## A Grammar of Kusaal

Agolle Dialect
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## Preface

I worked as an eye surgeon in the Bawku Presbyterian Hospital in Ghana for some years in the 1990s. I had previously not so much as heard the name of the major language of the district, Kusaal. Although I had the benefit of some coaching in the language by SB (see Sources), there were no written instructional materials of any kind available to me at the time I first arrived. (I would have been saved a good deal of trouble, though denied some pleasure of discovery, if I had then seen David Spratt's introductory sketch and vocabulary.) Accordingly I embarked on the wholly new adventure of trying to work out the structure of an entirely unfamiliar language essentially by myself from scratch, armed with a longstanding interest in language but very little in the way of prior helpful skills and experience.

Through enthusiasm, perseverance and the help of some very tolerant and patient informants, along with a good deal of exposure to the language in the course of my work, I did eventually acquire enough competence to be able to function in the highly stylised context of medical interaction with patients. I also became fascinated by the language and delighted by the order and beauty which underlie a surface which initially seemed chaotic. I hope that this work will convey a little of that beauty.

No linguist will fail to recognise that the account below is the work of an amateur. Whatever it has produced which is of value is a testimony to the intelligence of my informants, who also had perfectly good day jobs in which they proved themselves some of the best colleagues I have ever worked with.

When I lived in Ghana, there were very few linguistic works available on Kusaal. Happily, the situation has changed; in the References section I list numerous works by Urs Niggli on the Toende Kusaal of Burkina Faso, and more encouragingly still, accounts of aspects of Toende Kusaal by Hasiyatu Abubakari, and a complete grammar of Agolle Kusaal by Agoswin Musah, both speakers themselves.

Particularly useful accounts of other Western Oti-Volta languages have been Knut Olawsky's study of Dagbani and Adams Bodomo's grammar of Dagaare. I have also gleaned many helpful ideas from the Cambridge Grammar of the English Language (Huddleston and Pullum 2002), a valuable guide to the kinds of question it is helpful to ask about the syntax even of languages very different from English.

My brief description of the Kusaasi people themselves in my Introduction is merely a short list of points I found especially interesting, and not even the beginning of an adequate account of a deep and intricate culture. It is much to be hoped that Kusaasi culture finds worthy investigators who can portray it as it deserves. Until then I would recommend Ernst Haaf's "Die Kusase" (see References.) Haaf was a doctor in Bawku Presbyterian Hospital from 1959 to 1962; he was still remembered with affection thirty years later. The work concentrates especially on Kusaasi traditional medicine, but contains a great deal of other interesting material.

I am grateful to Dr Tony Naden, who sportingly put up with being visited out of the blue in his home in northern Ghana and showed me hospitality worthy of Africa, while giving me a number of helpful pointers; I was also helped by several individuals working for the Ghana Institute of Linguistics in Tamale, who among other kindnesses provided me with photocopies of David Spratt's unpublished introductory materials on Kusaal. It goes without saying that none of these people is responsible for the errors in my work. I am particularly grateful to Brian McLemore, Executive Director of Global Translation Services at Bible League International and to the Ghana Institute of Linguistics, Literacy and Bible Translation for permission to cite verses from the Kusaal Bible versions.

More generally, I am grateful to the Presbyterian Church of Ghana, an organisation working in often difficult circumstances with tenacity and wisdom; and to the excellent Christoffelblindenmission, by whom I was seconded to Ghana; they did not mean to sponsor the writing of a grammar, but I am sure they will not mind that they did so as a happy side-effect.

This grammar began as an attempt to understand Kusaal morphophonemics. It grew into areas where I was even less sure-footed, and I am very conscious of its deficiencies. In the course of working up my old notes after many years many questions have occurred to me which I lacked the experience to ask when I had daily contact with Kusaal speakers. If my description provokes others to ask some of those questions or to offer better analyses of Kusaal grammar, I will be very happy, and I welcome feedback and suggestions.

David Eddyshaw
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## Abbreviations

| AdvP | adverbial phrase |
| :--- | :--- |
| agt | agent noun |
| BNY | Bunkonbid ne Niis ne ba ycla |
| C | consonant |
| cb | combining form |

CGEL Cambridge Grammar of the English Language
DK informant
dp discontinuous past
ger gerund
H High toneme

ILK An Introduction to Learning Kusaal
imp imperative
ipfv imperfective
irreg irregular
KB Kusaal Bible of 2016
KED A Short Kusaal-English Dictionary
KKY Kusaas Kuob ne Yir yela Gbaup
KSS Kusaal Solima ne Siilima
KT informant
L Low toneme
LF Long Form
M Mid toneme
NP noun phrase
NT Kusaal New Testament, 1976 and 1996
pfv perfective
pl plural
SB informant
SF Short Form
sg singular
V vowel
VP verb phrase
WK informant
$1 \mathrm{sg} 2 \mathrm{pl} . . . \quad$ first person singular, second person plural etc

Abbreviations for books of the Bible are fairly standard and should occasion no difficulty. Citations are from the 2016 version unless stated otherwise.

## Interlinear glossing

| ABSTR | abstract | $\underline{8.2}$ |
| :--- | :--- | :--- |
| ADV | adverbial |  |
| AN | animate gender | $\underline{12.3}$ |

CAT clause catenator (underlyingly $n$ ) $\underline{19}$
CNTR
COP
CQ
DEM
DEMST demonstrative pronoun (spatio-temporal)
DP discontinuous-past marker $n^{\varepsilon} \quad \underline{16.3 .2}$
EXIST existence/location verb bè $\underline{16.12 .1}$
FOC focus particle $n \bar{\varepsilon} /{ }^{\prime} \quad \underline{\text { 24.1.2 }}$
GER gerund $\underline{\text { 8.1.1 }}$
IDEO ideophone $\underline{14}$
IMP
IN
INDF
IPFV
independent imperative verb form
7.1
inanimate gender $\underline{12.3}$
indefinite pronoun
12.4.3
imperfective verb form
7.1

IRR positive irrealis mood marker
16.4

LOC locative postposition ( $n \bar{\imath} / \sim n^{\varepsilon}$ )
13.3

NEG
NEG.BE
negative prosodic clitic
4.1

NEG.HAVE (another use of the same verb)
NEG.IMP negative imperative marker $\underline{16.4}$
NEG.IND negative indicative marker
NEG.IRR negative irrealis marker
NEG.KNow negative verb $z \bar{\imath}{ }^{\prime}$
16.5
neg.LET negative verb mịt
NULL semantically empty NP head sōba
12.4.7

NUM number prefix à-bà- $\grave{n}-b \dot{c}-\quad \underline{10.2}$
NZ
PERS
PFV independent-perfective marker $y \bar{a}$
nominaliser (underlyingly $\grave{n}$ ) $\underline{21}$
personifier particle ( $\grave{a}$ - or $\grave{n}$-) $\quad 12.6$
PL plural
PQ polar question prosodic clitic $\underline{4.1}$
REL relative pronoun $\underline{\text { 21.2.2 }}$
SG singular $\underline{12.2}$
TNS tense marker 16.3.1
voc vocative prosodic clitic $\underline{4.1}$

Personal pronouns:

| 1SG 1PL | 1st sg/pl |
| :--- | :--- |
| 2SG 2PL | 2nd sg/pl |
| 3AN 3IN | 3rd sg animate/inanimate |
| 3PL | 3rd pl |
| 2PL.SUB | postposed 2nd pl Subject |
| .OB | object (pronouns) |

The linker particle kà is conventionally glossed "and" throughout, though this very often does not reflect the true meaning in context 17.2 ; similarly yà' $\underline{20.1}$ is glossed "if" in all cases. The empty particle $n \bar{\varepsilon}$ which follows objects of comparison which lack the article $\underline{15}$ is glossed "like."

Mass nouns are not specified as SG or PL in the glossing; similarly, single-aspect verbs 7.2 are not labelled for aspect. The perfective of dual-aspect verbs is also unlabelled.

In glossing, ø represents words with no surface segmental representation at all, which are detectable only from tonal and segmental effects on preceding words. Prosodic clitics 4.1 are represented by $=\varnothing$, and liaison 4.2 is marked by $\smile$.

Bound words which the traditional orthography writes solid with their hosts, as if they were word fragments, are in both the working orthography of this grammar and in glossing joined to their hosts by hyphens: these comprise the combining forms of nouns and adjectives, the personifier particle $\grave{A}-/ N_{N}^{-}$, and the liaison words $n^{\varepsilon}$ LOC $n^{\varepsilon}{ }^{\text {DP }}{ }^{\text {ya }}{ }_{2 \text { PL.SUB }}$ along with the LF of ${ }^{\mathrm{o}}$ 3AN.ob 3.1.

Polysyllabic words ending in a vowel symbol before a hyphen are always followed by liaison, so the $\smile$ symbol is omitted: puvogv-n "inside", not pūvgo- $\smile n$.

## Transcription conventions

Phonetic transcriptions are generally broad, ignoring all allophony not immediately under discussion. Starred forms are used ad hoc to illustrate morphophonemic rules, and do not represent a uniform underlying level of language.

For Agolle Kusaal orthography see 2. Symbols have approximately their IPA values, but long vowels are written with double symbols, e $\begin{aligned} & \text { both represent [r], o v }\end{aligned}$ both represent [ $\mho$ ], $\check{n}$ and ' mark nasalisation and glottalisation of adjacent vowels respectively, $y$ stands for $[j]$, and $k p g b$ stand for [ kp ] [ $\overparen{g b}]$ ]. The symbol $i$ is written with the dot below when it carries a tone mark, e.g. bịig "child" [bi:g]. This colour is reserved for words and word fragments in the working orthography of the grammar; it is not used for Kusaal in the orthography of written sources.

Hausa words are cited as in Jaggar 2001, except that long vowels are written with double letters rather than macrons. High tone is unmarked, low tone is marked with a grave, and a circumflex represents falling tone. Kano forms are given, although the actual source of the loanwords in Kusaal is the Gaanancii lingua franca.

Mooré words are cited as in Niggli 2016, and Nawdm as in Babakima 2013. For Moba, I follow Kantchoa 2005, except that I write $y$ for [j].

Arabic transcriptions use IPA symbols, except that $y$ is used for [j]; classical forms are cited, but without case endings and omitting the $t$ of $t a: ? ~ m a r b u: t^{\uparrow} a$.

Words from other languages are cited as given in the sources. Where these give tones separately, I have instead written them on the words themselves, using acute for H , grave for L , and macron for mid tone.

Francophone sources use 1 v for IPA i 0 , as do Urs Niggli's works in English and the working orthography of this grammar.

Internal and external hyperlinks appear like this.

## Sources

The analyses adopted in this grammar are entirely original, except for the most basic aspects of the tonal system, where I was much helped initially by David Spratt's brief "Introduction to Learning Kusaal." The phonology and morphology are based on elicitation work with four informants. With great reluctance I have omitted their names, as I am not currently able to confirm that they would be happy to be identified. I am very grateful to all of them. If any would like to see his name included in its rightful place of honour, I would be delighted to comply. I identify them in the grammar by these abbreviations (which are not the initials of the informants' names):

| WK | from Koka | KT | from Tempane |
| :--- | :--- | :--- | :--- |
| DK | from Kukpariga | SB | from Bawku |

The treatment of phrase-level syntax is largely based on work with these informants both in elicitation and in exploring puzzling constructions I had encountered while attempting to communicate at work. All four are first-language speakers of Agolle Kusaal, and have essentially first-language level competence in English. All are male, and were then around forty years old. I noted examples of conversation from many speakers, but recorded few examples of the usage of younger speakers specifically; I did notice a few comments about the incorrect grammar of the young from my informants (surely a cultural universal.) I found no evidence of significant differences between the speech of men and women but made no systematic enquiries on this point. My informants showed a number of minor speech differences from one another, which were probably dialectal, but I have not explored the question of subdialects within Agolle Kusaal.

My materials drawn from conversation were limited as to genre. More informal settings would have rounded out the picture in many respects. For example, features like ideophones are sparsely represented my data, and this has probably led to underestimation of their importance in the language as a whole.

At that time, I had little understanding of syntactic issues at clause or higher level. I compensated as far as I could by private study of written materials, above all the 1976 New Testament version, storing up problems to discuss later with my teachers. In revising the work twenty years later I have had the advantage of access to digitised versions of the 1996 New Testament and the complete Bible version of 2016, which has enabled me to improve my analyses of Kusaal syntax substantially in several areas. I have also drawn on the collection of stories and proverbs Kusaal Solima ne Siilima, and to a small extent on other literacy materials. I owe a great debt to the many dedicated individuals involved in Bible translation and literacy work under the auspices of the Ghana Institute of Linguistics, Literacy and Bible Translation (GILLBT), without whom these materials would not exist.

The Bible versions are generally regarded by Kusaal speakers as good and idiomatic Kusaal. The 1996 revision adapted most foreign names to accord more closely with ordinary Kusaal spelling. Many changes were made to improve accuracy and clarity; strikingly, all instances of the previously very common indirect speech construction were replaced by direct speech. The 2016 Kusaal Bible makes significant orthographic changes. There is evidence of some minor changes in the language itself over this forty-year period, but most divergences between the spelling of older sources and the speech of my informants in the 1990's are attributable simply to orthographic convention; the audio version of the 1996 NT consistently agrees with my informants in such cases.

There is no standard or prestige form of Agolle Kusaal, and as a natural consequence the language is not entirely uniform in any of the Bible versions.

Except for a few examples from David Spratt's Introduction to Learning Kusaal, written sources are cited in their original orthography, with a transliteration into the working orthography of this grammar. The tone marking is supplied by me; it was checked against the audio New Testament version in those few cases where a tonal point is at issue, but in other cases should be regarded as illustrating the tonal principles described elsewhere, not as evidence for their validity.

The following texts are cited; where not otherwise specified, they were published by the Tamale offices of GILLBT (the Ghana Institute of Linguistics, Literacy and Bible Translation):

Wina'am Gbaup<br>Wínà'am Gbáun

Kusaal Bible<br>1976 NT © World Home Bible League 1996 NT © The Bible League/GILLBT available as Audio and searchable text 2016 Complete Bible © GILLBT available as an Android application

Bunkonbid ne Niis ne ba ycla
Būn-kón̆bìd n $\bar{\varepsilon}$ Nịis né bà yz̄lá

Kusaal Solima ne Siilima
Kūsâal Sólımà nē Sịilímà

Kusaas Kuob ne Yir yela Gbaup
Kūsâas Kûөb nē Yịr yćlà Gbàunך
"Animals and birds and their affairs" Matthew M. Abokiba
"Kusaal Stories and Proverbs"
Samuel Akon, Joe Anabah
"A book on Kusaasi farming and housing"
William A. Sandow, Joseph A.H.Anaba

## Other studies of Kusaal

The pioneers of Kusaal grammatical study were David and Nancy Spratt. David Spratt's forty-two page "Introduction to Learning Kusaal" contains a useful sketch of the basic tone system. His short dictionary has also been helpful.

More recently, grammatical and lexical studies of the Toende Kusaal of Burkina Faso have been produced by Urs Niggli, who has also done considerable work with Kasem and Farefare, and edited a useful dictionary of Mooré. The language differs significantly from the Agolle dialect described here, and I have not borrowed from his grammatical analyses, but his Toende dictionary has been an excellent resource for comparative material.

Tony Naden is working on a dictionary of Agolle Kusaal based on written sources, which is much the most extensive lexicographic work so far.

There have been several publications on aspects of Kusaal grammar by Hasiyatu Abubakari, a Toende Kusaal speaker currently conducting postgraduate studies in linguistics at the University of Vienna. She has plans to publish more, including further studies of the phonological structure of the language, including the tonal system, and the difficult area of focus particles.

Anthony Agoswin Musah, a native speaker of Agolle Kusaal, has written a full grammar of Agolle Kusaal as his PhD thesis at the Goethe-Universität Frankfurt, which is available as Musah 2018.

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## 1 Introduction

### 1.1 The Kusaasi people

Upper East Region of Ghana (adapted from Macab5387):


Kusaal is the language of the Kusaasi, the majority ethnic group of the far northeast of Ghana, east of the Red Volta and north of the Gambaga Escarpment; the local major town is Bawku. There are also many Kusaasi settlements in the neighbouring part of Burkina Faso south of Zabré, and a few in Togo. The White Volta separates this predominantly Kusaasi territory into Toende (French Tondé, Kusaal Tù̀n "West", shaded dark grey above) and Agolle (Kusaal Àgòl "Upper", light grey.)

The land is mostly open savanna with scattered trees. The population density is fairly high for northern Ghana, and much former woodland has been turned over to cultivation; tracts survive especially along the White Volta where settlements are few because of the river blindness (onchocerciasis) endemic there until recent times.

Most Kusaasi are cultivators, living in widely scattered compounds, each the domain of one family head with his wives, sons, daughters-in-law and grandchildren. Cattle-raising is common but is mostly the preserve of Ful6e and Mossi. A single rainy season lasts unpredictably from May to October. The main crop is millet of various kinds, with rice to a lesser extent. Millet is used for the staple porridge $s \bar{a} ' a b$, called "TZ" /ti:'zed/ in local English (Hausa tuwon zaafii, "hot porridge"), and the traditional millet beer, dāam, called "pito" (Hausa fitoo) in English.

The Kusaasi are divided into numerous patrilineal exogamous clans (dj̀og, "hut") which tend to be associated with particular areas. (The clans being both exogamous and area-based, I was once told: "The first thing a young man looking for a wife needs to do is to get a bicycle.") A Kusaasi person knows his or her clan, and often its pȳor "slogan", part of its traditional lineage, but unlike the Mossi, the Kusaasi do not use clan names as surnames. Clans have their own distinctive customs (such as prohibitions against eating particular animals) but no administrative function; the Kusaasi originally had no chiefs. In religious matters the leading man of the area is the tè $\eta$-dāan "earth-priest", taken to be the descendant and heir of the original first settler. In precolonial times the dominant political structures in this region were the so-called Mossi-Dagomba states, the remarkably durable continuations and offshoots of polities founded, probably around the fourteenth century, by incoming conquerors traditionally held to be from the region of Lake Chad. The invaders created hereditary chiefdoms among previously acephalous peoples, who continued to provide the tè $\eta$-dàan-nàm. The founder of these kingdoms is called Naa [King] Gbewaa in Mampruli. His seat was at Pusiga (Kusaal Pūsıg) in what is now Kusaasi territory; he is said to have been swallowed by the earth at that place. In his sons' time the capital was relocated south to the Mamprussi lands. The Dagomba and Mossi kingdoms are cadet branches of this centuries-old militaryaristocratic Mamprussi state (Iliasu 1971.) Unlike their Mamprussi neighbours, the Kusaasi were not absorbed into the system, and intermittent conflict has continued to this day, particularly over the chieftaincy of Bawku. Both in colonial times and since independence, wider political issues have complicated the situation (Lund 2003.)

Ethnic group membership is patrilineal, and many Mamprussi in the Bawku area are in fact Kusaal-speaking. (It was one of my Mamprussi colleagues who first gave me a Kusaal New Testament; he himself could not speak Mampruli.)

The Kusaasi are part of a widespread culture which also encompasses neighbouring peoples like the Mossi, Farefare, Mamprussi, Dagomba and Bulsa. Traditional Kusaasi dress resembles that of the Mamprussi, Dagomba and Mossi, including the long-sleeved baggy bānāa smock, called a "fugu shirt" in English (fūug "clothing"), popularised in southern Ghana by President Rawlings.

Most Kusaasi retain their traditional animist outlook. As of 1995, perhaps 5\% of local people professed Christianity, a figure which includes many non-Kusaasi from the south; likewise, of some 5\% Muslims, many belonged to other ethnic groups.

Traditional belief includes a creator God, Win, invoked in proverbs and greetings but remote from everyday life and not to be approached in prayer or worship. Characteristic proverbs say

Dìm $n \bar{\varepsilon}$ Win, dā tû'as nē Wīnné=ø.
Eat:IMP with God:SG, NEG.IMP talk with God:SG=nEG.
"Eat with God, don't talk with God."

Wīn n̆yé kà sịn.
God:sg see and be.silent.
"God sees and is silent."

Everyday religious practice is concerned with local non-anthropomorphic spirits, also called wīn. A wīn resides in a būgvr, an object such as a stone or horn, but it is the wīn that is spiritually significant, not its place of attachment. A central figure is the $b \bar{a} ' a$ "diviner", who seeks guidance for a client by casting lots.

A human being is understood as having four components: nị̀n-gbị̣ "body"; $\check{n y} y \grave{-}-v \bar{v} r$ "life" as opposed to death, possessed by all living animals; wīn (in this sense) "genius, spirit, a person's own spiritual self"; and kìkịrıs, protective spirits (called "fairies" in local English.) Men have three kikkịrıs, women a fourth, because of the dangers of childbirth. (Throughout the cultural zone, three is a man's number, and four is a woman's.) There are wild kikịirıs in the bush which are hostile and try to lead travellers astray. Sīıg "life force", used for "spirit" in Christian materials, is in traditional belief identified with a person's tutelary kìkịrıs.

The key term wīn has yet further senses, overlapping with the European concepts of fate or destiny: wīn-tôog, literally "bitterness of wīn" is "misfortune." Most people have a particular sīgır "guardian spirit" which is often the wīn of an ancestor; the word būgur may also mean "a wīn inherited from one's mother's family." Many Kusaasi personal names refer to an individual's sīgır.

Sōon̆b "witches" exist in the traditional world view; though they cause harm, their condition can be involuntary. As in European tradition, those accused are often marginalised or older women. The Mamprussi king, whose role imbues him with great spiritual power, is safe from witches and takes them in formal marriage so that they may avoid persecution. My Ghanaian colleagues once organised a visit to an entire village of such witches in order to operate on their cataracts.

When speaking English or French, Kusaasi normally cite Kusaal personal and place names without apocope 3.2: À-Win from Widı-n̆yá'an will introduce himself as "Awini" from "Woriyanga." Similarly "Kusaasi" for Kūsâas, "Bawku" for Bj̀k etc. "Woriyanga" also shows a Mampruli rather than Kusaal form for the initial combining form "horse": Mampruli wuri-, Kusaal wid-. This reflects the origin of the convention in the use of Mamprussi guides and interpreters by the British in their initial explorations of the area. A parallel development took place earlier in Mamprussi country when the British arrived with Dagomba guides: thus "Gambaga" (Dagbani Gambaya) for the Mampruli place name Gambaa (Naden.)

However, this transposition convention has been generalised by analogy, and many forms show distinctively Kusaal phonology, morphology or vocabulary. Simple reproduction of Kusaal forms is also sometimes seen, e.g. "Aruk" for the personal name $\grave{A}-D \bar{v} k$, and the language name "Kusaal" Kūsâal itself.

### 1.2 The Kusaal language

### 1.2.1 Status

As of 1995 there were about 250,000 speakers of Kusaal, a number which has since increased very substantially.

Written materials are few, apart from the Bible translation, which is far and away the most extensive written work in Kusaal. Few people were proficient in reading or writing the language in the 1990's. Though Kusaal is thus not used in the domain of Western-style education and technical activity, it is nevertheless the language of all everyday interaction among Kusaasi of all ages, most of whom are monolingual, and is also an areal lingua franca, used in particular by the many Bisa people who are found in the villages and in Bawku.

Of the major lingua francas of Ghana, Hausa is the most important locally. It is the main source of identifiable loanwords in Kusaal. In the 1990's few people outside Bawku knew Twi/Fante or English. Perhaps 5-10\% of patients attending our clinics in Bawku at that time could communicate in English well enough for the purposes of medical consultation; the majority were most comfortable with Kusaal, with Hausa and Mooré about equal in second place, in both cases often as vehicular languages.

### 1.2.2 Dialects

There is no standard dialect of Kusaal; every district has local peculiarities and my informants show numerous small differences in speech. Bawku itself is a multiethnic trading centre around a Muslim quarter or "zongo" (Hausa zangòo "camping ground") where the main common language is Hausa.

The major dialect division is between Agolle and Toende. Numerous isoglosses coincide to produce a sharp discontinuity between Agolle and Toende Kusaal, probably attributable to depopulation near the White Volta because of the river blindness prevalent until recent times.

My informants reported little difficulty communicating with Toende speakers, but they are sophisticated multilinguals who may not be altogether typical, and it is also possible that Agolle speakers find Toende Kusaal easier than vice versa. Berthelette 2001 studied the comprehension of Agolle Kusaal by Burkina Faso Toende speakers: of thirteen respondents, ten reported that they understood the Ghanaian Toende of Zebilla "very well", one "somewhat well" and two "a little", whereas with Agolle, eight said that they understood it "a little", two "somewhat well" and only three "well." Recorded text tests administered to Burkina Faso Toende speakers showed scores of $93 \%$ for Ghanaian Toende versus $80.5 \%$ for Agolle, but Ghanaian Toende speakers achieved $94.5 \%$ with Agolle, presumably reflecting their greater exposure to the dialect. The paper also reports that Toende speakers feel their own dialect is "purer", which may affect judgments of comprehensibility.

Berthelette reports a rate of apparent lexical cognates of $84 \%$.
Agolle and Toende Kusaasi agree that they constitute a single ethnic group, and that they speak dialects of a single language. Nevertheless, the differences are great enough to justify separate grammatical treatment for the two major dialects.

By "Kusaal" I will mean "Agolle Kusaal" by default below; I do not intend by this to imply that Agolle speech is the sole standard form of the language.

### 1.2.3 Related languages

Kusaal belongs to the Gur or Voltaic language family within the huge and diverse Niger-Congo phylum.
The Gur Languages (adapted from Davius):


Green: Oti-Volta; blue: Gurunsi; yellow: other Gur.


The chart above shows relationships between some of the languages mentioned below. Subclassifications are very often uncertain; in particular, the relationship between Gur and Adamawa is unclear. Mande may well not belong with Niger-Congo at all. The inclusion of Kordofanian and Atlantic in Niger-Congo is a long-range hypothesis: striking typological similarities with Volta-Congo do not prove genetic unity. For West Africa and beyond as a Sprachbund see Güldemann 2007.

However, there is unequivocal evidence for Volta-Congo as a genetic group. Basic lexical items recur frequently: compare Kusaal bịig "child", dì "eat", nū "drink", kpị "die", tìıg "tree", àtán̆' "three", tùbvr "ear" with their Fongbe equivalents ví, dù, nù, kú, átín, àtòn, tó. Guthrie's Proto-Bantu reconstructions parallel all except "child": dí- "eat", nú- "drink", kú- "die", -tí "tree", -tátơ "three", -tơ "ear", and his Proto-Bantu tóm- "send" corresponds to Kusaal tùm. The Potou-Akanic language group, which includes Twi/Fante and Gonja, here shows a regular sound correspondence $t \sim s$ : Twi عsã "three", asõ "ear", soma "send", Gonja à-sá "three", kò-sówé "ear."

The most salient morphological feature of Niger-Congo is the presence of noun class systems, with frequent matches of form and meaning among Volta-Congo branches. Thus the Kusaal human-plural noun suffix -ba seen in nị̃dıb "people", plural of nị̀d, matches the Gonja human-plural prefix in bá-sà "people", plural of é-sà, and the ba of Lingala bato "people", plural of moto. Particular sg/pl pairings of affixes recur; for example, the suffixes $r \varepsilon \mid a a$ seen in Kusaal tùbvr "ear", pl tùba are cognate to the Bantu prefix pair 5/6 (Nurse and Phillippson, p104.) Lingala has the cognate of tùbur in this very class: litói "ear", pl matói. The affixes of other Volta-Congo languages correspond to the Bantu pronominal/verbal agreement prefixes rather than noun class prefixes; for Proto-Bantu 5/6 these are sg li, pl gá (ibid. p149.)

Similarities also appear in verbal derivation by suffixes, usually called "verbal extensions", as in Bantu, where such processes are often very productive. However, form and function can be difficult to correlate, and some processes may even be areal phenomena, found also in Afro-Asiatic and Nilo-Saharan (Hyman 2007.)

With some lower-level groupings detailed comparative work has achieved much already. High-level comparative work is generally at an early stage; see, however, Gabriel Manessy on Gur, and especially the publications of John Stewart on Potou-Akanic and its relationships with Bantu and Atlantic.

At the lowest level Kusaal belongs to Manessy's Western Oti-Volta family. Except in Boulba, Proto-Oti-Volta ${ }_{C}{ }_{f}$ have become $s z$; verbal inflection is simple, almost all inflecting verbs using the bare stem for perfective aspect and adding a suffix *-da for imperfective; some noun classes have been lost, with words referring to trees transferred to the ga|sع class (Buli tìib "tree", Kusaal tìıg, Mooré tı̀ıgá); and there is much distinctive vocabulary, e.g. Kusaal kù'өm "water", Mooré kòóm, vs Moba núm̀, Buli nyíam, Nawdm nyáálḿ, Nateni nć $\bar{\varepsilon} m a$. The Boulba/Notre language of Benin is an outlier: it shares distinctive lexicon (kúà "water"), but has devoiced $* g \rightarrow k, * g b \rightarrow k w, * z \rightarrow \widetilde{C C}$, reflecting areal features shared with Eastern Oti-Volta, and it has not participated in the loss of noun classes, e.g. tiebò "tree."

Western Oti-Volta is roughly as diverse as Romance. Claims of mutual intelligibility often reflect underappreciation of the fact that many local people are competent users of more than one distinct language.

Apart from Boulba, the group is subdivided into Northwestern and Southwestern. Northwestern Oti-Volta includes Mooré, Safaliba, the dialect continuum Dagaare-Waale-Birifor, and Farefare-Gurenne-Ninkare. Mooré and Farefare share innovations absent in Dagaare. Southwestern Oti-Volta includes Kusaal, Nabit, Talni, Mampruli, Dagbani, Hanga, Kamara and some smaller languages; a distinctive Southwestern feature is the imperative inflection *-ma.

Mampruli, Dagbani, Hanga and the smaller languages form a clear subgroup. Among other innovations, they show a great simplification of the vowel system, along with lowering of short *e to $a$ and the development of contrastive palatalised velars.

Kusaal probably forms a subgroup with Nabit and Talni, spoken in the adjacent Nabdam and Talensi districts. Tony Naden's Nabit data closely resemble Toende Kusaal; Giffen 2015 notes that Talni speakers understand Nabit to some extent.

Nabit, Talni, and Kusaal have lost inherited final short vowels in citation forms. Naden's materials suggest that Nabit and Talni, like Kusaal, retain the final vowel at the end of questions and negated clauses (Toende materials from Niggli):

| Nabit | La bi'ime. |  |
| :--- | :--- | :--- |
| Toende | La bı'ı me. | "It is ripe." |
|  |  |  |
| Nabit | La na bu biige. | "It is not yet ripe." |
| Toende | La nan bv bı'ıge. |  |

Talni Bunpok dozam pu bokəra, buraa dozam m bokət.
Toende Bupok dogım bv bokıra, bvraa dogım bokıt.
"A woman's kindred is not divided, a man's kindred is divided."

Other groups within the Oti-Volta family can readily be seen to be related.
Buli is close to Western Oti-Volta: Kröger 1992 shows numerous obvious cognates in vocabulary and parallels in nominal morphology. Buli verbs do not inflect for aspect. Proto-Oti-Volta $*_{S} *_{z} *_{C} *_{f}$ are preserved unchanged.

The Gurma languages are much less close. Gulimancéma and Konkomba typically show nouns with both class prefixes and class suffixes, and all the languages have complex and unpredictable verb aspect flexion, making the imperfective by changing stem tones and/or adding or dropping several different suffixes.

Both Buli and Gurma have three-tone systems. Of the three Western Oti-Volta Tone Patterns 3.8, Pattern H corresponds to Buli high tone, but Gurma low; Pattern A to Buli mid and Gurma high, and Pattern L to Buli low and Gurma mid:

| Kusaal | Buli | Moba |  |
| :--- | :--- | :--- | :--- |
| wáaf | wáab | wààùg | "snake" |
| mōog | mūub | móóùg | "grass" |
| tı̀ıg | tìib | tī̀g | "tree" |

It is Gurma which is conservative: cf Proto-Bantu -nùà "mouth", Fongbe ònù = Kusaal n̄̄or (Pattern H) versus Proto-Bantu -tú "ear", Fongbe tó = Kusaal tùbvr.

Nawdm aligns tonally with Western Oti-Volta and Buli: wáàǵb "snake", móógú "grass", tìíb "tree." Nawdm has shifted ${ }^{*} p \rightarrow f$, ${ }_{s} \rightarrow h, *_{C} \rightarrow s$, and ${ }^{*} z \rightarrow j$. It preserves Proto-Oti-Volta *r 3.4, and often has $\AA$ [?] where Western Oti-Volta shows vowel glottalisation. Most verbs use a stem form as perfective and add -a for imperfective, but there are several other patterns, such as perfective -ra versus imperfective $-l$.

Nawdm shows much less lexical similarity to Western Oti-Volta than Buli does, but there are some notable parallels in verb flexion and derivation.

Sambiéni 2005 provides considerable detail on the Eastern Oti-Volta languages. He assumes Manessy's Eastern Oti-Volta as a valid subgroup, but this subgrouping is partly based on initial consonant changes which are areal, and shared with Boulba.

The verbal systems of Ditammari and Nateni are similar, broadly resembling Gurma. Both languages also align with Gurma in showing L tones corresponding to Pattern H. Ditammari shows nouns with both class prefixes and class suffixes.

Byali verbs mostly oppose perfective -sə to imperfective $-u$. Byali usually shows mid tones in cognates of Kusaal Pattern H words.

Waama shows high tones in words corresponding to Western Oti-Volta Pattern H. A group of verbs with stems ending in vowels or alveolars opposes perfective -i to imperfective -u, but most verbs use the bare stem as perfective and add -ri -di or -ti for the imperfective. Of roughly 400 vocabulary items compared by Sambiéni, 55 Waama words are not cognate to those of the other languages; the figures for the other languages are all under 20. Some have cognates in Western Oti-Volta and Buli, e.g. Waama wōmmā "entendre", Kusaal wv̀m, Boulba wàmú, Buli wom; Waama cáárō "forgeron", Kusaal sāenn̆; Waama yété "maison", Kusaal yịr, Boulba yere, Buli yérí.

There is much less similarity between Oti-Volta as a whole and the other major branch of Gur, the Gurunsi languages, which include Kasem and Kabiyè among many others. Oti-Volta and Gurunsi may be coordinate members of a continuum including at least some Adamawa subgroups: Kleinewillinghöfer 1996 references studies suggesting that the Adamawa languages Waja and Tula are closer to Gurunsi than to Oti-Volta. Manessy takes Koromfe as a third branch of "Central Gur" alongside OtiVolta and Gurunsi. He classified some languages as Gur on the basis of very scanty documentation; when adequate descriptions appear, such classifications may need to be revisited. The Senufo group was previously regarded as a branch of Gur, largely on the basis of having noun class suffixes rather than prefixes; it is now usually held to constitute a distinct branch of Volta-Congo.

### 1.2.4 Grammatical sketch

Kusaal is in most respects a typical Western Oti-Volta language. It is chiefly distinctive in having undergone apocope of word-final short vowels even in citation forms, a feature shared with Nabit and Talni. Thus where Mooré has the citation form gígemde "lion", the cognate Kusaal word normally appears in the Short Form (SF) gbīgım. This is not a simple historical matter, however: the Kusaal final vowel is still present in certain contexts. It reappears clause-finally when the clause contains a negation, ends a question, or is used as a vocative: the final word then appears as a Long Form (LF):

Lì à ne gbīgım. $\quad$ It's a lion."
3IN COP FOC lion:SG.

Lì kā' gbīgımne=ø. "It's not a lion."
3IN NEG.BE lion:SG=NEG.

Lì à n̄̄ gbígìmné=ø. "Is it a lion?"
3IN COP FOC lion:SG=PQ.

As here, after apocope any final consonant cluster drops the second consonant.
This appearance of surface untruncated forms rather than truncated is regarded as being triggered by following prosodic clitics, which have no segmental form of their own but show their presence by this effect on the preceding word form. There are four prosodic clitics: negative NEG, vocative voc, polar-question PQ and content-question CQ , with different effects on preceding vowel length and tone. In interlinear glossing they are represented by $=\varnothing$, as above.

In citing word forms, superscripts are used to write the parts of words which are dropped everywhere except before prosodic clitics and liaison: gbīgım ${ }^{\text {n } \varepsilon}$ "lion", bịi $g^{\mathrm{a}}$ "child", kūk ${ }^{\mathrm{a}}$ "chair", dūk ${ }^{\text {/ }}$ "pot."

The phonology of Kusaal is significantly complicated by apocope. For example, apocope deletes segments responsible for rounding and fronting effects on preceding vowels, and renders those effects contrastive. This creates diphthongs, along with emic contrasts among epenthetic vowels. Thus the LF vịugó "owl" has iu for ii because of the rounding effect of the suffix vowel. After apocope, the diphthong iu in $v i ̣ u g$ contrasts with the vowel of vịid "owls", shortened from vịìd $\varepsilon$. Similarly, āan̆dıga "black plum tree" has the default epenthetic vowel $t$, and appears as $\bar{a} a n ̆ d ı g$ after apocope, whereas gàadvgo "passing" has rounding to $v$ before the flexion -go, and after apocope this becomes contrastive in the SF gàadvg.

Liaison words cause a preceding word to appear as a LF modified by the loss of all original vowel quality contrasts in final non-root vowels. All non-contrastive personal pronouns fall into this category, for example:

$\grave{M}$ zábī bá. $\quad$ I've fought them."
1SG fight 3PL.ob.
Modified LF zàbī before liaison.

In interlinear glossing, liaison is marked by $\smile$, as above.
Apocope reduces several liaison words of the underlying form $C V$ to a single consonant. Thus with bòsda "wants, loves" and $f^{\text {a }}$ "you (sg)":
$\grave{M} p \bar{u} \quad$ bósdī $f o ́=\varnothing$. $\quad$ I don't love you."
1SG NEG.IND want 2 SG.ob=NEG. LF $f 0$ of the pronoun "you (sg)"
$\grave{M}$ bóodī $f$. "I love you."
1SG want 2SG.OB.
SF $f$ of the pronoun "you (sg)"

The locative postposition $n^{\varepsilon}$ is another such word. It is conventionally written solid with the preceding host word, but hyphenated to it in this grammar:

| Lì $k a{ }^{\prime} \quad k u ̄ k a=\varnothing$. <br> 3IN NEG.BE chair:SG=NEG. | "It's not a chair." |
| :---: | :---: |
| Lì kā' kūkı-né=ø. <br> 3IN NEG.BE chair:SG-LOC=NEG. | "It's not in a chair." |
| kūkı-n <br> chair:SG-LOC | "in a chair" |
| Lì kā' dūkó=ø. <br> 3IN NEG.BE pot:SG=NEG. | "It's not a pot." |
| Lì $k \bar{a}^{\prime} \quad d \bar{v} k i ́-n \bar{\varepsilon}=\varnothing$. <br> 3IN NEG.BE pot:SG-LOC=NEG. | "It's not in a pot." |
| dūkí-n <br> pot:SG-LOC | "in a pot" |

The object pronoun ${ }^{0}$ "him/her" has the LF $o$ [ $\mho$ ], which is deleted entirely by apocope, producing a SF which is segmentally zero. Its presence is still shown by the replacement of the preceding host-word-final vowel mora by [ $\circlearrowright$ ], always written $o$.

Compare the forms with $f^{\circ}$ "you (sg)" with the forms with ${ }^{\circ}$ "him/her":

| $\grave{M} p \bar{u}$ bósdī fó=ø. | "I don't love you." |
| :---: | :---: |
| 1SG NEG.IND want 2SG.OB=NEG. |  |
| $\grave{M}$ bóodī $f$. | "I love you" |
| 1SG want 2SG.OB. |  |
|  | "I don't love him/her." [mppbo:dv:] |
| 1SG NEG.IND want-3AN.OB=NEG. | LF $o$ of the pronoun "him/her" |
| $\grave{M}$ bóodō ${ }^{\text {c }}$. | "I love him/her." [mbo:dv] |
| 1SG want 3AN.Ob. | SF $\varnothing$ of the pronoun "him/her" |

A liaison word form ${ }^{\text {ya }}$ of the 2 pl subject pronoun follows imperative verb forms. It similarly loses its entire segmental form in the SF, because y left word-final by apocope is completely deleted unless preceded by a back vowel:

Gòsım!
Look:IMP!

Gòsımī ø!
Look:IMP 2PL.SUB!
"Look!"
"Look ye!" by apocope from gòsımī-yá

Liaison words are not all bound to the left. Right-bound non-contrastive personal pronouns cause inhibition of apocope in the preceding word, as do the personifier particle $a$ - and all words beginning with certain prefixes.

Two liaison-word particles which have the underlying form $n$ also frequently lose their own segmental form entirely. As with o "him/her", their presence is then apparent only from the modified LF of the preceding word and from tone.
m̀ zūgú ø zàbıd lā zúg "because my head hurts" (nominaliser-ǹ) 1SG head:SG NZ fight:IPFV ART upon
$\grave{M}$ zūgv $\varnothing$ zábìd. "My head hurts." (catenator-n)
1Sg head:Sg cat fight:IPFv.

Kusaal has contrastive vowel glottalisation.
Vowel breaking has caused earlier $\varepsilon \supset \varepsilon \varepsilon \supset \supset$ (preserved as such in the Toende dialect) to become ia ua iə uө, realised as written but patterning throughout as phonemic monophthongs. Kusaal has also developed many phonemic diphthongs from fusion of vowels after deletion of intervocalic $* g$ and from final fronting and rounding effects left contrastive by apocope, as mentioned above.

The tone system resembles the locally common terracing two-tone type in structure, but the original H toneme has become mid (M), displaced by a new H derived from original HL on a single mora. The tone-bearing unit is now the syllable. Acute, macron and grave mark $\mathrm{H}, \mathrm{M}$ and L respectively. $C V V C$ syllables may also have a circumflex (X) toneme, derived from HL on a single syllable. Macron and grave marks apply not only to the syllable on which they are placed, but to all following syllables within the same word up to another tone mark; the next toneme after an acute or circumflex is marked normally.

There is a frequent tone overlay marking verb phrases in main clauses, and pervasive external tone sandhi.

Open-class word stems are built around a root consisting of a short or long vowel, preceded by at most one consonant, and followed by consonants separated by epenthetic high vowels, or forming very limited sets of two-member clusters, e.g.


The only consonant clusters possible within stems following the root are $k k t t$ $p p \eta \eta n n m m i l l e$, of which $k k t t p p \eta \eta$ are written and usually realised as single. Clusters cannot occur word-initially or finally, except for final mm .

Many nominal stems have a prefix before the root, taking the forms CV- or $C V n$-, less often CVlın- or CVsın-, e.g. pīpịrıg "desert." Such stems may thus contain $n C$ clusters between prefix and root: dìnd $\bar{\varepsilon} o g$ "chameleon."

Other word-internal clusters are confined to loanwords.
Flexional suffixes, like prefixes, have only a three-way vowel contrast $a / \imath / v$. Suffix vowels are lost by apocope in SFs; when they are retained before prosodic clitics, $l v$ appear lowered to $\varepsilon$. Clusters of two consonants occur freely across word division (including within compounds) due to apocope of word-final short vowels.

Most common particles are short bound words, like the postposed article lā "the", and the preverbal tense marker dāa "before yesterday."

Flexion is entirely by suffixing, as is all productive stem derivation. Noun prefixes do not usually have identifiable meanings, but prefixes derived from older flexions occur in some quantifiers and adverbs.

Kusaal flexional morphology is underlyingly straightforward, but with some morphophonemic complications; these words all belong to the same ga|se noun class:

| būvg | "goat" | būvs | "goats" |
| :--- | :--- | :--- | :--- |
| sàbùa | "lover" | sàbù $\theta s$ | "lovers" |
| nūa | "hen" | n̄̄os | "hens" |
| kv̄k | "chair" | kv̄gus | "chairs" |
| zàk | "compound" | zà'as | "compounds" |
| dà'a | "market" | dà'as | "markets" |
| bv̀ | "donkey" | bv̀mıs | "donkeys" |
| $t \bar{\varepsilon} \eta$ | "land" | $t \bar{\varepsilon} \varepsilon n ̆ s ~$ | "lands" |

Noun flexion marks singular and plural by suffixes which come in matched pairs, allowing a division of all nouns into seven noun classes with relatively few exceptions, other than those transparently explicable for phonological reasons. As with most such systems, the classes show a partial correlation with meaning. The bare stem is itself an important part of the paradigm, because (as is typical for OtiVolta languages) it is extensively used as the first element in compound formation, which is a highly productive process. Among other things it is the normal way for a head noun to combine with an adjective or dependent pronoun:

| $b \bar{v} v g$ | "goat" | + pị̀lıg | "white" | $\rightarrow$ bù-pị̀lıg | "white goat" |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $b \bar{v} v g$ | "goat" | + sị'a | "another" | $\rightarrow$ bù-sị'a | "another goat" |
| kūk | "chair" | + pị̀lıg | "white" | $\rightarrow$ kùg-pị̀lıg | "white chair" |
| $k \bar{v} k$ | "chair" | + kànā | "this" | $\rightarrow$ kùg-kàjā | "this chair" |

In most Gur languages the noun classes form a grammatical gender system, with pronoun and adjective agreement. Like most Western Oti-Volta languages, Kusaal has abandoned grammatical gender in favour of a natural animate/inanimate opposition. Noun classes remain central to noun morphology.

Kusaal makes no grammatical distinction between male and female.
A characteristic feature of Western Oti-Volta is a striking simplification of verb
flexion, with just one "conjugation" of prototypical dual-aspect verbs, using the bare stem for perfective aspect and marking the imperfective with a single suffix -da. There are few real irregularities, though unobvious consonant changes and vowel deletions again complicate the surface picture:

| $k \bar{v}$ | pfv | $k \bar{v} v d$ | ipfv | "kill" |
| :--- | :--- | :--- | :--- | :--- |
| $\check{n} y \bar{\varepsilon}$ | pfv | $\check{n} y \bar{\varepsilon} t$ | ipfv | "see" |
| $v \bar{v} l$ | pfv | $v \bar{u} n$ | ipfv | "swallow" |

Dual-aspect verbs also have an imperative flexion -ma, appearing only in positive polarity when the verb has independency-marking tone overlay (see below.)

Single-aspect verbs typically express body positions, relationships, or predicative adjectival senses. They have only a single finite form, which always has imperfective aspect; as a lexical matter, they can be dynamic or stative:
$\dot{O}$ dìgı $n \bar{\varepsilon} . \quad$ "She's lying down."

3AN be.lying.down foc.
Ò mòr bún. $\quad$ "She has a donkey."
3AN have donkey:sG.

Ò gịm. $\quad$ "She's short."
3AN be.short.

There are two verbs "to be": bè "exist, be in a place" and àen̆ "be something/somehow." Àęn̆ is usually followed by the focus particle $n \bar{\varepsilon}$ whenever syntactically permitted, and then loses both the final $e$ and the nasalisation:

```
O à n\overline{\varepsilon}}\mathrm{ bịilg. "He's a child."
3AN COP FOC child:SG.
```

The two "be" verbs share a common negative-verb counterpart kā'e "not be", which usually appears as kā' clause-medially:
Ò kā' bịịiga=ø.
"He's not a child."
3AN NEG.BE child:SG=NEG.

Kusaal is well-provided with word-level derivational processes. For example, regular deverbal gerunds, agent nouns and instrument nouns can be made freely from most verb types: kūvb "killing", kv̄vd "killer", kv̄vdí $\eta$ "killing implement."

Compound formation, besides being the regular way of adding adjectives to nouns, is common in NP formation generally; there are many set expressions, but compounds of all kinds can be created freely: e.g. gbìgım-kūvd "lion-killer."

Syntactically, Kusaal is strictly SVO, with indirect objects preceding direct:

M̀ tís dó'atà bún lā.
1SG give doctor:SG donkey:SG ART.
"I've given Doctor the donkey."

As seen above, an adjective follows its noun and forms a compound with it. There are two native prepositions, $n \bar{\varepsilon}$ "with" and $w \bar{v} v$ "like" ( $n \bar{\varepsilon}$ also links NPs and some AdvPs in the sense "and", but kà is "and" when linking VPs and clauses.)

In other respects Kusaal prefers head-final structures, with possessors, for example, always preceding their heads:

| m̀ bịig | "my child" |
| :--- | :--- |
| dāū lā bị̂ig | "the man's child" |

Adverbs often appear as postpositions preceded by NP dependents, as with $z \bar{u} g$ "head" used adverbially in técbòl lā zúg "onto the table."

The liaison word $n^{\varepsilon}$ mentioned above is a very general locative postposition. It is hyphenated to the preceding word, and in its SF is reduced to $n$ :

```
mv̀'arī-n
"in a lake" (mò'ar\varepsilon "lake", LF)
lake:SG-Loc
```

The verb is preceded by particles expressing tense, mood and polarity. There is no agreement with any noun phrase, whether for person or number.

Gbīgım lā sá kù búmìs lā.
Lion:SG ART TNS kill donkey:PL ART.
"The lion killed the donkeys yesterday."

Gbīgıma lā dāa pō k̄ bún láa=ø.
Lion:PL ART TNS NEG.IND kill donkey:SG ART=NEG.
"The lions didn't kill the donkey."

The focus particle $n \bar{\varepsilon}$ may focus VPs or VP constituents (as after àeñ̆ "be something" above), but if no unbound words intervene between the verb and $n \bar{\varepsilon}$ and the verb meaning permits, it instead has an aspectual sense, limiting the reference of the VP to "at the time referred to in particular":

Nịdıb kpị̂id. "People die."
Person:pl die:IPFV.

Nịdıb kpị̂id $n \bar{\varepsilon}$. "People are dying."
Person:PL die:IPFV Foc.

The Kusaal VP is specifically marked for the absence of subordination. Main and content clauses have independency marking of the first VP, primarily marked by a tone overlay and by the tone sandhi of subject pronouns. The overlay is absent in negative polarity or irrealis mood and with various preverbal particles; marking itself is absent after the clause-linker kà even in coordinating function, as in narrative:

Ò zàb dv́'atà. $\quad$ "He's fought the doctor."
3AN fight doctor:SG.

Ò gòs dv́'atà. $\quad$ He's looked at the doctor."
3AN look.at doctor:SG.
with the verbs zàb gòs showing identical tones because of the overlay; contrast

Kà ò záb dv́'atà. "And he fought the doctor."
And 3AN fight doctor:sG.

Kà ò gōs dú'atà. "And he looked at the doctor."
And 3AN look.at doctor:sG.

When the verb itself has the tone overlay, clause-final perfectives are followed by the particle $y \bar{a}$, and imperatives of inflecting verbs take the flexion -ma:
$D \bar{a} \quad g \bar{s} s \quad d v ́ ' a t a ̄ a=\varnothing!\quad$ "Don't look at the doctor!"
NEG.IMP look.at doctor:SG=NEG!
but Gòsım dv́'atà! "Look at the doctor!"
Look.at:IMP doctor:SG!

Main clauses frequently have time or circumstance adjuncts preceding the subject; conditional clauses, with yà' "if" after their own subjects, appear here:

Fù yá' bòod, m̀ ná tīsı ff búp.
2SG if want, 1SG IRR give 2SG.OB donkey:SG.
"If you want, I'll give you a donkey."

Kusaal does not have canonical serial verbs, but clause subordination by catenation creates very similar structures with the same-subject catenator particle $n$; in this example tis "give" is used simply as means of adding an indirect object:
$\grave{M}$ dāa kûes bùjv $\varnothing$ tís dú'atà.
1SG TNS sell donkey:SG CAT give doctor:SG.
"I sold a donkey to Doctor."

Clause catenation can introduce a different subject by using kà instead of $n$; one use is adnominal, with a meaning like a non-restrictive relative clause:

Lì à ne gbīgım lá kà $\grave{m}$ ňy $\bar{\varepsilon} t$.
3IN Cop Foc lion:SG ART and 1SG see:IPFV.
"It's the lion I see."

A second type of subordination is nominalisation by insertion of the nominaliser particle $\grave{n}$ (frequently realised as segmental ø) after the subject:
gbīgım lá Ø kū búy "the lion having killed the donkey"
lion:SG ART NZ kill donkey:SG ART

One type of relative clause is internally-headed:
[Paul ǹ sōb gbáưך-sị'a $n$ tís Efesus dím lā] Øø ñwá.
Paul nz write letter-IndF.In cat give Ephesus one.pl art cat this.
"This is [the letter Paul wrote to the Ephesians]." (NT heading)

Here $g b a ̀ u \eta-s i ̣ i=a$ is $g b a ̀ u \eta$ "book" compounded with the dependent pronoun sị̃ $a$ which marks it as antecedent, and the bracketed sequence is the relative clause.

Kusaal has also developed an antecedent-initial relative clause type where the nominaliser has fused with a preceding demonstrative to form a relative pronoun:
dàu-kànı pu'ā kpị lā "the man whose wife has died"
man-rel.SG wife:SG die art

A third type of subordinate clause uses the initial linker particles y $\bar{\varepsilon}$ or kà in complementisation. Purpose clauses are of this type:

M̀ ná tī $f$ tîlm yé fù nị̣f dā záb $\bar{\varepsilon}=\varnothing$. 1SG IRR give 2SG.ob medicine that 2SG eye:SG neg.IMP fight=NEG. "I'll give you medicine so your eye won't hurt."

Content clauses are formally identical to main clauses, and have independency marking, but with personal pronouns altered as in indirect speech. They are used for reporting speech and after verbs expressing communication or thought. Most are introduced by y $\bar{\varepsilon}$ "that." There are logophoric uses of contrastive personal pronouns:

Dau da be mori o po'a yimmir, ka po'a la ye on pu lem bood ye o sid la di po'a ya'ase.
Dāun dá bè Ø $\varnothing$ mōrí $\smile o ̀ ~ p u ' a ̀-y i ̄ m m i ́ r, ~ k a ̀ ~ p u ̛ ' a ̄ ~ l a ̄ ~ y \bar{\varepsilon}$ Man:SG TNS EXIST CAT have 3AN wife-single:SG and wife:SG ART that ग̄n pū lém bòod yé ò sīd lā dí pư'ā yá'as $\bar{\varepsilon}=\varnothing$. 3AN.CNTR NEG.IND again want that 3AN husband:SG ART take wife:SG again=NEG. "There was a man who had only one wife. [And] the wife said that she did not want her husband to take another wife." KSS p26

Clefting constructions are based on catenation. By ellipsis they produce structures using $n$ for focussing subjects and kà for foregrounding other elements:

```
M zūgv^ø zábìd. "My head is hurting."
1SG head cAt fight:IPFv. (Reply to "Where is the pain?")
Gbīgím kà \grave{m dāa n̆y\overline{\varepsilon}. "It was a lion that I saw."}
Lion:SG and 1SG tNS see.
```

Although there is no syntactic movement rule for interrogative words, they are frequently preposed using kà, and focussing with $n$ is compulsory for ànô'on "who?" as subject even though it remains in situ before the verb.

```
Fù bôod bó=ø?
2SG want what=CQ?
Bó kà fù n̆yc̄tá=ø? "What can you see?"
What and 2Sg see:IPFv=CQ?
Ànó'onì Ø k k bú\eta lá=ø?
Who CAT kill donkey:SG ART=CQ?
"Who has killed the donkey?"
```

"What do you want?"

Preposing with kà is often simply due to ordering constraints and then has no foregrounding implication.

Kusaal narrative links clause after clause with kà, omitting tense marking so long as the action is preceding in sequence, but including it when there are descriptive passages or "flashbacks":

Apuzotyel da ane o saam biig ma'aa. Ka daar yinni ka biig la ne o saam zin'i sonsid. Ka biig la ti yel o saam ye ...
À-P̄̄-zót-y $\bar{\varepsilon} l$ dá à né ò sàam bị̂ig mà'aa. PERS-NEG.IND-fear:IPFV-thing:SG TNS COP FOC 3AN father:SG child:SG only.
Kà dāar yīnní kà bịig lā né ò sàam zịn̆'i Øø sōn̆sıd.
And day:SG one and child:SG ART with 3AN father:SG sit CAT converse:IPFv.
Kà bịig lā tí yz̀l ò sàam ȳ̄...
And child:SG ART after say 3AN father:SG that...
"Fears-nothing was his father's only son. [And] one day the son and father were sitting talking. [And] then the son said to his father ..." KSS p35

The past-tense marker dà occurs only in the first clause. The second kà is preposing the time expression dāar yīnní in a foregrounding construction, while the first and third are carrying on the narrative.

## 2 Sound system

All segments constitute morae, except for consonants immediately followed by vowels within the same word; other consonants represent non-vocalic morae. Written $k p t \eta$ between vowels represent $k k p p t t \eta \eta$, so that e.g. sú'өŋ "rabbit" has three morae, while the corresponding Long Form sú'өŋà has four.

All vocalic morae form syllables, except for final morae of long and "overlong" (three-mora) vowels/diphthongs. Overlong vowel sequences are disyllabic, dividing after the first mora: Long Form nū-áa "hen." Syllables may be light ( $C$ )V or heavy (C)VV~(C)VC~(C)VVC. Of these, (C)VVC syllables are superheavy. A $C V$ syllable is superlight if it is not word-initial, word-final or root-initial, and is preceded by another $C V$ syllable which is not itself superlight, as with the bolded syllables in the Long Forms dị̄'əsídıbà "receivers", sịgısídıbà "lowerers", mòlıfo "gazelle."

### 2.1 Consonants

The following symbols are used for consonant phonemes, with $k p g b$ as digraphs; values resemble the corresponding IPA symbols, except as noted below.

| $k$ | $t$ | $p$ | $k p$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $g$ | $d$ | $b$ | $g b$ |  |  |
| $\eta$ | $n$ | $m$ |  |  |  |
|  | $s$ |  |  | $f$ |  |
| $z$ |  |  | $v$ |  | $h$ |
|  | $l$ |  |  |  |  |
|  | $r$ |  | $w$ |  | $y$ |

$\mathrm{kp} g b z v$ are only found prefix- or root-initially, and $w$ only root-initially. Syllable-final $y w$ are replaced by the glides $i / e$ and $u$ respectively 3.6. $\eta$ does not occur prefix- or root-initially. Phonemic $h$ occurs only syllable-initially in loanwords, but these include the very common hālí "as far as."

Root syllables with no initial consonant are optionally realised with initial [?]: v́vnn ${ }^{\text {ne "dry season" [ใv:n] ~ [v:n]; this is not regarded as a consonant phoneme. }}$
$k t p$ represent $\left[\mathrm{k}^{\mathrm{h}}\right]\left[\mathrm{t}^{\mathrm{h}}\right]\left[\mathrm{p}^{\mathrm{h}}\right]$ prefix- or root-initially, [k] [t] [p] elsewhere. Except after prefixes, word-internal $k t p \eta$ represent $/ \mathrm{kk} / / \mathrm{tt} / / \mathrm{pp} / / \mathrm{\eta} \eta /$, but they are only realised as geminates in very slow speech. Word-final $g d b$ are partly devoiced, but still contrast with $k t p$.

Toende Kusaal word-final $g d b$ normally become $k t p$, but $g b$ (not $d$ ) remain at the end of verb perfectives and cbs; there are minimal pairs like ya'ab "mould pots" versus ya'ap "potter." Apocope in Toende thus occurs in two steps, with the round for right-bound words and perfectives following word-final stop devoicing.
$k g \eta$ are palatalised before front vowels, for some speakers even becoming palatal stops or affricates. They may represent palatal stops or affricates in loans:

| tóklàe | "torch" | $\leftarrow$ English "torchlight" |
| :--- | :--- | :--- |
| sógìà | "soldier" | (probably via Hausa soojà) |

Velars are labialised before rounded vowels.
Before $a$ and $\rho$ velars are pronounced further back, even as uvulars: kj̀bıgā [ $\mathrm{q}^{\text {wobiga] }}$ "hundred."
$t d n s z l r$ represent alveolars in general, but $s z$ are often dental, or even interdental; $l$ is never velarised. Before $u, s$ and $z$ are sometimes heard as [5] [3].
$s$ is often realised as [h] word-internally; it can represent $h$ in loanwords:

| Àláasìd (dâar) | "Sunday" $\quad \leftarrow$ Hausa Lahàdì $(\leftarrow$ Arabic) |
| :--- | :--- |
| Dàsmáanì | YAbdu-r-Raћma:n(i) (personal name) |

or Dàhamáanì
$d$ represents [d], and $r$ represents [r], except after an epenthetic vowel, where it is [l]. However, there is no contrast prefix- or root-initially, where [d] appears by default, but often [r] phrase-internally after vowels (always so within compounds):

```
    n\overline{-dâvg [nosavg] "cock"}
vs wìd-dāvg [wid:aog] "stallion"
```

$d$ and $r$ contrast elsewhere, though in rapid speech $d$ can still resemble [r]:

| z̀n̆dıg | "unplug" | $\bar{\varepsilon} n ̆ r ı g$ | "shift along" |
| :--- | :--- | :--- | :--- |
| mōd | "swell" | mōr | "have" |
| yàad | "graves" | yāar | "scatter" |
| zàbıd | "fight" (ipfv) | zàbır | "fight" (gerund) |

Word-initially, $d$ will be written throughout, but following traditional orthography, root-initial $r$ is generally used after prefix vowels: tīrâan "neighbour", àrazàk "riches", àrazánà "heaven", àrakón̆' "one."

Within Western Oti-Volta only Mooré and Agolle Kusaal contrast $r$ and $d$. Agolle $r$ corresponds to Dagbani $l$ but $r$ elsewhere: Mampruli yaarim, Dagbani yalim = yàarım "salt"; Mampruli tubri, Dagbani tibili = tùbvr "ear"; Mampruli mari, Dagbani mali $=$ mōr "have." Postvocalic Agolle/Mooré $d$ correspond to $r$ elsewhere: Mampruli/ Dagbani mori = mōd "swell"; Mampruli moori, Dagbani mori = mōod "grass."
$n$ is syllabic when representing various particles, and as the number prefix; it assimilates to the position of articulation of a following consonant.
$m$ is syllabic when standing alone as the 1st sg pronoun "I, my"; it does not assimilate to a following consonant.

The sequence $-m ı$ preceding liaison can absorb the vowel to become $-m$ :

| Gòsımī m! | "Look at me!" |
| :--- | :--- |
| Gòsīm. | "Look at me!" vs Gòsım! "Look!" |
| Gòsımí fù nû'ug! | "Look at your hand!" |
| Gòsím fù nû'ug! | id |

$k p g b$ represent [ kp ] [ $\overline{\mathrm{gb}}$ ]; $k p$ is unaspirated. They occur only before unrounded vowels, and in reduplication-prefixes for some speakers: kpùkpàrıg or kùkpàrıg "palm tree." Labialised velars might be analysed as allophones of $k p g b$ rather than $k g$; cf kūm "death" beside kpị "die"; kj̄bır "bone", Moba kpábì; kpàkv̄r "tortoise", Dagbani kpàkpílí.

In loanwords $k p g b$ represent Hausa labialised velars:
bákpàe "week" $\leftarrow$ Hausa bakwài "seven"
$y w$ are [j] [w] respectively. They are strongly nasalised before nasalised vowels, and are then written $\check{n} y \check{n} w$ with no nasalisation marking on the vowel:

| $\check{n} y \bar{\varepsilon}$ | $[j \tilde{\varepsilon}]$ | "see" | $\check{n} w a ̄ d ı g$ | [w̃ãdig] |
| :--- | :--- | :--- | :--- | :--- |
| $\check{n} w \varepsilon ̀ ' ~$ | $[\tilde{w} \tilde{\varepsilon}]$ | "beat" |  |  |

$\breve{n y} \check{n} w$ reflect earlier initial $n \widetilde{\eta m}$ respectively, cf Dagbani nyá "see", ymariga "moon", ŋme "beat." Some Toende speakers retain initial [n] [ŋm]. Kusaal initial nasalised vowels reflect earlier initial $\eta$ : Dagbani pubi, Kusaal j̀n̆b "chew."

### 2.2 Vowels

The vowel system displays marked positional prominence. Diphthongs, glottalisation, emic nasalisation and full quality contrasts appear only in roots $\underline{3.3}$.

Agolle Kusaal has a nine-vowel system. Seven of these are written by default as
 contrast with short vowels in length, but not quality, and are written by doubling the vowel symbol: bāa [ba:] "dog." Mà'aa "only" has a unique overlong monophthong. The vowel $l$ is more central after velars and labials, and $v$ is slightly fronted after alveolars and $y ; u$ is fronted after alveolars: $z \bar{u} g$ "head" [3yg].

Lax $l v$ do not appear after $m$ or $n$ in roots or prefixes. Distinctions of short $i / l$ and $u / v$ have a very low functional load even in roots. The allophony [r]~[i] and $[\tau] \sim[u]$ in epenthetic and prefix vowels 3.3 is ignored, only $ו v$ being used in writing.

The two remaining vowels are the broken vowels ia ua; the corresponding long vowels are iə uө. Though realised [ia] [ṽa] [iə] [uө] as written, they pattern throughout as monophthongs, and will be referred to as such below.

| tiàk | [tıak] | "change" | puāk [ponak] | "female" |
| :---: | :---: | :---: | :---: | :---: |
| kpià' | [kpia] | "shape wood" | kià [kıa] | "cut" |
| pìəlıg | [piəlıg] | "white" | $b u \bar{\prime} \theta s$ [bưers] | "ask" |

Before $y$ word-internally, ía ura are realised [iir] [থָr] and written ie ue.
bi̇ēyá [binija] "elder siblings" sūēyá [sưrja] "roads"

Word-final iə uө only occur by monophthongisation in external sandhi 4.2 4.3.
Nasalised iəй uөй (including after $m n$ ) occur only before underlying $* g$, and in the ipfv of fusion verbs by analogy 3.7. Elsewhere they have fallen together with $\varepsilon \varepsilon \check{n}$ эכn̆: cf n̄̄or "times", Mooré náooré, nכ̄or "mouth", Mooré nóorè.

Short ía ưa have just two origins. Apocope 3.2 shortens final iə ue to ia ua:
kịà SF of kịa "cut" kūā SF of kūa "hoe"

Elsewhere, ía ua replace $\varepsilon \supset$ before $k$ and before underlying $* g$, which is deleted with vowel fusion 3.7. Bj̀k "pit" (vs buàk "split") is due to the change *uakkv $\rightarrow$ okkv, while $t \bar{\varepsilon} k$ "pull" (vs tiàak "change") is due to shortening of a long vowel before an original plosive cluster *tčkkı; presumably nōk "pick up" is from *nookkı.

Toende Kusaal preserves the equivalents of the broken vowels as phonetic monophthongs, more open than the vowels corresponding to $\varepsilon \supset \varepsilon \varepsilon ว \supset$ : Toende $s \bar{\varepsilon} \bar{\varepsilon} s=$
 "depart." Proto-Kusaal preserved further contrasts: Mooré oo corresponds to כo/uө, but Mooré ao to כว/כว: Mooré bàoda, Toende bòj̀t, Agolle bòวd, "want, wish."

Non-glottalised long vowels are shortened word-internally before $k t p$ and $y$ :

| gàad | "pass" pfv | gàt | "pass" ipfv |
| :--- | :--- | :--- | :--- |
| $t \bar{\varepsilon} \varepsilon g$ | "drag" | $t \bar{\varepsilon} k$ | "pull" (*tčkkı) |
| $t \bar{\jmath} \rho g$ | "bitter" | $t \bar{e} e$ | "be bitter" (*toэya) |

The process also applies in loanwords: àtìuk "sea" $\leftarrow$ Hausa tèeku, kótì "court."
Short i $u$ sometimes appear for expected ii uu. Sūn̆f "heart" has a short un̆ which is uniquely due neither to apocope nor shortening before $y$; nịf "eye" has a short vowel before *nC $\rightarrow C$; bùgóm "fire" has the tonemes expected for *bùugóm; Hausa duuniyàa "world" and tiilàs "necessity" have become dūnıya and tịlás.

All sequences of dissimilar vowel symbols other than ía ua ie ue iə uө represent phonemic diphthongs. After a vowel symbol $\underset{\sim}{e}$ represents [ $[\mathrm{I}], \underset{\sim}{i}$ is [i] (found only after $u$ ), and $u$ represents [ $\bar{\sim}]$ :

| sōen̆ | [sõ ${ }_{\text {I }}$ ] | "witch" | mùi [mũi] | "rice" |
| :---: | :---: | :---: | :---: | :---: |
| dāu | [daõ] | "man" | bi̇āunn̆k [bİãơk] | "shoulder" |

 glottalised before pause like short vowels (see below.) Initial ya contrasts with ịa in tenseness and timing: $i \bar{a} \overline{\text { " }}$ seek" and $y \bar{a}$ "houses" contrast as [ra] ~ [ja], not [?ja] ~ [ja].

The symbol $e$ is used for [r] as a non-initial element of a diphthong, except after $\varepsilon$, and $o$ is used for $[\mho]$ as a non-initial element of a diphthong, except after $a$.

Diphthongs may be short, long, or overlong. Overlong diphthongs are realised as disyllabic with syllable division after the first mora. The only length contrasts in identical environments are $a v \eta / a u \eta$ and word-final ae/ae. Rounding diphthongs occur only word-finally and before velars, fronting diphthongs word-finally and before $y$.

Primary diphthongs arise from word-final $* V w * V y \underline{3.4}$ and from fusion, fronting and rounding 3.7 3.6. All also occur nasalised, and if not short, glottalised; those written glottalised below only occur glottalised.

|  | ia [ia] <br> ía'a [ãa:] <br> иа [ua] <br> $v^{\prime} a$ [ひ̃a] | iaa [ia:] <br> uaa [ua:] |
| :---: | :---: | :---: |
| ae [ar] <br>  <br> ui [ui] <br> ve [णा] | ae [ar] <br> ie [iI] <br> o'e [on] <br> ui [ui] <br> ue [uI] <br> v'e [un] | aee [ar:] <br> iee [ii:] <br> uee [ui:] |
|  | av [av] <br> عo [ [ $]$ <br> iu [iu] <br> io [iv] |  |

The diphthongs v'a vn̆'a appear as u'aa uñ'aa respectively when LF-final. Long diphthongs become overlong before the polar-question prosodic clitic 4.1.

Secondary diphthongs are created by replacement of final morae of wordfinal root vowels by $[\mathrm{I}][\mho]$ before liaison words 4.2: ${ }^{\circ}[\mathrm{J}]$ "him/her" replaces any preceding vowel mora by [ $\mho$ ], never [u], and the postposed 2 pl subject ya replaces any preceding vowel mora by [r], never [i]. Any of $a \in \supset \imath$ viu may precede:

| zūó-o | [zuv:] | "steal him" | Long Form 3.2 |
| :--- | :--- | :--- | :--- |
| zúo | [zuv] | "steal him" | Short Form |
| $b \bar{\varepsilon} \iota y a ́ ~$ | $[\mathrm{~b} \varepsilon \mathrm{ija}]$ | "be ye!" | Long Form |
| $b \bar{\varepsilon} \imath$ | $[\mathrm{~b} \varepsilon \mathrm{r}]$ | "be ye!" | Short Form |

The symbol o represents [ $\cup$ ] in the 3 sg pronoun $o$, and the mora preceding it in liaison: thus dāvg [daug] "male", but e.g.

| ò bịig | [vbi:g] | "her child" | zúo | [zũ] | "steal him" |
| :--- | :--- | :--- | :--- | :--- | :--- |
| dà'o | [dã̃̃] | "bought for him" | año | [ã̃̃] | "be him/her" |

Nasalisation is marked by a following $\check{n}$, but if the vowel or diphthong is also glottalised, $\check{n}$ precedes the ' mark, and after initial $y$ or $w, \check{n}$ precedes the $y$ or $w$ :

| $t \bar{\varepsilon} \varepsilon \bar{n} s$ | [tž:s] | "lands" | án̆sìb [ãsib] | "mother's brother" |
| :---: | :---: | :---: | :---: | :---: |
| $g \bar{\varepsilon} \check{n}$ | [gz̃] | "get tired" |  | "get angry" |
| $g \varepsilon \bar{̄} \breve{C l}^{\prime} \varepsilon d$ | [gž̃:d] | "get angry" ipfv | n̆wām [w̃ãm] | "calabash" |

The $\breve{n}$ also precedes $o$ [ $\sigma$ ] before the 3sg pronoun: ān̆o [ã̃̃] "be him/her."
Nasalisation is automatic on long vowels after m $n$ : mè $\varepsilon d$ "build" ipfv [mẽ:d].
Short $i \breve{n} u n ̆$ are laxer than oral $i u$, but there are no short *l̆̆ *vn̆. They nearly always arise from apocope 3.2 of iin̆ uun̆, as in sịĭn̆f "bee" cb sị̆n-, zùun̆g "vulture", cb zùn̆-; the only exception is sūn̆f "heart" (pl sūn̆yá), written sunf in KB.

Nasalised iәй иөй occur only in fusion verbs 3.7.
Contrastive nasalisation is often the legacy of lost initial ${ }^{*} \eta * n * \overparen{\eta m}$, or arises before underlying *ns *nf, as do all cases of ıın̆ vvn̆: píın̆f "genet", pl pīıní; zv́'vn̆f "dawadawa seed", pl zū'vní; tદ̀ $\eta-z u ̀ v n ̆ s ~ " f o r e i g n ~ l a n d s ", ~ s g ~ t \varepsilon ̀ \eta-z u ̀ \eta . ~$

Glottalisation does not affect vowel quality. It is marked by ' following the first/only vowel symbol (including $\underset{\sim}{u}$ ) other than $\underset{i}{i}$ :

|  | dà' | [dą | "buy" | dà'a | [dą:] | "market" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | kù'өm | [kuerm] | "water" | $p u ' a ̄$ | [pũa] | "woman" |
| but | dìā' | [diã] | "get dirty" |  |  |  |

Glottalisation may be realised as creakiness or as [? $]$ after the first vocalic mora, but is in any case a vowel feature. Flapping of $d$ occurs after $V$ and $V$ alike, and ' is never treated as beginning a syllable. Glottalisation arising from deletion of *g after a ịa una 3.7 is phonetically identical.

Word-final short vowels and diphthongs ending statements and commands, but not questions, become glottalised; for example dāu "man" is realised [dã̃]/[daणָ? and $g \bar{\varepsilon} \check{n}$ "get tired" falls together with $g \bar{\varepsilon} \breve{n}^{\prime}$ "get angry."

Farefare, Nabit and Talni also preserve vowel glottalisation: yū'vr "name", Farefare yú'v́ré; kù'өm "water", Talni kwo?m; kpá'vŋ "guinea fowl", Nabit kpa'uך; n̄̄n̆yâ'aŋ "hen", Nabit nэnya'aŋ. Nawdm has $反$ [?] in many cognate words, e.g. mtá ${ }^{\prime}$ "three" = Kusaal ntáñ'; núfú "arm, hand" = nû'ug.

Glottalised short vowels nearly all arise by apocope 3.2. Besides kā'e "not be" $(\leftarrow *$ kagı) all other cases precede $m$ or $\eta$ in closed syllables, e.g. kpغ̀' $\eta$ "strengthen", lā' $\eta$ "set alight", nị'm "meat", kō'm "hunger", sù' $\eta \bar{a}$ "well", sù'm "goodness" (but only sùj pl sùma "good.") The vowels are traditionally written long: sv'vja etc.

Only Agolle Kusaal shows this phenomenon, and only some informants. It probably arose from gemination of $m \eta$; KB has 385 examples of an sum to 47 of an su'vm àn̆ súm "is good", but 30 of $k a '$ sum to 40 of $k a^{\prime}$ sv'vm kā' súmm "is not good."

Yām~yā'am is probably a conflation of once-distinct yām "sense" (Buli yám, Nawdm rárḿ) and yā'am "gall bladder" (Farefare yá'ám, Buli yáam, Nawdm ráfḿn.)

### 2.3 Stress

Stress falls on the root syllables of free words, but it is subject to complex sandhi phenomena which have yet to be properly investigated. It is probably never contrastive; sābíl "black" and Sā-bịl "Zebilla", for example, seem to be homophones, and some roots have been reinterpreted as prefixes: dìtún "right hand" is derived from dì "eat", but also appears as dàtìup, while būtıŋ "cup" is an instrument noun from bùd "plant seeds", but has the plural būtııs, by reanalysis as prefix $b \bar{v}+t i ̄ \eta$.

Stress affects the realisation of the H toneme, but the relevant phenomena can be described by reference to syllable weight alone.

### 2.4 Tone

Tone is mostly distinctive as a syntactic marker, but lexical minimal pairs are not uncommon, e.g. būk "weaken", bùk "cast lots"; gāŋ "choose", gà $\eta$ "step over"; kūk "chair", kùk "ghost"; pị̀d "get bloated", pịd "put on a hat, shoes, ring."

The tone-bearing unit is the syllable 2. Every syllable carries a toneme, except for superlight syllables and catenator- $n$, which are toneless, and realised by extension of the toneme of the preceding syllable to cover both. Overlong diphthongs are disyllabic, with syllable division following the first mora, and thus carry two tonemes, as in the Long Form nūáa "hen."

There are four tonemes: High (H), marked with an acute: gél "egg"; Mid (M), marked with a macron: bāŋ "ring"; Low (L), marked with a grave: bòk "pit"; and Circumflex (X), marked with a circumflex: nû'ug "hand." The circumflex toneme can only appear on a superheavy CVVC syllable; when such a syllable becomes open, H toneme replaces X . Words like nû'ug "hand" and náaf "cow" thus fall together tonally in their Long Forms 3.2 nú'ugò and náafj̀.

Kusaal M toneme corresponds to H in the other Western Oti-Volta languages. H and X tonemes are secondary. M syllables become H before a following L ; after a preceding $M$ or by the M -spreading external tone sandhi 4.4.3 superheavy L syllables become X and other L syllables become H.

M toneme is always realised as a level tone; L and H are level except before pause, where they are realised as falling tones, beginning at their usual pitch. X is realised as a falling tone from H to L pitch within the syllable; it differs from H on a superheavy syllable before pause, where the pitch fall occurs on the second mora: contrast mān sâam "my father", mān sáam "my guests."

Macrons and graves apply not only to the syllable they are written on, but to all following unmarked tone-bearing syllables until the next tone mark or until the end of the word, e.g. b̄̄̄ogv-n for bēogū-n "morning", àn̆rıma for àn̆rımà "boats." After an acute or circumflex, however, the next tone-bearing syllable is explicitly marked: būnbósdìr "desirable thing." After a prefix, a tone mark is written on the root even if the toneme is identical: zīnzāup "bat", kùkpàrıg "palm tree."

When $i$ carries a tone mark the dot is written below, as in bịig "child."

A CV syllable is superlight if it is a word-internal non-root syllable and is preceded by another $C V$ syllable which is not itself superlight, working from left to right. Superlight syllables are toneless, and realised with the toneme of the preceding syllable extending over them:

Bà $k \bar{a}^{\prime} \quad$ dị̀'əsídıbā=ø. "They are not receivers."
3PL NEG.BE receiver:PL=NEG.

Lì $k \bar{a}^{1} \quad$ mólıf $\bar{\jmath}=\varnothing$. $\quad$ It's not a gazelle."
3IN NEG.BE gazelle:SG=NEG.
vs $\quad$ Ò $p \bar{u} \quad z a ́ b i ̀ ~ f f \bar{\jmath}=\varnothing . \quad$ "He didn't fight you."
3AN NEG.IND fight 2SG.OB=NEG.

Ka ya pv siakida.
Kà yà $p \bar{v} \quad$ síákìdā $=\varnothing$.
"But you did not agree." (Lk 13:34)

And 2PL NEG.IND agree:IPFV=NEG.

H and X tonemes are in certain contexts realised with a preceding downstep, lowering the initial pitch to the level of the last preceding M toneme; the relationship to following tonemes is unaffected. Without an intervening pause,

```
\(\mathrm{HH} \rightarrow \mathrm{H} \downarrow \mathrm{H}\)
\(\mathrm{HX} \rightarrow \mathrm{H} \downarrow \mathrm{X}\)
\(\mathrm{MH} \rightarrow \mathrm{M} \downarrow \mathrm{H}\) if the next syllable is superheavy \(C V V C\)
    or if the next syllable precedes pause and is not L
```

Downsteps, normally unwritten, are marked with $\downarrow$ in the examples below. Downstep between HH and HX:

Kà m̀ gōs gél lā bēogv-n.
And 1SG look.at egg:SG ART morning-LOC.
"And I looked at the egg in the morning."
but M̀ gós $\downarrow$ gél lā bēogo-n.
1SG look.at egg:SG ART morning-Loc.
"I looked at the egg in the morning."

Kà m̀ gōs náaf lā bēogv-n.
And 1sG look.at donkey:SG ART morning-Loc.
"And I looked at the cow in the morning."
but M̀ gós $\downarrow$ náaf lā bēogv-n.
1SG look.at cow:SG ART morning-LOc.
"I looked at the cow in the morning."

Kà m̀ ḡ̄s nû'ug lā bēogv-n.
And 1SG look.at hand:SG ART morning-Loc.
"And I looked at the hand in the morning."
but M̀ gós $\downarrow$ nû'ug lā bēogv-n.
1SG look.at hand:SG ART morning-LOC.
"I looked at the hand in the morning."
$\mathrm{MH} \rightarrow \mathrm{M} \downarrow \mathrm{H}$ before a superheavy $C V V C$ syllable:
Lì kā'
pú-kòวn̆r $\bar{\varepsilon}=\varnothing$.
"It's not a widow."

3IN NEG.BE widow:SG=NEG.
but Lì à ne $\downarrow$ pú-kòon̆r lā. $\quad$ "It's the widow."
3IN COP FOC widow:SG ART.

Bịig lā sá mè yị̀r lā.
Child:SG ART tns build house:SG ART.
"The child built the house yesterday."
but Bịig lā لsá mè $\quad$ yị̆ $\quad$ lā.
Child:SG ART TNS build:IPFV house:SG ART.
"The child was building the house yesterday."

Mān bú-sù $\boldsymbol{y} \quad k a ̄ ' e=\varnothing$. "My good goat isn't there."
1SG.CNTR goat-good:SG NEG.BE=NEG.
and Mān kúkōr kā'e=ø. "My voice isn't there."
1SG.CNTR voice:SG NEG.BE=NEG.
but Mān $\downarrow$ bú-pị̀l $k a ̄ ' e=\varnothing$. "My white goat isn't there."
1SG.CNTR goat-white:SG NEG.BE=NEG.
$\mathrm{MH} \rightarrow \mathrm{M} \downarrow \mathrm{H}$ when the next syllable is followed by pause, and is not L :

Kà m̀ ḡ̄s $\downarrow \boldsymbol{b}$ и́ $\boldsymbol{\eta} \quad$ lā. "And I looked at the donkey."
And 1sg look.at donkey:SG ART.
$Y \bar{u} \downarrow \boldsymbol{g} \mathbf{v ́ m} \quad \mathbf{k} \overline{\mathrm{a}} \mathbf{e}=\varnothing$. $\quad$ "There's no camel."
Camel:Sg NEG.BE=NEG.

Lì à nē $\downarrow$ náaf lā. $\quad$ "It's the cow."
3IN COP FOC COW:SG ART.

O $p \bar{u} \quad y a ̄ d \imath \downarrow$ gíd $\bar{a}=\varnothing$. "He isn't scattering."
3AN NEG.IND scatter:IPFV=NEG.

Lì kā' bị- - pú $\boldsymbol{\eta} \overline{\boldsymbol{a}}=\varnothing$. "It's not a girl."
3IN NEG.BE child-girl:SG=NEG.

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O p\overline{v}}\quad\check{n}y\overline{\varepsilon}\downarrow\boldsymbol{s
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3AN NEG.IND see knife:SG=NEG.

Lì $k \bar{a}^{\prime} \quad \check{n} y \grave{1} \downarrow$ rífō=ø. $\quad$ "It's not an egusi seed." 3IN NEG.BE egusi:SG=NEG.
but Kà m̀ gōs búg lā bēogv-n.
And 1SG look.at donkey:SG ART morning-Loc.
"And I looked at the donkey in the morning." (lā not prepausal)

Ȳ̄gúm lā $k a ̄ ' e=\varnothing$.
Camel:sg art neg.be=neg.

Lì à $n \bar{\varepsilon}$ dôog lā.
3IN COP FOC hut:SG ART.

Ànó'onì ø yādıgídà=ø? "Who is scattering?" (L after H)
Who cat scatter:IPFV=CQ?

Lì kā' bị-púyàa=ø?
3IN NEG.BE child-girl:SG=PQ?

Ànó'onì ø n̆y $\bar{\varepsilon}$ sú'vgà= $\varnothing$ ? "Who found a knife?" (L after H)
Who cat see knife:SG=CQ.
Ò $p \bar{u} \quad$ dúgè $\varepsilon=\varnothing=\varnothing$ ?
"Didn't she cook?" (L after H)
3AN NEG.IND COok=NEG=PQ.
"Didn't she cook? (L after

Ò $p \bar{u} \quad \check{n} y \bar{\varepsilon}$ mólıf̄̄= $\varnothing$.
3AN NEG.IND see gazelle:SG=NEG.
"The camel's not there." (lā not prepausal)
"It's the hut." (MX not MH)
"Isn't it a girl?" (L after H)
"She didn't find a gazelle."
(Superlight -ll-intervenes before the prepausal syllable -fȳ.)

### 2.5 Traditional orthography

Tone is unmarked. For word division see 3.1. KSS uses $n g$ for $\eta$.
Before 2016, e $o$ were used for $\varepsilon 0, i$ for $i$ and $\imath$, and $u$ for $u$ and $v$; $e o$ were sometimes also used for $i v$ as root vowels. KB has the same basic conventions as this grammar but uses $i$ for both [i] and [I]: tiig tìıg "tree", biig bịig "child."

Word-final short $-\imath$ after $m n$ is usually written $\varepsilon$ in KB; so always with the relative pronouns one kane line bane, and with ano'one "who?" before liaison.

KB has ye "that", tey "land", keך "go" pfv, ken "go" ipfv for y $\bar{\varepsilon} t \bar{\varepsilon} \eta k \bar{\varepsilon} \eta k \bar{\varepsilon} n$, and on oŋa for the pronouns $\bar{n} /$ ón/òn j̀mā, probably reflecting actual variants with [ [I] [ঠ]: cf Toende tī $\eta$ "land" versus meך m $\bar{\varepsilon} \eta$ "self" (Mampruli tiŋŋа, mаŋŋа.)

After $a$ or $\jmath$ epenthetic $\imath$ is often written $e$ : sanrega sārıgá "prison."
$i e$ is used for iz and ie, but the contrast is marginal 4.3.
$u o$ is used for $u \theta$ and uo, but traditional orthography always separates the vowel symbols in the latter case: bu'os bū'es "ask", zu o zúo "steal him."

KB writes -ue as -uoe and -ve as -voe (similarly when nasalised and/or glottalised): duoe dūe "raise, rise", sv'oe sū'e "own."

The diphthong io [iv] is written io in the 1976 NT but ieu later: thus kpị̀ op "strong" is kpi'oŋ in the 1976 NT, kpi'eup in the 1996 NT and KB.

Traditional orthography uses eiu for ei $u$. The contrast ae/ae is expressed by writing $a a e$ (or $a a \varepsilon$ ) for $a e, ~ e . g . ~ p a a e ~ p a ̄ e ~ " r e a c h . " ~ T h e ~ c o n t r a s t ~ a v / a u ِ ~ i s ~ u n m a r k e d . ~ K B ~$ writes $a u$ or $a v$ consistently in each word, but not marking length: yavg yàvg "grave", but na'araug nā'-dâvg "ox"; dau dāu "man" but tavn tāun̆ "sibling of opposite sex." However, ambiguity is only possible before $\eta$ : gbaup gbāun "skin", mangauך màngávy "crab." The symbols ia ua are used for both ịa ua and ia ua: kia kịa "cut", but sia sịa "waist"; kua kūā "hoe", but sabua sàbùa "lover." The conventions for marking glottalisation disambiguate kpia' kpìà' "carve wood", kpi'a kpị'a "neighbour."

Before 2016, úa v'a were usually written o' a, but sometimes u'a, like u'a [ữa]. All are now written $u$ ' $a$ : po'a/pu'a pu' ${ }^{\prime}$ à "woman", po'ab/pu'ab pō'ab "women."

Long Forms 3.2 corresponding to Short Forms where final $-y$ becomes -e are written with -ey-: vveya vūyá, Long Form of vv̄e "be alive." Older NT versions also write būn-vv́yà "living things" as bunvoeya, but KB has bvnvoya.
$y$ is omitted in dunia dūnıya "world", laafia láafiya.
KB writes bieya bíēyá "elder same-sex siblings", but suoya sūēyá "roads", zuoya zūēya "hills" etc; older sources have sueya, zueya.

For nasalisation, plain $n$ is used for $\check{n}$, e.g. téns $t \bar{\varepsilon} \varepsilon n ̌{ }^{\prime}$ "lands", gen' gēn̆' "get angry", gen' $\varepsilon d$ g $\bar{\varepsilon} \check{n} ' \varepsilon d$ "get angry" (ipfv), nwam ňwām "calabash."

When $n$ would be word-final without even a following glottalisation mark, the orthography formerly wrote $n n$ to mark nasalisation, but the 2016 system has unfortunately adopted an ambiguous single $n$ : gaan (old: gaann) gāan̆ [gã:] "ebony tree" versus daan (old: daan) dāan [da:n] "owner."

## 3 Word structure

Open word classes comprise verbs and nominals. Nominals are subdivided into nouns and adjectives, along with closed subclasses of quantifiers, adverbs, and pronominals. Ideophones are a distinct group. All other words are "particles."

Segmental rules apply in the order: consonant assimilation/epenthetic vowel insertion 3.5, vowel fronting/rounding 3.6, $* g$-deletion/vowel fusion 3.7, apocope 3.2 . Tone Patterns allocate tonemes prior to all deletions of segments 3.8.1.

### 3.1 Word boundaries

Free words fulfil the concept of "word" expressed in Bloomfield 1926: "A minimum free form is a word. A word is thus a form which may be uttered alone (with meaning) but cannot be analysed into parts that may (all of them) be uttered alone (with meaning.)" Many bound forms are also best regarded as words. Nouns and adjectives have regular "combining forms" (cbs), used exclusively as the initial members of compounds: cbs may appear as dependents, but more often as NP heads before adjectives and even demonstratives: tì-kànā "this tree." There are no consistent phonological differences between cbs and free words, and compounds may incorporate unbound words: [ānzúrıfà nē sālıma lá'-]māan "[silver and gold goods]maker." Cbs are thus best regarded as bound words, not word fragments.

Word status for other bound forms depends on distinguishing them from affixes. Bound personal pronouns and many particles resemble free-word affixes segmentally, but clearly differ in tonal behaviour from affixes, and show no tendencies to fusion with hosts other than those also seen between free words.

As stress allocation does not distinguish between bound and free words as such, I will reserve the term "clitic" for prosodic clitics 4.1, and will elsewhere use the non-committal labels "left-bound" and "right-bound."

Boundness is distinct from the syntactic feature of dependency. Most openclass words are neither bound nor intrinsically dependent, and most particles are both bound and intrinsically dependent. However, combining forms, though always bound, may be dependents or heads, and bound personal pronouns are never dependent: Kusaal has no possessive pronouns.

In this grammar nominals with prefixes, loanwords, and unanalysable stems are written solid, but combining forms are hyphenated to the following word:

| bv̀rkìn | "honest person" | kpùkpàrıg | "palm tree" |
| :--- | :--- | :--- | :--- |
| zịm-gbân̆'ad | "fisherman" | bì-pìəlıg | "white goat" |
| bù-kàmā | "this goat" | bù-pịəl-kàyā | "this white goat" |

In the traditional orthography compounds are written as single words, except when a cb happens to have the same segmental form as the sg: bvkaja bù-kàjā "this goat", but yamug bipup (Acts 16:16, 1976) for yàmmvg-bị-púy "slave girl."

Pronouns reduced to single consonants by apocope $\underline{3.2}$ are still written as independent words in the orthography of this grammar:
$\grave{M}$ bósdī $f$. "I love you." [ṃbo:dıf]
1SG want 2SG.OB.

Traditional orthography writes pronouns as separate words when they have vowels of their own, including the object pronoun $m$ "me" prior to 2016:
Fu boodi ti.
"You love us."
[fobo:diti]
Fò bóodī tí.
2SG want 1pl.ob.

Before 2016, the final mora before $2 \operatorname{sg} f$ was separated from the verb and joined to the pronoun as if $u f$; KB writes $m f$ as objects solid with the preceding word:

```
M nye uf. (2016: ny\varepsilon\varepsilonf) "I've seen you." [mij̃\varepsiloñõf]
M n̆yह̂o`f.
1Sg see 2SG.ob.
```

Fu boodi m. (2106: boodim) "You love me." [fubo:dm]
Fì bósdī $\quad$ m.
2SG want 1SG.ob.
$M$ bood if. (2106: boodif) "I love you." [m̧bo:dif]
$\grave{M}$ bóadī $f$.
1SG want 2SG.OB.

The liaison word $4.2^{\circ}$ [ $\quad$ ] "him/her" loses its entire segmental form by apocope, after causing the final vowel mora of the preceding word to become [ $\quad$ ]. This mora is traditionally mistaken for the pronoun itself and written separately; in this grammar it is not separated, but is written $o$ as a concession to tradition, with the pronoun hyphenated to the host when it is not deleted by apocope:

```
Fv bood o.
"You love her." [fvbo:dv]
Fv̀ bóodō`ø.
2SG want 3AN.OB.
```

| Fv pu bood oo. | "You don't love her." | [fopøbo:dv:] |
| :---: | :---: | :---: |
| Fù pū bósdó-o=ø. <br> 2SG NEG.IND want-3AN.OB=NEG. |  |  |
|  |  |  |
| Fo nye o. | "You've seen her." | [fojũ̃̃] |
| Fù n̆yćo Ø $\varnothing$. |  |  |
| 2SG see 3AN.OB. |  |  |
| Fv pu nye oo. | "You've not seen her." | [fopojẽ̃̃:] |
|  |  |  |
| 2SG NEG.IND See-3AN.OB=NEG. |  |  |

Locative $n \varepsilon$ and discontinuous-past $n \varepsilon$ are reduced to $n$ by apocope, and the postposed 2 pl subject pronoun ya is reduced to zero. Traditionally they are written solid with the preceding word: povgon, boodin. However, they follow flexional suffixes, and are preceded by liaison changes just like object pronouns; postposed ya is in complementary distribution with subject yà, and locative $n \varepsilon$ has an allomorph $n \bar{\imath}$ with a vowel after apocope; they behave differently from flexional suffixes tonally. They are thus words, not flexions; they are hyphenated to the preceding word in the working orthography: pūvgv-n "inside", bòodī-n "might wish."

The personifier particle $\grave{a} / \grave{n}$, traditionally written solid with the following word, will also be hyphenated to its host, as it can be attached to entire phrases.

Traditional orthography always writes focus-n $\bar{\varepsilon}$ solid with preceding à "be", and usually with other immediately preceding verb forms also; $n \bar{\varepsilon}$ "with" is written solid with preceding $w \bar{\varepsilon} n$ "resemble" by analogy:
$O$ ane biig.
"He/she's a child."
Ò à n $\bar{\varepsilon}$ bịịg.
3AN COP FOC child:SG.

Ka o nindaa wenne nintay ne.
Kà ò nịnn-dáa $w \bar{\varepsilon} n \quad n \bar{\varepsilon}$ nị̄ntāŋ $n \bar{\varepsilon}$.
And 3AN eye-face:sg resemble with sun:sg like.
"His face is like the sun." (Rev 10:1, 1996)

In KB w $\bar{\varepsilon} n n \bar{\varepsilon}$ appears as $n w \varepsilon n \varepsilon$ : Ka o nindaa nwene winnig $n \varepsilon$.
KB writes independent-perfective yā 16.6.2 solid with the preceding verb:

Nannanna o gaadya. "Now he has gone." (2 Samuel 3:24)
Nānná-nā, ò gàad yā.
Now 3AN pass pFv.

Older texts write -eya after consonants: gaadeya etc.
A word-final syllable before a prosodic clitic is often mistaken for a segmentally homophonous particle in older materials, and occasionally even in KB:

Amaa fo ane ninsaal ka ka' win $n \varepsilon$.
Àmáa fù á nē nịn-sâal kà kā' wīnné=ø.
But 2SG COP FOC person-smooth:SG and NEG.BE god:SG=NEG.
"But you are a human being and not a god." (Ezekiel 28:2)

Arezana ne dunia gaadvg pv toi yaa
Àrazánà n̄̄ dūnıya gáadv̀g pū tȳyá=ø.
Heaven with world passing neg.Ind be.difficult=NEG.
"The passing of heaven and earth is not difficult" (Lk 16:17)

### 3.2 Apocope

Every Kusaal word which can potentially stand clause finally has two surface forms, which differ in nearly all cases, the Long Form (LF) and the Short Form (SF.) For example, "child" usually appears as the SF bịig:

Ò dāa n̆y $\bar{\varepsilon}$ bịig.
"She saw a child."
3AN TNS see child:Sg.
bịig lā nû'ug "the child's hand"
child:SG ART hand:SG

Among other cases described below, a LF is found in the final word of clauses with a negation (negative particle or negative verb), of questions, both content and polar, and of clauses used as vocatives. Thus the LF bịiga is seen in

$$
\text { Ò dāa p̄̄ } \quad \breve{n} y \bar{\varepsilon} \text { bịiiga=ø. "He/she did not see a child." }
$$

3AN TNS NEG.IND see child:SG=NEG.

Ànó'onì ø dāa n̆y $\bar{\varepsilon}$ bịigà $=\varnothing$ ?
Who cat tns see child:SG=cQ?
"Who saw a child?"
M bị̆iga $=\varnothing!\quad$ "My child!"
1SG child:SG=Voc!

The SF is derivable from the LF by apocope. The term "apocope" will be used exclusively for this process below.

A final long vowel is shortened and a final short vowel is deleted.
Final diphthongs shorten by one mora.
Subsequently
Word-final consonant clusters drop the second consonant ( $k k t t p p \eta \eta$ become $k t p \eta$ but are written single in any case 2.1) Word-final $y$ becomes $e$ after back vowels and zero elsewhere

The shortening changes of final diphthongs induced by apocope are


Identical changes occur with nasalised and/or glottalised diphthongs.
Apocope is described as a single rule, but comparative and internal evidence shows that loss of quality contrasts preceded complete deletion of word-final vowels clause-medially, which was itself distinct from the clause-final apocope characteristic of Kusaal, Nabit and Talni. In Toende Kusaal, apocope still involves two steps 2.1.

Examples:

Lì à $n \bar{\varepsilon}$ kūk. $\quad$ "It's a chair."
3IN COP FOC chair:SG.

Kūk lā bódìg yā. "The chair has got lost."
Chair:SG ART get.lost PFV.

Lì kā' kūka=ø. "It's not a chair."
3IN NEG.BE chair:SG=NEG.

Lì à n $\bar{\varepsilon}$ kúkàa=ø? "Is it a chair?"
3IN COP FOC chair:SG=PQ?

Ànó'onì ø n̆y $\bar{\varepsilon}$ kúkà=ø? "Who saw a chair?"
Who cat see chair:SG=CQ?

Similarly, with the same frames (also using ò 3AN "he/she", bà 3PL "they"):

Lì à nē $d \bar{v} k$.
Dūk lā bódìg yā.
Lì kā' dūkó. /kk/
Lì à nē dūkóo?
Ànó'onì n̆yc̄ dūkó?

Lì à $n \bar{\varepsilon}$ gbīgım.
Lì kā' gbīgımne.
Lì à n $\bar{\varepsilon}$ gbígìmnes?
Ànó'onì ňys̄ gbígìmne?

Lì à n $\bar{\varepsilon}$ yáarìm.
Lì kā' yáarīmm.
Lì à n $\bar{\varepsilon}$ yáarìmm?
Ànó'onì n̆yē yáarìmm?

Bà à n̄̄ gbīgıma.
Bà kā' gbīgımaa.
Bà à nē gbígımàa?
Ànó'onì ňyē gbígımà?

Ò à nē dāu.
Ò kā' dāv.
Ò à nē dáv̀v?
Ànó'onı̀ n̆yē dáv?

Kà ò síák.
And 3AN agree.

Ò $p \bar{v} \quad$ siák $\bar{\varepsilon}=\varnothing$.
3AN NEG.IND agree=NEG.

Kà ò dīgı.
Ò pū dīgıyá.

Kà ò vvēe.
Ò pū vūyá.

Kà ò kíá.
Ò pū kị́a.
"It's a cooking pot."
"The pot's got lost."
"It's not a pot."
"Is it a pot?"
"Who saw a pot?"
"It's a lion."
"It's not a lion."
"Is it a lion?"
"Who saw a lion?"
"It's salt."
"It's not salt."
"Is it salt?"
"Who saw salt?"
"They're lions."
"They're not lions."
"Are they lions?"
"Who saw lions?"
"He's a man."
"He's not a man."
"Is he a man?"
"Who saw a man?"
"And he agreed."
"He didn't agree."
"And she's lying down."
"She isn't lying down."
"And she's alive."
"She's not alive."
"And she cut (it)."
"She hasn't cut (it)."

Kà ò pāe.
Ò pū pāée.
"And he reached (it)."
"He hasn't reached (it)."

The appearance of clause-final LFs is triggered by following prosodic clitics, which have no segmental form themselves 4.1. LFs occur clause-medially before liaison words 4.2, and as the citation forms of apocope-blocked words. The exact shape of a LF differs in these different contexts. Length and quality of final vowels may be altered or neutralised, and final tonemes altered. For convenience, the LF preceding the negative prosodic clitic will be taken as basic segmentally. It shows underlying final short $-\imath-v$ as $-\varepsilon-0,{ }^{*}-m \nu v^{*}-m ı$ as $-m m-m m$ and $-i ə-u \theta$ as -ia -ua 4.1.

