am not sweeping.'

       b. *ɲí*   *màɣàⁿ*   *bárā = ʔ*
           1Sg   ProgNeg   sweep.Ipfv=Neg
           [=(a)]

The contracted forms in paradigm (115) above, but with the perfective rather than imperfective stem of the verb, function as future negative (§9.4.2, below).

9.3.3 Past progressive

A past progressive is expressed by adding past particle *tì* between the subject and the progressive morpheme *wɔ̀ɣɔ̀* (117a). This shifts the temporal point with respect to which the eventuality is compared to some point in the past. *tì wɔ̀ɣɔ̀* is negated as *tì máⁿ wɔ̀ɣɔ̀*, which is often contracted phonetically to [tìmɔ́ɣɔ̀ⁿ].

(117) a. *zàkí*   *tì*   *wɔ̀ɣɔ̀*   *bɔ́rā*
           Z   Past   Prog   sweep.Ipfv
           'Zaki was sweeping.'

       b. *zàkí*   *tì*   *máⁿ*   *wɔ̀ɣɔ̀*   *bɔ́rā = ʔ*
           Z   Past   IpfvNeg   Prog   sweep.Ipfv=Neg
           'Zaki was not sweeping.'

For past progressives in backgrounded temporal adverbial clauses, see §13.4.1.

9.4 Future

9.4.1 Future positive

The future positive morpheme is *bī* after a nonpronominal subject NP. The pronominal subject paradigm is (118) below, where orthographic *ŋ bi* (omitting the tones) is pronounced [mbi]. The verb takes the perfective (not imperfective!) form. The 3Pl proclitic is *wɔ̀ɣɔ̀* rather than *ò* or *ō*.

   Third person and 2Pl pronominal proclitics have L- rather than M-tone in this paradigm, but after these L-toned proclitics the tone of the inflectional morpheme is raised from *bī* to *bí*. In spite of their tonal neutralization, 2Sg *ǹ* and 3Sg *ǹ* are usually (but not always)

distinguished by the addition of an additional particle *a*, found only in the future positive, before the 2Sg proclitic. The particle also frequently appears before 1Sg proclitic *ŋ́*. In both cases, the particle *a* adopts the tone of the following proclitic. Any remaining ambiguities can be resolved by using an independent pronoun instead of a proclitic. In the 3Sg, *kà* (also used in negative paradigms) is more common than *ŋ̀*, and for 3SgA and 3SgE the most common form is *kàʕà* with the A-class marker following *kà*.

(118)   Future

(á) ŋ́ bī	1Sg
é bī	1Pl
yáʕá bī	1Pl inclusive
(à) ŋ̀ bí	2Sg
nà bí	2Pl
ŋ̀ bí ~ kà bí	3SgHum, 3SgO
à bí ~ kàʕà bí	3SgA
è bí ~ kàʕà bí	3SgE (*è bí* uncommon)
wɔ̀ɣɔ̀ bí	3Pl
NP *bī*	NP

Some examples are in (119).

(119)   a.   *zàkí   bī   sà*
             Z   Fut   go.Pfv
             'Zaki will go.'

        b.   *(á)   ŋ́   bī   yígà*
             (Fut)   1Sg   Fut   get.up.Pfv
             'I will get up.'

        c.   *(à)   ŋ̀   bí   yígà*
             (Fut)   2Sg   Fut   get.up.Pfv
             'You-Sg will get up.'

        d.   *ŋ̀ / kà   bí   yígà*
             3Sg   Fut   get.up.Pfv
             'He/She will get up.'

9.4.2 Future negative

The future negative has the same inflectional morpheme *máɣàⁿ* as the progressive negative, see (115) above. Recall that *máɣàⁿ* is often contracted to *mâⁿ* except in careful speech.

(120)   Future negative

máɣàⁿ	1Sg
é máɣàⁿ	1PlExcl
yáɣá máɣàⁿ	1PlIncl
màɣáⁿ	2Sg
nà máɣàⁿ	2Pl
kà máɣàⁿ	3Sg (human or nonhuman)
wɔ̀ɣɔ̀ máɣàⁿ	3Pl

The future negative is distinguished from the progressive negative by the form of the verb stem, which is "perfective" in the future negative (as in the future positive) but "imperfective" in the progressive negative (as in the progressive positive).

(121)   Selected pronominal-subject forms of 'get up'

subject	future negative	progressive negative
1Sg	*máɣàⁿ yígà-ʔ*	*máɣàⁿ yígí-ʔ*
2Sg	*màɣáⁿ yígà-ʔ*	*màɣáⁿ yígí-ʔ*
3Pl	*wɔ̀ɣɔ̀ máɣàⁿ yígà-ʔ*	*wɔ̀ɣɔ̀ máɣàⁿ yígí-ʔ*
NP (Zaki)	*zàkí máɣàⁿ yígà-ʔ*	*zàkí máɣàⁿ yígí-ʔ*

Examples of the future negative are in (122).

(122)   a. *súgúnā   zàkí   máɣàⁿ   sà-ʔ*
           tomorrow   Z   FutNeg   go.Pfv=Neg
           'Tomorrow Zaki will not go.'

        b. *súgúnā   máɣàⁿ   bɛ́rɛ̀=ʔ*
           tomorrow   1Sg.FutNeg   sweep.Pfv=Neg
           'Tomorrow I will not sweep.'

c. *màɣáⁿ*   *sà-ʔ / bà-ʔ*

    2Sg.IpfvNeg   go.Pfv/come.Pfv

    'You will not go / come.'

9.5 Imperative

9.5.1 Imperative positive

The imperative positive for singular addressee consists of the imperfective stem, with no preceding pronominal proclitic or inflectional morpheme. Since the imperfective stem does not otherwise occur in this bare, clause-initial form, it can only be interpreted as imperative.

    The imperative positive for plural addressee adds 2Pl *nà* in L-toned form before the imperfective stem.

(123)   gloss   Imprt Sg   Imprt Pl

       'go'   *sē*   *nà sē*

       'get up'   *yígí*   *nà yígí*

       'fall'   *só*   *nà só*

Contrast mid-toned 2Pl *nā* in indicatives. The tonal distinction *nà* versus *nā* is important with verbs like *bà* 'come' (the most common verb in imperatives) that have identical perfective and imperfective stems (124a-b).

(124)   a.   *nā*   *bà*

            2Pl   come.Pfv

            'You-Pl came.'

       b.   *nà*   *bà*

            2Pl   come.Ipfv

            'Come!-2Pl'

For 2Sg, the difference for verbs like 'come' is presence/absence of 2Sg subject proclitic *ŋ̀*, which is absent from imperatives (125a-b).

(125)   a.   *ŋ̀*   *bà*

            2Sg   come.Pfv

            'You-Sg came.'

b. *bà*

come.Ipfv

'Come!-2Sg'

For most other verbs, the perfective and imperfective stems are audibly distinct, so imperatives are immediately recognizable.

9.5.2 Imperative negative (prohibitive)

The prohibitive has its own inflectional morpheme *báá*, followed by the imperfective stem. There is no overt 2Sg pronominal when the addressee is singular. Plural addressee is marked by preposing L-toned *nà*, as in the positive imperative. The usual clause-final negative enclitic *=ʔ* is present; if there is no postverbal constituent it is hosted by the verb.

(126)   gloss   Proh Sg   Proh Pl

'go'	*báá sē-ʔ*	*nà báá sē-ʔ*
'get up'	*báá yígí-ʔ*	*nà báá yígí-ʔ*
'fall'	*báá só-ʔ*	*nà báá só-ʔ*

9.6   Hortative

9.6.1   Positive hortative (*é bì*)

The hortative ('let's VP!') requires a 1Pl subject. It is expressed by the same particle *bī ~ bì* found in the future positive. However in the hortative the verb stem is imperfective, versus perfective in the future positive.

(127)   a.   *é*   *bì*   *sē*

1Pl   Fut   go.Ipfv

'Let's go!'

b.   *é*   *bī*   *sà*

1Pl   Fut   go.Pfv

'We will go.'

In the hortative, the future particle may be elided, hence *é sē* 'let's go!' as an alternative to (127a).

9.6.2 Negative hortative (*è bàá*)

In the negative, the 1Pl proclitic is L-toned, and future *bī* is replaced by a negative *bàá*, which may be related to prohibitive *báá*.

(128)   *è*   *bàá*   *sē = ?*
      1Pl   HortNeg   go.Ipfv=Neg
      'Let's not go!'

10 Simple clauses

10.1 Intransitive, transitive, ditransitive

10.1.1 Order of constituents

The basic order is SVO, whether the subject and object are nonpronominal NPs (129a) or pronominals (129b). In the latter case, pronominal objects encliticize to the verb and contract with its final vowel. One could argue that pronominal subjects are proclitic, but they occur in the same linear position as full NPs and they do not interact phonologically with verbs.

(129) a. *zàkí   də̀rà   [báŋ   jɔ̄ⁿ]*
            Z   buy.Pfv   [sheep   two]
            'Zaki bought two sheep.'

       b. *ō   kpà = ɲ́ⁿ*
            3Pl   hit.Pfv=1Sg
            'They hit-Past me.'

10.1.2 Intransitive verbs

Intransitive verbs may be dynamic (active) or stative.

10.1.2.1 Dynamic (active) intransitives

Dynamic (or active) verbs denote events that take place in a time interval. These verbs are compatible with the full set of TAMN constructions, including perfective (130a) and nonperfective categories such as progressive (130b).

(130) a. *zàkí   yī-rà*
            Z   jump.Pfv
            'Zaki jumped.'

b. *ŋ́*　　*wɔ̀ɣɔ̀*　　*yī*
   1Sg　　Prog　　jump.Ipfv
   'I am jumping.'

Some common meteorological and time-of-day combinations are in (131). In most cases the subject NP expresses the specific sense, while the verb is semantically general and also occurs in other contexts. '(Day) break' is exceptional in that the verb is not a semantically general one. Its forms are imperfective *ʃírá* and perfective *ʃīrè*. The only phonologically similar verbs are *ʃìrà* (perfective *ʃìrà*) 'become clean' and *ʃìrà* (perfective *ʃìrè*) 'shave', but since the tones don't match even an etymological relationship is questionable.

(131)　a.　*[(ò)*　　*bló]*　　*bà*
       [(Pref)　rain(n)]　come.Pfv
       'It rained.'

     b.　*[(à)*　　*yèyàʕà]*　　*yígà / súgà*
       [(Pref)　sun]　　get.up.Pfv / fall.Pfv
       'The sun rose/set.'

     c.　*bə́rīī*　　*yɔ́-bà*
       night　　become.black.Pfv
       'Night fell.' (i.e. it got dark out)

     d.　*[è*　　*tɛ̀ý^n]*　　*ʃĩrè*
       [Pref　daybreak]　day.break.Pfv
       'Day broke.' (i.e. it became light out just before dawn)

10.1.2.2 Stative intransitives

Some states are expressed by adjectival predicates, on which see §10.1.2.3 below.

    Verbs of stance have distinct stative and dynamic forms. The statives combine with *gō* 'be (somewhere)' and its past form *jè* 'was (somewhere)', whose main function is described in §10.2.1. Statives do not distinguish aspect (perfective vs. imperfective). Dynamic 'stand up' in perfective form in (132a) is followed by various tense and polarity forms of its stative counterpart 'be standing' (French *être debout*).