The LF is historically primary, but it can usually be predicted from the SF given the aspect of a verb or the natural gender of a noun, and in several cases historically expected LFs have been replaced by different forms corresponding to the same SFs. Apocope often does not lead to loss of contrasts despite deleting the segments which conditioned them, and working in reverse, such features can predict LFs from SFs; even words completely deleted by apocope remain recognisable from effects on preceding words. Some SFs are too short to show a tonal difference between Pattern H and all-M Pattern A, as with $k \bar{v} k$ "chair" and $d \bar{v} k$ "pot" above, but Tone Patterns are suprasegmental stem features 3.8 .

Nevertheless, it is simplest to regard LFs as synchronically primary. With SFs ending in consonants the LF may end in $a \varepsilon$ or 0 ; SF-final $m n$ or $l$ may or may not be geminated; - $m$ may become -mn- instead of -mm-. Even before liaison, where vowel quality is neutralised, the same issues arise with consonants:
ka ban ka kikirbe'ednam daamne ba daa nye laafiya
kà bàn kà kìkịr-bê'عd-nàm dâamnī bá dāa n̆ȳ̄ láafiya and ReL.PL and fairy-bad-PL trouble:IPFV 3PL.OB TNS see health "And people who were afflicted by evil spirits became well." (Lk 6:18, 1976; KB: ka bane ka kikiris daamidi ba daa nye laafi)

The default LF ending corresponding to SFs ending in a consonant is $-\varepsilon$. Thus with loans like tịlás "necessity", LF tịlásè from Hausa tiilàs id, and in e.g.

Pu'abi du'a sieba la wosa, so' kae gat Joon ne [sic 3.1].
Pū'abí ø dư'à sịəəba lā wūsa, sō' kā'e〕ø gát Joon $\varepsilon=\varnothing$.
Woman:Pl nZ bear indf.pl art all, indf.an neg.be cat pass:IPFV John=neg.
"Of all those born of women, none surpasses John." (Lk 7: 28)

All SFs ending in vowels other than long monophthongs, front vowels or fronting diphthongs have LFs obtainable simply by lengthening the final vowel or diphthong, as do most but not all SFs ending in fronting diphthongs or front vowels:

| zò | LF zò | "run" | kūgá | LF kūgáa | "stones" |
| :--- | :--- | :--- | :--- | :--- | :--- |
| sịa | LF sịaa | "waist" | sàbùa LF sàbùaa | "girlfriend" |  |
| kpì̀ | LF kpị̀'a | "carve wood" | dāu | LF dāu | "man" |
| wịdı | LF wịdıl | "horses" | pāe | LF pāée | "reach" |
| nịe | LF nịee | "appear" | dūe | LF dūée | "raise/rise" |

A marginal exception to predictability is the fact that SFs ending in in $a^{\prime} \underline{\alpha}^{\prime} ' \bar{a}$ may have LFs in ị $a^{\prime} a u^{u}$ 'aa instead of $i^{\prime} a u^{\prime} a$ (see below.)

Some SFs ending in fronting diphthongs or front vowels have LFs in -ya. In two nouns this appears as a variant: sāen̆ "blacksmith", LF sāen̆ or sān̆ya and sj̄ĕn̆ "witch", LF sōen̆ or sōn̆ya. All other LFs in -ya occur in single-aspect verbs 7.2, where LF -ya corresponds to all vowel-final SFs except in a few bare root forms:
dīgı LF dīgıyá "be lying" vūe LF vūyá "be alive"

Before liaison, even these verbs follow the general rule 4.2 .
Words in isolation will be cited in superscript notation, writing forms with the portion of the LF which does not appear in the SF as a following superscript.

| bịi $g^{\text {a }}$ | "child" | $k \bar{u} k^{\text {a }}$ | "chair" |
| :---: | :---: | :---: | :---: |
| $d \bar{u} k^{\text {J/ }}$ | "pot" | sinàk ${ }^{\text {d }}$ | "agree" |
| $g b i ̄ g ı m ~{ }^{\mathrm{n} \varepsilon}$ | "lion" | yàarım ${ }^{\mathrm{m}}$ | "salt" |
| dīgı ${ }^{\text {ya/ }}$ | "be lying down" |  | "be standing" |

When there is no superscript (other than /, see below) written after a SF ending in a vowel, the LF is segmentally the same but with prolongation of any final vowel except a long monophthong 4.1:

| gbīgıma | "lions" | SF gbīgıma | LF gbīgımaa |
| :--- | :--- | :--- | :--- |
| mòlı | "gazelles" | SF mòlı | LF mòlı |
| gòn̆ | "hunt" | SF gòn̆ | LF gòon̆ |
| dị'el | "receive" | SF dị'e | LF dị'ée |
| nūa' | "hen" | SF nūa | LF nūáa |
| kìà | "cut" | SF kià | LF kịa |
| kūā | "hoe" | SF kūā | LF kūa |
| dāūu | "man" | SF dāū | LF dāu |
| saèen | "blacksmith" | SF sāēn̆ | LF sāen̆ |
| dà'a | "market" | SF dà'a | LF dà'a |
| ànịíi | "eight" | SF annịí | LF annịí |

Words ending in LF ia' $a$ un' $^{\prime} a a$ are written with superscript ${ }^{\text {a }}$ to distinguish them from words ending in LF $i^{\prime} a u^{\prime} a$ :

|  | kpià ${ }^{\text {' }}$ | "shape wood" | SF kpià ${ }^{\text {l }}$ | LF kpị'a |
| :---: | :---: | :---: | :---: | :---: |
| but | diāa ${ }^{\text {a }}$ | "get dirty" | SF díā ${ }^{\text {a }}$ | LF dịă'a |
|  | kuā | "hoe" | SF $k$ una | LF kūa |
| but | $p u{ }^{\prime}{ }^{\text {a }}$ | "woman" | SF pu'ā | LF |

So are words with LFs in -ya where the SFs changes the word-final $-y$ to $-e$ :

| $v \bar{e} e^{\mathrm{a} /}$ | "be alive" | SF vv̄e | LF vōyá |
| :--- | :--- | :--- | :--- |
| $t \bar{e} e^{\mathrm{a} /}$ | "be bitter" | SF tōe | LF tōyá |

A few cases must be written out separately, e.g. pāmm SF pāmné LF "a lot."

Intrinsic LF-final tonemes are L whenever the last stem toneme is L or H, but may be either M or H after stem-final M ; superscript notation takes M as the default, writing / after forms with LF-final H: $d \bar{v} k^{\nu /}$ "pot", LF dv̄kó; nūa/ "hen", LF nūáa.

Words where X in the SF has to become H in the LF are written with SF tonemes: nû'ug "hand" LF nú'ugò; so are words with a toneless superlight syllable in the LF corresponding to a L closed final syllable in the SF: nóbìr ${ }^{\varepsilon}$ "foot", LF nóbırè, dị'əsídìb ${ }^{\text {a }}$ "receivers," LF dị' $\partial s i ́ d ı b a ̀ . ~ T h e ~ c o n v e n t i o n ~ t h a t ~ m a c r o n s ~ a n d ~ g r a v e s ~ a p p l y ~$ to all following unmarked syllables means that no special notation is needed for the corresponding changes in words like wābug ${ }^{\rho / ~ " e l e p h a n t " ~ o r ~ d ı ̀ g ı r ~}{ }^{\varepsilon}$ "dwarf."

Apocope-blocked words use LFs as citation forms. They lack the lowering of postconsonantal final $\imath v$ to $\varepsilon \supset$ seen before prosodic clitics, but do change final -mv to -mm. Final L tonemes are changed to M. Secondary LFs are created before prosodic clitics by prolonging short final vowels; except in Pattern A words 3.8, final M then becomes H . Apocope-blocking is seen with some nouns ending in $-\imath$ or $-v$, as a derivational feature in adverbs and quantifiers, as a downtoning measure with adjectives, and in many words with only one underlying mora, including pronouns.

| būudl | "tribe" | bèdvgō¹ | "a lot" |
| :--- | :--- | :--- | :--- |
| sv̀jā | "well" | $y \bar{a}^{\prime}$ | "houses" |

Blocked words which do not end in a short vowel add -ne for the secondary LF: pāmm SF pāmné LF "a lot"; mà'aa SF mà'ane LF "only"; gùllı̄mm SF gùllımne LF "only"; kòtà $a^{\text {n } \varepsilon ~ " a t ~ a l l . " ~ T h e ~ L F ~ o f ~} \check{n} y a \overline{e n \varepsilon / ~ " b r i g h t l y, ~ c l e a r l y " ~ i s ~ s i m i l a r l y ~ n ̆ y a ̄ e n \varepsilon ́ ~[j ̃ a ̃ i ̃ n e ̃] . ~}$ Cf mè DK KT SB NT mèn WK; clause-finally (all sources) mèn $\varepsilon$ "also, too."

### 3.3 Roots, stems and flexions

Word structure is based on $(C) V(C)$ or $(C) V V(C)$ roots. All vowels may occur in roots. Root-final consonants may only be $b d \mathrm{glm} n s r$.

Stems are derived from roots by adding up to three of the derivational suffixes $b d g l m n s r$. Only $d l m$ can follow another suffix. Nominal stems may also have derivational prefixes $V C V C V N C V s ı N$ or $C V l ı N$, where $N$ is a nasal homorganic with the following consonant and $\imath$ is an epenthetic vowel: tītā'ar "big", bùmbàrıg "ant", sīlınsị̂un̆g "spider." A few stems have two prefixes.

A stem may constitute a word by itself, or may add a single flexional suffix of the form (C)V(V) or -mm [m:].

Prefixes and flexional suffixes show only the affix vowels $a_{i} v a a u v v$. Most bound words of the form $(C) V(V)$ have the same vowel restrictions, though the various particles $n \bar{\varepsilon}$ show $\varepsilon$ for $\imath$. Prosodic clitics 4.1 cause short LF-final $\imath v$ to be lowered to $\varepsilon$, here realised [e] [o]; short $\imath v$ remain as such only before apocopeblocking 3.2.

Prefix $t v$ are realised [i] [u] when the first vowel mora of the root is $i$ or $u$; as this is non-contrastive, the orthography uses $ו v$ throughout. Thus tītā'ar [titã:r] "big", kùk̄̄r [kvkor] "voice", but kìkịrıg [kikirig] "fairy", sìsị'əm [sisi̇̃른 "wind", sīlınsị̂un̆g [silinsĩũg] "spider", vv̀lınvùun̆l [vulimvũ:1] "mason wasp", dv̀ndùug [dundu:g] "cobra" (KB dunduug.) Only [i] [u] occur after m or n: nịn-tāa [ninta:] "co-wife."

As affix vowels, short $l$ and $v$ contrast only after velars and word-initially: $l$ is the default after alveolars, and $v$ after labials, labiodentals and labiovelars, but prefixes show $v$ rather than $\imath$ before root $u / v / \nu$ (dùndùug "cobra") and $\imath$ instead of $v$ before $i / \imath / \varepsilon$ ( $k p i ̄ k p \bar{i} n$ "merchant.") In flexions -mm appears in place of *-mv; $\imath$ appears after labial consonants only by analogy in pfv LFs like zàbs "fight." Velars followed by affix-vowel $v$ could be analysed as labiovelars, with 3sg $\grave{o} \leftarrow * \eta m \dot{v}$.

Before vowel-initial flexions CVV root-stems become CVy or CVd 3.4.
No consonant clusters appear word-initially or finally except final -mm: pāmm "a lot." Few clusters are permitted within words. Homorganic nasal $+C$ may occur where noun prefixes attach to a root or to another noun prefix: kùnd̀̀ $\eta^{\mathrm{a}}$ "jackal", gūmpūz $\bar{\varepsilon} r^{\varepsilon /}$ "duck", dànkòj [daŋkoŋ] "measles." Except in loanwords, the only other word-internal clusters permitted are kk tt pp $\eta \eta n n m m i l l m$ m of which kk tt pp $\eta \eta$ are written $k t p \eta$, and realised single except in very slow speech.

All other pairs of consonants arising in word formation either assimilate to a permissible cluster or single consonant, or insert an epenthetic vowel:

| Stem nób- "leg" | $+\mathrm{sg}-\mathrm{rl}$ | $\rightarrow$ | LF nóbırè | SF nóbìr |
| ---: | :--- | :--- | :--- | :--- |
| dūm- "knee" | $+\mathrm{sg}-\mathrm{rl}$ | $\rightarrow$ | LF dūmne | SF dūm |

The cluster $m n$ is unstable. All informants have $m m$ in the LFs of dual-aspect verb ipfvs like kàrımma "read", but a few examples of the original mn occur in NT:
ka ba li' ba toba ka pu wum na [sic 3.1]
kà bà lí bà tùba kà pū wúmnā=ø.
And 3pl block 3PL ear:pl and neg.Ind hear:IMPF=NEG.
"they have blocked their ears and do not hear" (Mt 13:15, 1996)

Informants differ with regard to the LF sg forms of $r \varepsilon \mid a a$ class $m$-stems; thus SB has gbīgımne "lion", dūmne "knee" whereas WK has gbīgımme, dūmme.

The LF sg forms of agent nouns of $m$-stem verbs also vary:
m naan ku aan Kiristo tumtum na [sic 3.1].
$\grave{m}$ nāan kú āa-n Kiristo túm-tūmna=ø.
1sG then NEG.IRR COP-DP Christ work-worker:SG=NEG.
"I would not have been Christ's servant." (Gal 1:10, 1996; KB tomtomma)

Agent noun plurals usually show $m n$, as in tùm-tūmnıb "servants", but habitual adjectives from $m$-stem verbs show $m m$ before epenthetic vowels: būn-túmmìr "useful thing" (pl tūmna for some), bù-sān̆'ammır "goat for destruction" WK.

All examples of $m n a$ and $m n \varepsilon$ in KB cross word division by the criteria of this grammar, but mni is usual in plurals like tomtomnib tòm-tūmnıb "servants."

The default epenthetic vowel is $ו$. Before LF -go - $\eta \supset$ it becomes $v$, remaining $v$ in the SF 3.6.

|  | SF āan̆dıg | LF āan̆dıga | "black plum tree" |
| :--- | :--- | :--- | :--- |
| but | SF gàadvg | LF gàadvgo | "(sur)passing" |
| pl | SF mālıma | LF mālımaa | "sacrifices" |
| but | SF mālvy | LF mālvŋo | "sacrifice" |

Epenthetic vowels are also rounded to $v$ when preceded by a short rounded root vowel with intervening $g$ (but not $\eta$ or $k$ ):


```
d\overline{v}gvd [dvgvd] "cooking pots" d\overline{v}gvdíb [dvgodib] "people who cook"
```

With other consonants rounding varies between sources. It is contrastive only before velars, where it can lead to reinterpretation of -ga as -go. WK has rounding with intervening $b m$ or $l$, and with intervening $m m$ even after unrounded vowels: nóbìr "leg" but nōbug "grow", k̄̄lvg "river", yàmmıg "slave."

After a single consonant preceded by short root $i$ or $u$, epenthetic $t v$ are realised [i] [u] respectively; this is not contrastive and is ignored in the orthography:

| tìsıd | [tisıd] | "gives" | sịgıd | [sigid] | "lowers" |
| :--- | :--- | :--- | :--- | :--- | :--- |
| būgur | [bvgur] | "spirit's dwelling" | kūgvr | [kugur] | "stone" |

Epenthetic vowels show two distinct levels of prominence. The weaker is seen in superlight $C V$ syllables. A $C V$ syllable is superlight if it is a word-internal non-root syllable and is preceded by another $C V$ syllable which is not itself superlight, working from left to right. Bolded syllables are thus superlight in the LFs dị'əsídıbà "receivers", sịgısídıbà "lowerers", mòlıfo "gazelle", but in yūgvdıre "hedgehog" only the second syllable is superlight, and in yùugıre "delaying" and nōkírè "picking up" ( $k=/ \mathrm{kk} /$ ) there are no superlight syllables. With marginal exceptions after -Vr-, superlight syllables do not carry tonemes, and they show no vowel quality contrasts even in surface forms. They are structurally analogous to the second morae of long vowels or diphthongs. Epenthetic $l v$ in syllables which are not superlight (typically in third stem morae, disregarding prefixes) have the same prominence as affix vowels.

Diphthongs result from deletion of postvocalic $* g$ with vowel fusion and from changes of vowel morae before *-ya *-gv *-kkv *-ŋŋv. Apocope removes conditioning factors, rendering diphthongs contrastive, just as with the epenthetic vowels above:

|  | SF vịid | LF vịidé | "owls" |
| :--- | :--- | :--- | :--- |
| but | SF vịug | LF vị̀ugó | "owl" |

### 3.4 Root alternations

Most roots ending in a vowel show a long vowel before all flexional and derivational suffixes: $k \bar{v}$ "kill" ipfv $k \bar{v} v d^{\mathrm{a} /}$. Others have a short vowel throughout: $z \bar{u} g^{\rho /}$ "head" $\mathrm{pl} z \bar{u} t^{\varepsilon /, ~} z \bar{a} /$ "millet", mùi ${ }^{\prime}$ "rice", kị/ "millet."

Some roots end in a vowel showing length alternations. All glottalised types are underlyingly ${ }^{*} C V g$ 3.7. In flexion, non-glottalised types show long vowels before -ga $-g o$ and short elsewhere, with following $* d \rightarrow t t * b \rightarrow p p$ (but not $* m \rightarrow m m$ or $* l \rightarrow l l$ ):

| $d \bar{a} v g{ }^{\text {a }}$ | "male" | cf dā $p^{\text {a }}$ | "men" |
| :---: | :---: | :---: | :---: |
| bịi $g^{\text {a }}$ | "child" | cf bịl ${ }^{\text {a }}$ | "little" |
| dòog ${ }^{\text {a }}$ | "hut" | $\mathrm{pl} d \grave{t}{ }^{\varepsilon}$ |  |
| fūug ${ }^{\text {/ }}$ | "clothing" | $\mathrm{pl} f u t^{\varepsilon /}$ |  |
| $\check{n} y \bar{\varepsilon}$ | "see" | ipfv $\check{n} y \bar{\varepsilon} t^{\mathrm{a} /}$ | $\mathrm{imp} \check{n} y$ yèm ${ }^{\text {a }}$ |
| $k \bar{\varepsilon}$ | "allow" | ipfv $k \bar{\varepsilon} t^{\text {a/ }}$ | $\operatorname{imp} k \stackrel{l^{\text {a }}}{ }{ }^{\text {a }}$ |
| di | "eat" | $i p f v d i t{ }^{\text {a }}$ | imp dim ${ }^{\text {a }}$ |


| yị | "emerge" | ipfv yị̀ ${ }^{\text {a/ }}$ | imp yịm ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: |
| zò | "run" | $i p f v z \chi^{\text {a }}$ | imp zòm ${ }^{\text {a }}$ |
| $d \bar{v}$ | "rise" | $\operatorname{ipfv} d \bar{v} t^{\text {a/ }}$ | imp dùm ${ }^{\text {a }}$ |
| lù or lị | "fall" | ipfv lùt ${ }^{\text {a }}$ or lịt ${ }^{\text {a }}$ | imp lùm ${ }^{\text {a }}$ or lị̀m ${ }^{\text {a }}$ |

$V V$ before sg -ga or -go may be introduced into the pl, optionally or always:

| $d a \bar{u} g^{\circ}$ | "male" | $\mathrm{pl} \mathrm{da}^{\text {a }}{ }^{\text {¢ }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| bịi ${ }^{\text {a }}$ | "child" | pl bịis ${ }^{\text {¢ }}$ |  |  |
| pōog ${ }^{\text {/ }}$ | "field" | pl pōod ${ }^{\text {/ }}$ | or | $p \overline{\text { ¢ }}{ }^{\varepsilon /}$ |
| dòsg ${ }^{\text {a }}$ | "hut" | pl dòs $^{\text {d }}$ | or | dòt ${ }^{\text {e }}$ |
| fūug ${ }^{\text {/ }}$ | "clothing" | pl fūud ${ }^{\text {/ }}$ | or | $f u \bar{t}{ }^{\varepsilon /}$ |

Before derivational suffixes the vowel is usually long:

| dìıs | "feed" | $d \grave{\imath}$ | "eat" |
| :--- | :--- | :--- | :--- |
| dàalım | "masculinity" | $d \bar{a} p^{\mathrm{a}}$ | "men" |
| $v^{\varepsilon} \overline{' v g}^{\varepsilon /}$ | "come alive" | $v \overline{r^{\varepsilon /}}$ | "alive" |
| $y \grave{i ̣ i s} s^{\varepsilon /}$ | "make go/come out" | $y \overline{1}$ | "emerge" |

 gòsım ${ }^{\text {a }}$; and $t i s^{\varepsilon}$ "give" ipfv tit $t^{\mathrm{a}}$ or $t i s ı d^{\mathrm{a}}$.

Gerunds in -bo always show long vowels: $d \bar{\imath} \imath b^{0}$ "food", $\check{n} y \bar{\varepsilon} \varepsilon b^{\supset / ~ " s e e i n g " ; ~ s o ~ d o ~}$ all regular gerunds in -rع: n̄̄-lôor ${ }^{\varepsilon}$ "fasting" ("mouth-tying"), fū-ŷ̂ع $\varepsilon r^{\varepsilon}$ "shirt-wearing", but WK has nā̄-lór $r^{\varepsilon}$ "place for tying up cows", wìd-lōr ${ }^{\varepsilon /}$ "place for tying up horses."

Historically, such roots probably ended in a consonant preserved before vowelinitial suffixes, assimilated before homorganic consonants, or deleted with vowel fusion. There is evidence for ${ }^{*} C V w$ and ${ }^{*} w b \rightarrow p p$ in dāu "man" (Mooré ráoa) pl dāpa;


Kusaal CVV roots with CVt- allomorphs typically have Mooré cognates with fronting diphthongs or front vowels: e.g. Mooré zòe "run" lv̀ı "fall", ipfvs zòeta, lv̀ıta, versus kú "kill", ipfv kúvdà. Mooré shows much less levelling in such cases. Sporadic monophthongisation of *Vy explains lù ~ lị "fall", and contrasts like Kusaal dò $g^{\circ}$, Mampruli duu, Mooré ròogó vs Hanga dìì, Farefare dèegò, Dagaare dié "hut, room."
 (where Nawdm *rr $\rightarrow d$ ); dغ̀ $\varepsilon g^{\text {a "warthog", Mooré rèoogó ( } \leftarrow \text { *rèegó), pl reto, Nawdm }}$ dòd pl dòrá. Nawdm $r$ continues Proto-Oti-Volta *r (perhaps [rij); in Proto-Western-OtiVolta single *r became *y root-initially, after short root vowels, and word-internally before *a; otherwise Agolle Kusaal and Mooré continue $r$ as a distinct phoneme, but in the other languages it falls together with the reflexes of either ${ }^{*} d$ or ${ }^{*}$ 2.1.


When not the reflex of $* r r$, Agolle $r$ after a short root vowel is due to analogy or borrowing. Thus kpàr $\varepsilon$ "lock" (= Dagbani kpari, not *kpali) probably has $r$ from an obsolete $* k p a ̀ r^{\mathrm{a}} \leftarrow * k p a r r a \leftarrow * k p a d r a$ "be locked", cf gùl $l^{\varepsilon}$ "suspend", gùl la "be suspended", and the irregular correspondences in Mampruli nyariŋŋu, Dagbani jariŋ, Toende ãarò̀, Agolle àn̆ro $\eta^{3}$ "boat" suggest borrowing. The change *rr $\rightarrow r$ itself


Buli has $r$ for *rr but y/i/ø for single *r: yérí "house", tara "have" (= tā $r^{\mathrm{a} /}$ ), ngàyè "two", tūik "baobab", dùok "warthog", dòk "hut", nóai "mouth." Moba has l throughout: ńlé "two", ńlòò̀̀ "six" (= ǹyûӨb), lōōń "close" (= yò), tūbl̀ "ear", tōōlg̀ "baobab", dōōlg̀ "pig." Byali has dyā "two", tēēbū "baobab", dī̀ $g a ̄ ~ " w a r t h o g ", ~ n u ̄ i ̄ ~$ "mouth", and Waama yẽní "two", tōōríbū "baobab", dōríbū "warthog", nórē "mouth."

The roots of sāeñ̆a "blacksmith" and sj̄en̆ ${ }^{\text {a }}$ "witch" show no CVt- allomorphs (cf Mooré sãado "smithing", sốodo "witchcraft"), and were perhaps originally *CVñ.

Before the noun class plural suffix -aa, unglottalised $C V V$-stems insert $-y$-, with shortening of long vowels, with iə ue becoming ie ue [ir] [ur], found solely in this context. Historically, this may represent analogical introduction of the *r of the sg suffix before pl-aa; the regular Nawdm pattern is nóór "mouth" pl nóórá.

| $g a ̄ n ̆ r^{\varepsilon /}$ | "ebony fruit" | pl gān̆yá (short sg vowel from pl) |
| :---: | :---: | :---: |
| bàlàar ${ }^{\text {E }}$ | "stick, club" | pl bàlàya |
| kùkōr ${ }^{\text {c/ }}$ | "voice" | pl kùk亏̄yá (*CVy-root) |
| nōor ${ }^{\text {/ }}$ | "mouth" | pl nōyá |
| $z \bar{v} v r^{\varepsilon}$ | "tail" | pl zūya |
| bịə $\partial r^{\varepsilon /}$ | "elder same-sex sib" | pl bi̇ēyá |
| $z \bar{u} \theta r^{\varepsilon}$ | "hill" | pl zuēya |

However, $C V^{\prime} V$ root-stems change to $C V d$ - before -aa:

| tītā'ar | "big" | pl tītāda |
| :--- | :--- | :--- |
| pòn̆'or | "cripple" | pl pòn̆da |
| yū'vr $r^{\varepsilon /}$ | "name" | pl yūdá |
| yū'өr | "penis" | pl yūāda |

These may be original $* C V d$-stems, with $* V d r \rightarrow V^{\prime} V r$ after short root vowels and cb based on the sg. Current forms with $C V d$ - before $\mathrm{sg} r \varepsilon$ would be levelled on the pl ( pl remodelled on sg would look like a cb); many such words are commoner in the pl, e.g. $k p \bar{\varepsilon} n \check{d} d r^{\varepsilon /}$ "cheek." Deverbal nouns are remodelled on finite forms, and adjectives level stems across classes. Pu'à-sādır $r^{\varepsilon /}$ "young woman" had former $a \mid b a$ agreement: cf Mooré pùg-sádà id. Languages without glottalisation treat these stems exactly like $C V V$-, but the rules for all $C V V$-stems before -aa differ across subgroups.

Stems in *-ag- *-iag- *-uag- 3.7 may inflect as CVC- stems, or may show analogical forms with $-d-$-:

| bà'ar | "idol" (Farefare bàgrè) | pl bà'a or bàda |
| :--- | :--- | :--- |
| sià'ar $^{\varepsilon}$ | "forest" | pl sià'a |
| mù'ar | "reservoir, dam" | pl mụ'àa or mò'ada |

A derivational change $* r g \rightarrow d g$ appears in

|  | lō | "tie" | lōdı $g^{\varepsilon /}$ | "untie" |
| :--- | :--- | :--- | :--- | :--- |
| cf | lóe | "tie" (Mooré) | lódgè (or lókè) | "untie" (Mooré) |
|  | $p \bar{u}$ | "divide" | pūdı $g^{\varepsilon /}$ | "divide" |
| cf | pv́i | "divide" (Mooré) |  |  |
|  | bò̀ | "get lost" (Toende) | bòdı $g^{\varepsilon}$ | "lose, get lost": |
|  | yāar ${ }^{\varepsilon /}$ | "scatter" | yādı $g^{\varepsilon /}$ | "scatter" |

* $C V w$ roots become glottalised before derivational ${ }^{*} g$ and $*_{s}$, probably reflecting another historical consonant cluster change; thus yغ̀ "dress oneself", yغ̀ $\varepsilon g^{\varepsilon}$ "undress oneself", dì "eat", dı̀ $s^{\varepsilon}$ "feed", but

| kò | "break" intrans | kò'ıg ${ }^{\text {¢ }}$ | "break" trans/intrans |
| :---: | :---: | :---: | :---: |
| pòod ${ }^{\text {a }}$ | "be few" | pò'ıg ${ }^{\varepsilon}$ | "diminish" |
| $v \bar{v} e^{\text {a/ }}$ | "be alive" | $v \bar{v}^{\prime} \nu g^{\varepsilon /}$ | "make, come alive" |
| cf vopa | "live things" (Farefare) | $v \bar{v}^{\prime} v s^{\varepsilon /}$ | "breathe, rest" |
| kòolv́n ${ }^{\text {a }}$ | "broken" | $k{ }^{\text {b }}$ 'os ${ }^{\text {® }}$ | "break several times" |
| tòn̆ | "shoot" | tòn̆'os ${ }^{\text {® }}$ | "hunt" |

Other sporadic $C V V \sim C V C$ alternations are also probably relics of root-final consonant lenitions and deletions. Thus, $C V w \sim C V b$ alternations appear in

| nō | "tread" | nōbá | "feet" |
| :---: | :--- | :--- | :--- |
| cf nao | "tread" (Mooré) |  |  |
| sว̄on̆r | "liver" | sobri | "liver" (Mampruli) |
| sãoore | "liver" (Mooré) | sabili | "liver" (Dagbani) |

There are few $C V b$ - stems in the $r \varepsilon \mid a a$ noun class. Nóbì $r^{\varepsilon}$ "foot" has introduced -b- from the plural (Toende sg $n \bar{y}^{-1} \bar{t} t$ ) and tùbvr ${ }^{\varepsilon}$ "ear" may have done so.

Apparent $C V V \sim C V g$ alternations appear in wịid ${ }^{\mathrm{a}}$ "draw water" ipfv beside wịk ${ }^{\varepsilon}$ $\mathrm{pfv}(\leftarrow *$ wiggı $)$ and $v \underset{\mathrm{in}}{ }$ "uproot", vị $k^{\varepsilon /}$ id $\left(\leftarrow \leftarrow^{*}\right.$ viggı).

Some $C V C$ roots have $C V V C$ allomorphs. Alternation may appear in derivation:

| tv̄vma | "work" noun | tùm ${ }^{\text {m }}$ | "work" verb |
| :---: | :---: | :---: | :---: |
| yธ́oך | "one" | yīun ${ }^{\text {/ }}$ | "single" |
| $k a ̄ a l^{\varepsilon /}$ | "count" | kāl ${ }^{1 \varepsilon /}$ | "number" |
| $t \bar{v})^{\prime} g^{\text {º}}$ | "hot" | $t \bar{v} l^{\text {la/ }}$ | "be hot" |

CVC is invariable before derivational suffixes other than -lım- "-ness" and the $-y$ - of stative verbs; thus sáannìm ${ }^{\mathrm{m}}$ "strangerhood", $k p i ̣{ }^{1} \mathrm{I}^{\mathrm{ma}} \mathrm{ma}$ "be strong", but

| màal ${ }^{\text {c }}$ | "sacrifice" (verb) | mālv ${ }^{\text {a }}$ | "sacrifice" (noun) |
| :---: | :---: | :---: | :---: |
| pị̀lıg ${ }^{\text {a }}$ | "white" | pèlıg ${ }^{\text {® }}$ | "whiten" |
| $k p i ̣{ }^{\prime} o \eta^{\text {a }}$ | "strong" | $k p \varepsilon ̇ ' \eta{ }^{\varepsilon}$ | "strengthen" |
| lịəb ${ }^{\text {c }}$ | "become" | $l$ lèbı $g^{\varepsilon}$ | "turn over" |
| tōolv́g ${ }^{\text {a }}$ | "hot" | $t \overline{l o l ı g}{ }^{\varepsilon /}$ | "heat" |
| yāar ${ }^{\text {/ }}$ | "scatter" | yādı $g^{\varepsilon /}$ | "scatter" |
| $d \bar{\varepsilon} \varepsilon \eta^{\text {a }}$ | "first" | dè ${ }^{\varepsilon}$ | "go first" |
| $p i ̣ \partial b^{\varepsilon}$ | "blow" (flute) | $p$ c̀bıs ${ }^{\varepsilon}$ | "blow" (wind) |
| yùul ${ }^{\varepsilon}$ | "swing" intransitive | yùlıg ${ }^{\text {c }}$ | "swing" transitive |

Alternation appears in flexion in a few nouns:

| $z!!i \eta^{\text {a }}(\leftarrow$ *ziimga) | zịmí | zīm- | "fish" |
| :---: | :---: | :---: | :---: |
| náaf ${ }^{\text {( }} \leftarrow$ * naagfv) | nịigí | $n \overline{\mathrm{a}}{ }^{\prime}-(\leftarrow *$ nag -$)$ | "cow" |
| wáaf$(\leftarrow *$ waagfv $)$ | wịigí | wā'- ( $\leftarrow$ *wag-) | "snake" |
| pịi ${ }^{\text {m/ }}$ | pịmá |  | "arrow" |
| yòvm ${ }^{\text {m }}$ | yòma |  | "year" |

### 3.5 Consonant clusters

The changes described below precede deletion of postvocalic $* g$.
Except between a prefix and a root, adjacent consonants within a word either


This table shows the treatment of possible pairs, with $\partial$ representing the insertion of an epenthetic vowel. There are gaps where combinations are unattested.

| $1 \downarrow 2 \rightarrow$ | $g$ | $d$ | $b$ | $m$ | $n$ | $r$ | $s$ | $l$ | $f$ | $y$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $g$ | $k k$ | $\partial$ | $\partial$ | $\partial$ | $\partial$ | $\partial$ | $\partial$ | $\partial$ |  | $\partial$ |
| $d$ | $\partial$ | $t t$ | $\partial$ | $\partial$ |  | $\partial$ | $\partial$ |  |  | $r$ |
| $b$ | $\partial$ | $\partial$ | $p p$ | $[m m]$ | $\partial$ | $\partial$ | $\partial$ | $\partial$ |  | $\partial$ |
| $m$ | $\eta \eta$ | $m n$ | $m m$ | $m m$ |  | $m n$ | $[\because s]$ | $n n$ |  | $m m$ |
| $n$ | $\eta \eta$ | $n n$ | $m m$ | $\partial$ |  | $n n$ | $\tilde{\vdots}+$ | $n n$ | $\sim f$ | $n n$ |
| $r$ | $\partial$ | $\partial$ | $\partial$ | $\partial$ |  | $r$ | $\partial$ | $t t$ | $\partial$ |  |
| $s$ | $\partial$ | $\partial$ | $\partial$ | $\partial$ |  | $\partial$ | $\partial$ |  |  | $s$ |
| $l$ | $\partial$ | $n n$ | $\partial$ | $\partial$ |  | $l l$ | $\partial$ | $l l$ | $\partial$ | $l l$ |

The unusual change $l d \rightarrow n d(\rightarrow n n)$ is found throughout Western Oti-Volta.
The change $\mathrm{bm} \rightarrow \mathrm{mm}$ only occurs after a short root vowel, whereas $\mathrm{ms} \rightarrow \tilde{:} s$ never occurs after a short root vowel, and is optional elsewhere.
*ns, and *ms when it assimilates, become $s$ with nasalisation of a preceding root vowel, and lengthening of a preceding short root vowel:

| $t \bar{\varepsilon} \eta^{\mathrm{a}}$ | "land" | pl | $t \bar{\varepsilon} \varepsilon n ̆ s^{\varepsilon}$ | $\leftarrow *$ tensı |
| :--- | :--- | :--- | :--- | :--- |
| $k \dot{l} \imath \imath \eta^{\mathrm{a}}$ | "door" | pl | kùlıs $^{\varepsilon}$ | $\leftarrow * k v l ı n s \iota$ |

For the $\mathrm{pl} b \bar{v} t u s^{\varepsilon}$ of $b \bar{v} t ı \eta^{\mathrm{a}}$ "cup" see 2.3.
*nf becomes $f$ with nasalisation of a preceding root vowel, but there is no lengthening of a short preceding root vowel in the only case which occurs:

| $n i ̄ f o l$ | "eye" | pl | nịní |
| :--- | :--- | :--- | :--- |
| píıňfo | "genet" | pl | pīıní |

* $\boldsymbol{s} \boldsymbol{S}$ inserts an epenthetic vowel in the $\mathrm{pl} p \bar{s} s ı s^{\varepsilon /}$ of $p \overline{\sin } \mathrm{~g}^{\mathrm{a} /}$ "tamarind." All other plurals in $-s s^{\varepsilon}$ in my materials are for ${ }^{*}$-sinsı. ${ }^{*} P \bar{u} s^{\varepsilon /}$ would appear to show no ending in SF; substitution of a flexion from a different noun class is inhibited by the strong association of tree names with the $g a \mid s \varepsilon$ class and of fruits with $r \varepsilon \mid a a$ and $g o \mid d \varepsilon$.

The word $\check{n} w a \bar{m}{ }^{\mathrm{m} \varepsilon} \mathrm{WK}$ "calabash" has $* \boldsymbol{m} \boldsymbol{r} \rightarrow \boldsymbol{n} \boldsymbol{n}$ for some speakers ( $\check{n} w a \bar{n}{ }^{\text {ne }}$ SB), and the pl may be remodelled on the sg: ňwāna (Lk 11:39, 1976) ňwāma SB WK; cf 1976 NT kobkennib = kj̀n̆b-kīmmıb ${ }^{\text {a }} \leftarrow *$ kõb-kımdıba "herdsmen."

## Derivation precedes flexion in consonant cluster formation.

Stem-final $k k p p t t \eta \eta m n n n$ never assimilate further; $m m$ assimilates only with $m m m \rightarrow m m$ in imperatives. Thus e.g. $k \bar{\jmath} t^{\varepsilon /}$ "slaughter", ipfv k̄̄tída; dàm ${ }^{\mathrm{m}}$ "shake", ipfv dàmmıd ${ }^{\mathrm{a}}$ ipfv, gerund dàmmvg ${ }^{\circ}$ but imperative dàm ${ }^{\text {ma }}$.

However, stem-final $l l r(r)$ assimilate the initial of the noun class suffix -re: kùg$\boldsymbol{d} \overline{\boldsymbol{\varepsilon}} \boldsymbol{l}^{1 \varepsilon /}$ "chair for leaning on." This assimilation has led to the sg SF forms of agent nouns from single-aspect verbs in $l l r(r)$ being reinterpreted as $r \varepsilon \mid a a$ class 5.3.1.

Stem-internal $n n$ and $m m$ become single $n$ and $m$ after after epenthetic vowels and long root vowels. Pịbbın ${ }^{\text {n } \varepsilon}$ pl pị̄bına "covering" has single -n- for my informants, but the Mooré cognate has -nd-: pìíndgà "lid, cover." The Mooré equivalent of the assume-stance derivational suffix -n- 9.1.1 is -nd-: zĩndi = zịn̆'in ${ }^{\varepsilon}$ "sit down"; vábende $=v a ̀ b ı n^{\varepsilon}$ "lie prone"; tàbende "get stuck to" cf Kusaal tàb ${ }^{\varepsilon}$ id. The corresponding Nawdm suffix is -nt-: jefra ipfv = zị 'e $e^{\text {ya } " b e ~ s t a n d i n g, ~ j e f i n t ~ p f v ~}=z i ̣ ' \partial n^{\varepsilon}$ "stand up." Simplification of $m m$ to single $m$ appears in single-aspect verbs 9.1.2.1.

In verb flexion and gerund formation single $m n$ may be followed by unexpected epenthesis as a strategy to avoid ambiguous SFs.

Regular $n$-stem verbs never assimilate *nm in imperatives. They always assimilate ${ }^{*} n d \rightarrow n n$ in the ipfv after short root vowels, but nowhere else; this may reflect the origin of derivational $n$ from *nn.

| bùn | bùnna | bùnıma | "reap" |
| :--- | :--- | :--- | :--- |
| $\operatorname{digın~}^{\varepsilon}$ | dı̀gınıd $^{\text {a }}$ | dìgınım $^{\text {a }}$ | "lie down" |
| gò'on | gò'onıd $^{\text {a }}$ | gò'onım |  |

$N$-stem gerunds never show assimilation: būnıb ${ }^{3}$, dìgınv $g$.
$M$-stems always assimilate in the imperative. They regularly assimilate in the ipfv whenever an epenthetic vowel would have been left in a superlight syllable in the LF, although NT/KB occasionally has unassimilated forms to avoid ambiguity:

$$
\text { wùm }^{\mathrm{m}} \quad \text { wùm }^{\mathrm{ma}} \quad \text { wùm }^{\mathrm{ma}} \quad \text { "hear" }
$$

but ka nan kpen womid ye $m$ bes li puvgin nannanna la.
kà nán kpèn wùmıd yé m̀ béélì pūvgv-n nānná-nā lā.
and still still hear:IPFV that 1SG Exist 3IN inside:SG-LOC now ART.
"and are still hearing that I am in it now." (Phil 1:30)

When an epenthetic vowel would not be in a superlight syllable in the LF of gerunds or imperfectives, either assimilation or epenthesis is possible:

| tラ̄om ${ }^{\text {m/ }}$ | tósm ${ }^{\text {ma/ }}$ tōomíd ${ }^{\text {a }}$ | tòom ${ }^{\text {ma }}$ | "depart" |
| :---: | :---: | :---: | :---: |
| $k^{\text {àrım }}{ }^{\text {m }}$ | $k^{\text {àrım }}{ }^{\mathrm{m}} / \mathrm{kàrımıd}^{\mathrm{a}}$ | kàrım ${ }^{\text {ma }}$ | "read" |

The corresponding gerunds are tóo $\eta^{\top} /$ t̄̄omúg $^{\top}$ and kàrv $\eta^{\circ} /$ kàrımı $^{\circ}$.
Epenthesis is clearly motivated by the avoidance of ambiguity for WK and DK, who use assimilated forms exclusively as LFs and before the focus particle $n \bar{\varepsilon}^{\prime}$ :
$\grave{M}$ pū kárìmmā.
M̀ kárìm $n \bar{\varepsilon}$.
Kà bà kárımìd.
Kà bà kárìm.
"I'm not reading."
"I'm reading."
"And they were reading." only "And they read."

Examples for assimilation versus epenthetic vowel insertion:

| $* g g \rightarrow k k \quad g i k^{\mathrm{a}}$ | "dumb" sg | gìgıs ${ }^{\varepsilon} \mathrm{pl}$ |  |
| :---: | :---: | :---: | :---: |
| cf $k \bar{\jmath}{ }^{\text {l }}$, $g^{\text {a }}$ | "river" sg | $k o ̄ l ı s^{\varepsilon} \mathrm{pl}$ |  |
| *dd $\rightarrow t t \quad$ bùt ${ }^{\text {a }}$ | "plant" ipfv | bùd ${ }^{\varepsilon} \mathrm{pfv}$ |  |
| cf divgud ${ }^{\text {a/ }}$ | "cook" ipfv | $d \bar{v} g^{\varepsilon} \mathrm{pfv}$ |  |
| *bb $\rightarrow$ pp sōp ${ }^{\text {/ }}$ | "writing" ger | sōb ${ }^{\varepsilon} \mathrm{pfv}$ |  |
| cf kpārıb ${ }^{\text {a }}$ | "locking" ger | kpàr ${ }^{\varepsilon} \mathrm{pfv}$ |  |
| $* l d \rightarrow n n \quad k \grave{n} n^{\text {ne }}$ | "bags" pl | kòlvg ${ }^{\text {a }} \mathrm{sg}$ |  |
| cf $z u \bar{\theta}{ }^{\text {bíd }}{ }^{\varepsilon}$ | "hairs" pl | $z u ̄ \theta b u ́ g{ }^{\circ} \mathrm{sg}$ |  |
| *mg $\rightarrow \eta \eta \quad$ bù ${ }^{\text {a }}$ | "donkey" sg | bùmıs ${ }^{\text {e }} \mathrm{pl}$ |  |
| $*_{n g} \rightarrow \eta \eta \quad g b a ̀ u \eta^{\circ}$ | "book" sg | gbàna pl |  |
| cf $\check{n} w a \bar{d} \iota^{\text {a/ }}$ | "month" sg |  |  |
| $*_{n r} \rightarrow n n \quad t a ̄ n{ }^{\text {n } \varepsilon}$ | "earth" sg | tāna pl |  |
| $* m r \rightarrow m n \quad d u \bar{m}{ }^{\mathrm{n} \varepsilon}$ | "knee" sg | dūma pl |  |
| $* l r \rightarrow l l$ | "egg" sg | $g \overline{\text { clá }} \mathrm{pl}$ |  |
| *rr $\rightarrow r \quad k \dot{l} k p a ̀ r^{\varepsilon}$ | "palm fruit" sg | kùkpàra pl |  |
| cf dì $\mathrm{grr}^{\text {c }}$ | "dwarf" sg | dìga pl |  |
| $*_{n b} \rightarrow \mathrm{~mm} \quad$ sáam $^{\text {ma }}$ | "strangers" pl | sāan ${ }^{\text {a/ }} \mathrm{sg}$ |  |
| cf $n \grave{1}{ }^{\text {d }}{ }^{\text {b }}{ }^{\text {a/ }}$ | "people" pl | $n i ̣ d^{\mathrm{a} /} \mathrm{sg}$ |  |
| $* m b \rightarrow m m \quad k i ̄ m{ }^{\text {mo }}$ | "shepherding" ger | kìm ${ }^{\mathrm{m}} \mathrm{pfv}$ |  |
| cf $k a \bar{d} \mathrm{l} b^{\text {J }}$ | "driving off" ger | kàd ${ }^{\varepsilon} \mathrm{pfv}$ |  |
| *ll $\rightarrow$ ll $\quad$ Bùl ${ }^{\text {l }}$ | "Buli" | Bùlıs ${ }^{\text {e }}$ | "Bulsa" |
| *rl $\rightarrow t t \quad B a ̄ t^{\varepsilon /}$ | "Bisa language" | Bārıs ${ }^{\text {c/ }}$ | "Bisa people" |
| *ml $\rightarrow$ nn Dàgbān ${ }^{\text {n } / ~}$ | "Dagbani" | Dàgbāmma/ | "Dagomba" |
| *nl $\rightarrow$ nn Gōrín ${ }^{\text {ne }}$ | "Farefare" | Gūrís ${ }^{\varepsilon}$ | "Farefare people" |

### 3.6 Vowel changes before ${ }^{*}-\boldsymbol{y a}{ }^{*}-\boldsymbol{g v}$ *-kkv $^{*}$ - $\boldsymbol{\eta} \boldsymbol{\eta} v$

The changes described below apply after consonant-cluster assimilation/epenthetic-vowel insertion and before deletion of $* g$ after vowels.

When $-y$ - would become syllable-closing after a short back vowel as a result of apocope, it is changed to $e$, producing a short fronting diphthong:

| SF vv̄e | LF vōyá | "be alive" | SF tōe | LF tōyá | "be bitter" |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SF sāẹn̆ | LF sān̄ya | "smith" | SF sōĕ | LF sōn̆ya | "witch" |

Vowels are subject to fronting in the LF before $y$ and to rounding before a following rounded vowel if a velar intervenes; these changes remain in the SF.

Before LF $y$, long vowels undergo fronting of a back second mora to $e[\mathrm{I}]$ :

$$
\begin{array}{lll}
\text { sōn̆'e } e^{\text {ya/ }} & \leftarrow \text { *sõ'õya } & \text { "be better than" } \\
\text { sū'e }^{\text {ya/ }} & \leftarrow \text { *sv'vya } & \text { "own" (cf sō'vlím }
\end{array}
$$

Short unrounded root vowels become diphthongs in $u$ before LF * $\eta \eta v * k k v$ :

$$
\begin{aligned}
& \text { gbàunj }{ }^{\text {º }} \text { *gbaŋjv "book" pl gbàna } \\
& \text { lāuk }{ }^{\text {º }}{ }^{\circ} \text { "gakkv "goods item" pl lā'ad }{ }^{\varepsilon} \\
& \text { yīun }{ }^{2 /} \leftarrow \text { *yıŋŋט "single" pl yīná }
\end{aligned}
$$

Short tense $i$ does not diphthongise in nị̀n-gbị̣ $\eta^{5 / ~ " b o d y . " ~}$
Short ịa becomes íau, but short una becomes o: *uakkv $\rightarrow$ okkv

$$
\begin{aligned}
& \text { bòk }{ }^{\text { }} \leftarrow \text { *buakkv "pit" pl bù'ad }{ }^{\varepsilon}
\end{aligned}
$$

Unrounded second morae of long vowels become [ $\tau$ ] before LF *gv *ŋŋv:

$$
\begin{aligned}
& \text { dàvg }{ }^{\circ} \leftarrow \text { *daagv "log" pl dàad }{ }^{\varepsilon}
\end{aligned}
$$

The second mora of the long vowel ii becomes tense $u$, giving $i u$; this contrasts with the second mora of the long vowel iə, which becomes [ $\mho$ ], giving io [iv]:

$$
\begin{aligned}
& \text { vị̀ug }{ }^{\text {/ }} \quad \leftarrow \text { *viigv } \quad \text { "owl" } \mathrm{pl} v i ̣ i l d^{\varepsilon /} \\
& \text { but dàbịogo }{ }^{\supset} \leftarrow \text { *dabizgo "coward" pl dàbịəd }{ }^{\varepsilon} \\
& \text { kpị̀'oŋ }{ }^{\circ} \leftarrow \text { *kpi'əŋŋv "strong" pl kpị'əтa }
\end{aligned}
$$

No parallel case with $u u / u v$ occurs, because of the rule *ügv $\rightarrow$ ougv:

| Sà'dàbòog ${ }^{\text {a }}$ | $\leftarrow$ *Sa'dabuөgv | "place of the Sarabose Sà dàbù $\theta S^{\varepsilon}$ clan" |
| :---: | :---: | :---: |
| lām-fôog ${ }^{\text {a }}$ | $\leftarrow$ *lam-fuөgv | "toothless" (lāmme/ "gum", fùe "extract") |

Pl vowels are remodelled on the sg: lām-fôวd ${ }^{\varepsilon}$ "toothless." The only stem in final $u \theta$ in the $g \partial \mid d \varepsilon$ class is the formally-plural $z u ̀ \theta d^{\varepsilon}$ "friendship", where there is no sg with $g \supset$. The only $g \supset \mid d \varepsilon$ stems in iə are dàbị̀og "coward", kpị̀'op ${ }^{\circ}$ "strong", and pion ${ }^{\circ}$ (? tones) "bald", and there is stem alternation before $g a \mid s \varepsilon$ and $g o \mid d \varepsilon$ suffixes in
$b i ̣ ̀ a$
bị' $\partial s^{\varepsilon}$
biàa'-
"bad"
$b \bar{\varepsilon}{ }^{\prime}{ }^{\circ} g^{\circ}$
$b \bar{\varepsilon}^{\prime} \varepsilon d^{\varepsilon}$
$b \grave{c}^{\prime}-$
$B \overline{1} \cdot \partial m^{\mathrm{m}}$ "enemy" shows the same root with derivational $* m$. The alternation suggests a rule *iəgv $\rightarrow \boldsymbol{\varepsilon v g v}$, parallel to ${ }^{*} u \boldsymbol{\theta} g \nu \rightarrow \partial o g v$, with the pl vowels again remodelled on the sg. The broken vowel of dàbịog ${ }^{\circ}$ "coward" is perhaps carried over from an obsolete *dàbịəəm ${ }^{\mathrm{m}}$ "coward" (= Mooré ràbéعmà.)

The epenthetic vowel $l$ is rounded to $v$ before LF $*_{-} g v *_{-} \eta v$ :

|  | $\bar{a} a n \check{ }{ }^{\text {d }}$ ı $g^{\text {a }}$ | $\leftarrow * a ̃ a ̃ d ı g a ~$ | "black plum tree" |
| :---: | :---: | :---: | :---: |
| but | gàadvg ${ }^{\text {a }}$ | $\leftarrow * g a a d ı g v$ | "(sur)passing" (gerund) |
| pl | mālıma | $\leftarrow *$ malımaa | "sacrifices" |
| but | mālvŋ ${ }^{\text {a }}$ |  | "sacrifice" |

### 3.7 Consonant deletion and vowel fusion

The vowel changes described below apply after diphthongisation by fronting and rounding but before apocope. They are late historically: Haaf 1967 still has e.g. baga for bā'a "diviner" and winbagr for wīn-bâ'ar "altar."

Underlying *g is deleted after a ía úa an̆ ían̆ unan̆ before any vowel, affix or epenthetic, with fusion resulting in glottalised long vowels and diphthongs:

| *agV | $\rightarrow a^{\prime} a$ | *an̆gV | $\rightarrow a \breve{n}^{\prime} a$ |
| :---: | :---: | :---: | :---: |
| *iagV | $\rightarrow$ ì $a^{\prime} a$ | *ian̆gV | $\rightarrow$ ían̆'a |
| *uagV | $\rightarrow v^{\prime} a\left(\right.$ word-final U U' $\left.{ }^{\prime} a a\right)$ | *uan̆gV | $\rightarrow$ vn̆'a (word-final unn̆'aa) |

ia'a v'a ịian̆'a vn̆'a contrast with i'a u'a in̆'a un̆'a, except when shortened by apocope.

This rule applies later than the assimilation $* g g \rightarrow k k \underline{3.5}$; thus

| but | pīă ${ }^{\prime}{ }^{\text {'a }}$ | "speak" pfv | $p i a^{\prime} \breve{n}^{\prime} \cdot a d^{\text {a/ }}$ | ipfv |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $p u^{\prime} \bar{a}^{\text {a }}$ | "woman" | $p \overline{\text { ó'ab }}$ a | pl | (a\|ba class) |
|  | $z a ̀ k^{\text {a }}$ | "compound" | $z a ̀ ' a s^{\text {® }}$ | pl | (ga\|se class) |
|  | lāuk ${ }^{\text {a }}$ | "item of goods" | $l a{ }^{\prime} \cdot d^{\varepsilon}$ | pl | ( $g o \mid d \varepsilon$ class) |
|  | pi̇àuňk ${ }^{\text { }}$ | "word" | piiàn̆'ad ${ }^{\text {e }}$ | pl | ( $g o \mid d \varepsilon$ class) |
|  | puāk ${ }^{\text {a }}$ | "female" (adj) | $p \bar{v}^{\prime} a s^{\varepsilon}$ | pl | (ga\|se class) |
|  | bjk ${ }^{\text { }}$ | "pit" | $b \grave{' a d}{ }^{\text {c }}$ | pl | (go\|d $\varepsilon$ class) |

*g is deleted after aa io ue and their glottalised counterparts (but not after $a v$ во io วว resulting from rounding before *gv.) When an affix vowel follows the $* g$, fusion creates overlong diphthongs (similarly with the glottalised vowels):

| *aaga | $\rightarrow$ aa 4.1 | *aagı | $\rightarrow$ aee |
| :--- | :--- | :--- | :--- |
| *izga | $\rightarrow$ iaa | *iggı | $\rightarrow$ iee |
| *uega | $\rightarrow$ uaa | *uegı | $\rightarrow$ uee |

The diphthongs iaa uaa arise from deletion of the ${ }^{*} g$ in $g a \mid s \varepsilon$ class singulars:

| bāa | $\leftarrow{ }^{*}$ baaga | "dog" | pl bāas |
| :--- | :--- | :--- | :--- |
| sịa | $\leftarrow{ }^{\varepsilon}$ siəga | "waist" | pl sịəs ${ }^{\varepsilon}$ |
| sàbùa | $\leftarrow{ }^{\text {sabuega }}$ | "lover" | pl sàbùөs |

The diphthongs aee iee uee appear in dual-aspect "fusion" verbs with stems in ${ }^{*}$ Caag ${ }^{*}$ Ciəg ${ }^{*}$ Cuөg and their glottalised counterparts:

| pāel | $\leftarrow *$ paagı | "reach" |
| :--- | :--- | :--- |
| kpị'e | $\leftarrow * k p i ' \partial g ı$ | "approach" cf $k p i ̣ ' \partial s^{\varepsilon}$ "neighbours" |
| dūel | $\leftarrow * d u ө g \imath$ | "raise, rise" |

Original open nasalised $* \tilde{\varepsilon} \tilde{\varepsilon} \tilde{\jmath}^{*} \tilde{o} \tilde{o}$ only undergo vowel breaking $\underline{2.2}$ before $* g$, elsewhere falling together with the reflexes of former close *ẽẽ *õõ as $\varepsilon \varepsilon \check{n}$ oэn̆: breaking occurs in all contexts where $* g$ would suffer deletion and nowhere else.

Alternations arise in nouns and adjectives in the ga|sc class between SF-final ian̆ uan̆ and word-internal $\varepsilon \varepsilon n ̆ ~ כ э \check{n}$ before a consonant, and in derivation between fusion verb forms from *-gl, ending in SF ien̆ uen̆, and cognate forms with $\varepsilon \varepsilon \check{n}$ oэn̆:

| $z \backslash ̣ n ̆ ' a$ | "red" ga\|se class sg | $z \varepsilon ̇ n ̆ ' \varepsilon S^{\varepsilon}$ | "red" ga\|se class pl |
| :---: | :---: | :---: | :---: |
|  |  | zغ̀n̆'og ${ }^{\text {a }}$ | "red" gold $\varepsilon$ class sg $\underline{3.6}$ |
| dùan̆ | "dawadawa" sg | dòon̆s ${ }^{\text {® }}$ | "dawadawa" pl |
| Mùa | "Mossi person" | Mòss ${ }^{\text {® }}$ | "Mossi people" |
|  |  | Mòog ${ }^{\text { }}$ | "Mossi country" |


| nịe | "appear" | $n غ \grave{c} l^{\varepsilon}$ | "reveal" |
| :---: | :---: | :---: | :---: |
| $\bar{n} y u{ }^{\prime} e^{\prime}$ | "set alight" | n̆yう̄'วs ${ }^{\varepsilon /}$ | "smoke" (noun) |
| sūen̆/ | "anoint" | Sכ̄n̆ | "rub" |
| sūn̆'el | "become better" WK | sכ̄n̆'e ${ }^{\text {ya/ }}$ | "be better than" $\left(\leftarrow *_{\text {sõ'õya) }}\right.$ |

When aa aan̆ iə uө precede a *g which is not followed by an affix vowel, the only trace of $* g$ is the disturbance of toneme allocation in Tone Pattern H 3.8.1.

| náaf ${ }^{\text {ºb }}$ | $\leftarrow *$ naagfv | "cow" pl nịigí |
| :---: | :---: | :---: |
| dị' $\partial r^{\varepsilon}$ | $\leftarrow * d i ' ə g r ı$ | "receiving" (dị' $e^{/}$"receive" $\leftarrow * d i ' \partial g ı$ ) |
| $\nu u ́ \theta r^{\varepsilon}$ | $\leftarrow *^{*}$ vuegrı | "fruit of red kapok" |

However, broken iən̆ иөй appear instead of $\varepsilon \varepsilon \check{n}$ วэn̆:

| but | $n \varepsilon ̇ \varepsilon r^{\varepsilon}$ |  | "empty" ( $\leftarrow$ "clear") |
| :---: | :---: | :---: | :---: |
|  | $n \grave{\partial r} r^{\varepsilon}$ | $\leftarrow * n ı ̃ \imath ̃ g r ı ~$ | gerund of nịe "appear" |
|  | $p \overline{n ̆ ' ว l ~}{ }^{\text {/ }}$ |  | "cause to rot" |
| but | $p u ́ n \breve{n}^{\prime} ө r^{\varepsilon}$ | $\leftarrow * p u{ }^{\prime} \tilde{\theta}^{\prime} g r ı$ | gerund of pūn̆'e/ "rot" |

Tones show that the imperfective of fusion verbs has no underlying $* g$, and older forms in texts reflect this by keeping $\varepsilon \varepsilon \breve{n}$ วэй, e.g. pon'od from pūn̆'e'. Later texts, and all my informants, consistently introduce $i \partial \breve{n} u ө \check{n}$ into imperfectives and imperatives by analogy: pun'od pūn̆'өd ${ }^{\mathrm{a} / .}$.

### 3.8 Tone Patterns

The distribution of tonemes on an open-class word, prior to any effects of external tone sandhi or tone overlay, is specified by a Tone Pattern, a suprasegmental feature of the word stem which allocates individual tonemes to all tone-bearing units of each complete word belonging to the flexional paradigm, with the precise instantiation changing as the segmental form changes. Nominals show only three basic distinct Patterns ( $\mathrm{H}, \mathrm{L}$ and A ), and verbs only two ( H and A .)

| Pattern H | initial H or MH |  |
| :--- | :--- | :--- |
| Pattern L | all-L (but with non-initial H in longer m-stems) |  |
| Pattern A | (for "alternating") |  |
|  | nominals: $\quad$ all-M in sg/pl | all-L in cb |
|  | verbs: | all-M in irrealis |

Any tonemes after H are L .

Allocation precedes apocope and all synchronic rules which delete segments. Later loss of segments may result in unexpected distributions of tonemes.

Superlight syllables $\underline{2}$ are toneless. If a superlight LF syllable becomes closed in the SF , it must acquire a toneme: this is M after a preceding M syllable, and L otherwise, e.g. LF kūgoré SF kūgvr (i.e. kūgūr) "stone", LF nóbırè SF nóbìr "foot."

A single flexional paradigm only shows more than one Tone Pattern in the case of agent nouns which drop derivational $-d$ - in the sg and cb .

Analogous Patterns appear throughout Western Oti-Volta, with Pattern A alternating all-H/all-L. Pattern A has been taken as tonally unmarked, realised all-L by default but changed to all-H either by copying of a suffix H toneme (Akanlig-Pare and Kenstowicz 2002) or when a form is stressed (Olawsky 1999, Anttila and Bodomo 1996.) However, stressed verb forms are often all-L, and the Kusaal evidence also supports tone-copying: unlike almost all other open-class words, all-L Pattern A forms are not followed by M spreading and show L before liaison, apart from verb imperfectives, which probably originated as Pattern L derivatives. Derivational suffixes may change Pattern A forms to Pattern L and vice versa, which is difficult to reconcile with an analysis of Pattern A as intrinsically toneless; it may simply be intrinsically all-L, whereas Pattern $L$ has an underlying non-initial $M$ toneme usually deleted by internal tone sandhi but responsible for the H seen in longer $m$-stems.

For descriptive purposes it is sufficient simply to show Tone Patterns in terms of the resulting surface toneme distributions, and to classify derivational suffixes by the Patterns they produce; this is the approach adopted below.

### 3.8.1 Nouns and adjectives

Examples will be given as sg, pl, cb $\underline{5.1}$. Cbs are always affected by apocope.
Noun prefixes 10 are ignored in counting stem syllables below. Prefixes are L or M: L prefixes do not affect the rest of the tone pattern, while M prefixes only affect cbs, which always have H/X after the prefix.

Cbs from $C V$-stems sometimes behave tonally like prefixes:

| $p \overline{-k}$-kāad ${ }^{\text {a/ }}$ |  | pū-kpá- | "farmer" 10.1 |
| :---: | :---: | :---: | :---: |
| $z u \bar{g}-k \bar{v} g r^{\varepsilon /}$ | $z \bar{u} g-k \bar{v} g a$ | zūg-kúg- | "pillow" 5.2 |
| $k \bar{a}-w \bar{\varepsilon} n n ı r^{\varepsilon /}$ | kā-w ${ }^{\text {ennna }}$ | kā-wén- | "corn" |

Pattern $\mathbf{H}$ displays $H$ on the first syllable if it is superheavy in the LF, but otherwise has the initial tonemes MH; note that the H toneme falls on the third syllable if the second is superlight in the LF. Any tonemes following H are L. Cbs are allocated tonemes as if the final syllable were open.

| $v \bar{u} r^{\varepsilon /}$ | vōyá | $v \bar{v} r-$ | "alive" |
| :---: | :---: | :---: | :---: |
| $y \stackrel{1}{1} r^{\varepsilon /}$ | $y \bar{a}^{\prime}$ | yị - | "house" |
| fūug ${ }^{\text {/ }}$ | fūud ${ }^{\text {/ }}$ | $f u \overline{-}$ | "shirt, clothes" |
| $d \bar{u} k^{\text {J/ }}$ | $d \bar{u} g \chi^{\varepsilon /}$ | $d \bar{v} g$ - | "cooking pot" |
| $n \stackrel{1}{\text { n }} d^{\text {a/ }}$ | nịdıba/ | nịn- | "person" |
| kūgor ${ }^{\text {/ }}$ | kūgá | $k \bar{u} g$ - | "stone" |
| $g \bar{t} t^{\text {a/ }}$ | gōtíb ${ }^{\text {a } / \mathrm{tt} /}$ | gōt- | "seer, prophet" |
| sābılíga | sābulís ${ }^{\varepsilon}$ | sābıl- | "black" |
| sābíl ${ }^{\text {l }}$ | sābılá |  |  |
| yūgóm ${ }^{\text {m }}$ | yūgomá | $y \overline{\mathrm{v}} \mathrm{gom}$ - | "camel" |
| dị' $\partial S^{\text {a/ }}$ | dị'esídìb ${ }^{\text {a }}$ | dị'əs- | "receiver" |
| sūgoríd ${ }^{\text {a }}$ | sūgvrídib ${ }^{\text {a }}$ | sūgvríd- | "forgiver, forbearer" |
| kū'alín ${ }^{\text {a }}$ | $k \bar{v}^{\prime} a l i ́ s{ }^{\text {e }}$ | kū'alín- | traditional smock |
| sú'ө ${ }^{\text {a }} / \mathrm{y}$ ¢ $/$ | sū'өmís ${ }^{\text {e }}$ | sū'өŋ- | "rabbit" |
| sāan ${ }^{\text {a/ }}$ | sáam ${ }^{\text {ma }}$ | sāan- | "stranger, guest" |
| sáannìm ${ }^{\text {m }}$ |  |  | "strangerhood" |

H appears on the last syllable of LFs ending in root vowels followed by mm or in overlong diphthongs, while the corresponding SFs have M toneme:

| nūal | SF nūa | LF nūáa | "hen" |
| :--- | :--- | :--- | :--- |
| $\bar{v}^{\prime} m^{\mathrm{m} /}$ | SF vūm | LF vómm | "life" |
| dāam $^{\mathrm{m} /}$ | SF dāam | LF dáamm | "millet beer" |

Loss of underlying segments may shift the H toneme to the left.
H may appear on a superlight syllable if it is preceded by $r$ derived from *rr:
n̆ỵ̣̄ífo
n̆ỵ̣irí
"egusi seed"

Many words have a long root vowel followed by a segment which has been deleted either by reduction of a consonant cluster to a single consonant $\underline{3.5}$ or by deletion of ${ }^{*} g$ 3.7. The first syllable still behaves as superheavy and carries H :

| nịis ${ }^{\text {e }}$ | $\leftarrow *$ niinsı | (beside nịimís ${ }^{\text {® }}$ ) | "birds" (sg nịin ${ }^{\text {a }}$ /ŋŋ/) |
| :---: | :---: | :---: | :---: |
| píın̆f | $\leftarrow * p ı n n f v$ | (pl pīıní) | "genet" |
| wáafo | $\leftarrow *$ waagfv | (pl wịigí) | "snake" |
| yáab ${ }^{\text {a }}$ | $\leftarrow *^{*}$ aagba |  | "grandparent" |
| vúөr ${ }^{\text {e }}$ | $\leftarrow * v u ө g r ı$ |  | "fruit of red kapok" |
| náar ${ }^{\text {c }}$ | $\leftarrow$ *naagrı | gerund of nāe ${ }^{\prime}$ | "finishing" |
| dị ${ }^{\text {a }} \mathrm{r}^{\varepsilon}$ | $\leftarrow *$ di'əgrı | gerund of $d \overline{1}{ }^{\text {e }} e^{\prime}$ | "getting" |
| $p u ́ n{ }^{\prime} ө r^{\varepsilon}$ | $\leftarrow * p o ̃ ' o ̃ g r ı ~$ | gerund of pūn̆'e' | "rotting" |

A few root-stems show a different irregularity: in $\mathrm{sg} / \mathrm{pl}$ forms with consonantinitial flexions, the initial syllable carries X if it is superheavy and H otherwise. As usual, syllables after H carry L whenever they are not superlight. Forms with vowelinitial suffixes and cbs are regular.

| nû'ug ${ }^{\text {a }}$ | $n u{ }^{\prime} u s^{\varepsilon}$ | $n \bar{u}{ }^{\prime}-$ | "hand, arm" |
| :---: | :---: | :---: | :---: |
| à-gâvn̆g ${ }^{\text {a }}$ | à-gâan̆ ${ }^{\varepsilon}$ | $\grave{a}-g a \bar{n}-$ | "pied crow" |
| $g b \hat{\varepsilon} \varepsilon \check{n} m^{\mathrm{m}}$ |  | $g b \bar{\varepsilon} \breve{n}-$ | "sleep" |
| nóbìr ${ }^{\text {e }}$ | nōbá | nōb- | "foot, leg" |
| $g \varepsilon^{\prime} l^{1 \varepsilon}$ | $g \bar{\varepsilon} l a ́$ | $g \bar{\varepsilon} l-$ | "egg" |
| kị́sù ${ }^{\text {a }}$ | kịsá | kịs- | "hateful, taboo" (adj) |
| áňsì ${ }^{\text {a }}$ | ān̆s-nám ${ }^{\text {a }}$ | ān̆s- | "mother's brother" |

So too the gerunds sóňsì ga "talking", gósì ga "looking", kìkịrı̀ $g^{0}$ "hurrying."
The superheavy X syllables only occur in the SFs: corresponding LFs have open initial syllables with H: LF nú'ugò "hand", tonally identical to the LF wáafò "snake."

Some of these words have probably lost a segment: $s r$ can represent older ss $r r$, and cf Mooré gảoobgó "pied crow." Nû'ug "hand" has added further class suffixes to old $\supset \mid \varepsilon$ class forms: cf Nawdm núfú pl níní. Nóbìr ${ }^{\varepsilon}$ "leg" is remodelled segmentally on the basis of the plural: cf Toende sg nō'ग$t \mathrm{pl}$ noba.

Examples for Pattern H with prefixes:

| dàyūugar | dàyūud ${ }^{\text {/ }}$ | dàyū- | "rat" |
| :---: | :---: | :---: | :---: |
| Bùsán ${ }^{\text {a }}$ | Bùsâan̆s ${ }^{\text {® }}$ | Bùsāp- | "Bisa person" |
| zīnzāun ${ }^{\text {a/ }}$ | zīnzāná | zīnzáunŋ- | "bat" |
| $g \bar{m} m p \bar{z} \bar{\varepsilon} r^{\varepsilon /}$ | gōmpūz $\bar{\varepsilon} y a ́$ | gūmpūzér- | "duck" |
| pīpịrıga/ | pīpịrıs ${ }^{\text {¢ }}$ | pīpịr | "desert" |
| tīntōn̆ríg ${ }^{\text {a }}$ | tīntōn̆rís ${ }^{\text {c }}$ | tīntón̆r- | "mole" ( $r \leftarrow *$ rr) |

Pattern $L$ shows $L$ on all syllables, except with $m$-stems:

| $s \grave{l}^{\prime} \mathrm{vg}^{\mathrm{a}}$ | $s$ vi' $^{\prime} s^{\varepsilon}$ | $s \mathrm{v}^{\prime}-$ | "knife" |
| :---: | :---: | :---: | :---: |
| zàk ${ }^{\text {a }}$ | $z a ̀ ' a s^{\text {® }}$ | $z a ̀$ - | "dwelling-compound" |
| mòlıf | mòlı | mòl- | "gazelle" |
| pùgodıb ${ }^{\text {a }}$ | pùgvd-nàm ${ }^{\text {a }}$ | pùgvd- | "father's sister" |
| sàal ${ }^{\text {a }}$ | sàalıb ${ }^{\text {a }}$ | sàal- | "human" |
| nòjıd ${ }^{\text {a }}$ |  |  | "lover" |
| bòodım ${ }^{\text {m }}$ |  |  | "will" |
| zòtım ${ }^{\text {m }}$ |  |  | "fear" |
| dàalım ${ }^{\text {m }}$ |  |  | "maleness" |

$M$-stems show $H$ on the syllable before the $m$ unless this is either a root syllable or follows a light root syllable. Any tonemes after H are L.

|  | sàam ${ }^{\text {ma }}$ | sàam-nàm ${ }^{\text {a }}$ | sàam- | "father" |
| :---: | :---: | :---: | :---: | :---: |
|  | $m \varepsilon ̀ \varepsilon \eta^{\text {a }}$ | $m e ̀$ mıs ${ }^{\varepsilon}$ | mèv ${ }^{\text {a }}$ | "turtle" |
|  | àn̆rv ${ }^{\text {a }}$ | àn̆rıma | àn̆roŋ- | "boat" |
|  | kàrop ${ }^{\circ}$ or kàr |  |  | "reading" (gerund) |
|  | yàlon ${ }^{\text {a }}$ | yàlıma | yàlvo- | "wide" |
|  | zilım ${ }^{\text {m }}$ | zillıma | zillm- | "tongue" |
| But | sịilín ${ }^{\text {a }}$ | sịilímìs ${ }^{\varepsilon}$ or sịilís ${ }^{\varepsilon}$ | sịilín- | "proverb" |
|  | zàan̆sún ${ }^{\text {a }}$ | zàan̆símà | zàan̆són- | "dream" |
|  | nònılím ${ }^{\text {m }}$ |  | nònılím- | "love" |
|  | sù ııdím-tāa |  |  | "co-helper" 9.2.1.4 |
|  | dàalím ${ }^{\text {m }}$ | dàalímìs ${ }^{\varepsilon}$ | dàalím- | "male sex organs" |
|  | bị'isím ${ }^{\text {m }}$ |  |  | "milk" |

Tonally exceptional forms are bùgóm ${ }^{\mathrm{m}}$ cb bùgóm- or bùgv̄m- "fire", tàdımís ${ }^{\varepsilon}$ "weakness", bùdımís ${ }^{\varepsilon "}$ confusion."

Pattern L with prefixes:

| kùkpàrıg | kùkpàrıs | kùkpàr- | "palm tree" |
| :--- | :--- | :--- | :--- |
| sāmánne | sāmánà | sāmán- | "courtyard" |

Pattern A shows M throughout in $\mathrm{sg} / \mathrm{pl}$ forms and L throughout in the cb .

| $b v ̄ g^{\text {a }}$ | $b \bar{v} v s^{\varepsilon}$ | bì- | "goat" |
| :---: | :---: | :---: | :---: |
| tān ${ }^{\text {ne }}$ | tāna | tàn- | "earth" |
| $s i \bar{d}{ }^{\text {a }}$ | $s i ̄ d ı b^{\text {a }}$ | sìd- | "husband" |
| $p u ' \bar{a}^{\text {a }}$ | $p \bar{u}{ }^{\prime} a b^{\text {a }}$ | pu'à- | "woman, wife" |
| sā'ab | no pl | sà'- | "millet porridge" |
| $\mathrm{gbī} \mathrm{gım}^{\mathrm{n}}$ | gbīgıma | gbìgım- | "lion" |
| n̆wāa ${ }^{\text {a }}$ | $\check{n ̌ w a ̄ a m ı s ~}{ }^{\text {c }}$ | n̆wàap- | "monkey" |
| $m \bar{\varepsilon} \varepsilon d^{\text {a }}$ | $m \bar{\varepsilon} \varepsilon d ı b^{\text {a }}$ | mèzd- | "builder" |
| síākıd ${ }^{\text {a }}$ | síākıdıb ${ }^{\text {a }}$ | siàkıd- | "believer" |
| $b \bar{u} t ı \eta^{\text {a }}$ | $b \bar{v} t u S^{\varepsilon}$ | bùtıŋ- | "cup" |
| $m \bar{\varepsilon} \varepsilon d \imath \eta^{\text {a }}$ | $m \bar{\varepsilon} \varepsilon d i s^{\varepsilon}$ | $m \grave{\varepsilon} \varepsilon d ı \eta-$ | "building tool" |

When derived from Pattern A verbs, agent nouns which have - $d$ - only in the plural have Pattern L sg and Pattern A pl (the cb is in any case all-L) 3.8.4:

$$
\text { pù'us }{ }^{\mathrm{a}} \quad \text { pū'usıdıb } b^{\mathrm{a}} \quad \text { pù'vs- } \quad \text { "worshipper" }
$$

Pattern A all－M LFs become all－L before the interrogative clitics 4．4．1． Certain Pattern A words show LF－final H instead of M before negative prosodic clitics，but not liaison words．For WK this occurs with LFs of more than two syllables not ending in a long vowel or $-a$ ，and disyllabic LFs in－mmV or－mm．Some speakers allow H optionally before the interrogative prosodic clitics．

| $y u ̄ g v d ı r^{\varepsilon /}$ | yūgvda | yùgvd－ | ＂hedgehog＂ |
| :---: | :---: | :---: | :---: |
| $\check{n} w a ̄ a \eta^{\text {a }}$ | $\check{n} w a ̄ a m ı s^{\varepsilon /}$ | n̆wàay－ | ＂monkey＂ |
| bāpıd ${ }^{\text {a }}$ | bāpıdıba＇ | bàjıd－ | ＂wise man＂ |
| $k p a ̄ r ı d ı \eta^{\text {a }}$ | kpārıdıs ${ }^{\text {／}}$ | kpàrıdıワ－ | ＂thing for locking＂ |
| gbīgım ${ }^{\mathrm{m} /}$ | gbīgıma | gbìgım－ | ＂lion＂ |
| $z \bar{\circ} m^{\text {me／}}$ | z⿹̄龴та | zòom－ | ＂fugitive＂ |
| tādım ${ }^{\mathrm{m} /}$ | $t a ̄ d ı m ı s{ }^{\text {¢ }}$ | tàdım－ | ＂weak person＂ |

Lì à $n \bar{\varepsilon}$ gbīgımmé $\varepsilon$ ？
Lì à nē gbígìmmé？

Pattern A with prefixes：

| dàkīi $g^{\mathrm{a}}$ | dàkīisis | dàkì－ | ＂sib－in－law via wife＂ |
| :--- | :--- | :--- | :--- |
| fūfū $\mathrm{m}^{\mathrm{m} \varepsilon}$ | fúfūma | fūfúm－ | ＂envy；stye＂ |

## 3．8．2 Verbs

Pattern L has merged with A in verbs，probably through the regular falling together of most perfectives（which resemble nominal cbs structurally）and by the development of imperfectives from derived stems 3．8．4．Further levelling has extended to all but a few gerunds．

Dual－aspect verbs have three finite forms 7.1 but the ma－imperative is found only with tone overlay 16．6．2．Perfective and imperfective will be cited below，in that order．Single－aspect verbs have just one finite form，which is imperfective．

Pattern H，as in nominals，displays H on the first syllable if it is superheavy in the LF，but otherwise shows the initial tonemes MH，with H falling on the third syllable if the second is superlight in the LF．Any tonemes following H are L．Unlike nominals，verbs show no anomalies due to deletion of segments．

2－mora－stem perfectives show $M(M)$ before the negative clitic，becoming $L(L)$ before interrogative clitics．However，they show final H before liaison－word pronouns：

Ò pū dūge.
Ò pū dúgè $\varepsilon$ ?
Kà ò dūgí lī
"She didn't cook."
"Didn't she cook?"
"And she cooked it."

Examples for Pattern H:

| $\check{n} y \bar{\varepsilon}$ | $\check{n} y \bar{z} t^{\text {a/ }}$ | "see" |
| :---: | :---: | :---: |
| $k \bar{v}$ | $k \bar{u} v d^{\text {a/ }}$ | "kill" |
| $d \bar{v} g^{\varepsilon}$ | dūgod ${ }^{\text {a/ }}$ | "cook" |
| $k u \bar{l}{ }^{\varepsilon}$ | kūn ${ }^{\text {na/ }}$ | "go home" |
| yādı $g^{\varepsilon /}$ | yādıgíd ${ }^{\text {a }}$ | "scatter" |
| mōole/ | móon ${ }^{\text {na }}$ | "proclaim" |
| $d \bar{l} g l^{\text {l }}$ | dī gín ${ }^{\text {na }}$ | "lay down" |
| $n \overline{\mathrm{k}} \mathrm{k}^{\varepsilon /} \quad / \mathrm{kk} /$ | nōkíd ${ }^{\text {a }}$ /kk/ | "take" |
| lāním ${ }^{\text {m /ny/ }}$ | lāním ${ }^{\text {ma }}$ /yy/ | "wander searching" |
|  | $v \bar{v} e^{\mathrm{a} /}$ | "be alive" |
|  | dī $\mathrm{gr}^{\text {ya/ }}$ | "be lying down" |
|  | tị̀ $i^{\mathrm{ya} /}$ | "be leaning" (objects) |
|  | $z \bar{a} \overline{n g l ~}^{\text {la/ }}$ | "be holding" |

As with nominals, H appears on the last LF syllable when it ends in a root vowel before -mm or in an overlong diphthong, while the corresponding SF has M:

| tōom |  |  |  |
| :--- | :--- | :--- | :--- |
| m/ | SF tōom | LF tóamm | "disappear" |
| pāe | SF pāe | LF pāée | "reach" |

For the tonemes of stative verbs like $k p \overline{1}{ }^{\prime} \partial m^{\mathrm{ma} /}$ "be strong" see 9.1.2.1.
Fusion verbs show no sign of $* g$ in the imperfective tonally, or in agent nouns:

| pāel | pāadad | "reach" |
| :--- | :--- | :--- |
| $d \overline{\mathrm{a}}$ ' $e^{\prime}$ | $d \overline{1} ' \partial d^{\mathrm{a} /}$ | "get" |
| pūn̆'e | pūn̆' $\theta d^{\mathrm{a} /}$ | "rot" WK |

Contrast the corresponding gerunds: páar ${ }^{\varepsilon} d i ̣ ̂ ' \partial r^{\varepsilon} p u ́ n ̆ ' ө r^{\varepsilon}$.
Pattern A shows all tonemes L in indicative and imperative, all M in irrealis.

| $b \grave{d} d^{\varepsilon}$ | $b \grave{t} t^{\mathrm{a}}$ | "plant" |
| :--- | :--- | :--- |
| $d \grave{\imath}$ | $d i t^{\mathrm{a}}$ | "eat" |
| $m \dot{\varepsilon}$ | $m \dot{\varepsilon} \varepsilon d^{\mathrm{a}}$ | "build" |
| $z a \grave{ } b^{\varepsilon}$ | $z a ̀ b ı d^{\mathrm{a}}$ | "fight, hurt" |
| $b u \grave{\theta} l^{\varepsilon}$ | bùөnna | "call" |


| bòdıg ${ }^{\text { }}$ | bòdıgıd ${ }^{\text {a }}$ | "get lost, lose" |
| :---: | :---: | :---: |
| $n i ̣ \eta^{\varepsilon}$ | $n i ̣ ̀ ı d^{\text {a }}$ | "do" |
| màal ${ }^{\text { }}$ | màan ${ }^{\text {na }}$ | "sacrifice" |
| dìgın ${ }^{\text {c }}$ | dìgınıd ${ }^{\text {a }}$ | "lie down" |
| wàjım ${ }^{\text {m }}$ | wànım ${ }^{\text {ma }}$ | "waste away" |
| sịilım ${ }^{\text {m }}$ | sṭilım ${ }^{\text {ma }}$ | "cite proverbs" |
| zàan̆sım ${ }^{\text {m }}$ | zàan̆sım ${ }^{\text {ma }}$ | "dream" |
|  | tàbı ${ }^{\text {ya }}$ | "be stuck to" |
|  | $v \varepsilon ̇ n^{\text {na }}$ | "be beautiful" |

As with nominal Pattern A, the last LF toneme in the irrealis is M :
Ò nà bōdıg.
Ò nà v $\bar{\varepsilon} n$.
Ò kù zābs.
Ò kù bう̄dıge.
Ò nà bòdıgé?
Ò kù bう̄dıgıda.
Ò kù būөnna.
Ò nà b̄̄dıgı m.
Ò kù bōdıgı má.
Ò kù bōdıgıdı má.
Ò kù zābıdı-né.
Ò kù sịilimm.
Ò nà zāb nâ'ab lā.

The LF before the bound pronoun ${ }^{\circ}$ can show final M or H (all WK):

Ò kù zābó-o.
or Ò kv̀ zābo-o.
"He'll get lost."
"She'll be beautiful."
"She won't fight."
"He won't get lost."
"Will she get lost?" 4.1
"She won't be getting lost."
"She won't be calling."
"He will lose me."
"He will not lose me."
"He won't be losing me."
"He wouldn't have been fighting."
"She won't cite proverbs" WK
"He'll fight the chief."

### 3.8.3 Other word classes

Quantifiers, adverbs and particles with the segmental structure of nouns have similar tonal structures; they may also show apocope-blocking 3.2. For the tonemes of bound liaison words see 4.4.2. Left-bound particles with SF $C V$ which are not liaison words carry M or L ; M changes to H in the LF CVV. Tonally unique is independent-perfective yā 16.6.2, which remains M before the negative prosodic clitic and becomes L before the interrogative clitics $\underline{4.1}$ :

```
    Lì bòdıg nē.
    Lì bòdıg né\varepsilon?
but Lì bòdıg yā.
    Lì bj̀dıg yàa?
```

"It's lost." (focus-n $\bar{\varepsilon}$ )<br>"Is it lost?"<br>"It's got lost."<br>"Has it got lost?"

### 3.8.4 Derivation

Root tone patterns can be deduced from the tone patterns of words with stems lacking any derivational suffix, and by comparing patterns in derived stems.

It is exceptional for forms derived from $H$ roots to show $L$ or A Patterns, or vice versa, but this does occur regularly in derivation of assume-stance verbs 9.1.1. Gịทılím ${ }^{\mathrm{m}}$ "shortness", from the Pattern A adjective gị $\eta^{\mathrm{a}}$ "short", possibly represents a five-mora-stem Pattern A toneme allocation (but cf gịinhlím ${ }^{m}$ id.)

Pattern H roots which show irregular tonemes in root-stem nominal forms are regular in all derived forms and in cognate verbs:

| án̆sìba | "maternal uncle" | ān̆sín $\eta^{\mathrm{a}}$ | "sister's child" |
| :--- | :--- | :--- | :--- |
| kịsúg ${ }^{\text {a }}$ | "hateful" | kị $s^{\mathrm{a} /}$ | "hate" |
| gósì $g^{\mathrm{a}}$ | "looking" | gōs ${ }^{\varepsilon}$ | "look" |

After L or A roots derivational suffixes differ in tonal behaviour, some producing Pattern L nominal stems and others Pattern A. The Pattern is determined by the last derivational suffix, unless this is $* m$ as a second suffix, or ${ }^{*} y$ as a formant of stative verbs. Pattern A roots can give rise to Pattern L, and vice versa:

| bịiga | "child" | bịilím |
| :--- | :--- | :--- | :--- |
| nà'ab | "childhood" | $(-l-)$ |
| a | "chief" | nā'am |

When added to L or A roots the derivational suffixes $b g l s$ always produce Pattern L nominals, while $d m$ may produce either Pattern L or Pattern A. The suffix $n$ may produce Pattern A when it is derived from *nd *ld 3.5.

All regular gerunds have predictable Tone Patterns:

| from Pattern H verbs: |  | Pattern H |
| :--- | :--- | :--- |
| from Pattern A verbs: | from 2-mora-stem perfectives: | Pattern A |
|  | from all others: | Pattern L |


| $d \bar{v} g^{\varepsilon}$ | "cook" | $\rightarrow$ | $d \bar{u} g u b^{\text {/ }}$ |
| :---: | :---: | :---: | :---: |
| $n \overline{k^{\varepsilon /}}$ | "take" | $\rightarrow$ | n⿹̄kír ${ }^{\text {c }}$ |
| dīgıl ${ }^{\text {g/ }}$ | "lay down" | $\rightarrow$ | dīgılóg ${ }^{\text {a }}$ |
| $m \dot{~}$ | "build" | $\rightarrow$ | $m \bar{\varepsilon} \varepsilon b^{\circ}$ |


| sù ${ }^{\text {® }}$ | "help" | $\rightarrow$ | sùjır ${ }^{\text {c }}$ |
| :---: | :---: | :---: | :---: |
| dìgın ${ }^{\text {® }}$ | "lie down" | $\rightarrow$ | dìgınvg ${ }^{\text {a }}$ |
| zàan̆sım ${ }^{\text {m }}$ | "dream" | $\rightarrow$ | zàan̆sv́n ${ }^{\circ}$ |

Gerunds derived with *d from Pattern A verbs are likewise Pattern L: bòodım ${ }^{\mathrm{m}}$ "will", mèzdím-tāa "fellow-builder." This Pattern-L-deriving *d is probably historically identifiable with the $d$ preceding the original ipfv $-a$ in dual-aspect verbs before extensive levelling produced a unitary flexional suffix -da. This accounts for the fact that Pattern L and A dynamic imperfectives have merged, and that they show behaviour resembling nominal Pattern L , with no change to all-M despite the fact that they are followed by M spreading and show final M tonemes before liaison.

In dynamic single-aspect verbs, the $* y$ of the ending -ya behaves tonally like dual-aspect *d. Stative verbs derived with *y keep the Tone Pattern of the nominal, but their Patterns have been reanalysed in terms of those of dynamic verbs.

Deverbal agent nouns, instrument nouns and deverbal adjectives also have predictable Tone Patterns:

| from Pattern H verbs |  | Pattern H |
| :--- | :--- | :--- |
| from Pattern A verbs: | containing derivational $-d-$ <br> otherwise | Pattern A <br> Pattern $L$ |

The suffix *d in these formations is Pattern-A-deriving: b̄̄כdır $r^{\varepsilon}$ "desirable", $m \bar{\varepsilon} \varepsilon d ı \eta^{\mathrm{a}}$ "building implement." Stems where this *d is absent (not just assimilated into a cluster as -mn- or -nn-) are Pattern L, with a change of Tone Pattern possible even within a single noun paradigm.

## 4 External sandhi

External sandhi includes segmental contact phenomena, tone sandhi, and complete or partial suppression of apocope.

Sandhi after right-bound words differs from that after unbound forms, even before left-bound words. Perfectives behave as if right-bound in tone sandhi and in final stop devoicing in Toende Kusaal 2.1; verbs monophthongise final fronting diphthongs phrase-internally like cbs, and unlike singulars even before the article: sàn̆-kànā "this blacksmith" but sāēn̆ lā "the blacksmith."

### 4.1 Prosodic clitics

Prosodic clitics have no segmental form, but cause a preceding word to appear as a Long Form, completely suppressing apocope. Mooré has clause-final yé after negative VPs, and vocative and interrogative clitics are common in West Africa; for clitic-like elements cross-linguistically which lack segmental form see Spencer and Luís 2012: 5.5.1 on Tongan "definitive accent." The concept of prosodic clitics as words is also useful in describing complex clause structures.

All four prosodic clitics cause lowering of short LF-final $v$ to $\varepsilon \supset$ respectively, which are realised slightly closer in this case than as root vowels.

Before prosodic clitics, and in forms with apocope-blocking, final $-m ı$ and $-m v$ become -mm whenever the $m$ is not geminated. The final $m$ was presumably once syllabic, but currently -mm is non-tone-bearing [m:]. Word-final iə ue diphthongise to ia ua before prosodic clitics: pfv LF kịa "cut" vs ipfv kịəd, pfv LF kūa "hoe" vs ipfv $k u \bar{u} \theta d$. None of these changes occur before liaison.

Overlong monophthongs, unlike diphthongs, are not permitted before prosodic clitics; they reduce to long. This results in words which have segmentally or even tonally identical SF and LF, as for example:

|  | sịa $a$ | "waist" | SF sịa | LF sịaa |
| :--- | :--- | :--- | :--- | :--- |$\leftarrow{ }^{*}$ *siəga

The negative prosodic clitic appears at the end of a clause containing a negated or negative verb 16.5. Superscript notation represents LFs as they appear before the negative prosodic clitic segmentally, with lowering of short final $\imath v$ to $\varepsilon \rho$; long final $u v v$ are not lowered:

Lì $k \bar{a}^{\prime} \quad$ nóbır $\bar{\varepsilon}=\varnothing$. $\quad$ It's not a leg (nóbìr ${ }^{\varepsilon}$ )."
3IN NEG.BE leg:SG=NEG.

Lì $k \bar{a}^{\prime} \quad d \bar{v} k o ́=\varnothing . \quad$ "It's not a pot $\left(d \bar{v} k^{\rho /}\right) . "$
3IN NEG.BE pot:SG=NEG.

Bà kā' mól̄̄ı=ø. "They are not gazelles (mòlı)." 3PL NEG.BE gazelle:PL=NEG.

LFs of the same form appear with some single-word clause adjuncts. Thus, in KB , written beogv always precedes liaison, while the clause adjunct is always beogo; the apocope-blocked bèdvḡ̄/ "a lot" is always written bedegv, but KB always writes bozugo b̄̄ zúgō "because", dinzugo dìn zúgō "therefore", alazugo àlá zùgō "therefore."
bozugo ba zi' one tomi m la naa.
bȳzúgō, bà zī1 ónì tùmı $m$ lā náa=ø.
because 3pl neg.Know rel.an send 1SG.OB art hither=neg.
"Because they do not know him who sent me here." (Jn 15:21)

Fù ná kūl bēog. "You'll go home tomorrow."
2SG IRR go.home tomorrow.
but Bēogó fù ná kūl. "You're going home tomorrow." SB
Tomorrow 2SG IRR go.home.

Occasional examples of such LFs are seen ending yà'-clauses:

Kikirig ya'a mor buude, fun tis o ka o lebig o moogin.
Kỉkịrıg yá' mōr būvde, fūn tísò Øø kà ò lèbıg ò mōogv-n.
Fairy:SG if have innocence, 2SG.CNTR give 3AN.OB and 3AN return 3AN grass:SG-LOC.
"When a fairy is right agree so that it will go back to the bush." KSS p38
(Give the devil his due.)

The vocative prosodic clitic ends a vocative clause. It has similar segmental effects to the negative clitic.

M b $̣$ ilis $=\varnothing!$
1SG child: $\mathrm{PL}=\mathrm{VOC}!$$\quad$ "My children!"

Pu'aa, bo ka fo kaasida?
Pư'āa=ø, bó kà fù kāasídà=ø?
Woman:SG=voc, what and 2SG cry:IPFV=CQ?
"Woman, why are you crying?" (Jn 20:13)
dau one an yadda nipida
dāu ónì àn̆ yàddā-nínìdā=ø
man:SG REL.SG Cop faith-doer:SG=Voc
"You man, who are a believer!" (1 Cor 7:16)

The two interrogative prosodic clitics end questions. Final vowel length distinctions are neutralised to short in content questions, long in polar questions. This results in a five-way $a \varepsilon$ ๘ 1 v contrast in final vowels by quality alone:

| Ànó'onı̀ ø n̆y $\bar{\varepsilon}$ nóbırè $=\varnothing$ ? <br> Who Cat see leg:SG=CQ? | "Who saw a leg (nóbì ${ }^{\text {e }}$ )?" |
| :---: | :---: |
| Lì à n $\bar{\varepsilon}$ nóbırè $\varepsilon=\varnothing$ ? 3IN COP FOC leg:SG=PQ? | "Is it a leg?" |
| Ànó'onì n̆yc̄ kúkà? Lì à nē kúkàa? | "Who saw a chair $\left(k \bar{v} k^{\mathrm{a}}\right)$ ?" "Is it a chair?" |
| Ànó'onì ňys̄ $d \bar{v} k o ́ ?$ Lì à nē dūkóo? | "Who saw a pot ( $d \bar{v} k^{0}$ ? $"$ "Is it a pot?" |
| Ànó'rnì ňys̄ móli? Ànó'onì n̆yc̄ bédvgv́? | "Who saw gazelles (mòlı)?" |

### 4.2 Liaison

Liaison words prevent apocope applying to the preceding word, which retains its final affix vowel, but with loss of quality contrasts. This vowel is not epenthetic and occurs where epenthesis does not: contrast the gerund $d \bar{u} m^{\mathrm{m}}$ from *dumbv "biting" with dùmı bā "bite them." Words which have not undergone apocope, such as the clause linker particles kà and $y \bar{\varepsilon}$, do not change before liaison.

Left-bound liaison words are always preceded by liaison. The locative particle $n^{\varepsilon} 13.3$ attaches directly after nominal sg or pl forms; discontinuous-past $n^{\varepsilon} 16.3 .2$ and the postposed 2 pl subject pronoun ${ }^{\text {ya }} 18.3$ attach directly after verb forms. In this grammar, these words are hyphenated to the preceding host word, except when ${ }^{\text {ya }}$ is deleted by apocope. The bound object pronouns $m^{\mathrm{a}} f^{\circ}{ }^{\mathrm{o}} \mathrm{ll}_{l}$ tı ya ba 12.4.1 attach directly to a verb word or after $n^{\varepsilon}$ or ${ }^{\text {ya }}$. Except for ${ }^{0}$, they are written separate.

Liaison words which are either right-bound or free comprise all the right-bound personal pronouns m̀ fù ò lì tì yà bà, the personifier particle à/ǹ $\underline{12.6}$, ànô'on ${ }^{\varepsilon}$ "who?" 12.4.4, nominaliser-n 21, catenator- $n \underline{19}$, and all words with the number prefixes à bà bù or the manner-adverb prefix à 10.2 . Liaison is only invariable before pronouns preceded by a verb within a VP, but older texts show liaison more widely.

$$
\begin{array}{ll}
\text { Tì gòsí bà bịis. } & \text { "We looked at their children." } \\
\text { 1PL look.at 3PL child:PL. } & \text { (Liaison before bà "their") }
\end{array}
$$

When the LF preceding liaison ends in a short vowel it becomes 1 . For some speakers, this $\imath$ becomes $v$ after $g$ preceded by a rounded root vowel. LF-final -mm behaves as -mı; -iə -uө remain as such, not becoming -ia -ua. LFs ending in an overlong vowel sequence reduce to long, and fronting diphthongs are simplified to monophthongs. Certain liaison words then induce further quality changes in the preceding LF, as discussed below.

Examples of the basic liaison changes:

| $k \bar{u} k^{\text {a }}$ | "chair" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | $k \bar{u} k ı-n^{\varepsilon /}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $d \bar{v} k^{\text {J }}$ | "pot" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | $d \overline{\text { uní-n }}$ |
| bòod ${ }^{\text {a }}$ | "want" | $+t l$ | "us" | $\rightarrow$ | bòodī tí |
| pōog ${ }^{\text {/ }}$ | "field" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | pว̄ogv́-n ${ }^{\text {® }}$ |
| yàug ${ }^{\text { }}$ | "grave" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | yàugū-n ${ }^{\varepsilon /}$ |
| tùm ${ }^{\text {m }}$ | "send" | $+t ı$ | "us" | $\rightarrow$ | tòmı tīl |
| dāam ${ }^{\text {m/ }}$ | "beer" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | dāamí-n ${ }^{\varepsilon}$ |
| kù' $ө \mathrm{~m}^{\mathrm{m}}$ | "water" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | kù'өmī-n ${ }^{\text {/ }}$ |

Kà bà n̆yće m.
Kà bà kị́ lī.

| dà'a | "market" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | dā'a-n ${ }^{\text {d }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| pāe ${ }^{\text {d }}$ | "reach" | $+t ı$ | "us" | $\rightarrow$ | páa tīl |
| $p i ̣ e^{\prime}$ | "wash" | $+t ı$ | "us" | $\rightarrow$ | pịa tīl |
| dūe ${ }^{\prime}$ | "raise" | $+t ı$ | "us" | $\rightarrow$ | dúe tīl |

Single-aspect verbs with LFs ending in -ya make forms analogous to those of fusion verb perfectives. They drop -ya, monophthongise diphthongs and prolong preceding short vowels:

| $s \bar{v}^{\prime} e^{\mathrm{ya} /}$ | "own" | $+l_{l}$ | "it" | $\rightarrow$ | sv́'v $l_{\bar{l}} /$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $v \bar{v} e^{\mathrm{a} /}$ | "live" | $+n^{\varepsilon}$ | dp | $\rightarrow$ | $v \bar{v} v-n^{\varepsilon /}$ |

Fronting of the second mora of a LF-final long vowel occurs before the 2 pl object pronoun ya exactly as before word-internal y $\underline{3.6}$, with any back mora becoming $e[\mathrm{I}]$ but no change to front morae:


This recreates a fronting diphthong in fusion verb pfv forms:

Kà bà páa bā.
but Kà bà páe yā.
"And they reached them." (pāe/ "reach")
"And they reached you (pl)."

For some speakers, rounding of unrounded long vowel second morae and of the default LF-final short vowel $\imath$ takes place before the 2 sg object pronoun $f$ "you":

Kà bà kị̂ə for Kà bà kị̂o f. "And they cut you."
Kà bà ňyće $f$ or Kà bà ňyćo f. "And they saw you."
$\grave{M}$ gbán̆'a $f$ or $\grave{M}$ gbán̆'v $f$. "I've grabbed you."

Rounding is invariable in the 1996 NT, probably reflecting an orthographic decision to write uf rather than if consistently for the spurious object pronoun "you."

The 3sg animate object pronoun ${ }^{\circ}$ [ $\quad$ ] "him/her" and the postposed 2 pl subject pronoun ${ }^{\text {ya }}$ lose their entire segmental form in their SFs. Both completely override the vowel quality of the pre-liaison mora, creating secondary diphthongs 2.2 .

The mora before ${ }^{0}$ becomes o $\underline{3.1}$ [ $\sigma$ ], always lax. In the LF this mora fuses with


| bòod ${ }^{\text {a }}$ | "want" | $+{ }^{0}$ | $\rightarrow$ | SF bòodō | LF bòodó-o | [bo:dv:] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| tùm ${ }^{\text {m }}$ | "send" | + 0 | $\rightarrow$ | SF tùmo | LF tùmo-o |  |
| $\check{n} y \bar{\varepsilon}$ | "see" | $+{ }^{0}$ | $\rightarrow$ | SF n̆yźo | LF n̆yżóoo |  |
| $z u \overline{ }$ | "steal" | $+{ }^{0}$ | $\rightarrow$ | SF zúo | LF zūó-o | [zuv:] |
| di | "eat" | $+{ }^{\circ}$ | $\rightarrow$ | SF dio | LF dio-o |  |
| kìà | "cut" | $+{ }^{0}$ | $\rightarrow$ | SF kịo | LF kịo-o |  |
| pāe ${ }^{\prime}$ | "reach" | $+{ }^{0}$ | $\rightarrow$ | SF páo | LF pāó-o |  |
| $p \bar{e} e^{/}$ | "wash" | $+{ }^{\circ}$ | $\rightarrow$ | SF pịo | LF pịóo |  |
| dūe ${ }^{\prime}$ | "raise" | $+{ }^{0}$ | $\rightarrow$ | SF dúo | LF dūó-o |  |

```
Mane a o.
"I am he." (Jn 18:5, 1976)
Mānı ø án̆o ø.
(àeñ̆a "be")
```

1SG.CNTR CAT COP 3AN.OB.