(132)　a.　*ō*　　*ɲə́rè^n*
       3Pl　　stand.Pfv
       'They stood up.' or 'They stopped (=came to a halt).'

b.　ō　　　ɲínáʕáⁿ　　　gō
　　3Pl　　stand.Stat　　be
　　'They are standing.'

c.　ō　　　ɲínáʕáⁿ　　　máⁿ　　　gō = ʔ
　　3Pl　　stand.Stat　　IpfvNeg　　be=Neg
　　'They are not standing.'

d.　ō　　　ɲínáʕáⁿ　　　jè
　　3Pl　　stand.Stat　　Past
　　'They were standing.'

e.　ō　　　ɲínáʕáⁿ　　　kàá　　　jè = ʔ
　　3Pl　　stand.Stat　　PfvNeg　　Past=Neg
　　'They were not standing.'

Dynamic/stative alternations are in (133). For the dynamic verbs, both aspectual stems are shown.

(133)　　　dynamic Ipfv　　dynamic Pfv　　　stative　　　　gloss (dynamic)

　　a.　ɲéráⁿ　　　　ɲə́rɛ̀ⁿ　　　　ɲínáʕáⁿ gō　　'stand, stop'
　　b.　tə̄rāⁿ　　　　tə̀rɛ̀ⁿ　　　　tə̀ràʕáⁿ ɛ̀ gō　'sit down'
　　c.　ʃyáⁿ　　　　ʃyɛ́-nɛ̀　　　　ʃíyáʕáⁿ gō　　'lie down'

Other verbs that are intrinsically stative and have no dynamic forms are in (134).

(134)　a.　gō　　　　　'be/exist (somewhere)' (§10.2.1), copula (§10.2.2)
　　　　　　　　　　　also part of 'want' (§10.3.2) and 'have' (§10.2.5.1)
　　　　jè　　　　　　past counterpart of gō

　　b.　jī　　　　　　'know about, be aware of' (§10.3.3.2)
　　　　kə̀ⁿ　　　　　'know' (§10.3.3.1)

　　c.　pòyⁿ　　　　　'can, be able to' (after another verb/VP)
　　　　pùrùⁿ　　　　'be able' (without another verb/VP)

　　d.　blā　　　　　'be better'

　　e.　fó　　　　　　'it is necessary (that …)' (< French il faut ?)

f. *fyê*   'be gone' (suppletes *sē/sà* 'go', §10.3.1)

10.1.2.3 Adjectival predicates

Aside from inchoative verbs (e.g. 'become big, grow') which describe transitions, there are two types of stative adjectival predicates (e.g. 'be big').

(135) presents a type where the adjective directly follows the subject and no auxiliary is present. The predicative form may be identical, closely related (usually truncated), or unrelated (suppletive) to the modifying form. In this construction the 3Sg subject pronoun is *kàʕà* (usually reduced to *kà*).

(135)		modifying	'3Sg is …'	gloss
	a.	*cɔ́ⁿ*	*kàʕà cɔ́ⁿ*	'… deep'
	b.	*têⁿ*	*kàʕà têⁿ*	'… bitter'
	c.	*sɔ̀rɛ̀yⁿ* *sɔ̀rɔ̀wⁿ* *sɔ̀rɔ̀yⁿ*	*kàʕà sɔ̀èyⁿ*	'… long; distant'
	d.	*díyⁿáʕāⁿ*	*kàʕà dáⁿ*	'… delicious, sweet'
	e.	*sáŋgbə́ráyⁿ* *sáŋgbə́ráwⁿ* *sáŋgbə́rááⁿ*	*kàʕà tû*	'… big'
	f.	*kwɔ́làʕá*	*kàʕà kò*	'… good'
	g.	*blákà*	*kàʕà blâ*	'… easy, cheap'

Regular 1st/2nd person subject proclitics like 1Sg *ŋ́* may also be used when the subject is not 3Sg. The 3Pl subject form is *wɔ̀ɣɔ̀* (*wɔ̀ɣɔ̀ tû* 'they are big'). This pattern is regularly elicited for the adjectives shown. Some adjectives like 'long' and 'big' have multiple forms as modifiers, reflecting what is left of an old noun-class agreement system, but they have a single predicative form.

In a second construction, *gō* 'be (present)' is the actual predicate, preceded by a distinctive form of the adjective, which in turn is preceded by a regular subject pronoun (not a possessor), here illustrated with 3Sg Nonhuman *à* (others include 1Sg *ŋ́* and 3Sg Human *ŋ̄*).

This looks somewhat like a construction of the type '[its redness] exists' with a possessed deadjectival nominal as subject. However, the pronominals have subject rather than possessor form, so at least synchronically the construction is of the type 'it [red is]'. The adjectives in (136) were regularly elicited with this construction.

(136)   modifying   'it is …'   gloss

   a.   ʃíyàʕá^n à ɲáʕá^n gō   '… red'
        sɛ̀^{n}
        ʃíyɛ̀ý^n

   b.   wàɣá^n à wàɣá^n gō   '… wide'

   c.   yɔ́bàʕá   à yɔ́w gō   '… black'
        yɔ́bɔ̀
        yɔ́bày

   d.   wálāʕā   à wáláʕá gō   '… dry'
        wálāw

   e.   fíyàʕá^n à fíŋéyáʕá^n gō   '… white'
        fíyéyáʕá^n
        fíyàá^n
        fyɔ́^{n}

For 'heavy', predicates of types (135) and (136) are both attested. In modifying function, this adjective requires a suffix *-máʕá* also found in *fɔ́ɣɔ́-māʕā^n* 'soft; lightweight', cf. verb *fɔ́ɣɔ́-mā* 'be soft, lightweight'.

(137)   modifying   'it is …'   gloss

        dúgú-māʕā^n kàʕà dúgū   '… heavy'
                         à dúwàʕà gō

10.1.3 Transitive verbs

These include the usual impact transitives ('cut', 'break', 'hit', 'kill' and the like), but also perception verbs. The object (pronominal or nonpronominal) follows the verb. There is no

accusative marking on nouns, but pronouns have a special set of object enclitics that fuse with the verb.

(138) a. *ō*   *kpà=ýⁿ*
           3Pl   hit.Pfv=1Sg
           'They hit me.'

       b. *ō*   *ɲà=ýⁿ*
           3Pl   see.Pfv=1Sg
           'They saw me.'

If the object is nonpronominal, beginning with a noun, the noun's vocalic prefix normally fuses with the verb, making segmentation and morphemic analysis difficult. See discussion of examples (65a-d) in §5.2.

10.1.4   Ambi-valent (labile) verbs

In the absence of a productive causative or mediopassive derivation at word level, it is quite normal for a Tiefo-N verb to have both intransitive and transitive uses. That is, many verbs are ambi-valent (labile). The typical pattern is that an external agent is added to the intransitive to create the transitive, cf. English *X broke* ("middle" or "unaccusative" intransitive) versus *Y broke X*. In addition to action verbs like 'break', the pattern applies also to some motion verbs.

(139) a. *ō*   *yì-rà*
           3Pl   enter.Pfv
           'They went in.'

       b. *ō*   *yì-rà=ýⁿ*
           3Pl   enter.Pfv=1Sg
           'They put/took me in.'

However, some intransitive motion verbs have other ways to generate transitive equivalents. 'X bring Y' is expressed as 'X come [with Y]' (140a), and the transitive *glâ\\glê* 'take out' is distinct from (though irregularly related to) intransitive 'exit' *gúrú ~ gə́rú\\glâ* (140b).

(140) a. *ō*   *bà*   *[nà*   *[ò*   *ɲǔ]]*
           3Pl   come.Pfv   [with   [Pref   water]]
           'They brought (the) water.'

b. *ō*   *glê*   *[ò*   *bɔ̄ɣɔ̀ⁿ]*

     3Pl   take.out.Pfv   [Pref   dog]

     'They took the dog out.'

10.1.5 Ditransitive two-verb combinations ('give', 'show')

'Give' is expressed primarily by the verb *sɔ̀ɣɔ̀\\sɔ̀ɣɔ̀* (141a-c). If the recipient NP is overt, it follows a second verb *ŋɔ́ⁿ\\ŋɔ̀ⁿ*, which in this construction occurs only in the perfective *ŋɔ̀ⁿ* (variant *ŋwɔ̀*) regardless of the inflectional category of *sɔ̀ɣɔ̀\\sɔ̀ɣɔ̀*. This second verb functions like a dative preposition in other languages (141b-c).

(141)   a.   *sɔ̀ɣɔ̀*   *[è*   *bíklé]*

         give.Ipfv   [Pref   money]

         'Give (the) money!'

       b.   *ŋ́*   *sɔ̀ɣɔ̀*   *[è*   *bíklé]*   *ŋɔ̀ⁿ*   *làmínì*

         1Sg   give.Pfv   [Pref   money]   give.Pfv   L

         'I gave (the) money to Lamine.'

       c.   *ŋ́*   *àá*   *sɔ̀ɣɔ̀*   *[è*   *bíklé]*   *ŋɔ̀ⁿ*   *làmínì = ʔ*

         1Sg   PfvNeg   give.Ipfv   [Pref   money]   give.Pfv   L=Neg

         'I didn't give (the) money to Lamine.'

Elsewhere *ŋɔ́ⁿ\\ŋɔ̀ⁿ* occurs by itself as a simple transitive verb in the sense 'help out (sb) with a gift (esp. money)', cf. English *bail out* or *support* (financially). For its part, *sɔ̀ɣɔ̀\\sɔ̀ɣɔ̀* as a simple transitive verb means 'send (someone, e.g. on an errand or mission)'.

     The verb 'show' is *ḿlàⁿ ~ mə́làⁿ\\ḿlèⁿ ~ mə́lèⁿ*. It has the same syntax as *sɔ̀ɣɔ̀\\sɔ̀ɣɔ̀* 'give' (142a-c).

(142)   a.   *mə́làⁿ*   *[è*   *bíklé]*

         give.Ipfv   [Pref   money]

         'Show (the) money!'

       b.   *ŋ́*   *mə́làⁿ*   *[è*   *bíklé]*   *ŋɔ̀ⁿ*   *làmínì*

         1Sg   show.Pfv   [Pref   money]   give.Pfv   L

         'I showed (the) money to Lamine.'

c. *ń́*   *àà*   *mə́làⁿ*   *[è*   *bíklé]* *ŋɔ̀ⁿ*   *làmínì=ʔ*
   1Sg   PfvNeg   show.Ipfv   [Pref money]   give.Pfv L=Neg
   'I didn't show (the) money to Lamine.'

In some other lexicalized two-verb constructions, the two verbs are fused into a compound. The two then cannot be separated by other elements, unlike the case with 'give' and 'show'. Examples are in §13.1.1 below.

10.1.6 Quotative verb 'say' (*fó\\fwá*, *jà*)

The verb 'say' is *fó\\fwá* before a direct object NP (143a). With a following quotation, if it denotes an actual reported utterance (as it usually does) the invariant form *jà* is used (143b). We can think of *jà* as a suppletive perfective positive form. In negative and non-past contexts we are back to *fó\\fwá* (143c). The most common form of the latter is *fó=é*, which has a semi-frozen nonhuman 3Sg object enclitic.

(143)   a. *kà*   *fó(=é)*   *cè=ʔ*
            PfvNeg   say.Ipfv(=3SgE)   thing=Neg
            'He/She didn't say anything.'

        b. *zàkí*   *jà*   *bó*   *bī*   *sà*   *ŋwíⁿ*
            Zaki   say.Pfv   3Sg   Fut   go.Pfv   village
            'Zaki said that he (=Zaki) will go on a trip.'

        c. *zàkí*   *kà*   *fó=é(=ʔ,)*
            Zaki   PfvNeg   say.Pfv=3SgE(=Neg,)
            dè   *bó*   *bī*   *sà*   *ŋwíⁿ*
            that   3Sg   Fut   go.Pfv   village
            'Zaki didn't say that he (=Zaki) will go on a trip.'

In (143c), the negative glottal stop is present only when there is a pause after 'say'.
    A different *jà* is a suppletive imperfective for 'happen' (§8.7), and can be used in the sense 'become' (§10.2.3).

10.2 Existance and possession

10.2.1 Location and existence (*gō*, past *jè*)

gō 'be (somewhere), exist' and its past-time form *jè* occur in locational-existential predications and in statives.

In locational function, which can spill over into existence as the location loses specificity, the default locational is *mā* 'there (discourse-definite)'. This can be compared with English unstresssed *there* in existential (not presentational) *there is/are X*. A more specific locational like *fá^n* 'here' or a spatial PP is also possible (144c). If the subject is pronominal, *gō* may be preceded by either a proclitic or an independent pronoun. *gō* is negated by *má^n* (imperfective negative morpheme).

(144) a. *(gō) mā*   'be present, exist (here)'
             1Sg   *ŋ́ gō mā*
             2Sg   *mì gō mā*

       b. *má^n gō mā*   'be absent, not exist'

       c. *nā*   *gō*   *sàmìyàʕà^n*
             2Pl   be   Bobo Dioulasso
             'You-Pl are in Bobo Dioulasso.'

For past time, positive or negative, *gō* is replaced by *jè*. Its negation is *kàá jè ~ kà jè* (3Sg) or pronominal variant, with the perfective negative morpheme.

(145) a. *ŋ́*   *jè*   *sàmìyàʕà^n*
             1Sg   be.Past   Bobo Dioulasso
             'I was in Bobo Dioulasso'

       b. *ŋ́*   *àá*   *jè*   *sàmìyàʕà^n= ʔ*
             1Sg   PfvNeg   be.Past   Bobo Dioulasso=Neg
             'I was not in Bobo.'

gō and *jè* and their negations also occur in a stative construction, typically with a stative form of a stance verb like 'sit', 'stand', or 'lie down'. For examples see §10.1.2.2 above.

10.2.2 Nominal copula ('X is [a] Y')

gō 'be', this time in copular rather than locational-existential function, precedes the predicate noun or NP.

(146) a. *ŋ́*   *gō*   *cèfɔ̂*
           1Sg   Cop   Tiefo
           'I am a Tiefo.' (cf. W98: 206)

       b. *ŋ́*   *má^n*   *gō*   *cèfɔ̂=ʔ*
           1Sg   IpfvNeg   Cop   Tiefo=Neg
           'I am not a Tiefo.'

       c. *é*   *gō*   *cèfɔ́ɔ̀→*
           1Sg   Cop   Tiefo.Pl
           'We are Tiefo-s.'

       d. *é*   *má^n*   *gō*   *cèfɔ̂=ʔ*
           1Sg   IpfvNeg   Cop   Tiefo.Pl=Neg
           'We are not Tiefo-s'

       e. *ŋ́*   *jè*   *byérá-wì*
           1Sg   be.Past   farmer
           'I was a farmer.'

       f. *ŋ́*   *àá*   *jè*   *byérá-wì=ʔ*
           1Sg   PfvNeg   be.Past   farmer=Neg
           'I was not a farmer.'

Comparison of (146c) and (146d) shows that the noun 'Tiefo' has its prolonged plural form in the positive utterance, but the final negative glottal *=ʔ* blocks the prolongation.

10.2.3 'Become (something)' (*jà\\dē*)

Future-time 'X will be a Y' implies a transition, and is expressed by 'will become'. The 'become' verb is *jà\\dē* (§8.7). The complement that follows it is an NP, not an adjective.

(147) a. *ɲ́*   *bī*   *jà*   *byérá-wì*
          1Sg   Fut   become   farmer
          'I will be/become a farmer.'

       b. *zàkí*   *jà*   *byérá-wì*
           Z   become   farmer
           'Zaki became a farmer.'

       c. *zàkí*   *kǎ*   *dē*   *byérá-wì = ʔ*
           Z   PfvNeg   become.Ipfv   farmer=Neg
           'Zaki did not become a farmer.'

       d. *dē*   *cèfɔ̂ / byérá-wì*
           become.Ipfv   Tiefo / farmer
           'Become-2Sg a Tiefo/a farmer!'

10.2.4 Identificational *= ỳ* 'it's X' and *tɛ̄ = ʔ* 'it isn't X'

The identificational 'it is' enclitic is *= ỳ* (positive) or invariant particle *tɛ̄ = ʔ* (negative, including the final glottal negative enclitic). Usually the "subject" is a known entity whose identity is to be clarified, as in 'it (=the person knocking at the door) is me' or 'it was the butler (who did it)'. In the usual case where the identificational morpheme is added to a pronoun, the latter takes independent pronominal form.

(148) a. *jə̀rɔ̌ⁿ*   *bǒ = ỳ*
           who?   3Sg=it.is
           'Who is it?' (e.g. said to someone calling or knocking on the door)

       b. *ɲí = ỳ*
           1Sg=it.is
           'It's me.' (reply to [a])

       c. *é-yò*   *tɛ̄ = ʔ*
           1Pl   it.is.not=Neg
           'It isn't us.'

10.2.5   Possessive predicates

10.2.5.1   'Y has X' (*gō … bāʕā*)

In this construction, the possessum X is the subject. The predicate consists of *gō* 'be (somewhere), exist' plus the M-toned morpheme *bāʕā* (149a-c). This morpheme can be interpreted as a specialized postposition. The sense is 'Y has (an) X' rather than '(The) X belongs to Y'. The possessum X is often indefinite, being thereby introduced into the discourse, as in *Y has (an) '* in English and similar 'have' constructions in other languages. It follows that *gō* 'be' should be taken in locational-existential rather than copular sense: 'X exists/is present [belonging to Y]' rather than 'X is [Y's possession], X belongs to Y'. As elsewhere, *gō* is replaced by *jè* in past-time contexts (149d-e).

(149)   a.   *báⁿ*   *gō*   *[ŋ́*   *bāʕā]*
             sheep   be   [1Sg   Poss]
             'I have a sheep.'

        b.   *báⁿ*   *gō*   *[zàkí*   *bāʕā]*
             sheep   be   [Z   Poss]
             'Zaki has a sheep.'

        c.   *báⁿ*   *máⁿ*   *gō*   *[ŋ́*   *bāʕā]* = *ʔ*
             sheep   IpfvNeg   be   [1Sg   Poss]=Neg
             'I don't have a sheep.'

        d.   *báⁿ*   *jè*   *[ŋ́ / zàkí*   *bāʕā]*
             sheep   be.Past   [1Sg/Z   Poss]
             'I had/Zaki had a sheep.'

        e.   *báⁿ*   *kà*   *jè*   *[ŋ́*   *bāʕā]* = *ʔ*
             sheep   PfvNeg   be.Past   [1Sg   Poss]=Neg
             'I didn't have a sheep.'

10.2.5.2   'X belongs to Y' (*dé=ȳ*, *dó*)

When the possessum is known and the possessor is to be specified, a construction of the type "it's Y's possession" or (with overt X) "X is Y's possession" is used. The noun that we here gloss as 'possession' is *dóó* ~ *dɔ́ɣɔ́*. The +ATR variant *dóó* shifts to *e*-vowels in these predicative constructions.

In the first version, the 'it is' enclitic *=ỳ* is is added to *Y dé*. This is pronounced *[Y dé]=ȳ* with M-toned enclitic, perhaps suggesting underlying /dê/ with HM tones. We tentatively take *dé* here to be a mutation from *dóó* (variant *déé*), rather than as perfective *dē* 'happened, took place' (§8.7) or imperfective *dē* 'does', but both *déé* and *dē* occur (together) in a similar construction (see just below). There need be no overt mention of X, though it may occur as a preposed topic. The 2Sg form has a suffixal possessor.

(150)   *(X,) [Y dé]=ỳ*

1Sg	*ǹ dé=ȳ*	'It's mine.'
1Pl	*è dé=ȳ*	'It's ours.'
2Sg	*dé-yè̀=ỳ*	'It's yours-Sg.'
2Pl	*nā dé=ȳ*	'It's yours-Pl.'
3Sg	*ŋ̄ dé=ȳ*	'It's his/hers.'
3Pl	*ō dé=ȳ*	'It's theirs.'

This is negated as *ǹ dé tɛ̄=ʔ* 'it's not mine' and so forth.

Another version, exemplified in (151), adds a final morpheme *dē* instead of the 'it is' clitic. The other *dē* morphemes in our data are the perfective of suppletive *jà\\dē* 'happen, take place' (§8.7), and the imperfective of transitive *dē\\dìyà* 'do'. When the possessor Y is pronominal, it may be in proclitic possessor form, as in (150) above, or in independent pronoun form. The 'possession' noun can take the form of either *dóɣɔ́* or *déé*. X may be omitted or it may occur as a preclausal topic.

(151)   *(X,) [Y dóɣɔ́] dē*   *(X,) [Y déé] dē*

1Sg	*ǹ dóɣɔ́ dē*	*ǹ déé dē*	'It's mine.'
	ɲí dɔ̄ɣɔ̄ dē		
1Pl	*è dóɣɔ́ dē*	*è déé dē*	'It's ours.'
	é-yò dóɣɔ́ dē		
2Sg	*mì dóɣɔ́ dē*	*dé-yɛ́ dē*	'It's yours-Sg.'
2Pl	*nā dóɣɔ́ dē*	*nā déé dē*	'It's yours-Pl.'
	nā-yò dóɣɔ́ dē		
3Sg	*ŋ̄ dóɣɔ́ dē*	*ŋ̄ déé dē*	'It's his/hers.'
3Pl	*ō dóɣɔ́ dē*	*ō déé dē*	'It's theirs.'
	bòò dóɣɔ́ dē	*bòò déé dē*	

The fuller construction in (152) below has X (NP or pronominal clitic), *gō* 'be' in copular or locational function, and a possessed form of *dóó*. *gō* requires a subject, minimally a pronominal. Since there is no overt predicative element such as *=ỳ* or *dē*, and since *gō* often precedes a locational expression, one could argue that *dóó* functions in this construction somewhat like a postposition 'in the possession of'.

(152)   *X gō [Y dóó]*

1Sg	*X gō [ŋ̀ dóó]*	'X is mine/belongs to me.'
1Pl	*X gō [è dóó]*	'X is ours/belongs to us.'
2Sg	*X gō [dó-yāʕā]* ~ *[dé-yāʕā]*	'X is yours/belongs to you-Sg.'
	~ *X gō [dó-yɛ̄]*	
2Pl	*X gō [nā dóó]*	'X is yours/belongs to you-Pl.'
3Sg	*X gō [ŋ̄ dóó]*	'X is his-or-hers/belongs to him-or-her.'
3Pl	*X gō [ō dóó]*	'X is theirs/belongs to them.'

This is negated regularly, with *máⁿ gō* 'not be'. Clause-final negative *=ʔ* shortens *dóó* to produce *dó=ʔ*. For past time 'X was mine', etc. *gō* is replaced by its regular past counterpart *jè*.

A few examples of *dé=ȳ* and *dóó* are in (153).

(153) a. *[è   lě]   [zàkí   dé=ȳ]*
          [Pref   housing.compound]   [Z   **Poss=it.is**]
          'The house (and courtyard) belongs to Zaki.'

       b. *[ò   sòóŋ]   gō   [ò   dóó]*
          [Pref   horse]   be   [3Pl   **Poss**]
          'The horse is theirs.'

       c. *[ò   sòóŋ]   máⁿ   gō   [ŋ̀   dó]=ʔ*
          [Pref   horse]   IpfvNeg be   [1Sg   **Poss**]=Neg
          'The horse isn't mine.'