Before ya the preceding mora becomes lax［r］；after front root vowels the effect thus differs from that preceding ya or word－internal $y$ ：
SF gòsımī ø＂look ye！＂Traditional：gosimi
LF gòsımíyá 18.3 Traditional：gosimiya

|  | $k \bar{v}$ | ＂kill＂ | $+{ }^{\text {ya }}$ | $\rightarrow$ | SF $k \bar{v} e$ | ［kひI］ | LF kūe－yá |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | kịà | ＂cut＂ | + ya | $\rightarrow$ | SF kịe | ［kir］ | LF kịe－yá |
|  | pāe ${ }^{\prime}$ | ＂reach＂ | ＋ya | $\rightarrow$ | SF pāe |  | LF pāe－yá |
|  | pịe ${ }^{\text {d }}$ | ＂wash＂ | $+{ }^{\text {ya }}$ | $\rightarrow$ | SF pịe |  | LF pịe－yá |
|  | dūe ${ }^{\prime}$ | ＂raise＂ | + ya | $\rightarrow$ | SF dūe |  | LF dūe－yá |
| but | $b \varepsilon ̇$ | ＂be＂ | ＋ya | $\rightarrow$ | SF $b \bar{\varepsilon} \downarrow$ | ［beI］ | LF bēt－yá |

Nominaliser－ǹ $\underline{21}$ combines with a preceding pronoun subject to produce a special set of pronouns 12．4．1，but for my informants it is segmental zero in all other contexts，with pre－liaison M tonemes changed to H ．Older texts frequently show $n$ and／or liaison，but $n$ is nearly always omitted after words with SFs ending in nasal consonants．In KB，$n$（without liaison）occurs mostly after foreign proper names．

After pause，catenator－$n \underline{19}$ is a syllabic nasal assimilated to the position of the following consonant．Elsewhere，WK has liaison before segmental zero：

Kà ò zós 〔 $\quad k \bar{\varepsilon} \eta \quad n \bar{a} . \quad$＂And he came running＂
And 3an run cat come hither．

Bōo乙 ø lá＝ø？＂What＇s that？＂
What cat that＝CQ？

After a final vowel which is not a free word root vowel，WK has a consonantal nasal，assimilated to the position of the following consonant．Almost all instances of $n$ in KB similarly appear after words with apocope－blocking，or after foreign names；the particle is usually segmental zero，with preceding liaison．Older sources again often show $n$ and／or liaison，with $n$ rare after words with SFs ending in nasal consonants．

Realisations with neither $n$ nor liaison also occur，particularly after＂auxiliary＂ verbs．This is most frequent in NT／KB after words ending in $-m-n-l$ or in vowels．

Texts confirm that both nominaliser－n and catenator－n are preceded by liaison， with LF geminate consonants kept before the affix vowel：
ya zuobid wosa kalli an si'em
yà zūebíd wūsa kállì $\varnothing$ àn̆ sị̀'əm
2PL hair:PL all number:SG NZ COP INDF.ADV
"how much the number of all your hairs is" (Lk 12:7)
tuvm kane ka m tummi tisid Wina'am la.
tùvm-kànı kà m̀ túmmī ø tísìd Wínà'am lā
work-REL.SG and 1SG work:IPFV CAT give:IPFV God ART
"The work which I do for God" (Rom 15:17)

Particularly in written materials, the quality of the final vowel mora before liaison words beginning with $\grave{a}$ - is not predictable from the phonology alone.

Before ànô'on ${ }^{\varepsilon}$ "who?", the manner-adverb prefix à- and the personifier-particle allomorph $\grave{a}$ - the LF-final vowel is $\imath$, or $v$ after a velar preceded by a rounded vowel:

```
Ò nị̀í àlá. "She did thus."
3AN do ADV:thus (contrast àlá "how many?" below)
yeli Abaa
"said to Dog" KSS p20
yèl`\À-Bāa
say PERS-dog:SG
```

Fusion verbs 7.1 show forms in final $e[\mathrm{r}]$ in these cases, instead of the monophthongs aa iə ue usual before another word in the VP 4.3:
... [n] loo Abaa zuur "... tying Dog's tail" 12.6 KSS p20
...n lóo À̇-Bāa zôvr
...CAT tie PERS-dog:SG tail:SG
but ka ba gban'e Adayuug
"and they seized Rat" KSS p20
kà bà gbán̆'e」À-Dàyūug
and 3PL seize PERS-rat:SG

However, àe n̆ ${ }^{\text {a }}$ "be something" always appears as àan̆, not àen̆.

Ka fo aan ano'onc?
"And who are you?" (Jn 1:19)
Kà fù áan̆ àn'́'गnغ̀=ø?
And 2 SG COP who=cQ?

Before the number prefix $a$ - the pre-liaison vowel is instead $-a$ :
$\grave{M}$ mór n̄̄ bịisá àtán̆'. "I have three children."
1SG have FOC child:PL NUM:three.

Pèzdá àlá=ø? "How many baskets?"
basket:PL NUM:how.many=CQ? (contrast àlá "thus" above)

Informants usually contract -á à- to á- and -í à- to -á- or -í-:

hand-small:PL NUM:how.many and 2 SG see:IPFV=CQ?
"How many fingers do you see?"

Gòsımí lá! or Gòsım álá! "Keep on looking!"

The number prefix $a$ - originated as * $\eta a-10.2$, but prefix-initial $* \eta$ disappeared early throughout Western Oti-Volta. The personifier particle and the manner-adverb prefix originally began with consonants which, though now also deleted, persisted long enough for consonant-initial sandhi to be preserved (cf French "H aspiré.")

WK and DK round the LF-final vowel before $o$ "his/her", though all written sources show -i (-ı):

```
Bà gòsv́_ò bịig. "They've looked at her child."
3PL look:at 3AN child:sg.
```

The pronoun ya becomes -ní- before liaison. The pronoun was historically *na, regularly becoming *yã with subsequent loss of nasalisation; when -a is deleted by apocope, $y$ is also deleted. Before a liaison word, $-a$ was not deleted but became $r$, before which $n$ became $n-$. (Cf also $n i ̣ i \eta^{\varepsilon}$ "do" $=$ Toende Kusaal ể $\eta$, locative $n^{\varepsilon} \sim n i ̂ l=$ Toende $-\imath$, nịe "appear" = Toende yẽe, nị $\eta^{\text {a }}$ "body" $=$ Mooré yĩnga.)

$$
D \bar{a} \quad \text { dōllı } \smile \text { yá=ø! } \quad \text { "Follow ye not!" }
$$

NEG.IMP follow 2PL.SUB=NEG!
Dị'əmī ø! $\quad$ "Receive ye!"
receive:IMP 2PL.sUB!

Dị'əmī-ní bā! "Receive ye them!"
receive:IMP-2PL.SUB 3PL.OB

Dị̀əmī-nó ø! "Receive ye her!"
receive:IMP-2PL.SUB 3AN.ob.

Biise, siakimini ya du'adib nэya.
Bịiss $=\varnothing$, sìàkımī-ní yà dv̄'adıb nóyà.
Child:PL=VOC, agree:IMP-2PL.SUB 2PL parent:PL mouth:PL.
"Children, obey your parents." (Eph 6:1)

Dị̀əmī-ní àlá! "Keep ye on receiving!"
receive:IMP-2PL.SUB ADv:thus! (Realised Dị̀'əmī-ní lá! or dị̀'əmī-n álá!)

### 4.3 Segmental contact

The initial consonant and emic nasalisation of the deictic particle n̆wà "this" are lost when it appears as a dependent after a word ending in a consonant:

|  | bịis n̆wá | "these children" | [bi:sa] |
| :---: | :---: | :---: | :---: |
|  | zàam n̆wá | "this evening" | [za:ma] |
| but | $p u ' a ̄ ~ n ̆ w a ́ ~$ | "this woman" | [pưawã] |

The initial $l$ of the definite article $l \bar{a} /$ assimilates totally to a preceding wordfinal $-r$, and [ $r$ :] simplifies to [ $r$ ]:

| yīr $l \bar{a}$ | "the house" | [jira] |
| :--- | :--- | :--- |
| pù-kòjn̆r lā | "the widow" | [pvkõ:ra] |

Toende Kusaal shows this assimilation after all final consonants (Niggli 2012). The 1976 NT occasionally shows forms like nidiba for nịdıb lā "the people."

Initial $n$ of focus- $n \bar{\varepsilon} /$ often assimilates completely to a preceding word-final $d t$ $n$ rlm in normal rapid speech. Subsequently [r:] becomes [r] and [d:] becomes [d]:

Bà kpịid né.
M̀ zót nē.
M̀ mór nē bịisá àyịí.
Lì pè' $\varepsilon l$ nē.
Lì sàn̆'am n $\bar{\varepsilon}$.
"They're dying."
[ba kpi:de]
"I'm afraid."
[m zot: $\varepsilon$ ]
"I have two children with me." [m more bi:sa:ji]
"It's full."
"It's spoilt."
[lı pe:l:ع]
[lı sã̃:m: $\varepsilon$ ]

Final nasal consonants of right-bound words and noun prefixes assimilate to the place of articulation of a following consonant, as does syllabic $\grave{n}$ but not $\grave{m}$ :

dànkòn<br>nịn-bámmā<br>nàm $z \bar{\imath}{ }^{\prime}$

| "measles" | [daŋkoŋ] |
| :--- | :--- |
| "these people" | $[$ nimbam:a] |
| "still not know" | $[$ nanzĩ $]$ |


|  | N-Bịl | Mbillah (personal name) | [mpil] |
| :---: | :---: | :---: | :---: |
| but | M nópī $f$. | "I love you." | [mnoŋıf] |

Final nasals of prefixes are written $m$ before $p b m$, and $m$ everywhere else. Within phrases, word-final short vowels denasalise before initial $n$ or $m$ :

| $a ̀ w a ́ ~ n a ̄$ | "like this here" (àn̆wá "like this") |
| :--- | :--- |
| $k \bar{\varepsilon} n a \bar{a}$ | "come hither" (k̄̆n̆ "come") |

Some right-bound $C V \check{n}$ - elements lose nasalisation even when the following consonant is not a nasal. Thus with compounds of sūn̆fo/ "heart" like sū-málısìm ${ }^{m}$ "joy", sū̆̆-kpị̂'oŋ ${ }^{\text {º }}$ "boldness", sūn̆-p $\hat{\varepsilon} \varepsilon n^{\text {n } \varepsilon ~ " a n g e r " ~ t h e ~} 1996$ NT and older sources write sumalism sukpi'oŋ/sukpi'eut supeen, reflecting the bleaching and phonological simplification which has created noun prefixes from some original cbs 10.1. KB restores the nasalisation in writing: sunkpi'eup "boldness", sunpeعn "anger."

With àe $\breve{n}^{\mathrm{a}}$ "be something/somehow" there is loss of nasalisation before the focus particle $n \bar{\varepsilon}^{\prime}$ (for the loss of the $e$ see below):

| M̀ á nē dāū. | "I'm a man." |
| :--- | :--- |
| but Lì ăn̆ súnā. | "It's fine." |

Older written materials write àn̆ directly before a complement as a not ann, but KB consistently has an [ã] whenever the form is not followed by $n \bar{\varepsilon}$ '.

Cbs, and verb forms which are not VP-final, may not end in fronting diphthongs unless the next word begins with $y$; diphthongs are replaced by corresponding monophthongs: $a \underset{\sim}{e} \rightarrow a$; oe $\rightarrow o$; ve $\rightarrow v ; a e \rightarrow a a ; v e \rightarrow v v ; i e \rightarrow i ə ; u e \rightarrow u \theta$. Thus sāen̆ lā "the blacksmith", but sàn̆-kà $\eta \bar{a}$ "this blacksmith" and e.g.
Ò sù'v lór.
Lì àn̆ súnā.
"She owns a lorry." (sv̄'e $e^{\text {ya/ "own") }}$
Dúe wēlá?
"It's good." (àen̆ ${ }^{\text {a }}$ "be something")
"[You] arose how?" $\underline{25}$ (dūe/ "arise")

Ti ya'a vve, ti vone tis Zugsob la.
Tì yá' vv̄e, tì vó n̄̄乙ø tís Zūg-sób lā.
1PL if be.alive, 1 Pl be.alive FOC cat give head-null.an art.
"If we live, we live to the Lord." (Rom 14:8): (v $\bar{v} e^{\mathrm{a} / ~ " b e ~ a l i v e ") ~}$

Ėn̆rıgım ø pāa dú'atà.
Shift.along:IMP Cat reach doctor:SG.
"Shift along up to the doctor." (pāe/ "reach")

Dāu lā kā' dóogū-n láa=ø.
Man:SG ART NEG.BE room:SG-LOC ART=NEG.
"The man's not in the room." ( $k \bar{a}$ ' before a complement, in the same VP)
but Dāu kā'e dóogv̄-n láa=ø.
Man:SG NEG.BE room:SG-LOC ART=NEG.
"There's no man in the room." (kā'e before an adjunct)

Fronting loss is regular in my informants' speech and in the audio version of the NT, but older written materials very frequently still write diphthongs:

| voen | $=v \bar{v}-n$ | "would live" (Gal 3:21, 1996) |
| :--- | :--- | :--- |
| Kristo da faąn ti | $=$ Kristo dá fāan̆ tí | "Christ saved us." (Gal 5:1) |

$\grave{A} e \breve{n}^{\text {a }}$ "be something" is always $a a$ or aan before liaison; the rarity of phrasefinal àeñ inhibits the introduction of analogical spellings. Fāen̆/ "save" is perhaps written faaenn etc to distinguish the forms from fän̆ "rob"; the 1996 NT has two instances of the certainly spurious imperative faaenm. (Cf 11.1 on faangid "saviour.") Clearcut errors like Noŋilim pu naae da (1 Cor 13:8, 1996 NT) for KB Noŋilim pu naada "Love does not come to an end" confirm that the orthographic tradition has written diphthongs for undoubted monophthongs.

### 4.4 Tone sandhi

External tone sandhi follows apocope and the tone overlay of independency marking 16.6.1. M dropping and the tone changes induced by interrogative prosodic clitics apply before other external tone sandhi rules, which then apply left to right.

### 4.4.1 Before prosodic clitics

Before the negative prosodic clitic, LF-final L syllables are changed to M.

| mòlı | "gazelles" | SF mòlı | LF mòlı̄ı |
| :--- | :--- | :--- | :--- |
| yàarım |  |  |  |
| tìım $^{\mathrm{m}}$ | "salt" | "medicine" | SF yàarım | LF yàarı̄mm

This applies later than external tone sandhi induced by preceding words:

|  | Lì ká' ò tīımm. | "It's not her medicine ( $\left(\grave{l} ı m^{\mathrm{m}}\right) . "$ |
| :--- | :--- | :--- |
| but | Lì kā' tîımm. | "It's not medicine." |
|  | Lì ká' bà dā'a. | "It's not their market (dà'a)." |
| but | Lì kā' dá'a. | "It's not a market." |

Pattern H words written in superscript notation with a following acute mark / place the H on the last syllable of the LF, replacing any SF M toneme:

| fūug ${ }^{\text {/ }}$ | "shirt, clothes" | SF fūug | LF fūugó |
| :---: | :---: | :---: | :---: |
| pāe ${ }^{\prime}$ | "reach" | SF pāe | LF pāée |
| nūal | "hen" | SF $n$ ūa | LF nūáa |
| $y \bar{a}^{\prime}$ | "houses" | SF $y \bar{a}$ | LF yáa |
| bèdvgō/ | "a lot" | SF bèdugū | LF bèdvgúv |
| gāa ${ }^{\prime}$ | "Nigerian ebony" | SF gāan̆ | LF gáan̆ |
| tāuñ' | "opposite-sex sib" | SF tāun̆ | LF távn̆ |
| dāam ${ }^{\mathrm{m} /}$ | "millet beer" | SF dāam | LF dáamm |
| $v \bar{u} \mathrm{~m}^{\mathrm{m} /}$ | "life" | SF vūm | LF vúmm |

When the liaison word ${ }^{0}$ "him/her" follows a perfective ending in a root vowel, the SF has H toneme, but the corresponding LF-final overlong diphthong carries MH:

$$
\text { n̆yćo } \quad \text { "see him/her" } \quad \text { SF n̆yćo } \quad \text { LF n̆y } \bar{\varepsilon} o ́-o ~
$$

The changes before the vocative clitic resemble those before the negative clitic, though the audio NT version sometimes shows a change of final H tone to falling (found also with vocatives for some Hausa speakers, Jaggar p18.)

Like many other West African languages, Kusaal signals questions with a final falling intonation. All questions end with a L or H toneme. Both interrogative prosodic clitics cause preceding words with all-M tonemes to change to all-L. This is a change of tonemes, not just a matter of intonation, and it precedes M spreading, to which the new $L$ tonemes are subject 4.4.3. In Kusaal (unlike Dagbani) this lowering only affects the final word, not a sequence of several all-M words.

```
Ànó'onì` \varnothing n̆yć bà bịiga=\varnothing?
Who cat see 3PL child:SG=CQ?
"Who saw their child (bịilga})?
```

Ànó'onì n̆yē bịigà?
Ànó'onì ňyē sú'vgà?
Fù bôod bó?
Ànó'onì n̆y $\bar{\varepsilon} z u e ́ y a ̀ ? ~$
M ná bōdıg.
M ná bòdıgec?
Ò pū dūge.
Ò pū dúgè $\varepsilon$ ?
"Who saw a child?" tonally identical to
"Who saw a knife (sì'vga)?"
"What (b̄̄) do you want?"
"Who saw hills (zuēya)?"
"I will get lost."
"Will I get lost?"
"She didn't cook."
"Didn't she cook?"

### 4.4.2 Before liaison

Left-bound liaison words themselves carry H toneme after host-final M toneme and M after L or H . M on a long vowel becomes H before prosodic clitics, and M becomes H before interrogative clitics.

Kà m̀ zábì bā.
Kà $\grave{m}$ pū zábì fō.
M zábī bá.
M̀ pū bóodī fó.
M̀ pū bóodì báa.
Kà m̀ pū zábì báa.
Ànó'onì kúv bá?
"And I've fought them."
"And I didn't fight you."
"I've fought them."
"I don't love you."
"I don't love them."
"And I didn't fight them."
"Who has killed them?" SF kúv bā

The locative particle $n^{\varepsilon}$ has the same tonal effects on the preceding word as the negative prosodic clitic, changing final L to M :

| but | pコ̄og ${ }^{\text {/ }}$ | "field" | $+n^{\varepsilon}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | bịi ${ }^{\text {a }}$ | "child" | $+n^{\varepsilon}$ | $\rightarrow$ bịigı- $n^{\varepsilon /}$ | WK |
|  | $m$ m̀ $a r^{\varepsilon}$ | "dam, lake" | $+n^{\varepsilon}$ | $\rightarrow$ mò'arī-n ${ }^{\text {// }}$ |  |
|  | yàad ${ }^{\varepsilon}$ | "graves" | $+n^{\varepsilon}$ | $\rightarrow$ yàadī-n ${ }^{\varepsilon /}$ | WK |
|  | $k \nu \bar{v}{ }^{\text {díb }}$ | "killers" | $+n^{\varepsilon}$ | $\rightarrow$ kv̄vdíbī-n ${ }^{\varepsilon /}$ | WK |

Discontinuous-past $n^{\varepsilon}$ and $2 \mathrm{pl}{ }^{\text {ya }}$ always impose M on the preceding syllable:

$$
d \bar{v} g^{\varepsilon} \quad \text { "cook" } \quad+n^{\varepsilon} \quad \rightarrow d \bar{v} g v-n^{\varepsilon /}
$$

bòdıg ${ }^{\varepsilon} \quad$ "lose" $+n^{\varepsilon} \quad \rightarrow$ bòdıgī- $n^{\varepsilon /}$
$y a ̄ d ı g^{\varepsilon /} \quad$ "scatter" $+n^{\varepsilon} \rightarrow y$ ādıgı- $n^{\varepsilon /}$
$i p f v k \bar{v} v d^{\mathrm{a} /} \quad$ "kill" $+n^{\varepsilon} \rightarrow k \bar{v} v d_{\imath}-n^{\varepsilon /}$
ipfv yādıgíd ${ }^{\mathrm{a}}$ "scatter" $+n^{\varepsilon} \rightarrow$ yādıgíd̄̄$-n^{\varepsilon /}$

Dā dōllı yá=ø! "Follow ye not!"
NEG.IMP follow 2PL.SUB=NEG!

Indicative perfective forms without the independency-marking tone overlay change LF-final $\mathrm{M} \rightarrow \mathrm{H}$ before bound object pronouns; final L and H are not affected:

| bòdıg ${ }^{\text {e }}$ | "lose" | $+m^{\text {a }}$ | "me" | $\rightarrow$ bòdıgı $\mathrm{m}^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: |
| dì | "eat" | $+l$ | "it" | $\rightarrow$ dìı līl |
| yādı $g^{\varepsilon /}$ | "scatter" | $+m^{\text {a }}$ | "me" | $\rightarrow$ yādı gí ma |


| but | $d \bar{v} g^{\varepsilon}$ | "cook" | $+l$ | "it" | $\rightarrow$ dv̄gí līl |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $g \overline{0} s^{\varepsilon}$ | "look" | $+{ }^{0}$ | "him/her" | $\rightarrow$ gōsó | LF gōsó-o |
|  | kv | "kill" | $+m^{\text {a }}$ | "me" | $\rightarrow$ kúv ma |  |

Pattern H fusion verb perfectives behave exactly like $C V V$-stems:

| $p \bar{a} e l$ | "reach" | $+m^{\mathrm{a}}$ "me" | $\rightarrow$ páa $m^{\mathrm{a}}$ |
| :--- | :--- | :--- | :--- |
| $d i ̣ ' e l$ | "get" | + ba "them" | $\rightarrow$ dị'ə $b \bar{a}^{\prime}$ |

After all other verb forms, including all imperfective forms and all forms with independency-marking tone overlay 16.6.1, object pronouns change LF-final L to M:

| $z a ̀ b ı d^{\text {a }}$ | "fights" | $+m^{\text {a }}$ | "me" | $\rightarrow$ zàbıdī $\mathrm{m}^{\mathrm{a} /}$ |
| :---: | :---: | :---: | :---: | :---: |
| $z a ̀ b ı d^{\text {a }}$ | "fights" | $+{ }^{0}$ | "him/her" | $\rightarrow$ zàbıdō LF zàbıdó-o |
| $d i t^{\text {a }}$ | "eats" | $+l l$ | "it" | $\rightarrow$ dìtī lí |
| yādıgíd ${ }^{\text {a }}$ | "scatters" | + ba | "them" | $\rightarrow$ yādı gídī bá |
| yādıgíd ${ }^{\text {a }}$ | "scatters" | $+{ }^{0}$ | "him/her" | $\rightarrow$ yādıgídō LF yādıgídó-o |
| $k \bar{v} v d^{\text {a/ }}$ | "kills" | $+m^{\text {a }}$ | "me" | $\rightarrow$ kv̄vdí ${ }^{\text {a }}$ |
| $k \bar{v} v d^{\text {a/ }}$ | "kills" | $+{ }^{\circ}$ | "him/her" | $\rightarrow$ kūvdó LF kūvdó-o |

With independency-marking:
bòdıg ${ }^{\varepsilon} \quad$ "lose" $\quad+m^{\mathrm{a}}$ "me" $\rightarrow$ bòdıgī $\mathrm{m}^{\mathrm{a} /}$
bòdıg ${ }^{\varepsilon}$ "lose" $+{ }^{0}$ "him/her" $\rightarrow$ bòdıgō LF bòdıgó-o
yādıg$g^{\varepsilon /}$ "scatter" $+m^{\mathrm{a}}$ "me" $\rightarrow$ yàdıgī $\mathrm{m}^{\mathrm{a} /}$
$y a ̄ d ı g^{\varepsilon /}$ "scatter" + o "him/her" $\rightarrow$ yàdıgō LF yàdıgó-o

Word-final ō becomes ó-o before prosodic clitics, and ò becomes $\bar{o}$-o before the negative clitic, as expected:

Kà bà zábò.
Kà bà pū zábō-o.
"And they fought him."
"And they didn't fight him."

SF-final H corresponds to LF-final MH if the LF ends in an overlong diphthong:

Kà bà n̆yźo.
Kà bà pū n̆yz̄óo.
"And they saw her."
"And they didn't see her."

Irrealis forms of Pattern A verbs have M before liaison; final $o-o$ can be H or M :
Ò nà bōdıgı m.
Ò kù bj̄dıgı má.
Ò nà bōdıgı bá.
Ò kù bōdıgı báa.
Ò kù bōdıgıdı má.
Ò kù zābıdı má.
Ò kù zābó-o.
or Ò kù zābo-o.
"He will lose me."
"He will not lose me."
"She will lose them."
"She won't lose them."
"He won't be losing me."
"He won't be fighting me."
"He won't fight him."
"He won't fight him."

Toneme changes induced by liaison words follow external tone sandhi induced by words before the host; thus dà'a "market" $+n^{\varepsilon}$ "at" $\rightarrow d a \bar{a}^{\prime} a-n^{\varepsilon / ;} ; m \dot{\varepsilon}$ "build" $+n^{\varepsilon} \mathrm{dp} \rightarrow$ $m \bar{\varepsilon} \varepsilon-n^{\varepsilon /}$; kì "kill" [k̄ with independency marking] + ma "me" $\rightarrow k \bar{v} v m^{\mathrm{a} / ;}$ but

Ò bè né dâ'a-n.
Dāu lā mêe-n.
Dāu lā kôv m.
"She is at market"
"The man built (earlier today.)"
"The man has killed me."

However, the toneme on the liaison word itself is the same as it would have been without the toneme changes induced by preceding words:

Ò kūvbá.
Dāun lā kv́v bá.
"She has killed them."
"The man has killed them."

Except for catenator- $n$, which is toneless, all liaison words which are not leftbound begin with a fixed-L toneme 4.4.3. Preceding $M$ becomes H; noun LFs ending in a short vowel show final H .

Kà bà ditī bá.
And 3pl eat:PFV 3pL.ob.
but Kà bà dittí bà dīıb. "And they were eating their food." (ML $\rightarrow$ HL)
"And they were eating them."
(ipfv without independency marking) And 3PL eat:IPFV 3PL food.
bane na yel Zugsobi ba tuuma a si'em la
bànı nà yēl Zūg-sóbí bà tv̄vmá $\varnothing$ àň sị'əm lā
REL.PL IRR say head-nULL.AN 3PL deed:PL NZ COP INDF.ADV ART
"Those who will tell the Lord how their deeds are." (Heb 13:17, 1996)

Before the fixed-L 4.4.3 of nominaliser-ǹ final M likewise becomes H. Except after subject pronouns, this is often the only sign of the presence of the particle:

Dāun lā záb nâ'ab lā. "The man has fought the chief." man:SG ART fight chief:SG ART
but dāu lá $\varnothing$ zàb nà'ab lā "the man having fought the chief" man:SG ART nz fight chief:SG ART

Before catenator- $n$ the final toneme of a modified LF is M after M toneme and L otherwise. M spreading follows whenever the preceding word would induce it:
amaa o kena ye o tom tisi ba
àmáa ò $k \bar{\varepsilon} \quad n a \bar{c}$ ý ò túm Ø $\varnothing$ tìsı $b \bar{a}$
but 3AN come hither that 3AN work Cat give 3PL.OB
"but he came to serve them" (Mt 20:28)

M̀ nók sú'vgì Øø kịá nịm lā.
1SG pick.up knife:SG CAT cut meat:SG ART.
"I cut the meat with a knife."

### 4.4.3 M spreading

With no intervening pause, most words cause an initial L toneme in a following word to change to X toneme on superheavy syllables and H on others, unless the L toneme is "fixed", when any preceding $M$ becomes $H$ instead 2.4. M spreading follows
all words ending in M toneme
all words not bound to the right
except for verb perfectives (unless ending in M)
noun or adjective plurals ending in -á or -í certain forms affected by M dropping 4.4.4
bound subject pronouns

Catenator- $n$ is transparent to M spreading 4.4.2.
Independency marking affects M spreading after subject pronouns, VP particles and verb forms 16.6.1. M spreading does not follow clause adjuncts. Its occurrence is otherwise unaffected by clause structure:

Bà tìs nâ'ab lā bún. "They gave the chief a donkey (bù $\eta^{\mathrm{a}}$ )."
3PL give chief:SG ART donkey:SG.

Bà ňwè' nâ'ab lā súŋā. "They beat the chief well (sùjā')."
3PL beat chief:SG ART good:ADV.

Absent M spreading after nominal plurals in -á or -í:
$\grave{M}$ dìga lú yā. "My dwarfs have fallen down."
1SG dwarf:PL fall PFV.
but $\grave{M}$ yūgomá lù yā. "My camels have fallen down." 1SG camel:PL fall PFV.

Absent M spreading after perfectives without independency-marking tone overlay, not ending in M:

Kà m̀ gōs nâ'ab lā.
Kà ò gōs nâ'ab lā.
but Kà m̀ záb nà'ab lā.
Kà ò záb nà'ab lā.
"And I've looked at ( $g \bar{s} s^{\varepsilon}$ ) the chief."
"And he's looked at the chief."
"And I've fought ( $z a ̀ b^{\varepsilon}$ ) the chief (nà'ab ${ }^{\text {a }}$ )."
"And he's fought the chief."

Certain words carry an initial/sole L toneme which is never subject to M spreading. These fixed-L words comprise all liaison words not bound to the left except for catenator- $n$, which is toneless, along with the linker particle kà "and":

| right-bound pronouns | $\grave{m}$ fù ò lì tì yà bà |
| :--- | :--- |
| personifier particle | $\grave{a}-/ \grave{n}-$ |
| pronoun "who?" | ànô'on |
| nominaliser (all forms) | $\grave{n}$ |
| words with number or <br> $\quad$ manner-adverb prefixes | à- bà- bù- |
| linker particle | kà |

Initial $a ̀$ - in loanwords may be treated as fixed-L by analogy.
If there is no intervening pause, a preceding $M$ toneme must become $H$ :

Bà kùvdī bá.
3PL kill:IPFV 3PL.ob.
but
Bà kùvdí bà būvs.
3PL kill:IPFV 3PL goat:PL.

Lì à né à-dàalóy. $\quad$ "It's a stork"
3IN COP FOC PERS-stork:SG.
"They kill them."
"They kill their goats."

| Ò gòsī bá bédvgū. | "She looked at them a lot." | (ba object) |
| :--- | :--- | :--- |
| Ò gòsí bà bèdvgū. | "She looked at a lot of them." | (bà possessive) |

ba diib $n$ yit na'atey la na zug
bà dílb ǹ yịt $\quad n a ́ '-t \bar{\varepsilon} \eta$ lā nā zúg
3PL food Nz emerge:IPFV king-land:SG ART hither upon
"because their food came from the king's land" (Acts 12:20, 1996)
wuu saa naani iank ya nya'ap $n$ ti paae ya tuona la.
wv̄v sáa ø nāanı iáán̆k yà n̆yá'aŋ $n$ tí páe yà tùөna lā
like rain:SG nz then jump 2PL behind cat after reach 2PL before.ADV ART
"like when lightning leaps from East to West" (Mt 24:27, 1996)

Fixed-L syllables are changed to M before the negative prosodic clitic 4.4.1; thus né tì "with us" but

Amaa o pu lal ne tii.
Àmáa ò pū lāl né tīı=ø.
But 3SG NEG.IND be.far with 1PL=NEG.
"But he is not far from us." (Acts 17:27)

After words ending in M, this sandhi is straightforwardly recognisable as tone spreading. Right-bound pronouns have fixed-L tonemes for my informants even when followed by M spreading, but ILK and Niggli's materials show M, which can be taken as having given rise to floating $M$ tonemes in current Agolle. M spreading after SFs ending in H or L can be attributed to floating tonemes delinked by apocope, but in this case M spreading is synchronically mostly determined by syntactic role and by analogy, and prior tonal behaviour persists even after remodelling by addition of segments. Words with identical L-final sg and cb, like mà "mother", zųà "friend", dú'atà "doctor", lànnıg "squirrel" show M spreading after sg but not cb, and unlike perfectives, the bare-stem imperfectives bè and nò $\eta$ are followed by M spreading.

### 4.4.4 M dropping

M dropping takes place exclusively within NPs and AdvPs. It occurs after any free form as a predependent, with the exception of the contrastive personal pronouns (like mān "my"); it also occurs after any cb ending in M toneme, whether as dependent or head. Historically, M dropping may have arisen by dissimilation of adjacent M tonemes to ML, analogous to Meeussens's Rule (Nurse and Phillippson p65); it is seen after M-final words and after free predependents which mostly originally had M flexions, as shown by M spreading.

M dropping affects only the one following word, which may be a cb.
Pattern H or A words without prefixes change all tonemes to L.
M prefixes change to $L$; the rest of the stem is unaffected.
Pattern L words and words with L prefixes are completely unaffected.

M dropping applies before $M$ spreading; in the majority of cases the preceding word also induces M spreading, and the new initial L becomes X or H .

M dropping also precedes tonal changes induced by following liaison words:

|  | dāu lā póvov̄-n | "in the man's field ( $\left.p \bar{\rho} g^{\circ} /\right)^{\prime \prime}$ |
| :---: | :---: | :---: |
| like | dāu lā dóogō-n | "in the man's hut (dò $\mathrm{g}^{\text { }}$ )" |

Examples with a cb as head:

| bù-pì̀lı $g^{\text {a }}$ | "white goat" | bò-pāalíg ${ }^{\text {a }}$ | "new goat" |
| :---: | :---: | :---: | :---: |
| bị-pún-pị̀lı$g^{\text {a }}$ | "white girl" | bị-púy-pāalíg ${ }^{\text {a }}$ | "new girl" |
| nō-pị́lì̀ ${ }^{\text {a }}$ | "white hen" | nō-páalì $\mathrm{g}^{\text {a }}$ | "new hen" |

With a cb as dependent (nōər ${ }^{\varepsilon /}$ "mouth", dị̀'əs ${ }^{\mathrm{a} / ~ " r e c e i v e r " ~ p l ~ d i ̣ ̄ ' ə s i ́ d i ̀ b ~}{ }^{\mathrm{a}}$ ):
$n \overline{-}-d i ̣ ̂ ' \partial S^{\mathrm{a}} \quad$ "chief's interpreter" pl n̄̄-dị́'əsìdıb ${ }^{\text {a }}$

There is no M dropping after personal pronouns:

| m̀ bịig | "my child" | m̀ tìıg | "my tree" |
| :--- | :--- | :--- | :--- |
| mān bịì | "my child" | mān tîıg | "my tree" |
| mān yūgúm | "my camel" | mān gbīgım | "my lion" |

M dropping after words which do not also induce M spreading:
m̀ bīēyá bịis $\quad$ "my elder same-sex siblings' children (bịi is ${ }^{\varepsilon}$ )"
m̀ biēéyá fùud "my elder same-sex siblings' clothes (fūud $\left.{ }^{\varepsilon /}\right)$ "

M dropping after free NPs also followed by M spreading:
dāu bị̂ig "a man's child" nà'ab bịig "a chief's child"
dāu lā yúgìm "the man's camel" dāu lā gbígìm "the man's lion"

Unlike M spreading, M dropping occurs only within NPs and AdvPs; there is thus a tonal minimal pair between

Bà tìs nâ'ab lā bị̂ig. "They've given (it) to the chief's child." 3PL give chief:sG ART child:sg. (M dropping applied to bịiiga "child")

Bà tìs nâ'ab lā bịìg. $\quad$ "They've given the chief a child." 3PL give chief:SG ART child:sG. (No M dropping applied to bịiiga)

It occurs regardless of the meaning or role of the preceding dependent:
mōogv-n wábìg lā "the wild (in-the-bush) elephant (wābvgo/)"

M dropping follows cb heads, but never uncompounded heads:

```
    kūg-yínnì "one stone" with yínnì as adjective 12.5.1
but kūgvr yīnní "one stone"
wäbvg lā "the elephant"
wābıs pịiga "ten elephants"
```

The final element of a compound induces following M spreading in accordance with the usual rules 4.4 .3 regardless of whether it has been subject to M dropping:

| bù-w⿹̄k | "tall goat" | nō-wók | "tall hen" |
| :---: | :---: | :---: | :---: |
| bù-wōk-pịəlìg | "tall white goat" | bì-wōk-páalìg | "tall new goat" |
| nō-wók-pị̀lıg | "tall white hen" | nō-wók-pāalíg | "tall new hen" |
|  | "tall goat's food ( $\mathrm{d}_{\mathrm{\imath}} \stackrel{l^{\text {b }} \text { ) }}{ }$ " | nō-wók dîıb | "tall hen's food" |

A word of less than three syllables affected by $M$ dropping and $M$ spreading after a free predependent is not itself followed by M spreading. Thus, using the frames "the man's (dāu lā) X has got lost (bòdıg yā)" and "my elder same-sex siblings' (m̀ biēēá) X has got lost":

Pattern H and A nouns, affected by M dropping:

| wābvg $/$ | "elephant" | Dāū lā wábv̀g bòdıg yā. |
| :--- | :--- | :--- |
| $p \bar{\partial} g^{\prime /}$ | "field" | Dāū lā pôدg bòdıg yā. |
| bā $\eta^{\mathrm{a}}$ | "ring" | Dāū lā bán bòdıg yā. |
| $p \bar{v} v g^{\mathrm{a}}$ | "inside" | Dāū lā pv̂vg bòdıg yā. |



Contrast Pattern L nouns, which are not subject to M dropping:

| bùna | "donkey" | Dāū lā bún bódìg yā. |
| :--- | :--- | :--- |
| àňrvク | "boat" | Dāu lā áňrù̀ bódì $g$ yā. |
| dòog | "house" | Dāun lā dôog bódìg yā. |

Those Pattern H nouns which have an irregular intrinsic initial H or X toneme seem unchanged after $M$ dropping and spreading, and by analogy have unchanged following tone sandhi; words like náaf " "cow" fluctuate:

| à-gâvn̆g | "pied crow" | Dāu lā gâvn̆g bódìg yā. |
| :--- | :--- | :--- |
| náafo | "cow" | Dāū lā nâaf bódìg yā or Dāun lā nâaf bòdıg yā. |

M dropping applies sequentially, reflecting the substructure of NPs and AdvPs. When M dropping affects the first component of an existing compound, the second component retains any previous M dropping and spreading effects:

|  | dāun lā bú-pịəlıg | "the man's white goat (bì-pị̀lıg)" |
| :---: | :---: | :---: |
|  | dāu lā bú-pāalíg | "the man's new goat (bù-pāalíg)" |
|  | dāư lā nó-pịəlìg | "the man's white hen (nō-pịəlìg)" |
|  | dāu lā nó-páalìg | "the man's new hen (nj̄-páalı̀g)" |
| but | dv̄g-kájā | "this pot" ( $d \bar{v} k^{\text {/ }}$ cb $d \bar{v} g-$ "pot") |
|  | [sālıma dóg-]kà ${ }^{\text {a }}$ | "this [golden pot]" |

The order of applications of $M$ dropping may also be revealed by the absence of M spreading after some words affected by M dropping:

```
[fūug dôog]
pò'vsvg [fûug dôدg]
```

```
"tent" (füugo/ "cloth", d\grave{ogo "house")}
"tabernacle" (pù'vsvg` "worship")
```

but Lì kā' [[[dāu lā bị̂ig] bị̀ər] nâaf] zv̀vrē.
"It's not the man's child's elder-same-sex-sibling's cow's tail." WK (bịì $g^{\text {a }}$ "child" bị̀ər $r^{\varepsilon /}$ "elder sib of same sex" náafo "cow" $z \bar{v} v r^{\varepsilon}$ "tail")

## 5 Noun flexion

### 5.1 Noun classes

Nouns inflect for singular and plural by adding noun class suffixes to the stem; the bare stem is used as a combining form (cb) in composition with a following nominal. This is a frequent occurrence, as it is the regular method of construing a noun with a following dependent adjective or demonstrative. The cb is always subject to apocope, as it can never appear clause-finally or before liaison. Archaisms like nwadibil (Mt 2:2, 1996) for ňwād-bịlla "star" (KB nwadbil) suggest that consonant-final cbs once ended in an epenthetic vowel.

In the paradigms, noun forms are cited as $\mathrm{sg}, \mathrm{pl}$ and cb in order.
Each noun class suffix has a basic singular, plural or non-count meaning. Count nouns pair a singular and a plural suffix. Five pairings account for the majority of count nouns: these are labelled using Long Forms of the suffixes, as the $a|b a, g a| s \varepsilon$, $g \supset|d \varepsilon, r \varepsilon| a a$ and $f \supset \mid \iota$ noun classes. Two unpaired non-count suffixes bo mm form two more noun classes mostly containing mass nouns.

The noun classes were once grammatical genders, with separate 3rd person pronouns and agreement of adjectives and numerals. Kusaal, like Dagbani and Mooré, now has only a natural gender system opposing persons and non-persons, with pronouns based respectively on the original $a \mid b a$ and $r \varepsilon \mid a a$ classes. A few isolated remnants of agreement will be pointed out as they occur.

An expected class suffix may be replaced by one from a different class if the regular form would be rendered ambiguous by consonant cluster assimilation and/or apocope. This has become regular with class $g$ ग| $d \varepsilon$ stems ending in $m n$ following a short vowel, which always use the plural suffix -aa instead of -d , as do all gerunds with sg $g 0$. Mampruli and Dagbani also show -a for the plural of $m n$ stems in this class (cf Mampruli gbappu "skin", pl gbana), so this suppletion is probably driven by the fact that cluster assimilation would cause the expected plural to resemble a $r \varepsilon \mid a a \operatorname{sg}$. Suppletion does not take place in Mooré or Farefare, where the $g o \mid d \varepsilon \mathrm{pl}$ suffix has a rounded vowel, unlike the re|aa sg: cf Mooré gãongò "skin" pl gãndo.

Adjectives avoid potentially ambiguous suffixes altogether $\underline{6}$.
In two cases, the sg LF has adopted the form proper to a different class suffix that would have produced the same SF: rounded vowels before -ga may result in LFs ending in -כ, as in nû'ug ${ }^{0}$ "hand", and $a \mid b a$ stems in $l n r$ following a short root vowel show LF $-\varepsilon$ with $l$ and $n$ geminated, as if the suffix were $r \varepsilon$, e.g $B i ̀ n n$ n "Moba person."

Two subclasses are semantically motivated: a subclass of $a \mid b a$ referring to older/important people uses ba as the singular suffix, and names of languages belong to a subclass of $r \varepsilon \mid a a$ with the singular suffix $l \varepsilon$.

The classes are thus as follows:

| $\begin{aligned} & a \mid b a \quad \\ & \quad b a(\mathrm{sg}) \end{aligned}$ | $s i \bar{l} d^{a}$ <br> nà'ab ${ }^{\text {a }}$ | sīdıb ${ }^{\text {a }}$ <br> nà'-nàm ${ }^{\text {a }}$ | $\begin{aligned} & \text { sìd- } \\ & \text { nà'- } \end{aligned}$ | "husband" <br> "chief" |
| :---: | :---: | :---: | :---: | :---: |
| $g a \mid s \varepsilon$ | $b \bar{v} v g^{\text {a }}$ | $b \bar{v} v s^{\varepsilon}$ | bù- | "goat" |
| $g o \mid d \varepsilon$ | dò $g^{\circ}$ <br> bū'өsúg ${ }^{\circ}$ | dòวd ${ }^{\varepsilon}$ <br> bū'өsá | dう̀-bū'өs- | "hut" <br> "question" |
| re\|aa <br> $l \varepsilon$ | nว̄วr ${ }^{\varepsilon /}$ <br> Kūsâal ${ }^{\varepsilon}$ | nōyá | n̄- | "mouth" <br> "Kusaal" |
| folu | mòlıf ${ }^{\text {a }}$ | mòlı | mòl- | "gazelle" |
| bo | $s \bar{a}^{\prime} a b$ |  | sà'- | "porridge" |
| mm | tı̀ım ${ }^{\text {m }}$ |  | tì- | "medicine" |

Stems in $m$ with long root vowels in the $a \mid b a$ class avoid the plural suffix $b a$; some $g a \mid s \varepsilon$ class nouns with human reference have alternative plurals with $b a$; countable nouns in the $m m$ class form plurals with -aa or $-s \varepsilon$ or nam ${ }^{\text {a }}$; and the small $f 0 \mid \imath l$ class has some members with fo|ı suffixes in only one number. The sg suffix la is found only in the irregular adjective bịla ${ }^{\text {a }}$ "little."

Few other cases of irregular sg/pl pairing occur; examples are

| $p \bar{\varepsilon}{ }^{\prime} g^{\prime /}$ | $p \bar{\varepsilon} ' \varepsilon S^{\varepsilon /}$ |  | $p \overline{\varepsilon^{\prime}}-$ | "sheep" |
| :---: | :---: | :---: | :---: | :---: |
| $g b غ ̇ ' o g^{\circ}$ | $g b \varepsilon ̇ ' \varepsilon d^{\varepsilon}$ |  | $g b \grave{c}^{\prime}-$ | "forehead" |
|  | gbèda |  |  |  |
| bināunn̆ ${ }^{\text {J }}$ | bīăn'ad ${ }^{\text {c }}$ | WK | bi̇àn̆'- | "shoulder" |
|  | bi̇ān̆'ada | SB |  |  |

A few nouns end in $-\imath$ or $-v$ with apocope-blocking $\underline{3.2}$ :

| būudı | bùud- | "tribe" |
| :--- | :--- | :--- |
| nà'ası | "honour" |  |
| kābırí | "entry permission" |  |
| sūgurú | "forbearance" |  |

They are probably loans from related languages without apocope, like kịibú "soap" from Mampruli. Cognates of būudı show that $-d ı$ represents the $d \varepsilon$ pl suffix: Mooré búudu "family, kind" sg búugu. Nà'ası may be $s \varepsilon$ pl. Kābırí and sūgvrú may be $r \varepsilon \mathrm{sg}$, with $k a \bar{b} \iota r^{\varepsilon /}$ "ask for admission" and sūgvr ${ }^{\varepsilon /}$ "forbear" as back-formations.

As with almost all noun class systems, there are correlations between class membership and meaning, though there are frequent exceptions. These associations can be exploited to change the significance of a stem 8.2.

The $a \mid b a$ class has exclusively human-reference membership, though many nouns referring to people belong to other classes. A subclass of nouns for elders and other important people uses plural ba as singular.

The $g a \mid s \varepsilon$ class has general membership but includes the great majority of tree names, many larger animals, and tools. Ethnic group names mostly belong to $a \mid b a$ or $g a \mid s \varepsilon$; the place inhabited by the group has sg -go.

The $g$ 刀| $\mid \varepsilon$ and $r \varepsilon \mid a a$ classes are the default non-human countable classes. They include all nouns naming fruits, and about four out of five nouns for body parts. Human-reference nouns in $g \supset \mid d \varepsilon$ are pejorative: bālह̄rv $g^{J / ~ " u g l y ~ p e r s o n ", ~ d a ̀ b i ̣ o g ~}{ }^{\text {º }}$ "coward", zэ̄lvg ${ }^{\circ}$ "fool." Some originally a|ba nouns have been reallocated to $r \varepsilon \mid a a$ for phonological reasons e.g. $b \overline{1} \partial r^{\varepsilon /}$ "elder same-sex sibling."

The $l \varepsilon$ subclass includes all names of languages.
The small fo|ı class includes two groups: animals, and small round things. It contains all names of seeds. No fo|u noun refers to people.

The bo class has only three members known to me that are not gerunds: $s \bar{a}^{\prime} a b^{0}$ "millet porridge, TZ", tān̆ $p^{0}$ "war" and $k i ̄ ̀ \imath b^{0 / ~ " s o a p . " ~}$

The mm class includes names of liquids and substances and abstract nouns. There are few count nouns, and none referring to people or animals. Names of liquids are all mm or $b>$ or formally plural.

The class membership of regular deverbal nouns is predictable.

The sg SF is usually enough to identify the noun class, given whether the word has human reference. Vacillation between classes and the assignment of loanwords to classes confirm that speakers do use such criteria to determine class membership.

Nouns with sg SFs ending in long monophthongs or in unrounded vowels followed by velars all belong to ga|sع except for bā'a "traditional diviner" and nàyịi ${ }^{\text {a }}{ }^{\text {a }}$ "thief", both $a \mid b a$. Those ending in rounding diphthongs before velars all belong to $g \supset \mid d \varepsilon$; those in rounded monophthongs before velars are $g \supset \mid d \varepsilon$ or $g a \mid s \varepsilon$.

Human-reference nouns in SF -m are $a \mid b a$, some of the ba-sg type, like sà ${ }^{\text {ma }}$ "father"; exceptional is $z \bar{\jmath} \partial m^{\text {n } \varepsilon}$ "fugitive" ( $r \varepsilon \mid a a$ ). Human-reference nouns ending in a long vowel before $r$ are $r \varepsilon \mid a a$. All remaining human-reference nouns are $a \mid b a$.

All nouns in SF - $f$ belong to fo|ıı.
Underived mass nouns in $-m$ belong to $m m$, and in $-b$ or $-p$ to the $b o$ class.
Non-human-reference count nouns ending in $l n r$ belong to $r \varepsilon \mid a a$, as do those ending in $m$ apart from a few $m m$-class count nouns like $p u \bar{u} m^{\mathrm{m} /}$ "flower." P⿳̣̣im${ }^{\mathrm{m} /}$ "arrow" is a relic of a "long thin things" $\supset \mid \varepsilon$ class, lost in Western Oti-Volta.

### 5.2 Remodelled combining forms

For levelling between sg and pl forms see 3.4 3.6.
Combining forms, lacking a flexional suffix and always subject to apocope, would be often reduced by the usual rules to ambiguous forms. Often the expected cb is replaced by a form which is segmentally but not tonally that of the singular.

| $n i ̣ p^{\prime \prime}$ | nịní | nịn- or nị̂f- | "eye" |
| :---: | :---: | :---: | :---: |
| zịn̆'a | $z \dot{\varepsilon} \check{n ̃ ' ~}^{\prime} \varepsilon s^{\varepsilon}$ | ziàn̆'- or $z \dot{\text { chñ }}$ '- | "red" (adjective) |
| wōk ${ }^{\text {/ }}$ | $w a \bar{\prime} a d^{\varepsilon /}$ | $w a \overline{'-}$ or wōk- | "long, tall" (adjective) |
| tān̆ ${ }^{\text {a }}$ |  | tàn̆p- | "war" |
| $z u \overline{g^{\prime /}}$ | $z u \bar{t} t^{\varepsilon /}$ | $z \bar{u}-\quad$ or $z \bar{u} g-$ | "head" |

Mooré and Toende show $z u$ - consistently in cases where Agolle has $z \bar{u} g$-: Mooré zusoaba, Toende zùsóp, Agolle zūg-sób ${ }^{\mathrm{a}}$ "boss"; Mooré zúkúká, Toende zùkúk, Agolle $z \bar{u} g-k \bar{v} g v r^{\varepsilon}$ "pillow." $Z \bar{u} g$-sób $b^{\mathrm{a}}$ "Lord" is very frequently read $Z \bar{u}$-sób ${ }^{\mathrm{a}}$ in the audio version of the NT. The cb $z \bar{u} g$ - sometimes behaves tonally like a noun prefix 3.8.1.

Head-first compounds are formed with complete freedom, which leads to a greater tendency to levelling of cbs than in modifier-first compounds. Thus the cb of $n i ̣ f^{\prime /}$ "eye" is nịn- as dependent but nị̂- as head: nịn-dáa "face", nịn-tám ${ }^{\mathrm{m}}$ "tears", nịngótìs ${ }^{\varepsilon}$ "spectacles" but nị̂f-kápā "this eye." Gbàu $\eta^{\circ}$ "letter, book" now has the cb gbàung-, but the dependent cb gbàn- still occurred in the 1976 NT gbanmi'id gbànmị̀'id "scribe" ("book-knower"), KB gbaunmi'id.

With $m$ and $n$ stems, remodelled forms are now regular:

| zīnzāun ${ }^{\text {a/ }}$ | zīnzāná | zīnzáűŋ- | "bat" |
| :---: | :---: | :---: | :---: |
| àn̆rvj ${ }^{\text {a }}$ | àn̆rıma | àn̆rop- | "boat" |

So too with $C V$-stems in the $r \varepsilon \mid a a$ class:


The cb may be remodelled after the plural if there is no sg extant, or if the plural has a distinct specialised meaning:

| no sg | $k \grave{l} l$ | $k \grave{j}-$ or $k a \overline{-}$ | "cereal, millet" |
| :--- | :--- | :--- | :--- |
| lā'afo | lịgıdı | là'- or lịg- | "cowrie" pl "money" |

Two words have distinct sg- and pl-reference cbs:

| dāu | $d \bar{a} p^{\text {a }}$ | dàu- sg dàp- pl | "man, male person" |
| :---: | :---: | :---: | :---: |
| tāun̆ ${ }^{\prime}$ | tān̆ $p^{\text {a/ }}$ | tāun̆- sg tān̆p-pl | "sib of opposite sex" |

Disambiguation is clearly involved with some longer remodelled cbs:

| kòlvg ${ }^{\text {a }}$ | $k \grave{n}{ }^{\text {ne }}$ | kòlvg- | "bag" |
| :---: | :---: | :---: | :---: |
| lànnıg ${ }^{\text {a }}$ | lànnıs ${ }^{\text { }}$ | lànnıg- | "squirrel" |
| kòlvg-kànā | "this bag" | cf cb kòl- from | $k \bar{l} \mathrm{~g}^{\text {a }}$ "river" |
| lànnıg-pịəlıg | "white squirrel" | cf cb làn- from | lān ${ }^{\text {n } \varepsilon ~ " t e s t i c l e " ~}$ |

Remodelling of cbs after $\mathrm{sg} / \mathrm{pl}$ forms never affects tones, revealing that cases where a sg/pl seems to precede an adjective or dependent pronoun in fact show cbs: dàu-sì̀ "good man", vs sg dāu "man"; dàp-sùma "good men", vs pl dāp "men."

Traditionally, remodelled cbs are written as separate words, and as there is no tone marking this may lead to ambiguity: e.g. yamug bipuy (Acts 16:16, 1976) for yàmmog-bị-púp "slave girl" not yàmmvg bị́-púy "slave's girl" 12.8.1.2.

### 5.3 Paradigms

By default, class suffixes attach after a stem-final epenthetic vowel or root vowel. Complications arise from consonant assimilation, rounding before -go -ko - $\quad$, deletion of $* g$ after aa iə uө aan̆ $\varepsilon \varepsilon \check{n}$ ээй, and with $C V V$-stems before $a, u$ and $a a$.

### 5.3.1 a|ba

Most stems ending in consonants straightforwardly show $-a$ in the sg :

| $s i \bar{l} d^{\text {a }}$ | $s \bar{l} d ı b^{\text {a }}$ | sìd- | "husband" |
| :---: | :---: | :---: | :---: |
| $n \stackrel{1}{ } d^{\text {a/ }}$ | nịdıb ${ }^{\text {a/ }}$ | nịn- irreg | "person" |
| sàal ${ }^{\text {a }}$ | sàalıb ${ }^{\text {a }}$ | sàal- | "human being" |
| kpāad ${ }^{\text {a/ }}$ |  | kpāad- | "farmer" |
| $k \bar{v} d^{\text {a/ }}$ | $k v \bar{v}$ díb ${ }^{\text {a }}$ | kūvd- | "killer" |
|  | kpīkpịnníb ${ }^{\text {a }}$ | kpīkpịn- | "merchant" |
| $y \bar{v} v m-y \hat{\prime}{ }^{\prime} \mathrm{mm}^{\text {na }}$ | $y$ vom-yû'vmnìb ${ }^{\text {a }}$ | yv̄vm-yv̂'vm- | "singer" |
| bị-pị̀ $t^{\text {a/ }}$ | bị-pītítib ${ }^{\text {a }}$ | bị-pịt- | "younger child" |
| wād-tís ${ }^{\text {a }}$ | wād-tísì ${ }^{\text {a }}$ | wād-tís- | "lawgiver" NT |
| $z a ̀ '-n \overline{-g u ́ r ~}{ }^{\text {a }}$ |  | $z a ̀ '-n \bar{o}-g u ́ r-$ | "gatekeeper" NT |

Agent nouns from 3-mora stems in $s$ regularly drop the $d$ formant in sg and cb , which can result in "tonal heteroclites" 3.8.1. Many also have nàma plurals.

| kùөs ${ }^{\text {a }}$ | $k u \bar{\theta}$ Sıdı ${ }^{\text {a }}$ | kùөs- | "seller" |
| :---: | :---: | :---: | :---: |
| $d i ̣ ' \partial S^{\text {a }}$ |  | dị'əs- | "receiver" |
| tù'as-tò'as ${ }^{\text {a }}$ | tù'as-tū'asıdıb ${ }^{\text {a }}$ | tù'as-tù'as- | "talker" |
| sịgls ${ }^{\text {a/ }}$ | sịgısídìb ${ }^{\text {a }}$ | sịgıs- | "lowerer" |
| diıs ${ }^{\text {a }}$ | dìs-nàm ${ }^{\text {a }}$ | dìs- | "glutton" |

The same behaviour is found with agent nouns from a few other verbs too:

| sòs ${ }^{\text {a }}$ | sōsıdıb ${ }^{\text {a }}$ | sòs- | "beggar" |
| :---: | :---: | :---: | :---: |
| tis ${ }^{\text {a }}$ | $t i ̄ s ı d ı b^{\text {a }}$ | tis- | "giver" |
| $k i s^{\text {a/ }}$ or kịsıd ${ }^{\text {a/ }}$ | kịsıdíb ${ }^{\text {a }}$ | kịsıd- (only) | "hater" |

These may be original 3-mora stem verbs with ${ }^{*} s s \rightarrow s$. There are also

| $z a ̀ b-z a ̀ b^{\text {a }}$ | zàb-zàb-nàm ${ }^{\text {a }}$ | zàb-zàb- | "warrior" |
| :---: | :---: | :---: | :---: |
|  | $z a ̀ b-z a ̄ b ı d ı b^{\text {a }}$ |  |  |
|  | gbān-záb-nàm ${ }^{\text {a }}$ | gbān-záb- | "leatherbeater" |
| $\check{n} w i ̣-t \varepsilon k^{\text {a }}$ | n̆wị-tćkı̀dıb ${ }^{\text {a }}$ |  | "rope-puller" |

Exceptionally, consonant assimilation of *md does not appear in the plural in pun'à-sān̆'am ${ }^{\text {ma }} \quad$ pun'à-sān̄'amıdıb ${ }^{\mathrm{a}} \quad$ pun'à-sàn̆'am- $\quad$ "adulterer"

Stems in VVn- undergo consonant assimilation in the pl: ${ }^{* n b} \rightarrow m m$ :
sāan ${ }^{\text {a/ sáam }}{ }^{\mathrm{ma}}$ sāan- "guest, stranger"

Stems in $V V m$ - have sg - $m m$ instead of - $m a$. The assimilation $* m b \rightarrow m m$ would cause SF sg and pl to coincide segmentally; plurals in -sع or nàm ${ }^{\mathrm{a}}$ appear instead:

|  | kpị̀'imís ${ }^{\text {e }}$ | kpị̀im- | "dead person, corpse" |
| :---: | :---: | :---: | :---: |
| $z \bar{u} ' ө m^{\mathrm{m} /}$ | $z \bar{u}^{\prime} a m i ́ s^{\varepsilon}$ | $z u \overline{\text { 'өm- }}$ | "blind person" |
| tādım ${ }^{\text {m/ }}$ | tādımıs ${ }^{\text {e }}$ | tàdım- | "weak person" |
|  | tàdım-nàm ${ }^{\text {a }}$ |  |  |

WK accepted -ba pl forms as LFs but not SFs in the two words

| $k p \bar{\varepsilon} \varepsilon \check{\square} m^{\mathrm{m}}$ |  |  |
| :---: | :---: | :---: |
|  | kpèzn̆m-nàm ${ }^{\text {a }}$ kpèzn̆m- | "elder" |
| $b i ̣ ' ə m^{\mathrm{m}}$ | bị'əmma LF only |  |
|  | bị'əm-nàm ${ }^{\text {a }}$ bị'əm- | "enemy" |

Stems in $l n r$ following a short root vowel show $\operatorname{sg} \mathrm{LF}-l l \varepsilon-n n \varepsilon-r \varepsilon$, with the SFs reinterpreted as the outcome of adding -r $\varepsilon$ instead of $-a$. Sg LF-final $-\varepsilon$ is never seen with ba-plural words in cases where the stem final would not assimilate $\mathrm{sg}-\mathrm{r} \varepsilon \underline{3.5}$.

The assimilation ${ }^{n} n \rightarrow m m$ takes place in the plural:

| Dàgbān ${ }^{\text {ne/ }}$ | Dàgbām ${ }^{\text {ma/ }}$ | Dàgbān- | "Dagomba person" |
| :---: | :---: | :---: | :---: |
| $B i n^{\text {ne }}$ | Bìm ${ }^{\text {ma }}$ | Bìn- | "Moba person" |
| Kùtān ${ }^{\text {ne/ }}$ | Kùtām ${ }^{\text {ma/ }}$ | Kòtān- | member of EW's clan |
| Mor ${ }^{\varepsilon /}$ | Móom ${ }^{\text {ma }}$ irreg | Mor- | "Muslim" |

Agent nouns from single-aspect verbs with stems in -ll or $-r(r)$ not only show alternative $-\varepsilon$ LF sg forms but also have analogical plurals in -aa alongside -ba.

|  | n̆yà'an-dòl ${ }^{\text {la }}$ | n̆yà'an-dòllıb ${ }^{\text {a }}$ | n̆yà'an-dòl- | "disciple" NT |
| :---: | :---: | :---: | :---: | :---: |
|  | ňyā'an-dól ${ }^{\text {l }}$ | ňyā'an-dóllà | ňyā'an-dól- | id WK |
|  | gbàn-zān̆l ${ }^{\text {la/ }}$ | gbàn-zān̆llíb ${ }^{\text {a }}$ | gbàn-zān̆l- | "book-carrier" KT WK |
|  | bù-zān̆l ${ }^{\text {la/ }}$ | bù-zān̆llíb ${ }^{\text {a }}$ | bì-zān̆l- | "goat-carrier" WK |
| or | bì-zān̆l ${ }^{\text {l/ }}$ | bù-zān̆llá |  |  |
|  | gbàn-mōra/ | gbàn-mōríb ${ }^{\text {a }}$ | gbàn-mōr- | "book-owner" DK |
|  | gbàn-tār ${ }^{\text {a/ }}$ | gbàn-tāríb ${ }^{\text {a }}$ | gbàn-tār- | id DK |
|  | bù-mōr ${ }^{\text {a/ }}$ | bù-mōríb ${ }^{\text {a }}$ | bò-mōr- | "goat-owner" WK |
| or | bù-mōr ${ }^{\text {// }}$ | bv̀-mōrá |  |  |

There is no single rule for the sg form with stems ending in vowels.
Four nouns end in diphthongs in the sg:


Note the irregular long SF vowel of $b \bar{a} ' a$.
Sg final $-v$ is dropped in the cb and pl in

pịtú pītíb $\quad$ pịt- | "younger sibling |
| :---: |
| of same sex" |

Sàam-pị̀ $t^{\mathrm{a} /}$ "father's younger brother" and bị-pịt $\mathrm{t}^{\mathrm{a} /}$ "younger child" are regular. Some CVV stems introduce - $d$ - in the sg and in the pl or cb:

| $w ı ̀ d^{\text {a }}$ | wı̀ı ${ }^{\text {a }}$ | wìld- | "hunter" |
| :---: | :---: | :---: | :---: |
| sōn̆'od ${ }^{\text {a/ }}$ | sōn̆'ob ${ }^{\text {a/ }}$ | sōn'od- | "someone better than" |
| $p \bar{u}-k p a ̄ a d^{\text {a/ }}$ | $p \bar{v}-\mathrm{kpāadíb}{ }^{\text {a }}$ | pū-kpá- | "farmer" |

Other $C V V$ stems have become $r \varepsilon \mid a a$ class, accounting for human-reference nouns in $r \varepsilon \mid a a$ like pù-kòon̆r $r^{\varepsilon}$ "widow", dà-kòวn̆r $r^{\varepsilon}$ "bachelor", bị̀ər ${ }^{\varepsilon /}$ "elder same-sex sib", pòn̆'or $r^{\varepsilon}$ "cripple", n̆y $\bar{\varepsilon} \varepsilon r^{\varepsilon /}$ "next-younger sib." Related languages, including Toende Kusaal, may keep pl -ba: Toende pókốót pl pokõp "widow", dákốot pl dakõp "bachelor", but sg yể'et pl yẽra "next-younger sib."

A subclass referring to older/important people has -ba for sg , with pl nàm ${ }^{\mathrm{a}} \underline{5.4}$ :

| nà'ab ${ }^{\text {a }}$ | nà'-nàm ${ }^{\text {a }}$ | nà'- | "chief" |
| :---: | :---: | :---: | :---: |
| yáab ${ }^{\text {a (*yaagba) }}$ | yāa-nám ${ }^{\text {a }}$ | yāa- | "grandparent" |
| pùgudıb ${ }^{\text {a }}$ | pùgvd-nàm ${ }^{\text {a }}$ | pùgod- | "father's sister" |
| áňsì ${ }^{\text {a }}$ | ān̆s-nám ${ }^{\text {a }}$ | ān̆s- | "mother's brother" |
| sàam ${ }^{\text {ma }}(* m b)$ | sàam-nàm ${ }^{\text {a }}$ | sàam- | "father" |
| dị̀zm ${ }^{\text {ma }}$ (*mb) | dị̀m-nàm ${ }^{\text {a }}$ | dịəm- | "man's parent-in-law" |
| dàyáam ${ }^{\text {ma }}(* \mathrm{mb})$ | dàyāam-nám ${ }^{\text {a }}$ | dàyāam- | "woman's parent-in- | law"

### 5.3.2 ga|se

Straightforward examples include:

| $b \bar{v} g^{\text {a }}$ | $b \bar{v} v s^{\varepsilon}$ | $b \grave{\text { b }}$ | "goat" |
| :---: | :---: | :---: | :---: |
| $\check{n} w a \bar{d} ı^{\text {a/ }}$ | $\check{n} w a ̄ d l s^{\varepsilon /}$ | $\check{n} w a \bar{d}$ - | "moon, month" |
| $\bar{a} a n ̆ d ı g^{\mathrm{a}}$ | $\bar{a} a n ̆ d ı s^{\varepsilon}$ | àan̆d- | "Vitex doniana" |
| bù-dìbıg ${ }^{\text {a }}$ | $b \grave{\text { bldibı }}{ }^{\varepsilon}$ | bù-dìb- | "male kid" |
| kpịibıg ${ }^{\text {a }}$ | $k p i ̣ i b ı s{ }^{\text {e }}$ | kpị̀ib- | "orphan" |
| yàmmı ${ }^{\text {a }}$ | yàmmıs ${ }^{\varepsilon}$ | yàm- | "slave" |
| $k \bar{l} \imath^{\text {a }}$ | $k o ̄ l ı s^{\varepsilon}$ | kòl- | "river" |
| kpùkpàrıg ${ }^{\text {a }}$ | kpùkpàrıs ${ }^{\text {E }}$ | kpùkpàr- | "palm tree" |
| $p u ̄ s ı g^{\text {a/ }}$ | $p u ̄ s ı{ }^{\text {f/ }}$ | pūs- | "tamarind" |
| $z \bar{o} g^{\text {a }}$ | $z \bar{ว} s^{\varepsilon}$ |  | "run, race" |

Root-stems in Caa Ciə Cuө delete the $* g$ of the sg suffix -ga 3.7:

| bāa | bāas | bà- | "dog" |
| :--- | :--- | :--- | :--- |
| sịa | sịə $^{\varepsilon} s^{\varepsilon}$ | sì̀- | "waist" |
| sàbùa | sàbù $\theta s^{\varepsilon}$ | sàbunà- | "lover, girlfriend" |

Nasal ian̆ uan̆ here alternates with $\varepsilon \varepsilon \check{n}$ oэn̆:

| zịn้'a | $z \dot{\varepsilon} \breve{n}^{\prime}$ ' $\varepsilon s^{\varepsilon}$ | $z i a ̀ n ̆ '-~ o r ~ z \varepsilon ̇ n ̆ '-~$ | "red" (adjective) |
| :---: | :---: | :---: | :---: |
| $n u \overline{\text { '-ịñ'a }}$ | $n u \overline{1}-\hat{\varepsilon} \breve{n}^{\prime} \varepsilon s^{\varepsilon}$ | $n u ̄ '$ 'ع́ñ'- | "fingernail" |
| nūal | nōos ${ }^{\text {/ }}$ | n̄̄- | "hen" |

Stems in ${ }^{*} \mathrm{CV} g$ - display consonant assimilation in the sg via $* g g \rightarrow k k$ :
gìk ${ }^{\mathrm{a}} \quad$ gìgıs ${ }^{\varepsilon} \quad$ gìg- $\quad$ "dumb person"
*Cag- *Ciag- *Cuag- delete ${ }^{*} g$ when there is no assimilation 3.7:

| $z a ̀ k^{\mathrm{a}}$ | $z a ̀ ' a s^{\varepsilon}$ | $z a ̀ '-$ | "compound" |
| :--- | :--- | :--- | :--- |
| $p u \bar{a} k^{\mathrm{a}}$ | $p \bar{v}^{\prime} a s^{\varepsilon}$ | pu'à- | "female" (adjective) |

Stems in -m- and -n- show ${ }^{*} m g \rightarrow \eta \eta$ and ${ }^{*} n g \rightarrow \eta \eta$ in the $s g$, with cbs remodelled on the sg. In the $\mathrm{pl}{ }^{*} n s \rightarrow \tilde{s} \underline{3.5}$, but $* m s$ never assimilates in 2-mora stems, and need not do in longer stems. No 3- or 4-mora $n$-stems occur in this class.

| $t \bar{\varepsilon} \eta^{\text {a }}$ | $t \bar{\varepsilon} \varepsilon n \check{s}{ }^{\varepsilon}$ | tèn- | "land" |
| :---: | :---: | :---: | :---: |
| $p a ̀ y^{\text {a }}$ | pàan̆s ${ }^{\text {a }}$ | pàn- | "power" |
| $b u ̀ \eta^{\text {a }}$ | bùmıs ${ }^{\text {c }}$ | bùn- | "donkey" |
| $n a ̄ \eta^{\text {a }}$ | nāmıs ${ }^{\text {c }}$ | nàn- | "scorpion" |
| sú' $ө \eta^{\text {a }}$ | sū'өmís ${ }^{\text {® }}$ | $s u ̄ ' ө \eta$ - | "rabbit" |
| nịin ${ }^{\text {a }}$ | nịis ${ }^{\text {c }}$ | nịin- | "bird" |
|  | nịimís ${ }^{\text {c }}$ |  |  |
| $k u ̀ l ı \eta^{\text {a }}$ | kùlıs ${ }^{\text {e }}$ | kùlın- | "door" |
|  | kùlımıs ${ }^{\text {e }}$ |  |  |
| $k \bar{v}^{\prime} a l i ́ n{ }^{\text {a }}$ |  | kūalín- | sleeveless traditional |
|  | kū'alímìs ${ }^{\text {e }}$ |  | smock |
| $m \bar{\varepsilon} \varepsilon d ı \eta^{\text {a }}$ | $m \bar{\varepsilon} \varepsilon d i s^{\varepsilon}$ | $m \grave{\varepsilon} \varepsilon d ı \eta-$ | "building tool" |
|  | $m \bar{\varepsilon} \varepsilon d ı m ı s^{\varepsilon}$ |  |  |
|  | pịəsís ${ }^{\text {¢ }}$ | pịəsín- | "sponge for washing" |
|  | pịəsímis ${ }^{\varepsilon}$ |  |  |

Various irregularities are seen in

| bịig ${ }^{\text {a }}$ | bịis ${ }^{\text {® }}$ | $b i ̣-$ or bị- | "child" |
| :---: | :---: | :---: | :---: |
| $b$ b̀rı ${ }^{\text {a }}$ | bèrıgıs ${ }^{\text {E }}$ |  | a plant used for fibre |
| tàmpūa | tàmpōos ${ }^{\text { }}$ | tàmpò- | "housefly" DK (no n̆) |
| $b u ̄ t ı \eta^{\text {a }}$ | būtus ${ }^{\text {² }}$. 3 | bùtıp- | "cup" |
| sāpá | sānsá /ns/ | sān- | "time" |

These human-reference nouns have alternative plurals with the suffix -ba:

| dàsān ${ }^{\text {a }}$ | dàsām ${ }^{\text {ma }}$ | dàsàn- | "young man" |
| :---: | :---: | :---: | :---: |
|  | or dàsāan̆s ${ }^{\varepsilon}$ |  |  |
| Yàan ${ }^{\text {a }}$ | Yàam ${ }^{\text {ma }}$ | Yàap- | "Yanga, Yansi person" |
|  | or Yàamıs ${ }^{\varepsilon}$ Yàañs ${ }^{\varepsilon}$ |  |  |
| Sà'dàbùa | Sà'dàbù ${ }^{\text {a }}$ |  | clan name |
|  | or Sà'dàbùes ${ }^{\text {c }}$ |  |  |

Several $s \varepsilon$-plural stems with rounded root vowels or epenthetic vowels rounded after $m$ have sg $g$ o for the expected $g a$. WK avoids this with human-reference nouns.


Compare Mampruli nuuwa pl nuusi "hand", suuwa pl suusi "knife", kuuwa pl kuusi "mouse", zuuwa pl zuusi "vulture" (but yupŋu pl yunsi "night.")

Some original $g o \mid d \varepsilon$ nouns have substituted $\mathrm{pl}-s \varepsilon$ for $-d \varepsilon$ instead of -aa 5.3.3:


Two words of this type drop -s- from the stem in the plural:

| wīlısúp ${ }^{\text {a }}$ | wīlımís ${ }^{\text {e }}$ | wīlısón- | a kind of snai |
| :---: | :---: | :---: | :---: |
| yālısún ${ }^{\text {a }}$ | yālımís ${ }^{\text {® }}$ | yālısúp- | "quail" |

### 5.3.3 go|de

All stems in $m n$ after a short vowel, and all gerunds, use $\mathrm{pl} a a$ instead of $d \varepsilon$. Before the sg -go -ko - $\quad 0$ stem-final vowels are rounded, changing epenthetic vowels to $v$ and creating rounding diphthongs from root vowels 3.6.

| dàvg ${ }^{\text {a }}$ | dàad ${ }^{\varepsilon}$ | dà- | "piece of wood" |
| :---: | :---: | :---: | :---: |
| vāvn̆g ${ }^{\text {/ }}$ | vāan̆d ${ }^{\varepsilon /}$ | vā⿹̆n- | "leaf" |
|  | $f \overline{\text { ñ' }}$ ' $d^{\varepsilon /}$ | $f \overline{\varepsilon ̌} \breve{n}^{\prime}$ - | "ulcer" |
| dàbịog ${ }^{\text { }}$ | dàbịə ${ }^{\varepsilon}$ | dàbi̇à- | "coward" |
| vịug ${ }^{\text {a/ }}$ | vịl ${ }^{\text {d/ }}$ | $v i ̄-$ | "owl" |
| mōog ${ }^{\text {ºm }}$ | $m \overline{o b}{ }^{\varepsilon}$ | mò- | "grass, bush" |
| dòndùug ${ }^{\text {a }}$ | dòndùud ${ }^{\varepsilon}$ | dòndù- | "cobra" |
|  | $z u ̀ \theta d^{\varepsilon}$ |  | "friendship" |
| wābvg ${ }^{\text {/ }}$ | wābıd ${ }^{\text {/ }}$ | wāb- | "elephant" |
| $z u ̄ \theta b v ́ g^{\circ}$ | $z u \bar{\theta} \operatorname{líd}^{\varepsilon}$ | $z u \bar{\theta} b-$ | "(human head) hair" |
| bāl̄̄rvg ${ }^{\text {/ }}$ | bālērıd ${ }^{\text {/ }}$ | bālćr- | "ugly person" |
|  | bālēr ${ }^{\text {c/ }}$ |  |  |
| $b \bar{\varepsilon} s \cup g{ }^{\circ}$ | $b \bar{\varepsilon} s ı d^{\varepsilon}$ | bès- | kind of pot |

Some stems ending in root vowels have plurals of the form $C V t^{\varepsilon} \underline{3.4}$ :
dò $g^{\circ} \quad d \grave{\partial} d^{\varepsilon}{\text { or } d \grave{t} t^{\varepsilon} \quad \text { dò- } \quad \text { "hut, room; clan" }}^{\varepsilon}$

So too pōogo/ "farm, field", fūugg/ "clothing, shirt." The sg has a short vowel in
$z u \overline{g^{\Omega}} \quad z u \bar{t} t^{\varepsilon /} \quad z \bar{u}$ - or $z \bar{u} g-\quad$ "head"
*Cag- *Ciag- *Cuag- stems $\underline{3.7}$ show sg $-k^{3}$, and una becomes $\rho$ before $-k^{3} \underline{3.6}$ :

| lāuk ${ }^{\text {a }}$ | $l a{ }^{\prime} a d^{\varepsilon}$ |  | là'- | "(item of) goods" |
| :---: | :---: | :---: | :---: | :---: |
| biāuñ ${ }^{\text { }}$ | $b i a^{\prime}{ }^{\text {nj }}$ 'ad ${ }^{\varepsilon}$ | WK | bìàn̆'- | "shoulder" |
|  | biā̆n'ada | SB |  |  |
| $l o ̀{ }^{\text { }}$ | $l o ̀ ' a d^{\text {e }}$ |  | lu'à- | "quiver (for arrows)" |

Stems in CVd show $-t$ - in the $\mathrm{pl} \underline{3.5}$ via $* d d \rightarrow t t$ :
$u ̀ d v g^{\circ}$
$\grave{u} t^{\varepsilon} \quad \grave{u} d-$
"(piece of) chaff"

Stems in $C V g$ develop $k k$ in the singular via $* g g \rightarrow k k$ :

| $d \bar{v} k^{\nu /}$ | $d \bar{v} g d^{\varepsilon /}$ | $d \bar{v} g-$ |
| :--- | :--- | :--- |
| $d \bar{v} g \nu b d v ́ t^{\varepsilon}$ |  |  |$\quad$|  | "cooking pot" |
| :--- | :--- |
|  |  |

Stems in $l$ develop the cluster $n n$ in the pl via ${ }^{*} l d \rightarrow n n$ :

| $z o ̄ l v g^{\rho /}$ | $z \bar{n} n^{\mathrm{n} \varepsilon /}$ | $z \bar{l} \mathrm{l}-$ | "fool" |
| :--- | :--- | :--- | :--- |
| sìlvg | $\sin ^{\mathrm{n} \varepsilon}$ or $\operatorname{sìl}{ }^{\circ} s^{\varepsilon}$ | sìl- | "hawk" |

The only $m n$ stems making plurals with $-d \varepsilon$ are $C V V C$ root-stems:

| làngáv $\eta^{\circ}$ | làngāamá <br> or làngáam $\mathrm{m} \varepsilon$ |
| :---: | :---: | làngāvy- "crab"

So too màngáv $\eta^{3}$ "crab", the plural-only $s u \bar{n}-p \varepsilon ̂ \varepsilon n^{n \varepsilon}$ "anger" and perhaps the placename Tèmpáan ${ }^{\text {n } \varepsilon}$ "Tempane", if the second element is from pāalí $g^{\mathrm{a}}$ "new."

All stems in $n m$ following a short vowel use the plural suffix $a a$ instead of $d \varepsilon$. They show ${ }^{*} m g \rightarrow \eta \eta$ and $*_{n g} \rightarrow \eta \eta$ in the $s g$, with cbs remodelled on the sg.

| gbàup ${ }^{\text {a }}$ | gbàna | gbàn- or gbàun- | "letter, book" |
| :---: | :---: | :---: | :---: |
| zīnzāun ${ }^{\text {/ }}$ | zīnzāná | zīnzáunŋ- | "bat" |
| àn̆rvo ${ }^{\text {a }}$ | àn̆rıma | àn̆rıŋ- | "boat" |
| mālvŋ ${ }^{\text {a }}$ | mālıma | màlvŋ- | "sacrifice" |

The expected $\underset{\sim}{u}$-glide is absent in the sg and cb of
nịn-gbị̄ $\eta^{J \quad \text { nịn-gbịnná nị̀n-gbị̄n- "body" }}$

This may represent the influence of the alternate sg form nị̀n-gbịinn ${ }^{\mathrm{n} /}$.
All regular gerunds of 3-mora- and 4-mora-stem dual-aspect verbs belong to this noun class except for those with stems ending in velars and fusion verbs, which have the singular suffix $r \varepsilon$ 8.1.1. Only stems in $-s$ - and -sım- have plurals, always with -aa:

| bū' $\theta s$ v́g | bū' $\theta s a ́$ | bū' $\theta s$ - | "question" |
| :--- | :--- | :--- | :--- |
| zàan̆sv́ク | zàan̆símà | zàan̆sv́ | "dream" |

Gerunds of 3-mora $n$-stem verbs never assimilate ${ }^{*} n g \rightarrow \eta \eta$, and gerunds of 3mora $m$-stems only assimilate $* m g \rightarrow \eta \eta$ optionally: thus dì gınv $^{0}$ "lying down",
 sàn̆'v $\eta^{\circ}$ or sàn̆'amvg ${ }^{3}$ "destroying", kàrv $\eta^{\circ}$ or kàrımvg ${ }^{0}$ "reading."

The place name Dènvg ${ }^{\text { }}$ "Denugu" (?? Dènnvg ${ }^{\text {o }}$ ) also fails to assimilate *ng.

### 5.3.4 re|aa

Straightforward examples include:

| kūgor ${ }^{\text {/ }}$ | kūgá | $k \bar{u} g-$ | "stone" |
| :---: | :---: | :---: | :---: |
| dìgır ${ }^{\text {e }}$ | dìga | dig- | "dwarf" |
| bàlàjır ${ }^{\text {c }}$ | bàlàja | bàlàn- | "hat" |
| yūgodır ${ }^{\text {e }}$ | yūgvda | yùgod- | "hedgehog" |
| pu'à-sādır ${ }^{\text {c/ }}$ | pư'à-sādá | pu'à-sād- | "young woman" |
| nóbì ${ }^{\text {E }}$ | nōbá | nōb- | "leg" |
| līıbır ${ }^{\text {c }}$ | līıba | lìb- | "twin" |
| sāngónnìr ${ }^{\text {r }}$ | sāngúnnà | sāngún- | "millipede" |
| bị'isır ${ }^{\text {c }}$ | bị'isa | bị'is- | "woman's breast" |
| sūmmır ${ }^{\varepsilon}$ | sūmma | sùm- | "groundnut" |

$C V V$ - and $C V^{\prime} V$-stems (for the allomorphs before pl-aa see $\underline{3.4}$ ):

| bịə $\partial r^{\varepsilon /}$ | bi̇ēyá | bīā- | "elder same-sex sib" |
| :---: | :---: | :---: | :---: |
| $z u \bar{\theta} r^{\varepsilon}$ | zuе̄уа | zùà- | "hill" |
|  | nōyá | n̄̄- | "mouth" |
| $z \bar{v} v r^{\varepsilon}$ | zūya | $z \chi^{-}$ | "tail" |
| tītā'ar ${ }^{\text {c }}$ | tītāda | tītá'- | "big" (adjective) |
| $\check{n} y \overline{\text { che }}$ ' $\varepsilon r^{\varepsilon /}$ | n̆yz̄dá | $\check{n} y \overline{c^{\prime}}$ '- | "next-younger sibling" |
| pòn̆'or ${ }^{\text {c }}$ | pòn̆da | pòn̆'- | "cripple" |
| $y \bar{u}^{\prime} \cup r^{\varepsilon /}$ | yūdá | $y \bar{u}{ }^{\prime}-$ | "name" |
| $y u \bar{\prime} \theta r^{\varepsilon}$ | yuāda | yù'өr- 5.2 | "penis" |

Stems in *Cag- *Ciag- *Cuag- 3.7 may have forms made by analogy with original $C V^{\prime} V$-stems, instead of or alongside forms with vowel fusion:

| bà'ar ${ }^{\text {c }}$ | bà'a or bàda | bà'- | "idol" (Farefare bàgrè) |
| :---: | :---: | :---: | :---: |
| n̆yā'ar ${ }^{\text {c }}$ | n̆yā'a | n̆yà'- | "root" ( $\leftarrow * n \varepsilon g-)$ |
| sià'ar ${ }^{\text {c }}$ | sinà'a | sinà'- | "forest" |


| bīān̄'ar <br> mù'ar ${ }^{\varepsilon}$ | bíáň'a mu'àa | bíaīn̆'-mu'à- | "wet mud, riverbed" <br> "reservoir, dam" |
| :---: | :---: | :---: | :---: |
|  | or mò'ada |  |  |
|  | zànku'àa | zànku'à- | "jackal" |
|  | or zànkv̀'ada |  |  |
| kùndò'ar ${ }^{\text { }}$ | kùndu'àa | kùndư'à- | "barren woman" |
|  | or kùndù'ada |  |  |

So too, even in a case where the glottalisation is not derived from $* g$ :
kị̀-dà'ar ${ }^{\varepsilon} \quad$ kị̀-dà'ada WK "bought-in millet"

Stems in deleted ${ }^{*} g$ after a long vowel include fusion verb gerunds 7.1 like

vúer ${ }^{\varepsilon} \quad v u ̄ a ́ a \quad$ vūө- "fruit of red kapok"

Some root-stems show $C V$ with a short vowel before $r \varepsilon$, with $c b C V r-\underline{5.2}$ :

$$
g b \bar{\varepsilon} r^{\varepsilon /} \quad g b \bar{\varepsilon} y a ́ ~ g b \bar{\varepsilon} r-\quad \text { "thigh" }
$$

Similarly kùk $r^{\varepsilon /}$ "voice" $k p a ̀ k \bar{v} r^{\varepsilon /}$ "tortoise" $g a \bar{n} r^{\varepsilon / ~ " e b o n y ~ f r u i t " ~} g \bar{v} m p \bar{u} z \bar{\varepsilon} r^{\varepsilon /}$ "duck" ňyò-vūr ${ }^{\varepsilon /}$ "life".

2-mora stem verbs make gerunds in -re instead of -bo after a noun cb: n̄̄-lôor ${ }^{\varepsilon}$ "fasting" ("mouth-tying"), fū-yêعr $r^{\varepsilon}$ "shirt-wearing"; vowel shortening appears in nā'lór $r^{\varepsilon}$ "area in compound for tying up cows" and wìd-lōr ${ }^{\varepsilon /}$ "area for tying up horses."

Stems in $m n l r$ undergo consonant assimilation in the sg: ${ }^{*} r r \rightarrow r, * l r \rightarrow l l$, ${ }^{*} n r \rightarrow n n, * m r \rightarrow m n$; on the instability of the cluster mn see 3.3.

| kùkpàr ${ }^{\text {c }}$ | kùkpàra | kùkpàr- | "palm fruit" |
| :---: | :---: | :---: | :---: |
| $k p a ̄ n^{\text {n }}$ | kpāna | kpàn- | "spear" |
| má'an ${ }^{\text {ne }}$ | mā'aná | mā'an- | "okra" |
| $p$ ịhbı ${ }^{\text {n } \varepsilon}$ | pịbına | pịbın- | "covering" |
| $d u \bar{m}{ }^{\text {n } \varepsilon}$ | dūma | dùm- | "knee" |
| $z \bar{ว} m^{\text {ne }}$ | zธ̄тта | zòom- | "fugitive" |
| yòvm ${ }^{\text {n }}$ | yòma | yòvm- | "year" 3.4 |
| $g b i ̄ g ı m ~ \frac{n \varepsilon}{}$ | gbīgıma | gbìgım- | "lion" |
| $g \varepsilon ́ l^{1 \varepsilon}$ | $g \bar{\varepsilon} l a ́$ | $g \bar{\varepsilon} l-$ | "egg" |
| úll ${ }^{1}$ | ìlá | ìl- | "horn" |

With unusual sandhi in the sg, and presumably analogical levelling

| $\check{n} w a ̄ n n^{\mathrm{n} \varepsilon}$ | SB | $\check{n} w a ̄ n a \mathrm{NT}$ | $\check{n} w a ̀ n-/ n ̆ w a ̀ m-$ |
| :--- | :--- | :--- | :--- |
| $\check{n} w a \bar{m} m^{\mathrm{m} \varepsilon} \mathrm{WK}$ | $\check{n} w a \overline{m a ~ S B ~ W K ~ N T ~}$ | "calabash" |  |

An exceptional suppletive plural, segmentally and tonally, is seen in
dāar ${ }^{\varepsilon}$ dābá dà- "day"

These two words probably have 1-mora stems:

| [Mampruli zari] | $z \bar{a} \bar{a}^{\prime}$ | $z \bar{a}-$ | "millet" |
| :--- | :--- | :--- | :--- |
| $y i ̣ r^{\varepsilon /}$ | $y \bar{a}^{\prime}$ | $y \overline{1}-$ | "house" |

Language names 26.4 have the suffix $-l \varepsilon$ after stems ending in a root vowel:

| Language |  | Speakers |  |
| :--- | :--- | :--- | :--- |
| Kūsâal $^{\varepsilon}$ | Kusaal | Kūsâas $^{\varepsilon}$ | Kusaasi |
| Mòol $^{\varepsilon}$ | Mooré | Mòos $^{\varepsilon}$ | Mossi |
| Zàngbè $\varepsilon l^{\varepsilon}$ | Hausa | Zàngbèzd $d^{\varepsilon}$ | Hausa |
| Nàsāal | English/French | Nàsàa-nàm ${ }^{\text {a }}$ | Europeans |

Stems in $-r$ - show the distinctive assimilation $* r l \rightarrow t t \underline{3.5}$, but other stems ending in a consonant show forms indistinguishable those with the flexion $r \varepsilon$ :

| Yāt ${ }^{\varepsilon /}$ | Yarsi | Yārıs ${ }^{\text {s/ }}$ | Yarsi |
| :---: | :---: | :---: | :---: |
| Bāt ${ }^{\varepsilon /}$ | Bisa | Bārıs ${ }^{\text {/ }}$ | Bisa |
| Nàbır ${ }^{\text { }}$ | Nabit | Nàbıdıb ${ }^{\text {a }}$ | Nabdema |
| Tùөnnır ${ }^{\text {e }}$ | Toende Kusaal | Tùөn ${ }^{\text {n }}$ | Toende area |
| Dàgbān ${ }^{\text {n } / ~}$ | Dagbani | Dàgbām ${ }^{\text {ma/ }}$ | Dagomba |
| $B$ ìñ | Moba | Bìm ${ }^{\text {ma }}$ | Moba |
| Yàan ${ }^{\text {n }}$ | Yansi | Yàan̆s ${ }^{\text {® }}$ | Yansi |
| Gūrín ${ }^{\text {n }}$ | Farefare | Gōrís ${ }^{\text {e }}$ | Farefare |
| Tàlın ${ }^{\text {ne }}$ | Talni | Tàlıs ${ }^{\text {c }}$ | Tallensi |
| Bùl ${ }^{1 \varepsilon}$ | Buli | Bùlıs ${ }^{\text {a }}$ | Bulsa |
| Àgòl ${ }^{\text {l }}$ | Agolle Kusaal | Àgòl ${ }^{\text {l }}$ | Agolle area |

Unexpected epenthesis occurs in:

| Kàmbìnır | Twi | Kàmbìmıs | Ashanti |
| :--- | :--- | :--- | :--- |
| $\check{N} w a ̄ m p u ̄ r ı l^{\varepsilon /}$ | Mampruli | Ňwāmpūrıs | Mamprussi |

## 5．3．5 fo｜u

| mòlıf ${ }^{\text {a }}$ | mòlı | mòl－ | ＂gazelle＂ |
| :---: | :---: | :---: | :---: |
| bịilífo | bịilí | bịil－ | ＂seed＂ |
| ňyịrífo | ňyị̂rí | ňy inc $^{\text {r }}$ | ＂egusi＂ |
| zūrífo | zūrí | $z u \bar{r}$－ | ＂dawadawa seed＂ |
| būn－búvdìf |  |  | ＂plant＂ |
| ［Mooré muiifu］ | mùi | mùi－ | ＂rice＂ |

The plural－ıl causes umlaut of the stem vowels aa iə $\varepsilon \varepsilon$ to ii．

| náafo（＊naagfv） | nịigí | $n \bar{a} '-\underline{3.4}$ | ＂cow＂ |
| :---: | :---: | :---: | :---: |
| wáaf ${ }^{\text {（＊waagfv）}}$ | wịigí | wā＇－ | ＂snake＂ |
| ［Mampruli kaafu］ | $k!{ }^{1}$ | kị－or kā－ | ＂cereal，millet＂ |

Stems in－n－show consonant assimilation in the sg with＊nf $\rightarrow$ ：$f$ 3．5：

| nị̣ ${ }^{\text {／}}$ | nịní | $n \stackrel{1}{n} n$－or nị̣f－ | ＂eye＂ |
| :---: | :---: | :---: | :---: |
| píln̆fo | pīıní | pīın－ | ＂genet＂ |
| kịiñfo | kịiní |  | ＂millet seed＂ |
| $z$ v́＇$\quad$ n̆f $^{\text {a }}$ | $z$ v̄＇uní $^{\text {a }}$ |  | ＂dawadawa seed＂ |
| mịifo | mịiní |  | ＂okra seed＂ |

Sg mịif ${ }^{\text {P }}$ is remodelled after the umlauted pl：cf má＇an ${ }^{\text {ne }}$＂okra．＂
In two words stem－$d$－is lost in the sg ：

| wìə⿰㇒⿻土一⿰丿𠃌⿱⿰㇒一乂⿹弔㇒ | wịd | wìd－ | ＂horse＂ |
| :--- | :--- | :--- | :--- |
| lā＇af | lịgıdı | là＇－or lị̀g－ | ＂cowrie＂pl＂money＂ |

Some words only have fo｜ı class suffixes in one number：

| zịin ${ }^{\text {a }}$ | zịmí | zịm－ | ＂fish＂ |
| :---: | :---: | :---: | :---: |
| wālıg ${ }^{\text {a }}$ | wālıs ${ }^{\text {e }}$ or wālí sic | wàl－ | a kind of gazelle |
| sịbiga／ | sịbí | sịb－ | a kind of termite |
| sịin̆f ${ }^{\text {／}}$ or sịìn $g^{\text {a／}}$ | sịin̆ ${ }^{\text {¢／}}$ | sịn－ | ＂bee＂ |
| sūn̆fol or sūun̆r ${ }^{\text {¢／}}$ | sūn̆yá | sūn̆－ | ＂heart＂ |
| $k p a ́ ' v \eta^{\circ}$ | kpị̄iní | kpā＇－irreg | ＂guinea fowl＂ |

P̣̣iinı＂gift＂reflects a class obsolete in Western Oti－Volta，with aa umlauted to ii by the flexion $\imath$ ：cf Moba pāāb̀＂gift＂，pl pāānî́．It is used as sg ，with cb pịin－．

### 5.3.6 bo

Only three bo class nouns have been found which are not gerunds:

| sā'ab | sà'- | "millet porridge, TZ" |
| :--- | :--- | :--- |
| $t a \bar{n} p^{J}$ | tàn̆p- | "war" 3.4 |
| $k i ̄ ' \imath b^{J /}$ |  | "soap" |

All regular gerunds from 2-mora-stem dual-aspect verbs belong here 8.1.1:
 at", and stems in $m$ show ${ }^{*} m b \rightarrow m m$ : kīm ${ }^{\mathrm{mo}}$ from $k i ̀ m{ }^{\mathrm{m}}$ "tend a flock/herd", wūm ${ }^{\mathrm{mo}}$ from wòm ${ }^{\mathrm{m}}$ "hear." Stems in $n$ do not assimilate, however: būnıb ${ }^{\circ}$ from bùn ${ }^{\varepsilon}$ "reap."
$Y i ̣ s^{\varepsilon}$ "make go/come out" has the expected gerund yịs $s b^{\nu /}$; the alternate form $y!̣ i i^{\varepsilon /}$ has yịisíb ${ }^{0}$, the only 3-mora stem in the bo class.

### 5.3.7 mm

Most words in this class are mass nouns. Straightforward forms include:

| dāam ${ }^{\text {m/ }}$ | dā- | "millet beer, pito" |
| :---: | :---: | :---: |
| mèlıgım ${ }^{\text {m }}$ |  | "dew" |
| $k \bar{u} d ı m^{\mathrm{m}}$ |  | "olden days" |
| dū'uním ${ }^{\text {m }}$ | dū'un- | "urine" |
| dàalım ${ }^{\text {m }}$ |  | "masculinity" |
| yàarım ${ }^{\mathrm{m}}$ | yàar- | "salt" |
| $z a \overline{a n s i ́ m}{ }^{\text {m }}$ | zāan̆s- | "soup" |

$M$-stems can be identified from cbs in $m$, pls in $-m a$ or $-m ı s^{\varepsilon}$, or non-initial H tonemes in Pattern L 3.8.1.

| $v \bar{u} \mathrm{~m}^{\mathrm{m} /}$ |  | vūm- | "life" |
| :---: | :---: | :---: | :---: |
| $k u \bar{m}{ }^{\text {m }}$ |  | kùm- | "death" |
| $z \overline{\mathrm{~m}}{ }^{\mathrm{m} /}$ |  | zธ̄m- | "flour" |
| bùgúm ${ }^{\mathrm{m}}$ |  | bùgúm- | "fire" |
| $y \bar{a} \cdot \mathrm{~m}^{\mathrm{m} /}$ |  | yā'am- | "gall; gall bladder" |
| pūum ${ }^{\text {m/ }}$ |  | pūum- | "flowers, flora" |
| bị'isím ${ }^{\text {m }}$ |  |  | "milk" |
| dàalím ${ }^{\text {m }}$ | dàalímis ${ }^{\text {® }}$ | dàalím- | "male sex organs" |
| pịim ${ }^{\text {m/ }}$ | pịmá | pịm- | "arrow" 3.4 |

P!̣im ${ }^{\mathrm{m} /}$ "arrow" is a remnant of an old "long, thin things" $\supset \mid \varepsilon$ class, preserved in e.g. the Gurma languages and Nawdm: cf Nawdm fímú "arrow", plural fímí.

## 5．4 Nàm plurals

Nàm ${ }^{\text {a }}$ is not a suffix，but a NP head，with a predependent noun appearing as cb for count nouns（ $k p \bar{\varepsilon} \varepsilon \check{n} m^{\mathrm{m}} \mathrm{pl} k p \varepsilon ̀ \varepsilon n ̆ m-n a ̀ m ~{ }^{\mathrm{a}}$＂elder＂）and as sg or pl for mass nouns （sā＇ab nám ${ }^{\text {a }}$＂portions of porridge＂，bùgóm nám ${ }^{\text {a }}$＂fires，lights．＂）

Nàm ${ }^{\text {a }}$ is used with loanwords，pronouns 12.4 ，quantifiers 12．5，plurals with singular meaning and mass nouns with count meaning 12.2 ，and with forms with the personifier particle 12.6 ．It is also used to avoid ambiguous regular plurals，with nouns using－ba as sg 5．3．1，and to pluralise the bare－root sg forms of

| mà | mà náma | mà－ | ＂mother＂ |
| :--- | :--- | :--- | :--- |
| （tone sic，as if uncompounded） |  |  |  |
| bā＇／ | bā＇－nám $^{\text {a }}$ | bā＇－ | ＂father＂ |
| zùà | zunà－nàm |  | zunà－ |

## 5．5 Loanwords

Loanwords 11.1 adopt noun classes by analogy or make nàm ${ }^{\text {a }}$ plurals：

| ga｜sع：àrazàk ${ }^{\mathrm{a}}$ |
| :---: |
| $g o \mid d \varepsilon: g a \bar{d})^{\prime /}$ |
| lòmbò＇og ${ }^{\text {º }}$ |
| re｜aa：lór ${ }^{\text {e }}$ |
| àlópì ${ }^{\varepsilon}$ |
| wādır ${ }^{\text {e／}}$ |
| $g a ̄ d v$ |
| kèzk̇̀ |
| dāká |
| tézbùl ${ }^{\text { }}$ |
| Nàsāara |

$$
\begin{aligned}
& \text { àrazà'as } \\
& \text { màlīā'as }{ }^{\varepsilon /} \\
& \text { gāt}{ }^{\varepsilon /} \\
& \text { lòmbò'od }{ }^{\varepsilon} \\
& \text { lóyà or lóom }{ }^{\text {ma }} \\
& \text { àlópìya } \\
& \text { wādá }
\end{aligned}
$$

gādv－nám ${ }^{\text {a }}$
kèzkè－nàm ${ }^{\text {a }}$
dāká－nàm ${ }^{\text {a }}$
téとbùl－nàm ${ }^{\text {a }}$
Nàsàa（r）－nàm ${ }^{\text {a }}$
àrazà＇－
màlịā＇－ gād－
lı̀mbう̀＇－
lór－
wād－
gādv－
kغ̀ $\varepsilon k \dot{\text { c }}$
dāká－
tع́とbùl－
Nàsàa（r）－

```
"riches"
"angel" DK
"bed"
"garden"
"car, lorry" (cf Moॅr}\mp@subsup{)}{}{\mathrm{ )}
"aeroplane" SB
pl "customs, law"
"bed" WK
"bicycle"
"box"
"table"
"European" 26.4
```

Loanwords ending in L or H toneme distinguish sg from cb by the fact that M spreading only follows the sg ，conforming to the usual rule 4．4．3：

## dv́＇atà nâ＇ab <br> dv́＇atà－nà＇ab

＂a doctor＇s chief＂
＂a doctor－chief，doctor who is a chief＂

Some all－M loanwords change final M to H in the cb on the analogy of Kusaal nouns with M toneme noun prefixes 3．8．1：dūnıya＂world＂，dūnıyá－kàpā＂this world．＂

## 6 Adjective flexion

Unlike nouns, most Kusaal adjectives show suffixes from more than one noun class. This reflects the prehistory of the language, in which noun classes triggered agreement and adjectives took the suffix of the head noun, which preceded as a combining form, effectively infixing the adjective stem between the noun stem and its suffix. Like most Western Oti-Volta languages, Kusaal has lost the agreement system, but adjectives commonly remain extant with suffixes from more than one class, now usually in free variation. Thus from būvg $g^{\text {a }}$ goat":

| bù-pị̀lı $g^{\text {a }}$ | bù-pịəlıs ${ }^{\text {c }}$ | bì-pịəl- ( $\mathrm{ga\mid s} \mathrm{\varepsilon}$ ) | "white goat" |
| :---: | :---: | :---: | :---: |
| bù-pị̀l ${ }^{\text {l }}$ | bù-pị̀la | bù-pị̀l- (r\&\|aa) | id |

A few traces of agreement remain, accounting for all cases with mm 12.8.1. There is also some preference for $g a \mid s \varepsilon$ suffixes for human reference: nịn-sábilìs ${ }^{\varepsilon}$ "Africans", where nịn-sábılà is accepted by informants but is much less common, and Zưà-wịis ${ }^{\varepsilon}$ "Red Zoose" (clan), where the adjective does not normally use $\mathrm{pl} s \varepsilon$. The suffixes $a \mid b a$ and $f \supset \mid \imath \imath$ appear only in set expressions; bo never occurs at all.

WK claims a meaning difference in intensity in gradable adjectives with sg suffixes of different classes, consistently ranking them ga re go in decreasing order, so that fū-pịəlìg "white shirt" is whiter than fū-pị̂əl id. However, DK specifically denied any difference of meaning.

Class suffixes are avoided when their combination with stem finals would give rise to unclear or ambiguous SFs. The availability of alternatives from three classes permits avoidance much more freely than with nouns. A further major constraint is that only two adjectives show suffixes from both the $g a \mid s \varepsilon$ and $g \partial \mid d \varepsilon$ classes:


Other adjectives are either ga- or go-type, along with re|aa class suffixes; this probably reflects simplification of the old agreement system prior to its complete abandonment. Adjectives of the ga type include:

| wàbıg $^{\mathrm{a}}$ | wàbıs |  |
| :--- | :--- | :--- |
| wàbır $^{\varepsilon}$ | wàba | wàb- |


| vènnı $g^{\text {a }}$ vènnır ${ }^{\varepsilon}$ rare | $\nu \varepsilon ̀ n n i s^{\varepsilon}$ <br> vènna | vÈn- | "beautiful" |
| :---: | :---: | :---: | :---: |
| vèn̆llı $g^{\text {a }}$ | vèn̆llıs ${ }^{\text {e }}$ |  | "beautiful" |
|  | vèn̆lla |  |  |
| sābılíg ${ }^{\text {a }}$ | sābulís ${ }^{\varepsilon}$ | sābıl- | "black" |
| sābíl ${ }^{\text {l }}$ | sābılá |  |  |

Similar are wēnnır ${ }^{\varepsilon}$ "resembling" pāalíga "new" záall $\varepsilon$ "empty" bàan̆lıga "slim" pì̀əlıga "white."
$\mathrm{Sg} r \varepsilon$ is not used with ga-type stems in $m n$ :
$d \bar{\varepsilon} \varepsilon \eta^{a}$

| $d \bar{\varepsilon} \varepsilon n ̆ s^{\varepsilon}$ | $d \varepsilon ̀ \varepsilon \eta$ |
| :--- | :--- |
| $d \bar{\varepsilon} \varepsilon m ı s^{\varepsilon}$ |  |
| $d \bar{\varepsilon} \varepsilon n a$ |  |

"first"
déєna
$\mathrm{Pl} s \varepsilon$ is not used with 2-mora stems in $m n$, or with any stems in $s d$ :

| $g!\eta^{\text {a }}$ | gịma | gìn- | "short" |
| :---: | :---: | :---: | :---: |
|  |  | būgus- | "soft" |
| $b \bar{v} g \operatorname{sír}^{\varepsilon}$ | būgusá |  |  |
| pòsoı $g^{\text {a }}$ |  | pòsd- | "few, small" |
| pòodır ${ }^{\text {e }}$ | pòsda |  |  |

Similarly mā'asírír "cold, wet" mālısír $r^{\varepsilon}$ "sweet" t $\bar{\varepsilon} b ı s^{\prime} r^{\varepsilon}$ "heavy" lābısír $r^{\varepsilon}$ "wide."
Adjectives of the go-type only show pl $d \varepsilon$ in a few 2-mora stems ending in vowels or plosives:

| $\begin{aligned} & n \varepsilon \grave{o ̀} g^{\circ} \\ & n \varepsilon ̇ \varepsilon r^{\varepsilon} \end{aligned}$ | $\begin{aligned} & n \varepsilon ̀ \varepsilon d^{\varepsilon} \\ & \text { nèya } \end{aligned}$ | $n غ \grave{\Sigma}$ | "empty" |
| :---: | :---: | :---: | :---: |
| wịug ${ }^{\text { }}$ | wịid ${ }^{\text {e }}$ | wị- | "red" |
| wịìr ${ }^{\text {c }}$ | wịya |  |  |
| $w \overline{5} k^{\text {a/ }}$ | $w \bar{a}^{\prime} a d^{\varepsilon /}$ | $w \bar{a} '-$ or $w \overline{\bar{j}}$ - | "long, tall" |
| $w \bar{a}^{\prime} a r^{\varepsilon /}$ rare | wá'a |  |  |


| $k \bar{u} d v g{ }^{\text {a }}$ | $k \bar{u} t^{\varepsilon}$ rare | kùd- | "old" |
| :---: | :---: | :---: | :---: |
| $k \bar{u} d ı r^{\varepsilon}$ | kv̄da |  |  |
| $b \varepsilon ̇ d v g$ |  | $b \varepsilon ̇ d-$ | "great" |
| $b \varepsilon ̇ d ı r^{\varepsilon}$ rare | bèda |  |  |
| tītā' ${ }^{\text {c }}{ }^{\text {a }}$ rare | tītāda | tītá'- | "big" |
| tītā'ar ${ }^{\text {c }}$ |  |  |  |

Adjectives of the $g o$-type with stems in $l m n r s$ do not use $\operatorname{sg} r \varepsilon$, and accordingly end up with $\mathrm{sg} g o \mathrm{pl}$ aa only:

| sù ${ }^{\text {º }}$ | sòma | sùn- | "good" |
| :---: | :---: | :---: | :---: |
| kị́sù ${ }^{\text { }}$ | kịsá | kịs- | "hateful, taboo" |
| dà-zēmmúg ${ }^{\text {a }}$ | dà-zर̄mmá | dà-zर̄m- | "equal piece of wood" |
| tūvlóg ${ }^{\text {a }}$ | tūvlá | tōol- | "hot" |
| lāllúg ${ }^{\text {a }}$ | lāllá | làl- | "distant" |
| mị̀isvg ${ }^{\text {a }}$ | mị'isa | mị'is- | "sour" |
| wàu $\eta^{\circ}$ | wàna | wàun- | "wasted, thin" |
| kpị̀'op ${ }^{\text {a }}$ | kpị'əтa | kpị'oŋ- | "hard, strong" |
| zùlv ${ }^{\circ}$ | zùlıma | zùlv刀- | "deep" |
| yī-pón̆rùg ${ }^{\text {a }}$ | yị-pón̆rà |  | "nearby house" |

Similarly yàlv $\eta^{0}$ "wide" n̆yālún ${ }^{3}$ "wonderful" y $\bar{\varepsilon} l-n a ́ r u ̀ \eta^{3}$ "necessary thing."
Deverbal adjectives 9.2.1.2 of the resultative type derived with *-lım- belong here. KT (but not WK) also has forms without -m-in both sg and pl:

| kpịilv́n ${ }^{\text {a }}$ | kpịilímà | kpịilv́n- | "dead" | WK |
| :---: | :---: | :---: | :---: | :---: |
| nịn-kpịilò ${ }^{\circ}$ | nịn-kpịilìma |  | "dead person" | KT |
| $g \bar{\varepsilon} \varepsilon \check{n} l u ́ \eta^{\circ}$ | gēen̆límà | $g \bar{\varepsilon} \varepsilon \frac{n ̆ l o ́ \eta-~}{\text { - }}$ | "tired" | WK |
| nịn-gé $\frac{1}{}$ n̆lù ${ }^{\circ}$ | nịn-géعn̆lìma |  | "tired person" | KT |
| pè' $\varepsilon$ lón ${ }^{\text {a }}$ | pè'clímà | pc̀'عlúp- | "full" | WK KT |
|  | dōg-pé'slà |  | "full pots" | KT |

Deverbal adjectives of the habitual type are derived with $d$, but the $d$ is often assimilated or dropped, so not all habitual adjectives are $d$-stems. They are ga-type for WK, but go-type for KT. In either case, the pl suffix is always $a a$, as expected:

| $k \bar{v} v d^{\prime} r^{\varepsilon}$ | kv̄vdá | $k \bar{v} v d-$ | "murderous; |
| :---: | :---: | :---: | :---: |
| kūvdíga WK |  |  | liable to be killed" |
| kūvdúg ${ }^{\text {K }}$ KT |  |  |  |


| $t \bar{o} m m ı r^{\varepsilon}$ | tūmma WK tūmna KT | tòm- | "working, helpful" |
| :---: | :---: | :---: | :---: |
| sịnnír ${ }^{\varepsilon}$ rare sịnníg ${ }^{\text {a }}$ | sịnná | sịn- | "silent" |
| mōr ${ }^{\text {¢/ }}$ | mōrá | $m \bar{r}$ - | "having" |
| kùg-dz̄ ${ }^{1 \varepsilon /}$ | kı̀g-dz̄llá |  | "chair for leaning on" |

Stems in $g k \eta$ do not use the sg suffixes ga go:

| būn-túlıgì $r^{\varepsilon}$ | būn-túlıgà |  | "heating thing" |
| :---: | :---: | :---: | :---: |
| n̆wị-tćkìr ${ }^{\varepsilon}$ | n̆wị-tćkà | $\check{n h w i ̣-t e ́ k-~}$ | "pulling-rope" |
| būn-súpì $r^{\varepsilon}$ | būn-súpà |  | "helpful thing" |

Adjectives derived from 4-mora stem verbs in -m in KT's speech take ga or go sg and $a a \mathrm{pl}$; they may drop the $-m$ - in the plural:

| $n i ̣ n-p u ́ ' a l i ̀ ~$ |  |  |
| :--- | :--- | :--- |
| $\eta^{a}$ | nịn-pú'alìma | "harmful person" |
| nịn-záan̆sv̀ $\eta^{\circ}$ | nịn-záan̆sà | "dreamy person" |

Some adjectives simply belong to a single noun class even though this cannot be accounted for by the stem-suffix incompatibilities outlined above:

| $v \bar{v}^{\varepsilon /}$ | vūyá | $v \bar{u} r-$ | "alive" |
| :---: | :---: | :---: | :---: |
| dāvg ${ }^{\text {a }}$ | dāad ${ }^{\text {¢ }}$ | dà- | "male" |
| tōog ${ }^{\text {a }}$ | tōod ${ }^{\varepsilon}$ | tò- | "bitter" |
| punāk ${ }^{\text {a }}$ | $p \bar{v}^{\prime} a s^{\varepsilon}$ | pu'à- | "female" (human) |
| ňyá'an ${ }^{\text {a }}$ | nyá'as ${ }^{\text {a }}$ | n̆yā'aŋ- | "female" (animal) |
|  | ňyā'amís ${ }^{\varepsilon}$ |  |  |
| $\check{n y}$ ¢̀̇sín ${ }^{\text {a }}$ | n̆yèensís ${ }^{\text {® }}$ | n̆yèesín- | "self-confident" |

and similarly vèňllí $\eta^{\text {a }}$ "beautiful" mālısín $\eta^{\text {a }}$ "pleasant" lāllí $\eta^{\text {a }}$ "distant."
$b i ̣ 1{ }^{\mathrm{a}}$
bị̀bıs ${ }^{\varepsilon}$
bịl- or bị̀-
"little"

The sg flexion -la is found more widely in other Western Oti-Volta languages, where it has a diminutive sense: thus Farefare níllá "chick", pì̀là "lamb", bùdíblá "boy", púglá "girl", kíílá "young guinea fowl"; Mooré bìríblá "boy", bìpúglá "girl", bùllá "kid." The plural stem bib- is reduplicated.

## 7 Verb flexion

Though written solid with the verb in traditional orthography, discontinuouspast $n^{\varepsilon} 16.3 .2$ and the 2 pl subject ya 18.3 are not flexions but bound liaison words.

### 7.1 Dual-aspect

Some $90 \%$ of verbs are dynamic 16.2 dual-aspect verbs, using the stem form for perfective aspect and adding -da for imperfective. Synchronically, -da is simply a flexion, but historically this probably represents thoroughgoing levelling of a formation with a derivational suffix $* d$ preceding the same imperfective flexion $-a$ as appears in single-aspect verbs. A suffix -ma marks imperative mood whenever the verb carries the independency-marking tone overlay 16.6.2.

Perfective, imperfective and -ma imperative are cited in order.
Straightforward examples include:

| $k \bar{v}$ | $k \bar{u} v d^{\text {a/ }}$ | kùvm ${ }^{\text {a }}$ | "kill" |
| :---: | :---: | :---: | :---: |
| $k p \varepsilon ̇ \check{n}^{\prime}$ | $k p \varepsilon ̇ n ̆ ' \varepsilon d^{\text {a }}$ | $k p \varepsilon ̇ n ̄ ' \varepsilon m^{\text {a }}$ | "enter" |
| kià | $k i ̣ ə d^{\text {a }}$ | kịəm ${ }^{\text {a }}$ | "cut" |
| kuā | $k \bar{u} \theta d^{\text {a/ }}$ | kùөm ${ }^{\text {a }}$ | "hoe" |
| gòn̆ | gòsn̆ ${ }^{\text {a }}$ | gòon̆m ${ }^{\text {a }}$ | "hunt" |
| $d \bar{v} g^{\varepsilon}$ | dūgud ${ }^{\text {a/ }}$ | dùgom ${ }^{\text {a }}$ | "cook" |
| yùug ${ }^{\text { }}$ | yùugıd ${ }^{\text {a }}$ | yùugım ${ }^{\text {a }}$ | "delay, get late" |
| $y a ̄ d ı g^{\varepsilon /}$ | yādıgíd ${ }^{\text {a }}$ | yàdıgım ${ }^{\text {a }}$ | "scatter" |
| pīān̆ ${ }_{\text {co }}$ | pīăn̆'ad ${ }^{\text {a/ }}$ | piàn̆'am ${ }^{\text {a }}$ | "speak; praise" |
| dư'à ${ }^{\text {a }}$ | $d \grave{\prime} a^{\text {a }}$ | dò'am ${ }^{\text {a }}$ | "bear, beget" |
| $n \overline{k^{\varepsilon /}}$ | nōkíd ${ }^{\text {a }}$ | nòkım ${ }^{\text {a }}$ | "take" |
| $g a ̄ \eta^{\varepsilon /}$ | gā $\mathrm{píd}^{\text {a }}$ | gàjım ${ }^{\text {a }}$ | "choose" |
| kpàr ${ }^{\text {c }}$ | kpàrıd ${ }^{\text {a }}$ | kpàrım ${ }^{\text {a }}$ | "lock" |
| sūgvr ${ }^{\text {/ }}$ | sūgvríd ${ }^{\text {a }}$ | sùgorıma ${ }^{\text {a }}$ | "forgive" |
| bàs ${ }^{\text {c }}$ | bàsıd ${ }^{\text {a }}$ | bàsım ${ }^{\text {a }}$ | "go/send away" |
| sịgıs ${ }^{\text {/ }}$ | sịgısíd ${ }^{\text {a }}$ | sịgısım ${ }^{\text {a }}$ | "lower" |
| $k \bar{o} t^{\varepsilon /}$ | $k j ̄ t i ́ d{ }^{\text {a }}$ | kj̀tım ${ }^{\text {a }}$ | "slaughter" |

Some root-stems ending in a vowel show a $C V$ - allomorph in both imperfective and imperative, with $-t$ - for $-d-\underline{3.4}$ :

| $d i ̀$ | $d i ̀ t^{\mathrm{a}}$ | $\operatorname{dimm}^{\mathrm{a}}$ | "eat" |
| :--- | :--- | :--- | :--- |
| $\check{n} y \bar{\varepsilon}$ | $\check{n} y \bar{\varepsilon} t^{\mathrm{t}}$ | $\check{n} y \varepsilon ̀ m^{\mathrm{a}}$ | "see" |

and likewise lị̀/lù "fall", d̄̄ "go up", yị "go/come out", zò "run, fear."

Stems in - $d$ - show $-t$ - in the ipfv via $* d d \rightarrow t t:$
$b u ̀ d^{\varepsilon}$
$b u ̀ t^{a}$
bùdım ${ }^{\text {a }}$
"plant"
gàad ${ }^{\varepsilon}$
gàt ${ }^{\mathrm{a}} \underline{2.2}$
gàadıma
"pass, surpass"

Stems in l generate a cluster in the ipfv via *ld $\rightarrow n n \underline{3.5}$

| $v \bar{v} l^{\varepsilon}$ | $v \bar{u} n^{\text {na/ }}$ | vòlım ${ }^{\text {a }}$ | "swallow" |
| :---: | :---: | :---: | :---: |
| màal ${ }^{\text {e }}$ | màan ${ }^{\text {na }}$ | màalım ${ }^{\text {a }}$ | "make; sacrifice" |
| $d \overline{\mathrm{l}} \mathrm{gl} \mathrm{l}^{\text {/ }}$ | dìgínna | dìgılım ${ }^{\text {a }}$ | "lay down" |

Only 2 -mora $b$-stems assimilate $* b m \rightarrow m m$ :

| $l{ }^{\text {l }}{ }^{\text {b }}$ | $l$ lèbı ${ }^{\text {a }}$ | lèm ${ }^{\text {ma }}$ | "return" |
| :---: | :---: | :---: | :---: |
| sōb ${ }^{\text {c }}$ | sōbı $d^{\text {a/ }}$ | sòm ${ }^{\text {ma }}$ | "write" |
| $l i ̀ ̀ b^{\varepsilon}$ | lị̀b ${ }^{\text {a }}{ }^{\text {a }}$ | lịəbım ${ }^{\text {a }}$ | "become" |
| $\bar{\varepsilon} \varepsilon \underline{n} b^{\varepsilon /}$ | $\bar{\varepsilon} \varepsilon n ̆ b i ́ d{ }^{\text {a }}$ | غ̀\&n̆bım ${ }^{\text {a }}$ | "lay a foundation" |

Only 2-mora $n$-stems show *nd $\rightarrow n n$; only $k \bar{\varepsilon} \eta^{\varepsilon /}$ (below) shows $* n m \rightarrow m$ :

| bùn ${ }^{\text { }}$ | bùn ${ }^{\text {na }}$ | bùnım ${ }^{\text {a }}$ | "reap" |
| :---: | :---: | :---: | :---: |
| mōn ${ }^{\text {¢ }}$ | $m o ̄ n{ }^{\text {na/ }}$ | mònım ${ }^{\text {a }}$ | "make porridge" |
| gò'on ${ }^{\text {c }}$ | gò'onıd ${ }^{\text {a }}$ | gò'onım ${ }^{\text {a }}$ | "extend neck" |
| dìgın ${ }^{\varepsilon}$ | dìgınıd ${ }^{\text {a }}$ | dìgınıma | "lie down" |

The nn-stem $\operatorname{sùn}^{\varepsilon}$ does not assimilate at all:
sùn ${ }^{\text {ne }} \quad$ sùnnıd ${ }^{\mathrm{a}} \quad$ sùnnım ${ }^{\mathrm{a}} \quad$ "bow head"

4-mora $m$-stems always assimilate $* m d \rightarrow m n, m m$, while 3 -mora $m$-stems assimilate optionally; 2-mora stems regularly assimilate, but the NT/KB sometimes have unassimilated forms to avoid ambiguity 3.5.

| sịilım ${ }^{\text {m }}$ | sịilım ${ }^{\text {ma }}$ | sṭilım ${ }^{\text {ma }}$ | "quote proverbs" |
| :---: | :---: | :---: | :---: |
| lā⿹ím ${ }^{\text {m }}$ | lā ím $^{\text {ma }}$ | làyım ${ }^{\text {ma }}$ | "wander searching" |
| kàrım $^{\text {m }}$ | kàrım ${ }^{\mathrm{m}}$ /kàrımıd ${ }^{\text {a }}$ | kàrım ${ }^{\text {ma }}$ | "read" |
| tōom ${ }^{\text {m/ }}$ | tóom ${ }^{\text {ma/ }}$ ¢ōomíd ${ }^{\text {a }}$ | tòom ${ }^{\text {ma }}$ | "depart" |
| tòm ${ }^{\mathrm{m}}$ | tòm ${ }^{\text {ma }}$ | tòm ${ }^{\text {ma }}$ | "work" |

Like tùm ${ }^{\mathrm{m}}$ are wùm ${ }^{\mathrm{m}}$ "hear", kı̀m ${ }^{\mathrm{m}}$ "tend a flock or herd", dùm ${ }^{\mathrm{m}}$ "bite."

Stems in -mm- only assimilate in the imperative:

$$
\text { tàm }^{\mathrm{m}} \quad \text { tàmmıd }^{\mathrm{a}} \quad \text { tàm }^{\mathrm{ma}} \quad \text { "forget" }
$$

Like tàm ${ }^{\mathrm{m}}$ are $z a ̀ m^{\mathrm{m}}$ "cheat, betray", dàm ${ }^{\mathrm{m}}$ "shake", lèm ${ }^{\mathrm{m}}$ "sip, taste"; the cognate Mooré verbs have -mb-: zãmbe "cheat", rãmbe "stir", lèmbe "taste".

Fusion verbs show deleted ${ }^{*} g$ after aa іә иө $a a n ̆ ~ \varepsilon \varepsilon \check{n ~}$ ээй 3.7. *G-deletion appears only in the perfective and gerund; elsewhere $* g$ is absent, not deleted (for the tonal implications see 3.8.2.) For the perfective forms before liaison see see 4.2.

| fāen̆ ${ }^{\prime}$ | fāan̆d ${ }^{\text {a/ }}$ | fàan̆m ${ }^{\text {a }}$ | "save" |
| :---: | :---: | :---: | :---: |
| dị'el | $d \bar{l}{ }^{\text {' }} \cdot d^{\mathrm{a} /}$ | dị'əm ${ }^{\text {a }}$ | "get, receive" |
| dūe ${ }^{\text {d }}$ | $d \bar{u} \theta d^{\text {a/ }}$ | dùөm ${ }^{\text {a }}$ | "rise, raise" |
| pūn̆'el | $p u ̄ \breve{n}^{\prime} \theta d^{\text {a/ }}$ | pùn̆'өm ${ }^{\text {a }}$ | "rot" WK |

Irregular dual-aspect verbs are few. Only two are irregular in the actual flexional suffixes taken:

| $k \bar{\varepsilon}$ | $k \bar{\varepsilon} t^{\mathrm{a} /}$ | $k \dot{\varepsilon} l^{\mathrm{a}}$ | "let, allow" |
| :--- | :--- | :--- | :--- |
| $k \bar{\varepsilon} \bar{n}$ | $k \bar{\varepsilon} n^{\mathrm{a} /}$ | $k \varepsilon ̀ m^{\mathrm{a}}$ | "come" |

All others show a derivational suffix in the perfective which is dropped in the imperfective. This suggests a survival of older patterns: outside the Western group, Oti-Volta languages often drop perfective suffixes when forming imperfectives. Nawdm has a regular conjugation which drops pfv $g$ in the ipfv, e.g jehlg pfv "poser verticalement", jefila ipfv.

| $w i ̣ k^{\varepsilon}$ | wịid ${ }^{\text {a }} 3.4$ | wịkım ${ }^{\text {a }}$ | "fetch water" |
| :---: | :---: | :---: | :---: |
| īăn̆ ${ }^{\varepsilon /}$ | iān̆'ad ${ }^{\text {a/ }}$ | iàn̆kım ${ }^{\text {a }}$ | "leap, fly" |
| gịlı $g^{\varepsilon /}$ | gịn ${ }^{\text {na/ }}$ | gịlıgım ${ }^{\text {a }}$ | "go around" |
| $k \bar{\varepsilon} \eta^{\varepsilon /}$ | $k \bar{\varepsilon} n^{\text {na/ }}$ | kèm ${ }^{\text {a }}$ | "go" |
| $y \grave{c} l^{\varepsilon}$ | $y \varepsilon t^{\text {a }}$ | yèlım ${ }^{\text {a }}$ | "say" |
| $g \overline{o ̄} s^{\varepsilon}$ | $g \overline{o ̄ s ı d}{ }^{\text {a/ }}$ | gòsım ${ }^{\text {a }}$ | "look" |
|  | or $g \bar{\partial} t^{\mathrm{a} /}$ | gòm ${ }^{\text {a }}$ |  |
| $t{ }_{\text {l }}{ }^{\varepsilon}$ | tissd ${ }^{\text {a }}$ | tisım ${ }^{\text {a }}$ | "give" |
|  | or tit ${ }^{\text {a }}$ |  |  |

A perfective tì may appear before bound object pronouns, e.g. tì f "give you."

### 7.2 Single-aspect

The remaining $10 \%$ of verbs are single-aspect, with just one finite form, which is always imperfective. Each single-aspect verb is either dynamic, behaving like the imperfective of a dual-aspect verb, or stative 16.2; transitive stative verbs typically express relationships, while intransitives have predicative adjectival meanings.

Morphologically, there are three major groups of single-aspect verbs; the morphological division correlates only to a limited extent with meaning.

Six stative single-aspect verbs consist of bare stems alone:

|  | "know" | $z i \bar{\prime}$ | "not know" |
| :---: | :---: | :---: | :---: |
| $b \varepsilon ̇$ | "be somewhere, exist" | kā'e | "not be" ( $\leftarrow$ *kagı) |
| tūn̆'e | "be able" 19.1 | nว̀ท ${ }^{\text { }}$ | "love" |

Uniquely among single-aspect verbs, nò $\eta^{\varepsilon}$ has a ma-imperative nòjımáa used when the verb word carries the tone overlay of independency marking. Unlike perfectives, these forms are never followed by particle yā 16.6.2. The Pattern A verbs $b \grave{\varepsilon}$ and $n \grave{\eta} \eta^{\varepsilon}$ have M tone before liaison-word pronouns and are followed by M spreading even when not subject to the tone overlay of independency marking 4.4.3.

|  | M̀ nóp. | "I love him." (e.g. in reply to a question) |
| :---: | :---: | :---: |
| not | *M̀ nóp yā | specifically stated to be impossible by WK |

Mit ka Zugsob tumtum a one noy zaba.
Mịt kà Zūg-sób tóm-tōm á ónì nòn zábāa=ø.
NEG.LET.IMP and head-NULL.AN work-worker:SG COP REL.AN love conflict:PL=NEG.
"Let not a servant of the Lord be someone who loves fights." (2 Tim 2:24, 1996)

Kà ò nónī $f . \quad$ "And she loves you."

The agent noun nı̀yıd ${ }^{\mathrm{a}}$ has Pattern L instead of the expected A :

Ò nòjıd kā'e. "There's nobody who loves him." WK

The majority of single-aspect verbs have the suffix *-ya. Nawdm has many imperfective-only verbs of parallel structure, like jehra ipfv "être debout" = Kusaal $z i!' e{ }^{\text {ya }}$, where Nawdm $r$ and Kusaal $y$ both represent Proto-Oti-Volta *r. With only one aspect, these verbs have not undergone the extensive levelling which has made dualaspect -da into a unitary flexion. In particular, when $*_{y}$ has assimilated to a preceding root-final consonant, resulting in $n n \mathrm{~mm} \mathrm{ll}$ or $r(r)$, the cluster is carried over into deverbal nominals, or introduced by analogy into cognate adjectives even when the
adjectives are primary. The cluster $n n$ then behaves exactly like $n n$ derived from *nd, but $l l r(r)$ are subject to further assimilation just like single $l r$ 3.5. Dynamic verbs with unassimilated $y$ mostly express stances:

| $\underline{1 g_{1} \mathrm{ya}}{ }^{\text {a }}$ | "be kneeling" | dī $\mathrm{g}_{\text {ı }} \mathrm{ya} /$ | "be lying down" |
| :---: | :---: | :---: | :---: |
| $v a ̄ b^{\text {ya/ }}$ | "be prone" | làbı ${ }^{\text {ya }}$ | "crouch in hiding" |
| tàbı ${ }^{\text {ya }}$ | "be stuck to" | $z i!{ }^{\prime} \mathrm{e}^{\text {ya }}$ | "be standing still" |
| zịn̆'i ${ }^{\text {ya }}$ | "be sitting" | tị̀ $i^{\mathrm{ya} /}$ | "be leaning (object)" |
| gō'e ${ }^{\text {ya/ }}$ WK | "have neck extended" | wà'e ${ }^{\text {ya }}$ | "travel to" |

Statives include transitive and intransitive types:

| àeñ ${ }^{\text {a }}$ | "be something/somehow" |  |  |
| :---: | :---: | :---: | :---: |
| $s$ su' $^{\text {ya/ }}$ | "own" | sōn̆'e ${ }^{\text {ya/ }}$ | "be better than" |
| tōe ${ }^{\text {a/ }}$ | "be bitter" | $v \bar{v} e^{\text {a/ }}$ | "be alive" |

Stance verbs with unassimilated $y$ have derived inchoative and causative dualaspect verbs in $n$ and $l$ 9.1.1. They make perfective gerunds, and have agent nouns, deverbal adjectives and instrument nouns with the formant $d$ like dual-aspect verbs. Some informants inflect these verbs with the ipfv suffix -da to express habitual meaning; others use the ipfv of the derived assume-stance verb instead:

|  | Òz zịn̆'i nes. | "She's sitting down." WK KT |
| :---: | :---: | :---: |
|  | Ò pū z!̣̆n̆'idā. | "She doesn't sit down" WK |
| but | Ò pū zịñ'inìdā. | "She doesn't sit down." KT |
|  | Ò và ${ }^{\text {a }}$ ¢ $n \bar{\varepsilon}$. | "He's lying prone." |
|  | Ò pū vābıdá. | "He doesn't lie prone." WK |
| but | Ò pū vábını̀dā. | "He doesn't lie prone." KT |
|  | Ò dìgı $n \bar{\varepsilon}$. | "She's lying down." |
|  | Ò pū dìgıdá. | "She doesn't lie down" WK |
|  | Lì zị'ə $n \bar{\varepsilon}$. | "It's standing up." |
|  | Lì pūzị'ədā. | "It (a defective tripod) doesn't stand up." WK |
|  | Lì tị̀' $n \bar{\varepsilon}$. | "It's leaning against something." |
|  | Lì tịlid. | "It can be leant against something." WK |
|  | Lì pū tị ìió. | "It's not leaning against something." |
|  | Lì pū tị 'idá. | "It's not for leaning against something." WK |

Dynamic single-aspect verbs in $n n m m p r(r)$ include stance verbs and others:

| $s i ̣ n n{ }^{\text {na/ }}$ | "be silent" | $d \bar{\varepsilon} l^{\text {la/ }}$ |  | "be leaning (person)" |
| :---: | :---: | :---: | :---: | :---: |
| gùl ${ }^{\text {la }}$ | "be hanging" | $g o ̄ l^{\text {la/ }}$ | KT | "have neck extended |
| dōıla/ | "accompany" | $z a ̄ n ̄ l^{\text {la/ }}$ |  | "carry in one's hands" |
| $g u \bar{r}{ }^{\text {a/ }}$ | "guard" | $t \overline{\text { chn }} r^{\text {a }}$ |  | "remember" |
| sùr ${ }^{\text {a }}$ | "have head bowed" | $g o ̄ r^{\text {a/ }}$ | DK | "have neck extended" |

They make imperfective gerunds; in these and in agent nouns, deverbal adjectives and instrument nouns, the stem is in $n n m m l l r(r)$ and $d$ is omitted. Similarly, they do not have distinct continuous, habitual or inchoative forms.

Stative verbs in $n n m m l l(r)$ again include transitive and intransitive types:

| $n \bar{\varepsilon} n^{\text {na/ }}$ | "envy" | $v \varepsilon ̇ n^{\text {na }}$ | "be beautiful" |
| :---: | :---: | :---: | :---: |
| $w \bar{\varepsilon} n^{\text {na/ }}$ | "resemble" | kpị' $ә m^{\text {ma/ }}$ | "be strong" |
| $k p \bar{\varepsilon} \varepsilon \bar{n} m^{\mathrm{ma}}$ | "be older than" | zùlım ${ }^{\text {ma }}$ | "be deep" |
| sùm ${ }^{\text {ma }}$ | "be good" | $g \underline{i n ~ m ~}^{\mathrm{ma}}$ | "be short" |
| yàlım ${ }^{\text {ma }}$ | "be wide" | $z \bar{\varepsilon} m^{\mathrm{ma}}$ | "be equal to" |
| tàdım ${ }^{\text {ma }}$ | "be weak" | $w a ̄^{\prime} a m^{\text {ma/ }}$ | "be long, tall" |
| vèñl ${ }^{\text {la }}$ | "be beautiful" | lāl ${ }^{\text {la/ }}$ | "be far from" |
| $t \bar{l}{ }^{\text {la/ }}$ | "be hot" | $m \overline{o r}{ }^{\text {a/ }}$ | "have" |
| tār ${ }^{\text {a/ }}$ | "have" | dùr ${ }^{\text {a }}$ | "be many" |
| kàr ${ }^{\text {a }}$ | "be few" | $n \bar{a} r^{\text {a/ }}$ | "be necessary" |
| $p$ p̀n̆ ${ }^{\text {a }}$ | "be near to" |  |  |

$M$-stems show single $m$ in most sources after after epenthetic vowels and long root vowels 3.5 .

A number of stative verbs end in -sa:

|  | "be sour" | $b u \bar{u} v s^{\text {a/ }}$ | "be soft" |
| :---: | :---: | :---: | :---: |
| mā'as ${ }^{\text {a/ }}$ | "be cool" | $t \bar{\varepsilon} b i s^{\text {a/ }}$ | "be heavy" |
| mālıs ${ }^{\text {a/ }}$ | "be sweet" | lābıs ${ }^{\text {a/ }}$ | "be wide" |
| $\check{n y c ̀ e s s ~}{ }^{\text {a }}$ | "be self-confident" | $k i c^{\text {a/ }}$ | "hate" |

The $s$ of these forms is a derivational suffix producing stative forms.
There is one intransitive stative verb in -da: pòod ${ }^{\mathrm{a}}$ "be few, small."
Some dual-aspect-verb imperfective forms have become independent stative verbs, e.g. bòod ${ }^{\mathrm{a}}$ "want, like" (bj̀ "seek"), zòt ${ }^{\mathrm{a}}$ "fear" (zò "run.")

## 8 Stem conversion

### 8.1 Nouns from verbs

### 8.1.1 Perfective gerunds

Almost all verbs other than intransitive statives can form a gerund, a derived abstract noun which expresses the process, event or state described by the verb.

Gerunds from dual-aspect and many dynamic single-aspect verbs are formed by adding noun class suffixes to the verb stem. For gerund Tone Patterns see 3.8.4.

Gerunds may be used as abstract count nouns describing particular instances of the activity of the verb, and may then have plurals $\underline{12.2}$.

Dual-aspect verbs form gerunds by adding the following class suffixes to the stem. 3-mora stems ending in underlying $* g$ replace the $-g o$ suffix with $-r \varepsilon$.

2-mora stems
3-mora stems in *g
[surface $-g^{\varepsilon}-k^{\varepsilon}-\eta^{\varepsilon}-a e$-ie -ue]
all others

| $k \bar{v}$ | "kill" | $k \bar{v} b^{/ 1}$ |
| :---: | :---: | :---: |
| $d \bar{v} g^{\varepsilon}$ | "cook" | $d \bar{v} g b^{3 /}$ |
| dư'à ${ }^{\text {a }}$ | "bear, beget" | $d \bar{v}^{\prime} a b$ |
| kàd ${ }^{\text {c }}$ | "drive away" | $k a ̄ d ı b^{3}$ |
| $p i ̣ 1{ }^{\varepsilon}$ | "cover" | $p i ̣ l ı b^{\circ}$ |
| kpàr ${ }^{\varepsilon}$ | "lock" | $k p a ̄ r ı b^{3}$ |
| bàs ${ }^{\text {c }}$ | "abandon, go away" | $b a ̄ s ı b^{\circ}$ |
| sōb ${ }^{\text {c }}$ | "write" | sōp ${ }^{\text {/ }}$ |
| $1 \overline{5} b^{\varepsilon}$ | "throw stones at" | lop ${ }^{\text {a/ }}$ |
| kim ${ }^{\mathrm{m}}$ | "tend a flock/herd" | $k i ̄ m{ }^{\text {mo }}$ |
| wòm ${ }^{\text {m }}$ | "hear" | $w \bar{u} m^{\text {mo }}$ |

2-mora $n$-stems do not assimilate $* n b \rightarrow m m$ : bùn ${ }^{\varepsilon}$ "reap", gerund būnıb ${ }^{\top}$.

| yùug ${ }^{\varepsilon}$ | "delay" | yùugvr ${ }^{\varepsilon}$ |
| :---: | :---: | :---: |
| $n \overline{k^{\varepsilon /}}$ | "take" | nōkír ${ }^{\text { }}$ |
| $n i ̣ \eta^{\varepsilon}$ | "doing" | nịnır ${ }^{\text {c }}$ |
| $g b a ̄ n{ }^{\prime} e^{\prime}$ | "grab" | $g b a ́ n ̆ ' a r^{\varepsilon}$ |
| dị'el | "get" | dị̂'ər ${ }^{\varepsilon}$ |
| dūe ${ }^{\prime}$ | "rise" | dúөr ${ }^{\varepsilon}$ |


| gàad ${ }^{\varepsilon}$ | "(sur)pass" | gàadvg ${ }^{\text { }}$ |
| :---: | :---: | :---: |
| lịəb ${ }^{\text {c }}$ | "become" | lị̀ ${ }^{\text {b }}$, ${ }^{\text {a }}$ |
| $d \overline{\mathrm{l}} \mathrm{gl} \mathrm{l}^{\varepsilon /}$ | "lay down" | dìgılúgo |
| yāar ${ }^{\text {¢/ }}$ | "scatter" | yāarúg ${ }^{\text {º }}$ |
| sịgls ${ }^{\text {/ }}$ | "lower" | sịgısúg ${ }^{\text {a }}$ |
| dàm ${ }^{\text {m }}$ | "shake" | dàmmug |

3-mora $n$-stems never assimilate $* n g \rightarrow \eta \eta:$

| dìgın | "lie down" | dìgınvg |
| :--- | :--- | :--- |
| zịn̆'in | "sit down" | zịn̆'invg |

3-mora $m$-stems assimilate $* m g \rightarrow \eta \eta$ optionally:

| tōom ${ }^{\text {m/ }}$ | "depart, disappear" | tóo ${ }^{\circ}$ | or tōomúg ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: |
| sàn̆'am ${ }^{\text {m }}$ | "destroy" | sàn̆'v $\eta^{\circ}$ | or sàn̆'amvg ${ }^{\text {a }}$ |
| kàrım $^{\text {m }}$ | "read" | kàrop ${ }^{\text {a }}$ | or kàrımug ${ }^{\text {a }}$ |

4-mora stems in -sım -lım follow the rule and use -go (always assimilating), but stems in ${ }^{*}$-gım drop the -m- and use -r $\varepsilon$ :

| sịilım ${ }^{\text {m }}$ | "cite proverbs" | sịilv́n ${ }^{\circ}$ |
| :---: | :---: | :---: |
| zàan̆sım ${ }^{\text {m }}$ | "dream" | zàan̆són ${ }^{\text {a }}$ |
| wànım ${ }^{\text {m }}$ | "waste away" | wàmır ${ }^{\text {c }}$ |
| lā⿹ím ${ }^{\text {m }}$ | "wander" | lāpír ${ }^{\text {c }}$ |
| $z a ̀ k ı m^{\text {m }}$ | "itch" | $z a ̀ k ı r^{\varepsilon}$ |

2-mora stems regularly use -r $\varepsilon$ instead of -bo in compounds:

| $p \underline{c}^{\prime}{ }^{\text {a }}$-dīı$ı r^{\varepsilon}$ | "marriage" | $n i ̣ n-k \hat{v} v r^{\varepsilon}$ | "murder" |
| :---: | :---: | :---: | :---: |
| dā-nûur ${ }^{\text {d }}$ | "beer-drinking" | $m \grave{-p i ̣ ~}{ }^{1 \varepsilon}$ | "grass roof" |
| $f u ̄-y \varepsilon ̂ \varepsilon r^{\varepsilon}$ | "shirt-wearing" WK |  |  |

Irregular gerunds are rare with stems of three or four morae. A few are formally plural 12.2 , and yịiis $s^{\varepsilon /}$ "make go/come out" has yịisíb ${ }^{\text {. }}$. Most irregular 2-mora stem verbs have regular gerunds, e.g. tìs ${ }^{\varepsilon}$ "give" $\rightarrow t \bar{i} s ı b^{J}, k \bar{\varepsilon}$ "let" $\rightarrow k \bar{\varepsilon} \varepsilon b^{\nu /}$, gù $l^{\varepsilon}$ "suspend" $\rightarrow$ gōlıb ${ }^{3}$. However, almost 20\% of 2-mora-stem verbs in KED use suffixes other than bo; many of these have stems ending in $m$ or $b$. Most irregular gerunds are tonally regular, but forms with -go from Pattern A verbs are Pattern L unless variants with $g a$ or $s \varepsilon$ show that the word is $g a \mid s \varepsilon$ with LF remodelling 5.3.2.

| lị | "fall" |  |
| :---: | :---: | :---: |
| $z \overline{1}$ | "carry on head" | $z i ̣ i d^{\varepsilon /}$ |
| bèn̆ ${ }^{\prime}$ | "fall ill" | $b \bar{\varepsilon} \breve{n}^{\prime} \varepsilon s^{\varepsilon}$ |
| $k \bar{\varepsilon} n ̆$ | "come" | $k \bar{\varepsilon} n^{\mathrm{n} /}$ |
| zò | "run" | $z u \bar{a}$ also $z \overline{\text { ōog }}$ |
| $v u \overline{ }$ | "make noise" | $v u ̄ u g^{\text {/ }}$ |
| pi̇ā̆n̆'a | "speak" | pi̇àuň ${ }^{\text { }}$ |
| $b u ̀ d{ }^{\text {b }}$ | "plant" | $b \bar{u} d ı g^{\text {a }}$ also būdvg ${ }^{\text {a }}$ |
| $y \grave{c} l^{\varepsilon}$ | "say, tell" | yčlvg ${ }^{\text {a }}$ (cf Mooré yèele) |
| $k u \bar{l}{ }^{\varepsilon}$ | "go home" | kūlıg ${ }^{\text {a/ }}$ also kūlvg ${ }^{\text {/ }}$ |
| tàns ${ }^{\varepsilon}$ | "shout" | tàňsvg ${ }^{\text {a }}$ |
| sōn̆s ${ }^{\varepsilon}$ | "converse" | són̆sì ${ }^{\text {a }}$ |
| $g \bar{\partial} s^{\varepsilon}$ | "look" | gósì ${ }^{\text {a }}$ |
| sòs ${ }^{\varepsilon}$ | "pray, beg" | sōsıg ${ }^{\text {a }}$ |
| $k i ̣ r^{\varepsilon}$ | "hurry" | kikilirù ${ }^{\text {a }}$ or kịlrı ${ }^{\text {/ }}$ |
| $l \dot{\varepsilon} b^{\varepsilon}$ | "return" | $l \bar{\varepsilon} b ı g^{\text {a }}$ |
| $t \overline{\text { b }}{ }^{\varepsilon}$ | "carry in both hands" | $t \bar{\varepsilon} b ı g^{\text {a }}$ |
| kàn̆ ${ }^{\varepsilon}$ | "scorch" | $k a ̄ n ̆ b i r^{\varepsilon}$ |
| う̀n̆ ${ }^{\text {¢ }}$ | "chew" | $\overline{\text { 万n̆ }}$ ¢ $r^{\varepsilon}$ |
| $l u b^{\varepsilon}$ | "buck" | $l u ̄ b r^{\text {/ }}$ |
| zàb ${ }^{\text {c }}$ | "fight" | zàbır ${ }^{\text {c }}$ |
| $t \varepsilon ̀ n b^{\varepsilon}$ | "tremble" | $t \varepsilon ̇ n ̆ b v g^{\circ}$ |
| tòm ${ }^{\text {m }}$ | "work" | tūvma |
| tòm ${ }^{\mathrm{m}}$ | "send" | titūmıs ${ }^{\varepsilon}$ |
| wòm $^{\text {m }}$ | "hear" | $w \bar{v} \mathrm{~m}^{\mathrm{m}}$ or wùmmvg${ }^{\text {a }} 9.2$ |

Dynamic single-aspect verbs in -ya where the $y$ is not assimilated form perfective gerunds from the root using various noun classes:

|  | "be sitting" | $z \grave{l ̣ n ̆ ' i g ~}{ }^{\text {a }}$ also "place", regular ga\|se class |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $z i ̣ ' e^{\text {ya }}$ | "be standing" | $z i ̣ ' a$ | KED | $z]^{-1} \partial g^{\text {a }}$ | irreg |
| dī $\mathrm{g}_{1} \mathrm{ya} /$ | "be lying" | dīk ${ }^{\text {a/ }}$ | KT | dīgırı | WK |
| ịgı ${ }^{\text {ya/ }}$ | "be kneeling" | $\stackrel{1}{1} \mathrm{k}^{\mathrm{a} /}$ | KT | ị $g r^{\varepsilon /}$ | WK |
| vābı${ }^{\text {ya/ }}$ | "be lying prone" | $v a \bar{p}{ }^{\text {a/ }}$ | KT | $v a ̄ b r^{\text {c/ }}$ | WK |
| tị' ${ }^{\text {ya/ }}$ | "be leaning" | tī̀ib ${ }^{\text {/ }}$ | (of an | object) |  |

Gùlla "be hanging" uses $g \bar{l} l ı b^{\text { }}$, from the cognate dual-aspect verb $g \grave{v} l^{\varepsilon}$, and the stative pòn̆r $r^{\text {a }}$ "be near" has $p \overline{\jmath ̄ n ̆ r ı b}{ }^{3}$, probably from an otherwise unused dual-aspect *pòn̆ $d^{\varepsilon}$ with $r$ for $d$ by analogy. Stative kịs $s^{\mathrm{a} / ~ " h a t e " ~ h a s ~ t h e ~ g e r u n d ~ k i ́ s u ̀ ~} g^{0}$.

Other single-aspect verbs have imperfective gerunds 9.2.1.4.

### 8.1.2 Concrete nouns

When there is a perfective gerund with regular noun class membership, other nouns with the same stem but different class suffixes have concrete senses, such as the product of the action, instrument used, or place at which the action occurs.

| $\bar{\varepsilon} \varepsilon$ ňbír ${ }^{\text {c }}$ | "(physical) foundation" | $\bar{\varepsilon} \varepsilon \frac{10 ̆ b u ́ g}{}$ | "laying a foundation" |
| :---: | :---: | :---: | :---: |
| $d \bar{u} k^{3 /}$ | "cooking pot" | dūgub ${ }^{\text {/ }}$ | "cooking" |
| dà'a | "market" | $d a{ }^{\prime} a^{\text {b }}$ | "buying" |
| $k \bar{v} k^{\text {a }}$ | "chair" | $k \bar{v} g b^{\text {a }}$ | "resting on something" |
| $z u \bar{g}-k \bar{v} g v r^{\varepsilon}$ | "pillow" |  |  |
| suãk ${ }^{\text {a/ }}$ | "hiding place" | $s \bar{u}^{\prime} a b^{\text {/ }}$ | "hiding" |
| sōbır ${ }^{\text {c/ }}$ | "piece of writing" | sōp ${ }^{\text {/ }}$ | "writing, orthography" |
| kūt ${ }^{\text {c }}$ | "iron, nail" | $k u ̄ d v b^{\circ}$ | "working iron" |
| kùosım ${ }^{\text {m }}$ | "merchandise" | kùosvg ${ }^{\text {a }}$ | "selling" |
| pèbısım ${ }^{\text {m }}$ | "wind" | pèbısug ${ }^{\text {a }}$ | "blowing of the wind; wind" |

Vābır $r^{\varepsilon /} \operatorname{la} b r^{\varepsilon /} d \bar{i} g ı r^{\varepsilon /} \frac{1}{l} g ı r^{\varepsilon /}$, used by WK as gerunds, are used by KT as concrete nouns meaning "place for lying prone" etc, contrasting with the gerunds vāp ${ }^{5 /}$ etc.

From pị̀bıl ${ }^{\varepsilon}$ "cover", zàn̆bıl ${ }^{\varepsilon}$ "tattoo", màal ${ }^{\varepsilon}$ "sacrifice" are derived

| pībın $n^{\mathrm{n} \varepsilon}$ | pībına | pị̀bın- | "covering" |
| :--- | :--- | :--- | :--- |
| zān̆bın $\mathrm{n} \varepsilon$ | zān̆bına | zàn̆bın- | "tattoo" (NT "sign") |
| māan ${ }^{\mathrm{n} \varepsilon}$ | māana | màan- | "sacrifice" |

The -n- in these words is simplified from *nn 3.5. Toende and Mooré have Pattern L instead of A: zãbín, màan. The *nn may represent *ld, with *d in instrument-noun sense: cf tūedır ${ }^{\varepsilon}$ "mortar", from tùà "grind in a mortar."

It is exceptional for regularly formed gerunds to acquire concrete meaning, but a clearcut example is $d \bar{\imath} \imath b^{3}$ "food."

### 8.2 Nominals from nominals

The partial association of noun class and meaning 5.1 can be exploited to change the meaning of a stem. Examples include the names of ethnic groups, which belong to the $a \mid b a$ or $g a \mid s \varepsilon$ classes, their languages, which belong to the -l subclass of $r \varepsilon \mid a a \underline{5.3 .4}$ and the associated place, which has the suffix -go 26.4. Another case of $\mathrm{sg}-g 0$ deriving an associated place name is wè $\varepsilon d^{\mathrm{a}}$ "hunter", wと̀og${ }^{0}$ "deep bush."

Names of trees are almost all ga|sc class, and their fruits $r \varepsilon \mid a a$ or $g o \mid d \varepsilon$ 26.5.
Note also sịiňfo/ "bee", sịinñ ${ }^{\varepsilon /}$ "honey."
The strong association of the mm class with abstracts can be used to convert adjective stems to abstract nouns. These nouns somewhat resemble gerunds, and can
be preceded by combining forms as generic arguments 12.7.1, but they cannot be used in the future construction with bòsd ${ }^{\text {a }}$ "want" 16.3.3, and unlike imperfective gerunds, which show the expected gerund Tone Patterns 3.8.4, they show the same tone pattern as the adjective. These forms sometimes also appear as manner adverbs. Examples formed from adjective stems with mm :

| $v \bar{u} \mathrm{~m}^{\mathrm{m} /}$ | "life" | sùm ${ }^{\text {m }}$ | "goodness" |
| :---: | :---: | :---: | :---: |
| pòodım ${ }^{\mathrm{m}}$ | "scarcity" | vènnım ${ }^{\text {m }}$ | "beauty" |
| vèn̆llım ${ }^{\text {m }}$ | "beauty" | būgusím ${ }^{\mathrm{m}}$ | "softness" |
| tēbısím ${ }^{\text {m }}$ | "weight" | mā'asím ${ }^{\mathrm{m}}$ | "coolness, damp" |
| bāañlím ${ }^{\text {m }}$ | "quietly" | $z a ̄ a l i ́ m{ }^{\text {m }}$ | "emptily" |
| mālısím ${ }^{\text {m }}$ | "sweetness" | lābısím ${ }^{\text {m }}$ | "width" |
| pịəlım ${ }^{\text {m }}$ | "brightness" | tītā'am ${ }^{\text {m }}$ | "multitude" |
| $k \bar{v} d ı m^{\text {m }}$ | "old times" | pāalím ${ }^{\text {m }}$ | "recently" |
| nè $\mathrm{m}^{\mathrm{m}}$ | "for free" (nè |  |  |

From n̆yè $\varepsilon s i ́ \eta$ a "self-confident" is derived n̆yè $\varepsilon s ı m{ }^{\mathrm{m}}$ "self-confidence." The suffix -go makes abstract nouns when the sg adjective form also has -go:

| lāllúg ${ }^{\text {a }}$ | "distance" | $\chi \bar{\varepsilon} m m u ́ g{ }^{\text {a }}$ | "equality" |
| :---: | :---: | :---: | :---: |
|  | "hardness, strength" | yàlvø ${ }^{\text {a }}$ | "width" |
| mị'isvg ${ }^{\text {a }}$ | "sourness" | tōog ${ }^{\text {a }}$ | "bitterness" |
| zùlv ${ }^{\text { }}$ | "depth" | tūvlúg ${ }^{\text {a }}$ or tūllím ${ }^{\text {m }}$ | "heat" |

Some stems referring to people form abstract nouns with -mm or -go:

| gbán̆yà'a | "lazy person" | $\rightarrow$ | gbán̆yà'am ${ }^{\text {m }}$ | "laziness" |
| :---: | :---: | :---: | :---: | :---: |
| dàmà'a | "liar" | $\rightarrow$ | dàmà'am ${ }^{\text {m }}$ | "lying" |
| sāan ${ }^{\text {a/ }}$ | "guest" | $\rightarrow$ | sáv ${ }^{\circ}$ | "hospitality" |
| $k p \bar{\varepsilon} \varepsilon \overline{n ̆ m}{ }^{\text {m }}$ | "elder" | $\rightarrow$ |  | "eldership" |
| sōeñ ${ }^{\text {a }}$ | "witch" | $\rightarrow$ | sว̄on̆g ${ }^{\text {a }}$ | "witchcraft" |

Cf also zù $\boldsymbol{\theta}^{\varepsilon}$ "friendship" from zùà "friend."
Several adjective stems form manner-adverbs with apocope-blocked -ga 3.2:

| sùjā' | "well; very much" | mā'asígā' | "coolly" |
| :---: | :---: | :---: | :---: |
| tūvlígā' | "hotly" | gịna | "shortly" |
| būgusígā' | "softly" | sàalínā' | "smoothly" |
| n̆yècsínā | "self-confidently" |  |  |

Cf also yịigá "firstly" 12.5.1.

## 9 Derivation by suffixes

In 3.3 all roots are stated to be $C V(V)(C)$, implying that any stem consonant not immediately following the root vowel is not part of the root, and neither is any consonant following a long root vowel unless the root shows $C V C \sim C V V C$ allomorphy.

All such stem consonants will be called "derivational suffixes." Very productive suffixing processes derive agent nouns, adjectives and instrument nouns from verbs, and several less systematic processes derive nominals from other nominals. Stem comparison can identify many suffixes deriving verbs from roots, though correlations of suffix and meaning are only partial. For Tone Patterns in derivation see 3.8.4.

Derivational suffixes are $g s n l d m$, along with $b$ and $r$ in just a handful of words; $n$ may represent historical *ld 3.5. G s $n b r$ never follow another suffix, and $l$ follows another suffix only as part of the combination $l m . D$ is very productive in the formation of deverbal nominals; it often deletes a preceding suffix or is itself deleted.

No stem has more than three derivational suffixes, or more than five morae apart from prefixes. All four-mora verb stems have $m$ as the second suffix, and all five-mora stems are formed with lm .

### 9.1 Verbs

All verb derivation is by suffixes, probably always added to roots. Clear meanings are often seen, but there is no straightforward match with form.

Possible verb shapes are very constrained. Only two, three and four-mora stems occur. All four-mora stems end in $m$, and in dual-aspect verbs CVVCm only occurs as $C V V$ root + sım or lim, never $C V V C$ root $+m$.

### 9.1.1 From verbs

-n- derives dual-aspect assume-stance verbs from stance verbs, which also have corresponding derivatives in -l for "make assume the stance"; all the -n verbs are Pattern A regardless, but the $-l$ verbs have the same Pattern as the base stance verb.

Nawdm has exactly parallel formations, e.g. jefra ipfv "être debout", jefint pfv "se mettre debout", jeflg pfv, jefla ipfv "poser verticalement".

Some stance verbs correspond instead to a simplex dual-aspect verb for "assume the stance", and $d \bar{\varepsilon} \varepsilon^{\text {la/ }}$ "be leaning" (of a person)has the idiosyncratic assume-stance derivative $d \grave{\varepsilon} l ı m^{\mathrm{m}}$. Some $-n$ and $-l$ derivatives lack a corresponding stance verb: thus "be perching" is expressed with the resultative perfective of zùe:

Nịin lā zúe n $\bar{\varepsilon}$. "The bird is perching." KT
Bird:SG ART perch FOC.

| Stance verb A |  | Assume-stance | Make-assume-stance |
| :---: | :---: | :---: | :---: |
| dīgıya/ | "be lying" | dìgın ${ }^{\text {e }}$ | $d \bar{i} g l^{\text {/ }}$ |
| $v a ̄ b ı^{\text {ya/ }}$ | "be lying prone" | vàbın ${ }^{\text { }}$ | vābılı ${ }^{\text {/ }}$ |
| ịgı ${ }^{\text {ya/ }}$ | "be kneeling" | ìgın ${ }^{\text {c }}$ | ị $\mathrm{ll}^{\text {l }}$ |
| làbı ${ }^{\text {ya }}$ | "be crouching hidden" | " làbın ${ }^{\text {c }}$ | làbıl ${ }^{\varepsilon}$ |
| $z i n \breve{n}^{\prime} i^{\text {ya }}$ | "be sitting" | zịn̆'in ${ }^{\text {c }}$ |  |
|  | "be standing" | $z i!' ə n^{\varepsilon}$ | $z i!' ə l^{\varepsilon}$ |
| tị'i $i^{\mathrm{ya} /}$ | "be leaning" (of thing) | ) $t i ̣ ' i n n^{\varepsilon}$ | tị̀ ili ${ }^{\varepsilon /}$ |
| gō'e $\mathrm{e}^{\text {a/ }}$ | "be looking up" WK | gò'on ${ }^{\text {c }}$ |  |
| sùr ${ }^{\text {a }}$ | "have bowed head" | sùn ${ }^{\text {n }}$ | sùn ${ }^{\mathrm{n} \varepsilon}$ sic |
| - | "cover oneself" | lị̀ın ${ }^{\text {¢ }}$ | lịgıl ${ }^{\text {a }}$ |
| - | "perch" (of bird) | $z u ̀ \otimes n^{\varepsilon}$ | $z u ̀ e^{\varepsilon}$ |
| - | "perch" (of bird) | yà'an ${ }^{\text {a }}$ | yà'al ${ }^{\varepsilon}$ |
| gùl ${ }^{\text {la }}$ | "be suspended" | gùl ${ }^{\text {e }}$ | gùl ${ }^{\varepsilon}$ |
| tàbı ${ }^{\text {ya }}$ | "be stuck to" | tà ${ }^{\varepsilon}$ | tàbıl ${ }^{\varepsilon}$ |

-I- derives causatives from nominals and from verbs expressing states or positions:

|  | ňyá'a ${ }^{\text {a }}$ | "behind" | n̆yā'al ${ }^{\text {// }}$ | "leave behind" |
| :---: | :---: | :---: | :---: | :---: |
|  | $g \bar{\varepsilon}{ }^{\circ} g^{\text { }}$ | "space between legs" | $g \bar{\varepsilon} \varepsilon l^{\varepsilon /}$ | "put between legs" Tones sic |
|  | $l i ̣ k{ }^{\text {a }}$ | "darkness" | lịgl ${ }^{\text {b }}$ | "cover up" |
|  | $b \overline{a ̄}{ }^{\prime}$ | "ride" | bān̄'al ${ }^{\varepsilon /}$ | "put on a horse/bicycle etc" |
|  | $g u \bar{\prime}$ | "guard" | $g u ̄{ }^{\prime} l^{\varepsilon /}$ | "set someone on guard" |
|  | $y \bar{\varepsilon}$ | "dress oneself" | $y \varepsilon ̇ \varepsilon l^{\varepsilon}$ | "dress another person" |
|  | $m a \overline{' r ~}^{\prime}$ | "get cool" | mā'al ${ }^{\text {/ }}$ | "make cool" |
|  | pūn̆'e' | "rot" | pōn̆'ol ${ }^{\text {¢/ }}$ | "cause to rot" |
|  | nịe | "appear" | nè $\varepsilon^{\text {® }}$ | "reveal" |
|  | $m a \overline{' r ~}^{\prime}$ | "get cool, wet" | $m a{ }^{\prime} a l^{\varepsilon /}$ | "make cool, wet" |
|  | $w \bar{u}^{\prime} v g^{\varepsilon /}$ | "get wet" | $w \bar{u} ' u l^{\varepsilon /}$ | "make wet" |
| ?also | $z a ̀ b^{\varepsilon}$ | "fight" | zàbıl ${ }^{\text { }}$ | "cause to fight" |
|  | $d u{ }_{\text {c }}{ }^{\text {a }}$ | "bear, beget" | dò'al ${ }^{\text { }}$ | "make interest (of a loan)" |

-s- derives causatives from dynamic verbs for the most part:

| $k p \varepsilon ̇ n ̆ ' ~$ | "enter" | $k p \varepsilon ̇ n ̆ ' \varepsilon s^{\varepsilon}$ | "make enter" |
| :---: | :---: | :---: | :---: |
| nịe | "appear" | $n \varepsilon$ ¢ $\varepsilon S^{\varepsilon}$ | "reveal" |
| $y \stackrel{1}{1}$ | "go/come out" | yịi ${ }^{\varepsilon /}$ or yị $s^{\varepsilon}$ | "make go/come out" |
| di | "eat" | $d i ̀ s{ }^{\text {c }}$ | "feed" |
| nū | "drink" | nūlıs ${ }^{\text {/ }}$ | "make drink"; also nūlıg ${ }^{\text {¢/ }}$ |
| $s i ̣ g^{\varepsilon}$ | "go down" | sịgls ${ }^{\text {/ }}$ | "lower" |


| $l \bar{c} b^{\varepsilon}$ | "return" | $l$ l̀bıs ${ }^{\text {e }}$ | "make return; answer" |
| :---: | :---: | :---: | :---: |
| $m u{ }^{\text {a }}{ }^{\text {a }}$ | "suck" (of a baby) | mò'as ${ }^{\text {e }}$ | "give to suck" |
| [Mooré tá | "arrive"] | $t a \overline{' a ~}^{\prime}{ }^{\varepsilon /}$ | "help to travel, walk" |
| $z \bar{\varepsilon} \mathrm{~m}^{\mathrm{ma}}$ | "be equal" | $z \bar{\varepsilon} m s^{\varepsilon /}$ | "make equal" |
| $k^{\text {pịì }}{ }^{\text {E }}$ | "go out (fire)" | $k p i ̣ i s{ }^{\text {® }}$ | "quench" |

-s- may have a pluractional sense:

| kò | "break" | kj̀'os ${ }^{\text {c }}$ | "break several times" |
| :---: | :---: | :---: | :---: |
| tòn̆ | "shoot" | tòn' ${ }^{\text {c }}{ }^{\varepsilon}$ | "hunt" |
| $p \grave{\partial}$ ¢ ${ }^{\text {® }}$ | "blow (flute etc)" | $p \mathrm{c}$ bis ${ }^{\text {e }}$ | "blow (wind)" |
| làbı ${ }^{\text {ya }}$ | "crouch in hiding" | làbıs ${ }^{\text {® }}$ | "walk stealthily" |
| $v \bar{u} e^{\mathrm{a} /}$ | "be alive" | $v \bar{u}^{\prime} u s^{\varepsilon /}$ | "breathe, rest" |
| $\underline{i} \bar{a} \breve{n}^{\text {k }}$ | "fly, jump" | iān̆'as ${ }^{\text {¢/ }}$ | "leap, jump repeatedly" |
| yā'e ${ }^{\prime}$ | "open mouth" | yā'as ${ }^{\text {/ }}$ | "open repeatedly" WK |
| $d \bar{l}{ }^{\text {e }}{ }^{\prime}$ | "receive" | $d \overline{1} \partial S^{\varepsilon /}$ | "receive (many things)" |
| $g u ̄{ }^{\prime}$ | "guard" | $g u ̄ ' u s^{\varepsilon /}$ | "watch out; guard (many)" |

-g-attached to dynamic roots implies reversal:

| $y$ ¢̀ | "dress oneself" | $y \varepsilon ̇ \varepsilon g^{\varepsilon}$ | "undress oneself" |
| :---: | :---: | :---: | :---: |
| $p i ̣ d^{\varepsilon}$ | "put (hat etc) on" | pịdı $\mathrm{g}^{\varepsilon}$ | "take (hat etc) off" |
| $p i ̣ l l^{\varepsilon}$ | "cover" | pịlı ${ }^{\text {¢ }}$ | "uncover" |
| 15 | "tie up" | lōdı $g^{\text {¢ }}$ | "untie" |
| yò | "close" | yò'og ${ }^{\text {e }}$ | "open" |
| غ̇n̆ ${ }^{\varepsilon}$ | "block up" | غ̀n̆dı $g^{\varepsilon}$ | "unblock" |
| yà'al ${ }^{\text {b }}$ | "hang up" | yàk ${ }^{\text {e }}$ | "unhang" |
| pà'al ${ }^{\text {e }}$ | "put on top" | pàk ${ }^{\text { }}$ | "take off top" |
| pịbul ${ }^{\varepsilon}$ | "cover up" | pịbı ${ }^{\text {e }}$ | "uncover" |
| tàbı ${ }^{\text {ya }}$ | "be stuck to" | tàbıg ${ }^{\text {c }}$ | "unstick, get unstuck" |
| là'as ${ }^{\text {e }}$ | "gather together" | $\begin{array}{r} \quad \text { lā } k^{\varepsilon /} \\ \text { cf lákè } \end{array}$ | "open" (eye, book); tone sic (Mooré) "un-stick together" |
| ?also lị̀ ${ }^{\text {b }}$ | "become" | $l{ }^{\text {l }}$ bıg ${ }^{\text {e }}$ | "turn over" |
| fān̆ | "rob, snatch" | fāen̆ ${ }^{\prime}$ | "save" ?? for "snatch back" |

fāen̆'

Reversive - $g$ - is peculiar to the Western group within Oti-Volta; elsewhere alveolar suffixes appear: Moba lōōń "close" lōōd́ "open", Byali byá "close" byērá "open", Nawdm riw pfv "close" rawdg pfv rawda ipfv "open." Proto-Bantu had -ol- and -vk-; an alveolar variant may have been lost in Western Oti-Volta because of the adoption of $-d a$ as the regular dynamic imperfective flexion.

- $g$ - also forms a few causatives:

| $d \overline{o s}{ }^{\text {la/ }}$ | "accompany" | dōlıg ${ }^{\text {g/ }}$ | "make accompany" |
| :---: | :---: | :---: | :---: |
| $g \overline{o r} r^{\text {a/ }}$ | "look up" DK | $g \bar{\partial} d ı g^{\varepsilon /}$ | "make look up" DK |
| tèn̆r ${ }^{\text {a }}$ | "remember" | tìen̆ | "bring to mind, remind" |
| yùul ${ }^{\varepsilon}$ | "swing" intransitive | yùlıg ${ }^{\varepsilon}$ | "swing" transitive |
| kò | "break" intransitive | kò'og ${ }^{\text {¢ }}$ | "break" ambitransitive |
| $n \bar{u}$ | "drink" | nūlıg ${ }^{\varepsilon /}$ | "make drink"; also nūlıs ${ }^{\text {// }}$ |

$-g$ - occurs with no clear meaning in

| sj̄n̆ | "rub" | sūen̆' | "anoint" |
| :--- | :--- | :--- | :--- |
| $n \overline{b^{\varepsilon}}$ | "get fat" | nōbıg $g^{\varepsilon /}$ | "grow" (child, plant) |
| $n \bar{a}$ | "join" | nāel | "finish"; compare |
|  |  |  | Hausa gamàa "join, finish" |

-d- appears with a pluractional sense in $k \bar{j} d ı g^{\varepsilon /}$ "slaughter one animal", $k \bar{\nu} t^{\varepsilon /}$ "slaughter several animals." This is perhaps historically connected with the *d of the ipfv suffix *-da, by way of the distinctively habitual sense seen in stance verbs 7.2.
-m- derives some preverbs 16.8:

|  | lèb ${ }^{\varepsilon}$ | "return" | lèm | "again" |
| :--- | :--- | :--- | :--- | :--- |
| cf | ${\text { là' } a s^{\varepsilon}}^{\text {ch }}$ | "gather together" | là'am | "together" |
| cf | dè $\eta^{\varepsilon}$ | "go first" | dènım | "first" |
| malig | (Toende) "do again" | màlıgım | "again" |  |

It has no obvious meaning in kòňsım ${ }^{\mathrm{m}}$ "cough" $=k \grave{n} s^{\varepsilon}$ id.
-r- appears in
$\left.\begin{array}{lll}\text { kāab }{ }^{\varepsilon /} & \text { "offer, invite" } & \begin{array}{c}k a ̄ b ı r^{\varepsilon /} \\ \text { cf } k a ́ b ı s\end{array} \\ \text { [no simplex] } & \text { sūgvr } & \text { "ask for admission" } \\ \text { Toende id }\end{array}\right]$ "forbear, be patient with"

Both words appear frequently in pan-regional set formulae $\underline{25}$ and may well be loanwords. They may be back-formations from the nouns kābırí and sūgvrv́, where $r l / r v$ possibly originated in the equivalent of $r \varepsilon \mid a a$ class singular flexions 5.1.

### 9.1.2 From nominals

### 9.1.2.1 Single aspect

Intransitive stative verbs are mostly derived from adjectives or humanreference nouns. Some transitive stative verbs are also denominal.

Many stative verbs are formed with -ya, like dynamic single-aspect verbs. Even when the adjective is primary, it may show segmental remodelling on the verbal forms with ${ }^{*} y$. $S$-stems show no sign of $*_{y}$ synchronically, and $m$-stems have lost gemination except after short root vowels for many speakers.

This *y formant differs in tonal behaviour from ${ }^{*} y$ and ${ }^{*} d$ in dynamic verbs
3.8.4. Primary nominals thus show a characteristic Tone Pattern correspondence with the verbs: Pattern L nominals correspond to Pattern A verbs but Pattern $H$ and Pattern A both correspond to Pattern H verbs. Historically, the all-M pattern of verbs corresponding to Pattern A nominals was also Pattern A, and this is still reflected in the tonemes of e.g. $k p \bar{l} \bar{i}^{\prime} \partial m^{\mathrm{ma} /}$ "be strong" $k p \bar{\varepsilon} \varepsilon n \check{m} \mathrm{~m}^{\mathrm{ma} /}$ "be older than", but the LF-final toneme is now always H; similarly, the original Pattern L type now changes to all-M in the irrealis mood just like dynamic Pattern A verbs.

L vènnıga "beautiful
vèn̆llıga "beautiful
zùlvŋ ${ }^{\text {ºn }}$ "deep"
pòsdıga "small"
mị̀'isug ${ }^{\circ}$ "sour"
sù̀ ${ }^{\circ}$ "good"
yàloŋ ${ }^{3}$ "wide"

H

| $b \bar{u} g u s i r^{\varepsilon}$ | "soft" |
| :---: | :---: |
| $v \bar{v} r^{\varepsilon /}$ | "alive" |
| mā'asír ${ }^{\text {e }}$ | "cool" |
|  | "heavy" |
| mālısír ${ }^{\text {c }}$ | "sweet" |
| lābısír ${ }^{\text {c }}$ | "wide" |
| $z \bar{\varepsilon} m m o ́ g^{\circ}$ | "equal" |
| lāllúg ${ }^{\text {a }}$ | "far" |

A $t \overline{0} \rho g^{\circ} \quad$ "bitter"
$g i ̄ \eta \eta^{\mathrm{a}} \quad$ "short"
kpī̀'oך ${ }^{\text {ºn }}$ "strong"
$k p \bar{\varepsilon} \varepsilon n ̆ m^{\mathrm{m}} \quad$ "elder"
$w \bar{\varepsilon} n n ı r^{\varepsilon} \quad$ "resembling"

| vènna | "be beautiful" |
| :--- | :--- |
| vèňlla | "be beautiful" |
| zùlım |  |


| būgus ${ }^{\text {a/ }}$ | "be soft" |
| :---: | :---: |
| $v \bar{u} e^{\text {a/ }}$ | "be alive" |
| mā'as ${ }^{\text {a/ }}$ | "be cool" |
| $t \bar{c} b ı s^{\text {a/ }}$ | "be heavy" |
| mālıs ${ }^{\text {a/ }}$ | "be sweet" |
| lābıs ${ }^{\text {a/ }}$ | "be wide" |
| $\chi \bar{\varepsilon} \mathrm{m}^{\mathrm{ma}}$ | "be equal to" |
| lāl ${ }^{\text {la/ }}$ | "be far from" |


| t̄̄e ${ }^{\text {a/ }}$ | "be bitter" |
| :---: | :---: |
| gịm ${ }^{\text {ma/ }}$ | "be short" |
| $k p i ̣ ' ə m$ ma/ | "be strong" |
| kpē $\mathrm{n}^{\text {m }}{ }^{\mathrm{ma}}$ | "be older than" |
| $w \bar{\varepsilon} n^{\text {na/ }}$ | "resemble" |

More complex stem changes occur in

| tōvlógo | "hot" | $t \bar{u} l^{\text {la/ }}$ | "be hot" |
| :---: | :---: | :---: | :---: |
| n̆yc̀esín ${ }^{\text {a }}$ | "self-confident" | $\check{n y}$ ¢̀̇ $\mathrm{s}^{\text {a }}$ | "be self-confident" |
| $w \overline{\mathrm{k}}{ }^{\text {J/ }}$ | "long, tall" | wā'am ${ }^{\text {a/ }}$ | "be long, tall" |

### 9.1.2.2 Dual aspect

-g- attached to nominal/adjectival roots has the meaning "make/become ...":

| $\check{n} y \bar{\square} ' 0 s^{\varepsilon /}$ | "smoke" | n̆yū'el | "set alight" |
| :---: | :---: | :---: | :---: |
| n̆wịig ${ }^{\text {a/ }}$ | "rope" | $\check{n ̌ w i ̣ i ~} \mathrm{~g}^{\text {g/ }}$ | "make a rope" |
| tādım ${ }^{\mathrm{m} /}$ | "weak person" | tàdı ${ }^{\text {® }}$ | "become weak" |
| kpị'a | "neighbour" | kpị'e | "approach" |
| $z \bar{u} e r^{\varepsilon}$ | "hill" | zùe | "get higher, more" |
| À-Tūl ${ }^{\text {l }}$ | "Breech-Delivered" 26.2 | tùlıg ${ }^{\text {® }}$ | "invert" |
| mā'asír ${ }^{\text {c }}$ | "cool, wet" | $m a{ }^{\prime} e^{\prime}$ | "get cool, wet" |
| $b \bar{u} g u s i r^{\varepsilon}$ | "soft" | $b \bar{u} k^{\text {ع/ }}$ | "soften" |
| $t \overline{\text { ch }}$, ír $^{\varepsilon}$ | "heavy" | $t \bar{b} b ı g^{\varepsilon /}$ | "get/make heavy" |
| $g i ̄ \eta^{\text {a }}$ | "short" | $g i ̀ \eta^{\varepsilon}$ | "scrimp" |
|  | "strong" | $k p \dot{\varepsilon}^{\prime} \eta^{\varepsilon}$ | "strengthen" |
| $v \bar{u} r^{\varepsilon /}$ | "alive" | $v \bar{u}^{\prime} v^{\varepsilon /}$ | "make/come alive" |
| pòsdıg ${ }^{\text {a }}$ | "few" | pò'og ${ }^{\text {e }}$ | "diminish, belittle" |
| pị̀lıg ${ }^{\text {a }}$ | "white" | pèlıg ${ }^{\varepsilon}$ | "whiten" |
| sābılíga | "black" | sōbıgé | "blacken" |
| nịn-múa | "concentration" | mù'e | "redden, become intense" |
| $k \bar{v} d v g{ }^{\text {a }}$ | "old" | kùdıg ${ }^{\text {E }}$ | "shrivel up, dry out, age" |
| sùj ${ }^{\text {a }}$ | "good" | sùj ${ }^{\text {c }}$ | "help" |
| tūvlúg ${ }^{\text {a }}$ | "hot" | $t \bar{l} \iota^{\text {g }}$ / | "heat up" |
| mị̀'isvg ${ }^{\text {a }}$ | "sour" | mị 'ig ${ }^{\text {¢ }}$ | "turn sour" |
| zùlv ${ }^{\text { }}$ | "deep" | $z u ̀ l ı g^{\varepsilon}$ | "deepen" |
| lāllúg ${ }^{\text {a }}$ | "far" | lālı $g^{\varepsilon /}$ | "get to be far, make far" |
| màuk ${ }^{\text {ºm }}$ | "crumpled up" | màk ${ }^{\text {® }}$ | "crumple up" |
| $d \bar{\varepsilon} \varepsilon \eta^{\text {a }}$ | "first" | $d \varepsilon \eta^{\varepsilon}$ | "precede" |
| $n \varepsilon$ ¢ $¢ r^{\varepsilon}$ | "clear, empty" | nịe | "appear" |
| sōn̆'e $e^{\text {ya/ }}$ | "be better than" | sūn̆'e ${ }^{\prime}$ | "become better than" WK |

With the addition of $-m$ as a second derivational suffix:
wàun ${ }^{\circ}$ "wasted" wàjım ${ }^{\mathrm{m}}$ "waste away"
-lım- derives verbs from noun roots, meaning "act as ..." or "make/become ...":

| pu'āa | "woman" | pù'alım ${ }^{\text {m }}$ | "cook" |
| :---: | :---: | :---: | :---: |
| pòn̆'or ${ }^{\text {c }}$ | "cripple" | pòn̆'olım ${ }^{\text {m }}$ | "cripple, get crippled" |
| gik ${ }^{\text {a }}$ | "dumb" | gìgılım ${ }^{\mathrm{m}}$ | "become dumb" |
| wàbır ${ }^{\text {e }}$ | "lame" | wàbılım $^{\text {m }}$ | "make, go lame" |
| $g \bar{v}^{\prime} v s^{\varepsilon}$ | "semi-ripe things" | gò'vlım ${ }^{\text {m }}$ | "become semi-ripe" |
| $b \bar{v} g{ }^{\text {d }}{ }^{\text {a }}$ | "client of diviner" | bògolım ${ }^{\text {m }}$ | "cast lots" |
|  |  | bùk ${ }^{\text {e }}$ | "cast lots" |

Miscellaneous denominal dual-aspect verbs formed with s $m b$ are seen in

|  | zưà | "friend" | $z u ̀ \theta s^{\varepsilon}$ | "befriend" |
| :---: | :---: | :---: | :---: | :---: |
|  | $n \bar{\varepsilon} \varepsilon r^{\varepsilon /}$ | "millstone" | $n \bar{\varepsilon} \varepsilon \mathrm{~m}^{\mathrm{m} /}$ | "grind with a millstone" |
|  | $y a \bar{\prime} a d^{\varepsilon}$ | "clay" | yà'ab ${ }^{\text {c }}$ | "mould clay" |
| cf | yàge | (Mooré) "m |  |  |

### 9.2 Nominals

### 9.2.1 From verbs

The derivational processes described below are very productive; agent noun formation in particular is almost flexional in its regularity and generality. Deverbal noun and adjective formation shows more analogical levelling than derivational processes elsewhere, in keeping with the strong tendency to regularity and transparency in verb morphology. For the Tone Patterns see 3.8.4.

### 9.2.1.1 Agent nouns

Agent nouns can be freely made from almost all verbs which can be used in direct commands. Informants readily supply isolated forms, but in practice they usually occur as second elements of compounds. All are $a \mid b a$ class, but those derived from ll- or $r(r)$-stem single-aspect verbs also show $r \varepsilon \mid a a$ forms 5.3.1. Despite their regularity of formation, agent nouns often develop specialised meanings. As with English derivatives in "-er", "agent nouns" may be created from verbs whose subject is not in fact an agent, including even stative verbs if usable in direct commands.

The formant of agent nouns and habitual adjectives is $-d$, probably historically related to the $-d$ - of the imperfective flexion $-d a$, though it has different tonal effects. Derivational - $d$ shows much less regularity in its mode of attachment than ipfv -da; agent nouns are more regular than habitual adjectives. There is a tendency to limit stem length, causing deletion of either $-d$ itself or the suffix preceding it. Absence or presence of $-d$ affects the Tone Pattern 3.8.4.

Most dual-aspect verbs have an agent noun with sg segmentally identical to the ipfv. If there are alternate forms, the less "regular" form appears as the agent noun.

| $m \grave{\varepsilon}$ | "build" | $m \bar{\varepsilon} \varepsilon d^{\text {a }}$ | "builder" |
| :---: | :---: | :---: | :---: |
| di | "eat" | $d \bar{i} t^{\text {a }}$ | "eater" |
| $g \bar{\sim} s^{\varepsilon}$ | "look" | $g \bar{t} t^{\text {a/ }}$ | "seer, prophet" |
| $d \bar{v} g^{\varepsilon}$ | "cook" | dūgud ${ }^{\text {a/ }}$ | "cook" |
| du'à ${ }^{\text {a }}$ | "bear, beget" | $d \bar{v} \cdot a d^{\text {a }}$ | "elder relation" |
| kàd ${ }^{\varepsilon}$ | "drive away" | sarịyà-kāt ${ }^{\text {a }}$ | "judge" |
| sō ${ }^{\varepsilon}$ | "write" | sōbıd ${ }^{\text {a/ }}$ | "writer" |
| bùn ${ }^{\text { }}$ | "reap" | $b u ̄{ }^{\text {na }}$ | "reaper" |
| tùm ${ }^{\mathrm{m}}$ | "work" | tùm-tūm ${ }^{\text {na }}$ | "worker" |
| $k p a ̀ r^{\varepsilon}$ | "lock" | $k p a ̄ r ı d^{\text {a }}$ | "lock-er" |
| $g b i ̣ s^{\varepsilon}$ | "sleep" | $g b i ̣ s ı d^{\text {a/ }}$ | "sleeper" |
| sià ${ }^{\text {e }}$ | "believe" | sià ${ }^{\text {a }}$ ¢ ${ }^{\text {a }}$ | "believer" |
| īănk ${ }^{\varepsilon /}$ | "jump, fly" | īăn̆'ad ${ }^{\text {a/ }}$ | "flier" |
| sù ${ }^{\varepsilon}$ | "help" | sūŋıd ${ }^{\text {a }}$ | "helper" |
| $k \bar{\varepsilon} \eta^{\varepsilon /}$ | "go" | $k \bar{\varepsilon} n^{\text {na/ }}$ | "traveller" |
| gàad ${ }^{\varepsilon}$ | "pass" | tù̀n-gāt ${ }^{\text {a }}$ | "leader" |
| màal ${ }^{\varepsilon}$ | "sacrifice" | màal-māan ${ }^{\text {na }}$ | "sacrificer" |
| pà'al ${ }^{\text {c }}$ | "teach" | $p a ̄ ' a n{ }^{\text {na }}$ | "teacher" |
| sūgor ${ }^{\text {/ }}$ | "forbear" | sūgvríd ${ }^{\text {a }}$ | "forgiver" |
| $y \bar{u} ' v m^{\mathrm{m} /}$ | "sing" | $y \bar{v}$ ¢m-yט̂'vm ${ }^{\text {na }}$ | "singer" |
| sàň'am ${ }^{\text {m }}$ | "spoil" | pl yūvm-ŷ̂'vmnìb ${ }^{\text {a }}$ <br> pu'à-sān̆'am ${ }^{\text {na }}$ <br> pl pư'à-sān̆'amıdıb ${ }^{\text {a }}$ | "adulterer" |

Pattern H fusion verbs, which delete the H toneme of the stem in the imperfective 3.8.2, show the same form for the agent noun:

| nāe ${ }^{\text {d }}$ | "finish" | $n \bar{a} a d^{\text {a/ }}$ | "someone who doesn't give up easily" WK |
| :---: | :---: | :---: | :---: |
| n̆wà'e | "cut wood" | $\check{n} w \bar{a}^{\prime} a d^{\text {a }}$ | "woodcutter" |
| $g b a ̄ n ̄ e^{\prime}$ | "catch" | zịm-gbân̆'ad ${ }^{\text {a }}$ | "fisherman" |
| fāen̆' | "save" | fāan̆d ${ }^{\text {a/ }}$ | "saviour" WK 11 |
| dị'el | "receive" | $d i ̣ ' \partial d^{\mathrm{a} /}$ | "receiver" |

3-mora stems in -s consistently drop the $-d$ in the sg and cb :

| sịgls ${ }^{\text {/ }}$ | "lower" | $\begin{gathered} \text { sịgısisal } \\ \text { pl sị̆gısídìba } \end{gathered}$ | "lowerer" |
| :---: | :---: | :---: | :---: |
| $k u ̀ \theta S^{\varepsilon}$ | "sell" | kù ${ }^{\text {a }}$ | "seller" |
| $p \dot{v}^{\prime} u s^{\varepsilon}$ | "worship" | $\begin{gathered} \mathrm{pl} k \bar{\theta} \theta S ı d ı b^{\mathrm{a}} \\ p_{\mathrm{v}} \mathrm{v}^{\prime} u s^{\mathrm{a}} \end{gathered}$ | "worshipper" |
| $t u ̀ a s{ }^{\text {c }}$ | "talk" |  <br> tù'as-tù'as ${ }^{\text {a }}$ <br> pl tù'as-tū'asıdıba | "talker" |
| $d \bar{l}{ }^{\prime} \partial S^{\varepsilon /}$ | "receive" | $n \bar{\jmath}-d \hat{1} 1 \quad \partial S^{\mathrm{a}}$ pl n̄̄-dị́'əsìdı $b^{\mathrm{a}}$ | "chief's spokesman ("linguist") |

Some 2-mora stems also irregularly drop the $-d$ in the sg and cb :

| zà $b^{\varepsilon}$ | "fight" | zàb-zàb ${ }^{\mathrm{a}}$ <br> gbān-záb ${ }^{\mathrm{a}}$ | "warrior" |
| :--- | :--- | :--- | :--- |
| tìs | "leather-worker" |  |  |
| sòs $^{\varepsilon}$ | "give" | "beg" | tis $s^{\text {a }}$ |

Stems in -mm- form reduplicated agent nouns with nàm ${ }^{a}$ plurals:
dàm ${ }^{\mathrm{m}} \quad$ "shake" dàm-dàm ${ }^{\mathrm{ma}}$ "shaker"

The nn-stem sùnne "bow the head" has an agent noun stem in -nn-, but the tonemes show retention of the $-d$ - formant:

| sùn ${ }^{\mathrm{n}}$ | "bow head" | sūnna <br> pl sūnnı $b^{\mathrm{a}}$ |
| :---: | :---: | :--- | | "deep thinker, close |
| :--- |
| observer" WK |

Agent nouns can only be formed from 3-mora verb stems in -* $g$ - if the $* g$ is either deleted or assimilated with the root final consonant as $-k$ - or $-\eta-$ :

| $y a ̄ d ı$ |  |  |
| :--- | :--- | :--- |
| $g^{\varepsilon /}$ | "scatter" | $y \bar{a} t^{\mathrm{a} /}$ | | (a participant in a |
| :--- |

Various irregular formations in my materials include:

| $t \bar{\varepsilon} k^{\varepsilon /}$ | "pull" | $\check{n} w i ̣$-tćk ${ }^{\mathrm{a}}$ | "rope-puller" |
| :---: | :---: | :---: | :---: |
|  | pl n̆wī-tékìdı $b^{\text {a }}$ |  |  |
| nò ${ }^{\varepsilon}$ | "love" | nòvıd ${ }^{\text {a }}$ | "lover"; tones irreg |
| $t i ̣ ' \partial b^{\varepsilon}$ | "heal" | $t i ̣ ' ə b^{\text {a }}$ | "healer"; tones irreg |

For 4-mora stems: KT has no agent nouns; WK drops the stem-final $m$.

| sịilım ${ }^{\text {m }}$ | "cite proverbs" | sịin ${ }^{\text {na }}$ | "speaker of proverbs" |
| :---: | :---: | :---: | :---: |
|  |  | pl Sịinnıb ${ }^{\text {a }}$ |  |
| pò'alım ${ }^{\text {m }}$ | "harm" | $p \bar{u}^{\prime} a n^{\text {na }}$ | "harmer" |
| zàan̆sım ${ }^{\text {m }}$ | "dream" | zàan̆s ${ }^{\text {a }}$ | "dreamer" |
|  |  | $\mathrm{pl} z a \overline{a n ̆}{ }^{\text {a }}$ ¢dı${ }^{\text {a }}$ |  |

Single-aspect verbs with unassimilated $y$, and the bare-stem type, add $-d-$ :

| $z i ̣ n ' 1 i^{\text {ya }}$ | "be sitting down" | $z \stackrel{̣ 1 n ̆ ' i d ~}{ }{ }^{\text {a }}$ | "sitter" |
| :---: | :---: | :---: | :---: |
| $z i!{ }^{\prime} e^{\text {ya }}$ | "be standing still" | $z \bar{l} \bar{\prime}^{-} \partial d^{\mathrm{a}}$ | "stander" |
| mị ' | "know" | $m_{\text {mi'i }}{ }^{\text {d }}{ }^{\text {a/ }}$ | "knower" |
|  |  | gbàn-mị̀'id ${ }^{\text {a/ }}$ | "scribe" NT |
| $z \overline{1} 1$ | "not know" | $z i ̄ ' z d^{\text {a/ }}$ | "ignorant person" |
| $s \bar{u}^{\prime} e^{\text {ya/ }}$ | "own" | $s \bar{L}^{\prime} v d^{\text {a/ }}$ | "owner" |
| sōn̆'e ${ }^{\text {ya/ }}$ | "be better than" | sōn̆'od ${ }^{\text {a/ }} \mathrm{pl}$ sōn̆' $\lrcorner b^{\mathrm{a} /}$ | 5.3.1 |
| dīgıya/ | "be lying down" | dīgıd ${ }^{\text {a/ }}$ | "lier-down" |
| ịgı ${ }^{\text {ya/ }}$ | "be kneeling" | $\underline{1} \mathrm{~g}$ ı $\mathrm{d}^{\mathrm{a} /}$ | "kneeler" |
| vābı ${ }^{\text {ya/ }}$ | "be lying prone" | vābıd ${ }^{\text {a/ }}$ | "lier prone" |
| làbı ${ }^{\text {ya }}$ | "be crouching" | $\underline{l a b}{ }^{\text {a }}{ }^{\text {a }}$ | "croucher in hiding" |
| àeñ ${ }^{\text {a }}$ | "be something" | $\bar{a} a n{ }^{\text {d }}{ }^{\text {a }}$ | "someone who continually is something" sic WK |

Stems in $n n l l r(r)$ drop - $d$ throughout. Those in $l l r(r)$ may use $r \varepsilon \mid a a$ class suffixes, coinciding in form with habitual adjectives 5.3.1.

| $\operatorname{sị} n^{\text {na/ }}$ | "be silent" |  | "silent person" |
| :---: | :---: | :---: | :---: |
| $n \bar{\varepsilon} n^{\text {na/ }}$ | "envy" | nịn-nén ${ }^{\text {na }}$ | "envious person" |
| d̄̄ıla/ | "be with" | ňyà'an-dòl ${ }^{\text {la }}$ | "disciple" (irreg. tone) |
| $z a \bar{n} l^{\text {la/ }}$ | "be holding" | or ňyà'an-dòl ${ }^{l \varepsilon}$ nō-zán̆ılı ${ }^{\text {la }}$ | "holder of hens" |
|  |  | or nō-záňl ${ }^{\text {l }}$ |  |
| $d \bar{c} l^{\text {la/ }}$ | "be leaning" | $n \grave{n} n$-dél ${ }^{\text {la }}$ | "person prone to lean" |
| $m \bar{\nu} r^{\text {a/ }}$ | "have" | $b \grave{\text { bujor }}{ }^{\text {a/ }}$ | "owner of goats" |
|  |  | or bù-m̄̄r ${ }^{\varepsilon /}$ |  |
| $t a \overline{r a /}$ | "have" | bì-tā $r^{\text {a/ }}$ | "owner of goats" |
|  |  | or bì-tār ${ }^{\text {/ }}$ |  |

The simplification to single $s r$ leads to analogical formations with $-d$ - in

| $k i ̣ s^{\mathrm{a} /}$ | "hate" | $k i c^{\text {a/ }}$ or kịsıd ${ }^{\text {a/ }}$ | "hater" |
| :---: | :---: | :---: | :---: |
| $t \varepsilon ̇ n ̆ r^{\text {a }}$ | "remember" | $t \overline{\text { ch }}$ rıd ${ }^{\text {a }}$ | "rememberer" |
| $g u \bar{r}{ }^{\text {a/ }}$ | "be on guard" | gūrıd ${ }^{\text {a/ }}$ | "guard" |
|  |  | $z a ̀ '-n \overline{-}-g u ́ r r^{\text {a }}$ | "gatekeeper" |

### 9.2.1.2 Adjectives

Habitual deverbal adjectives in principle have the same stem as the agent noun, but drop the -d formant more readily, probably because they are not made as freely and are correspondingly not as far along the axis from derivational to flexional.

The sense may be active or passive, essentially "habitually connected with the verbal action", like the range of meaning of an English gerund as a noun premodifier. A past passive sense is unusual, though examples occur: sūm-dúgvdà "cooked groundnuts" WK, ziipdvgida = zịiך-dúgvdà "cooked fish" (Lk 24:42), beside the more usual sense in ni'im dvgida = nịm-dúgodà "meat for cooking" (1 Samuel 2:15.)

Without a preceding cb, these adjective forms have the same meaning as agent nouns: kūvdír ${ }^{\varepsilon}$ pl kūvdá "killer" $=k \bar{v} v d^{\mathrm{a} /} \mathrm{pl} k \bar{v} v d^{\prime} b^{\mathrm{a}}$. After a cb the meanings differ: $p u^{\prime}{ }^{\prime}-k \bar{v} v d^{\mathrm{a} /}$ "woman-killer, killer of women" vs pur'à-kv̄vdír ${ }^{\varepsilon}$ "woman killer, murderous woman." Accordingly, deverbal adjectives will be cited with a preceding cb.

With dual-aspect verbs, 2-mora stems all retain the $*_{d}$ :

| gòn̆ | "hunt" | pư'à-gōon̆dır |
| :--- | :--- | :--- | :--- |
| là' | "laugh" | "prostitute" |

3-mora stems in $* g$ drop -d unless $* g$ is deleted in the imperfective:

| gịlı $g^{\varepsilon /}$ | "go around" |  | "prostitute" |
| :---: | :---: | :---: | :---: |
| sūen̆' | "anoint" | $k p a ̄$-sósn̆dìm ${ }^{\text {m }}$ | "anointing oil" |
| $t \bar{u}\urcorner \imath g^{8 /}$ | "heat up" | $b \bar{n}$-tólıgì ${ }^{\varepsilon}$ | "heater, thing for heating" |
| pèlıg ${ }^{\text {® }}$ | "whiten" | $b u ̄ n-p$ ćlıgì ${ }^{\varepsilon}$ | "whitening thing, whitener" |
| yādı $g^{\varepsilon /}$ | "scatter" | būn-yátir ${ }^{\varepsilon}$ | "scattering thing" (cf yāta/) |
| ìā̆ ${ }^{\text {a }}$ | "fly, jump" | būn-ịañ'adìr ${ }^{\text {c }}$ | "flying creature" |
| pàk ${ }^{\text { }}$ | "surprise" | y $\bar{\varepsilon} \mathrm{l}-\mathrm{pák} \mathrm{~m}^{\text {c }}$ | "disaster" |
| $t \bar{\varepsilon} k^{\varepsilon /}$ | "pull" | n̆wị-tćkì ${ }^{\varepsilon}$ | "rope for pulling with" |
| $k \bar{\varepsilon} \eta^{\varepsilon /}$ | "go" | bùn-kēnnír ${ }^{\text {c }}$ | "donkey that doesn't sit still" |
| sù ${ }^{\text {¢ }}$ | "help" | būn-súnìr ${ }^{\text {c }}$ | "helpful thing" |
| nò ${ }^{\text {® }}$ | "love" | bị-nòmır ${ }^{\text {e }}$ | "beloved child" |

3-mora stems in -m retain the $-d$, forming the consonant cluster -mm-:
sàn̆'am ${ }^{\mathrm{m}}$ "destroy" bù-sān̆'ammır ${ }^{\varepsilon} \quad$ "scapegoat" WK

3-mora stems in -s all drop the $-d$ :

| pèlıs ${ }^{\varepsilon}$ | "sharpen" | būn-pćlısìr ${ }^{\text {c }}$ | "sharpening thing" |
| :---: | :---: | :---: | :---: |
| $k u ̀ \theta S^{\varepsilon}$ | "sell" | $b$ v̄n-kúesì ${ }^{\varepsilon}$ | "item for sale" |

4-mora stems (all from KT) drop -d (whereas agent nouns drop stem-final -m):

| sịilım ${ }^{\text {m }}$ | "cite proverbs" | bv̄n-síilú ${ }^{\text {a }}$ | "thing relating to proverbs" |
| :---: | :---: | :---: | :---: |
| pò'alım ${ }^{\text {m }}$ | "harm" | nịn-pó'alì $\eta^{\text {a }}$ | "harmful person" |
|  |  |  | "harmful woman" |
| $z a ̀ a n s ı m^{\text {m }}$ | "dream" | nịn-záan̆sù ${ }^{\text {a }}$ | "dreamy person" |
|  |  | pu'à-zàan̆sv́po | "dreamy woman" |

Dynamic single-aspect verbs show the same stem as the agent noun:

| $d \overline{\text { dig }}{ }^{\text {ya/ }}$ | "be lying" | bùj-dīgıdír ${ }^{\text {c }}$ | "donkey that lies down a lot" |
| :---: | :---: | :---: | :---: |
| $v a ̄ b ı y a /$ | "be prone" | bòn-vābıdír ${ }^{\text {c }}$ | "donkey always lying prone" |
| zịn̆'i'ya | "be sitting" | kūg-zịñ'idìr ${ }^{\varepsilon}$ | "stone for sitting on" |
| $z a ̄ n ̆ l^{\text {la/ }}$ | "be holding" | nō-zán̆l ${ }^{\text {l }}$ | "hen for holding" |
| $d \bar{c} l^{\text {la/ }}$ | "be leaning" | nịn-dél ${ }^{1 \varepsilon}$ | "person you can lean on" WK |
|  |  | kùg-d $\bar{\varepsilon} l^{1 \varepsilon /}$ | "chair for leaning on" |
| gùll ${ }^{\text {a }}$ | "be hanging" | būn-gúl ${ }^{1 \varepsilon}$ | "thing for suspending" |

Resultative deverbal adjectives are only derived from verbs which can use the perfective form in a resultative sense 16.2.2; it is not clear how productive the formation is. Almost all such verbs are either intransitive or patientive ambitransitive 16.9.1, and the adjectives are not passive participles, but express resulting states. There are no resultative adjectives from stance-verb roots meaning e.g. "seated", "standing" or from passives, like "eaten." The formant -lım- either deletes a preceding derivational suffix or is added only to roots; for the flexion see $\underline{6}$.

| kpị | "die" | kpịilv́n ${ }^{\text {a }}$ | "dead" |
| :---: | :---: | :---: | :---: |
| $g \bar{\varepsilon} \check{n}$ | "get tired" | $g \bar{\varepsilon} \varepsilon$ n̆lón ${ }^{\circ}$ | "tired" |
| $p \varepsilon{ }^{\prime} \varepsilon^{\varepsilon}$ | "fill" | pè'عlún ${ }^{\text {a }}$ | "full" |
| kò | "break" | kòolv́p ${ }^{\circ}$ | "broken" |
| $y \varepsilon$ ¢̀ | "wear" | yèzlúp | "worn" (of a shirt) |
| yò | "close" | yòolón ${ }^{\text {a }}$ | "closed" |
| pù'alım ${ }^{\text {m }}$ | "harm" | pò'alón ${ }^{\text {a }}$ | "damaged" |
| àen̆ | "tear" | àan̆lv́p ${ }^{\circ}$ | "torn" |

### 9.2.1.3 Instrument nouns

Instrument nouns can be created freely by adding $-m$ to habitual-adjective stems in $d t$ or $s$. All are $g a \mid s \varepsilon$. The meanings may overlap with those of agent nouns.

| $k \bar{\sim}$ | "kill" | kv̄vdín ${ }^{\text {a }}$ | "thing for killing with" |
| :---: | :---: | :---: | :---: |
| $1 \overline{0}$ | "tie" | sìà-lōodín ${ }^{\text {a }}$ | "belt" ("waist-tying thing") |
| $d \bar{v} g^{\varepsilon}$ | "cook" | dūgudín ${ }^{\text {a }}$ | "cooking utensil" |
| $s \bar{\partial} b^{\varepsilon}$ | "write" | sōbıdín ${ }^{\text {a }}$ | "writing implement" |
| kpàr ${ }^{\text {c }}$ | "lock" | kpārıdı ${ }^{\text {a }}$ | "thing for locking" |
| n̆wà'e | "cut wood" | $\check{n} w \bar{l}^{\prime} a d ı \eta^{\text {a }}$ | "axe" |
| pịe ${ }^{\text {d }}$ | "wash self" |  | "thing for washing oneself" |
| sù | "bathe" | sūvdı ${ }^{\text {a }}$ | "sponge" |
| $g \bar{s} s^{\varepsilon}$ | "look" | nịn-gótì ${ }^{\text {a }}$ | "mirror"; nịn-gótì ${ }^{\text {E }}$ "glasses" |
| bùd ${ }^{\varepsilon}$ | "plant" | būtı ${ }^{\text {a }} 2.3$ | "cup" (originally "seed cup") |
| $p \overline{\text { ºs }}{ }^{\varepsilon /}$ | "clean" | pịəsín ${ }^{\text {a }}$ | "cleaning implement" |
| $k u ̀ \theta S^{\varepsilon}$ | "sell" | $k u \bar{\theta} \stackrel{\text { l }}{ }{ }^{\text {a }}$ | "professional salesperson" |
| dā'e ${ }^{\prime}$ | "push" | dā'adín ${ }^{\text {a }}$ | "pusher (person or thing)" |
| $z i n \breve{n}^{\prime} i^{\text {ya }}$ | "be sitting" | zịn̆'idı ${ }^{\text {a }}$ | "thing for sitting on" |

### 9.2.1.4 Imperfective gerunds

Dynamic single-aspect verbs in -ya without assimilation of the $y$ make perfective gerunds, as do a few others 8.1.1. Other single-aspect verbs which make gerunds add -lım- after root vowels and -m-after nn ll $r(r)$; the forms are $m m$-class.

| $s \bar{u}^{\prime} e^{\text {ya/ }}$ | "own" | sū'vlím ${ }^{\text {m }}$ | cf so'olimkan Mt 12:25, 1996 |
| :---: | :---: | :---: | :---: |
| mī̀' | "know" | mị̀ilím ${ }^{\text {m }}$ |  |
| $z \overline{1}{ }^{\prime}$ | "not know" | zī'llím ${ }^{\text {m }}$ |  |
| àeñ ${ }^{\text {a }}$ | "be something" | àan̆lím ${ }^{\text {m }}$ |  |
| $b$ ¢̀ | "be somewhere" | bèlím ${ }^{\text {m }}$ | sic |
| kā'e | "not be" | kā'alím ${ }^{\text {m }}$ |  |
| $w \bar{\varepsilon} n^{\text {na/ }}$ | "resemble" | $w \bar{n} n i^{\prime} \mathrm{m}^{\mathrm{m}}$ | [tones show this is deverbal] |
| $\sin n^{\text {na/ }}$ | "be silent" | sịnním ${ }^{\text {m }}$ |  |
| $n \bar{\varepsilon} n^{\text {na/ }}$ | "envy" | nēnním ${ }^{\text {m }}$ |  |
| dōlla/ | "accompany" | dōllím ${ }^{\text {m }}$ |  |
| $z a \bar{n} l^{\text {la/ }}$ | "hold in hand" | zān̆llím ${ }^{\text {m }}$ |  |
| $d \bar{\varepsilon} l^{\text {la/ }}$ | "be leaning" | déllóg ${ }^{\text {a }}$ or | çllím ${ }^{\text {m }}$ |
| $m \bar{o} r^{\text {a/ }}$ | "have" | mōrím ${ }^{\text {m }}$ |  |
| $t a ̄ r^{\text {a/ }}$ | "have" | tārím ${ }^{\text {m }}$ |  |
| $n a \overline{r^{\text {a/ }}}$ | "be necessary" | nārím ${ }^{\text {m }}$ |  |
| $g \bar{u} r^{\text {a/ }}$ | "guard" | gūrím ${ }^{\text {m }}$ |  |

These forms obey the tonal rules for gerund formation 3.8.4. The non-initial H toneme in Pattern L confirms that they are $m$-stems 3.8.1.