10.3   Stative predicates

Statives derived from dynamic (active) verbs of stance like 'sit' and 'stand' were discussed in §10.1.2.2. In this section we present defective, stative-only (quasi-)verbs, and adjectival predicates.

Statives, whether derived or underived (defective), do not have different forms for aspect categories (perfective, imperfective). Whether they pattern as perfective or imperfective is brought out by their negations (*má^n* imperfective, *kă* and variants perfective).

10.3.1 *fyê* 'be gone'

The active verb *sē\\sà* 'go' has an apparently noncognate (i.e. suppletive) stative counterpart *fyê* 'be (already) gone, be out (=not at home)'. It is common in contexts where the motion event has been completed, so its frequency is greater than that of its English translation equivalent, which has no such requirement. One advantage of using *fyê* is that it avoids any possibility of confusing imperfective *sē* 'go' with interrogative *sê* '(to) where?'.

(154) *zàkí* *fyê* *ŋwí^n* *kɔ̄^{n}*
       Zaki **go.Stat** village already
       'Zaki has already gone to the village.'

fyê is incompatible with negation. '(He/She) has not gone' is always *kă sē=ʔ* with the normal 'go' verb.

10.3.2 'Want' (*gō … bàɣà*)

'X want Y' with an NP complement Y is expressed by subject (X), then *gō* 'be', then what looks vaguely like a PP of the form *[Y bàɣà]*. The L-tones and the fricative *ɣ* of *bàɣà* distinguish the 'X want Y' construction from the 'Y have X' construction (§10.2.5.1), which has the form *X gō [Y bāʕā]* with M-toned postposition and pharyngeal *ʕ* (155a-b). If the complement is a verb phrase ('X want [to VP]'), *bàɣà* directly follows *gō*, and precedes an infinitival complement (155c). As usual with *gō*, negation is with stative negative *má^n* (155b).

(155) a. *ŋ̄* *gō* *[ɲú* *bàɣà]*
           3Sg be [water **wanting**]
           'He/She wants some water.' (< *ɲǔ*)

       b. *má^n* *gō* *[zàkí* *bàɣà]=ʔ*
           1Sg.IpfvNeg be [Z **wanting**]=Neg
           'I don't want Zaki.'

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c. *ŋ̄*   *gō*   **bàɣà**   *[nà*   *dí]*
3Sg   be   **wanting** [Infin   eat]
'He/She wants to eat.'

10.3.3 'Know' verbs

There are two 'know' verbs (as in French and German). Both are invariant in form (no overt perfective/imperfective stem split) and both are semantically stative. However, they differ in morphosyntactic aspect (brought out by negation).

10.3.3.1 *kə̀ⁿ* 'know'

kə̀ⁿ 'know' is used like French *savoir* (with a clausal complement denoting a proposition, or a pronominal or demonstrative referring to a fact). 'Know it' referring to a previously introduced fact has an E-class 3Sg object, the combination heard as *kə̀=ỳⁿ* or *kɔ̰=ɛ̀ⁿ* (156c). *kə̀ⁿ* behaves like a perfective verb and is negated by *kǎ* (3Sg) and related forms (156a,c).

(156)   a.   *ŋ́*   *gàá*   *kə̀ⁿ*
                1Sg   PfvNeg   **know**
                'I don't know (the answer).'

        b.   *ŋ́*   *kə̀ⁿ*   *[tá*   *zàkí*   *fyê]*
                1Sg   **know**   [that   Z   go.Stat]
                'I know that Zaki has gone.'

        c.   *zàkí*   *kǎ*   *kə̀=ỳⁿ=ʔ*
                Z   PfvNeg   **know**=3SgE=Neg
                'Zaki doesn't know it.'

For factive clausal complements ('know that …'), see §13.7 below.

10.3.3.2 *jī* 'know, be aware of, be acquainted with'

jī means 'know' especially in the senses 'be aware of (sth, sb)' and 'be acquainted/familiar with (sb)'. This includes the semantic range of French *connaître*. *jī* is cognate to the only Tiefo-D 'know' verb recorded by Winkelmann (*jī* 'wissen, kennen', W98: 229). It is negated by *mâⁿ*.

(157) a. *ŋ́*　　　*jī*　　　*zàkí*
1Sg　　**know**　　Z
'I know Zaki.'

b. *ŋ́*　　　*jù=ù*
1Sg　　**know**=3SgObj
'I know him.'

c. *zàkí*　　　*máⁿ*　　　*jī=ýⁿ=ʔ*
Z　　　　IpfvNeg　　**know**=1SgObj=Neg
'Zaki doesn't know me.'

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11 Focalization

11.1 Focalization of a constituent in an indicative clause (*lè* ~ *nè*)

The focus particle is *lè*, optionally nasalizing to *nè* in a nasal environment. It follows the focalized constituent, which remains in its normal linear position. The focalized constituent may be an NP. If it is a pronoun, it takes independent (not proclitic) form. The pronominal paradigm is therefore (158).

(158) 1Sg   *ɲí nè* ~ *ɲí lè*
      1Pl   *é-yò lè*
      2Sg   *mì nè* ~ *mì lè*
      2Pl   *nā-yò lè*
      3Sg   *bó lè*
      3Pl   *bòó lè*

11.1.1 Subject focalization

An addressee who is asked question (159a) may reply with (159b) or (159c).

(159) a. *jə̀rɔ̌ⁿ*   *bī*   *sà*
          who?   Fut   go.Pfv
          'Who will go?'
      b. *[ɲí*   *nè]*   *bī*   *sà*
          [1Sg   **Foc**]   Fut   go.Pfv
          'It's <u>I</u> [focus] who will go.'

      c. *[zàkí*   *lè]*   *bī*   *sà*
          [Zaki   **Foc**]   Fut   go.Pfv
          'It's <u>Zaki</u> [focus] who will go.'

11.1.2 Focalized object

The focalized object remains in its normal postverbal position. The focus particle optionally follows it. If the object is a pronoun, it takes independent (not enclitic) pronominal form,

whether or not the focus particle is overt (160b). This distinguishes object focus from a simple transitive with no focalized constituent, which does have enclitic object pronouns (160c).

(160)   a.   *zàkí*   *kpà*   *jə̀rɔ̌ⁿ*
           Zaki   hit.Pfv   who?
           'Who did Zaki hit?'

       b.   *zàkí*   *kpà*   *[ɲí*   *(nè)]*
           Zaki   hit.Pfv   [1Sg   (**Foc**)]
           'It was <u>me</u> [focus] who Zaki hit.'

       c.   *zàkí*   *kpà = ýⁿ*
           Zaki   hit.Pfv=1Sg
           'Zaki hit me.'

11.1.3   Focalized adverb

In (161a), 'here' is focalized by repetition on both left and right edges of the clause. However, the more usual and more productive construction has Focus particle *lè* with the adverb clause-finally (161b). Negation is with *lè tɛ̄-ʔ* (161c).

(161)   a.   *fáⁿ*   *yáʕá*   *bī*   *sùŋè*   *[è*   *sɔ̰̀è̩́ⁿ]*   *fáⁿ*
           here 1PlIncl Fut work.Pfv   [Pref   work(n)] **here**
           'It is <u>here</u> [focus] that we-Incl will work.'

       b.   *yáʕá*   *bī*   *sùŋè*   *[è*   *sɔ̰̀è̩́ⁿ]*   *[è*   *lě*   *lè]*
           1PlIncl Fut work.Pfv [Pref work(n)] [Pref   compound **Foc**]
           'It's <u>in the village</u> [focus] that we-Incl will work.'

       c.   *yáʕá*   *bī*   *sùŋè*   *[è*   *sɔ̰̀è̩́ⁿ]*
           1PlIncl Fut work.Pfv   [Pref   work(n)]
           [fáⁿ   *lè*   *tɛ̄ = ʔ]*
           [here   **Foc**   it.is.not=Neg]
           'It is not <u>here</u> [focus] that we-Incl will work.'

11.2 Interrogatives

11.2.1 Polar (yes/no) interrogative (*wà*)

The clause-final interrogative particle *wà*, also present in Jula, is exemplified in (162a-b) and glossed as "Q" in interlinears.

(162) a. *m̀*   *bí*   *sà*   *ŋwíⁿ*   *wà*
        2Sg   Fut   go.Pfv   village   **Q**
        'Will you travel (=go on a trip)?'

    b. *zàkí*   *bī*   *bà*   *fánè*   *wà*
        Zaki   Fut   come.Pfv   around.here   **Q**
        'Will Zaki come here?'

For *wà* in parallel disjunctive questions, see §6.2.

11.2.2 Content interrogatives

The WH-interrogative remains in its normal syntactic position (*in situ*) rather than being fronted.

11.2.2.1 'Who?' (*jə̀rɔ̌ⁿ*)

jə̀rɔ̌ⁿ 'who?' is illustrated in §11.1.1 (subject) and §11.1.2 (object). It has a contracted variant *jɔ̀ɔ́ⁿ*. The plural can be expressed as *jèrɔ̀ɔ́→* (denasalized and optionally prolonged), or by adding a 3Pl pronoun as *jèrɔ̌ⁿ bòó*.

(163) a. *[à*   *wùù*   *ŋɔ́ɔ̀ⁿ]*   *[jə̀rɔ̌ⁿ*   *dɔ̄ɣɔ̄]=ỳ*
        [Pref   house   Dem]   [**who?**   Poss]=it.is
        'Whose house is this?'

    b. *à*   *ŋ̀*   *bí*   *bà*   *[nà*   *jə̀rɔ̌ⁿ]*
        Fut   2Sg   Fut   come.Pfv   [with   **who?**]
        'Who will you come with?'

c. *jə̀rɔ́ɔ́*   *bī*   *bà*
  who.Pl   Fut   come.Pfv
  'Who-Pl will come?'

d. *[[jə̀rɔ̌ⁿ*   *bò]*   *wùù]*   *súgà*
  [[**who?**   **3Pl**]   house]   fall.Pfv
  'Whose-Pl house fell?' (*bò* < *bòó*)

11.2.2.2 'What?' (*bíè*)

bíè (variant *byê*) 'what?' is exemplified in (164a). It is also part of 'with what?' (164b) and 'why?' (164c).

(164) a. *m̀*   *gō*   *[[bíè*   *(lè)]*   *bàɣà]*
        2Sg   be   [[**what?**   (Foc)]   wanting]
        'What do you-Sg want?' (see §10.3.2)

      b. *ŋ̀*   *wɔ̀ɣɔ̀*   *byé*   *[à*   *fǐyáʕā]*   *[nà*   *bíè]*
        2Sg   Prog   cultivate.Ipfv   [Pref   field]   [**with**   **what**?]
        'What do you cultivate/are you cultivating with?'

      c. *bíè-já*   *m̀*   *bà*   *sàmìyàʕàⁿ*
        why?   2Sg   come.Pfv   Bobo
        'Why did you come to Bobo?'

11.2.2.3 'Where?' (*sê*, *já-tàʕày*)

Tiefo-N distinguishes between allative 'whither?' (or ablative 'whence?') and static locative 'where?'.

    'Whither?/whence?' is *sê*, and is used with a motion verb (usually 'go' in allative sense, 'exit, go out' in ablative sense) to specify either the starting or ending point of a trajectory. (165a) is an ablative context, (165b-c) are allative. (165d) shows that *sê* is optionally extended to static position ('be') in contexts where immediately preceding motion is presupposed.