Stative verbs derived from imperfectives of dual-aspect verbs 16.2.3 also form imperfective gerunds; the tonemes show that these are not $m$-stems:

```
bòodım}\mp@subsup{}{}{\textrm{m}}\quad\mathrm{ "will" (Pattern L, unlike bōodır^ "desirable")
g\grave{on̆dım}\mp@subsup{}{}{m}\mathrm{ "wandering" (gòn̆ "hunt")}
zòtım" "fear" [M` zót n\overline{\varepsilon "I'm afraid."]}]
```

The gerund wommvg of wìm ${ }^{\mathrm{m}}$ "hear" (written wumug before 2016, but read with -mm- in the 1996 audio NT) perhaps represents *wvmdvgo. A number of deverbal abstract nouns from 3-mora verb stems in -s- are probably imperfective gerund forms with dropping of $-d$ - as in agent nouns and deverbal adjectives.

| pù̀'vs $^{\varepsilon}$ | "greet, thank" | pò'vsım <br> m | "worship" |
| :--- | :--- | :--- | :--- |
| or pù'vsvg |  |  |  |

Unequivocal imperfective gerund forms with -m-derived from almost all agentive verbs occur as predependents of the bound noun
-tāa -tāas ${ }^{\varepsilon} \quad$-tà- or $-t \bar{a}-\quad$ "companion in ..."

For dynamic single-aspect verbs with stems in -ll -nn -r(r), and all stative verbs with deverbal gerunds, the forms are identical to the usual imperfective gerunds:

| $m i ̄{ }^{\prime}$ | "know" | mị̀ilím-tāa | "partner in knowledge" |
| :---: | :---: | :---: | :---: |
| $z \bar{l}^{\prime}$ | "not know" | zī'llím-tāa | "partner in ignorance" |
| $b \varepsilon ̀$ | "exist" | bèlím-tāa | "partner in existence" WK |
| $d \overline{o l}{ }^{\text {la/ }}$ | "be with" | dōllím-tāa | "fellow-companion" |

For the irregular stative verb $n \grave{\eta^{2}}{ }^{\varepsilon}$ WK has two forms with different nuances:

| nò $\eta^{\varepsilon}$ "love"nòpılím-tāa | "fellow liker" |  |
| :---: | :---: | :---: |
|  | or nòjıdím-tāa | "fellow lover" |

Dual-aspect verbs add -m- to the habitual adjective stem, but with gerund Tone Patterns:

| $m \varepsilon ̀$ | "build" | mèzdím-tāa | "fellow-builder" |
| :---: | :---: | :---: | :---: |
| di | "eat" | ditím-tāa | "messmate" |
| $p \bar{\nu}$ | "share" | pūvdím-tāa | "fellow-sharer" |
| kpèn̆' | "enter" | kpèn̆'عdím-tāa | "fellow-resident" |
| $z a ̀ b^{\varepsilon}$ | "fight" | zàbıdím-tāa | "opponent" |
| $d \bar{v} g^{\varepsilon}$ | "cook" | dūgudím-tāa | "fellow-cook" |
| fān̆ | "snatch" | fāaňdím-tāa | "fellow-robber" |
| tòm ${ }^{\text {m }}$ | "work" | tòmmím-tāa | "co-worker" |
| $p \grave{\prime}{ }^{\prime} \mathrm{s}^{\varepsilon}$ | "worship" | pù'vsím-tāa | "fellow-worshipper" |
| duıs ${ }^{\text {d }}$ | "feed" | dìısím-tāa | "fellow-feeder" |
| sù $\eta^{\varepsilon}$ | "help" | sùním-tāa | "fellow-helper" |
|  |  | sòjıdím-tāa |  |
| sià ${ }^{\varepsilon}$ | "agree" | sìàkím-tāa | "fellow in agreement" |

Stance verbs may use -dım- or -lım- or -nım-; -lım- and -nım- forms may really belong to the derived assume-stance/make-assume-stance verbs $\underline{\text { 9.1.1: }}$

| $\underline{i} g_{l}{ }^{\mathrm{ya} /}$ | "be kneeling" | ịgılím-tāa | "fellow-kneeler" |
| :---: | :---: | :---: | :---: |
|  |  | or ịgrdím-tāa | "fellow-kneeler" WK |
|  | "be sitting" | zịn̆'ilím-tāa | "fellow-sitter" |
|  |  | or zịn̆'idím-tāa | "fellow-sitter" WK |
| vābı ${ }^{\text {ya/ }}$ | "lie prone" | vābılím-tāa | "fellow lier-prone" |
|  |  | or vābıdím-tāa | "fellow lier-prone" WK |
| làbı ${ }^{\text {ya }}$ | "be crouched" | làbilím-tāa | "fellow croucher in hiding" |
|  | "be stood" | zị'əlím-tāa | "fellow-stander" |
|  |  | or zị'ədím-tāa | "fellow-stander" WK |
| dīgıya/ | "be lying" | dīgılím-tāa | "fellow-lier" |
|  |  | or dìgıním-tāa | "fellow-lier" WK |

### 9.2.1.5 Others

-s- appears in a few concrete nouns derived from verbs:

| $d_{i ̄} g_{\imath}$ ya/ | "be lying down" | dīgısá | "lairs" |
| :--- | :--- | :--- | :--- |
| $d \bar{v}$ | "go up" | dūvsá | "steps" |

-m- derives nouns from verbal roots in

| $z \grave{~}$ | "run" | $z \overline{o m} m^{\mathrm{m} \varepsilon}$ | "refugee" |
| :--- | :--- | :--- | :--- |
| $k p i ̣$ | "die" | $k p \overline{1} ' i m^{\mathrm{m} /}$ | "corpse" |

-d- appears as an instrument noun formant instead of the usual -dim- in
tưà "grind in a mortar" tūөdır "mortar"

See also on $p i ̄ \mathrm{i} b ı n^{\text {n } \varepsilon}$ "covering" etc, where the $n$ may represent *ld 8.1.2.
-b- derives nouns from verbal roots in

| kpị̀ | "die" | kpịibıg |
| :--- | :--- | :--- | :--- |
| dà' | "buy" | "orphan" |
|  |  |  |

Līıbır "twin" may be a similar formation from Proto-Oti-Volta *ri "two" with an aberrant reflex of *r; cf Buli yībīk id.

### 9.2.2 From nominals

-s- and -I- form adjectives from adjectival roots:

| $m a{ }^{\prime} e^{\prime}$ | "cool down" | mā'asír ${ }^{\text {c }}$ | "cold, wet" |
| :---: | :---: | :---: | :---: |
| $b \bar{u} k^{\varepsilon /}$ | "weaken" | $b \overline{\mathrm{u}} \mathrm{g}$ sír ${ }^{\varepsilon}$ | "soft" |
| $t \bar{\varepsilon} b ı g^{\varepsilon /}$ | "get heavy" | $t \overline{\text { ch }}$ ısír ${ }^{\varepsilon}$ | "heavy" |
| mị̀'ig ${ }^{\text {¢ }}$ | "get sour" | mị 'isug ${ }^{\text {a }}$ | "sour" |
| sōb ${ }^{\text {c }}$ | "get dark" | sābulíg ${ }^{\text {a }}$ | "black" |

-d-features in a number of nouns with no evident derivational meaning, such as $y u ̄ g v d ı r r^{\varepsilon}$ "hedgehog", lă'afo "cowrie" pl lịgıdı "money", pùgvdıba "father's sister." It can form abstract nouns from human-reference words (examples from KB, Naden):

| pu'à-sādır ${ }^{\text {c/ }}$ | "young woman" | pu'asatim | "girlhood, virginity" |
| :---: | :---: | :---: | :---: |
| būn-kúdv̀g ${ }^{\text {a }}$ | "old man" | bonkuttim | "old age" |
| gedvg | "fool" | getim | "folly" |
| $p u ̀-k o ̀ o n ̆ r ~ \% ~$ | "widow" | pukontim | "widowhood" |
| bā'-bị̂ig ${ }^{\text {a }}$ | "brother" | ba'abiidvg | "brotherhood" |

-m- appears in both concrete nouns, mostly with human reference, and abstracts:

| bị'a | "bad" | bị'əm ${ }^{\text {m }}$ | "enemy" |
| :---: | :---: | :---: | :---: |
| tàdıg ${ }^{\varepsilon}$ | "become weak" | tādım ${ }^{\text {m/ }}$ | "weak person" |
| áňsìb ${ }^{\text {a }}$ | "mother's brother" | ān̆sín ${ }^{\text {a }}$ | "sister's child" |
| yáab ${ }^{\text {a }}$ | "grandparent" | yáa ${ }^{\text {a }}$ | "grandchild" |
| vúөr ${ }^{\text {c }}$ | "red kapok fruit" | vúөŋ ${ }^{\text {a }}$ | "red kapok" |
| bị'isır ${ }^{\text {e }}$ | "breast" | bị'isím ${ }^{\text {m }}$ | "milk" |
| nà'ab ${ }^{\text {a }}$ | "chief" | nā'am ${ }^{\text {m }}$ | "chiefship" |
| $z \overline{l o l v g}{ }^{\text {/ }}$ | "fool" | $z \overline{l ı m i ́ s ~}{ }^{\text {® }}$ | "foolishness" |

Abstract -mís ${ }^{\varepsilon}$ forms seem always to have H toneme; cf bùdımís ${ }^{\varepsilon}$ "confusion", where, however, the -m- is part of the verb stem bùdım ${ }^{m}$ "get confused"; cf also

$$
\text { tādım² } \mathrm{m} / \quad \text { "weak person" }{ }^{\text {tàdımís }}{ }^{\varepsilon} \quad \text { "weakness" }
$$

Added to existing adjectival stems, $-m$ - produces no change of meaning:

| $\check{n y y ̇ ̀ ~} \varepsilon s^{\text {a }}$ | "be self-confident" | n̆yèesín ${ }^{\text {a }}$ | "self-confident" |
| :---: | :---: | :---: | :---: |
| vèn̆llı ${ }^{\text {a }}$ | "beautiful" | vèn̆llín ${ }^{\text {a }}$ | "beautiful" |
| mālısíg ${ }^{\text {a }}$ | "pleasant" | mālısín ${ }^{\text {a }}$ | "pleasant" |


| lāllúg ${ }^{\text {a }}$ | "distant" | lāllín ${ }^{\text {a }}$ | "distant" |
| :---: | :---: | :---: | :---: |
| nār ${ }^{\text {a/ }}$ | "be necessary" | nàron ${ }^{\text {a }}$ | "necessary" |
| wōk ${ }^{\text {/ }}$ | "long, tall" | wā'ama ${ }^{\text {a/ }}$ | "be long, tall" |

$-m$ - is seen in a good many unanalysable 3-mora nominal stems, such as the nouns yūgóm ${ }^{\text {n } \varepsilon}$ "camel" (ultimately from Berber), gbī gım ${ }^{\text {n }}$ "lion", zìlım ${ }^{\text {m } \varepsilon}$ "tongue,

-l- and -lım- derive abstract nouns from nouns and adjectives. The suffix -lım- is the only derivational suffix before which $C V V C$ roots do not become $C V C$, and it can follow a preceding derivational suffix, creating five-mora stems. The stems of these abstract nouns are not themselves used as adjectives.

| dāu | "man" | dàalım ${ }^{\text {m }}$ | "masculinity" |
| :---: | :---: | :---: | :---: |
| $p u ' \bar{a}^{\text {a }}$ | "woman" | pò'alım ${ }^{\text {m }}$ | "femininity" |
| bịi ${ }^{\text {a }}$ | "child" | bịilím ${ }^{\text {m }}$ | "childhood" |
| tītā'al ${ }^{\text {l }}$ | "proud person" | tītā'alım ${ }^{\text {m }}$ | "pride" |
| $g i ̣ \eta{ }^{\text {a }}$ | "short" | gịin̆ ${ }^{\text {a }}{ }^{\text {m }}$ | "shortness" |
| wōk ${ }^{\text {d/ }}$ | "long, tall" | wā'alím ${ }^{\text {m }}$ | "tallness" |
| sāan ${ }^{\text {a/ }}$ | "guest, stranger" | sáannìm ${ }^{\text {m }}$ | "strangerhood" |
| tīrâan ${ }^{\text {a }}$ | "neighbour" | tīrâannìm ${ }^{\text {m }}$ | "neighbourliness" |
| $g i ̣ \eta^{\text {a }}$ | "short" | gịhılím ${ }^{\text {m }}$ | "shortness" |

## 10 Prefixes

### 10.1 Nouns and adjectives

Many nouns, and one or two adjectives, have an element preceding the root which is not the combining form of any noun. Such elements will be called noun prefixes. Noun prefixes usually have no identifiable meanings; however, they are common in particular semantic fields, such as small animals, reptiles and insects.

Most noun prefixes fall into just a few phonological types. Segmentally, they are mostly of the shape $C V(n)$, where $V$ shows only the three-way $a \imath v$ vowel distinction of affix vowels; the $\tau / v$ distinction itself and realisations as [i] or [u] are predictable 3.3. There is also a complex reduplicated type CVsın or CVlın. Stems with noun prefixes usually lack derivational suffixes. Prefixes have either M or L tonemes throughout, and they differ from cbs in their tonal effects on following elements 3.8.1.

A few cbs have become separated from their original paradigms through phonological simplifications and/or semantic bleaching and are effectively now prefixes. Other prefixes are related to verbal negative particles.

The personifier particle 12.6 it is not a prefix but a right-bound particle. The simplest type of noun prefix copies the initial $C$ of the root, followed by a vowel which is $\imath$ by default, but $v$ after labials, labiodentals and labiovelars; $v$ replaces $\imath$ before root $u / v / o$ and $\imath$ replaces $v$ before root $i / \imath / \varepsilon$. A few forms show Ca. No cases occur with voiced stops or voiced fricatives.

| kùkōr ${ }^{\text {c/ }}$ | "voice" | kùkòm ${ }^{\text {m }}$ | "leper" |
| :---: | :---: | :---: | :---: |
| kìkà ${ }^{\text {a }}$ | "fig tree" | kikịırıg ${ }^{\text {a/ }}$ | "tutelary spirit" |
| $k[p] i ̀ k p a ̀ r ı g^{\text {a }}$ | "palm tree" |  | "merchant" |
| tītā'ar ${ }^{\text {c }}$ | "big" | tàtàl ${ }^{\text {l }}$ | "palm of hand" |
| pīpị̀r $g^{\mathrm{a} /}$ | "desert" | sissì'əm ${ }^{\text {m }}$ | "wind" |
| lìlāalína | "swallow" | mìmịilím ${ }^{\mathrm{m}}$ | "sweetness" |
| mìmịilógo | "sweetness" | kpàkūr ${ }^{\text {/ }}$ | "tortoise" |
| tìtūmıs ${ }^{\varepsilon}$ | "sending" | fūfūm ${ }^{\text {m }}$ | "envy"; "stye" |
| $z a ̀$-sìsōbır ${ }^{\text {// }}$ | "evening" (zà | f zàam ${ }^{\text {m }}$ "e | , sōb ${ }^{\varepsilon}$ "get dark") |

More complex is a similar type with a final nasal consonant; voiced stops and fricatives do occur with this type:

| dòndùug ${ }^{\text {a }}$ | "cobra" | dìnd | "chameleon" |
| :---: | :---: | :---: | :---: |
| bimbìm ${ }^{\text {m }}$ | "altar" | bùmbàrı ${ }^{\text {a }}$ | "ant" |
| kìnkà ${ }^{\text {a }}$ | "fig" | tīntōn̆ríg ${ }^{\text {a }}$ | "mole" |
| zīnzāu ${ }^{\text {a/ }}$ | "bat" | sīnsáan̆ | a kind of tiny ant |
| nōb-púmpàup ${ }^{\text {a }}$ | "foot" |  |  |


| gùngūm ${ }^{\text {me }}$ | "kapok material" (gùm${ }^{\text {me }}$ "kapok fruit") |
| :---: | :---: |
| zùnzò ${ }^{\text {a }}$ | "blind" (zū'өm/ "go/make blind") |
| pùmp̄̄) ${ }^{\text { }}$ | "housefly" (tàmpūa id) |

An even more complex type follows the reduplicated $C V$ with -sin or -lin:


Prefixes may also be of the form $C a(n)$, where $C$ is $d b n m l s$ or $z$.

| dàyūug ${ }^{\text {/ }}$ | "rat" | dàwān ${ }^{\mathrm{n} \varepsilon /}$ | "pigeon" |
| :---: | :---: | :---: | :---: |
| dàtıu ${ }^{\text {a }}$ | "right hand" | dàgòbıg ${ }^{\text {a }}$ | "left hand" |
| dànkう̀ ${ }^{\text {ºr }}$ | "measles" | dàwàlıg ${ }^{\text {a }}$ | "humid season" |
| dàyáam ${ }^{\text {ma }}$ | "woman's parent-in-law" |  |  |
| dàtāa | "enemy" cf nị̀n-tāa "co-wife", Ghanaian "rival" |  |  |
| dàmà'a | "liar" cf mà' "lie" |  |  |
| dàkịig ${ }^{\text {a }}$ | "sibling-in-law via wife" |  |  |
| dādv́k ${ }^{\text {² }}$ | a kind of large pot, cf $d \bar{v} k^{\text {J/ "pot" }}$ |  |  |
| bàlà ${ }^{\text {r }}{ }^{\varepsilon}$ | "hat" | bàlàar ${ }^{\text {e }}$ | "stick, staff" |
| bānāa | traditional s |  |  |
| bālērvg ${ }^{\text {/ }}$ | "ugly" cf $\bar{l} r^{2}$ | ugly" |  |
| bàyc̄og ${ }^{\text {/ }}$ | "betrayer of | $s^{\prime \prime} \mathrm{cf} y \bar{\varepsilon} \varepsilon s^{\varepsilon /}$ | a secret" |
| $n a ̄ n z u ̄{ }^{\text {a }}{ }^{\text {¢/ }}$ | "pepper" | màngáv ${ }^{\text {² }}$ | "crab" |
| làngáv ${ }^{\text {² }}$ | "crab" |  |  |
| sākárùg ${ }^{\text {ºma }}$ | "fox" | sàbùa | "lover, girlfriend" |
| sāmán ${ }^{\mathrm{n} \text { ¢ }}$ | "courtyard" | sāngúnnìr ${ }^{\text {c }}$ | "millipede" |
| zànkù'ar ${ }^{\text {c }}$ | "jackal" | Zàngbèog ${ }^{\text {º }}$ | "Hausa person" |

Nàyịig ${ }^{\mathrm{a}}$ "thief" is written na'ayiig in NT/KB as if with the cb nā'- "cow", but it has $L$ toneme initially and the vowel is definitely not glottalised (WK); nor is the sense limited to "cattle thief." It is an $a \mid b a$ class $g$-stem: pl nàyịig-nàm ${ }^{\mathrm{a} ;} \mathrm{cf}$ nàỵ̣̂igım ${ }^{\mathrm{m}}$ "thievery." There is an analogical $g a \mid s \varepsilon$ pl nàyịis ${ }^{\varepsilon}$. The Farefare cognate is này!̀gà, pl nayigba or nayigsi; Dagbani has nayiza pl nayizsi and also tayiza.

Some prefixes are connected with the verb negative particles pū kù:

| kùndì'ar ${ }^{\text {c }}$ | "barren woman"; cf dư'à ${ }^{\text {a }}$ "bear, beget" |
| :---: | :---: |
| nịn-pū-nān ${ }^{\text {na/ }}$ | "disrespectful person"; cf nān ${ }^{\varepsilon}$ "love, respect" |
| tòb-pū-wómnìb ${ }^{\text {a }}$ | "deaf people" (Rom 11:7) cf tùbvr ${ }^{\text {e }}$ "ear", wòm ${ }^{\text {m "hear }}$ |

However, most cases show no identifiable negative meaning:

| kùndù $\eta^{\mathrm{a}}$ | "jackal" | gūmpūzēr ${ }^{\varepsilon /}$ | "duck" |
| :--- | :--- | :--- | :--- |
| dāmpūsāar | "stick" | bān-kúsćll | "lizard" |

Some original cbs have become partly bleached of their original meaning and/or simplified phonologically, and then detached from their regular paradigms after being ousted by new cbs based on analogy with sg forms 5.2.

Nị̀n- "body" is accepted by WK as cb of nị̣na nịiis ${ }^{\varepsilon}$ [= Mooré yĩnga] but the word is rare; it appears in nị̀n-tāa "co-wife" and nịn-gbị̣ $\eta^{\jmath /}$ "human skin; body."

Dà- "man" has been replaced as regular cb by forms segmentally remodelled on sg and pl dàu-, dàp-, but dà- is seen in dà-pāala/ "son, boy" (pāalíg "new") and dàkòon̆r $r^{\varepsilon}$ "son, bachelor" (cf àrakón̆' "one.")

Pù- "woman" (cf pú'āa "woman" cb pư'à-) appears in pù-kòon̆r $r^{\varepsilon}$ "widow"; cf Mooré pùgkõoré "widow" along with pùgsádà "young woman" = Kusaal pur'à-sādır ${ }^{\varepsilon /}$.

Pv̄- "farm" (cf pōogo/ "field, farm", pl pōt ${ }^{\varepsilon /}$, cb p̄̄-, Mooré púvgò pl pútò) appears in $p \overline{0}-k p \bar{a} a d^{\mathrm{a} /}$ "farmer" (= kpāad ${ }^{\mathrm{a} /}$ id); tonally, it behaves as a M prefix 3.8.1.

Nà'- "chief"(?) appears before a number of nouns signifying animals and insects: nà'-zòm ${ }^{\mathrm{m} \varepsilon}$ "locust", nà'-dàwānne/ "pigeon" (=dàwān ${ }^{\text {n } /}$ ) and WK's nà'$n \bar{\varepsilon} s ı n n \bar{\varepsilon} \circ g^{\jmath /}$ "centipede" ( $n \bar{\varepsilon} s ı n n \bar{\varepsilon} o g^{\jmath /}$ "envious person" WK; others: "centipede.")

The cb perhaps relates to traditional folklore; cf à-kōra-dị̂əm ma "praying mantis" ("hyena's parent-in-law") and animal and bird names which incorporate the


### 10.2 Quantifiers and adverbs

Unlike noun prefixes, prefixes with quantifiers and adverbs have identifiable meanings. All such prefixed forms are liaison words 4.2.

All forms of the numbers 2 to 9 begin with a number prefix 12.5.1. The number prefixes are fossilised noun class agreement flexions. With the collapse of grammatical gender, the $a \mid b a$ class agreement pronouns ò bà were generalised for animate gender and the $r \varepsilon \mid a a$ class singular pronoun lì was adopted for inanimate. In Dagbani, where there has been a similar change, the old plural pronoun $\eta a$ is still found in older materials for inanimate plural (Olawsky 1999.) The $\grave{a}$ - of numbers used as quantifiers like ày!̣́" "two", àtán̆' "three" etc used as quantifiers represents original * $\eta a$-. This same à- is also seen in àlá "how many?" contrasting with àlá "thus", which has manner-adverb à-.

The expected corresponding number prefix bà- is not now found after nouns with animate gender, but is still preserved after personal pronouns: tì bàtán̆' "we three", yà bàyópòe "you seven", bà bày!̣́" "they two."

The form of the number words 2-9 used for counting represents the old mm class agreement, in the "abstract" sense of $m m \underline{5.1}:$ thus ǹtán̆' "three", ǹnāas "four", ǹnū "five." Nawdm, which preserves class agreement for numbers (nídbá bàtáf "three people") uses the agreement prefix for its cognate $m$-class for counting: mtáf "three" mnàà "four" mnù "five" etc (Fiedler 2012.)

The number prefix bì- appears in various adverbial number words; it probably represents either an old bo or mm class agreement.

| àbv̀y!̣́' | "twice" | àbv̀tán̆' | "three times" |
| :--- | :--- | :--- | :--- |
| àbv̀nāasí | "four times" | bùpịiga | "ten times" |
| nōorím bùtán̆' | "three times" |  |  |

Several manner-adverbs have a prefix $\grave{a}$ - along with apocope-blocking 13.4. It is followed by M spreading. It differs from the number prefix in that it does not cause a preceding LF-final vowel to appear as -a 4.2.

| àmēŋá | "truly" | àsīda |
| :--- | :--- | :--- |
| ànị́nà | "promptly" |  |

The same prefix is also seen in a number of proadverbs and in the locative àgóllı "upwards."

## 11 Unsegmentable complex stems

Numerous words in Kusaal (including the very name of the language, Kūsâal ${ }^{\varepsilon}$ ) have stems which are more complex structurally than the ordinary unprefixed type but are simply unanalysable units. Tonally, they usually resemble forms with noun prefixes, but examples occur with an initial H toneme, like gbáňyà'a "lazy person", cf Dagbani gbinyayli "laziness." Segmentally, they may contain unusual consonant clusters. Most are identifiable as loanwords, but by no means all. Many names of ethnic groups and clans fall into this category, such as Kūsâas ${ }^{\varepsilon}$ "Kusaasi", Ňwāmpūrts ${ }^{\varepsilon /}$ "Mamprussi", Kı̀tām ${ }^{\mathrm{ma}}$ the name of WK's clan.

### 11.1 Loanwords

Nouns form by far the largest group of identifiable loanwords. They are often fitted into the noun class system by analogy 5.5. The initial $a$ - of loanwords like àrazánà "heaven" and àrazàk ${ }^{\mathrm{a}}$ "riches" is usually treated tonally as fixed-L 4.4.3.

Most identifiable loanwords come from Hausa, the largest African language after Arabic by number of first-language speakers, used by millions more as a lingua franca in the savanna zone of West Africa. Although there are many ethnic Hàusàawaa in the Kusaasi area, especially in Bawku, the language which has influenced Kusaal is the Gaanancii lingua franca; though mutually intelligible with Kano Hausa, Gaanancii among other differences lacks not only grammatical but even natural gender, uses [z] for [ $\bar{d} 3$ ], monophthongises diphthongs, and drops the distinction between glottalic consonants and their plain counterparts.

Nouns borrowed from Hausa often deviate from typical Kusaal noun structure. Examples include dāká "box", Hausa àdakàa (ultimately from Portuguese arca); gādv "bed", Hausa gadoo; kè $k k$ " "bicycle", Hausa kèekè; bákpàe "week", from Hausa bakwài "seven", also used for "week" in Gaanancii.

Identifiable verb loanwords are much less common. They are subject to the usual constraints on verb shapes 9.1, e.g. dàam ${ }^{\mathrm{m}}$ "disturb, trouble", Hausa dàamaa; bù $g^{\varepsilon}$ "get drunk", Hausa bùgu, literally "get thoroughly beaten", a Hausa idiom.

Several function words are loans, probably from Hausa: àsé $\varepsilon$ "except", Hausa sai; kv̄v "or", Hausa koo; báa "not a...", Hausa bâa.

Loanwords with Hausa counterparts did not necessarily originate in Hausa, itself a great borrower. Some appear in many languages of the region, e.g. hālí "until", Hausa har, Kikara Songhay hálì, possibly from Arabic ћatta: (Heath 2005.) With làbıya "be crouching behind something", Hausa labèe "crouch behind something to eavesdrop", Kikara Songhay lá:bú "hide behind or under something", the match of form and meaning is striking; if làbı ${ }^{\text {ya }}$ is a loan, its single-aspect flexion and dualaspect derivatives are probably due to the analogy of vābıya/ "be lying prone."

Wide geographical distribution need not rule out Hausa origin or transmission, however: loans from Hausa have travelled far in West Africa, with an entry point into Songhay via the Zarma and Kaado languages of Niger.

Arabic loans are frequent throughout the languages of the Sahel and Savanna; thus, among many others: Kusaal láafiya, Hausa laafiyàa, Mooré làafí, Kikara Songhay Pàlà:fíyà "health", Arabic Pal-\{a:fiya "the wellness"; Kusaal àrazàka, Hausa arzikii, Mooré àrzćká "riches", Kikara Songhay Párzúkù "good luck", Arabic Par-rizq "the livelihood" pl Parza:q; àrazánà "heaven, sky", Hausa àljannàa, Mooré àrzãnà, Kikara Songhay Pàljánnà "heaven, paradise", Arabic Pal-fanna "the garden, paradise"; Kusaal yàddā/ "assent", Hausa yàrda (verb) "consent", Kikara Songhay yárř̀ "consent", probably from the Arabic yard$a:$, 3 sg masculine ipfv of radiya "be


Arabic words have mostly entered Kusaal via Hausa, but some Kusaal forms more closely resemble Mooré. Many Mossi live in the Kusaasi area, and many Kusaasi speak Mooré well; they often attribute local or individual peculiarities of Kusaal speech to Mooré influence. Arabic words have reached Mooré from several other West African languages widely used by Muslims, including Dyula and the Songhay languages. Thus màliāka/ "angel" (malek in NT versions prior to 2016) is derived from the Arabic mal?ak; the vocalism suggests transmission via Mooré màlćkà. The forms clearly do not match Hausa màlaa'ikàa, which is from the Arabic plural mala:Pika. Similarly, Sūtáanà "Satan" matches Mooré Svtãana rather than Hausa shàiofân, which is a learned borrowing of the Arabic Sayt ${ }^{〔} a: n$.

Christian missionary work among the Kusaasi began in Haute Volta (now Burkina Faso) and used Mooré materials, leading to borrowing and calquing. Wínnà'am ${ }^{\mathrm{m}}$ (WK) Wínà'am ${ }^{\mathrm{m}}$ (Wina'am NT/KB) is "God" in Christian materials, though the Creator of traditional religion often appears simply as $W i n^{n}{ }^{n}$ in proverbs etc. Wínnà'am looks like a compound of wīnne/ "god" and the stem of nà'ab "chief" or nā'am ${ }^{\mathrm{m}}$ "chieftaincy", but the tones would then have been *Win-nâ'am, and the prevalence of Wínà'am with single $n$ confirms that the form is not a synchronic compound. Direct borrowing of Mooré Wênnàám would not account for the glottalised $a^{\prime} a$, and the immediate source is probably Toende Kusaal. Niggli has Wínā'am, with a tonal fall like Agolle Wínà'am, and single $n$, reflecting the loss of consonant gemination in Toende everywhere except before LF affix vowels.

Faangid "saviour" (NT/KB) is read [fã: $\left.g^{\mathrm{j}} \mathrm{I} d\right]$ by my informants; preservation of $g$ in this position 3.7 is exceptional, the only other cases in my data being faangir "salvation" and the gerund $z i ̣{ }^{-1} \partial g^{\text {a }}$ of $z i ̣ ' e^{\text {ya }}$ "be standing" used by DK KT instead of $z!\underline{i} ' a$. The agent noun of $f a \bar{e} e^{/}$"save", fāan̆ $d^{\mathrm{a} /}$, was avoided as identical to the agent noun of fän̆ "rob, snatch", NT/KB faand "robber"; WK confirmed that fäan̆d ${ }^{\mathrm{a} /}$ has both meanings in his idiolect. Faangid is probably another loan from Toende Kusaal, which often retains *g in this position: Õ bv paage "Il n'est pas arrivé." Niggli has both fãagıt and fãat for "saviour", with fãat also glossed as "robber."

Wínà'am fāan̆gíd fāan̆gír appear in the actual speech of many Agolle Kusaasi, and are used in this grammar in transliterating Bible verses. Older NT versions also used the Toende forms aarup (Toende ãaròn) for àn̆rv "boat", and malek (Toende màlćk, Mooré màlćkà) for màliāk "angel", but KB has anroŋ and maliak throughout, matching the usage of my informants and of the audio 1996 version.

A clear Mampruli loanword is WK's kịibú cb kịib- "soap", which he uses instead of Kusaal $k i{ }^{\prime} ' t b^{\jmath /}$. The length and quality of the vowels identify the source as Mampruli kyiibu: contrast Farefare kí'íbó, Dagbani chibo. Other words with singulars ending in $-\iota$ or $-v$ also probably originated as loans from Mampruli or Mooré 5.1.

Loanwords of Songhay origin include bùrkìn ${ }^{\text {a }}$ "honest person", Mooré bùrkĩná "free, noble", Dagbani bilchina "free, not slave", cf Kikara Songhay bòrkǐn "noble (caste)" and bàunv, used only in kpèn̆' bàūp "get circumcised" (kpèn̆' "enter"), Mooré kẽ bãongó id, cf Kikara Songhay bàngù "pool, spring", à húró bà $\quad$ gù "he entered the pool", i.e. "he was circumcised."

Loans from Twi/Fante ("Akan"), the major lingua franca of southern Ghana, include kJ̄dv́ "banana", Twi kwadu; sāafi (?tones) "lock, key", Twi safẽ "key" (from Portuguese chave); būrıyá "Christmas", Twi bronya (itself of unclear origin.)

English loanwords sufficiently naturalised to be used by speakers unfamiliar with English have often undergone considerable changes: àlópìr $r^{\varepsilon}$ "aeroplane", perhaps a back-formation from [alopilin] taken as a locative àlópìrī-n $n^{\varepsilon /}$; dv́'atà "doctor" (cf Dagbani dó $\gamma t \varepsilon ́ ~ i d) ; ~ t o ́ k l a ̀ e ~ " t o r c h " ~(" t o r c h l i g h t ") ; ~ l o ́ r e ~ " c a r, ~ l o r r y " ~(o f t e n ~$ borrowed even in Francophone Africa: cf Mooré lórè, Nawdm lòóŕ); postim (Jeremiah 20:10) "complain about officially" ("report.")

English stress may be represented by a H toneme which remains fixed throughout the paradigm: lóyà "cars", not *lȳyá.

Several words of English origin have probably been transmitted via Hausa: kótv̀ "court", Hausa kootù; sógìà ${ }^{\text {" }}$ soldier", Hausa soojà; tć $\varepsilon b \grave{l} l^{\varepsilon}$ "table", Hausa teebùr; wādá "law", Hausa oodà , from English "order", with Kusaal sg wādır ${ }^{\varepsilon /}$ cb wād- created by back-formation.

A clear French loan in Agolle Kusaal is làmpō (i.e. l'impôt) "tax", as in làmpō$d ?^{\prime} \partial s^{\mathrm{a}}$ "tax gatherer." This word is widespread in northern Ghana (Dagbani lampoo), reflecting extensive French influence in the region prior to the British annexation. Another word probably derived from French is kàs $\bar{\varepsilon} t^{\text {a/ "witness, testimony", Mooré }}$ kàsétò "testimony, proof", as in kàsét sébrè "receipt" ("evidence writing.") The ultimate origin is probably French cachet in the sense "seal (of authenticity)", with -tperhaps introduced from the corresponding verb: il cachète "he seals." Mooré and Farefare kàsétò have only the abstract sense "testimony"; the adaptation as an a|ba class human-reference noun "witness" seems to be a Kusaal innovation enabled by the dropping of the final vowel.

There are naturally many more French loans in the Toende Kusaal of Burkina Faso (Niggli 2014.)

## 12 Noun phrases

### 12.1 Structure

A nominal phrase may be either a noun phrase (NP) or an adverbial phrase (AdvP.) A noun phrase has a noun, pronoun or quantifier as head. If present, the article $l \bar{a} /$ occurs last in a NP. (For the sole exception, see 16.11.)

Unbound dependent NPs may precede the head recursively. Some pronouns have specialised roles as NP heads; otherwise the meanings correspond to the wide range expressed in English by genitives or NP complements with "of", e.g.
dāu lā bútì $\eta$
sālıma bútìŋ
"the man's cup" ("cup of the man")
"a gold cup" ("cup of gold")

Predependents with specific or countable-generic reference are determiners (answering "which?"), as are the article, dependent pronouns, quantifiers or AdvPs following the NP head; other dependents are modifiers (answering "what kind of?")

Relative clauses 21.2 are also NPs.
Compounding is pervasive in NP structure where most languages use uncompounded constructions. Kusaal compounds fall into two basic types, depending on whether the combining form is head or dependent. Compounding is the regular construction for head nouns with following adjectives and dependent pronouns:

| būvg | "goat" | bù-pì̀lıg | "white goat" |
| :--- | :--- | :--- | :--- |
| bv̀-kàjā | "this goat" | bù-pịəl-kà $\bar{a}$ | "this white goat" |

Compounds with non-referential cbs as dependents are also common:

```
    nà'ab lā wíd-zv̄vr "the chief's horse-tail"
vs nà'ab lā wịֶ\mp@code{zv̂vr "the chief's horse's tail"}
```

Regardless of which element precedes, the last stem shows the noun class suffixes which mark number for the head. Preceding stems appear as combining forms, typically bare stems which have undergone apocope, though analogical remodelling is common, and regular with some stem types 5.2. Compounding is so productive that the cb is a regular part of noun and adjective flexion 5.1.

For the tone sandhi rules which affect the component following the combining form see 4.4.3 4.4.4. They are not sensitive to whether the cb is head or dependent.

Compounds may have compound components, most often as a result of the addition of an adjective or dependent pronoun to an existing compound, where the binding of the new element is weaker than that within the existing compound:

| [bù-pị̀əl-]kàjā | "this [white goat]" |
| :--- | :--- |
| [nịn-wók-]pì̀əlıg | "white [tall person]" |
| [zà'-nō-]píəlìg | "white gate" ("white [compound-mouth]") |

A compound may appear as generic argument to a following deverbal noun:

| [zà'-nj̄-]gúr | "gate-keeper" |
| :--- | :--- |
| [[zà'-nō-]gúr-]kà | "this [gate-keeper]" |

Noun-adjective compounds can be used as bahuvrihi adjectives 12.8.1.1:

> nịf-n̆yáuk
> bv̀-[nịf-n̆yáukk]
> nōb-wók
> kùg-[nōb-wók]
"one eye"
"[one-eyed] goat"
"long leg"
"[long-legged] stool"

Bahuvrihis can appear as complements of àeña "be something":

Kùg-kàjā á n̄̄ nōb-wók. "This chair is long-legged." WK
Chair-demst.sg cop foc leg-long:sG.

Compounds may contain uncompounded elements within their structure.
Predependent NPs as modifiers 12.7.2 bind tighter than the link between cb generic arguments and deverbal nouns:

```
ānzúrıfà ne\overline{ sālıma lâ'ad "silver and gold goods"}
[ānzúrıfà lá'-]māan
[ānzúrıfà nē sālıma lá'-]māan
```

"silver and gold goods"
"silversmith" ("[silver goods]-maker")
"silver- and goldsmith"

Otherwise, cbs are bound tighter to following than preceding words, except that determiners of all kinds have the loosest binding:

## [sālıma bútì $y-] k a ̀ \eta a ̄$

[[sālıma lá'-]màan-]kànā
ò [[sālıma lá'-]māan]
sālıma [zá'-nōor]
zūgú-n [nịf-gbáū ]
"this [gold cup]"
"this [[gold-item]-maker]"
"her [[gold-item]-maker]"
"golden gate" ("golden [compound-mouth]")
"upper eyelid" ("upper [eye-skin]")

Adjective cbs can only be used before another adjective or a dependent pronoun, so when a noun-adjective compound is used as a generic argument it must adopt a sg or pl form:

```
    [fū-z\varepsilońn̆dà] kùөs "seller of red (i.e. dyed) cloth"
not *fü-z\varepsilońn̆'-kù0s
```

Coordination is characteristically a feature of NPs, but also found in AdvPs.
The particles for "or" are $b \bar{\varepsilon} \varepsilon$ or $k \bar{v} v$. Here the two are synonymous; the only place where they consistently have different senses is in the formation of polar questions. Both, like English "or", are by default taken as exclusive "or" but admit the inclusive interpretation "or both." This can be spelt out explicitly:

> Bịig lā kv̄v dāũ lā kúv bà wv̄sa
child:Sg ART or man:SG ART or 3PL all
"The man, or the child, or both" WK

The particle for "and" for NPs and AdvPs is $n \bar{\varepsilon}$. This $n \bar{\varepsilon}$ is fundamentally the same word as the preposition "with"; the linker adjuncts $b \bar{\varepsilon} \varepsilon$ and $k \bar{v} v$ can be used in a parallel way. $N \bar{\varepsilon}$ links nominal words and phrases, but no clauses other than (previously nominalised) $\grave{n}$-clauses. It is not possible to omit coordinating particles in a series of three or more items, or to use $n \bar{\varepsilon}$ to join two words with the same referent:

À-Wı̀n né $\grave{A}$-Būgur né $\grave{A}$-Nà'ab
dú'atà n $\bar{\varepsilon}$ nâ'ab

```
"Awini, Abugri and Anaba"
"a doctor and a chief"
(necessarily two different people)
```

Coordinated heads may not share determiners:

## $\boldsymbol{m}$ ba'abiis ne $\boldsymbol{m}$ saamnama

$\grave{m}$ bā'-bị̂is né 亠̀ sàam-nàmā=ø
1SG father-child:PL with 1SG father-pl=voc
"my siblings and [my] fathers!" (Acts 7:2)
pư'ā lā n $\quad$ ēāu $\quad$ là $\quad$ "the woman and the man"
woman:SG ART with man:SG ART

An exception is yịigá "firstly" used as a predependent for "first" 12.7.3:
yiiga saŋgbauŋ ne tejgbaup ne atcuk
yịigá sàj-gbàun $n \bar{\varepsilon}$ tह́n-gbàun né àtìuk
firstly heaven-skin:sG with earth-skin:SG with sea:SG
"the former heaven and earth and sea" (Rev 21:1)

Coordinated heads may share modifiers:

Kūsâal sólımà nē sịilímà "Kusaasi stories and proverbs"
Kusaal story:PL with proverb:PL

Kūsâas kûөb n̄ yị̀r "Kusaasi agriculture and housing"
Kusaasi:PL hoeing with house:SG
sālıma bútìıs nē dísímà "gold cups and spoons"
gold cup:PL with spoon:PL ("all of them gold", KT)

However, KT WK both agreed that sālıma lâ'ad nē būtııs must mean "gold goods and [not gold] cups", WK offering the correction
sālıma lâ'ad né ò būtıss "gold goods and (gold) cups" WK
gold item:PL with 3AN cup:PL
where ò refers to sālıma. (See 12.3 on the unexpected gender of the pronoun.) The difference from sālıma bútìıs n $\bar{\varepsilon}$ díısímà (above) is probably that "cups" are a subtype of "goods", impairing the parallel between the coordinated units and making it less natural to supply the ellipsis than in sālıma bútìıs n $\bar{\varepsilon}$ [sālıma] díısímà "gold cups and [gold] spoons" (I am grateful to Tony Naden for this suggestion.)

Coordinated heads may even occur before an adjective:

Ka m nye saygbaup ne teygbaung paal.
Kà m̀ n̆y $\bar{\varepsilon}$ sáy-gbàun- nē tév-gbàun $\quad$-páal
And 1sg see heaven-skin- with earth-skin-new:sg.
"And I saw a new heaven and a new earth." (Rev 21:1)

However, cbs as dependents may not be coordinated:
*[bēníd nē kị] kûes
not possible for "seller of bēníd n $\bar{\varepsilon}$ kị" (beanleaf-and-millet, a conceptual unity like "fish and chips", "lox and bagels.")

Dependent NPs or AdvPs can naturally include coordinated components:

| o nya'andolib pii ne yi | "his twelve disciples" (Mt 26:20) |
| :--- | :--- |
| ò n̆yà'an-dòllıb pịi n $\bar{\varepsilon}$ y!̣'' |  |
| 3AN after-follower:PL ten with two |  |
| dú'atà n̄ nâ'ab lā lóyà | "Doctor's and the chief's cars" |
| doctor:SG with chief:SG ART car:PL |  |
| sālıma nē ānzúrıfà lâ'ad <br> gold with silver item:PL | "gold and silver goods" |

The last two examples are ambiguous; they can also be construed as ellipsis of the first of two identical heads within a coordination of two dependent-head NPs:

dú'atà (lóyà) nē nâ'ab lā lóyà<br>sālıma (lâ'ad) nē ānzúrıfà lâ'ad<br>[dv́'atà nē nâ'ab lā] lóyà<br>[sālıma nē ānzúrıfà] lâ'ad

vs
"[Doctor's cars] and [the chief's cars]" "[gold goods] and [silver goods]" "the cars of [Doctor-and-the-chief]" "[gold-and-silver] goods"

This is impossible if the ellipted element would have been a cb: an elliptical reading of ānzúrıfà nē sālıma lá'-māan "silver- and goldsmith" would have to mean "a smith made of silver and a smith made of gold."

NPs can also be combined by apposition. For apposition of locatives see 13.3; for relative clauses see 21.2.

NPs may precede personal names in apposition:
na'ab Agrippa
"King Agrippa." (Acts 25:13)

Li pu nar ye fu di fu ba'abiig po'a Herodiase.
Lì pū nār yé fù dí fù bā'-bịịg pư'á Herodiase=ø. 3IN neg.Ind must that 2SG take 2SG father-child:SG wife:SG Herodias=Neg.
"It's not right for you to marry your brother's wife Herodias." (Mt 14:4, 1996)
... lebis ye, eenn, o zua Asibigi $n$ kabirid.
...ø lèbıs y $\bar{\varepsilon}, \bar{\varepsilon} \varepsilon \check{n}$, ò zưà À-Sịbıgı $n$ kābıríd.
...CAT reply that, Yes, 3AN friend:SG PERS-termite:SG CAT ask.admission:IPFV.
"...replying that, Yes, it was his friend Termite asking for admission." KSS p12

The fact that the personifier-particle allomorph $\grave{a}$ - is not omitted in these cases shows that the relationship is not dependent-head 12.6.

Personal pronouns in apposition use free forms 24.6:

```
Man Paul [...] pv'vsidi ya. "I, Paul ... greet you." (2 Thess 3:17)
Mān Paul [...] pó'vsìdī yá.
1Sg Paul greet:IPFV 2PL.OB.
```

Apposition is to be distinguished from cases where a preceding head has no combining form, as with quantifiers, or coordinated structures, and also from cases of segmental remodelling of cbs $\underline{5.2}$. The 1996 NT regularly replaces the initial cb of a number of compounds in the 1976 NT with a form written like a singular:

| Nonaar Paal for Nonapaal | Nō-ná-páal | "New Testament" |
| :--- | :--- | :--- |
| Siig Suך for Sisup | Sì-sùp | "Holy Spirit" |

In the audio version Siig Suŋ is read Sìıg-sù (Sîıg-sù $\eta$ with M spreading) or Sì-sùך, not *Sīıg-súך; cf lànnıg-kàyā "this squirrel", dàp-bàmmā "these men."

### 12.2 Number

Number is a category only of nouns, pronouns and quantifiers. Agreement is confined to pronouns. However, in a compound of a noun with a following adjective or dependent pronoun, the dependent inflects to show the number of the head 12.8.

Count nouns distinguish sg/pl, unlike mass nouns, which characteristically refer to liquids, substances or abstractions. Count nouns may be abstract:

| $z \bar{\circ} g^{\text { }}$ | $z \bar{\nu}$ ¢s ${ }^{\varepsilon}$ |  | "race" |
| :---: | :---: | :---: | :---: |
| bū'өsúg ${ }^{\text {a }}$ | bū'өsá | bū'өs- | "question" |
| zàan̆súp ${ }^{\text {a }}$ | zàaňsímà | zàan̆súp- | "dream" |

The count/mass distinction affects the choice of quantifiers 12.5, the form of plurals with nàm ${ }^{\mathrm{a}} \underline{5.4}$, and the meaning of NPs as predependents 12.7.2.

Typical underived mass nouns belong to the bo and $m m$ noun classes, but gerunds of 3-mora-stem verbs regularly show $\operatorname{sg} r \varepsilon$ or $g 0$, and a number of words referring to uncountables or abstracts are formally plural, but construed as singular:

| bān̆'as | bàn̆'- | "disease" |
| :--- | :--- | :--- |
| ñȳ̄'כs | ňȳ̄'- | "smoke" |
| tàdımís |  | "weakness" |
| $z \bar{l} \iota m i ́ s^{\varepsilon}$ |  | "foolishness" |
| $m \bar{\varepsilon} t^{\varepsilon /}$ | mēt- | "pus" |
| $k u \bar{t} t^{\varepsilon}$ | kùt- | "iron" |


| $z u ̀ \theta d^{\varepsilon}$ |  | "friendship" |
| :---: | :---: | :---: |
| $b \bar{v} v d^{\varepsilon}$ |  | "innocence" |
| sịin̆ ${ }^{\varepsilon /}$ |  | "honey" |
| $n \grave{̣} n-p \hat{v} v d^{\varepsilon}$ |  | "pus" |
| wāad ${ }^{\text {/ }}$ |  | "cold weather" |
| $s u \bar{n}-p \hat{\varepsilon} \varepsilon n^{\mathrm{n}}{ }^{\text {c }}$ |  | "anger" |
| $k_{\text {u'à }}$-nūud ${ }^{\text {/ }}$ |  | "thirst" |
| sālıma | sàlım- | "gold" |
| sìda | sìd- | "truth" |

$K u \bar{t}{ }^{\varepsilon}$ is also "nail"; the original sg $k \bar{u} d v g^{3}$ appears in the name $\grave{A}-K \bar{u} d v g^{\rho} \underline{26.2}$. So too with a number of irregularly formed deverbal abstract nouns:

| $g \bar{\varepsilon}$ ¢n̆mís ${ }^{\text {e }}$ | "madness" | $\leftarrow$ | $g \bar{\varepsilon} \varepsilon \frac{10}{}{ }^{\mathrm{m} /}$ | "madden, go mad" |
| :---: | :---: | :---: | :---: | :---: |
| bùdımís ${ }^{\text {e }}$ | "confusion" | $\leftarrow$ | bùdım ${ }^{\text {m }}$ | "confuse" |
| tìtūmıs ${ }^{\text {® }}$ | "sending" | $\leftarrow$ | tùm ${ }^{\text {m }}$ | "send" |
| $z \grave{1 i d}{ }^{\varepsilon /}$ | "carrying on head" | $\leftarrow$ | $z \overline{1}$ | "carry on head" |
| vūud ${ }^{\text {/ }}$ | "noise" | $\leftarrow$ | $v u \bar{\square}$ | "make a noise" |
| $k \bar{\varepsilon} n^{\text {ne/ }}$ | "arrival" | $\leftarrow$ | $k \bar{\varepsilon} \check{n}$ | "come" |
| pìàn'ad ${ }^{\varepsilon}$ | "speech" | $\leftarrow$ | $p i ̄ a ̄ \breve{n}^{\prime a}$ | "speak" (irreg. tones) |
| piàuňk ${ }^{\text {a }}$ | "word"] |  |  |  |
| dị'əma | "festival" | $\leftarrow$ | dị'əm ${ }^{\text {m }}$ | "play, not be serious" |
| tūvma | "work" | $\leftarrow$ | tòm ${ }^{\text {m }}$ | "work" |
| tūvm ${ }^{\text {m }}$ | "deed"] |  |  |  |
| tह̄̆̆' 'عsá | "thought" | cf | tėn̆'عsá yīnní | "one thought" |

A single object may be referred to by a plural naming its components:

| dà-pv̄vdá | dà-pv̄vdá nàm | a |
| :--- | :--- | :--- |
| cf | dà-pūvdír | dà-pv̄vdá |

A Kusaal plural may just happen to correspond to an English mass noun:

| lāuk ${ }^{\nu}$ | lā'ad | "piece of goods" |  |
| :--- | :--- | :--- | :--- |
| lā'afo | lịgıdı | là'- | là'- or lị̀g- |

Mass nouns can be used in count senses: dāam nám "beers."
Some count nouns can have mass senses:
fūug dôog
dàad bún-nám
"tent" (cloth hut): fūug "item of clothing, shirt"
"wooden things": dàad "pieces of wood"

### 12.3 Gender

Gender is marked only in pronouns. It is natural, distinguishing animate from inanimate. Not only human beings, but also supernatural beings, "fairies" and the like have "animate" gender. Without a context, my informants all rejected
*Ò à nē náaf.
attempted "It is a cow."

3AN COP FOC COW:SG.

Nevertheless, written sources often use animate pronouns for higher animals:

Ka wief ya'a sigi li ni, li zulvך na paae o salibir.
Kà wị̀ə yá' sịgí lì nī, lì zùlvŋ ná pāe ò sàlıbır.
And horse:sg if descend 3IN loc, 3IN depth IRR reach 3an bridle:sG.
"If a horse goes down in it, its depth will reach its bridle." (Rev 14:20)

In stories where animals speak, they are naturally assigned animate gender.
When body parts are represented as speaking in this NT passage, they have animate gender:

Nobir ya'a yslin ye, "Man ka' nu'ug la zug, m ka' ningbiy la nii," lin kv nyapi ke ka o ka' ningbiy la nii.
Nóbìr yá' yèlī-n y $\bar{\varepsilon}$, Mán $k a ̄ '$ nû'ug lā zúg, ̀̀ kā' nịn-gbịn lā Leg:SG if say-dP that 3AN:NZ NEG.BE hand:SG ART upon, 1SG NEG.BE body-skin:SG ART níl=ø, līn kú n̆yāŋı, $\varnothing$ ké kà ò kā' nịn-gbị̄ lā níl=ø. LOC=NEG, DEM.IN NEG.IRR prevail CAT cause and 3AN NEG.BE body-skin:SG ART LOC=NEG. "If a leg said, 'Because I am not a hand, I am not in the body', that could not cause it not to be in the body." (1 Cor 12:15)

Trees, animate in the traditional world view, may have animate gender:

Tiig wela bigisid on a si'em.
Tìıg wélà bịgısıd ón àň sị̀'əm.
Tree:SG fruit:PL show:IPFV 3AN:NZ COP INDF.ADV.
"The fruit of a tree shows what ["how"] it is." (Mt 12:33, 1976)

Babies may be counted as animate or inanimate gender:
$\grave{O} / L \grave{l}$ à $n \bar{\varepsilon}$ bị-lịa. $\quad$ "He/she/it is a baby."
3AN/3IN COP FOC child-baby:SG.

The relevant distinction is thus whether the referent is being regarded as a "person"; if first or second person pronouns might apply, the gender is "animate."

A specific human/non-human distinction appears in morphology, in that the $a \mid b a$ noun class has exclusively human reference. Elsewhere, such distinctions are essentially lexical, as with nịn- "person" vs būn- "thing" as dummy cbs with adjectives. The availability of human-reference nouns as adjectives 12.8.1.2 reflects the fact that nouns referring to people are descriptive, labels for roles, or unique identifiers.

The current gender system distinguishes animate/inanimate in the singular with no distinction in the plural. In older sources like the 1976 NT (as in older Dagbani) inanimate pronoun forms used as heads, like demonstrative $n \bar{\varepsilon}^{1 /}$, are used indifferently for sg or pl, occasionally with nàm ${ }^{\text {a }}$ plurals to avoid ambiguity. However, even the 1976 NT always uses the animate plurals bàmmā bàn ${ }^{\varepsilon}$ sịəba of the dependent pronouns for inanimate, and my informants use the animate plural forms of all pronouns freely for both genders both as dependents and heads:

```
Bà à n\overline{\varepsilon}}\mathrm{ kūgá. "They are stones."
```

3PL COP FOC stone:PL.

In unselfconscious utterances animate pronouns often appear for inanimate; speakers correct the gender to inanimate if their attention is drawn to it.

Nịf-káyā, $\bar{n} n \quad$ sân̆'am n̄̄.
Eye-demst.sg, 3AN.cntr spoil FOc.
"This eye, it's spoilt." KT (Overheard)
$\grave{M} p \bar{u} \quad \check{n} y \bar{\varepsilon} o ́-o=\varnothing . \quad$ "I can't find it [a stethoscope]" (Overheard)
1SG NEG.IND See-3AN.OB=NEG.
sālıma lâ'ad né ò būtıs "gold stuff and (gold) cups" WK
gold item:PL with 3AN cup:PL

The dummy subject pronoun "it" is always $l i$, never ò.
The inanimate sg pronoun subject $l \grave{l}$ is not changed to animate $\grave{o}$ to agree with an animate complement of àeñ ${ }^{\text {a }}$ "be something":

Li ane Zugsob la.
"It is the Lord." (Jn 21:7)
Lì à ne Zūg-sób lā.
3IN COP FOC head-NULL.AN ART.

### 12.4 Pronouns

### 12.4.1 Personal

| Sg | 1st ${ }^{\text {R }}$ | Right-bound <br> $\grave{m}$ | Left-bound $m^{\text {a }}$ | Free <br> mān SF mánè LF | $\begin{aligned} & \text { Subject+̀̀ } \\ & \text { mán } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2nd | fò | $f^{\circ}$ | fūn SF fúnè LF | fón |
|  | 3 rd an | ò [ $¢$ | ${ }^{\mathrm{o}}$ [乙] | $\bar{\square} n^{\varepsilon}$ | ón |
|  | 3rd inan | lì or dì | 11 | līn ${ }^{\varepsilon}$ or $d \bar{i} n^{\varepsilon}$ | lín or dín |
| Pl | 1st | tì | $t ı$ | tīnám ${ }^{\text {a }}$ | tīnámì ø |
|  | 2nd | yà | ya | yānám ${ }^{\text {a }}$ | yānámì Ø |
|  | 3 rd | bà | ba | bān ${ }^{\text { }}$ | bán |

"an"= animate, "inan" = inanimate.
Mām also occurs for 1 sg in any role. The bound forms are non-contrastive; they are all liaison words 4.2. Left-bound pronouns are used for VP objects, right-bound for all other roles. Personal pronouns are never dependent: in e.g. mì bịig "my child", $\grave{m}$ is the head of its own NP, and it is this NP which is the predependent of bịig "child", exactly like nà'ab lā "the chief" in nà'ab lā bị̂ig "the chief's child." There are no possessive pronouns.

The "+ $\grave{n}$ " forms are used as subjects in $\grave{n}$-clauses $2 \underline{11}$. The 2 pl subject has a form ya used after imperatives 18.3 with the allomorph -ní- before liaison.

Free forms may be used for cbs before relative pronouns:

Fon kane buoli fo mej ... "You who call yourself ... (Rom 2:17)
Fūn-kánì bùolı fù mēŋ ...
2SG-REL.SG call 2 SG self ...

Toende Kusaal has $\tilde{v}$ for $o ̀$ (probably $\leftarrow * \widetilde{y m} v$ ) and tun nam for tīnám yānám.
There are no inclusive/exclusive distinctions and no honorific uses of plural for singular or 3rd person for 2 nd.

2 sg is used in proverbs for a generic "one":

Bung ya'a bood ye o lubuf, fu po nyeti o tubaa.
Bùn yá' bòod yé ò lūbú f, fù pū ňyc̄tí ò tùbāa=ø.
Donkey:sg if want that 3AN throw.off 2SG.OB, 2SG NEG.IND see:IPFV 3AN ear:PL=NEG.
"If a donkey wants to throw you off, you don't see his ears." KSS p44
("Where there's a will, there's a way.")

3 pl is used as a non-specific "they" for turning passive constructions actively:

Bà yòodī $f$ súnàa $=\varnothing$ ?
3PL pay:IPFV 2SG.OB good:ADV=PQ?
"Are you well paid?" "Do they [never mentioned] pay you well?" SB

This construction has become grammaticalised so far that in n-catenation, the object can be construed as the grammatical subject 19.1, e.g.

Diib wusa nari ba di
"All foods may be eaten." (Rom 14:20)
Dīıb wūsa nárì Ø bà dí.
Food all must cat 3PL eat.

There are formal means of distinguishing different third persons by the use of pronoun ellipsis 17.2.2 and logophoric use of the free pronouns 22.2.

### 12.4.2 Demonstrative

| Long | Animate sg ̀̀ $\eta \bar{a}^{\prime}$ | Inanimate sg |  | Plural <br> bàmmā/ <br> bàn ${ }^{\varepsilon}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | lìnā ${ }^{\prime}$ | far |  |
| Short | òn ${ }^{\text { }}$ | lìn ${ }^{\text {c }}$ | far |  |
| Long |  | nē' $\dagger$ ' | near |  |
| Short |  | $n \bar{\varepsilon}^{\prime /}$ | near | $n \bar{\varepsilon}{ }^{\text {'-nám }}{ }^{\text {a }}$ NT |
| Long | kàjā' | kànā' |  |  |
| Short | kàn ${ }^{\text {² }}$ | kàn ${ }^{\text {² }}$ |  |  |

Note the tone difference between $\begin{aligned} & \\ & n^{\varepsilon} l i n^{\varepsilon} \\ & b a ̀ n \\ & \text { and free 3rd person pronouns. }\end{aligned}$ "Short" demonstratives are used as the basis of relative pronouns 21.2.2, for discourse deixis, and for interrogative "which?":

Fone an dau kan la!
Fūnı ø án̆ dáú-kàn lā! [i.e. in the story just related.]
2SG.CNTR CAT COP man-DEM.SG ART!

Lìne?
Nị̂f-kánغ̀?
Nịn-kánغ̀?
"Which one?"
"Which eye?"
"Which person?"

The＂long＂series are used for spatio－temporal deixis．They do not distinguish near and far except with sg inanimate heads；elsewhere，＂that＂can be specified by following the demonstrative with $l \bar{a} /$ and＂this＂by a following ňwà（cf French là and ci．）This use of $l \bar{a} /$ as deictic is enabled by the fact that demonstratives automatically make the NP definite 12．8．5．
sān－kápā
dàu－kàŋā sâam
dàu－kàjā lā sâam
dàu－kàjā n̆wá sâam
＂at this／that time＂
＂this／that man＇s father＂
＂that man＇s father＂
＂this man＇s father＂
 however，bàmmā ${ }^{\prime}$ bàn $^{\varepsilon}$ can be used either uncompounded or after a cb．

Kàn ${ }^{\varepsilon}$ kànā ${ }^{\prime}$ are only used as dependent pronouns，and if the head is a noun or noun－adjective compound it must be a cb（sometimes remodelled on the sg．）Kàn ${ }^{\varepsilon}$ may also follow a free personal pronoun，and àraḱ́n̆＇＂one＂，but no other quantifiers． NT avoids kàmā ${ }^{\prime} k a ̀ n^{\varepsilon}$ for animate gender．

```
dv́'atà lā lór-kà\etaā
bò-kà\etaā lā
n\overline{-pị̂l-kàya}
fūn-kánì bùol ...
```

```
"this car of the doctor's"
"that goat"
"this white hen"
    "you who call ..."
```


## 12．4．3 Indefinite

| Animate sg | Inanimate sg | Plural |
| :--- | :--- | :--- |
| $s \overline{1} '$ | $s i ̣ ⿱ 一 𫝀 口$ | $\partial l^{\mathrm{a}}$ |

Sō＇sị̀＇əla sị̀əba may be used as heads or dependents，and may follow cbs：sị＇a can only follow cbs，as a dependent．For NT WK，but not KT，sị＇$a$ is much commoner than $s I^{-1} \partial l^{\mathrm{a}}$ used as a dependent．WK feels that for people $s \mathrm{I}^{-1} a$ is pejorative；NT occasionally has sō＇for inanimate：tè $\overline{-}$－s̄̄＇＂a certain land．＂For indefinite pronouns in relative clauses see 21．2．1．

The sense is＂some，someone，something＂，＂a certain＂，indefinite but specific：

```
yà bị-sō' "a certain child of yours"
2PL child-INDF.AN
```

The meaning is often＂another，a different＂（cf Hausa wani，Jaggar p314．）

Méri one an Magdalen ne Mecri so'
Meeri ónì àn̆ Magdalen n̄̄ Meeri sō'
Mary rel.an cop Magdalen with Mary indf.an
"Mary who was Magdalen and another Mary" (Mt 28:1)

Winnig mor o meך venlim, ka nwadig me mor venlim si'a.
Wịnnıg mór ò mē vén̆nlìm kà ňwādıg mé mōr vén̆llìm-sị̀'a.
Sun:SG have 3AN self beauty and moon:Sg also have beauty-INDFIN.
"The sun has its own beauty and the moon, another beauty." (1 Cor 15:41)

M̀ ná tī $f$ tí-sị̀'a.
1SG IRR give 2SG.ob medicine-INDF.IN.
"I'll give you a different medicine." WK

Indefinite pronouns can be used to introduce new information:

Dàu-sō' dāa bé ... "There was a certain man ..."
Man-Indf.AN tns Exist ...
but this is likely to mean "There was another man ..."; "Once there was a man ..." is usually Dāu dāa bé ...

Sō'/sịìəl mé-kàma means "anyone, anything, everyone, everything":

O nipid si'el mekama sv'vja.
Ò nị̀ıı sị̀'əl mé-kàma súpā.
3AN do:IPFV INDF.IN also-whatever good:ADV.
"He does everything well." (Mk 7:37)

In negative clauses the indefinites mean "(not) ... anything", "(not) ... anybody":

Ka so' kudin ku len nyee li ya'asa.
Kà sō' kūdım kú l̄̄m n̆yćélī yá'asā=ø.
And indF.an ever neg.IRR again see 3in.ob again=neg.
"Nobody will ever see it again." (Rev 18:21, 1996)

Sō' $k \bar{a}^{\prime} e=\varnothing . \quad$ "There's nobody there."
INDF.AN NEG.BE=NEG.

M̀ pū yél sị’’əla=ø. $\quad$ "I didn't say anything."
1SG NEG.IND say INDF.IN=NEG.

### 12.4.4 Interrogative

Animate
Inanimate
ànô'on ${ }^{\varepsilon}$ "who?" bō "what?"

Plurals with nàm ${ }^{\text {a }}$ may be used if a specifically plural answer is being sought. Bō kị́mm "what exactly?" with the ideophone kị́mm is common in KB.
The initial à- of ànô'on ${ }^{\varepsilon}$ behaves like the manner-adverb prefix in liaison 4.2:
... keך tisi ano'onc?
"to go to whom?" (1 Samuel 6:20)
... kēŋ Ø $\varnothing$ tísì ànó'गn $\varepsilon$ = $=$ ?
... go CAT give who=CQ?
$B \bar{\jmath}$ can be used after a cb as a dependent interrogative "what?":

| nā'-bó | "what cow?" WK DK |
| :--- | :--- |
|  | (náaf bó can only mean "What, of a cow's?") |
| bv̀-bō | "what goat?" |
| dā-bó | "what beer?" |

The compound bò-būudl "what kind of?" can also be used as a dependent:

```
nā'-bó-būudı "what kind of cow?"
dā-bó-būudı "what kind of beer?"
```

Fv̀ á n̄̄ bó-bùudı=ø? "What ethnic group do you belong to?" 2SG COP FOC what-sort=CQ?

Bう̀- can be used as a predependent, querying a description: "what sort of ...?"

Fù tóm bó-tòvma=ø? "What kind of work do you do?"
2SG work:IPFV what-work=CQ?

Bo yir ka ya na me' $n$ tis mane?
Bò-yịr kà yà ná m̄ $n$ tís mánह̀=ø?
What-house:SG and 2PL IRR build CAT give 1SG.CNTR=CQ?
"What kind of house will you build for me?" (Acts 7:49, 1996)

## 12．4．5 Reciprocal

Tāaba＂one another＂appears as tāab clause－medially for some speakers．It can be used after a cb，meaning＂fellow－＂：ò tùm－tòm－tāaba＂his fellow－workers．＂

Sùクımī ø tāaba．＂Help one another．＂
Help：IMP 2PL．SUB each．other．

Tì yûug n̄ tāaba．＂It＇s been a long time．＂KT
1pl delay with each．other．
Bà dòl n $\bar{\varepsilon}$ tāaba．$\quad$ They went together．＂（dōlla／＂accompany＂）
3PL follow with each．other．

## 12．4．6 Reflexive

$M \bar{\varepsilon} \eta^{\mathrm{a} /}$＂self＂always has a predependent．It is used indifferently for $\mathrm{sg} / \mathrm{pl}$ ： m̀ $m \bar{\varepsilon} \eta$＂myself＂，yà $m \bar{\varepsilon} \eta$＂yourselves．＂
nà＇ab lā mév＂the chief himself＂
chief：SG ART self

Bà ňyće bà mēŋ．＂They＇ve seen for themselves．＂
3PL see 3PL self．
＂Self＂forms must be used for complements referring to the clause subject：

M n̆wé＇$\varepsilon$ 〔m m $\bar{\eta} \eta$ ．$\quad$＂I hit myself．＂
1Sg hit 1 Sg self．$\quad \operatorname{not} * \grave{M} \check{n} w \hat{\varepsilon} ' \varepsilon ~ m ~ o r ~ * M ் ~ n ̆ w \varepsilon ́ ' ~ m a ̄ n . ~$

Kusaal uses a pronoun possessor with body parts acted on by their owner，e．g．

Ba pv piesidi ba nu＇us wvo lin nar si＇em la ka ditta．
Bà pū pịə⿰sídí bà nû＇us wv̄v lín nār sị’əm lá kà dítā＝ø． 3PL NEG．IND clean：IPFV 3PL hand：PL like 3IN：NZ be．right INDF．ADV ART and eat：IPFV＝NEG． ＂They don＇t wash their hands properly before they eat．＂（Mt 15：1）

Where ordinary pronouns would be permissible，using $m \bar{\varepsilon} \eta$ implies contrast：
$\grave{M}$ pị́ə $\grave{m} m \bar{\varepsilon} \eta$ nû＇us．$\quad$ I washed my own hands．＂ 1SG wash 1SG self hand：PL．

| Fv̀ $m \bar{\varepsilon} \eta$ k $\bar{v} v$ bị-lị̀aa=ø? | "Yourself or the baby?" |
| :--- | :--- |
| 2SG self or child-baby:SG=CQ? | ("Which of you needs the doctor?") |

See also 12.8.3 on amēŋá "really, truly" as a modifier "genuine, real"; cf the adjective $m \bar{\varepsilon} \eta i ́ r^{\varepsilon}$ seen in $y \bar{\varepsilon} l-m \varepsilon ́ \eta i ̀ r^{\varepsilon}$ "truth" ("genuine matter.")

### 12.4.7 Dummy head

Sōb ${ }^{\mathrm{a}}$ is a dummy head for a preceding NP or AdvP dependent; it specifies number and gender but is otherwise semantically empty.

| Animate | sg | $s^{\prime} \bar{b}^{\mathrm{a}}$ |
| :--- | :--- | :--- |$\quad \mathrm{pl}$ dìm $^{\mathrm{a}}$

NP predependent constructions have their usual meanings 12.7.2:
mān dínne
$\grave{A}-W i n$ dím
"my one, mine"
"Awini's family"

Fūn pîân̆'ad nē tīnám dín.
2SG.CNTR speak:IPFV FOC 1PL.CNTR NULL.IN.
("We can't speak your language but ...") "You're speaking ours."
pò-pịəlım sób ${ }^{\text {a }}$
pl pò-pìəlım dím ${ }^{\mathrm{a}} \quad$ "holy person" (pù-pịəlım ${ }^{\mathrm{m}}$ "holiness")
dūnıya ní dìnn ${ }^{\text {ne }}$
Bòk dím
yụịgá sōb ${ }^{\mathrm{a}} \quad$ "first (person)" beside yịìg-sób ${ }^{\mathrm{a}}$ id

Cb predependents occur in set expressions:

| yị-sób ${ }^{\text {a }}$ | pl yị-sób-nàm ${ }^{\text {a }}$ | "householder" | ( $y$ ¢! $r^{\text {c/ }}$ "house") |
| :---: | :---: | :---: | :---: |
| yị-dím ${ }^{\text {a }}$ |  | "members of the | ousehold" |
| nịf-sób ${ }^{\text {a }}$ |  | "miser" | (nịfol "eye") |
| tàn̆p-sōb ${ }^{\text {a }}$ |  | "warrior" | (tān̆p ${ }^{\text { }}$ "war") |
| $z \bar{u} g$-sób ${ }^{\text {a }}$ | $\mathrm{pl} z u \bar{g}$-sób-nàm ${ }^{\text {a }}$ | "boss" NT "Lord" | (zū ${ }^{\text {J/ "head") }}$ |

Ò sōb ${ }^{\mathrm{a}} / \overline{\mathrm{h}} \mathrm{n}$ s $\bar{b}^{\mathrm{a}}$ mean "the person we were just talking about."

### 12.5 Quantifiers

Formally, quantifiers resemble noun sg or pl forms, frequently with apocopeblocking 3.2; most number words are also preceded by number prefixes.

Quantifiers are count or mass 12.2 , but the distinction is only of significance if the quantified noun is mass type, in which case a count quantifier is ungrammatical; with count nouns either type of quantifier is acceptable:

|  | nịdıb bédvgū | "a lot of people" |
| :---: | :---: | :---: |
|  | nịđdıb bábıgā | "many people" |
|  | kù'өm bédvgō | "a lot of water" |
| not | *kù'өm bábıgā | *"many water" |

Mass quantifiers are

| bz̀dvgōr | "a lot" | pāmm LF pāmné | "a lot" |
| :--- | :--- | :--- | :--- |
| fịin̆ | "a little (liquid)" | bī'əlá | "a little" |
| $w \bar{v} v$ | "all" | wv̄sa | "all" |

Beside number words, count quantifiers are

| bàbıgāl | "many" | kàlıgā' | "few" |
| :--- | :--- | :--- | :--- |
| fäan̆ | "every" | zān̆'a | "every" |

Kàm ${ }^{\text {a }}$ "every" occurs by itself as a quantifier and also before others:
sāŋá kám = sāŋá kám zān̆'a "all the time"

Quantifiers appear typically as determiners in NPs 12.8.2, but like pronouns they may also be heads of NPs; they can pluralise with nàm ${ }^{\text {a }}$ :

> Pāmm ké nā.
> Bèdvgū ké nā.
> Bèdvgū lā ké nā.
> Àyịí ké nā.
> Àyị' lā ké nā.
> màlìāk-nám túsà pịiga nám

A quantifier head after a dependent NP is a partitive construction 12.7.2.
Quantifier heads may be followed by dependent pronouns; as quantifiers have no combining forms, there is no compounding:

Ka ti ye ti nye diib yaani moogin nwa diis nidib bedego bama nwa?
Kà tì yé tì n̆ys̄ dīıb yáa ní mōogv-n n̆wá
And 1pl that 1pl find food where loc grass:SG-Loc this
$\varnothing$ dìıs nịdıb bédvgū bámmā n̆wá=ø?
Cat feed person:PL many DEMST.PL this=CQ?
"Where are we going to find food in this wilderness to feed this crowd of people?" (Mt 15:33, 1996: KB nimbama nwa wusa "all these people")

### 12.5.1 Numbers

The numbers in their core role as quantifiers take the forms

| 1 | yinnní | 10 | pịiga | 100 | kj̀bıgā |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | ày!̣' | 20 | pịsị́ [pisi] | 200 | kj̀bısị [kobisi] |
| 3 | àtán̆' | 30 | pịs tán̆' | 300 | kj̀bıs tán̆' |
| 4 | ànāasí | 40 | pịs nāasí | 400 | kòbıs nāasí |
| 5 | ànū | 50 | $p i ̣ s ~ n u \bar{~}$ | 500 | kòbıs nū |
| 6 | àyúebò | 60 | pịs yúebò | 600 | kòbıs yúebì |
| 7 | àyópòe | 70 | pịs yópòe | 700 | kòbıs yópòe |
| 8 | ànịí | 80 | pịs nịil | 800 | kòbıs nịi |
| 9 | àwāe | 90 | $p i ̣ s ~ w a ̄ e ~$ | 900 | kòbıs wāe |

The quantified noun is normally plural, except with yīnní, but may be singular with units of measure: yōlvgá àtán̆' "\$600 [cedis]."

The forms for $1,4,6,8,10$, and 100 show apocope-blocking; the forms for 20 and 200 are not apocope-blocked but are combinations with the stem of àyị́'.

Kj̀bıgā irregularly has identical LF and SF.
"Thousand" is a regular re|aa class noun, tūsırıé: tūsá àtán̆' "3000." "Half" is $p \bar{u}$-súk ${ }^{\mathrm{a}} \mathrm{pl} p \bar{u}$-súgìs ${ }^{\varepsilon}$. Other numbers are formed with $n \bar{\varepsilon}$ "with, and":

11 to 19 have the special contracted forms pịi n $\bar{\varepsilon}$ yīnnní, pịi n $\bar{\varepsilon}$ yị́', pịi $n \bar{\varepsilon}$ tán̆' ...


The prefix $\grave{a}$ - is omitted after $n \bar{\varepsilon}$ "with", and sometimes also after focus-n $\bar{\varepsilon}$ ':

Lì à nē nāasí. / Lì à né ànāasí. "They're four."

The forms àyị́nā' àtáyā' mean "two, three exactly." If I have four children

M mór bịiisá àtán̆'. "I have three children."

1SG have child:PL NUM:three.
but M̀̀ mór bịisá àtánā. "I have exactly three children." is false.

These forms can also be used after n $\bar{\varepsilon}$ "and", as in $p i ̣ i ~ n \bar{\varepsilon} ~ y i ̣ ́ \eta \bar{a} ~ " t w e l v e ~ e x a c t l y . " ~$ They are exceptional in not permitting focus with the particle $n \bar{\varepsilon}^{\prime}$ 24.1.2.

Yīnní can also be construed with a preceding noun cb:

```
    kūg-yínnì "one stone" (M dropping 4.4.4)
cf kūgvr yīnní "one stone" (no M dropping)
```

Dà-pịiga is "ten days"; pịiga is not otherwise used after cbs.
After personal pronouns the number prefix is bà- instead of à-: tì bàtán̆' "we three", yà bàyópj̀e "you seven", bà bàyị! "they two."

1 to 9 have different forms used in counting, lacking apocope-blocking and using the number prefix $\grave{n}$ - instead of $\grave{a}$-:

1 yદ́oŋ or àrakón̆'
2 ǹy!̣í
3 ǹtán̆'
4 ǹnāas
5 ǹnū

6 ǹyûeb
7 ǹpòe [tone sic]
8 ǹnịi
9 ǹwāe
continuing pịiiga, pịi $n \bar{\varepsilon}$ y!̣í' as with quantifiers

Àrakón̆' can also be used as a quantifier: búvg àrakón̆' "one goat." The form $k \bar{\jmath} n \bar{n} ' o k \bar{\jmath}$ appears as a postposition: $\grave{m} k \bar{n} n{ }^{\prime} ' o k \bar{\jmath}$ "by myself." In performing arithmetic the quantifier forms are used:

Àyịí námá $\preceq a ̀ y!̣ i ́ ~ a ́ ~ n \bar{\varepsilon}$ nāasí.
NUM:two PL NUM:two COP FOC four.
"Two twos are four."

The only ordinal adjective, as in sōb-dêغŋ "first census" (Lk 2:2, 1976) is

$d \bar{\varepsilon} \varepsilon \eta^{\mathrm{a}}$| $d \bar{\varepsilon} \varepsilon \check{n} S^{\varepsilon}$ | $d \bar{\varepsilon} \varepsilon \eta-\quad$ or $d \bar{\varepsilon} \varepsilon m i s^{\varepsilon}$ or $d \bar{\varepsilon} \varepsilon n a$ |
| :--- | :--- |

"First" can also be expressed by yịigá "firstly" as a predependent:
line da an yiiga dabisir
līnı ø dá àn̆ yịigá dàbısır.
3IN.CNTR CAT TNS COP firstly day:SG.
"That was the first day." (Genesis 1:5)

Other ordinal expressions can be created using pàas ${ }^{\varepsilon}$ or $p \varepsilon^{\prime} \varepsilon s^{\varepsilon}$ "add up to":
dàū-kànı pè'csa ày!̣́' lā
man-Rel.SG add.up.to NUM:two ART
"the second man" ("man who has added up to two")
lìnı pàasa àtán̆' lā "the third one"
ReL.IN add.up.to NUM:three ART

Another construction uses numbers as predependents before dāan ${ }^{\text {a }}$ "owner of ..."; such phrases are then themselves used either as NP heads or as determiners:

àyị́' dāan lā<br>būvgá àtáň' dāan lā

"the second one"
"the third goat"

Yịigá dāan may be used for "first." In "Kusaal Solima ne Siilima" p35 ordinal forms used in counting "first, second, third ..." appear without apocope-blocking: atan'-daan ... ka anaas-daan ... ka nu-daan ... ka yuob-daan ... ka poi-daan ... ka niidaan ... ka wai-daan ... ka piig-daan, but my informants use ordinary quantifier forms.

Note the adjective

$$
\text { yīmmír } \quad \text { yīmmá } \quad \text { ȳ̄m- } \quad \text { "single, alone" }
$$

as in bị-yīmmír "only child", wāb-yímmìr "solitary elephant."
There are two words meaning "one of a pair": ňyàuk ${ }^{3}$ pl ňyà' $a d^{\varepsilon}$ is only used for eyes, while ȳ̄ū $\eta^{J /}$ pl yīná is used for other normally paired body parts: nōb-yíun $\eta$ "one leg", nū'-yíunך "one hand", nịf-ňyáúk "one eye", tùb-ȳūu "one ear."

Multiplicatives (answering àbùlá? "how many-fold?") are expressed

```
yīmmú
àbv̀y!!'
àbv̀tán̆'
àbv̀nāasí
"straight away, at once"
"twice"
"three times"
"four times"
```

and so on, with apocope-blocking like quantifiers, up to bùpịiga "ten times."

This $\grave{a}$ - is not the number prefix but the manner-adverb formant, and a LF-final vowel before it is $-l$; the attachment to 2-9 only is presumably analogical.

Answers to nōorá àlá "how many times?" have forms of the pattern

|  | nōor yīnní | "once" |
| :--- | :--- | :--- |
| nōorá àtán̆' | "three times" |  |
| or | n̄̄orím bùtán̆' | "three times" NT |

This nōor is not "mouth" (= Mooré nóorè) but corresponds to Mooré náooré "times", homophonous with Mooré náooré "leg"; cf Toende Kusaal nō'כ̄t = Agolle nóbìr "leg". Original oo and oo fell together when nasalised 2.2. For the semantics cf Hausa sàu ukù "three times" sau "foot(print)." Niggli's dictionary gives Toende nó'ot (tone sic) in the sense "fois" and even has noba ayi beside no'ot ayi "deux fois."

Distributives ("two by two" etc) are reduplicated forms without apocopeblocking; there is no M dropping on the second part except with 10, 100, 1000:

| 1 | yīn yīn | 10 | pịi pị̂ig | 100 | kòbıg kóbìg |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | àyị' yịí | 20 | pịsị pịsí | 200 | kj̀bısị kóbısị or kòbıs yị yị' |
| 3 | àtán̆' tán̆' | 30 |  | 300 | kòbıs tán̆' tán̆' |
| 4 | ànāas nāas | 40 | pịs nāas nāas |  | etc |
| 5 | ànū $n u \overline{ }$ | 50 | $p$ pis nū nū | 1000 | tūsır túsìr |
| 6 | àyûeb yûeb | 60 | $p \bar{s}$ yûeb yûөb |  |  |
| 7 | àyópòe póe | 70 | pịs yópòe póe |  |  |
| 8 | ànịi nịi | 80 | pịs nịi nịi |  |  |
| 9 | àwāe wāe | 90 | $p i ̣ s$ wāe wāe |  |  |

Intermediate numbers are made by replacing the last part of the usual quantifier phrase with a distributive: pị̀s nū nē nāas nāas "by fifty-fours."

The distributives can have a preceding NP as a dependent:
dābá àyópòè póe "weekly" ("by sevens of days")

### 12.5.2 Proquantifiers

Quantifiers have corresponding proforms; the $\grave{a}$ - is the number prefix, and induces preceding LF-final -a not 4.2 .

| Demonstrative | Indefinite | Interrogative |
| :---: | :---: | :---: |
| àlá | Sị' ${ }^{\text {d }} \mathrm{m}^{\mathrm{m}}$ | àlá |
| "so much/many" | "some amount" | "how much/many?" |

### 12.6 Personifier particle

Indigenous Kusaasi personal names 26.2 are always preceded by the personifier particle, which appears as $\grave{A}$ - by default, but $\grave{N}$ - before adjective stems, where $\dot{N}$ - is a syllabic nasal assimilated to the point of articulation of a following consonant. The particle is a liaison word; the $\dot{A}$ - allomorph, like the manner-adverb prefix $\grave{a}-$, is preceded by word-final $-l$, not $-a$ as with the number prefix.

Personal names do not take adjectives or the article, but may occur with other determiners. $\grave{A}$ - is deleted after a predependent, but $\grave{N}$ - remains.

Personal names can pluralise with nàma; such plurals can mean e.g. "more than one person called Awini"; Niggli's Toende Kusaal dictionary also gives the cum suis meaning: Awınnam: "Awin and his people. Awinne et consort (les Awinne)."

| $\grave{A}-W i n$ | "Awini" |
| :---: | :---: |
| tì Win | "our Awini" |
| $\stackrel{M}{\text { M }}$ Win | "my Awini" |
| À-Win-kájā | "this Awini" |
| À-Win nám | "Awinis" |
| N-Dāvg | "Ndago" |
| tì N-Dāvg | "our Ndago" |

Although the Kusaal Bible versions (unlike the Mooré Bible) use foreign names without the particle, $\grave{A}$ - normally appears before them in speech:

À-Mūusa
À-Yịisa
À-Sịimôon
"Moses"
"Jesus"
"Simon"

NT has some personifications of abstractions: À-Sàn̆'vך "Destruction."
In stories where animals are characters, animal names take $\grave{A}$-:

## $\grave{A}-B a ̄ a$

"Mr Dog"

Some animal and bird names incorporate the personifier particle as part of the common noun, with no implication of personification, e.g. à-dàalv́n ${ }^{\text {ºn }}$ "stork", à-gâvn̆go "pied crow", à-k̄̄ra-dị̂əm ${ }^{\text {ma }}$ "praying mantis", à-mús ${ }^{\varepsilon}$ "cat." Thus

```
à-dàalv́p
m̀/mān dáalv́n
"my stork"
1SG/1SG.CNTR stork:SG
```

dāu lā dáalóy "the man's stork"
man:SG ART stork:SG

Lì à né à-dàalv́n. "It's a stork" 3IN COP FOC PERS-stork:SG.

M ňyé à-dàalón. $\quad$ I've seen a stork."
1SG see PERS-stork:SG.

The $\grave{a}$ - allomorph is not elided after a predependent but is replaced by it, as shown by the M spreading affecting the stem. The fact that $\grave{a}$ - thus effectively fills a predependent slot may reflect a historical origin in an indefinite third-person pronoun "someone", perhaps related to the Mooré 3sg pronoun yẽ~a.

A further similarity with personal pronouns appears when verb phrases are nominalised by the personifier particle, which then takes the place of a subject pronoun in the sense "someone who ..." This is particularly common in proverbs.

Atom so'
À-tùm sō'
PERS-Send INDF.AN

Apv-kpen'-baŋv dim
À-pu kpéň' bàupu dím
PERS-NEG.IND enter circumcision null.PL
"the Uncircumcised" (Eph 2:11)

À-dāa yćl kā' tîımm=ø.
PERS-TNS say NEG.HAVE medicine=NEG.
"Did-say has no remedy." (No use crying over spilt milk.)

À-ňy $\bar{\varepsilon} \quad n \bar{\varepsilon} \quad n i ̣ ̂ f ~ s o ́ n ̌ ' ว ~ A ̀-w v ̀ m ~ t u ̀ b a . ~$
pers-see with eye:sg be.better.than pers-hear ear:pl
"Saw-with-eye beats Heard-with-Ears" (Seeing is believing.)

À-Kịdıgı $\varnothing B \bar{u} ' \theta s \quad$ "Crossed over and asked"
PERS-cross cat ask (name of the constellation Orion.)

## Apozotyel

"Doesn't-fear-trouble", character in KSS p35.

À-P $\bar{v}-z o ́ t-y \bar{z} l$
PERS-NEG.IND-run:IPFv-thing:SG
$\grave{A}$ - as predependent of a clause subject means "someone whose ...":

Bà kèn né À-nà kúv ̧ì nūa yị́r, kà bà pū kén 3PL go:IPFV FOC PERS-IRR kill 1SG chicken:SG house:SG and 3PL NEG.IND go:IPFV À-n̄̄os $\quad b \varepsilon ́ \quad$ yír $\bar{\varepsilon}=\varnothing$. PERS-chicken:PL EXIST house:SG=NEG.
"They go to Will-kill-my-chicken's house, but not to Got-chickens' house." ("The rich are not always hospitable.") [N̄̄os bé. "There are chickens."]

Nominalisations with à- can pluralise with nàm ${ }^{\text {a }}$ :

À-zī' ø kpị nàm kpịìd né kà tén̆bìd. pers-neg.know cat die pl die:IPFV foc and tremble:IPFV. "Those who don't know death, are dying with a struggle." (Proverb) (i.e "It's a storm in a teacup.")

### 12.7 Dependents before the head

The head of a NP may be preceded by a dependent. Only one is permitted, but the resulting NP may itself recursively serve as the head of a NP with yet another predependent. Specific predependents precede generic, with cbs last:

```
Wínà'am [pv́'vsv̀g [fûug dôog]]
"tabernacle" (God's [worship [cloth hut]])
```

For the rules regarding M dropping after predependents see 4.4.4.

### 12.7.1 Combining forms

A combining form as a predependent is always generic and non-referential. Compounds with a predependent cb can be freely created, but resemble the compounds seen in other languages more closely than those with cb heads preceding adjectives and dependent pronouns. Specialised lexical meanings often occur with dependent cbs, rarely with head cbs before adjectives and never before pronouns.

If the head is a deverbal noun, it may be preceded by a combining form representing an argument, with count or mass meaning:

```
dā-nûur}\mp@subsup{\mp@code{\varepsilon}}{}{\varepsilon}\quad"beer-drinking" g\overline{zl-kû0s}\mp@subsup{}{}{\textrm{a}}\quad\mathrm{ "egg-seller"
```

With agent nouns from transitive verbs the cb usually represents an object. Agent nouns from intransitives may have an AdvP or indirect object cb complement. These compounds can be freely coined, and their meanings are generally transparent, but there are many idiomatic set expressions. Examples:

| $n \grave{n} n-k \hat{v} v d^{\text {a }}$ | "murderer" | $b \grave{-k v} v d^{\text {a/ }}$ | "goat-killer" |
| :---: | :---: | :---: | :---: |
|  | "hen-killer" | $p u ' a ̀-k \bar{v} v d^{\text {a/ }}$ | "woman-killer" |
| n̄̄-zán̆lı ${ }^{\text {l }}$ | "holder of hens" | wìd-kù $\theta{ }^{\text {a }}$ | "horse-seller" |
| $b o ̀-k u ̀ \theta s^{\text {a }}$ | "goat-seller" | sàlım-kùes ${ }^{\text {a }}$ | "gold-seller" |
| dā-nûud ${ }^{\text {a }}$ | "beer-drinker" | dà-kịəd ${ }^{\text {a }}$ | "wood-cutter" |


| zịm-gbân̆'ada | "fisherman" ("fish-catcher") |
| :--- | :--- |
| $n \bar{\jmath}-d i ̣ ̂ '$ | a |

My informants freely create and cite agent nouns in isolation, but it is unusual in practice for agent nouns to appear "bare"; in my materials only bā $\imath^{\prime} d^{\mathrm{a}}$ "wise man", siākıd ${ }^{\mathrm{a}}$ "believer", sū$\eta \imath d^{\mathrm{a}}$ "helper", fāan̆ ${ }^{\mathrm{a} /}$ "robber", "Saviour" occur often. With monosyllabic agent nouns there is often a preceding cognate cb, sometimes an object, but often apparently just a reduplication of the agent noun stem:

| màal-māan ${ }^{\text {na }}$ | "sacrificer" | $z i ̄-z i ̣ i d d^{\text {a }}$ | "carrier-on-head" |
| :---: | :---: | :---: | :---: |
|  | "talker" | $z a ̀ b-z a ̀ b^{\text {a }}$ | "warrior" (tone sic) |
| $z \grave{t}$-zōt ${ }^{\text {a }}$ | "racer, athlete" | tòm-tōm ${ }^{\text {na }}$ | "worker" |

Cbs occur before deverbal instrument nouns in object or adverb senses:

```
silà-lōodí\etaa
nịn-gótì \etaa
nịn-gótis }\mp@subsup{}{}{\varepsilon}\quad\mathrm{ "spectacles"
```

If the head is a gerund, a predependent cb may represent a subject or complement. Gerunds in -bo here replace the suffix with -re 8.1.1.

If the underlying verb is transitive, a predependent cb cannot be a subject. It is most often an object:

| $f u \overline{-y \varepsilon ̂ \varepsilon r ~}{ }^{\varepsilon}$ | "shirt-wearing" (nonce-form created by WK) |
| :---: | :---: |
| $p u ' a ̀-d \bar{\imath} ı r^{\varepsilon}$ | "marriage" (Ò dì pu'ā "He's married a wife") |
| nịn-kôvr ${ }^{\text {c }}$ | "murder" |
| $d \bar{a}-n u ̂ r^{\varepsilon}$ | "beer-drinking" |
| Sāmán-pịər ${ }^{\varepsilon}$ | traditional New Year ("Courtyard Cleaning") |
| bùgóm-tōon̆ $r^{\varepsilon}$ | Fire Festival ("Fire Throwing") |
| n̄̄-lôวr ${ }^{\text {¢ }}$ | "fasting" ("mouth-tying") |
| nō-pôor ${ }^{\text {e }}$ | "oath" ( $p \overline{\text { j }}$ "swear") |
| nō-nâar ${ }^{\text {c }}$ | "covenant" (nā "join") |
| nịn-bâal-zōor ${ }^{\text {c }}$ | "pity" (Ò zòtō nịn-báalı̀g. "He has pity on him" |

It may represent an AdvP:

```
m\grave{-pịll l\varepsilon "grass roof" ("covering with grass")}
kùm-vō'vgírr "resurrection" (Ò vv̀'vg kūmı-n. "He revived from death.")
```

Cbs as subjects are seen only with gerunds from intransitive or patientive ambitransitive verbs:

|  | "breaking a leg" (kò is intransitive) |
| :---: | :---: |
| $n u \overline{1}-$ módì ${ }^{\varepsilon}$ | "swelling of the hand" |
| wịn-lịir ${ }^{\text {c }}$ | "sunset" (Wịnnıg lị yā. "The sun has set/fallen.") |
| sūn̆-sân̆'v $\eta^{\text {º }}$ | "sorrow" (M sūn̆f sân̆'am n̄̄. "My heart is spoilt") |
| $s u \bar{n}-p \varepsilon \hat{\varepsilon} n^{\text {ne }}$ | "anger" (M sūn̆f pélìg n̄̄. "My heart is white.") |

A dependent cb before a deadjectival abstract noun may have a sense much like an argument, corresponding to the subject of a related verb:

```
p\grave{-pị̀lım}\mp@subsup{}{}{\textrm{m}}\quad\mathrm{ "holiness" ("inside-whiteness")}
sūn̆-kpị̂'o\eta`
sūn̆-má'asìm}\mp@subsup{}{}{m}\quad\mathrm{ "joy" ("heart-coolness": M̀ sūn̆f má'e yā. "I'm joyful.")
nịn-tv̄llímm}\mp@subsup{}{}{m}\quad\mathrm{ "fever" ("body-heat")
wīn-tôog}\mp@subsup{}{}{\circ
```

Before heads which are neither deverbal nor abstract nouns, a dependent cb has a very general quasi-adjectival sense. Such compounds are especially liable to develop specialised lexical meanings.

| $b i ̣-f u ̄ u g^{\text {a/ }}$ | "children's shirt" (i.e. suitable for children) |
| :---: | :---: |
| wìd-zūvr ${ }^{\text {c }}$ | "horsetail" |
| wāb-móogō-n ${ }^{\text {/ }}$ | "in elephant-bush, where there are elephants" WK |
| $z$ à'-nכ̄or $^{\varepsilon /}$ | "gate" ("compound-mouth") |
| mà-bịi ${ }^{\text {a }}$ | "sibling" ("child by [same] mother") |
|  | "half-sibling" ("child by [same] father") |
| tè $\eta$-bịig ${ }^{\text {a }}$ | "native" ("child of a country") |
| nàsàa-sillvgo | "aeroplane" (European hawk) ILK |

WK has náaf-bị'isím ${ }^{\mathrm{m}}$ "cow's milk", būvg-bị'isím ${ }^{\mathrm{m}}$ "goat's milk", where the dependent has singular form and tone, but the tone sandhi is that of a compound.

### 12.7.2 Noun phrases

Complete NPs as predependents play a role analogous to English genitives and NP complements with "of" (CGEL pp467ff, 441.) The range of meanings is similarly very wide, and dependent on the semantics of both head and dependent. Indefinite non-count predependent NPs function as modifiers, and definite and/or count NPs as determiners. Personal pronouns never function as determiners themselves, but they often head predependent NPs which do 3.1 .

Definite predependents do not automatically make a NP head definite 12.8.5.
For $m \bar{\varepsilon} \eta^{\mathrm{a} /}$ "self" and $s \overline{b^{\mathrm{a}}}$ as heads after predependents see 12.4.6 12.4.7.
If the head is a demonstrative, indefinite or interrogative pronoun or a quantifier, the construction with a predependent is partitive:

| nịn-sị́bà | "certain people" | sịəba | dependent |
| :---: | :---: | :---: | :---: |
| yà sō' | "some one among you" | sō' | head |
| nịdıb lā sírobà | "certain of the people" | sịəba | head |
| nịdıb sị́əbà | "certain ones among people" | sịəba | head |
| nịdıbá ày!̣́' | "two people" | ày!' | dependent |
| nịdıbá àyị' lā | "the two people" | ày! | dependent |
| nịddrb lá ày! | "two of the people" | àyị' | head |

The sense is also partitive if the head is a relative clause with an indefinite pronoun as relative:

Pa'alimi ti nidiba ayi' nwa fon gay so'
Pà'alımī tí nịdıbá àyỵ̂' n̆wá fón gāŋ sō'
Teach:IMP 1PL.OB person:PL NUM:two this 2SG:NZ choose INDF.AN
"Tell us which of these two people you have chosen" (Acts 1:24)

A partitive sense is not possible with other head types: e.g. nịdıb lā gígìs must mean "the dumb ones belonging to the people", not "among the people" (WK.)