(165) a. *ŋ̄*   *glâ*   *sê*
        3Sg   exit.Pfv   **whither?**
        'Where did/does he/she come from?'

b. *ō   sìgìⁿ-mà   sê*
3Pl   run.Pfv   **whither?**
'(To) where did they run?'

c. *nā   wɔ̀ɣɔ̀   sē   sê*
2Pl   Prog   go.Ipfv   **whither?**
'Where are you-Pl going?'

d. *[[ná-mí   jùrɔ̀ⁿ]   súgà]   ŋ̄   gō   sê*
[[child   Rel]   fall.Pfv]   3Sg   be   **where?**
'The child who fell, where is he/she?' (implying motion)

sê is nearly homophonous to the imperfective form of 'go'.

In static (non-motion) locative contexts, 'where?' is most often *já-tàʕày* 'where?' It is somewhat obscurely segmentable into interrogative *já-* (cf. *jà-sí-ŋà* 'when?') and compound final *-tàʕày* 'place' loosely related to the noun *tìyàʕá* 'place'.

(166) a. *ŋ̀   gō   já-tàʕày*
2Sg   be   **where?'**
'Where are you-Sg?'

b. *à   gō   já-tàʕày*
3SgA   be   **where?**
'Where is it (e.g. house)?'

c. *yáʕá   bī   jōlè   já-tàʕày*
1Pl.Incl   Fut   sleep.Pfv   **where?**
'Where will we-Incl sleep?'

11.2.2.4 'When?' (*jà-sí-ŋà*, *jà-sí*)

'When?' is *jà-sí-ŋà*, or slightly reduced *jà-sí.* The *já-* element also occurs in one of the 'where?' interrogatives (preceding section).

(167) *ŋ̀   bà   jà-sí*
2Sg   come.Ipfv   **when?**
'When are you-Sg coming?'

11.2.2.5 'How?' (*màⁿká*)

The manner-adverbial interrogative is *màⁿká* 'how?'

(168) *yáʕá*　　*bī*　　*kéré-mà*　　*[à*　　　*dùgùù]*　　*màⁿká*
　　　 1PlIncl　Fut　　go.up.Pfv　 [Pref　　hill]　　　**how?**
　　　 'How will we-Incl climb the hill?'

11.2.2.6 'How much/many?' (*jê*)

The quantificational interrogative is *jê* 'how much/many?'

(169)　1.　*ŋ̄*　　　*də̀rà*　　　*[báⁿ*　　*dígínā]*　　*jê*
　　　　　 3Sg　　buy.Pfv　 [sheep　 one]　　　**how.much?**
　　　　　 'How much did he/she buy one sheep for?'

　　　　2.　*[bló*　　*jê*　　　　*lè]*　　*bà*　　　*[[à*　　　*fíyáʕā]*　　*wúrí]*
　　　　　 [rain(n)　**how.much?**　Foc]　come.Pfv　[[Pref　field]　　inside]
　　　　　 'How much rain fell in the fields?'

The frequent combination of *jê* with *bíklé* 'money' is abbreviated *bí jè*.

11.2.2.7 'Which?' (*jìnàʕá*)

The interrogative adjective, identifying a nonhuman individual from a set, is *jìnàʕá* 'which?' (170a). *jìnàʕá* is also an A-class relative pronoun (§12.1 below). With human referents, however, 'who?' is juxtaposed to a singular human noun (170b).

(170)　a.　*ŋ̄*　　　*gō*　　*[də́ráʕá*　　　*jìnàʕá]*
　　　　　 3Sg　　be　　[courtyard　　**which?**]
　　　　　 'He/She is (=dwells) in which courtyard (=housing complex)?'

　　　　b.　*ná-mí* / *dɔ̀èý*　　*jə̀rɔ̌ⁿ*　　*bī*　　*sà*
　　　　　 child / man　　　　**who?**　　Fut　　go.Pfv
　　　　　 'Which child/man will go?'

12 Relativization

12.1 Relativization of a constituent in a clause

The relative pronouns are in (171). The final rising tones are leveled to L-tones before an H-tone (§2.7.3.1).

(171) a. *jə̀rɔ̆ⁿ ~ jùrɔ̆ⁿ*   human, nonhuman O-class
       b. *jə̀rɛ̀ý ⁿ*   nonhuman E-class
       c. *jìnàʕá*   nonhuman A-class
       d. *jə̀rɔ̀ɔ́ⁿ ~ jùrɔ̀ɔ́ⁿ*   plural

Compare interrogatives *jə̀rɔ̆ⁿ* 'who?' (§11.2.2.1) and nonhuman *jìnàʕá* 'which?' (§11.2.2.7).

The relative pronoun is positioned at the end of the relativized-on NP, which remains *in situ* (i.e. in its normal position within main clauses).

12.1.1 Subject relatives

The main clause (172a) is converted into a relative clause in (172b). The plural equivalent of (172b) is (172c).

(172) a. *[ná-mí   dé]   súgà   fá ⁿ*
           [child   a.certain]   fall.Pfv   here
           'A (certain) child fell here.' (*dé* for *dî*, §5.7)

       b. *[[ná-mí   jùrɔ̀ⁿ]   súgà]   ŋ̄   gō   sê*
           [[child   Rel]   fall.Pfv]   3Sg   be   where?
           'The child who fell, where is he/she?'

       c. *[[ná-m-yó jùrɔ̀ɔ̀ⁿ]   súgà]   ō   gō   sê*
           [child-Pl   Rel.Pl]   fall.Pfv]   3Pl   be   where?
           'The children who fell, where are they?'

12.1.2   Object relatives

There are two types of object relative, the semantically usual one (§12.1.2.1) and another one that specifies functions (§12.1.2.2).

12.1.2.1   Ordinary object relatives

The simple main clause (173a) is converted into an object relative (173b). The parallel example (173c) shows that the relativizer *jə̀rɔ̌ⁿ* is compatible with nonhuman as well as human heads.

(173)   a.   *zàkí   kpà   [nā-mī   dî]*
             Z   hit.Pfv [child   a.certain]
             'Zaki hit a (certain) child.'

        b.   *zàkí   kpà   [nā-mī   jə̀rɔ̌ⁿ]   ŋ̄   gō   sê*
             Z   hit.Pfv [child   **Rel**]   3Sg   be   where?
             'Where is the child that Zaki hit?'

        c.   *zàkí   kpà   [sèrè-bì   jə̀rɔ̌ⁿ]   ŋ̄   gō   sê*
             Z   hit.Pfv [stone-child **Rel**]   3Sg   be   where?
             'Where is the stone that Zaki hit?'

12.1.2.2   Instrumental (function-specifying) relatives (*dò*)

In this construction, an entity (here, 'water') is specified for function by a verb (here, 'drink'). The noun occurs in its usual form. The verb is followed by *dòò* or *dɔ̀ɣɔ̀*. These are L-toned variants of *dóó ~ dɔ́ɣɔ́* 'possession'.

(174)   a.   *ŋ́   bà   nà   [[ò   ɲǔ]   ɲā   dòò]*
             1Sg   come.Pfv   with   [[Pref   water]   drink.Pfv   **Poss**]
             'I have brought water to drink (=drinking water).'

        b.   *[à   fɛ̀rɛ̀y]   nɛ́rɛ́ⁿ   dɔ̀ɣɔ̀*
             [Pref   clothing]   wash.Pfv   **Poss**
             'clothes for washing (=to be washed)'

12.1.3   Possessor relative

The relative marker *jə̀rɔ̌ⁿ* directly follows the possessor, separating it from the possessum. Main clause (175a) is converted into possessor relative (175b).

(175)   a.   *[[ŋ̀   dɔ̰̀èý]   wùù]   súgà*
             [[Poss   man]   house]   fall.Pfv
             'The man's house fell.'

        b.   *[[ŋ̀   dɔ̰̀èý   jə̀rɔ̌ⁿ]   wùù]   súgà,   ŋ̄   gō   sê*
             [[Poss   man   **Rel**]   house]   fall.Pfv,   3Sg   be   where?
             'Where is the man whose house fell?'

12.1.4   Adpositional complement relative

Instrumental prepositional relatives are (176b,d,f). Each of them follows a corresponding main clause (176a,c,e).

(176)   a.   *zàkí   wɔ̀ɣɔ̀   byé   [nè=   [è   bàràýⁿ]]*
             Z   Prog   cultivate.Ipfv   [with   [Pref   daba]]
             'Zaki cultivates (does farm work) with a daba (hoe).'

        b.   *zàkí   wɔ̀ɣɔ̀   byé   nè=   [è   bàràýⁿ   jə̀rèýⁿ]*
             Z   Prog   cultivate.Ipfv   **with**   [Pref   daba   **Rel**]
             ē   gō   sê
             3SgE   be   where?
             'Where is the hoe that Zaki cultivates with?'

        c.   *zàkí   wɔ̀ɣɔ̀   kú   [à   dáɣánī]   [nà=   [à   yèyàʕá]]*
             Z   Prog   cut.Ipfv   [Pref   wood]   [with   [Pref   ax]]
             'Zaki cuts wood with an ax.'

        d.   *zàkí   wɔ̀ɣɔ̀   kú   [à   dáɣánī]   [nà=   [à   yèyàʕá   jìnàʕá]]*
             Z   Prog   cut.Ipfv   [Pref   wood]   [**with**   [Pref   ax   **Rel**]]
             ā   gō   sê
             3SgA   be   where?
             'Where is the ax that Zaki cuts the wood with?'

e. *[ò   yàá]   wɔ̀ɣɔ̀   cónā   [nɔ̀=   [ɔ̀   féⁿ]]*
[Pref   woman.Pl]   Prog   cook.Ipfv   [with   [Pref   fonio]]
'The women cook with fonio (grain).'

f. *[ò   yàá   wɔ̀ɣɔ̀   cónā   [nɔ̀=   [ɔ̀   féⁿ   jɔ̀rɔ̌ⁿ]]*
[Pref   woman.Pl]   Prog   cook.Ipfv   [**with**   [Pref   fonio   **Rel**]]
ŋ̄   gō   sê
3SgO   be   where?
'Where is the fonio (grain) that they women cook with?'

Locative postpositional relative (177b) is based on main clause (177a).

(177) a. *ŋ̄   wɔ̀ɣɔ̀   cónā   sùsú   [[à   ʃìtɔ̀ʕɔ̀wⁿ]   wúrí]*
3Sg   Prog   cook.Ipfv   millet.cake   [[Pref   pot]   inside]
'He/She cooks millet cakes in a pot.'

b. *ŋ̄   wɔ̀ɣɔ̀   cónā   sùsú   [[à   ʃìtɔ̀ʕɔ̀wⁿ   jìnàʕá]   wúrí]*
3Sg   Prog   cook.Ipfv   millet.cake   [[Pref   pot   **Rel**]   **inside**]
ā   gō   sê
3SgA   be   where?
'Where is the pot that he/she cooks millet cakes in?'

13 Multi-verb constructions

This chapter begins with fused verb-verb compounds, then moves on to more complex constructions.

13.1 Tight and loose verb-verb combinations

In the following subsections of §13.1, combinations of two stems that cannot be separated are discussed. In other chapters: 'bring' and 'take/deliver (there)' are expressed as 'come with' and 'go with' (§7.2.2); and 'give' and 'show' are constructions consisting of a main verb 'give' or 'show' and a second verb, separated from the main one, that functions somewhat like a dative marker (§10.1.5).

13.1.1 Tight (inseparable) verb-verb compounds

A few lexical items functioning as verbs can be segmented into two stems, fused together, allowing no intervening element. We detect the composite structure by observing that each part has a perfective-imperfective alternation of the sort elsewhere fond in simple verb stems.