Abstract indefinite NPs as predependents ascribe a quality to the head:
nā'am kúk
nā'am sú'vlìm
pù'vsug dôog
tūlıgír bún
dūgub dót
lịgıdı túvmà

```
"throne" ("chieftaincy chair")
"kingdom" ("chieftaincy possession")
"temple" ("worship house")
"heater" ("heating thing" = būn-túllgìr`)
"cooking pots"
"expensive work" (lị̆g\imathdı "money")
```

There are sometimes alternate forms with cbs:

|  | tàn̆p-sōb | "warrior" | (tān̆p ${ }^{\text {c }}$ "war") |
| :---: | :---: | :---: | :---: |
|  | pù-pị̀l-sōb | "holy person" | (Rom 3:10, 1996) |
| but | pù-pị̀lım sób | "holy person" | (Mt 10:41, 1996) |
|  | pù-pịəl-tv̄vma | "holy actions" | (Rom 6:13, 1996) |
| but | pù-pị̀lım túvmà | "holy actions" | (Mt 5:10, 1996) |

Language names may appear as abstract nouns describing an ethnic group:

$$
\begin{array}{ll}
\text { Kūsâal yír n } \bar{\varepsilon} \text { kūөb } & \text { "Kusaasi houses and agriculture" } \\
\text { Nàsāal búgúm } & \text { "electricity" ("European fire") }
\end{array}
$$

Concrete indefinite mass NPs as predependents express the material of which the head consists.
sālıma bútìŋ
sālıma nē ānzúrıfà lâ'ad
"golden cup"
"gold and silver goods"

Count nouns may appear here in mass senses 12.2:
fūug dôog
dàad bún-nám
"tent" (cloth hut)
"wooden things" (dàvg "piece of wood")

NP predependents of this type can be antecedents of anaphoric pronouns:
sālıma lâ'ad né ò būtus "gold goods and [gold] cups" WK 12.1

This is never the case with dependent cbs, as in sàlım-kùөs "gold-seller", dānûud "beer-drinker"; on non-referential NPs as antecedents in English see e.g. CGEL pp400ff, and p1458; the restriction of anaphora to the same clause implied on p400 is not valid in English in the case of generic non-referential NPs.

The cb first element of ku'à-n̆wịig "current" ("aquatic rope") suggests that the construction with unbound concrete mass predependents is limited to the specific sense "made of ...", so that *kù'өm n̆wịig would be "rope made of water."

With count and/or definite heads, meanings include kin relations, body parts, and ownership:
m̀ bịìg
dāū lā bịig
dāu lā bịə bịig nâaf zv̀vr
Kūsâas wádà

[^0]Nimbs'og yir na san'am.
Nịn-bê'og yị́r nà sān̆'am.
Person-bad:Sg house:SG IRR spoil.
"The house of a wicked person will be destroyed." (Proverbs 14:11)

A contrast with a non-referential predependent cb:
nà'ab lā wị̂əf zv̂vr
nà'ab lā wíd-zūvr
"the chief's horse's tail" (the chief has a horse) "the chief's horse-tail" (the chief may not own a complete horse at all)

Dāan ${ }^{\text {a }}$ "owner of ..." (nàm ${ }^{\mathrm{a}} \mathrm{pl}$ ) always has a predependent NP; this may represent a concrete possession, or if it is adverbial or has an abstract sense, it may ascribe a quality (as with Hausa mài, or Arabic ðu:):

| lór dâan | "car owner" |
| :--- | :--- |
| bv̄vg dâan | "goat owner" |
| kù'өm dâan | "water owner" |
| tị̀刀 dâan | "bearded man" Hausa mài geemùu |
| dāam dâan | "beer owner" |
| pȳدg lā dâan | "the owner of the field" (Mt 21:40) |

Zu-wok daan po gangid bugum.
Zì-wōk dâan pū gájìd búgúmm=ø.
Tail-long:SG owner:SG NEG.IND step.over:IPFv fire=NEG.
Proverb: "One with a long tail doesn't step over a fire."
(If you have family commitments you shouldn't take risks.) KSS p38
pù-pị̀lım dâan
būgusígā dâan
"holy person"
"softly-softly sort of person" WK

See 12.5.1 on the use of dāan ${ }^{\text {a }}$ with numbers to make ordinal expressions.
A cb predependent appears before dāan ${ }^{\mathrm{a}}$ in a few set expressions:
yị̀-dâan
tè $\eta$-dāan
"householder" = yị-sób (Hausa mài gidaa)
(literally "land-owner"): traditional earth-priest

Before gerunds and other abstract nouns describing events or processes, NP predependents refer to subjects. Such constructions are themselves most often used as subjects or with postpositions.

Dāu lā kúlv̀g dāa mālısí m.
Man:SG ART go.home:GER TNS be.sweet 1SG.ob.
"The man's return home pleased me."

Generic-object cbs, adjunct AdvPs and VP-final particles may appear:
ya antu'a morim koto ni ne taaba la
yà àntư'à-mōrím kótù ní nē tāaba lā
2PL case-have:GER court:SG LOC with each.other ART
"your going to law with each other in court" (1 Cor 6:7, 1976)

Ninsaal Biig la lebvg la na
Nị̄n-sâal Bị̂ig lā lćbùg lā nā
Person-smooth:SG child:sG ART return:GER ART hither
"the return of the Son of Man" (Mt 24:27)

### 12.7.3 Adverbial phrases

Predependent AdvPs may not be proadverbs. Most are locative, or phrases with the postposition y $\bar{\varepsilon} l a ́$ "about", or depend on the specialised head dāan ${ }^{\mathrm{a}}$ 12.7.2.

| dūnıya ní nị̀n-gbīn | "earthly body" |
| :--- | :--- |
| kōlıgv-n nó-dâvg | "crayfish" ("in-the-river cock") |
| Bòk dím | "Bawku people" |
| dàgòbıg nịf | "left eye" |
| zūgú-n nịf-gbáun | "upper eyelid" |
| tह̄ŋı-n nịf-gbáunך | "lower eyelid" |

Ba da mor moogin bunkonbid ne ba buudi, yin bunkonbid ne ba buudi ... Bà dà mòr mōogv-n bún-kóňbìd né bà būudı, yịn bón-kón̆bìd 3PL TNS have bush:SG-LOC thing-hair:PL and 3PL kind, house:SG:LOC thing-hair:PL né bà būudl...
and 3PL kind ...
"They took wild animals with their kind, tame animals with their kind ..."
(Gen 7:14)

Kūsâas kûөb n̄̄ yịir yćlà gbàun "A book about Kusaasi houses and agriculture" dàun-kànā lā yćlà gbàūŋ $\quad$ "a book about that man" WK

Yịigá "firstly" appears as a predependent meaning "first" 12.5.1.

### 12.8 Dependents after the head

Dependents follow a head noun in the order adjective(s), quantifier, dependent pronoun or AdvP, article or n̆wà "this." All except adjectives are determiners.

Adjectives and dependent pronouns follow a head noun which is itself reduced to a combining form, while the dependent inflects to show the number of the head. Compounds with cb heads are formed absolutely freely with completely transparent meanings, making the cb a standard part of noun and adjective paradigms. Cbs as heads are the most liable to segmental remodelling 5.2 .

Compounds with dependent pronouns naturally cannot be lexicalised, but compounds with adjectives can develop specialised lexical meanings.

Quantifiers do not have combining forms and cannot be followed by the dependent-only demonstrative forms kàn ${ }^{\varepsilon}$ kà $\bar{a}^{\prime}$.

For WK and DK, a noun before a dependent pronoun must appear as a cb, but SB often produced forms with cbs segmentally remodelled after sg or even pl forms.

### 12.8.1 Adjectives

Adjectives follow a head cb. They do not themselves normally appear as heads, but a subset of adjectives lacking corresponding stative verbs may be used as heads of predicative complements 16.9.2. Generally, compounds with nịn- "person" or būn"thing" are used instead: nịn-sú $\eta^{3}$ "good person", būn-vúr ${ }^{\varepsilon}$ "living thing" etc. Būnn ${ }^{\mathrm{n} \varepsilon /}$ can make a regular re|aa class plural būná or pluralise with nàmá

```
Bōn-námá`àlá kà fù n̆yz̄tá=\varnothing?
Thing-PL NUM:how.many and 2SG see:IPFV=CQ?
"How many things do you see?" SB
```

$B \bar{v} n$ also occurs with abstract and AdvP predependents:

```
tūlıgír búnn\varepsilon "heating thing, heater" = būn-tv́lıgìr }\mp@subsup{}{}{\varepsilon
kù'өmī-n bónn n\varepsilon "water creature"
```

Deverbal adjective forms with no preceding cb are synonymous with agent nouns, so the presence of būn- distiguishes different meanings in e.g. būn-kúvdìr ${ }^{\varepsilon}$ "thing to do with killing" versus kv̄vdír ${ }^{\varepsilon}$ "killer."

Note the idioms

| $b u ̄ n-g i ̣ \eta^{a}$ | "short chap" (informal, humorous) |
| :--- | :--- |
| būn-kúdı̀ $g^{\circ}$ | "old man" (the normal expression) |

The combination noun + adjective is almost invariably rendered with noun cb before the adjective, which inflects as sg pl or cb on behalf of the head noun:

| $b \bar{v} v g^{\text {a }}$ | "goat" | $b \bar{v} v s^{\varepsilon}$ | "goats" |
| :---: | :---: | :---: | :---: |
| bù-pịəlıg ${ }^{\text {a }}$ | "white goat" | bù-pìəlıs ${ }^{\text {c }}$ | "white goats" |
| bù-sùn ${ }^{\text {a }}$ | "good goat" | bù-sùma | "good goats" |
| nūal | "hen" | nōos ${ }^{\text {// }}$ | "hens" |
| nō-pịəlì ${ }^{\text {a }}$ | "white hen" | nō-pịəlis ${ }^{\text {® }}$ | "white hens" |
| nō-sún ${ }^{\circ}$ | "good hen" | nō-súmà | "good hens" |

Another adjective or a dependent pronoun can follow a first adjective cb:

$$
\begin{array}{ll}
\text { nịn-wók-pị̀əlıg } g^{\mathrm{a}} & \text { "white tall person" } \\
\text { n̄̄-pị̂l-kà } \bar{a}^{\prime} & \text { "this white hen" }
\end{array}
$$

However, a noun + adjective compound cannot form a cb to be used as the generic complement of a deverbal noun; a sg/pl form is used instead:

```
fū-z\varepsilońn̆dà kùөs a
```

i.e. adjective cbs may only precede other adjectives or dependent pronouns.

Compounds with adjectives may develop specialised lexical meanings:

```
nū'-bịlla
tì-sābılímm}\mp@subsup{}{}{m}\quad\mathrm{ a traditional remedy ("black medicine")
gòn̆'-sābılíga Haaf gosabliga "Acacia hockii" ("black thorn")
```

There are isolated set forms showing traces of the old agreement system; the dependents do not regularly appear with the class suffixes seen in

| là'-bịəlífo | "small coin" NT (lā'afo "cowrie", bị'əlá "a little" |
| :---: | :---: |
| dà-Sị̀'ər ${ }^{\text {c }}$ | "some day, perhaps" (dāar ${ }^{\text {e }}$ "day", sị̀'a "some") |
| dàbıs-sị'ər ${ }^{\text {¢ }}$ | "some day" (dàbısır ${ }^{\varepsilon}$ "day") |
| $y \bar{\varepsilon} l$-súm ${ }^{\text {m} \varepsilon}$ | "blessing" (yz̄ll ${ }^{\text {l/ } / ~ " m a t t e r ", ~ s u ̀ ~} \eta^{\text { }}$ "good") |
| pu'à-pāal ${ }^{\text {a/ }}$ | "bride" (pu'āa ${ }^{\text {a }}$ "wife", pāalíg ${ }^{\text {a }}$ "new") |
| dà-pāala/ | "young man, son" (dāu "man") |

In WK's speech (not DK's) and many written sources, $m^{\mathrm{m}}$ class nouns require adjectives in $-m^{\mathrm{m}}$, as does būn "thing" in abstract (but not concrete) senses:

| dā-páalìm ${ }^{\text {m }}$ | "new millet beer"; WK does not accept *dā-pâal, *dā-páalìg. |
| :---: | :---: |
| tì-sābılím ${ }^{\text {m }}$ | "black medicine", a specific traditional remedy |
| tì-vōnním ${ }^{\text {m }}$ | "oral medication" ("swallowing medicine") |
| tì-kv̄vdím ${ }^{\text {m }}$ | "poison" ("killing medicine") |
|  | "anointing oil" (kpāan̆m ${ }^{\mathrm{m} /}$ "oil, grease") |
| būn-bósdìm ${ }^{\mathrm{m}}$ | "desirable thing" (1 Cor 14:1: nòjılím ${ }^{\mathrm{m}}$ "love") |
| $b \bar{n}$-bóodì ${ }^{\varepsilon}$ | "desirable thing" (BNY p17: a sheep) |
|  | "the visible world" |
| būn-n̆yćtì ${ }^{\varepsilon}$ | "a visible object" |

Adjectives may show apocope-blocking $\underline{3.2}$ as a downtoner. Only singular forms seem to be possible. (All examples KT):

Lì à n $\bar{\varepsilon}$ fū-píəlìgā.
Lì à nē fū-píəlì gā lā.
Lì à n $\bar{\varepsilon}$ wị̂ug.
Lì à ne wị́ugō.
fū-wịugū lā
Lì à nē tītā'arı.
"It's a whitish shirt."
"It's the whitish shirt."
"It's red."
"It's reddish."
"the reddish shirt"
"It's biggish."

### 12.8.1.1 Bahuvrihis

The combination noun + adjective may be used as a bahuvrihi adjective itself:

Lì à nē nū'-kpịilv́n.
Bịig lā á nē nū'-kpịilón.
Ò à n $\bar{\varepsilon}$ bị́-[nū'-kpịilón].
k̀̀g-nōb-wók ${ }^{\circ}$
kùg-nōb-wâ'ad ${ }^{\varepsilon}$
$z \bar{u} g-m a ́ u k^{\top} \mathrm{pl} z \bar{u} g-m a ̂ ' a d^{\varepsilon}$
$z \grave{v}-w \overline{\mathrm{~s}} \mathrm{k}^{\mathrm{ol}}$
nว̄b-gín ${ }^{\text {a }}$
$z \bar{u}-p \varepsilon ́ \varepsilon l \grave{l} g^{\top} \mathrm{pl} z \bar{u}$-péعlà
lām-fôog ${ }^{\circ} \mathrm{pl}$ lām-fôod ${ }^{\varepsilon}$
"It's a dead hand."
"The child is dead-handed."
"He's a dead-handed child."
"long-legged stool"
"long-legged stools"
"crushed-headed"
"long-tailed"
"short-legged"
"bald"; cf Dau so' zug ya'a pie
"If a man has gone bald" (Leviticus 13:40)
"toothless" (lām ${ }^{\mathrm{m} \varepsilon /}$ "gum", fùe "draw out")

The two adjectives "one of a pair" 12.5 .1 are often used in bahuvrihis: nịfn̆yáuk ${ }^{\text {º }}$ "one eye", bà-nịf-n̆yáuk ${ }^{\supset}$ "one-eyed dog"; tòb-yīun $\eta^{\jmath /}$ "one ear" bị-tùb-yīná "oneeared children."

The construction is not modification of an adjective by a cb. In cases like bị̀nū'-kpịilú $\eta^{3}$ "child with a withered hand" the adjective is modifying the cb immediately preceding it, not vice versa: it is not possible to say *bị-nū'-kpị̂im ${ }^{m}$. The adjective may even be plural despite singular reference of the whole compound:

```
    bị̀tv̀b-kpịdda "deaf child" (tùbvrr "ear", kpị "die")
pl bị̀-tùb-kpị̂da nám}\mp@subsup{}{}{\textrm{a}},\mathrm{ bị-tùb-kpịd}ds\mp@subsup{s}{}{\varepsilon
    bị-tòb-l\grave{l\imathd}\mp@subsup{}{}{\varepsilon}\quad "child/children with blocked ears"
    (li` "block up")
```


### 12.8.1.2 Nouns as adjectives

Human-reference nouns may be used as adjectives modifying other humanreference nouns. This is particularly common with $a \mid b a$ class words:

|  | bị̀-sāan ${ }^{\text {a/ }}$ or bị-sáay ${ }^{\text {a }}$ | "stranger-child" |
| :---: | :---: | :---: |
| [only | $b \grave{-s a ́ a \eta}{ }^{\text {a }}$ | "stranger goat"] |
|  | bị-kpịi'im ${ }^{\mathrm{m} /}$ or bị-kpịilún ${ }^{\text {a }}$ | "dead child" |
| [only | bù-kpịilú ${ }^{\circ}$ | "dead goat"] |
|  | bị-dāu or bị̀-dāvg ${ }^{\circ}$ | "male child" |
| [only | $b \grave{\text { bodāvg }}$ | "male goat"] |
|  | bị-pu' ${ }^{\text {a }}$ or bị-puazk ${ }^{\text {a }}$ | "female child" |
|  | bị-zū'өm ${ }^{\mathrm{m} /}$ or bị-zùnzò ${ }^{\text {a }}$ | "blind child" |

The same behaviour is also seen with some agent nouns:
pu'à-zàan̆s ${ }^{\text {a }}$ "dreamy woman" KT
nịn-nén na "envious person"
bị-sịn $n^{n a /}$ or bị-sịnnníga "silent child"
only bù-sịnníga or bù-sịnnúg ${ }^{\text {a }}$ "silent goat"

However, WK usually reports a contrast between agent nouns/deverbal adjectives with head-second compounds in $a \mid b a$ class and head-first compounds in $g a \mid s \varepsilon$ or $r \varepsilon \mid a a$ class, even with derivatives of intransitive verbs:

```
pu'à-kv̄vdíga
pur'à-kv̄vd
pul'à-lā'adıgga
pun'à-lā'ad}\mp@subsup{}{}{\textrm{a}
```

"murderous woman, murderess" only "killer of women"
"woman given to laughing"
"laugher at women"

Nouns of any class expressing bodily defects can be used adjectivally:

| bì-zùnzò $\eta^{\mathrm{a}}$ | "blind child" |
| :--- | :--- |
| bì-gìk | "dumb child" |
| bì-wàbır | "lame child" |
| bì-bālह̄rug | "ugly child" |
| bị-pòň'or | "crippled child" |

Other examples, which are effectively appositional, include:
nàsàa-bịì ${ }^{\text {a }}$
yàmmvg-bị-púna
yàm-bị-pún ${ }^{\text {a }}$
(vs yàmmug bị-pún ${ }^{\text {a }}$
bị-púy-yàmmvg ${ }^{\text {a }}$
nà'-bịi $g^{\mathrm{a}}$ or bị-nà'ab ${ }^{\mathrm{a}}$
dàu-bịìig or bì̀-dāu
"European child"
"girl slave" (yamug bipuך Acts 16:16, 1976 5.2)
"girl slave" WK
"slave's girl")
"slave girl"
"prince"
"male child"

### 12.8.2 Quantifiers

Quantifiers as determiners follow the head, except for yịigá "firstly." A head can appear as a cb only with yīnní "one" and in a few fixed expressions like dà-pịiga "ten days"; elsewhere, quantifiers are not subject to M dropping: kūg-yínnì "one stone" but kūgor yīnní "one stone."

Quantifiers precede dependent pronouns and $l \bar{a} /$ "the, that", $\check{n} w a ̀ ~ " t h i s ": ~$
bvnama atan' nwa "these three things" (1 Cor 13:13)
būn-námá àtán̆' n̆wá
thing-PL NUM:three this

Quantifiers as determiners can be coordinated: this is the mechanism for the creation of numbers other than simple digits, tens or hundreds:
o nya'andolib pii ne yi
ò n̆yà'an-dòllıb pịi $n \bar{\varepsilon}$ yị́'
3AN after-follower:pl ten with two
"his twelve disciples" (Mt 26:20)

### 12.8.3 Adverbial phrases

When an abstract noun with a verbal sense has a preceding NP dependent as subject, complement or adjunct AdvPs may follow the head, including prepositional phrases, which are not found elsewhere as NP dependents, and also VP-final particles. This is therefore best regarded as a clause nominalisation process. Other uses of AdvPs as NP dependents after the head are marginal. Àm $\bar{\eta} \eta a ́ ~ " r e a l l y, ~ t r u l y " ~$ occurs in the meaning "genuine, real":

כ̄n sōb á $n \bar{\varepsilon}$ dv́'atà àmēŋá lā.
3AN.CNTR NULL.AN COP FOC doctor:SG ADV:real:ADV ART
"That one's the real doctor."

With n̆wādıs yôvm lā púvgū-n "months in the year" (SB) and wābvg mȳogv-n lā "the elephant in the bush" (WK), I have not recorded the full contexts, possibly e.g. $\grave{M}$ dāa ňyē wābvg mōogv-n lā "I saw an elephant in the bush." The 1976 NT has

Lina ane labasup Jesus Christ Wina'am Biig la yela.
Lìnā á nē lábà-sìn Jesus Christ Wínà'am bịig lā yźlà.
DEMST.IN COP FOC news-good:SG Jesus Christ God child:Sg ART about.
"This is the good news about Jesus Christ, God's Son." (Mk 1:1)
but the 1996 revision recasts this as

Lina ane Yesu Kiristo one a Wina'am Biig la labasup.
Lìnā á nē Yesu Kiristo ónì à Wínà'am bị̂ig lā lábà-sùn. demstin cop foc Yesu Kiristo rel.an cop God child:Sg art news-good:sg.

### 12.8.4 Pronouns

Demonstrative, indefinite and interrogative pronouns may be used as determiners following a noun cb as NP head, or a noun cb as NP head followed by an adjective cb; they follow quantifiers without compounding:

| bịìiga | "child" | bị̀-kà $\overline{a^{\prime}}$ ' | "this child" |
| :--- | :--- | :--- | :--- |
| bì̀-sō' | "a certain child" | bì̀-sù $\eta-k a ̀ \eta \bar{a}^{\prime}$ | "this good child" |
| bị̀-kàne? | "which child?" | bị-bó? | "what child?" |

yeltood ayopoi bane ka maliaknama ayopoi mor la
yc̄l-tôod àyópòe bánì kà màliāāk-námá_àyópòe mōr lā
matter-bitter:PL NUM:Seven REL.PL and angel-PL NUM:Seven have art
"the seven plagues which the seven angels have" (Rev 15:8)

### 12.8.5 Lā and n̆wà

$L \bar{a}{ }^{\prime}$ and $\check{n} w a ̀$ are corresponding deictic particles "that" and "this." Although $\check{n} w a ̀$ always retains this sense, $l \bar{a} /$ in the great majority of its occurrences is weakened to a definite article. It retains its deictic sense in opposition to ňwà in identificational clauses 18.4 and after demonstratives 12.4.2.

Unlike $l \bar{a}{ }^{\prime}, \check{n} w a ̀ ~ c a n ~ s t a n d ~ a l o n e ~ a s ~ a ~ N P: ~$

Ňwà á nē bịig.
"This is a child." WK; tones sic.
This Cop Foc child:SG.
$L \bar{a}^{\prime}$ and $\check{n} w a ̀$ stand finally in the NP (which may itself be a dependent before another NP) except for the marginal case where a VP-final particle occurs in a $\grave{n}$-clause, when it may follow the article attached to the clause 16.11 .

As article, $l \bar{a} /$ corresponds in many cases to English "the", marking referents as specific and already established. However, unlike "the", lā/ is not typically used for "familiar background" references:

Wịnnıg lị́ yā. "The sun has set."
Sun:SG fall PFv.

It is not used with pronouns, or with proper names of people or places: mān "me", $\grave{A}-W i n n$ "Awini", Bj̀k "Bawku." Nor is it used with abstract mass nouns:

Noŋilim pv naada.
"Love does not come to an end." (1 Cor 13:8)
Nòjılím pū nāadá= $\varnothing$.
Love NEG.IND finish:IPFV=NEG.
$L \bar{a} /$ is not used in vocatives, contrasting with $\check{n} w a ̀$, which often is:

Bịiga $=\varnothing$ !
"Child!"
Child:SG=voc!

## Bịis ňwá!

"Children!"
[bi:sa]

There is no indefinite article: a NP with no $\overline{\bar{a}} \bar{l}$ is indefinite if it could have taken $l \bar{a} /$ in the sense of the article. When a NP of a type which can take the article appears without it, the sense may be non-referential. This is the case, for example, with negative-bound nouns, and with the complement of àeñ ${ }^{\text {a }}$ "be something" when used ascriptively:


An indefinite NP is only likely to have a specific sense in the context of an explicit introductory presentational statement 24.5:

Dau da be mori o biribing
Dāu dá bè Øø mōrí ò bị-díbìŋ
Man:sg tns exist cat have 3an child-boy:SG
"Once there was a man who had a son ..." KSS p35

Outside such contexts, an indefinite NP is usually generic; unlike English "the", $l \bar{a} /$ is not used with a generic sense:

Tvmtom po gat o zugdaana.
Tùm-tūm $p \bar{v}$ gát ò $z \bar{u} g$-dáanā=ø.
Work-worker:SG NEG.IND pass:IPFV 3AN head-owner:SG=NEG.
"The servant does not surpass his master." (Jn 15:20)

Tiig walaa bigisid lin an tisi'a.
Tìı wélàa Ø $\varnothing$ bịgısıd lín àn̆ tí-sịia.
Tree:sG fruit:PL CAT show:IPFV 3IN:NZ COP tree-INDF.IN.
"It's the fruit of the tree that shows what tree it is." (Mt 12:33)

Kusaas ye ...
"The Kusaasi say ..." KSS p16
drawing the moral of a story.

A predependent NP ending in $l \bar{a} /$ makes the following head definite, and the head does not itself take the article:

$$
\begin{array}{cc}
\text { nà'ab lā bị̂ig } & \text { "the chief's child" } \\
\text { not *nà'ab lā bịigg lā }
\end{array}
$$

Only predependents with the article and demonstrative pronouns automatically make their heads definite; predependent personal pronouns or proper names do not:

| Wínà'am málíāk | "an angel of God" |
| :--- | :--- |
| Wínà'am málīāk lā | "the angel of God" |
| m̀ bịig | "my child" (at first mention) |
| m bịig lā | "my child" (previously mentioned) |

Contrast the common idiom at first introduction of a possessed referent, where $l \bar{a} /$ is absent, with cases where the referent has already been introduced:

Dau da be mori o biribing
Dāu dá bè Ø mōrí ò bị-díbìn
Man:SG tns exist cat have 3an child-boy:SG
"Once there was a man who had a son ..." KSS p35

On daa an pu'asadir la ka o kul sidi paae yoma ayopoi ka o sid la kpi.
J́n dāa án̆ pư'á-sādır lá kà ò kūl sīdl乙 ø pāe 3AN:NZ TNS COP woman-nulliparous:SG ART and 3AN marry husband:SG cat reach yómà àyópòe kà ò sīd lā kpí.
year:PL NUM:seven and 3AN husband:SG ART die.
"She had married a husband when she was a girl, and after seven years her husband died." (Lk 2:36)

Note also the contrast of meaning produced by the article in
$\grave{M}$ bịig kā'e=ø. $\quad$ I've no child" WK
1SG child:SG NEG.BE=NEG.
$\grave{M}$ bịig lā $k a ̄ ' e=\varnothing . \quad$ "My child's not there" WK 1SG child:SG ART NEG.BE=NEG.

Certain words consistently lack the article after a pronoun possessor even if they are specific old information. This may be a question of uniqueness within a particular context; examples are $b \bar{a}^{1 /}$ and sàam ${ }^{\text {ma }}$ "father."

For an unambiguously indefinite specific meaning like "some, another", indefinite pronouns are used:

Nā'-sịəbà ón̆bìd $n \bar{\varepsilon}$ mōod. "Some cows are eating grass."
Cow indf.pl chew:IPFV Foc grass:PL.

An indefinite pronoun is necessary to make the head indefinite after a predependent with the article:

```
nà'ab lā bị-sō' "a child of the chief's"
chief:SG ART child INDF.AN
```


## 13 Adverbial phrases

### 13.1 Forms and functions

Many AdvPs represent adverbial uses of NPs. Other kinds of AdvP have fewer structural possibilities than NPs; for example, only specialised postpositions have NP predependents, and many adverbs do not conform to the structure of ordinary nouns.

Absolute clauses are AdvPs 21.1, as are several relative clause types.
As with NPs, coordination of AdvPs uses the particle né:

B̄̄ogv-n n̄̄ zâam kà fù ná nị̣ tí-kàŋā.
Morning-Loc with evening and 2SG IRR do medicine-DEMST.SG.
"You'll use this medicine morning and evening." [Time]

Nyalima na be winnigin $n \varepsilon$ nwadigin $n \varepsilon$ nwadbibisin.
Ňyālımá nà b̄ wịnnnìgī-n n $\bar{\varepsilon}$ ňwādıgí-n n $\bar{\varepsilon} \quad \check{n} w a ̄ d-b i ̣ b ı s i ̄-n . ~$
Wonder:PL IRR EXIST sun:SG-LOC with moon:SG-Loc with moon-small:PL-LOC.
"There will be wonders in the sun, moon and stars." (Lk 21:25) [Place]

For manner-AdvP coordination see on $s i ̣ 1 ə m$-clauses 21.2.1.
The prototypical use of AdvPs is as VP adjuncts. For AdvPs as dependents in NPs see 12.7.3; time/circumstance AdvPs may appear as postlinker adjuncts 17.2.1.

AdvPs also occur as verb arguments. AdvP subjects are most often seen with àeñ ${ }^{\text {a }}$ "be something/somehow," but occur with other verbs too, especially statives.

Yip venl, ka poogin ka'a su'um.
Yị̀ vén̆l kà pūvgv-n kā' súmm=ø.
Outside be.beautiful and inside:SG-LOC NEG.BE good:ABSTR=NEG.
"Outside is beautiful but inside is not good." (Acts 23:3, 1996)

Kristo da kpii ti yela la ke ka ti baŋ nэทilim an si'em.
Kristo_ø dà kpịi $\underbrace{\text { tì } y \bar{\varepsilon} l a ́ ~ l a ̄ ~ k e ́ ~ k a ̀ ~ t i ̀ ~ b a ́ \eta ~ n o ̀ \eta ı l i ́ m ~} \varnothing$ àn̆ sị’əm. Christ nz tns die 1pl about ART cause and 1pl realise love nZ COP INDF.ADV
"Christ dying for us makes us understand what love is like." (1 Jn 3:16)
(absolute clause AdvP as subject)

In Sòjā bé "OK it is" (WK), sòjā used metalinguistically: "the word sùjā."
Verbs with appropriate meanings frequently take locative AdvPs as complements, rather than as adjuncts 16.9.3.

The verb àeñ ${ }^{\text {a }}$ "be something/somehow" typically has a derived manner-adverb or abstract noun as complement rather than an adjective as NP head 16.12.2:

Lì à nē zāalím.
Lì à nē būgvsígā.
Lì à súpā.
"It's empty."
"It's soft."
"It's good."

Kusaal characteristically uses manner proadverbs as predicative complements in place of pronouns with abstract reference. i.e. the language says "be/do how" rather than "be/do what."
Dā nị́ท̀̀ àláa=ø! "Don't do that!" ("thus")

NEG.IMP do ADV:thus=NEG.

Fo wom ban yst si'em laa?
Fù wóm bán yc̀t sị̀'əm láa=ø?
2SG hear:IPFV 3PL:NZ say:IPFV INDF.ADV ART=PQ?
"Do you hear what they are saying?" (Mt 21:16)

Relative clauses with the proform $s i ̣ 1$ ' $\partial m^{\mathrm{m}}$ "somehow" as head are accordingly used after verbs of cognition, reporting and perception, to express the subordinate interrogative sense "say [etc] what ..." 21.2.1.

For the idiom "X nị̀ w c̄lá ...?" "how can X ...?" see 19.1.

### 13.2 Time/circumstance

AdvPs expressing time 26.7 may be instantiated by proadverbs $\underline{13.6}$ or by structurally distinctive time adverbs such as zịná "today", sù' $\theta s^{\mathrm{a}}$ "yesterday", dūnná "this year." Bēog "tomorrow" has the form of a noun but cannot inflect or take dependents; dāar ${ }^{\varepsilon}$ "day after tomorrow/day before yesterday" is in the same category but happens to be homophonous with the noun dāar ${ }^{\varepsilon}$ "day."

Other time AdvPs are simply NPs with temporal meanings, and no special marking. They may consist of single nouns, such as yú'v $\eta^{\supset}$ "night", v́vn ${ }^{\text {n } \varepsilon}$ "dry season", nịntā $\eta^{\mathrm{a} /}$ "heat of the day", but such nouns inflect and may occur with dependents.

Absolute clauses $\underline{21.1}$ are frequently used to express time.
No formal distinction is made between points in time and periods of time:

Fù ná kūl bēog. "You'll go home tomorrow."
2SG IRR go.home tomorrow.

Tì kpélìm ànịnā dábısà bị́'əlà.
1PL remain ADv:there day:PL few.
"We stayed there a few days.

### 13.3 Place

Locative AdvPs consist of Kusaasi place names, specialised locative adverbs, or NPs followed by postpositions. The core locative postposition is the particle $n \bar{\imath} / \sim n^{\varepsilon}$. Some postpositions are themselves followed by $n^{\varepsilon}$; many postpositions are converted nouns. Nouns other than place names cannot otherwise be used alone as locatives.

Besides locative proforms, specialised locative adverbs include yì $\eta^{\text {a }}$ "outside", dàtìu $\eta^{3}$ or dìtú $\eta^{3}$ "right(hand)", dàgòbı $g^{\text {a }}$ "left", àgól ${ }^{l \varepsilon}$ or àgōlá "upwards", lāllí "far off" (perhaps from lāl ní.)

The locative particle takes the form $n \bar{\imath} /$ after words ending in a short vowel in SF, after pronouns and after loanwords, and the liaison-word form $n^{\varepsilon}$ elsewhere:

| mù'arī-n | "in a lake" | yūdá nì | "among names" |
| :--- | :--- | :--- | :--- |
| $\grave{m} n \bar{i}$ | "in me" | mān nī | "in me" |

la'asug doodin ne suoya ni
là'asvg dóodī-n n̄̄ sūēyá nì
assembly:SG house:PL-Loc with road:PL LOC
"in the synagogues and in the streets" (Mt 6:2)
$Y \underset{Y}{ } r^{\varepsilon /}$ "house" has the exceptional sg and pl locative forms y!̣́nne yáa- $n^{\varepsilon}$ which have the particular nuance "home", as in the parting formula

```
Pv̀'usım yịn. "Greet (those) at home." i.e. "Goodbye."
```

The article $l \bar{a} /$ may precede or follow the locative particle, as may quantifiers:
mù'arī-n lā or mù'ar lā ní "in the lake"
m gbana ni wusa
"in all my letters" (2 Thess 3:17, 1996)
m̀ gbàna ní wūsa
1SG letter:PL LOC all

The meaning is completely non-specific location: "at, in, to, from." The locative particle is attached to nouns which are not place names whenever they are used as complements of verbs expressing motion or location:

Kem Siloam buligini pie fu nini.
Kと̀m Siloam búlvgū-nı』ø pịə fù nịní.
Go:Imp Siloam well:sg-loc cat wash 2Sg eye:PL.
"Go to the well of Siloam and wash your eyes." (Jn 9:7)

Ka Suntaana kpen' Judas [...] sunfun.
Kà Sūtáanà kpéň' Judas [...] sún̆fi-n.
And Satan enter Judas [...] heart:SG-loc.
"Satan entered Judas' heart." (Lk 22:3)

Ka Pailet len yi nidibin la na ya'asi yeli ba ye...
Kà Pailet lém yị̀ nịdıbí-n lā nā yá'asì ø yćlì bā y $\bar{\varepsilon} . .$. And Pilate again emerge person:PL-LOC ART hither again CAT say 3PL.ob that ... "Pilate came out to the people again and said to them ..." (Jn 19:4)

ILK has e.g.

Ò bè dâ'a-n.
Ò bè síá'arī-n.
Ò bè pōogv́-n.
Ò bè yịn.
Ò bè mōogu-n.
Ò bè kōlıgı-n
Ò bè tūvmmı-n.
"He's at market."
"He's at the bush."
"He's at the farm."
"He's at home."
"He's in the grasslands."
"He's at the stream."
"He's at work."

More precise meanings are expressed with postpositions 13.5.
Kusaasi place names are intrinsically locative and do not take the locative particle; however, they often have a locative proform in apposition, particularly to express rest at a place, as opposed to movement:

Ò bè Bók.
Ò bè Témpáan.
Ò kèŋ Bók.
M̀ ná k $\bar{\varepsilon} \eta$ Bók.
Fv̀ yûug Bók kpz̄láa?
Fv̀ yûug Bókàa? SB
> "He's at Bawku." ILK
> "He's at Tempane." ILK "He's gone to Bawku."
> "I'm going to Bawku."
> "Have you been long in Bawku (here)?" (rejected by WK as "Mooré")

For my informants, foreign place names share the syntactic behaviour of Kusaasi place names, but (especially in the sense of rest at a place) NT often uses nī or paraphrases like Jerusalem ténī-n "in Jerusalem-land."

The locative particle also appears in some time expressions: bēog ${ }^{0}$ "tomorrow", bēogv-n ${ }^{\varepsilon /}$ "morning", yịigí-n ${ }^{\varepsilon}$ "at first" $\operatorname{sān-sị́'ə-n~lā~"at~one~time,~once..."~}$

Proforms used as locative heads of relative clauses are intrinsically locative:

One ken likin zi' on ken si'ela.
J̀nı $k \bar{\varepsilon} n$ lịkı-n $\quad z \bar{l}{ }^{\prime}$ ón $k \bar{\varepsilon} n \quad$ sị̀'əla=ø.
rel.an go:IPFV darkness-Loc neg.Know 3an:NZ go:IPFV IndF.IN=NEG.
"He who walks in darkness does not know where he is going." (Jn 12:35)
ka mori fu keŋ zin'ikane ka fo pu booda.
kà mōrí fù ø kēŋ zịn̆'-kànı kà fù p̄̄ bóodā=ø.
and have 2SG.OB Cat go place-REL.SG and 2SG NEG.IND want=NEG.
"and take you where you do not want." (Jn 21:18)

Reason-why AdvPs are constructed by a metaphorical extension of the sense of the postposition $z \bar{u} g$ "upon"; similarly for proforms:
àlá zùg ${ }^{\text {º }}$ "therefore" bゝ̄ zúg${ }^{\text {º }}$ "why?"
dìn zúgo "therefore"

### 13.4 Manner

Various NP types can be used as manner AdvPs. AdvPs of manner may be proforms, and there are several morphologically distinctive manner-adverb formations; like specialised time adverbs, specialised manner-adverbs do not take dependents. They often show apocope-blocking 3.2; some have the manner-adverb prefix $\grave{a}-10.2$ or are derived from adjective stems with the suffixes $m m$ or -ga 8.2. Others include pāalv́ "openly" and ňyāen $\varepsilon /$ "brightly, clearly."
$\check{N} y a \bar{e} e^{\mathrm{n} \varepsilon /}$ appears as complement of àeñ ${ }^{\text {a }}$ "be something" and as an adjunct:

Wina'am a su'um nyain. "God is light." (1 Jn 1:5, 1996)
Wínà'am án̆ súm n̆yāe.
God COP good:ABSTR brightly.
... ke ka ti lieb nyain.
"... make us light." (1 Jn 1:7)
... ké kà tì lịəəb n̆yāe.
... cause and 1pl become brightly.

Ka li sid nie nyain.
Kà lì síd nịe ňyāe.
And 3in truly appear brightly.

The spelling nyain appears for $\check{n} y a ̄ e ~ " b r i g h t l y " ~ e v e n ~ i n ~ t e x t s ~ p r i o r ~ t o ~ 2016, ~$ where nyainn or nyai might have been expected. The 1992 audio NT renders it [j̃ãã].

A number of manner-adverbs are formed by reduplication of roots:

| nà'anā ${ }^{\prime}$ | "easily" | kう̄n̆'okう̄ | "solely, by oneself" |
| :---: | :---: | :---: | :---: |
| tò'tōol | "straight away" |  |  |

Reduplication of nouns or numbers 12.5.1 creates distributive manner-AdvPs:
zị̆n̆'ig zị̂n̆'ig "place by place" dàbısır dábısìr "day by day"

Reduplication of manner-adverbs themselves is intensifying:
àmēŋá mēŋá
àsídà sídà

M wúm Kūsâal bị'əlá. $\quad$ I know Kusaal a little."
1Sg hear:IPFv Kusaal slightly.
$\grave{M}$ wóm bị̄'əl bị̄'əl. $\quad$ I understand a very little."
"very truly"
"very truly"

1SG hear:IPFv little little.

Relative clauses with sị' $\partial m^{\mathrm{m}}$ "somehow" are common as AdvPs 21.2.1.
Manner-adverbs resemble generic mass nouns in their syntactic behaviour in several respects. Even count nouns in generic senses may be encountered as AdvPs:

```
M k\varepsiloń\eta nōbá. "I went on foot." SB; WK corrected this to
1SG go leg:PL. M kéך nē nōbá, using \(n \bar{\varepsilon}\) "with."
```

A prepositional phrase with $n \bar{\varepsilon}$ parallels a count plural used adverbially in

À-n̆y $\bar{\varepsilon} \quad n \bar{\varepsilon} \quad n i ̣ ̂ f ~ s o ́ n ̆ ' ŋ ~ A ̀-w u ̀ m ~ t u ̀ b a . ~$ PERS-see with eye:sg be.better.than PERs-hear ear:PL.
"Saw-with-eye beats Heard-with-Ears" (Seeing is believing.)

Mass quantifiers, like abstract mass nouns, are frequently used adverbially:

## Ò tùm bédvgū.

Ò tòm pāmm.
"She's worked a lot."
"She's worked a lot."

Wūsa "all" readily switches from quantifying an object to adverbial use:

Bà gòsī tí wūsa. "They've looked at us all." WK 3PL look.at 1PL.ob all.

This is not a universal property of quantifiers:

Bà gòsī tí bédvgū.
Bà gòsí tì bèdvgū.
"They've looked at us a lot." WK
"They've looked at a lot of us." WK

Numbers have specific forms for "so many times" 12.5.1; other count quantifiers sometimes appear similarly as adverbs:

Bà gòsī tí bábıgā.
Bà gòsí tì bàbıgā.
"They've looked at us many times." WK
"They've looked at many of us." WK

### 13.5 Postpositions

Postpositions are adverbs with predependents; some also occur without. Most postpositions are literally or metaphorically locative. Postpositions may not be coordinated, but their predependents may:
tinam $n \varepsilon$ fon suvgine? $\quad$ [what is there] between us and you?" (Mt 8:29)
tīnám $n \bar{\varepsilon}$ fūn súvgū-n $=\varnothing$ ?
1 PL with 2SG between-LOC=CQ?

Many postpositions represent special uses of ordinary nouns. Some are AdvPs which include the locative particle.
$Z \bar{u} g^{\rho / ~ " o n t o " ~(z u ̄ g / ~ " h e a d "): ~}$

Ò dìgıl gbáụך lā técbìl lā zúg.
3AN lay.down book:SG ART table:SG ART upon.
"She's put the book on the table."
$Z \bar{u} g^{\partial /}$ is frequently used metaphorically to express a reason "because of ..."; reason AdvPs often occur preposed with kà or as postlinker adjuncts:
b̄̄-zúgò? "why?" dāu lā zúg "on account of the man"

Pian'akane ka m pian' tisi ya la zug, ya ane nyain.
Pịăn̆'-kànı kà m̀ pìān̆' $\varnothing$ tísì yā lā zúg, yà á n̄ ňyāe.
Word-rel.SG and 1SG speak cat give 2PL.OB ART upon, 2PL COP FOC brightly.
"Because of the words I have spoken to you, you are clean." (Jn 15:3)

The set expression sāa zúg ${ }^{3}$ is used for "sky"; it is intrinsically locative:

Ka kvksr yi saazug na ...
Kà kùkj̄r yī sāa zúg nā...
And voice:SG emerge rain:SG onto hither
"And a voice came from heaven..." (Jn 12:28)

Zūgú-nع "on":
tézbùl lā zúgū-n "on the table"
$T \bar{\varepsilon} \eta i ́ r^{\varepsilon}$ "under" (t $\bar{\varepsilon} \eta^{\mathrm{a}}$ "ground"; with no predependent Gòsım t̄̄$\eta i ́ r!$ "Look down!"):
téعbòl lā téyìr "under the table"
$P \bar{v} v g v-n^{\varepsilon /}$ "inside" ( $p \bar{v} v g^{\text {a }}$ "belly, inside"):

Dāu lā bé nē dó-kàŋā lā púvgū-n.
Man:SG ART EXIST FOC hut-DEMST.SG ART inside:SG-LOC.
"The man is inside that hut."
n̆wādıs yôvm lā púvgū-n "months in the year" (metaphorical locative)

Bābá "beside" (pl of bābır ${ }^{\varepsilon /}$ "sphere of activity"):
m̀ nōbá bàba "beside my feet"
Sìsv̀vgū-n $n^{\varepsilon /}$ "between" (replaced by sùvgū- $n$ ह/ in KB):
tīnám n̄̄ fūn sísòvgū-n "between us and you"

Tùөn ${ }^{\text {ne "in front of" (with no predependent Gòsım tûөn! "Look to the front!"): }}$
dāká lā tûon "in front of the box"

Gbị̀nn $n$ "at the bottom of" ( $g b i ̣ i n n$ n "buttock"):


Ňyá' $a \eta^{\mathrm{a}}$ "behind; after (time)" (n̆yá' $a \eta^{\mathrm{a}}$ "back", lì n̆yá' $a \eta^{\text {a }}$ "afterwards"):

NĒ'ŋá ňyâ'aך kà ò kūl. "After this she went home." DEMST.IN after and 3AN go.home.

Sā'an ${ }^{\varepsilon /}$ "into/in the presence of", "in the opinion of", "chez":

Wínà'am sâ'an "in the sight of God"

Fù ná dị'e tîım pư'á-bàmmā lā sâ'an. 2SG IRR receive medicine woman-DEMST.PL ART among. "You'll get the medicine from where those women are."

Y $\bar{l}$ lá "about, concerning" ( pl of $y \bar{\varepsilon} \mathrm{l}^{\mathrm{l} /}$ "matter, affair"):

Bà yغ̀lō־ ø mān yz̄lá wūsa.
3PL say 3AN.ob 1SG.CNTR about all.
"They told him all about me."

Kōn̆'oko (cf àrakón̆' "one" in counting) is used as in m̀ kōn̆'oko "by myself."

### 13.6 Proadverbs

| Place | Demonstrative |  | Indefinite <br> zịn̆'-sị̆' $a$ <br> "somewhere" | Interrogative |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $k p \bar{\varepsilon}$ <br> kpēlá <br> ànị <br> ànịnāa ${ }^{\prime}$ | "here" <br> "there" <br> "there" <br> "there" |  | yáa ní <br> yáa | "where?" <br> "whither /whence?" |
| Time | nānná <br> nānná-nā ${ }^{\prime}$ <br> sān-kán ${ }^{\varepsilon}$ | "now" <br> "now" <br> "then" | sān-sị́a "sometime" | sān-kán ${ }^{\varepsilon}$ <br> būn-dâar ${ }^{\varepsilon}$ <br> bう̀-wị̀n $n^{\text {ne }}$ | "when?" <br> "which day?" <br> "what time of day?" |
| Manner | àn̆wá àwá nāa àlá | "like this" <br> "like this" <br> "like that" | $S \grave{1}^{1} \cdot m^{\mathrm{m}}$ <br> "somehow" | $w \bar{c} l a ́$ | "how?" |

The indefinites are used in relative clauses 21.2.1.
The $\grave{a}$ - of the "manner" forms is preceded by the LF-final vowel -l 4.2 .
Proforms expressing reason are formed with the postposition $z \bar{u} g^{\rho /}$ : àlá $z u ̀ g^{\circ}$ "because of that", bōzúgò? "why?" (cf bō zúgō "because" 17.2.1.)

## 14 Ideophones

Adjectives cannot themselves take adverbs as modifiers. In e.g.

Lì à nē pị́əlìg pāmm. $\quad$ "It's very white"
the adverb pāmm goes with the copula verb rather than the adjective; it is not possible to say *fū-píəlìg pāmm lā for "the very white shirt."

However, an adjective in any role may be immediately followed by an intensifying ideophone, as may the derived stative verbs. As is common crosslinguistically, ideophones often display unusual phonological features. Such ideophones are specific to particular adjectives and the corresponding stative verbs.

| Lì à nē pịəlìg fáss fáss. | "It's very white." |  |
| :---: | :---: | :---: |
| Lì à nex sābılíg zịm zịm. | "It's deep black." |  |
| Lì à nēzịñ'a wị́m wị́m. | "It's deep red." |  |
| Lì à nē fū-zin̆n'a wị́m wị́m. | "It's a deep red shirt." | WK |
| $\grave{M}$ n̆yć fū-zịn̆'a wị́m wị́m. | "I've seen a deep red shirt." | WK |
| Fū-zịñ'a wị́m wịm bé. | "There's a deep red shirt." | WK |
| M bôod fū-zịñ'a wịm wịm lā. | "I want the deep red shirt." | WK |
| Ò à nē wōk tólılìlı. | "She's very tall." |  |
| Ò à nē gịn tírıgà. | "She's very short." |  |
| Ȯ wà'am tólulìlı. | "She's very tall." |  |
| Ò gịm nē tị́rıgà. | "She's very short." |  |

Not all adjectives, or even all gradable adjectives, have associated ideophones; thus WK has only the adverb pāmm in

Lì à súnā pāmm.
Lì à n $\bar{\varepsilon}$ b $\bar{\varepsilon}^{\prime} \varepsilon d$ pāmm.
Lì zùlım pāmm.
Lì mà'as pāmm.
"It's very good."
"It's very bad."
"It's very deep."
"It's very damp."

Most dynamic verbs likewise are not associated with ideophones:

Ò tùm pāmm.
Ò tùm hālí.
Ò zò pāmm.
Ò zò hälí.
"She's worked hard."
"She's worked hard." 24.7
"She's run a lot."
"She's run a lot."

However, many verbs can be followed by words which are again stereotyped and often show phonological features not found in the regular vocabulary. These are often more obviously onomatopoeic than the ideophones which intensify adjectives, and are not generally uniquely associated with particular verbs:

Ò zòt nē tólìb tólìb. $\quad$ He [a rabbit] is running lollop-lollop." WK

Similarly, the stance verb $z i!$ 'e ${ }^{\text {ya }}$ "be standing" and its dual-aspect derivatives are often followed by sāpı "straight" (LF sappine KB), but the word is found also after other verbs.
ka ku nyaje due o meni zi'e sapii.
kà kú n̆yāŋı ø dúe ò mēŋı $\varnothing$ zị'e sāpıı.
and neg.irr prevail cat rise 3an self cat stand ideo
"and was not able to rise and stand straight." (Lk 13:11, 1996)
maalim suoraug sappi mosgin la
màalım sưā-dâvg sāpı mōogv-n lā
make:IMP road-male:SG IDEO grass:SG-LOC ART
"Make straight the high road in the wilderness" (Isaiah 40:3)

Ideophones of this type resemble manner adverbs syntactically, and similarly can be preposed with kà (Abubakari 2017.) There is perhaps some overlap of categories: see on n̆yāen n/ "brightly", for example 13.4.

A third type of ideophone overlaps with emphatics 24.7: so, for example kịmm in B̄̄ kịmm "what exactly?" 12.4.4.

## 15 Prepositions

Prepositional phrases function as VP adjuncts or complements. They cannot be direct components of noun phrases. Neither prepositions nor their complements can be coordinated. $N \bar{\varepsilon}$ "with" only takes NPs or AdvPs (including $\grave{n}$-clauses) as complements, but the other prepositions also appear as clause adjuncts 17.2.1.
$\boldsymbol{N} \bar{\varepsilon}$ is "with" in both accompanying and instrumental senses. $N \bar{\varepsilon}$ "and", coordinating NPs and AdvPs, is fundamentally the same word.

Some speakers only use free pronoun forms after $n \bar{\varepsilon}$, but WK and SB have

$$
\begin{array}{ll}
\text { ní } m^{\mathrm{a}} & \text { ní } t i ̄ / \text { or né tì } \\
\text { ní } f^{\circ} & \text { ní } y \bar{a}^{\prime} \text { or né yà } \\
\text { nó [nõ] LF nó-o [nõ:] } & \text { ní } b \bar{a}^{\prime} \text { or né bà } \\
\text { ní } \overline{\text { líl }} \text { or né lì } &
\end{array}
$$

Written ne o is usually read [nõ] in the audio NT.
Examples for $n \bar{\varepsilon}$ :

Lìgıním fì nịf né fù nû'ug.
Cover:IMP 2SG eye:sG with 2 SG hand:Sg.
"Cover your eye with your hand."

Bà kè̀ nē nōbá.
"They've gone on foot." WK
3PL go with leg:pl.

Dịm $n \bar{\varepsilon} \quad W i n n, d \bar{a} \quad t \hat{\prime} ' a s ~ n \bar{\varepsilon} \quad W i n n \varepsilon ́=\varnothing$.
Eat:IMP with God:SG, NEG.IMP talk with God:SG=NEG.
"Eat with God, don't talk with God."
(Proverb: Be grateful for God's generosity and don't complain.)

Kulim ne sumbvgusom. $\quad$ Go home in peace." (Mk 5:34)
Kùlım n̄̄ sùmbv̄gvsím.
Go.home:Imp with peace.
[Bárıkà né fù] kz̄n kēn.
[Blessing with 2SG] arrival arrival.
"Welcome!" (based on a greeting template 25)
$\grave{M}$ gén̆' né fù. "I'm angry with you." SB
1SG get.angry:PRV with 2SG.

Là'am n $\bar{\varepsilon}$ "together with" derives from a $n$-catenation construction 19.1:
...mor ya'am yinne la'am ne ten'esa yinne.
... mōr yā'am yīnní là'am n̄̄ tēn̆'عsá yīnní.
... have sense one together with thought one.
"... had one mind together with one thought." (Acts 4:32)

W̄̄v means "like." With pronoun complements WK has

| $w \bar{v} v$ mān LF mánè | wv́v tì |
| :---: | :---: |
| $w v \bar{v}$ fūn LF fúnè | wv́v yà |
| $w \bar{v} v \bar{ว}^{\varepsilon}{ }^{\varepsilon}$ | wv́v bà |
| wóv lì |  |

WK permits phrases introduced by wv̄v to be preposed with kà 24.3 , but rejects this construction for $n \bar{\varepsilon}+\mathrm{NP}$ :

Wūv búy né kà ò zót.
Like donkey:sg like and 3an run:IPFv.
"Like a donkey, he runs."
but *Né m̀ nû'ug kà m̀ sī'ls.
With 1Sg hand:SG and 1SG touch.
is not possible for "With my hand, I touched it."

The complement is often a sị' $\partial m$ relative clause 21.2.1:

Ò zòt wv̄vbún ǹ zòt sị̀'əm lā.
3AN run:IPFV like donkey:SG Nz run:IPFV INDF.ADV ART.
"He runs like a donkey runs."
$W \bar{\varepsilon} n^{\text {na/ }}$ "resemble" takes as complement a prepositional phrase introduced by $w \bar{v} v$ or $n \bar{\varepsilon}$. A complement of $w \bar{\varepsilon} n w \bar{v} v, w \bar{\varepsilon} n n \bar{\varepsilon}$ or of $w \bar{v} v$ alone is followed by an empty particle $n \bar{\varepsilon}$ whenever it does not have the article $l \bar{a}^{\prime}$, even if it is a pronoun, or is specific, though not if it is a number (in which case, the meaning is "about"):

| $w \bar{v}$ mān $n \bar{\varepsilon}$ | "like me" | wv̄v bún $n \bar{\varepsilon}$ |
| :--- | :--- | :--- |
| $w \bar{v} v ~ t u ̄ s a ́ ~ a ̀ y!̣ i ́ ~$ | "about 2000" |  |

Alazugo mori ya'am wov wiigi ne...
Àlá zùgō, mòrī ø yā'am wūv wịigí n̄̄...
Therefore, have 2Pl.sub sense like snake:pl like...
"Therefore, be wise as serpents ..." (Mt 10:16)
Àsé $\boldsymbol{\varepsilon}$ is "except for." Pronoun complements appear as free forms.
àsće Wínà'am "except for God" (calquing Twi gye Nyame)

Hālí means "up to and including." Pronoun complements are free forms.

O daa pvn ane ninkvod hali pin'ilvgun sa.
Ò dāa pún à nē nịn-kôvd hālí pịñ'ilv́gō-n sá. 3AN TNS previously COP FOC person-killer:SG even beginning:SG-LOC since.
"He was a murderer from the beginning." (Jn 8:44)

Hālí can also appear as a prelinker adjunct and as an emphatic 24.7. As emphatic "even" preceding $n \bar{\varepsilon}$ or là'am n $\bar{\varepsilon}$ "(together) with" and a ǹ-clause complement, it produces the meaning "despite, even though, even as":

Hali la'am ne on daa an yelsum wvsa daan la, o da lieb noŋdaan...
Hālí là'am nē ón dāa án̆ yz̄l-sv́m wūsa dâan lā,
Even together with 3AN:NZ TNS Cop matter-goodness all owner:SG ART,
ò dà lịəb n̄̄ŋ-dâan...
3AN tns become poverty-owner:SG...
"Despite his having possessed every blessing, he became poor..." (2 Cor 8:9)
Zugsob yel ye, Hali ne man vve nwa...
Zūg-sób yél ȳ̄, Hālí n̄ mán vv̄e n̆wá ... head-null.an say that even with 1sG:nz be.alive this ... "The Lord says: Even as I live .." (Rom 14:11)
hali ne man daa sobi tisi ya si'em la, m daa pu sobi li hālí n̄ mán dāa sōbı Ø tísì yā sị’əm lā even with 1SG:NZ TNS write CAT give 2PL.OB INDF.ADV ART m̀ dāa pū sōbí $l \bar{\imath} \ldots$
1SG TNS NEG.IND write 3IN.OB ...
"Despite how I wrote to you, I did not write it ..." (2 Cor 7:12)

## 16 Verb phrases

### 16.1 Structure

The core of the verb phrase is a verb word along with bound particles which, together with verb flexion, mark tense, aspect, mood and polarity. Some verb complements are left-bound liaison words; remaining complements and adjuncts follow in that order, after which VP-final particles may occur.

The VP is subject to independency marking. This is primarily a tone overlay, but there are associated segmental features: the particle $y \bar{a}$ after phrase-final perfective forms and the dual-aspect verb imperative flexion -ma appear only when the tone overlay is present.

The system separates tense, marked by preverbal particles, from aspect, marked by verb flexion and postverbal $n \bar{\varepsilon}^{\prime}$. As is common cross-linguistically, future reference is marked by mood. Negative markers vary with mood. Mood itself is marked primarily by such preverbal particles, but the flexion -ma of dual-aspect verbs is a portmanteau marker of imperative mood, positive polarity and independency.

The VP shows no agreement. Apparent number agreement in imperatives is actually due to the incorporation of the postposed 2 nd pl subject pronoun ${ }^{\text {ya }}$.

Bound VP particles occur in a fixed order:

|  | T1 | T2 | Mood | Preverb |  | LW1 | LW2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $l$ lè | dàa | nàm | $\varnothing$ ¢ ${ }^{\text {c }}$ | pòn | VERB | $n^{\varepsilon}$ | $m^{\text {a }}$ | $n \bar{\varepsilon}{ }^{\prime}$ |
|  | sàa | $\check{n} y \bar{\varepsilon} \varepsilon(t ı)$ | $\varnothing$ ¢ ${ }^{\text {a }}$ | lèm |  | ya | $f^{\circ}$ |  |
|  | $ø$ |  | nà $\leftrightarrow k$ ù | ti |  |  | o |  |
|  | pà ${ }^{\prime}$ |  |  | kpè̀lım |  |  | $l$ |  |
|  | sà |  |  | là'am |  |  | $t ı$ |  |
|  | dāa |  |  | dèpım |  |  | ya |  |
|  | dà |  |  | $\ldots$ |  |  | ba |  |

$\varnothing$ marks slots where the absence of a particle can be contrastive.
T1, T2 are slots for tense particles; LW1 for the liaison words $n^{\varepsilon} 16.3 .2$ ya 18.3; LW2 for bound personal pronouns as (direct or indirect) objects, which unlike all other complements precede aspect-marking $n \bar{\varepsilon}^{\prime}$ 16.2.1. Only one bound object pronoun may occur; cf $n$-catenation using tìs $s^{\varepsilon}$ "give" 19.1.

The particles in the column "Mood" also mark polarity: positive $\leftrightarrow$ negative.
For lè "but" see 16.7.
Tone Pattern A verbs have all-M tones in the irrealis mood 3.8.2.

### 16.2 Aspect

The basic aspect distinction is perfective versus imperfective. Dual-aspect verbs distinguish aspects by flexion: the unmarked stem form is perfective, the suffix *-da forms the imperfective, and a form with *-ma is used for imperative when the verb word itself carries the independency-marking tone overlay 16.6.2. Single-aspect verbs have a single form which is always imperfective.

The terms dynamic and stative are used in this description as labels for verb classes, not aspects. Dynamic verbs can be morphologically dual-aspect or singleaspect. They typically express occurrences, but can also express states: the imperfective form of a dynamic verb can have habitual/propensity meaning, which can be regarded either as expressing multiple occurrences or as a state, describing the character of the subject, and the perfective of dynamic verbs which express a change of state in the subject can express the resulting state itself. Stative verbs are all single-aspect. By default, they express persistent/abiding states.

### 16.2.1 Aspectual $n \bar{\varepsilon}$

Following a verb word with no free words intervening, the VP focus particle $n \bar{\varepsilon} /$ 24.1.2 by default marks a contrast with another time at which the situation expressed by the verb did not obtain; the meaning might be paraphrased "at the time referred to in particular." When $n \bar{\varepsilon}^{\prime}$ is used in this way, the time referred to is not coextensive with the time of the situation (CGEL pp125 ff); in the terminology of Klein 2013, there is a "topic-time contrast." With imperfective aspect, this happens when the time referred to is strictly contained within the time of the situation: the meaning is similar to the English "progressive", and is similarly not freely used with verbs which by default express abiding states. With perfectives expressing events, the time referred to and the time of the situation always coincide, and aspectual use of $n \bar{\varepsilon} /$ is not possible; however, resultative perfectives express a state resulting from the action of the verb, and because this state is not present prior to the action, there is invariably a topic-time contrast. Accordingly, aspectual $n \bar{\varepsilon}^{\prime}$ after a perfective form marks it as resultative; conversely, if a perfective verb form does not express a change of state in the subject, any following $n \bar{\varepsilon}^{\prime}$ cannot be aspectual.
$N \bar{\varepsilon}^{\prime}$ may not be used at all in certain syntactic contexts, and may not appear a second time in an aspectual sense if it is already present focussing a constituent. Furthermore, $n \bar{\varepsilon}^{\prime}$ can only be interpreted aspectually if no free words intervene between the particle and the verb, and the VP has positive polarity and indicative mood. When aspectual senses are not excluded by the meaning of the verb itself, the relevant aspect distinctions still occur, but are formally unmarked:

$$
\begin{aligned}
& \text { Ò kùөsıdībá né } \quad \text { "She's selling them." } \\
& \text { 3AN sell:IPFV } \begin{array}{l}
\text { 3PL.OB FOC. }
\end{array}
\end{aligned}
$$

Ò kùesıd n $\bar{\varepsilon}$ sūmma lā. "She is selling the groundnuts."
3AN sell:IPFV FOC groundnut:PL ART.
but $\grave{O}$ kùesıd sūmma lā nē."She sells/is selling the groundnuts." 3AN sell:IPFV groundnut:PL ART FOC. (VP focussed: "They're not free.")

Ò zàbıd.
"He fights."
3AN fight:IPFV.

Ò zàbıd $n \bar{\varepsilon}$.
3AN fight:IPFV FOC.
but $\dot{O} p \bar{u} \quad z a ́ b ı d \bar{a}=\varnothing . \quad$ "He's not fighting/He doesn't fight." 3AN NEG.IND fight:IPFV=NEG.
"He's fighting."
$N \bar{\varepsilon}^{\prime}$ cannot have aspectual meaning in generic statements. These are usually recognisable by the fact that they have indefinite subjects without determiners (or pronouns referring to such subjects) and are not presentational 24.5:

Nịigí j̀n̆bıd n̄̄ mōod. Bà nùud n̄ kû'өm.
Cow:PL chew:IPFV FOC grass:PL. 3PL drink:IPFV FOC water.
"Cows eat grass. They drink water." ("What do cows eat? and drink?")
$N \bar{\varepsilon}^{/}$is omitted in replying to questions or commands by repeating the verb:
A: Gòsım!
"Look!"
B: M̀ gósìd!
"I'm looking!"
A: Fù gósìd néع?
"Are you looking?"
B: M̀ gósid!
"I'm looking!"

### 16.2.2 Perfective

Perfective is the unmarked aspect. It is not incompatible with a present tense interpretation, often corresponding to the English "simple present", which is likewise unmarked over against the progressive form. It is the usual aspect found with the irrealis mood to express future events, and in yà'-clauses 20.2. Nevertheless, even without tense marking, the perfective often has an implication of completion, in contrast with the imperfective.

The perfective frequently does occur without tense marking, either explicit or implicit from context 16.3.4. With most verbs this simply expresses a completed event or process with the time unspecified, creating the implication that the event is still currently relevant; the sense resembles the English "present perfect":

Sāa dāa nị́.
Rain tws rain.
but Sāa nị yā.
Rain rain PFV.
"It rained." (before yesterday.)
"It has rained."
The time is unspecified: "Perhaps the grass is still wet, or I am explaining that the area is not really a desert." (WK)

Perfective appears with present meaning with events and processes which can be conceptualised as being coextensive with the moment of utterance:

Ò $y \grave{\varepsilon} l y \bar{\varepsilon} \ldots \quad$ "He says ...." (translating for the foreign doctor) 3AN say that ..

Performatives naturally fall into this category:

M pô'vs yā.
1SG greet pFv.
"Thankyou", "I thank you."
(cf Hausa Naa goodèe)
$\grave{M}$ síák yā.
"I agree."
1SG agree PFV.

Verbs of perception and cognition (often corresponding to English "stative" verbs that do not use the progressive present) frequently appear as present perfectives, once again corresponding to English simple present:

M̀ n̆yź nū'-bị́bısá àtán̆'.
1SG see hand-small:PL NUM:three.
"I can see three fingers."
$\grave{M}$ têň' $\varepsilon s$ kà ... "I think that ..."
1SG think and ...

With verbs which express a change of state in the subject the perfective may express the resulting state; such resultative perfectives are followed by aspectual $n \bar{\varepsilon} \bar{\varepsilon}^{\prime}$ whenever syntactically permissible, because there is always a topic-time contrast with the situation preceding the action of the verb:

```
Lì bòdıg yā.
"It's got lost."
3IN lose PFV.
```

but Lì bòdıg n $\bar{\varepsilon}$.
"It's lost."
3IN lose Foc.

Most verbs expressing a change of state in the subject are either intransitive or patientive ambitransitive:
Ò kpị̀ né.
"He's dead."

3AN die foc.
$\grave{M}$ gén̆ $\quad n \bar{\varepsilon} . \quad$ "I'm tired."
1SG get.tired FOC.

Bà kùdvg n̄̄.
"They're old."
3PL grow.old FOC.

Lì pè' $\varepsilon l n \bar{\varepsilon}$.
"It's full."
3IN fill FOC.

Lì yò n̄̄.
"It's closed."
3IN close Foc.
$\grave{M}$ búg $n \bar{\varepsilon}$.
"I'm drunk." ( $\leftarrow$ Hausa bùgu)
1SG get.drunk Foc.

Ò lèr $\quad n \bar{\varepsilon}$.
"He's ugly." WK sic
3AN get.ugly FOC.

Lì sòbıg $n \bar{\varepsilon}$.
"It's black." WK sic
3IN blacken Foc.

Agentive transitive verbs of dressing express a change of state in the subject:
$\grave{M}$ yé fūug. $\quad$ I've put a shirt on."
1SG put.on shirt:SG.
$\grave{M}$ yé $n \bar{\varepsilon}$ fūug. $\quad$ I'm wearing a shirt."
1SG put.on FOC shirt:SG.

A perfective form can only be interpreted as resultative if it expresses a change of state in the subject:

```
M dá' n\overline{\varepsilon}}\mathrm{ búy. "I've bought a donkey."
1SG buy FOC donkey:SG.
    ("What have you bought?"; focussed object)
```

Assume-stance verbs do not express a change of state in the subject, because stance verbs are not stative in Kusaal. Accordingly, the perfective of an assumestance verb cannot accept a resultative reading:

Ò dìgın $n \bar{\varepsilon}$.
3an lie.down foc.
"He's lain down." DK: "Someone calls at your house and gets no answer; he thinks you're out but I'm explaining that you've gone to bed."

In catenation and in absolute clauses, the choice of perfective over imperfective implies that the event is complete. Consequently, in catenation the order of VPs when the first has perfective aspect is iconic, with constituent order constrained to follow event order 19. Thus while English might say: "Two men stood with them, dressed in white", Kusaal must have

Ka dapa ayi' yє fupiela zi'e ba san'an.
Kà dāpá àyịí yć fū-pịəlà ø zị่e bà sā'an.
And man:PL num:two dress shirt-white:PL cat stand 3PL among.
"Two men dressed in white were standing with them." (Acts 1:10)

In contrast, an imperfective may be followed by a perfective:

Ňwādısá àtán' kà fù ná mōr bịị lā $n \quad k \bar{\varepsilon} \quad n a ̄$.
Month NUM:three and 2SG IRR have child:SG ART CAT come hither.
"Bring the child here in three months." ("having the child, come here.")

With absolute clauses as adjuncts, the temporal relationship to the main clause is determined by aspect, with perfective in the absolute clause implying priority and imperfective simultaneity 21.1. In the same way, narrative generally features series of tense-unmarked perfectives describing events strictly in order 16.3.4.

Perfectives may appear in general statements such as proverbs, which in such cases should probably be regarded as mini-anecdotes:

Kukoma da zab taaba ason'e bi'ela yela.
Kùkòma dá zàb tāabá à-sōn̄'e bị'əlá yèla.
Leper:PL TNS fight each.other PERs-better.than slightly about.
"Lepers once fought each other about who was a bit better." KSS p40

### 16.2.3 Imperfective

Without aspectual $n \bar{\varepsilon}^{\prime}$, the imperfective of dynamic verbs is "habitual", expressing multiple occurrences, or a propensity of the subject to the achievement, accomplishment or activity expressed by the verb:

| Nị̄dıb kpịid. | "People die." |
| :--- | :--- |
| Person:PL die:IPFV. |  |
| Nị̄igí j̀n̆bıd mōod. <br> Cow:PL chew:IPFV grass:PL. | "Cows eat grass." |
| M zịñ'i. | "I sit." |
| 1SG be.sitting. |  |

With aspectual $n \bar{\varepsilon} \bar{\varepsilon}^{\prime}$, the imperfective of dynamic verbs has a meaning analogous to the English "progressive."
$N a ̄ '$-sịəəbà ón̆bìd $n \bar{\varepsilon}$ mōod. "Some cows are eating grass."
Cow-IndF.PL chew:IPFV FOC grass:PL.
$\grave{M}$ zịñ'i $\quad n \bar{\varepsilon} . \quad$ "I'm sitting."
1SG be.sitting foc.

With verbs describing events the sense is often "time-limited habitual":

Nịdıb kpị̂id nē. "People are dying."
Person:PL die:IPFV Foc.

Patientive ambitransitive verbs expressing changes of state can be used in progressive senses:
$\grave{M}$ yôod $n \bar{\varepsilon}$ kúlì $\quad$ lā. "I'm closing the door."

1SG close:IPFV FOC door:SG ART.

Kùlıŋ lā yôวd n̄̄. "The door is closing."
Door:SG ART close:IPFV FOc.

Lì mà'ad n̄̄. "It is getting cool." (mā'e/ "get cool")
3IN get.cool:IPFV FOC.

However, passives 16.9.1.1 cannot be used with progressive meaning:

Dāam lā nûud.
"The beer gets drunk." WK
Beer art drink:IPFV.

Dāam nûud zịná. "Beer gets drunk today." WK
Beer drink:IPFV today.
but Dāam lā nûud n $\bar{\varepsilon}$. Only "The beer is for drinking." WK
Beer art drink:IPFV Foc.
("Not for throwing away."); Focus on the verb: not "The beer is being drunk."
*Dāam nûud n̄̄ was rejected by WK altogether, probably because without a context the subject was intepreted as generic.

Stative single-aspect verbs express persistent or abiding states; accordingly they do not normally display topic-time contrasts or take aspectual $n \bar{\varepsilon} /$ :

Ò gịm.
3AN be.short.
$\grave{M}$ mór pư'ā.
"I have a wife."
1SG have wife:SG.
"She's short."

With stative verbs, the default interpretation of following $n \bar{\varepsilon}^{\prime}$ is therefore as focussing the VP or a VP constituent:

Ò gịm $n \bar{\varepsilon}$. $\quad$ "He's short." ("I was expecting someone taller.")
3AN be.short foc.
$\grave{M}$ mór nē pu'ā. "I have a woman."
1SG have FOC woman:SG. (not "wife": implies an irregular liaison, WK)

However, if there is an explicit time reference in the clause itself (even just a tense marker) it can constrain the meaning to a temporary state, limited to a particular time period, with a contrast between the time referred to and other times when the state was not in effect. [This requirement for an explicit time marker in the same clause may reflect acceptability judgments based on short isolated clauses.]

Lì vèn $n \bar{\varepsilon}$. $\quad$ It's beautiful." (Focus on the verb.)
3IN be.beautiful FOc.
but Nānnánā, lì vèn $n \bar{\varepsilon}$. "Just now, it's beautiful."
Now, 3IN be.beautiful Foc.

Lì dāa vén $n \bar{\varepsilon}$. "It was beautiful." WK: "I gave you a cup, and 3IN tNs be.beautiful Foc. it was OK then, but now you've spoiled it."

Sān-kán lā, lì dāa zúlìm nē.
Time-dem.SG art, uin tns be.deep foc.
"At that time, it was deep."

Mù'ar lā dāa zúlìm nē. "The lake was deep."
Lake:sG ART tns be.deep foc. (Implying, "Now it's shallow." WK)

If the following constituent does not permit focussing with $n \bar{\varepsilon}^{\prime} \underline{24.1 .2}, n \bar{\varepsilon}^{\prime}$ must be aspectual even if the verb is stative and there no explicit time marker:

M̀ mór bịisá ${ }^{\text {àtánā. }}$
1Sg have child:PL NUM:three.exactly.
"I've got exactly three children."
but $\grave{M}$ mór n $\bar{\varepsilon}$ bịisá ${ }^{\text {àtánā. }}$
1SG have FOc child:PL NUM:three.exactly.
"I've got exactly three children just now." DK: "You're on a school trip, talking about how many children everyone has brought."

Lì dāa án̆ súyā.
3IN TNS COP good:ADV.

Lì dāa á nē sv́nā. "At the time, it was good." WK
3IN TNS COP FOC good:ADV.

Lì à n̄̄ súnā. "It's good." ("Now; it wasn't before." WK)
3IN COP FOC good:ADV.

Emphatics 24.7 do not reject focus with $n \bar{\varepsilon}^{\prime}$ :
bozugo o ane fo biig men.
bōzúgó ò à né fò bịìg mén.
Because 3AN Cop Foc 2 Sg child:sg also.
"Because he is your child too." (Genesis 21:13)

### 16.3 Tense

### 16.3.1 Tense particles

Tense particles come first in the VP, preceded only by lè $\varepsilon$ "but." They are mutually exclusive:

| dàa | "day after tomorrow" |
| :--- | :--- |
| sàa | "tomorrow" |
| $\varnothing$ | present, or implicit (see below) |
| pà' | "earlier today" |
| sà | "yesterday" |
| dāa | before yesterday |
| dà | before the time marked by dāa |

These particles (including ø) may be followed immediately in the tense slot by either of the two auxiliary tense particles nàm "still/yet" or $\check{n} y \bar{\varepsilon} \varepsilon$ ( $t i ́)$ "habitually." The day begins at sunrise:

Fù sá gbịs wēlá=ø? "How did you sleep yesterday?" i.e."last night" 2SG TNS sleep how=cQ?

Future tense markers normally require irrealis mood, but imperative is possible if a main clause has been ellipted before a subordinate clause of purpose:

> Ò sáa zàb nà'ab lā. 3AN TNS fight chief:SG ART.

Dāa means "before yesterday" but can be used freely for even remote past. The NT has numerous parallel passages where the same events are narrated in one passage with dāa and in another with dà, but when both markers occur, dà always expresses time prior to dāa. (For other "pluperfects", cf tense marking in content clauses 22.2, and in $\grave{n}$-clauses within narrative 16.3.4.)

Nàm means "still" or with a negative "yet":

Tùım lā nám bè $\varepsilon=\varnothing$ ? "Is there any medicine left?"
Medicine art still ExIST=PQ? ("Does the medicine still exist?")
dunia nam po pin'il la
dūnıyá $\varnothing$ nàm pū pịn̆'il lā
world:SG nZ still NEG.IND begin ART
"before the world began" (Mt 25:34) ("The world having not yet begun.")
$\grave{M}$ nám $z \overline{1} \backslash \quad \varnothing \quad \check{n} y \bar{\varepsilon}$ gbīgımn $\varepsilon=\varnothing$.
1SG still neg.Know cat see lion:SG=NEG.
"I've never seen a lion." SB (see 19.1 on $n$-catenation idioms)
 verb is imperfective.

Ò দ̆ȳ̨̄ zábìd nâ'ab lā.
3AN usually fight:IPFV chief:SG ART.
"He's accustomed to fight the chief." WK

Ò n̆yc̄e gōsıd nâ'ab lā.
3AN usually look.at:IPFV chief:SG ART.
"He's accustomed to look at the chief." WK

Ò dāa n̆yc̄e zábìd nâ'ab lā.
3AN TNS usually fight:IPFV chief:SG ART.
"He was accustomed to fight the chief." WK

Ò $\bar{\varepsilon} \varepsilon n ̆ t i ́ ~ z a ̀ b ı d ~ n \bar{\varepsilon}$ nâ'ab lā.
3AN usually fight:IPFV FOC chief:SG ART.
"He's accustomed to fight the chief." KT

3an usually be.sitting there.
 3AN usually be.lying there.

Ti énti pu sobid dine ka ya na karim ka kv nyaŋi gban'e li gbinne.
 1PL usually NEG.IND write:IPFV REL.IN and 2PL IRR read and NEG.IRR prevail CAT gbán̆'e lì gbịnnn $\bar{\varepsilon}=\varnothing$.
grab 3IN base:SG=NEG.
"We do not write what you will read and not be able to grasp the meaning of."
(2 Cor 1:13)

### 16.3.2 Discontinuous past

My informants use the discontinuous-past marker $n^{\varepsilon}$ to make an earliertoday past with indicative meaning:
$\grave{M}$ ón̆bıd̄̄-n sūmma. $\quad$ I was eating groundnuts."
1SG chew:IPFV-DP groundnut:PL.

This implies "and now I'm not", a sort of anti-current-relevance. Such a "discontinuous" past is proposed for many languages (especially in West Africa) in Plungian and van der Auwera 2006; $n^{\varepsilon}$ fulfils their criteria for a typical discontinuous past well. They note (5.2) that such markers often acquire attenuative, hypothetical or counterfactual senses, which are much the commonest roles of $n^{\varepsilon}$ in Kusaal 20.1.

### 16.3.3 Periphrastic futures

Kusaal does not use tense-unmarked indicative imperfectives for immediate future (like English "I'm going home.") Note the use of the perfective in

| $\grave{M}$ kúl yā. | equivalent in usage to "I'm going home now." |
| :--- | :--- | :--- |
| 1SG go.home PFV. | Perfective as an instantaneous present 16.2.2 |

There are two periphrastic indicative constructions for "to be about to ...": (a) bう̀od ${ }^{\mathrm{a}}$ "want" + gerund. The subject need not be animate; the construction is only possible with gerunds from dynamic verbs.

Tìıg lā bôod lḷìg. "The tree is about to fall."
Tree:Sg ART want fall:GER.

Yv'vy bood gaadvg, ka beog bood nier.
Yú'vŋ bôod gáadùg kà bz̄og bôod nị̂ər.
Night want pass:GER and morning want appear:GER.
"The night is about to pass and tomorrow is about to appear." (Rom 13:12)
(b) subject $+y \bar{\varepsilon}$-purpose clause; the subject must be animate. (Cf also 22.2.)
$\grave{M}$ yé m̀ kūā sūmma. "I'm going to hoe groundnuts."
1SG that 1SG hoe groundnut:PL.

M̀ ý́ $\grave{m}$ kịá nịm. $\quad$ "I'm going to cut meat"
1SG that 1SG cut meat:SG.

### 16.3.4 Implicit tense and narrative

Tense markers are frequently absent. As a basic principle, explicit marking is not needed when the time reference is recoverable from the linguistic context, but the occurrence of tense markers is not arbitrary, and constrasts with $\varnothing$ may occur.

Real-world context does not in itself licence omission of tense markers. If there is no other time-referring element in the clause, the absence of any tense particle is meaningful. By default, it simply means that the tense is present, whether the aspect is imperfective or perfective:

Nịdıb kpị̂id $n \bar{\varepsilon}$. "People are dying."
Person:PL die:IPFV Foc.

Nịd $d \downarrow \quad$ kpịild. $\quad$ "People die."
Person:pl die:IPFV.

Ò mòr pư'ā. "He has a wife."
3an have wife:sg.

Ò kpị̀ yā.
"She's died." ("present perfect")
3AN die pFV.

In isolation, it is not possible to interpret such expressions as referring to the past (see below on informal narrative.)

Tense-markers may be omitted with the irrealis mood, with $-n^{\varepsilon}$ as today-past, or with another time reference in the clause itself, like a time adverb:

```
    Fv̀ sáa nà kūl. "You'll go home tomorrow."
    2SG TNS IRR go.home.
or
    Fì sáa nà kūl b\overline{q}og.
    2SG TNS IRR go.home tomorrow.
or Fv̀ nà kūl b\overline{\varepsilon}og.
    2SG IRR go.home tomorrow.
cf Fù ná kūl.
    2SG IRR go.home
        "You will go home."
    (today, tomorrow, next week ...)
        M pá' \grave{n̆bıdī-n sūmma. "I was eating groundnuts earlier today."}
        1SG TNS chew:IPFV-DP groundnut:PL.
or M
    1SG chew:IPFV-DP groundnut:PL.
```

M̀ sá zàb nâ'ab lā sû'өs. "I fought the chief yesterday." 1SG tNS fight chief:SG ART yesterday.
or M̀ záb nâ'ab lā sû' $\theta s$.
1SG fight chief:SG ART yesterday.

Systematic meaningful omission of past tense markers occurs in narrative. In KB/NT narrative, main clauses which do not contain an explicit time expression show tense marking much more often than not, unless they are introduced by kà; the first 12 chapters of Acts in the 1996 version show over five times as many tense-marked as unmarked forms. On the other hand, clauses introduced by kà only have tense marking to signal that they disrupt the narrative flow, as with flashbacks or descriptive passages. KB/NT narrative varies in the proportion of tense-marked clauses without kà to unmarked clauses with kà; the Balaam's Donkey narrative $\underline{27.1}$ shows a higher proportion of tense-marked clauses without kà than typical NT narrative, for example. However, throughout KB, narrative favours long sequences of coordinated kà-clauses with perfective aspect without tense marking, narrating the sequence of events in order. Here kà itself corresponds to zero in English.

Less formal sources like the Three Murderers text 27.2 drop tense-marking in clauses without kà within narrative much more often than the Bible versions. In view of the consistency of the tense marking principles of $\mathrm{KB} / \mathrm{NT}$, narrative clauses of this kind are probably analogous to the "historic present" of English informal conversational narration (CGEL p130); significantly, kp $\bar{\varepsilon}$ "here" and spatio-temporal deictics like kà $\bar{a}$ "this" are also common in such texts.

In any case, tense-marking must be absent in clauses introduced by kà which are carrying the narrative forward, and conversely, disruptions in narrative flow must normally be tense-marked (with exceptions as noted below.)

Presented with isolated kà-clauses with perfective aspect and no tense marking, my informants always interpeted them as expressing events, rejecting any aspectual interpretation of the particle $n \bar{\varepsilon}^{\prime}$ in favour of constituent focus; but with tense marking, $n \bar{\varepsilon}^{\prime}$ was, as usual, taken as aspectual by default:

Lì bòdıg n $\bar{\varepsilon}$.
3IN get.lost FOC.

Kà lì bódìg nē.
And 3IN get.lost Foc.

Bà kùdıg nē.
3PL get.old Foc.
"It's lost."

Rejected by WK; accepted after some thought by DK, explained as contradicting "someone hid it" i.e. as contrastive focus
"They're old."

Kà bà kúdìg nē. And 3PL get.old Foc.

But Kà lì dāa bódìg nē.
And 3in tns get.lost foc.

Kà bà sá kùdıg n $\bar{\varepsilon}$.
Kà bà dāa kúdìg nē.
"And they're old." Rejected by WK; accepted by DK with the gloss "You're saying they're old when he promised to give you new ones", i.e. as contrastive focus
"And it was lost."
etc all acceptable as "and they were old."

Thus, both with and without kà, tense-marking signals disruption of the narrative flow:

Ka Yesu daa an yvma pii ne ayi' la, ka ba key malvy la wvo ban énti nipid si'em la. Ka malvy la dabisa naae la, ka ba lعbidi kun. Ka Yesu kpzlim Jerusalem tejin ka o ba' ne o ma pu baך ye o kpelim yaa. Ba daa ten'عs ye o dolne ba tej dim la, ka keך ...
Kà Yesu Ø d dāa án̆ yómà pịii né àyịí lā, kà bà kēŋ málòn And Jesus NZ tns cop year:pl ten with NUM:two ART, and 3PL go sacrifice:SG lā wōv bán $\bar{\varepsilon} \varepsilon n ̆ t i ́ ~ n i ̣ ̀ \eta ı d ~ s i ̣ ̄ ə m ~ l a ̄ . ~ K a ̀ ~ m a ̀ l v \eta ~ l a ̄ ~ d a ́ b ı s a ̀ ~ \smile ø ~$ ART like 3PL:NZ usually do:IPFV INDF.ADV ART. And sacrifice:SG ART day:PL NZ nāe lā, kà bà lćbıdì $\varnothing$ kūn. Kà Yesu kpélìm Jerusalem finish ART, and 3PL return:IPFV CAT go.home:IPFV. And Jesus remain Jerusalem tén̄̄̄-n kà ò bā ${ }^{\prime}$ né ò mà pū báy yé ò kpèlım land:SG-LOC and 3AN father:SG with 3AN mother:SG NEG.IND realise that 3AN remain yāa=ø. Bà dāa t $\bar{n} \check{n}^{\prime} \varepsilon s ~ y \varepsilon ́ ~ o ̀ ~ d o ̀ l ~ n \varepsilon ́ ~ b a ̀ ~ t \varepsilon ̀ \eta-d i ̀ m ~ l a ̄, ~ k a ̀ ~ k \bar{\varepsilon} \eta \ldots$ PFV=NEG. 3PL TNS think that 3AN accompany FOC 3PL land-person.PL ART, and go... "When Jesus was twelve years old, they went to Jerusalem to sacrifice as they were accustomed to. When the days of sacrifice were over, they were going home, but Jesus remained behind in Jerusalem, and his father and mother didn't realise that he had stayed. They thought that he was accompanying their fellow-countrymen. And they went ..." (Lk 2:42-44)

Note the "aside" O ma da ane Uria po'a in the genealogy of Jesus in Matthew 1.1ff 1996, which has dozens of clauses of the pattern kà X dú'á Y "and X begat Y":

Ka Jese du'a na'ab David. Ka David du'a Solomon. O ma da ane Uria po'a. Ka Solomon du'a Rehoboam.
Kà Jese dư'á nâ'ab David. Kà David dư'á Solomon. Ò mà And Jesse beget king:Sg David. And David beget Solomon. 3AN mother:Sg
dá à n $\bar{\varepsilon}$ Uria pư'á. Kà Solomon dư'á Rehoboam...
tns cop foc Uriah wife:sg. And Solomon beget Rehoboam...
"And Jesse begat King David. And David begat Solomon. His mother was Uriah's wife. And Solomon begat Rehoboam..." (Mt 1:6-7, 1996)

In contrast, the genealogy in Luke 3:23ff 1996 moves backwards in time and has dozens of consecutive examples of ka X saam da ane Y "and X's father was Y."

Disruptions in narrative flow normally must be tense-marked, but very long series of coordinated "asides" do sometimes drop tense marking; in KB the genealogy in Luke shows ka $X$ saam da an $\varepsilon Y$ at the beginning of paragraphs in the text, but ka $X$ saam an $Y$ otherwise.

Tense-unmarked dynamic-verb imperfectives can appear without aspectual $n \bar{\varepsilon}{ }^{\prime}$ in narrative to express several instances of an event:

Ka on kpen' la, o yeli ba ye [...]. Ka ba la'ad o.
Kà ón kpèn̆' lā, ò yélì bā y $\bar{\varepsilon}$ [...]. Kà bà lá'adō ø.
And 3AN:NZ enter ART, 3AN say 3PL.ob that ... and 3PL laugh:IPFV 3AN.OB.
"After he came in, he said to them [...]. But they laughed at him." (Mk 5:39-40)
$\grave{N}$-clauses normally mark tense independently, but within narrative they mark tense relative to the narrative timeline:

J̄n dāa n̆yz̄t súpā ón dāa án̆ bị́-lịa láa=ø?
3AN.CNTR TNS See:IPFV good:ADV 3AN:NZ TNS COP child-baby:SG ART=PQ?
"Did he see well when he was a baby?"
but Ka Pita yo'vn tien Yesu n sa ycl si'el la ye ...
Kà Pita yō'vn tịen̆ Yesu $n$ sà yèl sị’əl lā y $\quad$...
And Peter then remember Jesus nz tns say indfin art that ...
"And Peter then remembered what Jesus had said the day before..." (Mt 26:75)

Main clauses lack tense marking after absolute clauses preposed with kà 24.3, regardless of whether tense marking appears in the absolute clause (132/136 cases in Mark, Luke, and Acts 1-14, 1976.) After absolute clauses as postlinker adjuncts 17.2.1, tense marking in main clauses follows the usual principles for narrative, with absolute clauses agreeing with their main clauses in tense-marking (69/78 cases.)
$N \bar{\varepsilon}$ is perhaps marking constituent focus in

Ka ban ken la, Jesus ghisid ne.
Kà bán k $\bar{\varepsilon} n \quad l a ̄, J e s u s ~ g b i ̣ s ı d ~ n \bar{\varepsilon}$.
And 3PL:NZ go:IMPF ART, Jesus sleep:IPFV foc.
"As they were travelling, Jesus was sleeping." (Lk 8:22-23, 1976)
KB ka gbecm zeєg Yesu ka o gbisid. "sleep overcame Jesus and he slept."

If $n \bar{\varepsilon}$ were aspectual, one would have expected tense marking.
Tense marking is not affected by clause adjuncts other than time expressions or by the "resumptive" $y \bar{\varepsilon}$ of indirect speech 22.2.1; cf:

Amaa ba da zot o ne dabiem, ban da po niy o yadda ye o sid ane nya'andol la zug. Amaa ka Barnabas zay Saul n mor o key ...
Àmáa bà dà zòtō ø n $\bar{\varepsilon}$ dábị̄om, bán dà pū nị́nò $\varnothing$
But 3pl tns fear:IPFV 3AN.ob Foc fear, 3PL:NZ TNS NEG.IND do 3AN.ob yáddā yé ò sìd à n̄ n̆yâ'an-dòl lā zúg. Àmáa kà Barnabas faith that 3AN truly COP FOC after-follower:SG ART upon. But and Barnabas záy Saul $n$ mōró $\varnothing$ ø $k \bar{\varepsilon} \eta \ldots$
take Saul cat have zan.ob cat go ...
"But they were afraid of him, because they did not believe that he was really a disciple. But Barnabas brought Saul ..." (Acts 9:26-27)

A tense-marked interruption in the narrative flow may itself contain clauses coordinated with kà; the tense marker of the first such clause is not repeated, but the following kà-clauses are not carrying on the narrative and can thus have any aspect:

Ba da pu mor biiga, bozugo Elizabet da ane kundu'ar, ka babayi la wusa me kudigne.
Bà dà pū mōr bịiga=ø, b̄̄zúḡ̄ Elizabet dá à n̄̄ 3PL TNS NEG.IND have child:SG=NEG, because Elizabeth TNS COP FOC
kúndù'ar kà bà bàyị' lā wūsa mé kùdıg n̄̄.
barren.woman:SG and 3PL NUM:two ART all also get.old FOC.
"They had no child, because Elizabeth was barren and they were both old."
(Lk 1:7, 1996; no ne in the KB ka babayi' la wosa me kvdig hali.)

### 16.4 Mood

There are three moods: indicative, imperative and irrealis. The distinction among them is in itself quite straightforward, but the marking of mood involves portmanteau morphs which also express polarity, and in the case of the imperative, independency as well.

Indicative is the unmarked mood. It uses the negative particle $p \bar{v}$. It is used for statements and questions about the present and past, and timeless events and states. It can express the immediate future in periphrastic constructions. It is the only mood which permits the use of the particle $n \bar{\varepsilon}^{\prime}$ with aspectual meaning.

Imperative mood is negated by d $\bar{a}$. With dual-aspect verbs carrying the independency-marking tone overlay it shows a special inflection -ma 16.6.2 but otherwise the verb word coincides in form with the indicative.

Ò vv̀l tîım kà ò nóbìr pū záb $\bar{\varepsilon}=\varnothing$.
3AN swallow medicine and 3AN leg:SG NEG.IND fight=NEG.
"She took medicine and her leg didn't hurt." WK
Ò vv̀l tîım kà ò nóbìr dā záb $\bar{\varepsilon}=\varnothing$.
3AN swallow medicine and 3AN leg:SG NEG.IMP fight=NEG.
"She took medicine so her leg wouldn't hurt." WK

The -ma imperative of dual-aspect verbs is perfective by default:
Kòn̆sım!
"Cough!"

Imperatives without independency-marking tone overlay make perfective/imperfective distinctions in the usual way by verb flexion:

Dā kón̆s $\bar{\varepsilon}=\varnothing$ !
NEG.IMP cough=NEG!

Dā kóňsıdā=ø!
NEG.IMP cough:IPFV=NEG!
"Don't cough!" (To a patient who has coughed during an eye operation with local anaesthetic)
"Don't cough!" (Explaining before the operation
what to avoid throughout)

See 18.3 on the postposed 2 pl pronoun ya in commands to several people.
The particle $n \bar{\varepsilon}^{\prime}$ cannot appear in its aspectual sense with the imperative, but àlá "thus" after imperatives imposes continuous/progressive meaning:

Dịm!
Dịmí àlá!

[^1]Informants contract -í-à- either to -í- or to -á-: [dimila] [dimala].

Dìmī-ní àlá! "Keep ye on eating!" [dımınıla] [dımmala]
Eat:IMP-2PL.SUB ADv:thus!

Single-aspect verbs used as imperatives frequently add àlá:

Zị'é àlá! text zi'ela "Be still!" (Jesus to the storm, Mk 4:39, 1976)

Dìgī-ní àlá! "Keep (ye) on lying down." [dıginila] [diginala]
Be.lying.down-2PL.sub ADv:thus!

Āa-ní àlá bāan̆lím! "Be (ye) quiet!"
COP-2PL.SUB ADV:thus quiet:ABSTR!

Bēı-ní àlá ànịnā! "Be ye there!"
ExIST-2PL.SUB ADV:thus ADv:there!

Imperative mood is used in direct commands and prohibitions and in purpose clauses. Imperative mood follows another imperative in catenation.

> Gòsımī ø! "Look ye!"

Look:IMP 2PL.SUB!

$$
D \bar{a} \quad g \overline{\jmath ̄} \varepsilon \varepsilon=\emptyset!
$$

"Don't look!"
NEG.IMP look=NEG!

Kèl kà ò gōs! "Let her look!"
Cause:Imp and 3an look!

Kદ̀m nā n gōs! "Come and look!"
Come:Imp hither cat look!

Dòllī-ní m! "Follow ye me!"
Follow-2PL.SUB 1SG.OB!

Mòr nịn-báalìg! "Have pity!"
Have eye-pity!

Irrealis mood expresses future statements and questions and has the preverbal mood markers nà (positive) kù (negative.) Tone Pattern A verbs show a tone perturbation to all-M tonemes 3.8.2. The irrealis distinguishes aspects by verb flexion like the indicative, but aspectual $n \bar{\varepsilon} /$ cannot occur. Perfective aspect occurs much more often than imperfective. Irrealis mood with past tense markers is contrary-tofact, not future-in-the-past: see 20.4 for its use in conditionals.

### 16.5 Polarity

VP negation markers combine this function with mood marking. They appear after tense markers but before preverbs. They induce the appearance of a clause final negative prosodic clitic 4.1. Aspectual $n \bar{\varepsilon} /$ is incompatible with negative polarity.

Indicative mood is negated by $p \bar{u}$ (for some speakers $b \bar{v}$, as in Toende Kusaal.) Imperative is negated by dā; conversely, forms which are negated by dā are imperative. Irrealis is negated by kì, which replaces the positive irrealis marker nà.

> Ò zàb nâ'ab lā. "He's fought the chief."
> 3AN fight chief:SG ART.

Ò $p \bar{v}$ záb nà'ab láa=ø. "He hasn't fought the chief."
3AN NEG.IND fight chief:SG ART=NEG.

Zàm nâ'ab lā! "Fight the chief!"
Fight:IMP chief:SG ART!

Dā záb nà'ab láa=ø! "Don't fight the chief!"
NEG.IMP fight chief:SG ART=NEG!

Ò nà zāb nâ'ab lā. $\quad$ "He'll fight the chief."
3AN IRR fight chief:SG ART.

Ò kù zāb nâ'ab láa=ø. "He won't fight the chief."
3AN NEG.IRR fight chief:SG ART=NEG.

Three negative verbs are equivalent to negative particle + verb. They do not carry the independency tone overlay 16.6.1. Negative clitics appear as usual.

Kā'e "not be, not have" appears as kā' before a complement 4.3. It is the negative to both "be" verbs, àe $\breve{n}^{\mathrm{a}}$ "be something/somehow" and bè "be somewhere, exist" and also to $m \bar{\nu} r^{a /}$ "have." *P $\bar{v}$ bé is not found, but $p \bar{v} m \bar{\nu} r$ is quite common; $p \bar{v}$ áen̆ is rare but can be found in contrastive contexts.

Dāun lā kā' ná'abā=ø. "The man isn't a chief."
Man:SG ART NEG.BE chief:SG=NEG.

Dāu lā kā' bịìiga=ø. "The man hasn't got a child."
Man:SG ART NEG.HAVE child:SG=NEG.

Pư'ā lā mór bịig, àmáa dāu lā $k a ̄ ' e=\varnothing$.
Woman:SG ART have child:SG but man:SG ART NEG.HAVE=NEG.
"The woman has a child but the man hasn't."

Dāu lā $k \bar{a} ' e=\varnothing . \quad$ "The man isn't there."
Man:SG ART NEG.BE=NEG.

Dāu kā'e dóogū-n láa=ø. "There's no man in the room." Man:SG NEG.BE room:SG-LOC ART=NEG.

Dāu lā kā' dóogō-n láa=ø. "The man is not in the room." Man:SG ART NEG.BE room:SG-LOC ART=NEG.

Kā'e has a clause-final variant kà'asıge (always LF):
Ò bịig ká'asìg $\bar{\varepsilon}=\varnothing$.
"She has no child."
3AN child NEG.EXIST=NEG.

Mịt "see that it doesn't happen that ..." 19.2 is always imperative. In this sense, the postposed 2 pl subject ya does not occur, even in address to several people.

Mit ka ya maal ya tuumsuma nidib tuon ye ba gosi.
Mịt kà yà mâal yà tùvm-sùma nịdıb tûen yé bà gōsع=ø.
NEG.LET.IMP and 2PL do 2PL deed-good:PL person:PL before that 3PL look.at =NEG.
"See that you don't do your good deeds in front of people so they'll look at you." (Mt 6:1, 1996)

KB uses mid with no clitic: Mid ka ya maali ya tovm suma nidib tuon ye ba gos.
Mịt appears with a NP object and no negative clitic in the sense "beware of ...":

Miti ziri nodi'esidib bane kene ya sa'an na la.
Mịtī ø zīrí nò-dị́əsìdıb bánì kēnní yà sā'an nā lā.
Beware 2PL.SUB lie mouth-receiver:PL REL.PL come:IPFV 2PL among hither art.
"Beware of false prophets who come among you." (Mt 7:15, 1996)

Zi' "not know" normally replaces negative particle + mị̀'. A clause-final LF $z i ' i s i g \varepsilon$ also appears in KB, NT (e.g. Lk 12:40.)

Bòn-bān̆'ad $z \overline{1}{ }^{\prime} \quad y \bar{\varepsilon} \quad t \bar{\varepsilon} \eta \quad$ tólla $\bar{a}=\varnothing$.
Donkey-rider:SG NEG.KNow that ground:SG be.hot=NEG.
"He who rides a donkey does not know the ground is hot." (Proverb)

Mị' does occur with negative particles:
$M$ biig Solomon ane dasay, ka pv mi' wov lin nar si'em.
$\grave{M}$ bịì Solomon á nē dá-sāך, kà pū mịi
1SG child:SG Solomon FOc Cop young.man:SG, and NEG.IND know
wūv lín nār sị̀əәm=ø.
how 3IN:NZ be.proper INDF.ADV=NEG.
"My son Solomon is young, and does not know how things ought to be."
(1 Chronicles 22:5)

### 16.6 Independency marking

The VP of a main clause or content clause is marked as independent. The marking is absent in all subordinate clause types other than content clauses. It is also absent in all clauses introduced by kà other than content clauses, regardless of whether they are subordinate or coordinate. The markers are primarily tonal, but there are associated segmental manifestations.