In a few such compounds, one or both components also occur independently as simple verbs (178a-e). The component(s) is/are shown under the compound. A special subtype is durative iterations of a single stem like *kə́rú-kə́rū* (178e), a construction that appears to be limited to imperfective positive clauses.

(178)	imperfective	perfective	gloss
a.	*jāɣā-bə́rú*	*jàɣà-bə́rú-là*	'become lost, lose one's way'
	jāɣā	*jàɣà*	'put down; leave/abandon'
	bə́rú	*blâ*	'be wrong'
b.	*gbā-dɔ́*	*gbà-dɔ́-rà*	'divide (into parts)'
	gbā	*gbà*	'split; shatter'

c.	*yɔ̄-dūnū*	*yɔ̀-bà-dùnù*	'knock (sb) down'; see (193) below
	~ *yɔ̄-dūrū^n*	~ *yɔ̀-bà-dùrù^n*	
	yɔ̄	*yɔ̀-bà*	'(blacksmith) forge (blade, by striking with hammer)'
d.	*súgú-dɔ̄ɣɔ̄*	*sɔ́ɣɔ́-dɔ̄ɣɔ̄*	'help (sb)'
	súgú	*sɔ́ɣɔ́*	'catch'
e.	*kə́rú-kə́rū*	—	'grope, feel one's way'
	kə́rù	*klâ*	'touch'

In other compound-like sequences the components do not occur separately. Therefore the only evidence for segmentation is their unusually heavy form (three or four syllables, not including trisyllabics ending in a sonorant-vowel syllable) and/or what appears to be separate morphophonological marking of aspect in the two parts (vocalic mutations, tone changes, perfective suffixation).

The strongest candidates are the four in (179a-c). In (179c) it is possible that the final element is the same (at least etymologically) in both examples.

(179)	imperfective	perfective	gloss
a.	*gbày-dūrù*	*gbà-rà-dùrù*	'knock down, cause to fall'; see (193) below
b.	*lá-báɣá*	*lé-bàɣà*	'keep spinning around'
c.	*kāɣā^n-sā*	*kàɣà^n-sá(-là)*	'reply'
	nārā^n-sā	*nàrà^n-sā(-là)*	'escape'

Some other possible, but unclear, cases are in (180a-b) below. In (180a), the issue is whether the mutation to *e* in both syllables reflects separate mutations in two parts of a verb-verb compound, or is a single stem-wide mutation. In (91b) above, the latter analysis was suggested, but a composite origin cannot be excluded. For 'be cured', see also the adjectives ('clean') in (50g) above. In (180b), suspicion of bipartite morphology is raised by the LH or MH tone contour, which occur with no other verbs, and by the fact that the possible second element (*jà^n-fǎ*, *mà-kírí*, *yā-tóy*, *yè-flá*) begins with an obstruent. In other words, they sound like compounds. Etymologically, some may be Jula borrowings (clearly so in the case of 'betray'), but they could still be treated in Tiefo-N as bipartite.

(180)   imperfective   perfective   gloss

    a.   *blákā*   *blékè*   'be cured'
         kláγā   *klégè*   'become short(er)'

    b.   *jàⁿfá*   *jàⁿfá-là*   'betray'
         màkírí   *màkírí-là*   '(griot) praise (sb)'
         yātóy   *yātóy-là*   'pass by, go past'
         yèflá   *yèflá-là*   'fill'

The morphosyntax of one of the clearly compound sequences, 'help' from (178d) above, is illustrated in (181a-b). The first element means 'catch', the second (invariant in form) is obscure.

(181)   a.   *ή*   *sɔ́γɔ́-dɔ̄γɔ̄*   *zàkí*
             1Sg   catch.Pfv-??.Pfv   Z
             'I helped Zaki.'

         b.   *ή*   *gà*   *súgú-dɔ̄γɔ̄*   *zàkí=ʔ*
             1Sg   PfvNeg   catch.Ipfv-??.Ipfv   Z=Neg
             'I didn't help Zaki.'

The compound 'become lost' from (178a) above consists of 'put' and 'be wrong'.

(182)   a.   *zàkí*   *jàγà-bɔ́rú-là*   *[[à   bèyⁿ]   wúrí]*
             Z   put.Pfv-be.wrong.Pfv   [[Pref   the.bush]   in]
             'Zaki got lost in the bush.' (< *bèýⁿ*)

         b.   *zàkí*   *kǎ*   *jāγā-bɔ́rú*   *[[à   bèyⁿ]   wúrí]=ʔ*
             Zaki   PfvNeg   put.Ipfv-be.wrong.Ipfv   [[Pref   the.bush]   in]=Neg
             'Zaki didn't get lost in the bush.'

13.2   Same-subject constructions

13.2.1   'Be able to' (*pɔ̀rɔ̀ⁿ ~ pɔ̀yⁿ*)

In the absence of a verbal complement, 'be able' is expressed by the stative verb *pùrùⁿ*, as in *ή pùrùⁿ* 'I can'. When there is a preceding verbal complement (in imperfective form), *pùrùⁿ* is replaced by the equally stative *pɔ̀rɔ̀ⁿ ~ pɔ̀yⁿ*, which is directly attached to the verb (preceding

any postverbal constituents). More or less free alternations between the shapes Cvrv and Cvy are common in Tiefo-N verbal morphology; see (95b) and (96a) in §8.5.2.

Examples of *pɔ̀rɔ̀ⁿ* ~ *pɔ̀yⁿ* following imperfective verbs are (183a-b). (183b) confirms that *pɔ̀rɔ̀ⁿ* ~ *pɔ̀yⁿ* remains adjacent to the subordinated verb even when the latter has a postverbal complement. See also (211) below.

(183) a. *zàkí*   *sē*   *pɔ̀yⁿ*
           Z   go.Ipfv   be.able
           'Zaki can go.'

    b. *zàkí*   *kú*   *pɔ̀rɔ̀ⁿ*   *[à*   *kèyàʕá]*
        Z   cut.Ipfv   be.able   [Pref   meat]
        'Zaki can cut the meat.'

13.2.2 Infinitival constructions

If two events have the same agent (subject), the first event is expressed as an ordinary indicative clause in whatever inflectional category is relevant (e.g. perfective positive, imperative). The second event is expressed as an invariant infinitival verb-phrase, i.e. with infinitival *ná* followed by the imperfective stem of the verb and any clausemate constituents (§3.1.4). We distinguish sequenced events from simultaneously overlapping events.

13.2.2.1 Event sequences

In (184), the two same-agent actions are sequenced in time, though the sequence is sufficiently routinized ('go and come back', 'fall down and get back up', 'get up and sit down' = move over) to have some overall coherence.

(184) a. *zàkí*   *sà*   *[ná*   *bà]*
           Z   go.Pfv   [Infin   come.Ipfv]
           'Zaki went and came back.'

    b. *kà*   *bí*   *sà*   *[ná*   *bà]*
        3Sg   Fut   go.Pfv   [Infin   come.Ipfv]
        'He/She will go and come back.'

c. ŋ́   sē   [ná   bà]
  1Sg   go.Ipfv   [Infin   come.Ipfv]
  'I am going and coming back.'

d. zàkí   súgà   [ná   yígí]
  Z   fall.Pfv   [Infin   get.up.Ipfv]
  'Zaki fell and got back up.'

e. ŋ̀   yígà   [ná   tə̄rā^n fǎndè]
  3Sg   get.up.Pfv [Infin   sit.Ipfv   over.there]
  'He/She got up and sat (=moved to another seat) over there.'

This construction also occurs in imperatives. The first verb is in the imperfective stem with no preceding elements. In this imperative version, the infinitival morpheme *ná* is optional.

(185) a. sē   [(ná)   bà]
        go.Ipfv   [(Infin)   come.Ipfv]
        'Go and come back!'

    b. só   [(ná)   yígí]
      fall.Ipfv   [(Infin)   get.up.Ipfv]
      'Fall and get back up!'

    c. yígí   [(ná)   tə̄rā^n fǎndè]
      get.up.Ipfv [(Infin)   sit.Ipfv   over.there]
      'Get up and sit (=move to another seat) over there!'

13.2.2.2 Simultaneous co-events

The same construction with the second verb in infinitival form is used when the two actions by the same agent are simultaneous or overlap, i.e. constitute co-events abstracted from a single event. In (186), 'jump' and 'fall' combine to mean 'jump (all the way) down'.

(186) a. ŋ̄   yī-là   [ná   só]
        3Sg   jump.Pfv   [Infin   fall.Ipfv]
        'He/She jumped down.'

b. *yī*   *[ná*   *só]*
jump.Ipfv   [Infin   fall.Ipfv]
'Jump down!'

In (187), the two actions (motion and singing) are independent but overlap in time.

(187)   *[ŋ̄*   *wɔ̀ɣɔ̀*   *bé]*   *[ná*   *wō*   *[à*   *yìrìí]]*
       [3Sg   Prog   come.Ipfv]   [Infin   sing   [Pref   song]]
       'He/She came while singing (a song).'

13.2.2.3 'Prevent' (*yáɣá*) plus infinitive

yáɣá\\yáɣá, also a simple transitive 'squeeze, press', can take an object plus an infinitival complement in the sense 'prevent'. There is no negative marker.

(188)   *ŋ́*   *yáɣá*   *zàkîi*   *[ná*   *sē]*
       1Sg   press   Z   [Infin   go.Ipfv]
       'I prevented Zaki from going.'

13.2.3 'Begin' plus complement

'Begin X' is expressed in Tiefo-N as 'take (receive) the mouth of X', with *nìyɔ̀ʕɔ̀ⁿ* 'mouth' as a compound final (heard here as L-toned). The initial (X) is either a noun that can denote an activity, or the imperfective stem of a verb (which is arguably a reduced infinitive with the usual infinitival morpheme *ná* omitted).

(189)   a.   *ŋ̄*   *fíyà*   *[è*   *sɔ̀èέⁿ-nìyɔ̀ʕɔ̀ⁿ]*
           3Sg   take.Pfv   [Pref   work(n)-mouth]
           'He/She began (to) work.'

     b.   *ŋ̄*   *fíyà*   *[à*   *byé-nìyɔ̀ʕɔ̀ⁿ]*
           3Sg   take.Pfv   [Pref   cultivate.Ipfv-mouth]
           'He/She began (to) cultivate (=do farm work).'

     a.   *ŋ̄*   *fíyà*   *[à*   *yī-nìyɔ̀ʕɔ̀ⁿ]*
           3Sg   take.Pfv   [Pref   jump.Ipfv-mouth]
           'He/She began (to) jump.'

13.3 Different-subject constructions

13.3.1 Different-subject event sequences

When two events, with different agents/subjects, are combined, each has the form of an independent clause. There is no subordinating or linking element, though the combination may be prosodically seamless.

(190) *[ŋ́   kpà   zàkí]   [ŋ̄   fyê]*
     [1Sg   hit.Pfv   Z]   [3Sg   go.Stat]
     'I hit Zaki and (then) he went away.'

13.3.2 Periphrastic causatives with *jāɣā\\jàɣà* 'put'

As indicated in §10.1.4, there are many ambi-valent (labile) verbs with alternative intransitive and (more or less causative) transitive senses, like 'enter' and 'put in'. Alternatively, there is also an explicitly causative biclausal construction. The higher clause has an inflected form of *jāɣā\\jàɣà* 'put (down); leave (sth)'.

    In what is probably the most common version, the notional lower-clause agent is expressed as an upstairs direct object of 'put down; leave'. The lower clause is then expressed either as a nominalized verb, such as a compound with incorporated object (191a), or as an inflected clause with a subject pronominal coindexed to the raised main-clause object (191b).