### 16.6.1 Tonal

The independency-marking tone overlay is manifested only on VPs with positive polarity and indicative or imperative mood. It affects only the first word in the VP capable of carrying it: first the preverbal particle lè $\varepsilon$ "but", next any preverb, then the verb itself. Preverbal particles which have intrinsic M tonemes (past tense marker dāa, auxiliary tense marker $\check{n} y \bar{\varepsilon} \varepsilon$ ) not only remain $M$ themselves but also prevent the overlay from applying to any subsequent words.

The overlay otherwise changes all tonemes in the affected word to L if they were not L already. Affected words, regardless of their intrinsic tones, are always followed by M spreading, and show M toneme on the final syllable before liaison (changed as usual to H before liaison words beginning with a fixed-L toneme 4.4.3.)

Examples of tone overlay manifesting independency marking in main clauses (with $z a ̀ b^{\varepsilon}$ "fight", gōs ${ }^{\varepsilon}$ "look at", nà'ab ${ }^{\text {a }}$ "chief"):

Ò zàb nâ'ab lā.
Ò gòs nâ'ab lā.
Ò sà zàb nâ'ab lā.
Ò sà gòs nâ'ab lā.
"He's fought the chief."
"He's looked at the chief."
"He fought the chief yesterday." "He looked at the chief yesterday."

In contrast, the intrinsic tones appear after kà, with preverbal particles having intrinsic $M$ tonemes, with negative polarity, and in subordinate clauses:

Kà ò záb nà'ab lā.
Kà ò gūs nâ'ab lā.
Ò dāa záb nà'ab lā.
Ò dāa gōs nâ'ab lā.
Ò pū záb nà'ab láa.
Ò pū gōs nâ'ab láa.
Ò yá' zàb nà'ab lā.
Ò yá' gōs nâ'ab lā.
J́n zàb nà'ab lā.
J́n gōs nâ'ab lā.
"And he's fought the chief."
"And he's looked at the chief."
"He didn't fight the chief."
"He didn't look at the chief."
"He hasn't fought the chief."
"He hasn't looked at the chief." "If he fights the chief."
"If he looks at the chief."
"He having fought the chief"
"He having looked at the chief."

Content clauses have independency marking 22.2:

Bà yc̀l yć ò zàb nâ'ab lā.
3PL say that 3AN fight chief:SG ART.
"They say he's fought the chief."

Examples for the final M before liaison, using the verbs bòdı $g^{\varepsilon}$ "lose", yādı $g^{\varepsilon /}$ "scatter" and the pronouns $m^{\mathrm{a}}$ "me" ba "them":

| Intrinsic tones: | bòdıgı $\mathrm{m}^{\mathrm{a}}$ yādıgí ma | bòdıgıdī $\mathrm{m}^{\mathrm{a} / \mathrm{ipfv}}$ yādıgídī $\mathrm{m}^{\mathrm{a} / \mathrm{ipfv}}$ | bj̀dıgı bā yādıgí bā |
| :---: | :---: | :---: | :---: |
| With overlay: | bòdıgī $\mathrm{m}^{\mathrm{a} /}$ yàdıgī $\mathrm{m}^{\mathrm{a} /}$ | bòdıgıdī $\mathrm{m}^{\mathrm{a} /}$ yàdıgıdī $\mathrm{m}^{\mathrm{a} /}$ | bòdıgī bá yàgıdī bá |

Before a liaison word with initial fixed-L toneme, M must change to H 4.4.3:
Bà kv̀vdī bá. "They kill them."
3PL kill:IPFV 3PL.OB.
vs
Bà kv̀vdí bà bv̄vs.
"They kill their goats."
3PL kill:IPFV 3PL goat:PL.

Bà gòsō ø. "They looked at her."
3PL look.at 3AN.ob.

Bà gòsú ò bịig. "They looked at her child." 3PL look.at 3AN child:sg.

M spreading after bound personal pronoun subjects is affected by independency marking. Bound pronoun subjects are normally followed by M spreading despite their own fixed L tonemes: however, the third persons ò lì bà are never followed by M spreading when the following VP has independency marking.

Thus, with no independency marking after coordinating kà:

Kà m̀ záb nà'ab lā.
Kà ò záb nà'ab lā.
but ì дáb nâ'ab lā.
Ò zàb nâ'ab lā.
"And I've fought the chief."
"And he's fought the chief."
"I've fought the chief."
"He's fought the chief."

The first and second person pronouns are followed by M spreading unless the VP has independency marking and they are immediately preceded by y $\bar{\varepsilon}$ "that" 22.2 :

Ò tèn̆'عs kà ò xàb nâ'ab lā. "He thinks he's fought the chief." WK 3AN think and 3AN fight chief:SG ART.

Ò tèn̆'عs kà m̀ záb nâ'ab lā. "He thinks I've fought the chief." 3AN think and 1SG fight chief:SG ART.
but Ò yèl yé ò xàb nâ'ab lā. "He says he's fought the chief." 3AN say that 3AN fight chief:SG ART.
and Ò yèl yé m̀ zàb nâ'ab lā. "He says I've fought the chief." 3AN say that 1SG fight chief:SG ART.

Absence of M spreading after bound subject pronouns is independent of tone overlay and is still seen when tone overlay is absent, e.g. when the VP has irrealis mood, or there is a preverbal particle carrying a M toneme:

Ò kì zāb nâ'ab láa=ø. "He will not fight the chief."
3AN NEG.IRR fight chief:SG ART=NEG.

Ò lèe dāa záb nà'ab lā. "But he did fight the chief." 3AN but tns fight chief:SG ART.

Ò yc̀l yé m̀ nà zāb nâ'ab lā. "He says I'll fight the chief." 3AN say that 1SG IRR fight chief:SG ART.

### 16.6.2 Segmental

There are two segmental features of independency marking. They occur when and only when the verb word itself has undergone tone overlay. Verbs which have intrinsic $L$ tonemes have unchanged stem tonemes after overlay, but these segmental features and the following M spreading reveal its presence.

The particle yā follows any perfective verb form carrying the tone overlay which would otherwise be phrase-final. Texts write ya solid with the verb; prior to 2016 it usually appears as -eya after consonants. Yā may be connected historically with the perfective flexion -ra of one conjugation of Nawdm verbs. Phrase constituents can only follow yā by right dislocation 24.4. Examples:

But

Ò zàb yā.
3AN fight PFV.

Ò gòs yā.
3AN look PFV.
$O$ Ò sà zàb yā.
3AN TNS fight PFV.

Sāa nị yā.
Rain:SG rain PFV.

M̀ t仑̂n̆'عs kà lì lù yā. "I think it's fallen down." (content clause)
1SG think and 3IN fall PFV.

Ò zàbī $m$.
3AN fight 1SG.OB.
Ò gòsī m. "He's looked at me." (not final)
3AN look.at 1sG.OB.

Sāa dāa nị́. "It rained." (M preverbal particle)
"She's fought."
"She's looked."
"She fought (yesterday.)"
"It has rained."
"He's fought me." (not final)

Rain:SG tNS rain.

Ò dāa záb. "He fought." (M preverbal particle)
3AN TNS fight.

Ò nà zāb.
3AN IRR fight.

Kà ò záb.
And 3an fight.

Kà ò gōs.
And 3an look.

Ò $p \bar{v} \quad z a ́ b \bar{\varepsilon}=\varnothing . \quad$ "He's not fought." (negative)
3AN NEG.IND fight=NEG.

Ò $p \bar{u} \quad g \overline{\partial ̄} s \varepsilon=\varnothing$.
"He's not looked." (negative)
3AN NEG.IND look=NEG.

Ò gịm.
"She's short." (stative)
Ò mị̀'.
Ò nว̀ŋ.
"She knows." (stative)
"She loves him." (stative)

Before interrogative prosodic clitics the toneme of $y \bar{a}$ becomes L, not H :

Lì bòdıg yā.
3in get.lost PFV.

Lì bòdıg yà $a=\varnothing$ ?
3IN get.lost $\mathrm{PFV}=\mathrm{PQ}$ ?

The flexion -ma 7.1 marks imperatives of dual-aspect verbs whenever they carrying the independency-marking tone overlay:

Gòsım!

Gòsımī $m$ !
Look:IMP 1SG.OB!

Gòsımí fù nû'ug!
Look:IMP 2SG hand:SG!
"Look!" (or Gòsīm! with the vowel absorbed 2)
"Look at me!"
"Look at your hand!"
(or Gòsím fù nû'ug! with the vowel absorbed)

Dị＇əmī乙 ø！＂Receive ye！＂
Receive：IMP 2PL．sub！

Dị＇əmī－ní bā！＂Receive ye them！＂
Receive：Imp－2PL．sub 3PL．ob！

Dị̀əmī－nó乙 ø！＂Receive ye her！＂
Receive：IMP－2PL．SUB 3AN．ob！

Dị̀＇əmī－ní $\quad$ àlá！＂Keep ye on receiving！＂
Receive：IMP－2PL．SUB ADV：thus！

But $D \bar{a} \quad g \bar{s} s \varepsilon=\varnothing!\quad$＂Don＇t look！＂（negative）
NEG．IMP look＝NEG！

Kと̀l kà ò gōs！
Cause：IMP and 3AN look！

Kと̀m nā $n$ gōs！
Come：IMP hither cat look！

Dòllī－ní m！
Follow－2PL．sUB 1SG．ob！
＂Let her look！＂
（No independency marking：subordinate）
＂Come and look！＂
（No independency marking：subordinate）
＂Follow ye me！＂（single－aspect verb）

## 16．7 Lè $\varepsilon$＂but＂

$L \grave{\varepsilon} \varepsilon$＂but＂precedes even tense particles，but like a preverb，and unlike a post－ subject particle，it prevents the independency－marking tone overlay from falling on the verb，and is then itself followed by M spreading：

Kà ò lée dāa záb nà＇ab lā．
And 3an but tns fight chief：Sg art．
＂But he fought the chief．＂

Bà lèe záb nà＇ab lā．＂But they＇ve fought the chief．＂WK
3PL but fight chief：SG ART．

Kà bà lév zàb nà＇ab lā．＂But they＇ve fought the chief．＂WK And 3PL but fight chief：SG ART．

Lèz záb nà'ab lā! "But fight the chief!" WK
But fight chief:SG ART!

Ka man pian'ad la lee ku gaade.
Kà mān píân̆'ad lā lé $\varepsilon$ kù gāad $\varepsilon=\varnothing$.
And 1sG.cntr speech art but neg.irr pass=neg.
"But my words will not pass away. (Mt 24:35, 1996)

NT has the ma-imperative, suggesting tone overlay on the verb, in

Lee iemini o na'am so'olim la...
Lèvị̀mī-ní ò nā'am súvlìm lā...
But seek:Imp-2pl.sub 3an kingship possession art...
"But seek ye his kingdom ..." (Lk 12:31, 1976)

WK does not accept this; he corrected e.g. *Lદ̀ g gósìm nâ'ab lā! to

Lè gōs nâ'ab lā! "But look at the chief!"
But look.at chief:SG ART.

### 16.8 Preverbs

Preverbs follow all other preverbal particles. All carry the independencymarking tone overlay in place of the following main verb (cf lè $\varepsilon$ "but" 16.7.)

Pùn "previously, already":
Ò pùn záb nà'ab lā. "He's already fought the chief."
3AN already fight chief:SG ART.

Kà ò pún zàb nà'ab lā.
And 3AN already fight chief:SG ART.
"And he's already fought the chief."

Lદ̀m "again" (cf lèb ${ }^{\varepsilon}$ "return"):
$\grave{M}$ nị̂f lém zábìd n $\bar{\varepsilon}$. $\quad$ "My eye is hurting again."
1SG eye:SG again fight foc.

Kà ò lćm zàb nà'ab lā. "And he's fought the chief again."
And 3AN again fight chief:SG ART.

Ò pū lém zàb nà'ab láa=ø.
3AN NEG.IND again fight chief:SG ART=NEG.
"He hasn't fought the chief again."

Ò nà l̄̄m záb nà'ab lā. "He'll fight the chief again."
3AN IRR again fight chief:SG ART.

Ka so' kudin ku len nyee li ya'asa.
Kà sō' kūdım kú l̄̄m n̆yée $\smile \bar{\imath} \quad$ yá'asā=ø.
And indf.an ever neg.irr again see 3in.ob again=Neg.
"Nobody will ever see it again." (Rev 18:21, 1996)

Kpèlım is "still" before an ipfv, but "immediately afterwards" before a pfv. It occurs also as a main verb "remain, still be." KB has the reduced form kpèn.

Ka o kpelim zu'om. "Immediately he went blind."
Kà ò kpélìm zū'өm. (Acts 13:11, 1996: KB Ka o kpen zu'om.)
And 3AN immediately go.blind.
m biig Josef nan kpen vue.
$\grave{m}$ bịig Josef nán kpèn vv̄ę.
1SG child:SG Joseph still still be.alive.
"My child Joseph is still alive." (Genesis 45:28)

Là'am "together" (cf là'as ${ }^{\varepsilon}$ "gather"); as a main verb là'am ${ }^{\mathrm{m}}$ is "associate with."
ka nidib wusa da la'am kpi ne o.
kà nị̂dıb wūsa dá là'am kpị né ò.
and person:PL all TNS together die with 3AN.
"so all people died together with him." (2 Cor 5:14)

Dèทım "beforehand" (cf dè $\eta^{\varepsilon}$ "go, do first": m̀ dévī $f$ "I've got there before you"; $d \grave{\varepsilon} \eta^{\varepsilon}$ is used with the same meaning in $n$-catenation 19.1.)

Pin'ilvgun sa ka Pian'ad la da pun devim be.
Pịn̆'ilúgū-n sá kà Pịàn̆'ad lā dá pùn dèךım bè.
Beginning:SG-Loc hence and word:SG ART TNS already beforehand exist.
"In the beginning, the Word already existed beforehand." (Jn 1:1)

Màlıgım "again" (cf Toende Kusaal malig "do again"):

Amaa man pian'ad la kv maligim gaade.
Àmáa mān piân̆'ad lā kú mālıgım gáad $\bar{\varepsilon}=\varnothing$.
But 1SG.CNTR speech art NEG.IRR again pass=NEG.
"But my words will not pass away. (Mt 24:35)
$T i ̉$ "after" occurs often in n-catenation; for hālí tì pāa ... "up until" see 17.2.1. If the next VP is perfective, tì corresponds instead to English "before."
hali ka Herod ti kpi. $\quad$ Until Herod had died." (Mt 2:15)
hālí kà Herod tí kpị.
Until and Herod after die.

Kèm_ø tí n̆yz̄ dv́'atà. "Go to see the doctor." SB
Go:IMP cat after see doctor:sg.

Beogv ti nied la ka ba gaad!
B̄̄ogú ø tì nị̀əd lá kà bà gâad!
Morning nz after appear:IPFV ART and 3PL pass.
"Before morning appears they have passed!" (Isaiah 17:14)

### 16.9 Complements

"Complement" will be used below to describe all verb core arguments other than the subject. Complements may be NPs, AdvPs, prepositional phrases or clauses.

Verbs vary in the kind of complement they take and in whether the complements are obligatory; "obligatory" complements need not in fact be explicitly present, but when they are absent, the gap functions as an anaphoric pronoun.

NP and AdvP complements can be classified as direct and indirect objects, as predicative complements, or as locative complements.

### 16.9.1 Transitivity and objects

Indirect objects precede direct, and objects precede other complements. A bound pronoun before a noun object therefore cannot be the direct object:
$\grave{M}$ dāa tísì $\bar{l} \bar{\imath} \quad n a ̂ ' a b \quad l a ̄$. "I gave the chief to it." sic 1SG TNS give 3IN.OB chief:SG ART.

There is otherwise no formal difference between direct and indirect objects. Transitive verbs vary in whether they require a direct object/complement:
da ku nidaa, da zuuda
dā kū nịdá= $\varnothing, \quad d \bar{a} \quad z u ̄ u d a ́=\varnothing$...
NEG.IMP kill person:SG=NEG, NEG.IMP steal:IPFV=NEG ...
"Do not kill [a person] ... do not steal ..." (Lk 18:20, 1996)

Obligatorily transitive verbs may appear without any expressed object, but in such cases the meaning is necessarily anaphoric:

Ò $p \bar{v} \quad z a ́ m m=\varnothing . \quad$ "She didn't cheat him/her."
3AN NEG.IND cheat=NEG.

Transitive single-aspect verbs which do not take locative complements are all obligatory transitives. Thus with àe $\breve{n}^{\mathrm{a}}$ "be something/somehow":

Mānı ø án̆ dú'atà kà fūn mén áẹn̆.
1SG.CNTR CAT COP doctor:SG and 2SG.CNTR also cop.
"I'm a doctor and you are too."

For null anaphora for preposed objects see 24.3; in adnominal kà-catenation, see 19.2. In conversation, the antecedent may be in the previous speaker's words:
Q. Fù mór gbāun láa=ø? "Do you have the letter?"

2SG have letter:SG ART=PQ?
A. $\bar{\varepsilon} \varepsilon \check{n}, \grave{m}$ mór.

Yes, 1sG have.
Q. Fù bóvdó-o=ø?
"Do you love her?"
2SG want-3AN.OB=PQ?
A. Áyìı, m̀ $p \bar{v} \quad$ bóodā=ø. "No, I don't love her."

No, 1SG NEG.IND want=NEG.

Agentive ambitransitive verbs appear with and without objects, with no change in the role of the subject, and no anaphoric implication if the object is absent:
bane zuud nidibi gban'ad
bànı zūud nị̆dıbı ø gbān̆'ad
REL.PL steal:IPFV person:PL CAT seize:IPFV
"those who steal people by force" (1 Tim 1:10)
one daa zuud
"he who used to steal" (Eph 4:28)
j̀nı dāa zūud
REL.AN TNS steal:IPFV

Some verbs, both obligatory transitives and not, only take objects of a very limited type, often expressed with a noun formed from the same stem:

Fù tóm bó-tòvma=ø? "What work do you do?"
2SG work:IPFV what-work=CQ?

Ka ya ninkvda zaansim zaansima.
Kà yà nịn-kúdà zàan̆sım záan̆símà.
And 2PL person-old:PL dream:IPFV dream:PL.
"And your old people dream dreams." (Acts 2:17)

Patientive ambitransitive verbs can appear transitively with an expressed object, but if there is no object they are normally interpreted as intransitive, with the object of the transitive appearing as the subject. Examples include yò "close", nāel "finish", zàmıs ${ }^{\varepsilon}$ "learn/teach", nāmıs ${ }^{\varepsilon /}$ "suffer/make suffer", bòdıg ${ }^{\varepsilon}$ "lose, get lost", bàs ${ }^{\varepsilon}$ "go/send away", dūe/ "raise/rise", mā'e/ "get cool."

Many, though not all, patientive ambitransitive verbs express a change of state and can use the perfective form in a resultative sense 16.2.2:
$\grave{M}$ náa tōvma lā. $\quad$ I've finished the work."
1SG finish work ART.

Tūvma lā náa $n \bar{\varepsilon}$. "The work is finished."
Work art finish FOc.

Almost any verb can take an indirect object expressing benefit, interest etc:
Ò dìḡ̄ $\quad m$. $\quad$ "He cooked (for) me."
3AN cook 1SG.ob.

Lì màlısī m. "I like it." ("It's sweet for me.")
3in be.sweet 1sg.ob.

Àláafù béébá.
Health exist 3pl.ob.

Ditransitive verbs require an indirect object, which cannot be ellipted unless any direct object is too, with a necessarily anaphoric sense; $t i s^{\varepsilon}$ "give" is the prototypical example, along with causatives like dı̀ $s^{\varepsilon}$ "feed", nūlvs ${ }^{\varepsilon /}$ "give to drink."
$\grave{M}$ tís nâ'ab lā dāká. "I've given the chief a box." 1SG give chief:sg ART box:Sg.
$\grave{M}$ tís nâ'ab lā. $\quad$ I've given it to the chief." 1SG give chief:SG ART.
$\grave{M}$ tísō $\varnothing$ dāká. $\quad$ I've given him a box." Not *M̀ tís dāká. 1SG give 3AN.ob box:SG.

Dā tísò Øø sị̀əla=ø. "Don't give her anything!"
NEG.IMP give 3AN.OB INDF.IN=NEG.
$D \bar{a} \quad t i ́ s \bar{\varepsilon}=\varnothing!\quad$ "Don't give it to her!"
NEG.IMP give=NEG.
$\grave{M}$ tís yā. $\quad$ I've given it to him."
1SG give PFV.

Certain verbs take a fixed direct object as a set idiom after an indirect object which expresses the functional object, e.g. kàd X sàrị́yà "judge X ", mōr X nịn-báalìg or zò X nị̣n-báalìg "have pity on X ", nị̀ X yàddā "believe X , believe in X ", zò X dàbị̀əm "fear X", sìàk X nōor "obey X", ňwè' X nû'ug "make an agreement with X."

Bà zòtō ø dábịəm. "They are afraid of him."
3PL feel:IPFV 3AN.ob fear.

Wina'am na kad nidib poten'esua'ada saria.
Wínà'am ná kād nịdıb pú-tèn̆'-sv̄'adá sàríyà.
God IRR drive person:PL inside-mind-secret:PL judgment.
"God will judge people's secret thoughts." (Rom 2:16, 1996)

Bà nị̀ō̄ø yáddā. "They believed her."
3PL do 3AN.OB assent.

Ò ňwè' nâ'ab lā nû'ug. "He made an agreement with the king." 3AN strike king:SG ART hand:SG.

### 16.9.1.1 Passives

For passive meaning expressed by an empty bà "they" as subject see 12.4.1.
Transitive verbs expressing a change of state are usually patientive ambitransitives. Obligatory transitives or agentive ambitransitives can be used passively with no formal change. The original agent may not then be expressed.

> M̀ nú dāam lā. "I've drunk the beer."

1SG drink beer aRT.

Dāam lā nú yā. "The beer has got drunk."
Beer art drink pFv.

Indirect objects cannot become passive subjects:

Nà'ab lā tís yā. only "The chief was given [to someone.]"
Chief:SG ART give PFV.

Imperfective passives can only appear with habitual/propensity meanings. Stative verbs accordingly cannot make passives.

S̄̄b ${ }^{\varepsilon}$ "write" (cf sōb ${ }^{\varepsilon}$ "make/go dark") is patientive ambitransitive and can form a resultative; the ipfv sōbıd ${ }^{\text {a/ }}$ only accepts intransitive use along with an AdvP:

Gbàunp lā sób $n \bar{\varepsilon}$. "The letter is written."
Letter:SG ART write Foc.

Gbàna sóbìd zīná. "Letters get written today." WK
Letter:PL write:IPFv today.

Gbàun lā sóbìd súnā. "The letter is writing well (i.e. easily.)" WK Letter:SG ART write:IPFV good:ADV.

### 16.9.1.2 Middle use of intransitives

The assume-stance verbs $\underline{9.1 .1}$ are used transitively for parts of one's own body more often than the make-assume-stance series:

Lìgıním fù nịf né fù nû'ug.
Cover:IMP 2SG eye:SG with 2 SG hand:SG.
"Cover your eye with your hand."

Dìgıním fù nû'ug. "Put your hand down."
Lie.down:IMP 2SG hand:SG.

Similarly nịe "appear" is usually intransitive, corresponding to transitive nغ̀ $\varepsilon^{\varepsilon}$ "reveal", but nị̀e is much more frequent than nè $\varepsilon l^{\varepsilon}$ before ò $m \bar{\varepsilon} \eta^{\mathrm{a} /}$ "him/herself" etc.

Ka o nie o meך Jemes san'an ...
Kà ò nịe ò mēŋ Jemes sâ'an ...
And 3AN appear 3AN self James among ...
And he revealed himself to James (1 Cor 15:7)

### 16.9.2 Predicative complements

Predicative complements may or may not be required, in the sense of omission implying anaphora. As in English, they can be "depictive" or "resultative"; in Kusaal this falls out naturally from the stative or dynamic nature of the verb:

Kel ka m liebi fo tomtom yinne.
Kc̀l kà m̀ lịəbì fù tòm-tūm yīnní.
Cause:IMP and 1sG become 2SG work-worker:SG one.
"Make me [become] one of your servants" (Lk 15:19); dynamic lị̀əb ${ }^{\varepsilon}$
$\grave{M}$ á né fù tòm-tı̄m. "I am your servant."; stative àeñ̆ ${ }^{\text {a }}$
1SG COP FOC 2SG work-worker:SG.

For kà-catenations as resultative predicates see 19.2.
Adjectives may appear as NP heads so long as the NP is a predicative complement. This is most frequent with àe $\breve{n}^{\text {a }}$ "be something" 16.12 .2 , but is seen also with other verbs:

Lì à nē pị́əlìg.
Lì à nē pị́əlìg fáss.
Bà à nē píəlà.
"It's white, a white one."
"It's very white."
"They're white."

Mam ane pielug amaa m ya'a paae bugumin ases ka m leb zin'a.
Mām á n̄̄ pịəlv̀g àmáa m̀ yá' pāe búgómī-n,
1SG COP FOC white:SG but 1 SG if reach fire-LOC,
àsé $k$ kà m̀ léb zị̆n̆'a.
except and 1SG become red:Sg.
"I am white, but when I reach the fire I turn red." [a crayfish] (BNY p16)
si'el zie sabili wuu nidne.
sị̀'əl zị'e sābíllì $\varnothing$ wv̄v nịd $n \bar{\varepsilon}$.
indF.in stand black:Sg cat like person:sg like.
"something stood, black like a person." KSS p16

Most adjectives do not permit this. All examples in my materials involve adjectives without corresponding stative verbs. More often, compounds with nịn"person" or būn- "thing" + adjective are used instead. Even adjectives which may appear without a noun head cannot do so before a dependent pronoun; thus only

> Lì à nē būn-pị̂əl-kàyā. "It is this white one."

Some transitive verbs may have a predicative complement after the direct object. With verbs are used in the relevant senses, this complement is compulsory.

The verb $p \dot{v} d^{\varepsilon}$ "name, dub" has as first object a NP with the head $y \bar{u} ' v r^{\varepsilon /}$ "name", and the name itself as second object; this may be introduced by $y \bar{\varepsilon}$ "that."

Ka fu na pod o yo'vr ye Yesu.
Kà fù ná púd ò yū'ur ȳ̄ Yesu.
And 2SG IRR dub 3an name:sg that Jesus.
"And you will call him Jesus." (Mt 1:21)

Ka o pud biig la yv'vr Yesu.
Kà ò púd bịìg lā yv̂'vr Yesu.
And 3an dub child:SG art name:Sg Jesus.
"And he called the child Jesus. " (Mt 1:25)
$B u ̀ e l^{\varepsilon}$ "call, call out, summon" can be used in the ipfv with an object expressing the person and the name as a complement, again often introduced by $y \bar{\varepsilon}$ :
on ka ba buon ye Pita la
òn kà bà bûөn ȳ̄ Pita lā
ReL.an and 3pl call:IPFV that Peter art
"who was called Peter" (Mt 10:2)

It is often used as a passive with $y \overline{v^{\prime}} v r^{\varepsilon /}$ "name" as the subject:
dau so' ka o yv'ur buon Joon.
dàu-só' kà ò yō'vr bûөn Joon.
man-IndF.AN and 3AN name:SG call:IPFV John.
"a man [habitually] called John." (Jn 1:6)

Màal ${ }^{\varepsilon}$ "make" is used with object and resultative predicative complement in

Ka o maal o mey nintita'ar.
Kà ò mâal ò mē $\eta$ nịn-títā'ar.
And 3AN make 3an self person-great:sg.
"He made himself out to be a great man." (Acts 8:9. 1976)

### 16.9.3 Locatives

Locative AdvPs occur as complements after verbs of position and movement. Some verbs require a locative complement, and its absence is anaphoric.
M yị Bòk. $\quad$ "I left Bawku."
1SG emerge Bawku.
$\grave{M}$ yị́ yā. $\quad$ I've left [there]."
1SG emerge pFV.

No single-aspect verb or dual-aspect verb derived from a stance verb requires a locative; nor does $k \bar{\varepsilon} \eta^{\varepsilon /}$ "go/walk." No verb requires a locative second complement.

Ò pū tūn̆'e $\varnothing \quad$ k $\bar{\varepsilon} n n a ́=\varnothing$.
3AN NEG.IND be.able Cat go:IPFV=NEG.
"She can't walk."
but Ò kèŋ Bók. $\quad$ "She's gone to Bawku."
3AN go Bawku.
Ò dìgın yā. $\quad$ "He's lain down."
3an lie.down pFv.
but Dìgınım kpē! "Lie down here!"
Lie.down:IMP here!

Ò dìgıl gbáun lā. "She's put the book down."
3AN lay.down book:SG ART.
but Ò dìgıl gbáunך lā técbìl lā zúg.
3AN lay.down book:SG ART table:SG ART upon.
"She's put the book on the table."

Àláafù béo Øø.
Health exist 3an.ob.
"He's well." ("Health exists for him.") Indirect object but no complement.
but Dāũ lā bé nē dó-kànā lā púvgū-n.
Man:SG ART EXIST FOC hut-DEMST.SG ART inside:SG-Loc.
"The man is inside that hut."

### 16.9.4 Prepositional phrases

$W \bar{\varepsilon} n^{\text {na/ }}$ "resemble" usually takes a phrase introduced by $n \bar{\varepsilon}$ or $w \bar{v} v \underline{15}$.

Ka o nindaa wenne nintay ne.
Kà ò nịn-dáa $w \bar{\varepsilon} n \quad n \bar{\varepsilon}$ nịntā$\eta ~ n \bar{\varepsilon}$.
And 3AN eye-face:sg resemble with sun:sg like.
"His face is like the sun." (Rev 10:1, 1996)

Lālla/ "be far" usually takes a phrase introduced by n $\bar{\varepsilon}$ :

Amaa o pu lal ne tii.
Àmáa ò pū lāl né tīı=ø.
But 3SG NEG.IND be.far with 1PL=NEG.
"But he is not far from us." (Acts 17:27)
Dōıla/ "accompany" with the preposition $n \bar{\varepsilon}$ means "be in accordance with":

Li dolne lin sob Wina'am gbaupon si'em la ye ...
Lì dòl nē lín sōb Wínà'am gbáunv̄̄-n sị̀'əm lā y $\bar{\varepsilon} \ldots$ 3in follow with 3in:NZ write God book:SG-Loc indf.ADV ART that ...
"This is in accordance with what is written in God's book ..." (1 Cor 2:16)

The preposition $n \bar{\varepsilon}$ can be distinguished from focus-n $\bar{\varepsilon}^{\prime} \underline{24.1 .2}$ by contexts where focus is prohibited. $Y \bar{?}$ "emerge" does not take a prepositional phrase:

M̀ yí n̄̄ Bók. $\quad$ I come from Bawku." SB
1SG emerge foc Bawku.
but

Meeri one yi Magdala
Meeri ónì yị Magdala
Mary rel.an emerge Magdala

### 16.9.5 Clauses

$K \bar{\varepsilon}$ "let" and mịt in the sense "let not" always take a kà-catenation. Nāra/ "be obliged to" and bòod ${ }^{\mathrm{a}}$ in the sense "want to" take purpose clauses, and the meaning is anaphoric if it is absent. Gūr ${ }^{\mathrm{a} /}$ in the sense "wait for (an event)" takes a NP headed by a gerund or a purpose-clause. Àeña "be something/somehow", uniquely flexible in its variety of argument types, may also take a content-clause complement.

Verbs of cognition, reporting, and perception have as complement a content clause, a relative clause with sị̄'əm, or a postpositional AdvP with yz̄lá "about." Most such verbs have an anaphoric sense without such an object.

### 16.10 Adjuncts

Adjuncts, typically AdvPs, occur as the last element in the VP. Several VP adjuncts may occur together. Clause-final adjuncts are always taken as VP adjuncts in this grammar; clause-level adjuncts precede the subject 17.2.1.

Bà dìt nē sā'ab dó-kàmā lā púvgū-n.
3PL eat:IPFV FOC porridge hut-DEMST.SG ART inside:SG-LOC.
"They're eating porridge in that hut."

### 16.11 Verb-phrase-final particles

For the independent-perfective marker yā see 16.6.2.
The particles $n \bar{a} /$ "hither" and sà "hence; ago" follow any complements. The verb $k \bar{\varepsilon} \check{n}$ "come" is invariably used with $n \bar{a}$ '; the imperative SF $k \varepsilon$ èm, which coincides for $k \bar{\varepsilon} \check{n}$ "come" and $k \bar{\varepsilon} \eta^{\varepsilon /}$ "go", is always disambiguated by the fact that it is followed by nā́l or sà respectively: kèm nā! "come" kèm sá! "go!"

M̀ mór kû'өm náa=ø? "Shall I bring water?" SB
1SG have water hither=PQ?

Bùgóm lā yị́t yáa ní ná=ø?
Fire art emerge:IPFV where loc hither=CQ?
"Where is the light coming from?"

Fù yị́ yáa ní ná=ø?
2SG emerge where loc hither=CQ?
"Where have you come from?" WK

Sà is often used temporally, for "since" or "ago":

Fu na bay li nya'ay sa.
Fù ná báy lì n̆yá'aך sá.
2SG IRR realise 3in behind since.
"You will come to understand afterwards." (Jn 13:7, 1976)

Lazarus pon be yavgon la daba anaasi sa.
Lazarus pón bè yávgū-n lā dābá $a ̀ n a ̄ a s i ́ ~ s a ̀ . ~$
Lazarus previously Exist grave:SG-Loc ART day:PL NUM:four since.
"Lazarus had already been in the grave four days." (Jn 11:17)

The particles are VP-final, not clause-final:

Kと̀m nā $n$ gōs. "Come and look!" SB
Come:Imp hither cat look.

Man ya'a pv keєn na tu'asini ba ...
Mān yá' $p \bar{u} \quad k \bar{\varepsilon} \varepsilon-n \quad n a ̄ \smile \varnothing$ tú'asī-ní $b \bar{a} . .$.
1SG.CNTR if NEG.IND Come-dP hither CAT talk-DP 3PL.OB...
"If I had not come to talk to them ..." (Jn 15:22)
$N \bar{a} /$ and sà often follow any article $l \bar{a} /$ ending an $\grave{n}$-clause containing them; closely parallel constructions may show either nā lā or lā nā:

```
n̆wādıg-kánı̀ k\overline{\varepsilon}n nā l\overline{a}
month REL.SG Come:IPFV hither ART
"next month" SB
dunia kan\varepsilon ken la na
dūnıyá-kànı k\overline{\varepsilon}n lā nā
world-Rel.SG come:IPFV ART hither
"the world which is coming" (Lk 20:35)
```

ti tom one tom man na la tova.
tì túm j̀nı tùm mān nā lā tūvma
1PL work ReL.an send 1SG.CNTR hither art work
"Let us do the work of him who sent me." (Jn 9:4)
$M$ diib anc ye $m$ tom one tomi m la na boodim naae.

1SG food cop foc that 1SG work rel.an send 1SG.Ob art hither will cat finish.
My food is that I do the will of him who sent me completely. (Jn 4:34)

VP-final particles can also follow the gerund of a verb which is associated with such a particle, and again may follow the associated article:

Nidib la daa gur Zakaria yiib na.
Nịdıb lā dāa gūr Zakaria yịib nā.
Person:Pl art tns watch Zechariah emerge:ger hither.
"The people were watching for Zechariah's coming out." (Lk 1:21)

Ninsaal Biig la lebvg la na
Nịn-sâal Bị̂ig lā lćbùg lā nā
Person-smooth:SG child:SG ART return:GER ART hither
"the return of the Son of Man" (Mt 24:27)

### 16.12 Verbs "to be"

### 16.12.1 Existence and location

Bè means "exist"; with a focussed or foregrounded locative, it means "be located in a place":

Wínà'am bé.
God EXIST.

Àláafù béo ø. "She's well." ("Health exists for her.")
Health exist 3an.ob.

Wāad bé. "It's cold."
Cold.weather exist.

Mam bene moogin. $\quad I ' m$ in the bush." BNY p8
Mām bé n $\bar{\varepsilon}$ mōogv-n.
1SG.CNTR EXIST FOC grass:SG-LOC.

Moogin ka mam be. "I'm in the bush." BNY p10
Mōogú-n kà mām bé.
Grass:SG-Loc and 1SG.CNTR EXISt.

Dāu lā bé nē dó-kànā lā púvgū-n.
Man:SG ART EXIST FOC hut-DEMST.SG ART inside:SG-LOC.
"The man is inside that hut." (Reply to "Where is that man?")

Dàu-sō' bé dó-kàךā lā púvgū-n.
Man-IndF.AN EXIST hut-DEMST.SG ART inside:SG-LOc.
"There's a certain man in that hut."

For the corresponding negative $k \bar{a} ' e$ see 16.5 ; *p $\bar{v}$ bé is not used.
$B \varepsilon ̀$ plays a role analogous to a "passive" to mōra/ "have" in constructions like:
$\grave{M}$ bịig bé. $\quad$ I have a child." Equivalent to M̀ mór bịig.
1SG child:SG ExIST.
$\grave{M}$ bịì kā'e=ø. $\quad$ I have no child." Equivalent to $\grave{M}$ kā' bịìiga.
1SG child:SG NEG.BE=NEG.
$B \varepsilon ̀$ can be used in direct commands:

Bée $\smile$ ànịnā. $\quad$ Be (i.e. stay) there!" SB
EXIST ADv:there.

B̄̄ı-ní àlá ànịnā. "Be ye there!" [be:nala anina] Exist-2PL.SUB ADV:thus ADv:there.

### 16.12.2 Copula

The copula verb is $\bar{a} e \check{n}^{\mathrm{a}}$. On the loss of $e$ and nasalisation see 4.3.
Ò à n $\bar{\varepsilon}$ bịig.
"She is a child." 3AN COP FOC child:SG.
but Mānı ø án̆ dó'atà kà fūn mén áenn. 1SG.CNTR CAT COP doctor:SG and 2SG.CNTR also cop. "I'm a doctor and you are too."

The usual negative is $k a \overline{1}$ 'e, but p $\bar{v}$ áĕn̆ does occur, e.g. in expressing contrasts:
$\grave{M} k \bar{a}^{\prime} \quad d v ́ ' a t a ̄ a=\varnothing . \quad$ "I'm not a doctor." 1SG NEG.BE doctor:SG=NEG.

Mānı ø án̆ dó'atà àmáa fūn pū án̆yā=ø. 1SG.CNTR CAT COP doctor:SG but 2SG.CNTR NEG.IND COP=NEG. "I'm a doctor but you aren't."

Àe $\breve{n}^{\text {a }}$ can be used in direct commands:

Āa-ní àlá bāan̆lím! "Be (ye) quiet!"
COP-2PL.SUB ADV:thus quiet:ABSTR!

The sense may be ascriptive or specifying (cf CGEL p266.) If it is ascriptive, the complement is non-referring, and normally focussed with $n \bar{\varepsilon}^{\prime}$ if permitted 24.1.2:
Ò à n $\bar{\varepsilon}$ bịị.
"She is a child."

3AN COP FOC child:Sg.

In specifying constructions the subject usually has $n$-focus 24.1.1:

Mane an konbkem sup la.
Mānı $\varnothing$ án̆ kón̆b-kìm-sùŋ lā.
1SG.CNTR CAT COP animal-tender-good:SG ART.
"I am the good shepherd." (Jn 10:11)

Mane a o.
"I am he." (Jn 18:5, 1976)
Mānı ø áño ø.
1SG.CNTR CAT COP 3AN.OB.

Nobibisi a mam disuŋ.
Nō-bịbisì ø án̆ mām dí-sùך.
Hen-small:PL CAT COP 1SG.CNTR food-good:SG.
"Chicks are my favourite food." BNY p13

When the complement of $a{ }_{e} \breve{n}^{\text {a }}$ is definite, the construction is usually specifying, with the subject in focus:
$\grave{M}$ á n $\bar{\varepsilon}$ dú'atà. $\quad$ I'm a doctor." ("What do you do?")
1SG COP FOC doctor:SG.
Ascriptive.
but Mānı ø án̆ dó'atà lā. "I'm the doctor." ("Which one is the doctor?")
1SG.CNTR CAT COP doctor:SG ART. Specifying.

However, definite complements may be in focus as "pragmatically non-
recoverable" because of their internal structure or other factors 24.1.2.
Àe $\breve{n}^{\text {a }}$ allows a wide range of different types of NP as arguments. It can take an AdvP of any type as subject 13.1:

Zịnná à nē dá'a. "Today [time] is market."
Today Cop Foc market:SG.

Yij venl, ka poogin ka'a su'um.
Yị̀ vén̆l kà pūvgv-n kā' súmm=ø.
Outside be.beautiful and inside:SG-LOC NEG.BE good:ABSTR=NEG.
"Outside is beautiful but inside [place] is not good." (Acts 23:3, 1996)

Man noji ya si'em la ane bedego.
Mán nòvı $y \bar{a}$ sị̀ $\partial m$ lā á $n \bar{\varepsilon}$ bédvgū.
1SG:NZ love 2PL.OB INDF.ADV ART COP FOC much.
"How much I love you [manner], is a lot." (2 Cor 7:3, 1976)

Àe $\breve{n}^{\text {a }}$ takes a predicative complement. Some adjectives can appear as NP heads as predicative complements after $\grave{a} e \breve{n}^{\mathrm{a}}$ and other verbs 16.9.2, but typically àeñ $\breve{n}^{\mathrm{a}}$ has a derived manner-adverb or abstract noun as complement instead. In any case, such constructions are ascriptive, and use $n \bar{\varepsilon} /$ where syntactically permissible:

Mam ane sabilig, la'am ne wala $m$ venl hali.
Mām á $n \bar{\varepsilon}$ sābılíg, là'am n $\bar{\varepsilon}$ wālá m̀̀ véňl hālí.
1SG COP FOC black:SG, together with how 1SG be.beautiful so.far.
"I am dark, although I am very beautiful." (Song of Songs 1:5)

Lì à nē ná'anā.
"It's easy."
3IN COP FOC easily.

Lì à n $\bar{\varepsilon}$ būgvsígā. $\quad$ "It's soft."
3IN COP FOC soft:ADV.

Lì à n $\bar{\varepsilon}$ zāalím. $\quad$ "It's empty."
3IN COP FOC empty:ABSTR.

Lì àn̆ súpā.
"It's good." 24.1.2
3IN COP good:ADV.

Absolute clauses and even content clauses may be complements of àe $\breve{n}^{\text {a }}$ :
$M$ diib ane ye $m$ tom one tomi m la na boodim naae.

1SG food cop foc that 1SG work rel.an send 1SG.ob art hither will cat finish.
"My food is that I do the will of him who sent me completely." (Jn 4:34)

## 17 Clauses

Typical clauses consist of a subject NP followed by a VP. Clause-linker particles and clause adjuncts may precede the subject position; post-subject particles may intervene between NP and VP.

### 17.1 Clause types

Criteria for describing a clause as main or subordinate do not always neatly align. Independency marking of VPs 16.6 in principle marks a clause as nonsubordinate, but main clauses are downranked to subordinate content clauses without internal alteration, and main clauses preceded by coordinating kà "and" lack independency marking. Kà was perhaps once always subordinating; its coordinating role is characteristic especially of narrative, and cross-linguistically, non-initial narrative clauses are often formally subordinate. There are three types of clause subordination: nominalisation, catenation, and complementisation.

|  | independency-marked | not independency-marked |
| :--- | :--- | :--- |
| main $\underline{18}$ | main without $k a ̀$ | main with initial $k a \grave{a}$ |
| complementised $\underline{22}$ | $y \bar{\varepsilon} / k a ̀ ~ c o n t e n t ~$ | $y \bar{\varepsilon} / k a ̀$ purpose |
| catenated $\underline{19}$ |  | $n / k a ̀$ catenation |
| nominalised |  | $\grave{n}$ absolute/relative 21 <br> yá' conditional 20 |

Main and content clauses can be statements, questions or commands. Only main and content clauses may lack VPs.

Complementised clauses are introduced by y $\bar{\varepsilon}$ "that", less often kà. Purpose clauses lack independency marking, have VPs with imperative mood, and show tense marking only if the main clause is ellipted; content clauses are downranked main clauses, with independency marking and the full range of main clause structures:

1SG NEG.IND want that 2SG go Bawku=Neg.
"I don't want you to go to Bawku."

Ka o ba' ne o ma pu baך ye o kpelim yaa.
Kà ò bā' né ò mà pū báy yé ò kpèlım yāa=ø. and 3AN father:SG with 3AN mother:SG NEG.IND realise that 3AN remain PFV=NEG. "His father and mother did not realise that he had remained." (Lk 2:43)

Catenated clauses introduced by $n$ lack their own subjects and resemble serial verb constructions in many ways; those introduced by kà have their own subjects. Catenated clauses lack independency and tense marking. They are part of their main clauses for focus purposes, and the main clause is often semantically subordinate.

Clauses marked by the post-subject particles ǹ and yà' are nominalised. They have independent tense-marking. Like other AdvPs and NPs, $\grave{n}$-clauses are coordinated with $n \bar{\varepsilon}$, not kà:
... pa'ali ba [on daa nys Zugssb la suorin, ka o pian' tis o si'em],
$\boldsymbol{n \varepsilon}$ [Saul n mool Yesu yela ne sonkpi'eup Damaskus tejin si'em.]
... pá'alì $b \bar{a}$ ón dāa n̆yē Zūg-sób lā sūөrí-n, kà ò
... teach 3PL.ob 3AN:NZ tns see head-null.an art road:Sg-Loc and 3AN

speak cat give 3AN.OB InDF.ADV with Saul nZ proclaim Jesus about
n $\bar{\varepsilon}$ sūn̆-kpị̂'oŋ Damaskus tévī-n sị'əm.
with heart-strength Damascus land:SG-Loc indf.adv
"informing them how he had seen the Lord on the road and He had spoken to him, and how Saul had preached boldly about Jesus in Damascus." (Acts 9:27)

A clause must be subordinate if it precedes clause-final elements belonging to the preceding clause, such as negative prosodic clitics:
ka pv nar ka ba buolim ye Tvmtumma.
kà pū nár kà bà búөlì $\quad m \quad y \bar{\varepsilon} \quad$ Túm-tūmma=ø.
and neg.Ind must and 3PL call 1SG.OB that work-worker:SG=NEG.
"and I ought not to be called an apostle" (1 Cor 15:9)

Structures can be obscured by dislocation 24.4. Even a catenated clause after $k \bar{\varepsilon}$ "cause" is unexpectedly placed after the VP-final perfective marker yā in

Amaa Wina'am keya ka ya an nosr yinne ne Yesu Kristo.
Àmáa Wínà'am ké yá kà yà án̆ nōor yīnní n̄̄ Yesu Kristo.
But God cause PFV and 2PL cop mouth:sg one with Jesus Christ.
"But God has caused you to be in agreement with Jesus Christ." (1 Cor 1:30)

Any subordinate clause type can be embedded, potentially recursively, in any other, but catenated clauses cannot follow complementised clauses at the same level.

A catenated clause embedded in a content clause in a purpose clause:

M po bood [ye fo ti yel beog daar [ye fune ke [ka mam Abram lieb bummora.]]] $\grave{M}$ pū bôod yé fù tí yغ̀l bēog dāar y $\bar{\varepsilon}$
1SG NEG.IND want that 2SG after say tomorrow day.after.tomorrow that
fūnı ø ké kà mām Abram lị̂əb būn-mórā=ø.
2SG.CNTR CAT cause and 1SG Abram become thing-haver:SG=NEG.
"I do not want you afterwards some day saying that it was you who made me, Abram, rich." (Gen 14:23)

A content clause within an absolute nominalised clause:
[ban mi' [ye biig la kpine la]] zug
bán mị' y $\bar{\varepsilon}$ bịìg lā kpịn n̄ lā zúg
3PL:NZ know that child:SG ART die FOC ART upon
"because they knew that the child was dead" (Lk 8:53)

A n-catenated clause within a relative nominalised clause:
[Paul $n$ sob gbaun si'a [n tis Efesus dim la]] nwa.
Paul ǹ sōb gbáưŋ-Sị'a $n$ tís Efesus dím lā ø n̆wá.
Paul nz write book-IndF.In Cat give Ephesus null.pl art cat this.
"This is the letter Paul wrote to the Ephesians." (1996 NT heading)

### 17.2 Structure

Except in special circumstances, clauses require a subject NP, which is followed by a VP, with any post-subject particles intervening.

The clause-linker particles kà "and" and $y \bar{\varepsilon}$ "that" are placed before the subject (which may itself be ellipted after kà.) Clause-level adjuncts may precede, follow, or occupy the clause-linker position before the subject.
$Y \bar{\varepsilon}$ is invariably subordinating, but kà may be coordinating or subordinating: it appears in a great variety of constructions and meanings.

Kusaal is strictly SVO; deviations not achieved by preposing always represent dislocation. Indirect objects precede direct, and objects precede other complements. VP adjuncts follow complements.

Emphatics $\underline{24.7}$ are clause-level particles associated with top-level NPs/AdvPs.
Main clauses and content clauses have similar structures. Both display
independency marking on the first VP, unless preceded by coordinating kà 16.6, and they have structural possibilities not permitted to other clauses, including lacking VPs altogether.

### 17.2.1 Clause adjuncts

Clause-level adjuncts precede the subject position. They fall into three groups: prelinker adjuncts, linker adjuncts and postlinker adjuncts, which respectively precede, occupy, or follow the clause linker position. English conjunctions largely correspond to clause linkers, prelinker adjuncts and linker adjuncts.

Linker adjuncts do not occur along with linker particles at all. They include

| kv̄v | "or" | b̄̄६ | "or" |
| :--- | :--- | :--- | :--- |
| dìn zúgō | "therefore" | lìn zúḡ̄ | "therefore" |
| àlá zùgō | "thus" | bō zúgō | "because" |

$B \bar{\jmath} z u ́ g \bar{\jmath}$ is stigmatised as a calque in ILK, but is in fact freely used in KB:

Ya pon mi' ne'عŋa, bozugo li daa maalne ya san'an.
Yà pún mị' nē'ךá, bō zúgō lì dāa mâal né yà sā'an.
2PL already know demstin, because 3in tns make foc 2PL among.
"You already know this, because it was done in your presence." (Acts 2:22)

It may also appear after an absolute clause, like the postposition $z \bar{u} g^{g /}$ alone.
Prelinker adjuncts precede any linkers. Hālí àsé $\varepsilon$ are also prepositions $\underline{15}$.

| àmáa | "but" | hālí | "until" |
| :--- | :--- | :--- | :--- |
| àsé | "unless" | àlá zùg | "thus" |

KB has no examples of kà àmáa to 365 of àmáa kà, one of kà àsé $\varepsilon$ to 247 of àsé kà and 436 examples of hālí kà but none of kà hālí as a clause adjunct. Prelinker adjuncts also precede $y \bar{\varepsilon}$, both as linker and "resumptive" $y \bar{\varepsilon}$ 22.2.1. Thus

Ka sieba la' o. Amaa ka sieba yel ye ...
Kà sịəba lá'o ø. Àmáa kà sịəba yźl yz̄...
And indf.pl laugh 3an.ob. But and indf.pl say that...
"Some laughed at him, but others said..." (Acts 17:32)

Wina'am daa pu gapi ti ye ti tum dian'ad tuvma, amaa ye ti be nyain.
Wínà'am dāa pū gāทí tī yé tì túm dịā'ad túvmà=ø,
God TNS NEG.IND choose 1PL.ob that 1PL work dirt work=NEG,
àmáa yé tì bé n̆yāe.
but that 1pl exist brightly.
"God did not choose us so that we would do the work of impurity, but so that we would be in cleanliness." (1 Thess 4:7)

Postlinker adjuncts follow any clause-linker particle or other clause adjunct but precede all other clause constituents, including preposed elements:

Amaa on sadigim kpi la, bo ka m lem lood noor ya'asc?
Àmáa ón sādıgím kpị́lā, bó kà m̀ lém
But 3AN:NZ since die ART, what and 1SG again
lōod nōor yá'as $=\varnothing=\varnothing$ ?
tie:IPFV mouth:SG again=NEG=CQ?
"But since he has died, why should I still be fasting?" (2 Samuel 12:23)

Some constituents occur exclusively as postlinker adjuncts: yà'-clauses "if/when ..." 20.1, sādıgím-clauses 21.1, bēogó "tomorrow" and dāa-sị' $\varepsilon r \bar{\varepsilon}$ "perhaps." Yà'-clauses and sādıgím-clauses can only appear after main clauses by dislocation.

In addition, AdvPs referring to time, circumstance or reason may be either be used as postlinker adjuncts or as VP adjuncts. All VP adjunct AdvPs, including those referring to place or manner as well, may be placed before the clause subject by preposing with kà 24.3. This means that AdvPs referring to time, circumstance or reason can potentially occur before the subject alone, preceded by kà, followed by kà, or both preceded and followed by kà, whereas other types of AdvP must be followed by kà when they appear before the subject. Thus

Nānná-ná m̀ á nē nâ'ab. "Now I am a chief."
Now-hither 1SG cop FOC chief:SG.
is grammatical, but *Mōogú-n mām bé was corrected by WK to

Mōogú-n kà mām bé. "I'm in the bush."
Grass:SG-Loc and 1SG.cNTR EXIST.

Any AdvPs or clauses expressing time, circumstances, or reason may appear as postlinker adjuncts, including absolute clauses, dìn zúg "therefore" lìn zúg "therefore", lì n̆yá'aŋ "afterwards", lín à sị̀'əm lā "as things stand", àsīda "truly."

In KB nannanna nānná-nā/ "now" appears without preceding or following kà much more often than not (394/437 cases) and is thus usually a clause adjunct. WK requires kà after kà nānná-nā, showing that that for him nānná-n̄̄ál is a prelinker adjunct but can be a preposed VP adjunct; this rule is not followed in KB.

Kà nānná-ná kà m̀ án̆ nâ'ab. "And now I am a chief."
And now-hither and 1SG cop chief:Sg. Rejected by WK without the second kà

Dìn zúg and lìn zúg "therefore" without final -o appear very often before kà (177/371 cases), i.e. as preposed VP adjuncts. Constructions without kà probably arose by original VP-only dìn zúg and lìn zúg encroaching on the function of the corresponding linker adjuncts dìn zúgō and lìn zúgō.
$B \bar{\jmath} z u ́ g$ without -כ appears in KB only as preposed bō zúg kà ...? "why ...?"

Bozug ka li aan ala? "Why is it so?" (Haggai 1:9)
Bō zúg kà lì áan̆ àlá=ø?
What on and 3in cop thus=CQ?

Hālí can be a prelinker adjunct before a $n$-catenated clause:

Ti nwa'ae li hali paae Nofa.
Tì ňwá'a」lī hālí $\varnothing$ pāe Nofa.
1pl strike 3in.ob until cat reach Nophah.
"We struck them as far as Nophah." (Numbers 21:30)

Clause adjuncts are otherwise found only in main and content clauses. The position of the negative clitic shows that the kà-clauses are not subordinate in e.g.

O po yecd fungo, hali ka li yuug.
Ò pū yêzd fūugó=ø, hālí kà lì yûug.
3AN NEG.IND wear:IPFV shirt:SG=NEG, even and 3IN take.long.
"He had not worn clothes for a long time." (Lk 8:27)

M kv basif ka fu keyc asec ka fv nipi m zug bareka.
$\grave{M}$ kú bāsí f kà fù k $\bar{\varepsilon} \eta \varepsilon ́=\varnothing$ àsć $\varepsilon$ kà fù nị́ŋì $\grave{m}$ zūg bárıkà. 1SG NEG.IRR leave 2SG.ob and 2SG go=Neg unless and 2SG do 1SG head:SG blessing. "I will not let you go unless you bless me." (Genesis 32:26)
$W \bar{v} v$ "like" 15 appears as a linker adjunct before content clauses:
ka tuumbe'ed ku len so'e ti wuu ti aa li yamugo.
 and work-bad:PL NEG.IRR again own 1PL.ob like 1PL COP 3IN slave:SG=NEG. "and that sin will not again own us as if we were its slave." (Rom 6:6, 1996)

M pian'adi tisidi ya wov ya ane $m$ biis ne.
M̀ pián̆'adī Ø tísıdī yá wv̄v yà á né m̀ bịis nē.
1SG speak:IPFV CAT give:IPFV 2PL.OB like 2PL COP FOC 1SG child:PL like.
"I talk to you as if you were my children." (2 Cor 6:13)

### 17.2.2 Subjects

Kusaal is not a pro-drop language. A dummy subject pronoun lì (never ò) is required in impersonal constructions:

> Lì tùl.

3IN be.hot.

Lì àn̆ súŋā.
3IN COP good:ADV.
"It's good."
Contrast Mooré yaa sõama, with no pronoun.
Lì nàr kà fù kūl. "It's necessary for you to go home."
3IN must and 2SG go.home.
Zi'isige 16.5 appears without a subject as "unbeknownst" at KSS p16.
Lì may be omitted in yà'-clauses:

Ya'a ka'ane alaa, m naan kv yeline ya ye ...
Yà' kā'a-ní ${ }^{\text {àlá, }} \quad \grave{m}$ nāan kú y $\bar{l} l ı-n i ́ ~ y a ̄ ~ y \bar{\varepsilon} . . . ~$
If NEG.BE-DP ADV:thus, 1 SG then NEG.IRR say-dP $2 P L . o b$ that...
"If it were not so, I would not have told you that ..." (Jn 14:2)

See 18.3 for omission and movement of subject pronouns in commands.
Subject pronouns are regularly ellipted after kà when they would have the same reference as the subject of the preceding clause, except when kà introduces a content clause; M spreading still follows kà. As kà-catenation typically involves a change of subject, this is characteristic of coordination, where a retained pronoun after kà usually signals a change of subject. Conversations may be reported Kà ò yćl ... kà ò yél ... with each ò marking a switch of speaker. The implication of subject change can override gender agreement (which is no longer robust 12.4.1) even in the face of semantic inappropriateness, though it cannot override number:

Pư'ā lā dá' dāká kà k $\bar{\varepsilon} \eta$ Bók.
Woman:Sg ARt buy box:Sg and go Bawku.
"The woman bought a box and went to Bawku." WK

Pư'āb lā dá' dāká kà bà kē $\eta$ Bók.
Woman:PL ART buy box:Sg and 3pl go Bawku.
"The women bought a box and they went to Bawku." WK
(Possible, though unusual, with "they" referring to "the women.")
but Pư'ā lā dá' dāká kà ò kēŋ Bók.
Woman:SG ART buy box:SG and 3AN go Bawku.
"The woman bought a box and it went to Bawku." WK

The pronoun after kà may be ellipted as referring to the subject of a preceding preposed absolute clause:

Ban wum ne'عja la ka sin.
Bán wòm nē'ŋá lá kà sịn.
3PL:Nz hear DEmst.in art and be.silent.
"After they heard this they fell silent." (Acts 11:18)

Elsewhere, absence of subject pronouns is due to informal ellipsis, "corrected" when informants' attention is drawn to it. M spreading after pronouns again remains:

Náe yà $=\varnothing$ ? "[Have you] finished?"
Finish PFV=PQ?

### 17.2.3 Post-subject particles

For yà' "if" 20.1; nominaliser-ǹ 21; sādı gím "since" 21.1; nāan(ı) 20.1.

Sìd "truly":

Ò sìd dāa á nē nâ'ab. "Truly, he was a chief." WK
3AN truly tns cop foc chief:SG.

Kūlım or k $\bar{v} d ı m$ "always" ( $\leftarrow$ Hausa) is most often found with negatives:

Ka so' kudin ku len nyee li ya'asa.
Kà sō' kūdımkú l̄̄m ňyće $\smile l \bar{\imath} \quad$ yá'asā=ø.
And InDF.An ever neg.irr again see 3in.ob again=NEG.
"Nobody will ever see it again." (Rev 18:21, 1996)

Ňyāan or nāan "next, afterwards":

Ka Yesu tans ne kvkotita'ar ka nyaan kpi.
Kà Yesu tán̆s n̄̄ kúkj̄-títā'ar kà n̆yāan kpí.
And Jesus shout with voice-great:SG and next die.
"Jesus cried out with a loud voice and then died." (Mt 27:50)

Pà' tì "perhaps":

One pa'ati an Kristo la bec?
כ̄nı ø pá' tì àn̆ Kristo lā bé $\varepsilon=\varnothing$ ?
3AN.CNTR CAT perhaps cop Christ ART or=PQ?
"Perhaps he is the Christ?" (Jn 4:29)

Yū'vn "then, next"

Manoa yv'un da bay ye o ane Zugsob maliak.
Manoa yū'vn dá bày yé ò à nē Zūg-sób máliāk.
Manoah then tns realise that 3AN cop foc head-nUlL.AN angel:sG.
"Then Manoah realised that he was an angel of the Lord." (Judges 13:12)

### 17.3 Ellipsis

Informal ellipsis is liable to be declared incorrect by speakers if their attention is drawn to it; it does not affect meaning. Ellipsis of subject pronouns can become standardised in greetings or proverbs. Systematic ellipsis occurs after kà (above), with VP complements 16.9.1, in implicit tense marking 16.3.4, and in replies to questions 16.2.1. Ellipsis may be used to avoid repetition of identical constituents in coordination within NPs 12.1, or of clauses, e.g.

Dāu lā n̆yé bị-díbìn kv̄v bị-pv́nàa=ø?
Man:SG ART see child-boy:SG or child-girl:SG=PQ?
"Did the man see a boy or a girl?"

Some cases are formalised, e.g. yèl before y $\bar{\varepsilon} \underline{22.2}$, questions with kúv or bé $\varepsilon$ 18.2, indirect commands 22.1 22.2.1, preposing and $n$-focus 24.3 24.1.1, and hālí as an intensifier 24.7.

Unlike phrase-level bound words, clause-level bound words may be left standing alone after ellipsis:

Wina'am tisid ... ka me tisid ...
Wínà'am tísìd ... kà mé tìsıd ...
God give:IPVF ... and also give:IPFV ...
"God gives ... and [God] also gives ..." (1 Cor 15:38); emphatic mè 24.7

## 18 Main clauses

Main clauses show information-packaging possibilities $\underline{24}$ not found in subordinate clauses other than content clauses, which are downranked main clauses and show the same structures $\underline{22.2}$. Unless preceded by coordinating kà, they display independency marking 16.6. They divide into declarative types (the unmarked default), content and polar questions, commands, and types lacking VPs. They are coordinated with kà "and", k $\bar{v} v$ "or", $b \bar{\varepsilon} \varepsilon$ "or"; $k \bar{v} v$ and $b \bar{\varepsilon} \varepsilon$ are synonyms in this use. Kà corresponds to English zero before lè $\varepsilon 16.7$ and in narrative 16.3.4.

### 18.1 Content questions

Content questions (except those with lịa 18.4) contain an interrogative pronoun; the final word of the question appears as a LF with a tone perturbation due to the following content-question prosodic clitic 4.4.1. $N \bar{\varepsilon}^{\prime}$ may not appear 24.1.2.

There is no special interrogative word order, but if the subject contains the interrogative pronoun it must be $n$-focussed 24.1.1 whenever syntactically possible, and interrogatives other than subjects are very often preposed 24.3:

> Fù bôod bó=ø? "What do you want?"

2SG want what=CQ?

Fù bôวd línè=ø? "Which do you want?"
2SG want DEM.IN=CQ?

Ànó'onì ø n̆yz̄ bịíigà=ø? "Who has seen a child?"
Who cat see child:SG=CQ?

Ànô'on bịigì Ø n̆wá=ø? "Whose child is this?"
Who child:SG cat this=CQ?

Dāū lā n̆yć ànó'כnغ̀=ø? "Whom did the man see?"
Man:SG ART see who=CQ?

Ànô'on kà dāu lā n̆yć $=\varnothing$ ? "Whom did the man see?"
Who and man:sg ART see=cQ?

Preposing is obligatory for b̄̄ zúg, "why?" and for b̄̄ when used for "why?":

Bó kà fù kúmmà=ø? "Why are you crying?"
What and 2SG weep:IPFV=CQ?

### 18.2 Polar questions

Polar questions are of two types. One is exactly like a statement but ending in a LF showing final vowel lengthening and tone changes imposed by the polar-question clitic 4.4.1. $N \bar{\varepsilon}^{\prime}$ appears as in statements. The answer expected is $\bar{\varepsilon} \varepsilon \check{n}$ 18.4.

Dāu lā n̆yé bịígàa=ø? "Has the man seen a child?" Man:SG ART see child:SG=PQ?
$\grave{M}$ á $n \bar{\varepsilon}$ dáv̀v $=\varnothing$ 1SG COP FOC man:SG=PQ?

Bà kùvd nē búvsè $\varepsilon=\varnothing$ ? 3PL kill:IPFV FOC goat:PL=PQ?

Fù $p \bar{u} \quad$ wúmmàa $=\varnothing=\varnothing$ ? "Don't you understand?" 2SG NEG.IND hear:IPFV=NEG=PQ? (expects $\bar{\varepsilon} \varepsilon \check{n}$, here "no")

The second type follows the ordinary statement form with either bé $\varepsilon$ "or" (expecting disagreement) or kúv "or" (expecting agreement; rare in NT/KB):

Dāu lā n̆yć bịig kúv=ø?
Man:SG ART see child:SG or=PQ?
"Has the man seen a child?" (I expect so.)

Dāū lā n̆yé bịị $\quad b \varepsilon ́ \varepsilon=\varnothing$ ?
Man:SG ART see child:SG or=PQ?
"Has the man seen a child?" (I expect not.)

### 18.3 Commands

For indirect commands, see $\underline{22.1} \underline{22.2 .1}$. In direct commands the subject is 2nd person: 2 sg pronouns are deleted, and 2 pl pronouns moved to immediately after the verb, assuming the liaison-word form ${ }^{\text {ya }}$ 4.2. Thus

Fù gós bịì lā. "You (sg) have looked at the child." 2SG look.at child:SG ART.

Yà gós bịig lā. "You (pl) have looked at the child." 2PL look.at child:SG ART.
but Gòsım bịig lā! "Look (sg) at the child!"
Look.at:IMP child:SG ART!

Gòsımī $\varnothing$ bịig lā! "Look (pl) at the child!"
Look.at:IMP 2PL.SUB child:SG ART!

Dā ḡ̄s bịig láa=ø! "Don't (sg) look at the child!"
NEG.IMP look child:SG ART=NEG!

Dā gōsı』 $\quad$ bịì láa $=\varnothing$ !
NEG.IMP look 2PL.SUB child:SG ART=NEG!
"Don't (pl) look down!"
$D \bar{a} \quad g \overline{\jmath ̄} \varepsilon=\varnothing!\quad$ "Don't (sg) look."
NEG.IMP look=NEG!
$D \bar{a} \quad g \bar{s} s \imath y a ́=\varnothing!\quad$ "Don't (pl) look."
NEG.IMP look 2PL.SUB=NEG!
$2 \mathrm{sg} / 2 \mathrm{pl}$ subject pronouns are not changed after yà'-clauses:

Fv ya'a mor pu'a, fon da mosd ye fv bas oo.
Fù yá' mōr pư'ā, fūn dā mōod yé fù básō-o=ø.
2SG if have wife:SG, 2SG NEG.IMP struggle:IPFV that 2SG abandon-3AN.OB=NEG.
"If you have a wife, don't try to leave her." (1 Cor 7:27)

They also remain in quoted direct commands within indirect speech 22.2.1, even when the addressee is the same as in the original utterance:

Ò yèl yé bà gòsım t̄̄ŋı-n.
3AN say that 3PL look:IMP ground:sG-Loc.
"She said to them: Look down!" WK

Ò yદ̀l yर́ fù gòsım t̄̄ŋı-n.
3AN say that 2SG look:IMP ground:SG-Loc.
"She said to you sG: Look down!"

Ò yèl yé yà gòsım t̄̄ŋı-n.
3AN say that 2PL look:IMP ground:SG-Loc.
"She said to you pl: Look down!"

Some speakers still keep postposed ${ }^{\text {ya }}$ after the verb even when there is a pronoun subject before it；such speakers also repeat ya in catenated clauses．

Ò yèl yé bà gòsımī ø t $\bar{\varepsilon} \eta \imath-n$ ．
3AN say that 3PL look：IMP 2PL．SUB ground：SG－LOC．
＂He said to them：Look down！＂

Kèmī ø nā n gōsı ø！
Come：IMP 2PL．sub hither cat look 2PL．Sub！
＂Come（ye）and look！＂（WK Kદ̀mī nā n gās！）

Direct commands which consist only of a verb，or a verb with a following postposed subject pronoun，occasionally end in a Long Form like that preceding a negative prosodic clitic：
Gòsımā！
＂Look！＂
Gòsımīyá！
＂Look！（plural）

## 18．4 Verbless clauses

Identificational clauses have the form NP＋catenator－$n+$ deictic particle or wà nā＂this here．＂The NP may be an interrogative pronoun．

Kùlıŋı ø lā．
Door：SG cat that．

Kòlıpı〔ø wá nā．
Door：Sg cat this hither．

Bēogv $\varnothing$ lā．
Tomorrow cat that．

Bう̄o乙ø lá＝ø？＂What＇s that？＂
What cat that＝CQ？

Ňwāamıs Øø ňwá！
Monkey：pl cat this！
＂See you tomorrow＂（＂That＇s tomorrow．＂）
＂That is a door．＂
＂This here is a door．＂
＂Monkeys！＂［w̃ã：misa］
（Said by a passenger in my car，on suddenly catching sight of some．）

Identificational clauses may append clauses by catenation：

Ano'on nwaa yisid nidib tovmbe'عdi basida?
Ànô'on」ø n̆wáa Ø yịssıd nịdıb tv̂vm-b̄̄' $\varepsilon d l \_\varnothing$ básıdà=ø?
Who Cat this CAT expel:IPFV person:PL deed-bad:PL CAT throw.out:IPFV=CQ?
"Who is this who drives people's sins out?" (Lk 7:49)

Yєl boo nwa ka Wina'am ke ka li paae ti?
Yع̄l-bóo ø n̆wá kà Wínà'am ké kà lì páa tì=ø?
Matter-what cat this and God cause and 3in arrive 1PL.OB=CQ?
"What is this that God has made to come to us?" (Genesis 42:28)

Indentificational clauses can be embedded in verbal clauses:

Ya ningid boo nwa?
Yà nị́yìd bós ø n̆wá=ø?
2PL do:IPFV what CAT this=CQ?
"What is this you are doing?" (Nehemiah 2:19)

Fv maal bos la tis mam?
Fù mâal bóo ø lā ø tís màm=ø?
2SG make what cat that cat give me=CQ?
"What is this that you have done to me?" (Numbers 23:11)

Lịa clauses have the form X + lịa, meaning "where is X?" Although I often heard lịa in spontaneous conversation in the 1990's, no examples appear in the 1996 or 2016 Bible versions.

Fù mà là lị́a=ø? "Where is your mother?"
2SG mother:SG ART be.where=cQ? (WK to a child in the outpatient clinic.)

Ka awai la dia [sic]?
"But where are the nine?" (Lk 17:17, 1976)
Kà àwāe lā lị́a=ø?
And num:nine Art be.where=cQ?

Vocative clauses usually either precede a main clause, or stand alone. They take the form of NPs followed by the vocative prosodic clitic 4.1:

$$
\grave{M} \text { pư'ā né } \grave{m} \text { bịise }=\varnothing \text { ! }
$$

1SG wife:SG with 1SG child:PL=VOC!
"My wife and my children!"
$\grave{M}$ dị̀əmmā=ø, bó kà fù kú $\theta$ sìda $=\varnothing$ ?
1SG parent.in.law:SG=VOC, what and 2 SG sell:IPFV=CQ?
"Madam, what are you selling?"

Vocatives do not take the article $l \bar{a}^{\prime}$, but often end in n̆wà "this":

| Bịis n̆wá! | "Children!" | [bi:sa] |
| :--- | :--- | :--- |
| Pư'ā n̆wá! | "Woman!" | [po্ããa] |
| Zכ̄n n̆wá | "Fools!" | [zon:a] |

Some particles occur characteristically as complete utterances. Some are onomatopoeic; others are widely shared among local languages.

| Tò. | "OK." (= Hausa tôo) |
| :--- | :--- |
| Báp. | "Wallop!" |
| Ńfá! | "Well done!" |

"Yes" is $\bar{\varepsilon} \varepsilon \check{n} ;$ "No" is áyìı. As in many languages, the reply agrees or disagrees with the question, so that if the question is negative, the usage differs from English:


## 19 Catenated clauses

A clause may be followed by one or more VPs, each introduced by catenator- $n$; for the realisation of this particle see 4.2. Complements, VP adjuncts, and even other clauses introduced by kà may be incorporated within such chains.

Amaa ka Zugsob malek daa kej n yo'og sarega doog za'anoor la yu'uy kan, $n$ more ba $n$ yiis yip.
Àmáa kà Zūg-sób málīāk dāa k $\bar{\varepsilon} \eta \eta$ yô'og sārıgá dôog
But and head-null.AN angel:Sg tns go cat open prison:SG house:SG zá'-nōor lā yō'vŋ-kán, $n$ mōrí bā $n$ yịìs yị́n. compound-mouth:SG ART night-DEM.SG, CAT have 3PL.OB CAT extract outside. "But an angel of the Lord came and opened the gate of the prison that night and took them outside ..." (Acts 5:19, 1996)

Ka dau so' due n zi'e la'asug la nidib sisoogin, $n$ a Parisee nid ka o yu'ur buon Gamaliel, $n$ a one pa'an Wina'am wada la yela, ka lem a yu'ur daan nidib sa'an.
Kà dàu-sō' dūe $n$ zị̂e lá'asùg lā nị̃dlb sísv̀vgū-n, $n$ án̆ And man-indf.an rise cat stand assembly:Sg art person:PL among-loc, cat cop Parisee nịd kà ò yū'ur bûen Gamaliel, n án̆ ónì pà'an Pharisee person:SG and 3AN name:SG call:IPFV Gamaliel, cat cop rel.An teach:IPFV Wínà'am wádà lā yćlà, kà lém àn̆ yū'vr dâan nị̃dıb sâ'an. God law art about, and again cop name:SG owner:SG person:PL among. "A man stood up in the assembly, a Pharisee called Gamaliel, a teacher of God's law and also reputable among the people." (Acts 5:34, 1976)

Toende Kusaal (like Dagaare, Bodomo 1997) has zero throughout corresponding to catenator- $n$, but most other Western Oti-Volta languages show $n$, at least in slow speech. In languages with the zero realisation, these structures have usually been regarded as serial verb constructions, and many uses of catenation are indeed closely parallel to uncontroversial serial verb constructions in other languages. For example, substitution of kà for catenator-n makes it impossible to interpret "auxiliary" verbs in the specialised senses associated with $n$-catenation:

M̀ zání m̀ nú'ugì ø sī'ıs dāká lā.
1SG pick.up 1SG hand:SG CAT touch box:SG ART.
"I touched the box with my hand."
?? M̀ zání m̀ nû'ug kà sī'ıs dāká lā.
"I picked up my hand and touched the box."
$\grave{M}$ dāa kûes bùjv $\varnothing$ tís dv́'atà. 1SG TNS sell donkey:SG cat give doctor:SG.
"I sold a donkey to the doctor."
?? M̀̀ dāa kûөs bùn kà tís dv́'atà.
"I sold a donkey and gave it to the doctor."

However, $n$-catenation shows much greater flexibility than typical serial verb constructions, and in particular VPs can be catenated to verbless clauses 18.4:

Ano'on nwaa yisid nidib tovmbe'عdi basida?

Who Cat this Cat expel:IPFV person:PL deed-bad:PL CAT throw.out:IPFV=CQ?
"Who is this who drives people's sins out?" (Lk 7:49)

Catenator- $n$ thus attaches a VP to the preceding clause, not VP. In fact, the catenated VP itself will be considered to be a clause, which shares its subject with the main clause. This analysis is supported by the existence of clearly parallel catenation constructions using kà in place of catenator-n 19.2. Catenation is a closer relationship than complementisation; mood and aspect are mostly determined by the first VP, and the catenation behaves as one unit with regard to focus 24.1.2.

There are similarities with "catenative" constructions in English. CGEL pp1176ff reanalyses many traditional auxiliary verbs as taking non-finite clauses (with or without their own subjects) as "catenative complements." There is evidence for catenator-n originating as a non-finite marker. Olawsky describes the Dagbani structure $n+$ verb as an "infinitive", presumably meaning that it is used as the citation form, though he gives no examples of usage. Both Niggli and Zongo describe the same construction in Mooré as an infinitif, and Canu, who calls it the "état neutre" (p272), confirms that it is used in citation and in one-word answers to questions (p175) and in constructions like ēm dátā ndī "je désire manger."

Normally only the first VP carries tense and polarity particles, which apply to the entire catenation, but (especially in $n$-catenation) each retains discontinuous-past $n^{\varepsilon}$, and while initial irrealis mood marking applies to the whole chain, a VP following an indicative may be in the irrealis, in which case it will be marked itself. The preverb $t i ̀$ is often found with non-initial VPs in $n$-catenation.

Catenation seems always to involve semantic subordination. However, it may be the first component which is semantically subordinate; many verbs have characteristic "auxiliary" roles in catenation, preceding or following the "main" verb depending on their own semantics. Moreover, the order of events, if they are not simultaneous, must always be mirrored in the order of the VPs 16.2.2.
$N$-catenations are sometimes attached to the object of $\check{n} y \bar{\varepsilon}$ "see, find"; I have no examples of this construction with other verbs.
ka na nye Ninsaal Biig la $n$ kenna ne o na'am.
kà ná ňy $\bar{\varepsilon}$ Nịnn-sâal $\quad$ Bịig lā $n$ kēn nā né ò nā'am. and IRR see person-smooth:SG child:SG ART CAT come:IPFV hither with 3AN kingdom. "...will see the Son of Man coming with his kingdom."
(Mt 16:28, 1996: lā not lá)

## 19.1 $\mathbf{N}$-catenation

Common $n$-catenation patterns with verbs without specialised roles are
(a) main VP + imperfective VP expressing accompanying events:

Ka Ninsaal Biig la kena dit ka nuud...
Kà Nịn-sâal Bị̂ig kēn nā̄ $\varnothing$ dít kà nūud...
And person-smooth:SG child:SG come:IPFV hither cat eat:IPFV and drink:IPFV... "And the Son of Man comes eating and drinking ..." (Mt 11:19)
(b) perfective VP expressing prior event + main VP

Ka dapa ayi' yє fupiela zi'e ba san'an.
Kà dāpá $\preceq a ̀ y!̣ i ́ ~ y \varepsilon ́ ~ f u ̄-p i ̣ ə l a ̀ ~ \varnothing ~ z i ̣ ̀ e ~ b a ̀ ~ s a ̄ ' a n . ~$
And man:PL num:two dress shirt-white:PL Cat stand 3PL among.
"Two men dressed in white were standing with them." (Acts 1:10)
(c) main VP + perfective VP in irrealis or imperative mood, expressing purpose. The preverb $t \grave{i}$ is commonly seen in the second VP.

Amaa m pu mor antu'a zugv o yela na sobi tis na'atita'ar laa.

But 1SG NEG.IND have case:Sg upon 3AN about CAT IRR write cat give
ná'-tītā'ar láa=ø.
king-great:SG ART=NEG.
"But I have no case about him to write to the Emperor." (Acts 25:26)

Kغ̀m ø tí n̆yz̄ dú'atà. "Go and see the doctor."
Go:IMP cat after see doctor:SG.

Man ya'a pv keєn na tu'asini ba ...
Mān yá' $p \bar{v}$ k $\bar{\varepsilon} \varepsilon-n \quad n a \bar{\smile} \quad$ tú'asī-ní $b \bar{a} . .$.
1SG.CNTR if NEG.IND come-dp hither cat talk-dP 3PL.OB...
"If I had not come to talk to them ..." (Jn 15:22): Note DP on both verbs.
(d) Hälí "until" can precede n-catenated clauses as a prelinker adjunct 17.2.1.

Catenated VPs can be coordinated with kà "and":
ka key ... n ian'asid ka pian'ad ndu'osid Wina'am yu'ur su'uŋa.
kà kēך ...n îān̄'asíd kà pịān̄'ad $n$ dū'өsíd Wínà'am yô'vr sújā. and go ... Cat leap:IPFv and praise:IPFV Cat elevate:IPFV God name:sg good:Adv. "and went ... leaping and praising the name of God greatly." (Acts 3:8, 1996)

Sogia so' kae' n tum ka yood o meja.
Sógĩà-sō' kā'e $n$ túm kà yōod ò mēŋá=ø.
Soldier-INDF.AN NEG.BE CAT work:IPFV and pay:IPFV 3AN self=NEG.
"No soldier works and pays for himself." (1 Cor 9:7, 1976)

Certain verbs have characteristic specialised meanings in $n$-catenation. Dualaspect verbs agree in aspect with the main VP verb.

The following precede the (semantically) main VP:

Bغ̀ "exist, be somewhere" + ànị́nā "there" + imperfective "be in the process of ..."

Ò b̀̀ ànịnā $n$ n̆wê' $\varepsilon d$ bịig lā.
3AN EXIST ADV: there cat beat:IPFV child:SG ART.
"He's currently beating the child."

Àe $\breve{n}^{\text {a }}$ "be something/somehow" can be used in clefting 24.2:

Li ane o sidi su'oe li.
Lì á né ò sīdı $\varnothing$ só'v $\smile$ lī.
3IN COP FOC 3AN husband:SG CAT own 3in.Ob.
"It's her husband who owns it." (1 Cor 7:4)

Mị̄' "know" and $z \overline{1} '$ "not know": nàm mị' $n+$ perfective "always have X-ed", nàm $z \bar{i} ' n$ + perfective "never have X-ed":

Makir bane buudi paadi ya la nan mi' paae sieba men.
Mākír bànı būudı pāadí yā lā nám mị̀ $\smile \varnothing$ pāe sịəba mén.
Testing rel.pl sort reach:IPFV 2PL.ob ART still know cat reach indf.pl also.
"Trials of the kind that have reached you have always reached others too."
(1 Cor 10:13)
$\grave{M}$ nám zī' $\smile \quad \varnothing$ n̆y $\bar{\varepsilon} g b i ̄ g ı m n \varepsilon=\varnothing$.
1SG still NEG.KNow Cat see lion:SG=NEG.
"I've never seen a lion." SB

Zà $\eta^{\varepsilon}$ and $n \bar{y} k^{\varepsilon /}$ "pick up, take" with object "using" (of a literal object as instrument)

$$
\text { M nók sú'vgò } \oslash \text { kịá nịm lā. }
$$

1SG pick.up knife:Sg cat cut meat:SG ART.
"I cut the meat with a knife."

M̀ zání m̀ nú'ugì ø sī'ls dāká lā.
1SG pick.up 1SG hand:SG CAT touch box:SG ART.
"I touched the box with my hand."

M̄rra/ "have" + object "bringing" with motion verbs:

Dābá_àyópòe kà fù mōró Øø ø k $\bar{\varepsilon}$ nā.
Day:PL NUM:seven and 2SG have 3AN.ob cat come hither.
"Bring her here in a week." WK

D̄̄ıla/ "accompany in subordinate role, attend"

Bà dòllōø Ø k $\bar{\varepsilon} \eta$ Bók. "They went to Bawku with him." 3PL follow 3AN.ob cat go Bawku.
"Beginning" verbs naturally precede:

## Ka Pita pin'ili pa'ali ba ...

Kà Pita pị̆ñ'il_ø pá'alì $b$ bā ...
And Peter begin cat teach 3pl.ов ...
"Peter began to tell them." (Acts 11:4)

Tì dénì ø tísò $\varnothing$ lór.
1pl precede cat give 3an.ob car.
"We previously gave him a car." (dè $\eta^{\varepsilon}$ "do/go first")

Ka dau so' duoe zi'en la'asug la suvgin ...
Kà dàư-sō' dūe」ø zị'ən là'asvg lā súvgī-n ...
And man-indf.an rise cat stand.up assembly art among-loc ...
"And a man (having risen) stood up in the synagogue ..." (Acts 5:34)
$K \bar{\varepsilon} \check{n}$ "come" and $k \bar{\varepsilon} \eta^{\varepsilon /}$ "go" can be used similarly as initiators:

M kénì ø pị̀ nû'us. $\quad$ II went and washed my hands."
1SG go cat wash hand:PL.

Sư'āa "conceal" is used in this construction for "secretly":

Ka Na'ab Herod su'a buol bajidib la ...
Kà Nà'ab Herod su'ā̄ ø bûel bāŋıdıb lā ...
And king:sG Herod conceal cat call understander:PL art...
"Herod secretly called for the wise men ..." (Mt 2:7)

Nị̀ wālá literally "do how?" is used in catenation for "how can ...?" (see also 19.2):

Ninsaal na nip wala an pupiel Wina'am tuonne? Ninsaal biig na nip wala pv mor taal Wina'am tuonne?
Nịn-sâal ná nị̄ wālá $\varnothing$ àn̆ pú-pị̀l Wínà'am tûөnnغ̀=ø?
Person-smooth:SG IRR do how CAT COP inside-white:SG God before=CQ?
Nịn-sâal bịig nà nị̣ wālá $\varnothing$ ø pū mōr tâal
Person-smooth:SG child:Sg IRR do how cat neg.Ind have fault:SG
Wínà'am tûөnnغ̀=ø?
God before=co?
"How can a human being be pure before God? How can the child of a human being not have sin before God?" (Job 25:4)
$\check{N y a ̄} \eta^{\varepsilon /}$ means "overcome" as a main verb; as an auxiliary it means "carry out successfully, prevail in":

Ka m nyay dunia.
"I have overcome the world." (Jn 16:33)
Kà m̀ ňyā̀ dūnıya.
And 1SG overcome world:sg.
$\grave{M} p \bar{u}$ n̆yāpı』ø záb nà'ab láa=ø.
1SG NEG.IND prevail CAT fight chief:SG ART=NEG.
"I wasn't able to fight the chief."

Unlike English "can", $\check{n} y \bar{a} \eta^{\varepsilon /}$ expresses events and not states. Thus, to express present ability or inability, the auxiliary is in the irrealis mood; if the main verb is imperfective the auxiliary is imperfective too.

M̀ kú n̆yāpı』ø záb nà'ab láa=ø.
1SG NEG.IRR prevail cat fight chief:SG ART=NEG.
"I can't fight the chief." ("I won't succeed in fighting the chief.")
wad line nyayedin ketin ka nidib voen
wād-línì n̆yānídī-n」 ø kētí-n kà nịdıb vv̄v-n
law-ReL.IN prevail:IPFV-DP CAT cause:IPFV-DP and person:PL be.alive-DP.
"a law which could make people live." (Gal 3:21, 1996)

Tūn̆'e means "be able"; it is a stative single-aspect verb. As a main verb:
ba daa tis ka li zemisi ba pani na tun'e si'em
bà dāatís kà lì zēmísì bà pànı ø nà tūn̆'e sị'əm 3PL tNS give and 3IN become.equal 3PL strength NZ IRR be.able INDF.ADV
"They gave as much as their strength would permit" (2 Cor 8:3)

Because of its stative meaning, when tūn̆'e is used as a $n$-catenation auxiliary both indicative and irrealis moods can express present ability or inability.
ka li kv tun'e su'a.
kà lì kú tūn̆'ę $\varnothing$ sun'āa=ø.
and 3IN NEG.IRR be.able cat hide=NEG.
"which cannot be hidden" (Mt 5:14)

Ya na tun'e zin' tejin la ne ti.
Yà ná tūn̆'e $\varnothing$ zị̆n'i t̄̄ŋı-n lā né tì.
2PL IRR be.able cat be.sitting land:SG-LOC art with 1PL.
"You can dwell in the land with us." (Genesis 34:10)

Fv tun'e nyst si'ela?
Fù tún̆'e Ø $\varnothing$ ňȳ̄t sị́'əlà $=\varnothing$ ?
2SG be.able CAT See:IPFV INDF.IN=PQ?
"Can you see anything?" (Mk 8:23)

O pv tun'e pian'ada.
Ò pū tūn̆'e $\varnothing$ pīăn̆'adá=ø.
3AN NEG.IND be.able cat speak:IPFV=NEG.
"He could not speak." (Lk 1:22)

With $\check{n} y \bar{a} \eta^{\varepsilon /}$ as the main verb in the sense "overcome":
bozugo ba ku tun'e nyaŋe ba meja.
bō zúgō bà kù tūn̆'e ø n̆yāŋí bà mēŋá=ø.
because 3pl NEG.IRR be.able cat control 3pl self=NEG.
"because they cannot control themselves." (1 Cor 7:5, 1996)

The following verbs follow the main VP:
$T i s^{\varepsilon}$ "give" is used for "to, for"; the meaning may have nothing to do with "giving", and is simply a way of adding an indirect object. This can be used to put an indirect object after a direct, or to have both direct and indirect bound pronoun objects.

Fu pu ma' $n$ tis ninsaala, amaa fu ma' $n$ tis ne Wina'am Siig Suy.
Fì $p \bar{u} \quad$ má' $n$ tìs nịn-sáalā=ø, àmáa fù má'
2SG NEG.IND lie CAT give person-smooth:SG=NEG but 2SG lie
$n$ tís nē Wínà'am Sí-sùn.
cat give foc God Spirit-good:sG.
"You have not lied to a human being; rather, you have lied to God's Holy Spirit." (Acts 5:4, 1996)
$\grave{M}$ dāa kûes bùjv $\varnothing$ tís dó'atà.
1SG tNS sell donkey:SG cat give doctor:SG.
"I sold a donkey to the doctor."

Gàad ${ }^{\varepsilon}$ "pass, surpass" is used in comparisons:

Isaac kárìm ø gát John.
Isaac read:IPFV Cat pass:IPFV John.
"Isaac reads better than John." SB

À-Win gịm $\smile$ gát À-B̄̄gvr.
pers-Awini be.short cat pass:IPFV PERS-Abugri.
"Awini is shorter than Abugri." SB

Fv sid noŋ mam gat bamaa?
Fù síd nòj mām ø gát bámmáa=ø?
2SG truly love 1SG CAT pass:IPFV DEMST.PL=PQ?
"Do you really love me more than these?" (Jn 21:15)

Gàlıs ${ }^{\varepsilon}$ "get to be too much" (Sāa gálìs yā "There's too much rain"):

Ò dì $n$ gálìs. $\quad$ "She's eaten too much."
3AN eat cat exceed.

Dā kárìm gbánà $\varnothing$ gálısìdā=ø.
NEG.IMP read:IPFV book:PL CAT exceed:IPFV=NEG.
"Don't read books too much."

Bàs ${ }^{\varepsilon}$ "send/go away" is used for "away, off, out":

Ano'on nwaa yisid nidib tovmbe'عdi basida?

Who cat this CAT expel:IPFV person:PL deed-bad:pl CAT throw.out:IPFV=CQ?
"Who is this who drives people's sins out?" (Lk 7:49)
"Ending" verbs naturally follow the main VP:
Ò dìl $\varnothing$ nāe. $\quad$ "He's finished eating."
3AN eat cat finish.
Ò dìlø tīg.
"She's eaten to satiety."
3AN eat cat get.sated.

Verbs of motion occur in $n$-catenation with meanings like local prepositions e.g.

Ò kàt kíkịr-bê' $\varepsilon d-n a ̀ m ~ n ~ y i ̣ i s i ́ d ~ n i ̣ d ı b . ~$
3AN drive:IPFV fairy-bad-pl CAT expel:IPFV person:PL.
"He drives evil spirits out of people."

غ̀n̆rıgım ø páa $\smile$ m. "Shift along up to me." (pāe/ "reach")
Shift.along:Imp CAT reach 1SG.OB.
$W \bar{\varepsilon} n^{\mathrm{na} /}$ "be like" is very common in $n$-catenation. It takes a prepositional phrase with $w \bar{v} v$ "like" or $n \bar{\varepsilon}$ "with" as complement. Any object without the article $l \bar{a}$ ', even a pronoun or proper name, is followed by a meaningless $n \bar{\varepsilon}$. As a main verb:

Ka o nindaa wenne nintay ne.
Kà ò nịn-dáa $w \bar{\varepsilon} n \quad n \bar{\varepsilon}$ nịntā $\eta n \bar{\varepsilon}$.
And 3AN eye-face:sG resemble with sun:Sg like.
"His face is like the sun." (Rev 10:1, 1996: KB Ka o nindaa nwene winnig ne)
$W \bar{\varepsilon} n n \bar{\varepsilon}$ and $w \bar{\varepsilon} n w \bar{v} v$ behave as unitary prepositions to the extent that $w \bar{\varepsilon} n+$ preposition + complement can be preposed with kà, or dislocated as in

Da lo ya nindaase, wenne foosug dim la ninid si'em la.
Dā ló yà nịn-dáas $\bar{\varepsilon}=\varnothing$, wēn n̄̄ fōosúg dím lá $\varnothing$
NEG.IMP tie 2PL eye-face:PL=NEG, resemble with puff:GER NULL.PL ART NZ
nị̀nıd sị̀əəm lā.
do:IPFV INDF.ADV ART.
"Don't screw up your faces like the hypocrites do." (Mt 6:16, 1976)

Là'am ${ }^{\mathrm{m}}$ "together" is also found as a preverb 16.8 and in the compound preposition là'am $n \bar{\varepsilon}$ "together with" 15. As a main verb it means "associate with":
... ye labasuy moolug la ket ka buudi wusa la'amid ne taaba pudugid Wina'am piini.
... y $\bar{\varepsilon}$ lábà-sùy móvlv̀g lā két kà būudı wūsa lá'amìd
... that news-good:Sg proclamation ART cause:IPFV and tribe all gather:IPFV $n \bar{\varepsilon}$ tāaba $\varnothing$ pūdıgíd Wínà'am pịinì.
with each.other cat share:IPFv God gift.
"....that the proclamation of the good news is making every tribe gather with one another to share God's gifts." (Eph 3:6, 1996)

Yà'as ${ }^{\varepsilon}$ or yà' $a s^{\mathrm{a}}$ "again" is rarely preceded by liaison (never in KB ) and has now effectively simply become an adverb; it is even preposable with kà 24.3. ILK glosses it "repeat", but I have no examples as a main verb.
ka m lem yeti ya'as ... "and I say again ..." (Gal 1:9, 1996)
kà m̀ lćm yètı ø yâ'as
and 1SG again say:IPFV CAT again

Ya'as ka m gos ...
"Again I looked ..." (Rev 5:11, 1976)
Yà'as kà m̀ gōs...
Again and 1sG look ...

### 19.2 Kà-catenation

Certain constructions with a clause introduced by kà have clear affinities with catenation using $n$. They never have alternate forms with the linker $y \bar{\varepsilon}$. With few exceptions, they either have different subject from the preceding clause or differ in polarity. They resemble $n$-catenation in that they have the aspect and mood of the preceding VP.
$K \bar{\varepsilon}$ "let, leave off" is used with kà-catenation in the sense "let, cause that." The subject of the catenation cannot be the same as the main clause subject (in the whole KB , the only counterexample is Titus $2: 7 \mathrm{kcl} \mathrm{ka}$ fo mej an zanbinne tisi ba "Let you yourself be a sign to them", where the pronoun $f v$ is formally a predependent.) The mood of the catenation matches the VP containing $k \bar{\varepsilon}$, though imperative often replaces irrealis mood.

Li da ke ka ba pv nyapi kvvo.
Lì dà kè kà bà pū ňyāŋı $\varnothing$ kv́o $\varnothing=\varnothing$.
3in tns cause and 3PL NEG.IND prevail CAT kill 3AN.OB=NEG.
"This caused them not to be able to kill him." (2 Kings 11:2)

Ba kvdim nipidi lin ye li ke ka ba da nye Kristo kum dapuudir namisvg laa.
Bà kv̄dım nịinìdī lí yé lì ké kà bà dā n̆y $\bar{\varepsilon}$ Kristo kúm 3PL ever do:IPFV 3in.ob that 3in cause and 3pl neg.imp see Christ death dà-pūvdír námısv̀g láa=ø.
wood-cross:SG suffering ART=NEG.
"They have always been doing this so that they will not experience the suffering of the cross of the death of Christ." (Gal 6:12)
dine na ke ka ba da kpi'ilim.
Dīnı ø ná ké kà bà dā kpī'ılímm=ø.
3IN.CNTR CAT IRR cause and 3PL neg.IMP finish=NEG.
"That will cause them not to come to an end." (Genesis 6:20)

After ké $\varepsilon$ - $n$ kà, with discontinuous-past $n^{\varepsilon}$, the catenated clause generally had $n^{\varepsilon}$ in the 1976 Bible, but this is no longer invariable. Aspect usually matches:

Ka li ane wada la ket ka tuvmbs'ed nyst pay.
Kà lì à né wādá lā」ø két kà tùvm-b $\bar{\varepsilon} ' \varepsilon d ~ n ̆ y \bar{c} t ~ p a ́ \eta . ~$
And 3IN COP FOC law art cat cause:IPFV and deed-bad see:IPFV power:sg.
"It is the law which makes sin find power." (1 Cor 15:56)

The irregular imperative $k \dot{\varepsilon} l^{\text {a }}$, followed by a kà-clause with imperative mood, creates a way of expressing commands to third or first persons:

Kèl kà ò gōs tēŋı-n.
Cause:IMP and 3AN look ground:SG-LOC.
"Let him look down."

Dā ké kà dàbị̄əm bé $\varepsilon=\varnothing$ !
neg.IMP cause and fear EXIST=NEG.
"Don't be afraid." ("Let fear not exist.")

Kèl [or Kèlí ø] kà tì pô'vs Wínà'am.
Cause:IMP cause:Imp 2Pl.sub and 1Pl greet God.
"Let us praise God."

Kèl kà ... is often ellipted informally, leaving the lack of independency marking as the only sign that the clause is a command:

| M gós nị̂f lā. | "I've looked at the eye." |
| :--- | :--- |
| 1SG look.at eye:SG ART. | Independency marked: tone overlay on gós |

but $\grave{M}$ gōs nị̂f lā.
1SG look.at eye:SG ART.
"Let me look at the eye." (Overheard in clinic)
No tone overlay on gōs
$\grave{M}$ dígınè $=\varnothing$ ? $\quad$ "Am I to lie down?" (Overheard in clinic)
1SG lie.down=PQ?
No independency imperative -ma

Ò záb nà'ab lā. "He should fight the chief."
3AN fight chief:SG ART. M spreading after ò, not záb 16.6.1

Mịt is a defective verb used only in the imperative 16.5. Much its most common use is with kà-catenation as "see that it doesn't happen that ...". In this sense it never appears with the postposed 2 pl subject ya, suggesting that it is impersonal.

Mid ka ya maali ya tovm suma nidib tuon ye ba gos.
Mịt kà yà máalı̀ yà tùvm-sùma nịdıb tûen yé bà gōs. NEG.LET.IMP and 2PL make 2PL deed-good:PL person:PL front that 3PL look.at.
"Don't do your good deeds in front of people so they'll look." (Mt 6:1)

X nị̀ wēlá n...? "how can X ...?" has an impersonal variant using a dummy subject in the main clause and the effective subject in kà-catenation.

Li niy wala ka o an David yaana?
Lì nị̀n wēlá kà ò án̆ David yâaŋà=ø?
3IN do how and 3AN cop David descendant:SG=CQ?
"How can he be David's descendant?" (Mt 22:45)

Where there is no change of subject, $n$-catenation is overwhelmingly more common, but a few cases of the personal type do appear with kà:

M na nip wala ka nye faangire?
$M$ ná nị̄ wēlá kà ňȳ̄ fāan̆gírè=ø?
1SG IRR do how and find salvation=CQ?
"How can I find salvation?" (Acts 16:30)

Kà usually replaces $n$ when there is a change of polarity in catenation:

Ka dau daa zin'i Listra ni ka pu tun'e kenna.
Kà dāu dāa zịñ'i Listra ní kà pū tūn̄'e乙 Ø kēnná=ø.
And man:sg tns sit Lystra loc and neg.ind be.able cat go:IPFV=NEG.
"There was a man in Lystra who could not walk." (Acts 14:8, 1996)

Ka Joon kena lood novr ka pv nuud daam
Kà Joon k $\bar{\varepsilon}$ nā ø lōod nōor kà pū nūud dáamm=ø.
And John come hither cat tie:IPFv mouth:sg and neg.Ind drink:IPFv beer=NEG. "John came, fasting and not drinking beer." (Mt 11:18)

Change from positive to negative can nevertheless occur with $n$ :

Ya sieba be kpela kv kpii ...
Yà sịəba bé kpz̄lá@ø kú kpịi=ø ...
2PL INDF.PL EXIST here CAT NEG.IRR die=NEG ...
There are some of you here who will not die ..." (Lk 9:27)

An adnominal kà-catenated clause follows, usually directly, a NP anchor other than the main clause subject, and contains a pronoun referring to it, which is ellipted if it is an object 16.9.1. The sense resembles a non-restrictive relative clause:

Anina ka o nye dau ka o yv'vr buon Aneas.
Ànịná kà ò n̆yc̄dáu kà ò yū'vr bûөn Aneas. ADv:there and 3AN see man:SG and 3AN name:SG call:IPFV Aeneas.
"There he found a man whose name was Aeneas." (Acts 9:33)

Li ane ya taaba bane pv'usid Wina'am ka li nar ka ya kad saria.
Lì à né yà tāaba bánì pò'vsıd Wínà'am kà lì nár
3in Cop FOC 2PL fellow rel.pl greet:IPFV God and 3in must
kà yà kád sàríyà.
and 2PL drive judgment.
"It is your fellow-worshippers of God whom you must judge." (1 Cor 5:12)

If the main clause is a verbless identificational clause 18.4, the NP of the main clause can be the anchor:

Yel boง nwa ka Wina'am ke ka li paae ti?
Yع̄l-bóo ø ňwá kà Wínà'am ké kà lì páa tì=ø? Matter-what CAT this and God cause and 3IN arrive 1PL.OB=CQ? "What is this that God has made to come to us?" (Genesis 42:28)

Adnominal kà-catenation underlies kà-clefting and preposing. The subject of the catenated clause does not normally refer to the anchor; if it does, the kà-catenation is a resultative predicate 16.9.2:
...ka la'am maan gigis ka ba wum ka pia'ad.
...kà lâ'am màan gígìs kà bà wúm kà pịān̆'ad.
...and together make:IPFV dumb:PL and 3PL hear:IPFV and speak:IPFV.
"...and even makes the dumb hear and speak." (Mk 7:37, 1976)

With $\check{n y} \bar{\varepsilon}$ "see", this construction has the predicative sense "see as":
$\grave{M}$ dāa n̆yz̄ dāu lá kà ò án̆ nâ'ab.
1SG TNS see man:SG ART and 3AN Cop chief:Sg.
"I saw the man as a chief." KT: not possible as "who was a chief"
$\grave{M}$ dāa $p \bar{v} \quad \check{n} y \bar{\varepsilon}$ dāu lá kà ò áň ná'abā=ø.
1SG TNS NEG.IND see man:SG ART and 3AN cop chief:SG=NEG.
"I didn't see the man as a chief." KT

As expected, KT rejected constructions with tense marking in the kàcatenation. He also rejected focus-n $\bar{\varepsilon} /$ in the catenated clause:
*M̀ dāa p $\bar{v} \quad \check{n} y \bar{\varepsilon} d a ̄ u \quad$ lá kà ò á n $\bar{\varepsilon}$ ná'abā $=\varnothing$. 1SG TNS NEG.IND see man:SG ART and 3AN COP FOC chief:SG=NEG.