(191) a. *zàkí   jàɣà = ý ⁿ*   *sɔ̀gɔ̀làʕà-dîi*
        Z   put.Pfv=1Sg   caterpillar-eat.Nom
        'Zaki made me eat the shea-tree caterpillars.' (< *sɔ̀gɔ̀làʕá*)

     b. *zàkí   jàɣà = ý ⁿ*
        Z   put.Pfv=1Sg
        [ŋ́   díyà   sɔ̀gɔ̀làʕá]
        [1Sg   eat.Pfv   caterpillar]
        [=(a)]

By the way, these caterpillars (*Cirina butyrospermi*) are commercialized, roasted or boiled, and heavily consumed around Bobo Dioulasso in July-August. When cooked, they are crunchy and very tasty with a little salt or a dipping sauce! They have their own annual festival in Bobo.

In a second version of this construction, if the lower clause denotes motion, the lower subject is expressed as a comitative phrase ('with X') (192a-b). In a third, the lower subject appears as object of 'put' and is followed by an infinitival complement (192c).

(192) a. *zàkí*   *jàɣà*   *bà*   *[nà*   *ýⁿ]*
       Z   put.Pfv   come.Pfv   [with   1Sg]
       'Zaki made me come.'

     b. *ŋ́*   *jàɣà*   *bà / sē*   *[nà*   *zàkí]*
       1Sg   put.Pfv   come/go.Ipfv   [with   Z]
       'I made Zaki come/go.'

     c. *ŋ́*   *jàɣà*   *zàkí*   *[ná*   *bà / sē]*
       1Sg   put.Pfv   Z   [Infin   come/go.Ipfv]
       'I made Zaki come/go.'

13.3.3 Possible different-subject verb-verb compounds

Some apparently transitive verb-verb compounds might be analysable as combinations of a transitive verb followed by an intransitive. Verb-verb compounds in Tiefo-N are somewhat opaque, so we do not insist.

Consider the two compounds meaning 'knock down' in (178d) and (179a) in §13.1.1 above, repeated here as (193a-b).

(193)   imperfective   perfective   gloss

     a. *yɔ̄-dūnū*   *yɔ̀-bà-dùnù*   'knock down'
     b. *gbày-dūrù*   *gbà-rà-dùrù*   'knock down, cause to fall'

In (193a) the initial is *yɔ̄\\yɔ̀-bà*, attested as a simple transitive in the sense '(blacksmith) forge (blade)'. This denotes the act of placing the blade on an anvil and striking it with a hammer or mallet. The common denominator with 'knock down' is the act of striking hard. In (193b) the initial is obscure, though vaguely similar in form and meaning to *gbā\\gbà* 'split (wood); shatter'. The finals in (193a) and (193b) are slightly distinct in form, but might have a common origin. Semantically, 'knock down' would make sense if decomposed into 'X hit Y' and 'Y fall'. If we analyse them synchronically in this way, (193a) above would give rise to examples formated as in (194a-b).

(194) a. *[ŋ́   yɔ̀-bà   dùnù   zàkí*
        [1Sg   strike.Pfv   fall   Z]
        'I knocked Zaki down.'

    b. *yɔ̄   dūnū   zàkí*
        strike.Ipfv   fall.Ipfv   Z
        'Knock Zaki down!'

That this may be correct historically is suggested by the possible Tiefo-D cognate verb *drú//dró\\drē* 'drip' (W98: 155 *tropfen*). However, the current Tiefo-N verb for 'fall' is *só\\súgà*, cf. Noumoudara dialect "suwa" (W98: 224 s.v. Tiefo-D "disó" *fallen*).

13.4   Temporal adverbial clauses

13.4.1   'While' background clauses

An eventuality (process, state) that serves as temporal background of a foregrounded event is expressed by an adverbial clause beginning with *jà-sí-ŋà* 'when?', which also occurs in interrogatives (§11.2.2.4). Whether the subjects of the two clauses are coindexed does not matter. In (195a) the adverbial clause is a past progressive (§9.3.3).

(195) a. *zàkí   yì-rà*
        Zaki   enter-Pfv
        jà-sí-ŋà   ŋ́   tì   wɔ̀ɣɔ̀   jōlà
        when? 1Sg   Past   Prog   sleep.Ipfv
        'Zaki came in while I was sleeping.'

    b. *zàkí   bī   yì-rà*
        Zaki   Fut   enter-Pfv
        jà-sí-ŋà   ŋ́   wɔ̀ɣɔ̀   jōlà
        when? 1Sg   Prog   sleep.Ipfv
        'Zaki will come in while I am (=will be) sleeping.'

13.4.2   Imperfective complement of perception verbs

A simple imperfective main clause may function as complement of a higher 'see' verb (196a). With 'hear', a compound nominal is preferred as the complement (196b).

(196) a. *ŋ́ ɲà= [[à wàtírìì] wɔ̀ɣɔ̀ sē]*
1Sg see.Pfv [[Pref vehicle] Prog go.Pfv]
'I saw the vehicle (as it was) leaving.'

b. *ŋ́ dígὲ [ò ná-my-ó→ [kpá-lá]-mìì]]*
1Sg hear.Pfv [Pref child.Pl [weep.Pfv]-sound]]
'I heard the children's weeping.'

13.5 Purposive clauses

A matrix-clause motion verb ('go', 'come', etc.) may combine with a clausal complement expressing the purpose of the motion event. The motion verb is repeated in echo-like infinitival form (*ná* plus imperfective stem, §3.1.4), followed by a clause containing another verb in its imperfective stem (plus any relevant complements) expressing the purpose.

(197) a. *ŋ́ bà fǎnὲ*
1Sg come.Pfv around.here
[ná bà [dē [è sɔ̰̀ὲ́ɛ̰́n]]]
[Infin come.Ipfv [do.Ipfv [Pref work(n)]]]
'I have come here in order to work ("do work").'

b. *zàkí fyê wàgàdúgú*
Z go.Stat O
[ná sē [būgūn [è sɔ̰̀ὲ́ɛ̰́n]]]
[Infin go.Ipfv [look.for.Ipfv [Pref work(n)]]]
'Zaki has gone to Ouagadougou in order to look for work.'

For another example of infinitival echoing of a motion verb, see (80) in §7.1.2, where however the purposive complement is nominal rather than clausal.

13.6 Conditional construction

ní 'if' defines a clause as the antecedent in a conditional. It is immediately followed by a subject NP or by a pronominal-subject enclitic. The pronominal paradigm is (198).

(198)   *níí = ŋ́*   1Sg
                  ní é   1Pl
                  ní ŋ̀   2Sg
                  ní nā^n   2Pl
                  ní = ì   3SgHum
                  ná = à   3SgNonh
                  nó = ò   3Pl

13.6.1 Hypothetical (future) conditional

In the main conditional construction, referring to hypothetical nonpast events, the antecedent is in the perfective and the consequent is in the future.

(199)   a.   *[ní   ŋ̀   súgà]*   *[à   ŋ̀   bí   dɔ̀nɔ́-là]*
               [**if**   2Sg   fall.**Pfv**]   [Fut   2Sg   **Fut**   injure.Pfv]
               'If you-Sg fall, you'll be hurt.'

       b.   *[ní   zàkí   súgà]*   *[kà   bī   dɔ̀nɔ́-là]*
               [**if**   Z   fall.**Pfv**]   [3Sg   **Fut**   injure.Pfv]
               'If Zaki falls, he'll be hurt.'

13.6.2 Counterfactual

If the antecedent event (and therefore, implicitly, the consequent) failed to take place in the past, the construction is counterfactual. The past morpheme *tì* is added to both antecedent and consequent, pushing the temporal reference point to a time in the past. Future *bī* appears in L-toned form (*tì bì*) in the consequent.

(200)   *jáná   [ní   ŋ̀   tì   súgà   [[cɔ̌   ŋɔ́^{n}]   wúrí]]*
       yesterday   [if   2Sg   Past   fall.Pfv   [[hole   Dem]   in]]
       [ŋ̀   tì   bì   wā]
       [2Sg   Past   Fut   die.Pfv]
       'If you had fallen into this hole yesterday, you would have died.'

13.6.3 'Even if'

The particle *hàlí* 'even' occurs at the beginning of the antecedent, replacing *ní* 'if'.

(201) *hàlí*   *ǹ-bló*   *bà,*
      même   rain(n)   come.Pfv,
      á   *ŋ́*   *bì*   *sà*   *[à*   *fíyáʕā]*
      Fut   1Sg   Fut   go.Pfv   [Pref   field]
      'Even if it rains (tomorrow), I'll go to the fields.'

13.7 'That' complementizers with 'know', 'see', 'hear', and 'say' (*tá*, *dè*)

With 'know (that)' and 'see (that)', the nonquotative complementizer *tá* 'that' occurs at the beginning of the subordinated clause, which otherwise has main-clause form.

(202)   a.   *[ŋ́*   *kɔ̀ⁿ]*   *[tá*   *ǹ*   *gō*   *mā]*
           [1Sg   know.Stat]   [**that**   2Sg   be   there.Def]
           'I know that you-Sg are present.'

        b.   *[ŋ́*   *kɔ̀ⁿ]*   *[tá*   *zàkí*   *gō*   *mā]*
           [1Sg   know.Stat]   [**that**   Z   be   there.Def]
           'I know that Zaki is present.'

        c.   *[ŋ́*   *kɔ̀ⁿ]*   *[tá*   *zàkí*   *kǎ*   *sē-ʔ]*
           [1Sg   know.Stat]   [**that**   Z   PfvNeg   go.Ipfv-Neg]
           'I know that Zaki didn't go.'

        d.   *ŋ́*   *tì*   *kàá*   *kɔ̀ⁿ=yⁿ*   *[tá*   *ǹ*   *gō sàmìyàʕàⁿ]*
           1Sg   Past   PfvNeg   know=3SgE   [**that** 2Sg be Bobo.Dioulasso]
           'I didn't know that you-Sg were in Bobo.'

        e.   *ŋ́*   *ɲà*   *[tá*   *[à*   *wàtírìì]*   *fyê*
           1Sg   see.Pfv   [**that**   [Pref   vehicle]   go.Stat
           'I see (=have seen) that the vehicle has left.'

With 'hear (that)', the complementizer is *dè* 'that'.

(203) *ŋ́*   *dígὲ=ỳ*   [*dè*   *ŋ̀*   *gō*   *sàmìyàʕàⁿ*]
       1Sg   hear.Pfv=3SgE   [**that** 2Sg   be   Bobo.Dioulasso]
       'I heard that you-Sg were in Bobo.'

dè is also the 'that' complementizer after 'say', though it is optional. See (37a-b) for quotative clauses with *dè*, and (143) for some without *dè*.

The generalization is that *dè* 'that' frames reported speech, while *tá* frames unspoken but cognitively articulated propositional knowledge.

14 Anaphora

This chapter deals with anaphoric elements that require coindexation with a specific antecedent NP. These are reflexive, reciprocal, and logophoric. The chapter does not cover ordinary third person pronominals.

In Tiefo-N, reflexives and reciprocals are closely related in form.

14.1 Reflexive

A reflexive object is expressed by a pronominally possessed form of the noun-like element *myâ^n*. The paradigm is (204).

(204) 1Sg *ŋ̀ myâ^n*
       1Pl *è myâ^n*
       2Sg *ŋ̀ myâ^n ~ m̀ myâ^n*
       2Pl *nā myâ^n*
       3Sg *ŋ̀ myâ^n*
       3Pl *ò myâ^n*

Examples are in (205). Plural-subject examples are here translated as reflexives but they can also be reciprocals (see the following section).

(205) a. *zàkí*   *kpɔ̀*   *[ŋ̀*   *myâ^n]*
           Z   hit.Pfv   [3Sg   Refl]
           'Zaki hit/killed himself.'

       b. *[ò*   *sísàʕà*   *kpà*   *[ò*   *myâ^n]*
           [Pref   young.man]   hit.Pfv   [3Pl   Refl]
           'The young men killed themselves.'

       c. *é*   *bī*   *kpà*   *[è*   *myâ^n]*
           1Pl   Fut   hit.Pfv   [1Pl   Refl]
           'We will kill ourselves.'

14.2 Reciprocal

The same reflexive forms can also function as reciprocals. While singular subjects can only have reflexive objects, plural subjects can have either reflexive or reciprocal objects. The resulting ambiguity is not serious in most contexts, where reciprocal readings are usual.

(206) a. *ná-m-yó→*   *kpà*   *[ò*   *myân]*
            child-Pl   hit.Pfv   [Pref   Recip]
            'The children hit each other (=fought).'

      b. *dídī*   *é*   *ɲē*   *[è*   *myân]*
            last.year   1Pl   see.Pfv   [1Pl   Recip]
            'We saw each other last year.'

14.3 Third-person logophoric

The independent third person pronouns *bǒ* (3Sg) and *bòó* (3Pl), when they occur (instead of the usual third-person proclitic pronominals) in subject position, normally have logophoric interpretations if the clause in question is quoted. In a logophoric relationship, the ascribed author of the quotation is coindexed with the third-person subject pronoun. In other words, the original utterance had a 1Sg or 1Pl pronominal that is converted into a quoted logophoric third person.

    This is only the case when the ascribed author is a third party, not the current speaker or addressee. We therefore get an independent third person pronoun in logophoric subject function in (207a-b), but not in (207c). An independent third person pronoun may also be used in lower-clause object function (207d), though we not sure how systematically.

(207) a. *zàkí*   *jà*   *[(dè)*   *bó*   *bī*   *bà]*
            Z   say.Pfv   [(that)   3Sg   Fut   come.Pfv]
            'Zaki$_x$ said that he$_x$ (=Zaki) will come.'

      b. *ná-my-ó→*   *jà*   *[bòó*   *bī*   *bà]*
            child-Pl   say.Pfv   [3Pl   Fut   come.Pfv]
            'The children$_x$ said that they$_x$ (=the children) will come.'

      c. *ɲ́*   *jà*   *[ɲ́*   *bī*   *bà]*
            1Sg   say.Pfv   [1Sg   Fut   come.Pfv]
            'I said that I will come.'

d. | *zàkí* | *jà* | *[(dè)* | *ŋ̀* | *kpà* | *bǒ]* |
|---|---|---|---|---|---|
| Z | say.Pfv | [(that) | 2Sg | hit.Pfv | 3Sg] |

'Zaki$_x$ said that you-Sg hit-Past him$_x$.'

Of course ordinary third person subject pronouns are used in quotations where the subject is not coindexed to the ascribed author (208a-b). The occurrence of a proclitic rather than independent third-person subject pronominal in (208b) tells the listener that the referent of this pronominal is not the same as that of the author (Zaki).

(208) a. | *ŋ́* | *jà* | *[kà* | *bí* | *bà]* |
|---|---|---|---|---|
| 1Sg | say.Pfv | [3Sg | Fut | come.Pfv] |

'I said that he/she will come.'

b. | *zàkí* | *jà* | *[kà* | *bí* | *bà]* |
|---|---|---|---|---|
| Z | say.Pfv | [3Sg | Fut | come.Pfv] |

'Zaki said that he/she (=someone else) will come.'

15 Discourse markers and greetings

15.1 Discourse markers

15.1.1 Topicalization (*kɔ̀ní*)

kɔ̀ní (as in Jula) follows a preclausal topicalized constituent. If this constituent is pronominal, it takes independent prominal form: *ɲí kɔ̀ní* 'as for me, …', *zàkí kɔ̀ní* 'as for Zaki, …'.

15.1.2 'X too' (*gó*)

gó 'also, too' occurs phrase-finally (209a-b). It is distinguished tonally from *gō* 'be' (§10.2.1). In (209a-b), the subject is expressed by an independent (not proclitic) pronoun, indicating that the subject is the focus.

(209) a. *ɲí   bà   gó*
           1Sg   come.Pfv   also
           'I too have come.'

       b. *ɲí   bī   sà   gó*
           1Sg   be   go.Pfv   also
           'I too will go.'

15.1.3 'Self' (*yèrɛ́*)

yèrɛ́ 'self' follows the relevant NP or independent pronoun. The sense is that X rather than some other entity will fulfill the predicate.

(210) a. *[ɲí   yèrɛ́]   bī   sà*
           [1Sg   self]   Fut   go.Pfv
           'I myself will go.'

       a. *[zàkí   yèrɛ́]   bī   sà*
           [Z   self]   Fut   go.Pfv
           'Zaki himself will go.'

15.1.4 'Even' (*hàlí*)

hàlí 'even' (the Tiefo-N representative of a widespread regional form) can precede an NP (including an independent pronoun). In (211) the 'even' phrase functions as a preclausal topic. The presupposition is that others can do the work more easily.

(211) *[hàlí   ɲí]   ɲáɣàⁿ   dē   pɔ̀rɔ̀ⁿ=   [ỳ   sɔ̰̀ɛ̀ɛ́ⁿ]*
     [even   1Sg]   1Sg.Prog do.Ipfv be.able   [Pref   work(n)]
     'Even I can do this work.' (*=ỳ* from *è*, *ɲáɣàⁿ* variant of *ɲ́ wɔ̀ɣɔ̀*)

15.1.5 'Only' (*míɛ̀ⁿ*)

This is expressed by adding *míɛ̀ⁿ* after the relevant constituent. It may combine with the focus particle (§11.1) as *míɛ̀ⁿ nè* (212a). The sense is that no other individual has performed the indicated action.

(212) a. *[ɲí   míɛ̀ⁿ   nè]   bà*
        [1Sg   only   Foc]   come.Pfv
        'Only I have come.'

      b. *zàkí   dí   [à   ʃíyáʕā̄ⁿ]   míɛ̀ⁿ*
        Z   eat.Ipfv [Pref   toad]   only
        'Zaki only eats toads.'

15.1.6 'But' (absent)

In clause sequences like (213) where there is an adversarial relationship between the content of the two clauses, no overt 'but' particle is used. Other languages of the zone generally use an adaptation of French *mais* 'but'.

(213) *[kà   kúlē]   [kà   máⁿ   yɛ́]*
     [3Sg   crawl.Ipfv] [3Sg   IpfvNeg   walk.Ipfv]
     'It (=baby) can crawl, (but) it can't walk.'

15.2 Greetings

The morning greeting is (214a), ending with a vocative naming the addressee. The interlocutor replies with the same formula, changing only the personal name of the addressee. The sequence that follows this initial exchange is (214b-d).

(214) a. *bàsáàⁿ*   *làmínì*
           good.morning   L
           'Good morning Lamine!' (cf. *sùgáⁿ* 'morning')

       b. *mì*   *yígà→*
           2Sg   get.up.Pfv
           'You-Sg have arisen.' (< *yígà*)

       c. *ŋ́*   *yígà,*   *ŋ́*   *ɲà*   *kúùⁿ*
           1Sg   get.up.Pfv   1Sg   see.Pfv   today
           'I have arisen, I have seen (=reached) today.'

       d. *díyáʕāⁿ*   *ŋɔ̀ⁿ*   *súgúnā*
           fire   give.Pfv   tomorrow
           'May fire (=God) give (us) tomorrow!'

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Abbreviations and symbols

Abbreviations

A	A-class of nouns (in e.g. 3SgA)
Adj	adjective
ATR	advanced tongue root (vowel feature)
C	consonant (in formulae like CvCv)
Def	definite
Dem	demonstrative
E	E-class of nouns (in e.g. 3SgE)
Excl	exclusive (first person)
Foc	focus
Fut	future
H	high (tone)
Hum	human
Ipfv	imperfective
Imprt	imperative
Incl	inclusive (first person)
Infin	infinitive
L	a) low (tone)
	b) any sonorant (in formulae like CvL)
N	a) noun (in e.g. "N-Adj")
	b) nasal consonant (in formulae like CvN)
(n)	noun, in interlinear glosses like 'work(n)'
Neg	negative
Nom	nominalizer
NP	noun phrase
Num	numeral
O	a) object (in e.g. "SVO")
	b) O-class of nouns (in e.g. 3SgO)
Obj	object
Pfv	perfective
Pl	plural
Poss	possessive, possessor
PP	postpositional phrase
Prog	progressive

Pron	pronoun
Proh	prohibitive
Q	question
Recip	reciprocal
Refl	reflexive
S	subject (in e.g. SVO)
Sg	singular
Stat	stative
V	verb (in e.g. "SVO")
v	vowel (in formulae like "CvCv")
(v)	verb, in interlinear glosses like 'fight(v)'
VP	verb phrase

Symbols

*	reconstructed
#	ungrammatical, unacceptable, unattested
á, à, â, ǎ, ã	tones on vowels (or syllables)
<…>	contour tones on one syllable, e.g. <HL> or <LH>
/…/	a) lexical tone melody, e.g. /LH/, /H/
	b) underlying or lexical representation
{…}	a) tone overlay, e.g. {HL}, {H}, {L}
	b) enclosing any set, e.g. {*u a i*}
[…]	a) phonetic (IPA) representation, e.g. [bǔ:]; or phrasal grouping
	b) syntactic brackets
ꜜ	downstep
=	clitic boundary
→	prolongtion

Indices

1.   selected morphemes

ɲɔ́ⁿ	'person', §3.1.1.5
ò	marker of O-class before noun, §3.1.1.1
pɔ̀rɔ̀ⁿ ~ pɔ̀yⁿ	'be able to, can', §13.2.1
-rà	perfective suffix on verb, §8.6.1.1
-rɔ	plural suffix allomorph on nouns, (30) in §3.1.2
sà	'go' (perfective), §8.5.2
se	a) *sē*, 'go' (imperfective), §8.5.2
	b) *sê*, 'where?', §11.2.2.3
ta	a) *tà*, 'or', §6.2
	b) *tá*, 'that' complementizer after 'know' and 'see', §13.7
tɛ̄ = ʔ	'it isn't X', §10.2.4
tì	past, §9.3.3, §13.6.2
tɔ̀ⁿ	locative postposition, §7.3.1
wà	polar interrogative, §11.2.1
	in disjunctions, §6.2
wi	a) *-wì*, deverbal agentive, §3.1.3
	compounds, §4.2.3
	b) *-wí*, 'owner', in compounds, §4.2.2
wɔyɔ	a) *wɔ̀yɔ̀*, progressive positive, §9.3.1
	b) *wɔ̀yɔ́ ~ wɔ̀yɔ̀*, 3Pl perfective negative, §9.1.2
	c) *wɔ̀yɔ̀ máⁿ*, 3Pl imperfective negative, §9.2.2
wúrí	locative postposition, §7.3.1
yáɣá	'prevent', §13.2.2.3
= ỳ	'it is X', §10.2.4
yèrɛ́	'self', §15.1.3
-yo→	plural suffix allomorph on nouns, (31) in §3.1.2

2. grammatical terms

ablaut, in verb stems, §2.7.2
adjective, §3.3
    noun-adjective syntax, §5.3
    ordinal, §3.4.5
    adjectival predicate, §10.1.2.3
adposition, chapter 7
adverb (see also "postposition")
    demonstrative, §5.4.3
    focalized, §11.1.3