## 20 Conditional clauses

### 20.1 Structure

Conditional clauses have a yà'-clause as postlinker adjunct, after any other adjuncts. The main clause can be of any type, including a command or a question.

Fù yá' gōs kpēlá, bó kà fù n̆yz̄tá=ø?
2SG if look here, what and 2SG see:IPFV=CQ?
"If you look here, what do you see?"

Yà'-clauses cannot be coordinated, but there may be several in a main clause:

Ka ligidi la ya'a po'og, m ya'a ti leb na, m na yoจf.
Kà lị̆gıdı lā yá' pò'og, $\grave{m}$ yá' tì lèb nā, ì ná yóo $f$.
And money art if get.small, 1 SG if then return hither, 1SG IRR pay 2SG.ob. "If the money runs short, when I return I will repay you." (Lk 10:35)

The main clause must have an unellipted subject. Direct commands keep a subject pronoun in place; some speakers require a free pronoun form in such cases:

Fv ya'a mor pu'a, fun da mood ye fo bas oo.
Fù yá' mōr pư'ā, fūn dā mōod yé fù básō-o=ø.
2SG if have wife:SG, 2SG NEG.IMP struggle:IPFV that 2SG abandon-3AN.OB=NEG.
"If you have a wife, don't try to leave her." (1 Cor 7:27)

Yà'-clauses can appear clause-finally because of dislocation due to weight:

Dinzug li naan a su'um ba ya'a pu du'an dau kajaa.
Dìn-zúg lì nāan án̆ sv́m bà yá' pū dv̂'a-n dáu-kàŋáa=ø.
Thus 3IN then COP good:ABSTR 3PL if NEG.IND bear-DP man-DEMST.SG=NEG.
"So it would have been better for that man not to have been born."
(Mk 14:21, 1996)

Yà'-clauses express tense independently. They can have irrealis mood, but an indicative event-perfective need not have past reference:

Fv ya'a na dollimi keך, m na key.
Fù yá' nà dōllí mī ø k $\bar{\varepsilon} \eta$, m̀ ná $k \bar{\varepsilon} \eta$.
2SG if IRR accompany 1SG CAT go, 1SG IRR go.
"If you will go with me, I will go." (Judges 4:8)

M ya'a pv keye, Supid la kv keєn ya ni naa.
M̀ yá' pū k $\bar{\varepsilon} \eta \varepsilon ́=\varnothing$, sūŋıd lā kú ké $\check{n} \smile y a ̀ ~ n u ̄ ~ n a ́ a=\varnothing . ~$
1SG if NEG.IND go=NEG, helper:SG ART NEG.IRR come 2PL LOC hither=NEG.
"If I do not go, the Helper will not come here to you." (Jn 16:7)

The discontinuous-past marker $n^{\varepsilon} \underline{16.3 .2}$, beside tense, is used to express modal remoteness (cf English preterite in non-temporal usage, CGEL pp148ff.) It then expresses a hypothetical or unlikely state of affairs; if it is accompanied by postsubject nāan( $\imath$ ), the sense is contrary-to-fact. It can attach to any verb form apart from imperatives. In catenation, $n^{\varepsilon}$ in the first VP is usually repeated in all. It appears most often in yà'-clauses, but can occur both with and without nāan(l) elsewhere:

Man boodin $n \varepsilon$ yaname naan aan ma'asiga bec yaname naan aan tvoliga.
Mān bóวdī-n n̄ yānámì ø nāan âa-n mā'asígā bē
1SG.CNTR want-DP that 2PL NZ then Cop-DP cold:ADV or
yānámì ø nāan âa-n tūvlígā.
2PL NZ then cop-DP hot:ADV.
"I might wish you had been cold or you had been hot." (Rev 3:15)

Post-subject nāan(l) "in that case, matters being so" is distinct from $\check{n} y \bar{a} a n$
 Thus, in parallel NT passages:

Fu na ki'is noor atan' ye, fu zi' ma, ka noraug nyaan kaas.
Fù ná kī'ıs nóor àtán̆' yé fù zí'レ mā=ø,
2SG IRR deny occasion:SG NUM:three that 2SG NEG.KNOW 1SG.OB=NEG,
kà n̄̄-dâvg n̆yāan kāas.
and hen-male:SG next cry.
"You will thrice deny you know me before the cock crows." (Mt 26:75, 1996)

Fu na ki'is man noor atan' ka noraug naan [KB nyaan] kaas noor ayi.
Fù ná kī'ıs mān nóor àtán̆' kà n̄̄-dâvg
2SG IRR deny 1SG.CNTR occasion:SG NUM:three and hen-male:SG
nāan kāas nóor àyịí.
next cry occasion:SG NUM:two.
"You will thrice deny me before the cock crows twice." (Mk 14:30, 1996)

Nāan(l) originates from the verb nāan ${ }^{\varepsilon /}$ "be there", which typically appears as an auxiliary with its own locative complement before a $n$-catenated clause:

Ka nwadbibis na naan agola lit teyin na.
Kà n̆wād-bịbìs ná nāan àgólà ø lị́t tēŋı-n nā.
And moon-small:PL IRR be.there adv:above cat fall:IPFV ground:SG-Loc hither.
"And the stars [being] above will fall to earth." (Mk 13:25)

Fv ya'a sid ane Wina'am Biig fon naanim dapuudir la zugv sig na.
Fù yá' sìd à nē Wínà'am Bịìig, fūn náanìm dá-pūvdír lā 2SG if truly cop foc God child:SG, 2SG.CNTR be.there:IMP wood-cross:SG ART zùgo $\varnothing$ sịg nā.
upon cat descend hither.
"If you are truly the Son of God, come down here from the cross." (Mt 27:40)

I will omit cat in interlinear glossing after nāanı.
In subordinate clauses KB usually simply has irrealis nà where older versions had nāan. Modal nāan(ı) most often appears in conditional main clauses; in other main clauses nāan without $n^{\varepsilon}$ often represents n̆yāan, as above.

Nāan(l) without $n^{\varepsilon}$ is often effectively equivalent to yà' "if/when."

Li an sum ye dau yinne naan kpi nidib la ycla gaad ...
Lì àn̆ súm y $\bar{\varepsilon}$ dāũ yīnní nāan kpị nị̣dıb lā yćlà 乙 $\varnothing$ gàad ...
3IN COP good that man:SG one then die person:PL ART about cat pass ...
"It is better if one man should die for the people than ..." (Jn 11:50)

Fun naani tum be'ed ka ba sigis uf ne kpisinkpil ka fu sin ka mor suguru, li su'um a bo?
Fún nāanı túm bē'عd kà bà sịgısú $f$ n $f$ kpísìnkpị̀l
2SG:NZ then do bad and 3Pl put.down 2SG.OB with fist:Sg
kà fù sịn kà mōr sūgvrú, lì sùm án̆ bó=ø?
and 2SG be.silent and have forbearance, 3IN good:ABSTR COP what=CQ?
"If you do evil and they down you with fists and you are silent and forbear, what is the good of it?" (1 Pet 2:20, 1996)

Nopir lem kae' gaad nidi naan kpi o zuanam zugo.
Nòjır lém kā'e乞ø gâad nịdíখ ø nāan kpị ò zưà-nàm zúgō=ø.
Love again neg.be cat pass person:Sg nz then die 3an friend-pl upon=Neg.
"There is no love greater than if a person dies for his friends." (Jn 15:13, 1996)

Ba wenne zunzoy naani ve'ed zunzoŋ ne.
Bà wēn n $\bar{\varepsilon}$ zúnzòj $\varnothing$ nāanı v $\overline{1} ' \varepsilon d ~ z u ́ n z \grave{\eta ~} \eta \quad n \bar{\varepsilon}$.
3PL resemble with blind.person:SG nz then lead:IPFV blind.person:SG like.
"They are like when a blind person leads a blind person." (Mt 15:14, 1996)

Nāan(l) with $n^{\varepsilon}$ expresses contrary-to-fact, as in conditional clauses:

Li su'm ka fu daa naan zapin m ligidi $n$ su'an banki ni.
Lì sù'm kà fù dāa nāan zání-n $\grave{m}$ lị̣̄ıdı $n$ sū'a-n bánkì ní. 3IN be.good and 2SG tns then take-dP 1SG money cat hide-dp bank:SG loc. "You should have put my money in the bank." (Mt 25:27, 1976)

Yà' nāan(ı) means "if only":

M zugdaan la ya'a naan siaki key nyecn nodi'es la be Samaria la!
$\grave{M}$ zūg-dâan lā yá' nāan síákì ø k $\bar{\varepsilon} \eta \smile \varnothing ~ n ̆ y \bar{\varepsilon} \varepsilon-n$
1Sg head-owner:SG ART if then agree cat go cat see-dp
nó-dị̂’əs lá $\varnothing$ bè Samaria lā!
mouth-transmitter:SG ART cat exist Samaria art!
"If only my lord would agree to go to see the prophet in Samaria!" (2 Kings 5:3)

### 20.2 Open

Conditional clauses without discontinuous-past $n^{\varepsilon}$ or nāan(l) express "if", and also "when" with a main clause with present or future reference (cf Hausa ìdan, Jaggar p608.) With main clauses with past reference, yà' is only used for conditionals; for the meaning "when", absolute clauses are used 21.1.

Nid ya'a tom tuvma, o di'ed yood.
Nịd yá' tùm tūvma, ò dị'əd yōod.
Person:SG if work:IPFV work, 3AN receive:IPFV pay.
"If a person works, he gets pay." (Rom 4:4)

Ka Kristo ya'a da pv vv'vg kumine, alaa ti labasvp la moolvg la ane zaalim.
Kà Kristo yá' dà pū vō'vg kūmı-né=ø, àláa tì làba-sìn And Christ if tws neg.Ind come.alive death-LOC=NEG, ADv:thus 1Pl news-good:SG lā móvlòg lā á $n \bar{\varepsilon}$ zāalím.
ART proclamation ART COP FOC empty:ABSTR.
"If Christ did not rise from death, our preaching is empty." (1 Cor 15:14)

Fù yá' sìàk, tì ná dīgılí $f$.
2 2SG if agree, 1PL IRR lay.down 2SG.ob.
"If you agree, we'll put you to bed [i.e. admit you to hospital.]"

Beog ya'a nie fo na wom o pian'ad.
B̄̄og yá' nịe, fù ná wúm ò pìàn̆'ad.
Tomorrow if appear, 2SG IRR hear 3AN speech.
"When tomorrow comes, you will hear his words." (Acts 25:22)

### 20.3 Hypothetical

If discontinuous-past $n^{\varepsilon}$ occurs in the yà'-clause and the main clause has irrealis mood without nāan( $)$, the meaning is hypothetical. In the 1976 NT the main clause also has $n^{\varepsilon}$, but not in later versions. KB sometimes uses constructions identical to open conditionals with irrealis in the main clause in this meaning.

Wief ya'a sigin li ni, li zuluy na paaen o salabir.
Wịəf yá'sịgí-n lì nī, lì zùlvך ná páa-n ò sàlıbır.
Horse:sg if descend-DP 3IN LOC, 3IN depth IRR reach-DP 3AN bridle:SG.
"If a horse went down in it, its depth would reach its bridle." (Rev 14:20, 1976)
KB: Ka wief ya'a sigi li ni, li zulvך na paae o salibir.

Nobir ya'a yelin ye, on pu a nu'ug la zug, o ka' ningbin nii, lin ku nyapin keen ka o ka' ningbin nii.
Nóbìr yá' yèlī-n ȳ̄, ón pū án̆ nû'ug lā zúg,
Leg:SG if say-dP that 3AN:NZ NEG.IND Cop hand:SG ART upon,
ò kā' nịn-gbị̀ níl=ø, līn kv́ n̆yāŋı-n乙 ø
3AN NEG.BE body-skin:SG LOC=NEG, DEM.IN NEG.IRR accomplish-dP CAT
kée-n kà ò kā' nị́n-gbị̄ $\quad$ níl $=\varnothing$.
cause-dP and 3AN NEG.BE body-skin:SG LOC=NEG.
"If the leg said, because it is not a hand, it is not in the body, that would not cause it not to be in the body." (1 Cor 12:15, 1976)
KB: Nobir ya'a yelin ye, "Man ka' nu'ug la zug, m ka' nipbiŋ la nii," lin kv nyaji $k \varepsilon k a$ o ka' nipgbiy la nii.

### 20.4 Contrary-to-fact

If the main clause has nāan(l), there is a contrary-to-fact implication. Both main and yà'-clause have discontinuous-past $n^{\varepsilon}$ :

Man ya'a pv kén na tu'asini ba, ba naan kv morin taale.
Mān yá' $p \bar{u}$ k $\bar{\varepsilon} \varepsilon-n \quad n a \overline{\smile ~} \varnothing$ tú'asī-ní bā, bà nāan kú
1SG.CNTR if NEG.IND come-dP hither cat talk-DP 3PL.OB, 3PL then NEG.IRR mōrı-n tâall $\bar{\varepsilon}=\varnothing$.
have-dP fault:SG=NEG.
"Had I not come to speak to them, they would not have been guilty." (Jn 15:22)

M ya'a morin sv'vgv m nu'ugin maan kvonif nannanna.
$\grave{M}$ yá' mōrı-n só'vgì $\grave{m}$ nú'ugī-n, ì nāan kv̄v-ní $f$ nānná-nā.
1SG if have-dp knife:SG 1SG hand:SG-Loc, 1SG then kill-dP 2SG now.
"If I'd had a sword in my hand, I'd have killed you right now." (Numbers 22:29)

Ba ya'a daa mi'ine li, ba naan kv kpa'an Zugssb one an na'atita'ar la dapuudir zugo.
Bà yá' dāa mị̀i-ní lī, bà nāan kú kpā'a-n $\quad$ Zūg-sób ónì
3PL if tNS know-dP 3IN.OB, 3PL then neg.IRR fasten-DP head-NULL.AN REL:AN
àn̆ ná'tītā'ar lā dá-pūvdá zùgō=ø.
cop king-great:SG ART wood-cross:PL upon=NEG.
"If they had known it, they would not have fastened the Lord, who was a great king, to a cross." (1 Cor 2:8)

Contrary-to-fact conditions in the past are also sometimes marked with irrealis mood along with past tense markers in the main clause; WK specifically confirmed that the sense of this combination is contrary-to-fact, not future-in-the-past.

Bozugo Josua ya'a da tisini ba vv'vsum zin'ig, Wina'am da kv lem pian' dabis-si'a yela ya'ase.
B̄̄zúgō Josua yá' dà tìsī-ní bā vv̄'vsím zị̂n'ig, Wínà'am dá kv̀
Because Joshua if tns give-dp 3PL.ob resting place:SG, God tns neg.IRR l̄̄m pīān̆' dábìs-sịi'a yélà yà'as $\bar{\varepsilon}=\varnothing$.
again speak day-INDF.IN about again=NEG.
"For if Joshua had given them a resting place, God would not subsequently have spoken of a certain day." (Heb 4:8)

Without a yà'-clause:

Ò dāa ná zāb nâ'ab lā.
3AN TNS IRR fight chief:SG ART.
"He would have fought the chief (but didn't.)" WK

## 21 N -clauses

Kusaal transforms complete clauses into AdvPs or NPs by inserting the postsubject particle $\grave{n}$ (for the realisation, see 4.2.) The $\grave{n}$ by itself is a nominaliser, which turns the original clause "X" into an "absolute" clause signifying "it being the fact that X." $N$-clauses also form the basis of Kusaal relative clauses, though in the commonest type the nominaliser has fused with a preceding demonstrative pronoun to create what is synchronically simply a relative pronoun.
$\grave{N}$-clauses have independent tense marking (but relative to the narrative timeline within narrative 16.3.4.) Irrealis mood replaces imperative:

Yaname na mor sam si'a ane ye ya nop taaba.
Yānámì ø nà mōr sām-sị́a á n $\bar{\varepsilon}$ yé yà nón tāaba.
2PL NZ IRR have debt-INDFIN Cop Foc that 2PL love each.other.
"The debt which you are to have is to love each other." (Rom 13:8)
$\grave{N}$-clauses cannot contain focus particles, but relative pronouns are often preposed with kà. Contrastive pronouns can be subjects of $\grave{n}$-clauses:
wuu mane a si'em la. "as I am." (1 Cor 7:7, 1996)
wv̄v mánì ø àn̆ sị̀əm lā.
like 1SG.CNTR NZ COP INDF.ADV ART.

Dependents of $\grave{n}$-clauses may only be articles or predependent NPs, but $\grave{n}$ clauses can themselves be predependents.

Absolute $\grave{n}$-clauses normally take the article $l \bar{a} /$. After relative clauses $l \bar{a} /$ has its usual function; clauses without $\bar{a} / \bar{l}$ are usually indefinite but specific.

J̄n sōb á nē dáu-kànı sà $k \bar{\varepsilon}$ nā sû'өs lā. 3AN.CNTR NULL.AN COP FOC man-REL.SG TNS come hither yesterday art.
"That one's the man who came yesterday."

Dàp-bànı bòod yé bà n̆yćéf ké nā.
Man-rel.pl want that 3pl see 2 SG.ob come hither.
"Some men who want to see you have come."
one du'a ne Siig
"someone born of the Spirit" (Jn 3:8)
j̀nı dư'à nē Sīıg
REL.AN bear with spirit:SG
one tomi m la na
ònı tùmı $m$ lā nā
REL.AN send 1SG.OB ART hither
"he who sent me hither" (Mk 9:37)
(ònı = REL.AN; contrast ón 3SG:NZ)

The article is not repeated a second time after an $\grave{n}$-clause which ends in a NP with $l \bar{a} l$. If the clause contains the VP-final particles nā' "hither" or sà "hence", these may follow an article belonging to the $\grave{n}$-clause 16.11.

If a $\grave{n}$-clause has a negative VP, the negative prosodic clitic is dropped unless the $\grave{n}$-clause lacks $l \bar{a}^{\prime}$ and is itself clause-final in the superordinate clause $\underline{23}$.

### 21.1 Absolute clauses

$\grave{N}$-clauses without relative pronouns or indefinite pronouns used as relatives are absolute clauses, meaning "it being the fact that ...":

Dāũ lā dāa záb nà'ab lā.
Man:SG ART TNS fight chief:SG ART.
"The man has fought the chief."
dāu lá $\varnothing$ dāa záb nà'ab lā
Man:SG ART nZ tNS fight chief:SG ART
"the man having fought the chief"

The most characteristic use of absolute clauses is as AdvPs of time or circumstance. They are the usual way of expressing past "when", used as postlinker adjuncts 17.2 .1 or as VP adjuncts, generally preposed with kà 24.3. As Kusaal is stricter than English in requiring constituent order to reflect event order, the VP-final adjunct position is usually confined to cases where the absolute clause expresses a state of affairs rather than a single event:

J̄n dāa n̆yz̄t súpā, ón dāa án̆ bị-lịa láa=ø?
3AN.CNTR TNS see:IPFV good:ADV, 3AN:NZ TNS COP child-baby:SG ART=PQ?
"Did she see well when she was a baby?"

Tense markers in an absolute clause are the same as in the main clause; the main clause markers may be omitted if the absolute clause precedes. It is thus not possible to manipulate the time relationship with tense particles; instead, this is determined by aspect, with a perfective in the absolute clause implying a prior event and imperfective a simultaneous one, setting the temporal scene for the main clause.

Ka ban dit la, Yesu ycli ba ...
Kà bán dìt lā, Yesu yélì $b$ bā...
And 3PL:NZ eat:IPFV ART, Jesus say 3PL.ob
"As they were eating, Jesus said to them ..." (Mt 26:21)

Ka ban yi la, ka Zugsob malek nie o mej ...
Kà bán yị lā, kà Zūg-sób máliāk nị́e ò mēp...
And 3PL:NZ emerge art and head-null.an angel:SG appear 3AN self
"After they had left, an angel of the Lord showed himself ..." (Mt 2:13, 1996)

Like other AdvPs, absolute clauses have limited uses as verb arguments 13.1:

Dine ke ka ma saalbiis zua la ane
mam pu sa'amidi ba la'ad ka me pu diti ba ki la.
Dìnı ké kà m̀ án̆ sâal-bịis zưá là á nē mán
ReL.SG cause and 1SG COP smooth-child:PL friend:SG ART COP FOC 1SG:NZ
pū sáñ'amìdí bà lā'ad kà mé pū dítí bà kị láa=ø.
NEG.IND Spoil:IPFV 3PL goods:PL and also NEG.IND eat:IPFV 3PL millet ART=NEG.
"What makes me a friend of human beings is
that I don't spoil their property or eat their millet." BNY p20

Verbs of perception or communication take content clauses or relative clauses with indefinite pronouns as objects, never absolute clauses.

Absolute clauses with sādıgím "since, because" immediately following nominaliser-ǹ occur as postlinker adjuncts expressing "reason why":

Amaa on sadigim kpi la, bo ka m lem lood noor ya'asc?
Àmáa ón sādıgím kpị́ lā, bó kà m̀ lém
But 3AN:NZ since die ART, what and 1SG again
lōod nōor yá'as $\varepsilon=\varnothing=\varnothing$ ?
tie:IPFV mouth:SG again=NEG=CQ?
"But since he has died, why should I still be fasting?" (2 Samuel 12:23)

Tiname sagidim aan o biis la, ti da ten'عs ...

1PL NZ since COP 3AN child:PL ART, 1PL NEG.IMP think ...
"Since we are his children, we should not think ..." (Acts 17:29)

For absolute clauses with post-subject nāan(l) see 20.1.
Absolute clauses occur after hālí nē or hālí là'am $n \bar{\varepsilon}$ "although, even as" 15, and hālí $n$ tì pāa ..."up until the time when ..." 17.2.1.

Before the postposition $z \bar{u} g^{\partial /}$ "on account of", or bō zúgō "because", absolute clauses form reason-why AdvPs used as adjuncts:

Ban mor dey la zug, ba kv di'e baa.
Bán mōr dēp lā zúg, bà kù dị́ə báa=ø.
3PL:NZ have wound:SG ART upon, 3PL NEG.IRR receive 3PL.OB=NEG.
"Because they have a defect, they will not be accepted." (Leviticus 22:25)

Mán ňw ${ }^{\prime}$ ' dāu lā zúg kà pōlıs gbán̆'a $\quad$ m.
1SG:NZ strike man:SG ART upon and police seize 1SG.OB.
"The police arrested me because I struck the man." ILK

It is commoner for causation to be simply implied by an absolute clause as postlinker adjunct or preposed VP adjunct, or just by coordination with kà.

Y $\bar{l}$ á "concerning" appears after absolute clauses in NT section headings, and absolute clauses alone are used as picture captions:

Jesus n kpen' Jerusalem la yela
Jesus ǹ kpèn̆' Jerusalem lā yźlà
Jesus nz enter Jerusalem art about
"[about] Jesus entering into Jerusalem."
Ban meed yir "A house being built"
Bán mèzd yị̆r
3PL:Nz build:IPFV house:SG

### 21.2 Relative clauses

Relative clauses are of two structural types: those which use relative pronouns, and those which use indefinite pronouns in the role of relatives. The relative clause subject is followed by $\grave{n}$ in the indefinite-pronoun type; diachronically, the unitary relative pronouns have arisen from fusion of a clause-initial short demonstrative pronoun with a following $\grave{n}$.

In either case, the pronoun may be a head, as clause antecedent, or a dependent after a cb which is the clause antecedent. Relative clauses are restrictive when the pronouns are compounded with a cb, but need not be so otherwise.

Written materials avoid kanc kànı as a relative for human reference (invariably so after proper names), substituting one ònı, which cannot be preceded by a cb; the resulting construction is appositional (note, incidentally, that this example is unequivocally non-restrictive):
o sid one da be ne o la
ò sīd ónì dà bè né ò lā
3AN husband:SG REL.AN TNS EXIST with 3AN ART
"her husband, who was there with her" (Genesis 3:6)

Uncompounded pronouns are obviously necessary with heads that lack cbs or have a coordinate structure:
kokor kaya lini yi arazana ni la na
kùkj̄r-kápā líni yí àrazánà ní lā nā voice-demst.sg rel.in emerge sky:SG Loc art hither "this voice which came from heaven" (2 Pet 1:18, 1976)
nimbane yoda sob Pebil la gbaupun line an nyovopaal dim gbaup la
nịn-bánì yōdá sōb PĒ'-bịl lā gbáưךū-n línì
person-Rel.PL name:PL write sheep-small:SG ART book:SG-LOC REL.IN
àn̆ n̆yó-vū-pâal dím gbáụŋ lā
COP breath-alive-new:SG NULL.PL book:SG ART
"those whose names are written in the Lamb's book of those with new life"
(Rev 21:27)

Mam Paul ne Timoti bane an Yesu Kristo tomtomnib la
Mām Paul nē Timoti bánì àn̆ Yesu Kristo túm-tōmníb lā 1sg.cntr Paul with Timothy rel.pl cop Jesus Christ work-worker:Pl art "I, Paul, and Timothy, the servants of Jesus Christ" (Phil 1:1)

A relative clause introduced by a relative pronoun may contain indefinite pronouns with their normal meaning, and a relative clause with an indefinite pronoun as relative may contain other indefinite pronouns in their normal function so long as they precede the pronoun with relative meaning. Short demonstrative pronouns are never relatives when non-initial, and long demonstratives are never relatives at all:

Wina'am one gaad si'el wusa la
Wínà'am ónì gàad sị̀'əl wūsa lā
God Rel.AN pass indF.in all art
"God who surpasses everything." (Lk 1:35)
wov baji gban'ad si'el si'em la
wūv bāทí ø gbāñ'ad sị̀'əl sị'əm lā
like trap:SG NZ seize:IPFV INDF.IN INDF.ADV ART
"like a trap seizes something" (Lk 21:35)

O pa'al ne'عnam nyain tis so' wusa on vv'vg ninkan kumin la zug.
Ò pà'al n $\bar{\varepsilon}$ '-nám ňyāe $\varnothing$ tís sō' wūsa ón vō'vg nịn-kán 3AN show dem.in-Pl clearly CAt give indF.AN all 3AN:NZ revive person-dem.SG kūmı-n lā zúg.
death-LOC art upon.
"He has shown this clearly to everyone because he has raised that person from death." (Acts 17:31)
o na tom tovmnyalima gaad dau kaya tom si'el laa?
ò nà tūm tôvm-n̆yālımá ø gàad dàư-kàŋá $\varnothing$ tùm sịi'əl láa=ø? 3AN IRR work work-grand:PL CAT pass man-DEMST.SG NZ work INDF.IN ART=PQ? "Will he do miracles greater than this man has?" (Jn 7:31)

### 21.2.1 With indefinite pronouns

Relative clauses using indefinite pronouns as relatives are internally headed. The pronoun may be a head, as clause antecedent, or a dependent after a cb which is then the clause antecedent; in either case it remains in situ within the relative clause.

Wina'am nodi'esidib n daa yel si'el $n$ sob Wina'am gbaujin la, ane ameja.
Wínà'am nó-dị́'əsìdıb $n$ dāa yćl sị̀'əl $n$ sōb
God mouth-receiver:PL nZ tns say indF.in cat write
Wínà'am gbáunjū-n lā á né àmēŋá.
God book:SG-LOC ART COP FOC truly.
"What God's prophets said and wrote in God's book is true." (Mt 26:56, 1996)

The indefinite pronoun need not follow the verb directly:
... fon yclim fon nip li si'el.
... fūn yćlìm fún nị̀n $l^{l i ̄}$ sị’əl.
... 2SG.CNTR say:IMP 2SG:NZ do 3IN.OB INDF.IN.
"... that you say where you have put it." (Jn 20:15)

The antecedent of a relative clause using an indefinite pronoun cannot be the subject in the relative clause. It is either a verb object or complement, or adverbial, or a predependent in such a constituent. It may belong to a subordinate clause within the relative clause. The fact that the pronoun may be a predependent or appear in a subordinate clause proves that these constructions are internally headed; elements following the pronoun cannot simply be taken as dependents of the relative clause.

If the indefinite pronoun is not compounded with a preceding cb and is not part of an AdvP, it normally retains a specific-indefinite sense (the main exception in KB is a sequence in Rev 2-3 of man nye so' la "the one I saw.")

Ka ban tom so' la kv gaad one tum o la.
Kà bán tùm sō' lā kú gāad ónì tùmo_ø láa=ø.
And 3PL:NZ send indF.AN ART NEG.IRR surpass REL.AN send 3AN.ob ART=NEG.
"One who was sent does not surpass the one who sent him." (Jn 13:16)

M na tisif fon bood si'el wusa.
$\grave{M}$ ná tīsıf fún bòod sị̀əl wūsa.
1SG IRR give 2SG.OB 2SG:NZ want INDF.IN all.
"I will give you anything you want." (Mk 6:23)

Very often either the relative clause is the complement of a verb of cognition, reporting, or perception, or the pronoun is the complement of such a verb within the relative clause (or both.) Relative clauses with indefinite pronouns as relatives are strongly preferred in clauses corresponding to English "subordinate interrogative clauses" (CGEL pp1070ff, pp972ff.) Such cases account for most relative clauses with uncompounded indefinite pronouns in KB. (For example, 20/33 examples of relative clause with sō' in the 1996 NT are of this type.)
m na pa'ali ya on nwene ss'.
$\grave{m}$ ná pā'all yyá ón wēn n̄̄ sō'.
1SG IRR teach 2PL.ob 3AN:NZ resemble with indF.an.
"I will teach you what he is like." (Lk 6:47)

M mi' fun an so'. $\quad$ "I know who you are." (Lk 4:34)
M mị́' fún àn̆ sō'.
1SG know 2SG:NZ COP INDF.AN.

David da tom so' ye o bu'osi bay pu'a la an so'.
David dá tùm sō' yé ò bū'өsı ø báy pu'ā lá 〕ø àn̆ sō'.
David tns send indF.AN that 3AN ask CAT discover woman:SG ART nZ COP INDF.AN.
"David sent someone to ask and find out who the woman was." (2 Samuel 11:3)
ya na bay man yel ye $m$ an so' la.
yà ná bāŋ mán yèl yé m̀ àn̆ sō' lā.
2PL IRR understand 1SG:NZ say that 1SG Cop indf.AN ART.
"you will understand who I say that I am." (Jn 8:28)

Gosim ye fu na bay la'abama an so' bunnes?
Gòsım yé fù ná bāŋ lá'-bàmmá $\varnothing$ àn̆ sō' bónnè $\varepsilon=\varnothing$ ?
Look:IMP that 2SG IRR understand item-DEMST.PL NZ COP INDF.AN thing:SG=PQ?
"Can you look and find out whose property these things are?" (Genesis 38:25)

Alaa mam me kv yeli ya mam nye noor la so' san'ane.
Àláa mām mé kù yēlı yá mán n̆yē nōor lā sō' sá'an $\bar{\varepsilon}=\varnothing$. Thus 1SG.CNTR also NEG.IRR say 2PL.ob 1SG:NZ see mouth:SG ART INDF.AN among=NEG.
"Thus I too will not tell you from whom I derived the authority." (Mt 21:27)

M na tomi m Ba' zi'el noor so' ycla la tisi ya

1SG IRR send 1SG father:SG nZ stand mouth:SG INDF.AN about Cat give 2PL.Ob.
"I will send whom my Father made a promise about to you." (Lk 24:49)
... bani ba yaaname an sieba
... bápì bà yāa-námì ø àn̆ sịəba
... understand 3PL ancestor-PL NZ COP INDF.PL
"... discover who their ancestors were." (Ezra 2:61)

Mmi' man gay sieba la.
M̀ mị́ mán gāŋ sịəba lā.
1SG know 1SG:NZ choose indF.PL ART.
"I know those whom I have chosen." (Jn 13:18)

Man mi' si'el nan anc bi'ela.
Mán mịi sị'əl nān á nē bị̀'əlá.
1SG:NZ know INDF.IN now cop Foc small.ADV.
"What I know now is small." (1 Cor 13:12)

Ón y ỳl sị̀əl lā kā' sídāa=ø.
3AN:NZ say INDF.IN ART NEG.BE truth=NEG.
"What he says is not true" SB

Kem yeli Joon yaname wom ka nye si'el.

Go:Imp Cat say 2pl.sub John 2pl nz hear and see indf.in.
"Go and tell John what you have heard and seen." (Mt 11:4)

Ya bay man niy si'el la gbinnes?
Yà bán mán nị̀ $\operatorname{sị} ' \partial l$ lā gbịnnè̀ $=\varnothing$ ?
2PL understand 1SG:NZ do indF.IN ART meaning:SG=CQ?
"Do you understand the meaning of what I have done?" (Jn 13:12)

Most occurrences of $s i^{-1} l^{\text {a }}$ in the 1996 NT are as relatives. 75/130 cases in Matthew, Mark, Luke and John show sị̀ $\partial l^{\text {a }}$, the entire relative clause, or both as the complement of a verb of cognition, reporting, or perception. Of the remaining 55 examples, in $33 s i ̣ l^{\prime} \partial l^{\mathrm{a}}$ consistently has an abstract uncountable meaning, shading into "whatever", often with wūsa "all"; in the other $22 s i ̣ 1{ }^{1} \partial l^{a}$ has the locative meaning "where, whither"; neither the pronoun nor the clause have the locative particle.

Bozugo ya araza'ase be si'el la, ya potenda me bene anina.
Bō zúgó yà àrazà'así ø bè sị'əl lā, yà pù-tc̀n̆da mé bè né ànị nā.
Because 2PL treasure NZ EXIST INDFIN ART, 2PL mind:PL too Exist Foc there.
"For where your treasure is, your mind is too." (Mt 6:21, 1996)

One key likin zi' on ken si'ela.
J̀nı kē $\quad$ lịkı-n $\quad z \bar{\imath} ' \quad$ ón $k \bar{\varepsilon} n ~ s i ̣ ̀ ' ə l a=\varnothing . ~$
REL.AN go darkness-Loc neg.know 3AN:NZ go:IPFV INDF.IN=NEG.
"He who walks in darkness does not know where he is going." (Jn 12:35, 1996)
$S \underset{1}{7} \not m^{\mathrm{m}}$ is the corresponding indefinite adverbial form "somehow." As Kusaal frequently uses manner-adverbs as predicative complements, relative clauses with sị'əm are common as objects of verbs of cognition, reporting, and perception:

Kristo da kpii ti ysla la ke ka ti bay nopilim an si'em.
 Christ nZ TNS die 1pl about ART cause and 1pl realise love NZ COP INDF.ADV "Christ dying for us makes us understand what love is like." (1 Jn 3:16)

The article $l \bar{a} /$ has its usual function with $s \underset{1}{\prime}$ 'əm-relative clauses:

M̀ mị́' mán nà nị̣ $\operatorname{sị̀}$ 'əm. "I know what to do."
1SG know 1SG:NZ IRR do INDF.ADV.
$M$ mị́ mán nà nị̄ $\operatorname{sị} \ni \partial m$ lā.
1SG know 1SG:NZ IRR do INDF.ADV ART.
"I know what I'm to do" (WK: "You explained the plan earlier; this is my reply when you ask if I remember it")

In the 1976 NT almost all relative clauses with sị̀'əm and past tense marking have $l \bar{a} / ; 75 \%$ lacking $l \bar{a} /$ have irrealis mood. Cf the two standing expressions
ón bòวd sị̀əm "as he wishes"
3AN:NZ want INDF.ADV
lín àn̆ sị̀əm lā "as things are"
3IN:NZ COP INDF.ADV ART

Yè $l^{\varepsilon}$ "say, tell" tends to take a sị' $\quad$ m-relative clause with lā in its sense of "say, tell how something is" and without lā in the sense "say how to do something":

Bà yèlō $\varnothing$ bán nị̀ sị̄’əm lā.
3PL say 3AN.OB 3PL:NZ do INDF.ADV ART
"They told him what they'd done"

Bà nà yz̄lıf fún nà nị̣ $\operatorname{sị}$ 'əm.
3PL IRR tell 2SG.OB 2SG:NZ IRR do INDF.ADV.
"They'll tell you what to do."

Pà'al ${ }^{\varepsilon}$ "teach, inform" nevertheless takes a relative clause object without lā:

Bà pà'alō_ø bán nị̀ sị̀'əm.
3PL inform 3AN.OB 3PL:NZ do INDF.ADV.
"They informed him of what they'd done."

Gàad ${ }^{\varepsilon}$ "pass, surpass" is used with a $s i^{-1} ə m$-clause for comparing actions:

Mam tom bedegv gaad ban tom si'em la.
Mām túm bédvgū Ø gâad bán tùm sị’əm lā.
1SG.CNTR work much CAT pass 3PL:NZ work INDF.ADV ART
"I've worked much harder than (how) they have." (2 Cor 11:23)

Gbān̆'e/ "catch" is used with a sị̄'əm-clause for "decide what to do":
$\grave{M}$ gbán̆'e mán nà nị̀ sị̀'əm.
1SG seize 1SG:NZ IRR do INDF.ADV.
"I've decided what to do."

With verbs of doing, a sị' $\partial m$-relative clause can be a manner-adverb:

Bà nị̀ ón yèlı $b \bar{a}$ sị'əm lā.
3PL do 3AN:NZ tell 3PL.ob INDF.ADV ART.
"They did as he'd told them."

Sị'əm-relative clauses occur often as objects of $w \bar{v} v$ "like", w $\bar{\varepsilon} n^{\text {na/ }}$ "resemble"
...ka ya na ke ka nidib dol man wvo ziingba'adibi gban'ad zimi si'em la.
...kà yà ná ké kà nịdıb dōl mān wv̄v zịì-gbán̆'adìb $\varnothing$
...and 3PL IRR cause and person:PL follow 1SG.CNTR like fish-catcher:PL NZ
gbān̆'ad zịmí sị'əm lā.
catch:IPFV fish:PL INDF.ADV ART
"... you will make people follow me like fishermen catch fish." (Mt 4:19)

Hālí (là'am) n $\bar{\varepsilon}$ "although" can take a sị'əm-clause for "despite how..." 15.

Relative clauses with an indefinite pronoun dependent on a preceding cb are uncommon compared with preposed relative pronouns. KB has only a few cases with sō' or sị̀ $\partial b a$; $s i ̣$ 'a is commoner, but mostly follows cbs expressing place or time.
Indefinite pronouns used as relatives after cbs are not confined to specific indefinite meanings or complements of verbs of cognition, reporting, or perception.

Fon bood ye fo kv dau so' la ya'a kpi...
Fún bòod yé fù kū dáú-sō' lā yá' kpị...
2SG:NZ want that 2 SG kill man-INDF.AN ART if die...
"If the man whom you are seeking to kill dies ..." (2 Samuel 17:3)

Nidib la da wum Yesu n tum tuum sieba ...
Nịdıb lā dá wùm Yesu $n$ tùm tùvm-sịəba ...
Person:Pl art tns hear Jesus nz work work-indf.pl ...
"The people heard of the deeds that Jesus had performed... " (Mk 3:7, 1996)

Ban da kv ninsieba da ka' bi'elaa.
Bán dà kū nịn-sịəbà dá kā' bị’əláa=ø.
3PL:NZ tns kill person-Indf.PL tns neg.be few=neg.
"Those they had killed were not few." (1 Samuel 4:10)

Kem tv'vs Samaria na'abi tom ninsieba la na ...
Kと̀m_ø tū'vs Samaria ná'abí ø tùm nịn-sịəəbà lā nā ...
Go:Imp cat meet Samaria king:Sg nz send person-Indf.pl art hither ...
"Go and meet the men sent by the king of Samaria ..." (2 Kings 1:3)

Tiig walaa bigisid lin an tisi'a.
Tìg wélà $\varnothing$ bịgısıd lín àn̆ tí-Sị'a.
Tree:SG fruit:PL CAT show:IMPF 3IN:NZ COP tree-IndF.IN.
"It's the fruit of the tree that shows what tree it is." (Mt 12:33)

Ka bugum dit tey tita'asi'a la nyo'os dvt ne agol saja dine ka' benne.
Kà bùgóm」ø dìt téク-tītá'-sịia lā n̆yô'os dòt né
And fire nz eat:IPFV land-big-InDFin art smoke ascend:IPFV FOC
àgól sāŋá dìnı kā' bēnne=ø.
adv:upwards time:SG REL.IN NEG.HAVE end:SG=NEG.
"The smoke of the great city which fire consumes goes up eternally." (Rev 19:3) referring to Babilon tep tita'ar la "the great city of Babylon" (Rev 18:21)

Nannanna, yaname daa sob gbauy si'a la ka m sobidi lebisidi ya.
Nānná-nā, yānámì ø dāa sōb gbáunŋ-Sị'a lá kà
Now, 2PL NZ TNS write letter-INDFIN ART and
m̀ sōbıdı $\varnothing$ lébısìdī yá.
1SG write:IPFV CAT answer:IPFV 2PL.ob.
"Now, it's the letter you wrote that I'm writing back to you about." (1 Cor 7:1)

Paul $n$ sob gbauy si'a $n$ tis Efesus dim la
Paul ǹ sōb gbáup-sịia $n$ tís Efesus dím lā
Paul nz write letter- indf.in cat give Ephesus null.pl art
"the letter which Paul wrote to the Ephesians" (NT heading)

42/56 of relative sị'a in the 1996 NT follow cbs referring to times or places:

M Zugsoba, ti zi' fun ken zin'isi'a la.
M Zūg-sóbā=ø, tì zī' fún kēn zịñ'-sịi'a láa=ø. 1SG Head-null.AN=voc, 1PL nEG.KNow 2SG:NZ go:IPFV place-INDF.IN ART=NEG.
"My Lord, we don't know where you are going." (Jn 14:5, 1996)

Ka bugum nie on be doog si'a la ni.
Kà bùgóm nị́e ón bè dó-sịìa là ní.
And fire appear 3SG:NZ Exist room-INDF.IN ART loc.
"And fire illuminated the room where he was." (Acts 12:7, 1996)

Abraham da nan kae' saysi'a la, ka man pun be.
Abraham dá nàm kā'e sān-sị́a lā, kà mān pón bè.
Abraham tns still neg.be time-IndF.In ART, and 1SG.CNTR already exist.
"When Abraham still did not exist, I already existed." (Jn 8:58, 1996)

Indefinite pronouns as relatives may be omitted before ordinal expressions:
ka fun gban'e ziiy si'a yiiga la, fon ya'am o noor ...
kà fún gbān̆'e zịŋ-sị́'a yịigá lā, fūn yâ'am ò nōor... and 2SG:NZ catch fish-INDF.IN firstly art, 2SG.CNTR open:IMP 3AN mouth:SG "and the first fish you catch, open its mouth..." (Mt 17:27)
but Paul $n$ sob gbauy yiiga daan $n$ tis Korint dim la nwa.
Paul ǹ sōb gbáung yịigá dāan $n$ tís Korint dím lą̄ø n̆wá. Paul nz write letter:sg firstly owner:SG Cat give Corinth one.PL art cat this. "This is the first letter which Paul wrote to the Corinthians." (NT heading)

### 21.2.2 With relative pronouns

The commonest type of relative clause begins with a relative pronoun as NP or NP predependent. In origin, these pronouns are short demonstrative pronouns followed by $\grave{n}$. When the head is the subject of the relative clause, this produces the forms ònı kànı lìnı bànı (always written one kane line bane in KB) where the final $-\boldsymbol{l}$ is due to liaison before the nominaliser, which is itself invariably realised $\varnothing$ in this case.
$\grave{M}$ n̆ý́ dáu-kànı $\varnothing$ ø zàb nà'ab lā.
1SG see man-DEM.SG NZ fight chief:SG ART
"I saw the man who fought the chief."

When the pronoun is not itself the subject of the relative clause one might expect the $\grave{n}$ to be absent and the pronoun to have the normal SF form. This indeed the case for WK, and commonly in the older NT versions too:
bàn kà nà'ab lā záb lā "those whom the chief fought" WK DEM.PL and chief:SG ART fight ART
yikan ka mam Paul be la
yị-kán kà mām Paul bé lā
house-dem.sg and 1sG.CNTR Paul exist art
"the house where I, Paul, am" (Rom 16:23, 1976)
on buudi ka Jew dim kis
òn būudí kà Jew dím kịs
DEm.an tribe:SG and Jew null.pl hate
"whose tribe the Jews hate" (Lk 10:33, 1996)

However, frequently even in older written materials, and almost invariably in KB, the pre-liaison forms are generalised to these cases too; rarely, the nominaliser may be inserted after the relative clause subject as well.

```
    gbau\eta kane ka dau la sob la
for gbàu\eta-kàn kà dāu lā sōb la
letter-DEm.SG and man:SG ART write ART
"the letter which the man has written"
dau kan\varepsilon yadda ni\etairi po zu'oe
dàu_-kànı yàddā-ní\etaìrı Ø p\overline{ zú'e}
man-DEM.SG assent-doing:SG NZ NEG.IND become.great
"a man whose faith is not great..." (Mt 14:31)
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It is thus best to regard j̀nı kànı lìnı bànı synchronically as subordinating relative pronouns rather than demonstrative + nominaliser combinations. Where the historically expected òn kàn lìn bàn appear as heads of relative clauses they will elsewhere be regarded as allomorphs of the relative pronouns in that context:

1SG see man-rel.SG fight chief:SG ART
"I saw the man who fought the chief."
bàn kà nà'ab lā záb lā "those whom the chief fought." REL.PL and chief:Sg ART fight ART

Toende Kusaal shows the same development (nominaliser-n is ne in Toende):
$N$ sa nye buraa kanne da da'a gbana la.
"I saw the man who bought the book." (Abubakari 2011)
$N$ sa nye buraa kanne ka Ayi da nye la.
"I saw the man that Ayi saw." ibid

If the antecedent is the subject within a relative clause, or a predependent of the subject, a relative pronoun must be used:

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bànı zàb nà'ab lā "those who fought the chief"
REL.PL fight chief:SG ART
```

M̆ n̆yć dáun-kànı zàb nà'ab lā.
1SG see man-rel.SG fight chief:SG ART
"I saw the man who fought the chief."
nimbane yuda sob Pebil la gbaupun line an nyovopaal dim gbaup la
nịn-bánì yūdá sōb P $\overline{\text { º'bịl }}$ lā gbáūjū-n línì
person-rel.PL name:PL write sheep-small:SG ART book:SG-LOC REL.IN
àn̆ n̆yó-vū-pâal dím gbáũך lā
cop breath-alive-new:SG NULL.PL book:SG ART
"those whose names are written in the Lamb's book of new life" (Rev 21:27)

A relative pronoun can also relativise a complement or adjunct, or antecedent extracted from a prepositional phrase or subordinate clause. The antecedent is preposed with kà with a resumptive pronoun in any gap left by extraction, for an indirect object, or occasionally for a human-reference direct object. There is no foregrounding sense. Such constructions are commoner than indefinite pronouns as relatives, except with clauses used adverbially or of "subordinate interrogative" type.

Gbauy kane ka Jerusalem kpeenmnam daa sob la nwa.
Gbàunŋ-kànı kà Jerusalem kpêعn̆m-nàm dāa sōb lā Øø ňwá.
Letter-Rel.SG and Jerusalem elder-pl tns write art cat this.
"This is the letter that the elders of Jerusalem wrote." (Acts 15:23, 1996)
m antu'a line [1996 lin] ka ba mor na
m̀ àntù'a lìnı kà bà mōr nā
1SG case REL.IN and 3PL have hither
"the charge they are bringing against me" (Acts 25:11)
ysltuod ayopoi bane ka maliaknama ayopoi mor la
y $\bar{\varepsilon}$-tôod àyópòe bánì kà màlīāk-námá_àyópòe mōr lā matter-bitter:PL NUM:Seven ReL.PL and angel-PL NUM:Seven have aRT "the seven plagues which the seven angels have" (Rev 15:8)
niŋkane [1996 nipkan] ka ba gban'e o la
nịn-kánì kà bà gbáň'o $\varnothing$ lā
person-REL.SG and 3PL seize 3AN.OB ART
"a person whom they have seized" (Acts 25:16) (human VP object)

Būrá-sō' dāa bé ànị́nā, òn kà mān n̄ $\bar{\varepsilon} n$ dāa tóm lā. Man-Indf.an tns exist adv:there, Rel.an and 1SG with 3an tns work:IPFV art. "There was a man there whom I used to work with." ILK

Onc ka ba tis o ka li zu'oe, ba me mor puten'er ye o na lebis line zu'oe.
J̀nı kà bà tísò ø kà lì zú'e, bà mè mòr
REL.AN and 3PL give 3AN.OB and 3IN become.much, 3PL also have
pú-tèn̆'عr yé ò nà lēbıs línì zù'e.
inside-mind:sG that 3AN IRR return Rel.IN become.much.
"Whom they have given much to, they expect he will return much." (Lk 12:48)
nimbane ka ya ten' $\varepsilon s$ ye ba ane tuongatib la
nịn-bánì kà yà tēn̆'عs yé bà à nē tûөn-gātíb lā
person-Rel.PL and 2Pl think that 3Pl COP FOC ahead-passer:Pl ART
"those whom you consider to be leaders" (Gal 2:6)
line [1996 lin] ka Kristo bood ye ti pian' la
lìnı kà Kristo bôod yé tì pìān̆' lā
rel.in and Christ want that 1pl speak art
"what Christ wishes us to say" (2 Cor 12:19)

If the antecedent is a predependent in an NP which is not the subject, that entire NP is preposed, but obviously no resumptive pronoun is needed:

Samaritan nid (on buudi ka Jew dim kis)
Samaritan nịd, ìn būudí kà Jewdím kịs
Samaritan person:SG Rel.AN tribe:SG and Jew null.PL hate
"a Samaritan, whose tribe the Jews hate" (Lk 10:33, 1996)
bikane [1996 biig kan] puvg ka o mor la
bị-kànı pûvg kà ò mōr lā
child-rel.sg belly:SG and 3AN have art
"the child which she is pregnant with [whose belly she has]" (Mt 1:20)

Relative clauses with locative reference do not take the locative $n \bar{\imath} /$ :
yikan ka mam Paul be la yidaan
yī̀-kán kà mām Paul bé lā yị-dâan
house-rel.sg and 1sG.CNTR Paul exist art house-owner:SG
"the owner of the house where I, Paul, am" (Rom 16:23, 1976)

## 22 Complementised clauses

Complementised clauses are usually introduced by the clause linker $y \bar{\varepsilon}$. They also appear with kà, but much less often, and never exclusively; constructions which only permit kà and never $y \bar{\varepsilon}$ must be coordination or catenation. Complementised clauses follow any catenated clauses. They can be coordinated with kà:
ka lin ane ye fu kv maali ti bs' $\varepsilon d \varepsilon$ nwene tiname daa po maalif be' $\varepsilon d$ si'em la ases su'vm ma'aa, ka ye fo yim ne sumbugusum la.
 and 3IN.CNTR COP FOC that 2SG NEG.IRR make 1Pl bad CAT resemble with tīnámì ø dāa p̄ máalì $f$ b $\bar{\varepsilon} ' \varepsilon d$ sị'əm lá àsé $\varepsilon$ sùm má'àa, 1PL NZ TNS NEG.IND make 2SG.ob bad indF.ADV ART except good only kà yé fù yị̀m n̄ súmbūgusím lā. and that 2SG emerge:IMP with peace art. "Which is that you will not do us harm, as we did not do you harm but only good, and that you will depart in peace." (Genesis 26:29)

### 22.1 Purpose clauses

Purpose clauses lack independency marking and have imperative mood. As there is no -ma flexion, the mood is apparent only in the use of dā as the negation particle. The term "purpose clause" is convenient but such clauses are also used as complements of verbs expressing necessity and permission, and the meaning is sometimes attenuated from "so that" to merely "until."

Purpose clauses may be VP adjuncts:

Bà tìsō Ø $\quad$ kû'өm yé ò nū.
3PL give 3AN.ob water that 3AN drink.
"They gave him water to drink. ("So that he might drink it.")
$\grave{M}$ ná tī $f$ tîım yé fù nị̂ $d \bar{a} \quad z a ́ b \bar{\varepsilon}=\varnothing$.
1SG IRR give 2SG.ob medicine that 2SG eye:SG NEG.IMP fight=NEG.
"I'll give you medicine so your eye won't hurt."

Ò vv̀l tîım kà ò nóbìr dā záb $\bar{\varepsilon}=\varnothing$.
3AN swallow medicine and 3AN leg:SG NEG.IMP fight=NEG.
"She took medicine so her leg wouldn't hurt." WK

Ka ba gban'e ba kpen'es sanrega ni ye beog nie.
Kà bà gbán̆'a_bā ø kpên̆'عs sārıgá nì y $\bar{\varepsilon}$ bēog nịe.
And 3PL seize 3PL.OB CAT put.in prison:SG loc that morning appear.
"They seized them and put them in prison until tomorrow came." (Acts 4:3)

Purpose clauses can be coordinated without repetition of $y \bar{\varepsilon}$ :
$\grave{M}$ bôod yē dāu lā kēpdâ'a-n, kà pu'ā lā dīg dīıb.
1SG want that man:SG ART go market:SG-LOC, and woman:SG ART cook food.
"I want the man to go to market and the woman to cook food." WK

Purpose clauses appear as complements of particular verbs, e.g bòod "want"; or $y \bar{\varepsilon} l^{\varepsilon}$ "tell." Negative raising occurs with bòsda but not with yè $l^{\varepsilon}$.
$\grave{M}$ bôod yé ò kūl. "I want her to go home."
1SG want that 3AN go.home.
$\grave{M} p \bar{v} \quad b \hat{o} \partial d$ yé $\grave{m}$ kūlع=ø.
1SG NEG.IND want that 1 SG go.home=NEG.
"I don't want [me] to go home."
$\grave{M}$ yélī $f$ yé fù dā kūle=ø.
1SG tell 2SG.ob that 2SG NEG.IMP go.home=NEG.
"I've told you not to go home."

The verb $g \bar{u} r^{\mathrm{a} /}$ "be on guard, watch, wait for" in the sense of "waiting for an event" may take as complement either a NP headed by gerund, or a purpose clause introduced by $y \bar{\varepsilon}$, again with an attenuated sense:

Nidib la daa gur Zakaria yiib na.
Nị̄dıb lā dāa gūr Zakaria y!̣̂ib nā.
Person:plart tns watch Zechariah emerge:ger hither.
"The people were watching for Zechariah's coming out." (Lk 1:21)
... gur ye pu'a la du'a ka o onb biig la.
...gūr y $\bar{\varepsilon}$ pu'ā lā dư'á kà ò ón̆n bịiig lā.
...watch that woman:SG ART bear and 3AN eat child:SG ART.
"...waiting for the woman to give birth so he could devour her child." (Rev 12:4)

Purpose-clause complements follow expressions of necessity or permission
 lì à [n $n \bar{\varepsilon}$ ] tịlás "it is necessary":

Fù pū nār yé fù nị̣ àláa=ø.
2SG NEG.IND must that 2SG do ADv:thus=NEG.
"You're not allowed to do that."

Lì nàr yé/kà fù kūl. "You must go home."
3IN must that/and 2SG go.home.

In KB there are 258 examples of nar ye to 45 of nar ka.

Yà mór sūer yé yà kūl. "You may go home."
2PL have way:Sg that 2Pl go.home.

Sūer bé yé/kà tì kūl. "We may go home."
Way:SG exist that/and 1pl go.home. (" There's a way that we go home.")

Li ane tilas ye men Jerusalem.
Lì à n $\bar{\varepsilon}$ tịlás yé $\grave{m}$ k $\bar{\varepsilon} \eta$ Jerusalem.
3in cop foc necessity that 1SG go Jerusalem.
"I must go to Jerusalem." (Mt 16:21, 1996)

Li ane tilas ka minid ala.
Lì à n $\bar{\varepsilon}$ tịlás kà m̀ nị́nìd àlá.
3IN COP FOC necessity and 1SG do:IPFV ADv:thus.
"I must do that." (1 Cor 9:16, 1996); there are no examples with kà in KB
$N a \bar{r} r^{2 /}$ is occasionally used in a personal construction "deserve that":
babayi' la nar ye ba kvo ba
bà bàyịí lā nár yé bà kúv $b a \bar{a}$
3PL NUM:two ART must that 3PL kill 3PL.OB
"both of them must be killed" (Leviticus 20:12)

Ans'one nar ka na nyapi lak titabir la ...
Ànó'onì ø nár kà ná n̆yāŋı Ø $\varnothing$ lāk tītābır lā...?
Who cat must and IRR prevail cat unstick glue art ...?
"Who is worthy to open the seal ...?" (Rev 5:2)

### 22.2 Content clauses

Complementised clauses with independency marking 16.6 on the VP are content clauses. They are downranked main clauses, and show all the structural features possible for main clauses. They occur very frequently representing passages of indirect speech, but are also found much more generally after verbs of cognition, reporting, and perception, such as yء̀ $l^{\varepsilon}$ "say", wòm ${ }^{\mathrm{m}}$ "hear", $\check{n} y \bar{\varepsilon}$ "see", $t \bar{\varepsilon} \breve{n}^{\prime} \varepsilon s^{\varepsilon /}$ "think", mị' "know", zī' "not know", bà $\eta^{\varepsilon}$ "come to know", pà'al $l^{\varepsilon}$ "teach, show", kàrım ${ }^{\mathrm{m}}$ "read", síàk ${ }^{\varepsilon}$ "agree." Various main-clause features appear in e.g.
ban mi' ye biig la kpine la zug
bán mị̀ ȳ̄ bịìg lā kpị n̄ lā zúg
3PL:NZ know that child:SG ART die FOC ART upon
"because they knew that the child was dead" (Lk 8:53): focus-n $\bar{\varepsilon}$ '

Bùn-bān̆'ad zī' y $\quad$ $\quad t \bar{\varepsilon} \eta \quad t u ́ l l a ̄=\varnothing . ~$
Donkey-rider:SG neg.know that ground:sG be.hot=NEG.
"The donkey-rider doesn't know the ground is hot."
Tone overlay: T $\bar{\varepsilon} \eta$ túl. "The ground is hot." cf $t \bar{v} l^{\text {la/ "be hot" }}$

Fune siak ye fo ya'a ti kae, o na zin'ini fo na'am gbaup la zugoo?
Fūnı ø siák yé fù yá' tì kā'e, ò nà zịn̆'iní fù nā'am 2SG.CNTR CAT agree that 2SG if after NEG.BE, 3AN IRR sit 2SG chieftaincy gbáup lā zúgóv=ø?
skin:SG ART upon=PQ?
"Did you agree that when you are no more, he will sit on your throne?"
(1 Kings 1:24): yá'-clause postlinker adjunct

Absolute clauses 21.1 cannot be used as objects of such verbs, but another possibility apart from content clauses is NP + yz̄lá "about" 13.5 .

Except in indirect speech (see below), content clauses are usually declarative. There are exceptions, possibly characteristic of verbs of opinion and judgment:

Ya tenes ka m aan ano'one?
Yà tên̆'عs kà m̀ áan̆ ànó'onè=ø?
2PL think and 1SG COP who=CQ?
"Who do you think I am?" (Acts 13:25)

WK usually has $y \bar{\varepsilon}$ before content clauses, but prefers kà after $t \bar{\varepsilon} \bar{n}^{\prime} \varepsilon s^{\varepsilon /}$ "think." KB has 219 examples of tenes ye to 31 of tenes $k a$ and shows kà after other verbs too:

Ya pun wom ka ba da yel ye...
Yà pón wòm kà bà dá yèl y $\bar{\varepsilon} \ldots$
2PL previously hear and 3pl tns say that...
"You previously heard that they had said ..." (Mt 5:43)

Kà + content clause is the only context where kà is followed by independency marking, and where kà does not delete a following subject pronoun with the same reference as the preceding subject:
$\grave{M}$ t $\varepsilon$ n̄'عs kà m̀ lú yā. $\quad$ II think I've fallen" WK
1SG think and 1Sg fall PFv.

There are a few examples in KB of $n \varepsilon$ for $y \varepsilon y \bar{\varepsilon}$ "that" (cf Mampruli ni id):

Man boodin $n \varepsilon$ yaname naan aan ma'asiga bes yaname naan aan tuvliga.
Mān bóodī-n nē yānámì © nāan âa-n mā'asígā bēe
1SG.CNTR want-DP that 2PL NZ then Cop-DP cold:ADV or
yānámì ø nāan âa-n tūvlígā.
2PL NZ then cop-DP hot:ADV.
"I might wish you had been cold or you had been hot." (Rev 3:15)

The verb $y \bar{\varepsilon} l$ is frequently ellipted before $y \bar{\varepsilon}$ :

Ka Zugsob la ye ...
"And the Lord said: ..." (Genesis 18:28)
Kà Zūg-sób lā yē...
And head-null.an art that ...

Pronouns are changed throughout in the content clause to reflect its setting, on the same basis as in English "indirect speech." The free 3rd person pronouns have logophoric sense. In contexts where bound pronouns could have occurred instead (i.e. where they are contrastive) they replace 1st persons of the original utterance:

Festus tans Paul ye o geem ne ... ka Paul lebis ye on pu geem.
Festus tán̆s Paul yć ò gè $\check{\text { n̆m }} n \bar{\varepsilon} \ldots$ kà Paul lébìs
Festus shout Paul that 3AN go.mad FOC ... and Paul reply
$y \bar{\varepsilon} \quad \bar{\jmath} n \quad p \bar{u} \quad g \varepsilon ́ \varepsilon n ̆ m m=\varnothing$.
that 3AN.CNTR NEG.IND go.mad=NEG.
"Festus shouted to Paul that he [Paul] was mad ...
Paul replied that he [Paul] was not mad." (Acts 26:24-25, 1976)

Bound 3rd persons may also have this sense, but the free pronouns are much commoner as subjects. Thus "He ${ }_{1}$ said he ${ }_{1}$ would kill them." is usually

Ò y ỳl y $y \bar{\varepsilon}$ 万̄n ná kúv $\quad$ bā.
3AN say that 3AN.CNTR IRR kill 3PL.ob.

It is possible to say $\dot{O}$ y $\varepsilon$ l̀ y $\varepsilon$ र́ ò nà kúv bā, but this is much more likely to mean "He $1_{1}$ said he ${ }_{2}$ would kill them."

Tense and mood marking is always the same as in the equivalent main clause. Pluperfect and future-in-the-past meanings may result:

Ò dāa yśl yé bà dāa kūl.
3AN tNS say that 3PL tNS go.home.
"She said that they had gone home."

Tì dāa tēn̆'عs yé ò nà zāb nâ'ab lā.
1PL tNS think that 3AN IRR fight chief:SG ART.
"We thought he was going to fight the chief."

### 22.2.1 Reported speech

After a speech-verb $y \bar{\varepsilon}$ may introduce the words of the speech itself, unaltered except for "resumptive" $y \bar{\varepsilon}$ at intervals (see below.) This is uncommon in older texts, and in the 1976 NT is mostly confined to utterances of Jesus. Usually the original speech is downranked to a content clause or series of coordinated content clauses, with personal pronouns altered throughout as in English indirect speech, and free personal pronouns used logophorically. All other features of the original main clauses, including tense marking and independency marking, are unchanged. Such passages of indirect speech may be kept up for very long stretches; the 1976 NT version has examples extending over several pages. Later Bible versions consistently replace all indirect speech with direct.

Indirect speech may include questions and commands:

Ka Peter bu'os o ye, Ananias, ye bo ka o ke ka Sutaana kpen' o suunrin...
Kà Peterbū'өsó $\varnothing$ y $\bar{\varepsilon}$ Ananias, y $\bar{\varepsilon}$ bó kà ò ké kà Sūtáanà And Peter ask 3AN.ob that Ananias, that what and 3AN cause and Satan
kpèn̆'ò sūun̆rí-n ... ?
enter 3an heart:SG-Loc ... ?
"Peter asked him: Ananias, why did you let Satan enter your heart ...?"
(Acts 5:3, 1976)

In indirect commands the usual deletion of a 2 nd sg subject and change of 2 pl subject to postposed ya does not occur, even if the addressee is the same as in the original utterance and the pronoun remains 2 nd person. Some speakers keep the postposed ${ }^{\text {ya }}$ after the verb even when there is a preceding pronoun subject.

Indirect speech is an alternative to catenation with $k \bar{\varepsilon} \underline{19.2}$ for expressing third/first person commands; main clause and linker may again be ellipted informally:

```
[M
    1SG say that 3AN look:IMP ground:SG-LOC.
"[I said] she should look down."
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[M̀ t̂रू̆'عs kà] tì pú'vsìm Wínà'am.
1SG think and 1Pl greet:IMP God.
"[I think] we should praise God."

A main clause with no VP can also appear in indirect speech:

> Ò y ỳl ȳ̄ Báp.
> 3AN say that Bap.

Pronouns are changed even within a vocative:

Ka m wum Wina'am kokor ka li yi arazana ni na ye,
o nidiba, ye ba yimi teng la ni na.
Kà m̀ wóm Wínà'am kúkór kà lì yị áràzánà ní nā y $\bar{\varepsilon}$,
And 1SG hear God voice:SG and 3IN emerge heaven loc hither that
ò nị̄dıbá= $\varnothing$, yé bà yị̀mī $\quad \varnothing \quad$ t̄̄ $\eta \quad$ lā ní nā.
3AN person:PL=VOC, that 3PL emerge:IMP 2PL.SUB land:SG ART LOC hither.
"And I heard God's voice coming from heaven, saying
'My people, come out of the land!'" (Rev 18:4, 1976)

Passages of direct or indirect speech longer than two or three clauses insert resumptive $\boldsymbol{y} \bar{\varepsilon}$ at intervals of roughly every third clause, after any prelinker adjuncts but before clause-linker kà:
amaa ye ba yaanam da pu bood ye ba siak o noore
àmáa yé bà yāa-nám dá pū bôod yé bà síákò ${ }^{〔} \varnothing$ nōoré=ø.
but that 3PL ancestor-PL TNS NEG.IND want that 3PL agree 3AN.OB mouth:SG=NEG
"But their ancestors did not want to obey him" (Acts 7:39, 1976)

Ye ka Paul yel ye o bood ye o kpelim sarega ni.
Yع́ kà Paul yél yé ò bòod yé ò kpélìm sārıgá nì.
That and Paul say that 3AN want that 3AN remain prison:SG loc.
"But Paul said he wanted to remain in prison...(Acts 25:21, 1976)

Amaa ye ka on yeli ba ye ...
Àmáa yé kà $\bar{n}$ yćlì $b \bar{a} \quad y \bar{\varepsilon} . .$.
But that and 3AN.CNTR say 3PL.ob that...
"But he [the speaker] had said to them ..." (Acts 25:16, 1976)

Alazug ye ka on ke ka ba mor o ba sa'an na ...
Àlá zùg yé kà $\bar{n}$ ké kà bà mōró $\varnothing$ bà sā'an nā... Thus that and 3AN.CNTR let and 3PL have 3AN.OB 3PL before hither...
"So he [the speaker] had made them bring him [Paul] into their presence..."
(Acts 25:26, 1976)

Resumptive $y \bar{\varepsilon}$ may be placed between a postlinker adjunct and the subject, or between a vocative and the following clause:

Ka nanana ye o nipi ba Wina'am ne o popielim pia'ad la nu'usin...
Kà nānná-nā yé ò nịŋī bá Wínà'am né ò pò-pịəlım And now-hither that 3AN do 3Pl.ob God with 3an inside-whiteness piâăn'ad lā nú'usī-n...
speech ART hand:PL-LOC...
"And now he committed them to God and the words of his holiness.."
(Acts 20:32, 1976)
O zuanam ne o saamnama, ye ba kelisim.
Ò zưà-nàm né ò sàam-nàmā $=\varnothing$, yé bà kèlısım!
3AN friend-PL with 3AN father-PL=VOC that 3PL listen:IMP!
"His friends and his fathers should listen." (Acts 7:2, 1976)

## 23 Negation

Negation is marked in the VP 16.5, inducing a clause-final negative clitic 4.1. The negative prosodic clitic follows all subordinate clauses:

Ti pu bood ye dau kaya aan ti na'aba.
Tì pū bôod ȳ dáư-kàŋā áan̆ tì nà'abā=ø.
1PL NEG.IND want that man-demst.SG COP 1PL king:SG=NEG.
"We don't want this man to be our king." (Lk 19:14)

I have no unequivocal examples of negative clitics preceding subordinate clauses to exclude them from the scope of negation. Thus the adjunct $y \bar{\varepsilon} \overline{\text { c}}$-clause has probably been dislocated in:

Nidib be ka pu tum si'ela ye ba a popielim dim...
Nị̄dıb bé kà pū túm sị̀əla=ø yé bà áň pú-pịəlım dím person:PL EXIST and NEG.IND work:IPFV INDF.IN=NEG that 3PL COP holiness NULL.PL. "There are people who haven't done anything that they become blessed" (Rom 4:5, 1976); revised completely in the 1996 version.

Here the kà-clause can be taken as coordinate, carrying on the narrative:

Ka li pv yuuge ka o pu'a me kena.
Kà lì pū yúug $\bar{\varepsilon}=\varnothing$, kà ò pư'ā mé k $\bar{\varepsilon} \quad n a \overline{.}$
And 3in neg.ind delay=Neg, and 3an wife:sg also come hither.
"Not much later, his wife came too." (Acts 5:7)

Negative clitics are omitted after $\grave{n}$-clauses containing a negative unless they both lack articles and are clause-final within the main clause, and likewise with VPs nominalised by the personifier particle:

Nịn-bánì pū dít ná kpị.
Person-Rel.pl neg.Ind eat:IPFV IRR die.
"People who don't eat will die." WK

M̀ n̆yć nịn-bánì pū dítā=ø.
1SG see person-Rel.pl neg.IND eat:IPFV=NEG.
"I've seen some people who don't eat." WK

Apozotyel da ane o saam biig ma'aa.
À-P̄̄-zót-ȳ̄ll dá à né ò sàam bịig mà'aa. PERS-NEG.IND-run:IPFV-thing:SG TNS COP FOC 3AN father:SG child:SG only "Fears-nothing was his father's only child." KSS p35

Clauses with yà' "if" keep their own negative clitics:

Ba ya'a pu niy si'ela, o pv'vsim doog la na lieb zaalim.
Bà yá' pū nị́p sị̄əəla=ø, ò pò'usım dôog lā ná lịəb zāalím.
3PL if NEG.IND do INDF.IN=NEG 3AN worship house:SG ART IRR become empty:ABSTR. "If they don't do anything, her temple will become of no account." (Acts 19:27)

Negative raising takes place with complement clauses after verbs expressing opinions or judgments, but not verbs of knowing or informing:

Li pu nar ye fu di fu ba'abiig po'a Herodiase.
Lì pū nār yé fù dí fù bā'-bị̂ig pư'á Herodiase=ø.
3in neg.ind must that 2Sg take 2Sg father-child:Sg wife:sg Herodias=neg.
"It's not right for you to marry your brother's wife Herodias." (Mt 14:4, 1996)

Ti pu bood ye dau kaŋa aan ti na'aba.
Tì pū bôod yē dáu-kàjā áan̆ tì nà'abā=ø.
1PL NEG.IND want that man-DEMST.SG COP 1PL king:SG=NEG.
"We don't want this man to be our king." (Lk 19:14)
mam pv ten' $\varepsilon s$ ye o na keligi m pian'ads.
Mām pū tēn̆'عs yé ò nà k $\bar{\varepsilon} l ı g i ́ ~ \grave{m}$ pìàn̆'ad $\bar{\varepsilon}=\varnothing$.
1SG NEG.IND think that 3AN IRR listen 1SG word:PL=NEG.
"I do not think that he will listen to my words." (Job 9:16)
linzug ka ti bay ye o pv yi Wina'am san'an naa.
Lìn-zúg kà tì báy yé ò pū yị Wīnà'am sâ'an náa=ø.
Therefore and 1PL realise that 3AN neg.Ind emerge God with hither=NEG.
"Therefore we realise he has not come from God." (Jn 9:16)
ka o lec po baך ye li ane one.
kà ò lé $\quad$ pū báy yé lì à $n \bar{\varepsilon}$ ग̄n $\varepsilon=\varnothing$.
And 3AN but NEG.IND realise that 3IN COP FOC 3AN.CNTR=NEG.
"but she didn't realise it was him." (Jn 20:14)

Constituent negation can be achieved by clefting, using Lì kā' X kà/n ... "It's not X that ..." or X ká'e kà/n ... "There's no X that ...", or with relative clauses:

Sogia so' kae' n tum ka yood o meja.
Sógĩà-sō' kā'e $n$ tóm kà yōod ò mēyá=ø.
Soldier-INDF.AN NEG.BE CAT work:IPFV and pay:IPFV 3AN self=NEG.
"No soldier works and pays for himself." (1 Cor 9:7, 1976)

Di len ka' fun yel si'el la zug, ka ti niŋ o yadda.
Lì lèm kā' fún yèl sị̣’əl lā zúg kà tì nị́nò Øø yáddáa=ø. 3IN again NEG.BE 2SG:NZ say indF.IN ART upon and 1PL do 3AN.OB assent=NEG. "It is no longer because of what you said that we believe in him." (Jn 4:42)
... ka zan'as bane ka' Kristo nidib la sunir.
... kà zân̆'as bánì kā' Kristo nịdìb lā súnìr.
... and refuse rel.pl neg.be Christ person:Pl art help:Ger.
"... and refused the help of non-Christians." (3 Jn 1:7)

The AdvP báa bị'əəlá "not at all" and the NP postdependent báa yīnní "not one" (Hausa bâa "not exist") are used along with negative VPs:

Da tomi si'el baa bi'elaa.
Dā túmī $\varnothing$ sị̄əl báa bị'əəláa=ø.
NEG.IMP work 2PL.SUB INDF.IN at.all=NEG.
"Do no work at all." (Leviticus 23:31)

Amaa ba pu nyapi nye line tu'al baa yinne.
Àmáa bà pū n̆yāpı Ø n̆yē línì tù'al báa yīnní.
But 3pl neg.ind prevail cat find rel.in condemn [neg] not one.
"But they couldn't find anything condemning, not one thing." (Mt 26:60)

Ka nid baa yinne po ycl ye ...
Kà nị̄d báa yīnní pū yél yz̄ $\ldots$
and person:sg not one neg.ind say that ...
"Not one person said ..." (Acts 4:32)

Fv du'adib baa yinne kae ka o yv'vr buon alaa.
Fù dū'adıb báa yīnní ká'e kà ò yv̄'vr bûөn àláa=ø.
2SG relative:PL not one NEG.BE and 3AN name:SG call:IPFV ADv:thus=NEG.
"Not one of your relatives is named thus." (Lk 1:61)

## 24 Information packaging

### 24.1 Focus

According to Lambrecht 1994: "[Focus] is the UNPREDICTABLE or pragmatically NON-RECOVERABLE element in an utterance. The focus is what makes the utterance into an assertion." A further distinction will be made between ordinary and contrastive focus. Main clauses without any special syntactic marking of focus have ordinary focus on the predicate by default.

Focus is distinct from foregrounding, the usual function of it-clefting in English; foregrounded elements need not be focussed (CGEL p1424.)

### 24.1.1 Subjects

In subject focussing the subject stands first, with the rest of the clause introduced by catenator- $n$. The clause lacks independency marking but has independent tense marking. The construction presumably arose by ellipsis from $n$-clefting 24.2 , but the meaning is focus rather than foregrounding:

```
Wáafv̀ ø dúmō`ø. "A snake bit him." WK
Snake:SG cat bite 3AN.OB.
```

would be a felicitous reply to "What's happened?" as well as "Did a dog bite him?"
Focus- $n \bar{\varepsilon}^{\prime}$ in all its roles is excluded from clauses which are $n$-focussed, with the corresponding VP aspect distinctions present but unmarked:

$$
\begin{array}{ll}
\grave{M} \text { zūgv乞ø zábìd. } & \text { "My head is hurting." } \\
\text { 1SG head cAT fight:IPFV. } & \text { (Reply to "Where is the pain?") }
\end{array}
$$

cf $\quad \grave{M} z u \bar{u} g$ lā pú'alìm $n \bar{\varepsilon} . \quad$ "My head is hurting."
1SG head ART damage:IPFV Foc. (Reply to "What's the matter with you?")

Interrogative pronouns as subjects are always $n$-focussed:
Ànó'onì $\varnothing$ kābırídà=ø?
Who CAT ask.for.entry:IPFV=CQ?
"Who is asking permission to enter?"

As clauses containing interrogative pronouns may not contain focus- $n \bar{\varepsilon}^{\prime}$, this is most readily explained by taking interrogative pronouns as intrinsically focussed, though this is only syntactically manifested when they are subjects.

### 24.1.2 Verb phrases

Preceding a VP constituent, the particle $n \bar{\varepsilon}^{\prime}$ focusses that constituent, while VPfinal $n \bar{\varepsilon}^{\prime}$ focusses the entire VP contrastively.

On distinguishing constituent-focus $n \bar{\varepsilon}^{\prime}$ from the preposition $n \bar{\varepsilon}$ "with, and" see 16.9.4. Confusion with the $n \bar{\varepsilon}$ following objects of comparison is unlikely 15.

The aspect particle $n \bar{\varepsilon}^{\prime}$ bound to the verb 16.2.1 represents a specialised use of the same particle for temporal focus. The aspectual interpretation normally prevails over constituent focus. When $n \bar{\varepsilon} /$ is excluded by formal constraints, or is present but separated from the verb by free words, the different aspectual meanings still appear if the verb meaning permits it, but are unmarked.
$N \bar{\varepsilon}^{\prime}$ may only occur once in a clause or series of catenated clauses:

Fu pu ma' $n$ tis ninsaala, amaa fu ma' $n$ tis ne Wina'am Siig Suฤ.
Fù pū má' $n$ tìs nịn-sáalā=ø, àmáa fù má'
2SG neg.Ind lie cat give person-smooth:SG=NEG but 2SG lie
$n$ tís nē Wínà'am Sí-sùy.
cat give foc God Spirit-good:sg.
"You have not lied to a human being, but you have lied to the Holy Spirit."
(Acts 5:4, 1996)
$N \bar{\varepsilon}^{\prime}$ cannot appear in either constituent-focus or aspectual senses if the subject is focussed, or in nominalised clauses, or in content questions.
$N$-focussing of the subject:
$\grave{M}$ zūgo」 $\varnothing$ zábìd. $\quad$ My head is hurting/hurts." (No aspectual $n \bar{\varepsilon}^{\prime}$ )
1SG head cat fight:IPFV.
Reply to "Where is the pain?"

Ànó'onì ø dít sá'abò=ø?
Who cat eat:IPFV porridge=CQ?
"Who eats/is eating millet porridge?" (No aspectual $n \bar{\varepsilon}$ )

Nominalised clauses:

Ò dāa á nē bịig. $\quad$ "She was a child."
3AN TNS COP FOC child:SG.
but ón àn̆ bịig lā zúg "because she's a child"
3AN:NZ COP child:SG ART upon

M̀ yị́ nē Bók. "I come from Bawku." SB
1SG emerge foc Bawku.
but Meeri one yi Magdala
Meeri ónì yī Magdala (Mk 16:9, 1996)
Mary rel.An emerge Magdala

Focus-n $\bar{\varepsilon} /$ can occur in complementised clauses, including purpose clauses:

Pian'am ka m bood ye fo nyene bvod.
Pịàn̆'am kà m̀ bôod yé fù ňy $\bar{\varepsilon} n \bar{\varepsilon}$ būvd.
Speak:IMP and 1SG want that 2SG see Foc innocence.
"Speak, for I want you to be vindicated." (Job 33:32)

Content questions:

Bó kà fò kúmmà=ø? "Why are you crying/do you cry?
What and 2SG cry:IPFV=CQ?

Fù nị́nìd bó=ø? "What are you doing/do you do?"
2SG do:IPFV what=CQ?

Fv̀ wá'e yáa=ø? "Where are you going/do you go?"
2SG go where=CQ?

Bùgóm lā yị́t yáa ní ná=ø?
Fire ART emerge:IPFV where Loc hither=CQ?
"Where is the light coming from?" SB
$\grave{M}$ á $n \bar{\varepsilon}$ dāun.
"I am a man."
1SG COP FOC man:SG.
but Mām án̆ bó=ø? "What am I?"
1SG.CNTR COP what=CQ?

Fv̀ áan̆ ${ }^{\text {ànó'onè=ø? } \quad \text { "Who are you?" }}$
2SG COP who=CQ?

Fù bôod bó=ø? "What do you want?"
2SG want what=CQ?
but Fù bôod nē bó=ø?
2SG want with what=CQ?
"What do you want it with?"
$N \bar{\varepsilon}$ must be interpreted as preposition (WK)

Certain words do not prevent focus-n $\bar{\varepsilon} /$ from being used in the clause but cannot themselves be focussed. They include sùjā/ "good", sòm ${ }^{\mathrm{m}}$ "good", b $\bar{\varepsilon} ' \varepsilon d^{\varepsilon}$ "bad", sìda "truth" when used as adverbs, and the "two, three exactly" quantifier forms àyínā’ àtánā'. AdvPs formed by coordinating such words and NPs with these quantifiers as dependents share the same property.

Lì àn̆ súpā.
3IN COP good:ADV.

Lì àn̆ bē' $\varepsilon d$.
3IN COP bad:ABSTR.
[ye ka] o sariakadib a sum ne sida.
ò sàríyà-kādıb án̆ súm nē sídà.
3AN law-drive:GER COP good:ABSTR with truth.
"His judgment is good and true. (Rev 19:2, 1976)

If $n \bar{\varepsilon}$ / does occur before such constituents it must be interpreted aspectually, limiting the state described to a particular time period, even with stative verbs where there is no explicit time marker in the clause 16.2.3.

VP constituent focus with $n \bar{\varepsilon} /$, as opposed to focus on the entire VP, is possible only in statements and polar questions. The aspectual sense of $n \bar{\varepsilon}^{\prime}$ must be impossible and the constituent in question must permit $n \bar{\varepsilon}$-focus.

Focus on an indefinite object represents it as "unpredictable or pragmatically non-recoverable" information, as for example in supplying an answer to a content question; this is ordinary focus:

```
M dá' bó\eta. "I've bought a donkey."
1SG buy donkey:SG. ("What have you done?")
M dá' n\overline{\varepsilon bú\eta. "I've bought a donkey."}
1SG buy FOC donkey:SG. ("What have you bought?")
Nịigí j̀ňbıd n\overline{\varepsilon} mōod. "Cows eat grass."
Cow:PL chew:IPFV FOC grass:PL. ("What do [generic] cows eat?")
```

However, under the scope of a negative, focus is likely to be contrastive:
$\grave{M} p \bar{u} \quad$ dá' bùjā=ø. $\quad$ I haven't bought a donkey."
1SG NEG.IND buy donkey:SG=NEG.
$\grave{M} p \bar{u} \quad$ dá' $n \bar{\varepsilon}$ bújā=ø. $\quad$ I haven't bought a donkey."
1SG NEG.IND buy FOC donkey:SG=NEG. ("I bought something else.")

Definite objects/predicative complements normally have old-information status, making the ordinary-focus sense of "unpredictable or pragmatically nonrecoverable" unlikely; hence $n \bar{\varepsilon}^{\prime}$ before a definite object is usually aspectual:

Nịìí lā ón̆bìd $n \bar{\varepsilon}$ mōod lā.
Cow:PL ART chew:IPFV Foc grass:PL ART.
"The cows are eating the grass."

Nā'-sịəbà ón̆bìd $n \bar{\varepsilon}$ mōod lā.
Cow-Indf.pl chew:IPFV foc grass:PL ART.
"Some cows are eating the grass."

If focus does occur with old-information arguments, it is contrastive.

Line ka ba'amaannib maanne tisid bada la, ba maanne tisidne kikiris, ka pu maanne tisid Wina'am.
Lìnı kà bà'-māannıb mâannì ø tísìd bádà lā, bà màannı REL.IN and idol-sacrificer:PL sacrifice:IPFV CAT give:IPFV idol:PL ART 3PL sacrifice:IPFV ø tísìd $n \bar{\varepsilon}$ kíkịrıs kà pū mâannì $\varnothing$ tísìd Wínā'amm=ø. CAT give:IPFV FOC fairy:PL and NEG.IND sacrifice:IPFV CAT give:IPFV God=NEG. "That which idol-worshippers sacrifice to an idol, they sacrifice to demons and they don't sacrifice to God." (1 Cor 10:20)

The predicative complement of $\mathfrak{a} e{ }^{2} \breve{n}^{\mathrm{a}}$ "be something/somehow" in its ascriptive sense 16.12 .2 is non-referring and prototypically "unpredictable or pragmatically non-recoverable", and therefore is naturally preceded by $n \bar{\varepsilon}^{\prime}$ for ordinary focus:

Ò à n $\bar{\varepsilon}$ bịig. $\quad$ "She is a child."
3AN COP FOC child:SG.

Ò dāa á n̄̄ bịìg. "She was a child."
3AN TNS COP FOC child:SG.

Dīıb á n̄̄ būn-súy. "Food is a good thing."

Food cop foc thing-good:sg.

Ò à n $\bar{\varepsilon}$ bāan̆lím. $\quad$ "She is quiet."
3AN COP FOC quiet:ABSTR.

Lì à nē būgusígā. $\quad$ "It's soft."

While such complements are characteristically indefinite, this is not invariable; the non-recoverability may instead lie in the internal structure of the complement:

Ka bumbuvda bane lu gon'os suvgin la ane bane wvm pian'ad la ...
Kà būn-bv́vdà bànı lù gòn̆'os súvgv̄-n lā á nē
And thing-planting:PL Rel.PL fall thorn:PL among-LOC ART COP FOC
bánì wòm píàn̆'ad lā ...
REL.PL hear speech ART...
"And the seeds which fell among thorns are those who heard the word ..."
(Lk 8:14, explaining the meaning of the parable)

Biis la diemid ne dua gbinin. Ba zamisid ne bula wa'ab. Ba ane Apam biis.
Bịis lā dị́'əmìd n̄ dúan̆ gbịnnī-n. Bà zàmısıd n $\bar{\varepsilon}$
Child:PL ART play:IPFV FOC dawadawa:SG base:SG-Loc. 3PL learn:IPFV FOC
būla wâ'ab. Bà à né À-Pām bị̂is.
shoot:PL dance:SG. 3PL COP FOC PERS-Apam child:PL.
"The children are playing under a dawadawa tree. They are learning the dance of the young shoots. They are Apam's children." KKY p6
(The relationship between Apam and the children is new information.)

In this context proper names are not referential:

O yu'vr na ane Joon. "His name will be John." (Lk 1:60)
Ò yū'vr ná $\bar{a}$ n $\bar{\varepsilon}$ Joon.
3AN name:SG IRR COP FOC John.

Focus under the scope of a negative is again usually contrastive:
$\grave{M}$ kā' dú'atāa=ø. "I'm not a doctor."
1SG NEG.BE doctor:SG=NEG.

M kā' n $\bar{\varepsilon}$ dó'atāa=ø. "I'm not a doctor." ("I'm a nurse.")
1SG NEG.BE FOC doctor:SG=NEG.

Focus on a locative complement typically involves either a place name or a definite predependent with a postposition. The fact that a referent is at a known place is new information.

Dāu lā bé nē dó-kàŋā lā púvgū-n.
Man:Sg art exist foc hut-demst.sg art inside-loc.
"The man is inside that hut." (Reply to "Where is that man?")

Mam bene moogin. $\quad I ' m$ in the bush." BNY p8
Mām bé n $\bar{\varepsilon}$ mōogv-n.
1SG.CNTR EXIST FOC grass:SG-LOC.

M̀ yị nē Bók. $\quad$ I come from Bawku." SB
1SG emerge foc Bawku.

Yadda nipir yitne labaar la wommvg ni.
Yàddā-nịnìr yị́t nē lábāar lā wúmmùg ní.
Assent-doing emerge:IPFV FOC news art hearing LOC.
"Faith comes from hearing the news." (Rom 10:17)

Contrast the existential use of $b \dot{\varepsilon}$, where the locative is an adjunct:

Dàun-sō' bé dó-kàjā lā púvgō-n.
Man-INDF.AN EXIST hut-DEMST.SG ART inside:SG Loc.
"There is a certain man in that hut."

There are few examples of $n \bar{\varepsilon} /$-focus on an adjunct in my data; one is

Tì dít $\quad s a ̄ ' a b \quad n \bar{\varepsilon}$ zâam. "We eat millet porridge in the evening." 1PL eat:IPFV porridge Foc evening. ("When do you eat porridge?")

Focus on the entire VP, which uses VP-final $n \bar{\varepsilon}^{\prime}$, is always contrastive, because non-contrastive focus on the VP is the default. It may occur in statements, polar questions and direct commands. Aspectual interpretation must be impossible.

Aspectual sense ruled out by the position of $n \bar{\varepsilon} /$ :

Ò kùesıd sūmma lā n $\bar{\varepsilon}$. "She sells/is selling the groundnuts."
3AN sell:IPFV groundnut:PL ART FOC. ("They're not free.")

Aspectual sense ruled out by mood:

Gòsım n̄̄. "Look!" ("Don't touch." WK)
Look:IMP FOC.

Stative verbs without an explicit time indicator:

Ò gị̀m $n \bar{\varepsilon}$. $\quad$ "He's short." ("I was expecting someone taller.")
3AN be.short FOC.
$\grave{M}$ bósdī $f \quad n \bar{\varepsilon}$. "I really love you." WK
1SG want 2SG.OB FOC.

Imperfective passives:

Dāam lā nûud n $\bar{\varepsilon}$. $\quad$ "The beer is for drinking."
Beer ART drink:IPFV Foc. ("Not washing with!")

Lì mà'an nē. "It gets cooled." (ipfv of mā'al $l^{\varepsilon /}$ "make cool") 3in get.cool:IPFV FOc. ("Not heated!")

Dāká lā záňl n̄. "The box gets carried in the hands."
Box:SG ART carry.in.hands foc. ("Not on your head.")

Dāká lā zịild n̄. "The box is for carrying on the head."
Box:SG ART carry.on.head:IPFV FOc. ("Not carrying in the hands.")

Perfectives which cannot be interpreted as resultative:

Ò dìgıl $n \bar{\varepsilon}$.
3AN lay.down FOC.

Kà lì bódìg n $\bar{\varepsilon}$.
And 3in get.lost foc.

Ò dìgın $n \bar{\varepsilon}$.
3an lie.down Foc.

Ò zì'ən $n \bar{\varepsilon}$.
3AN stand.still FOC.
"He's laid it down." ("I thought he'd pick it up.")
"It's lost."
Contradicting "someone hid it." 16.3.4
"He's lain down." DK: "Someone calls at your house and gets no answer; he thinks you're out but I'm explaining that you've gone to bed." WK: "You've said: the child looks filthy. I'm replying: He's been lying down."
"She's pregnant." (Not "She has stood still.") An idiomatic use.

### 24.2 Clefting

Clefting uses a main clause like Lì à $n \bar{\varepsilon}$ "It is ..." or a verbless identificational clause 18.4 followed by a $n$-catenation when it is the subject of the catenated clause which appears in the main clause, adnominal kà-catenation otherwise. The sense resembles English "it-clefting" (CGEL p1416), foregrounding the clefted element and backgrounding the rest, with an implicature of exhaustiveness and exclusiveness:

Ka dau me pv sv'oe o mej ningbinaa. Li ane o pu'a sv'oe li.
Kà dāu mé pū súv ò mē nị́n-gbịnáa= $\varnothing$.
And man:SG also neg.ind own 3AN self body-skin:PL=NEG.
Lì á né ò pư'ā Øø sú'v^lī.
3IN COP FOC 3AN wife cat own 3in.ob.
"And a husband, too, does not own his own body. It is his wife who owns it." (1 Cor 7:4)

Ano'on nwaa yisid nidib tovmbe'عdi basida?

Who Cat this Cat expel:IPFV person:PL deed-bad:PL CAT throw.out:IPFV=CQ?
"Who is this who drives people's sins out?" (Lk 7:49)

う̄nı ø lá kà fù dāa ňyz̄t.
3AN.CNTR CAT that and 2SG TNS see:IPFV.
"This is he whom you saw." WK

Bōว乙ø lá kà m̀ n̆y $\bar{\varepsilon} t a ́=\varnothing$ ?
What cat that and 1SG see:IPFV=CQ?
"What is that that I can see?"

With kà, the foregrounded element may be extracted from a subordinate clause or prepositional phrase; direct objects leave a null-anaphora gap:

Li ane ya taaba bane pv'vsid Wina'am ka li nar ka ya kad saria.
Lì à né yà tāaba bánì pù'vsıd Wínà'am kà lì nár
3in Cop FOC 2PL fellow rel.PL greet:IPFV God and 3in must
kà yà kád sàríyà.
and 2PL drive judgment.
"It is your fellow-worshippers of God whom you must judge." (1 Cor 5:12)

### 24.3 Preposing

A preposed clause element is followed a kà-catenation with independent tense marking. Preposed elements cannot be clause subjects. Unlike the formally similar $n$ focus, the default meaning is foregrounding, not focus, and the construction is compatible both with $n$-focus and with focus- $n \bar{\varepsilon}^{\prime}$ :

Asce line an bs'ed ma'aa ka ma tun'e nip.
Àséع línì àn̆ bē'عd má'àa kà m̀ ná tūn̆'e」 $\varnothing$ nị́p.
Only rel.in cop bad only and 1sg irr be.able cat do.
"It's only that which is bad that I can do." (Rom 7:21)

Dinzug ka mam Paul $n$ be sarega ni Yesu Kiristo zug yanam buudbane ka' Jew dim la yela.
Dìn-zúg kà mām Paul n bé sārıgá nì Yesu Kiristo zúg yānám That-upon and 1sg.cntr Paul cat exist prison:Sg loc Jesus Christ upon 2Pl.cntr bûud-bànı kā' Jewdím lā yćlà.
tribe-rel.pl neg.be Jew null.pl art about.
"Therefore, I, Paul, am in prison for Jesus Christ because of you whose tribe is not Jewish." (Eph 3:1, 1996)

Bị'əl bị́'əl kà kōlıg pê'عl n̄̄.
Little little and river:SG get.full Foc.
"Little by little, and a river is full." (Proverb)

There is no syntactic movement rule for interrogative pronouns/proforms:

Bùgúm lā yị́t yáa ní ná=ø?
Fire ART emerge:IPFV where loc hither=CQ?
"Where is the light coming from?" SB

However, preposing of objects containing interrogative pronouns is common; if they are extracted from prepositional phrases, resumptive pronouns are used.

Bo ka ti na ning?
"What are we going to do?" (Acts 21:22)
Bó kà tù ná nị̀ye=ø?
What and 1PL IRR do=CQ?
$N u ̄$ '-bịbısá àlá kà fù n̆yz̄tá=ø?
Hand-small:PL NUM:how.many and 2SG see:IPFV=CQ?
"How many fingers can you see?" SB

Ka ans'onam ka Wina'am sunf da pelig ne ba yvma piisnaasi la?
Kà ànô'on-nàm kà Wínà'am sún̆f dá pèlıg né bà
And who-PL and God heart:SG tNS whiten with 3PL
yùma pịs nāasí lá=ø?
year:PL forty ART=CQ?
"And who was God angry with for forty years?" (Heb 3:17)

Preposing is required for b̄$\overline{\text { in }}$ in the sense "why?":

```
Bó kà fù kúmmà? "Why are you crying?"
cf *Fù kóm bó? *"What are you crying?"
```

Bó kà... is much the most frequent way of rendering "Why?"
Complements of single-aspect verbs usually remain in situ, perhaps necessarily so in the case of àeñ $\breve{n}^{\text {a }}$ "be something":

Niggbin bo buudi ka ba na ti mora?
nịn-gbị̀ bó-būudí kà bà ná tī mōrá=ø?
Body-skin:SG what-sort and 3PL IRR afterwards have=cQ?
"What kind of body will they have?" (1 Cor 15:35)
but Fù bôsd bó=ø?
"What do you want?"
2SG want what=CQ?

Mām án̆ bó=ø? "What am I?"
1SG.CNTR COP what=CQ?

Kà fù áan̆ 〔ànó'onè=ø? "Then who are you?"
And 2SG COP who=CQ?

VP adjuncts are often preposed; there is probably a contrast between foregrounding by preposing and focussing with $n \bar{\varepsilon} /$ :

Ňwādısá_àtán̆' kà fù ná lēb nā.
Month:PL NUM:three and 2SG IRR return hither.
"You're to come back in three months." (Instructions, not a reply.)

Tì dít sā'ab nē zâam.
1PL eat:IPFV porridge foc evening.
"We eat millet porridge in the evening." ("When do you eat porridge?")

The only structure other than a NP (including $\grave{n}$-clauses) or AdvP that I have found preposed is wōv "like" + object:

Wv̄v búp né kà ò zót.
Like donkey:sG like and 3AN run:IPFV.
"It's like a donkey that he runs."
*Né m̀ nû'ug kà ̀̀ sī'ıs.
*With 1Sg hand:Sg and 1Sg touch.
attempted for "With my hand, I touched it."

Preposing has no implication of foregrounding in relative clauses 21.2.2, with manner, place and reason adjuncts (which may only precede the subject by preposing), and when absolute clauses in adjuncts precede the main clause because of the requirement for constituent order to parallel event order 21.1:

Mán $\check{n} w \varepsilon ̀ ' d a ̄ u$ lā zúg kà pōlıs gbáñ'a_m.
1SG:NZ hit man:SG ART upon and police seize 1SG.ob.
"The police arrested me because I hit the man." ILK

### 24.4 Dislocation

A clause element placed after a distinctively phrase-final verb form has been dislocated. Manner-adverbs are thereby intensified:

Ya yidigya bedegv.
"You are very much mistaken." (Mk 12:27)
Yà yị́dìg yā bédvgū.
2PL go.astray pFV much.

M pô'vs yā bédvgū. "Thank you very much."
1SG greet PFv much.

Non-pronoun objects can be dislocated; the sense is "against expectation":

Ò dà' yā múí. $\quad$ "She's bought rice." ("of all things!")
3AN buy pFv rice.
vs Ò dà' n $\bar{\varepsilon}$ múi
3AN buy foc rice.
"She's bought rice." ("What did she buy?")

Lì à nē múí kà ò dá'. "It's rice that she's bought." ("not millet.") 3IN COP FOC rice and 3an buy.

On right-dislocation of yà'-clauses see 20.1; of other clauses, $\underline{17.1}$.
Left-dislocation of objects and complements may occur on the basis of weight, without preposing kà or foregrounding. A resumptive pronoun must appear.

Wilkane bes m ni ka pv wanna, m Ba' nwaadi li ne [sic: 1996 n] basid.
Wịl-kànı bè $\varepsilon \grave{m}$ ní kà pū wénnā=ø,
Branch-Rel.SG Exist 1SG LOC and neg.IND bear.fruit:IPVF=NEG.
m̀ Bā' n̆wá'adī lí $n$ básìd.
1SG father:SG cut:IPFV 3IN.OB CAT throw.out:IPFV.
"A branch which is in me and does not bear fruit, my father cuts it out."
(Jn 15:2)

One ka ba tis o ka li zu'oe, ba me mor puten'er ye o na lebis line zu'oe.
J̀nı kà bà tísò Øø kà lì zú'e, bà mè mòr
Rel.AN and 3pl give 3AN.ob and 3in become.much, 3pl also have
pó-tèñ'er yé ò nà lēbıs línı̀ zù'e.
inside-mind:sG that 3AN IRR return Rel.IN become.much.
"Whom they have given much to, they expect he will return much." (Lk 12:48)

### 24.5 Presentational constructions

Presentational constructions introduce new entities into discourse using indefinite NPs; here, absence of $l \bar{a} /$ implies indefinite specific reference, not generic 12.8.5. Dependent indefinite pronouns or quantifiers are possible but not required.
$B \dot{\varepsilon}$ "be somewhere/exist" is frequent in presentational clauses, often with a following $n$-catenation or adnominal kà-catenation 19.

Farisee dim nid yinne da bs
Farisee dím nịd yīnní dà bè ...
Pharisee null.pl person:SG one TNS Exist ...
"There was one man of the Pharisees ..." (Jn 3:1)

Dapa atan' nda be. "There were once three men." KSS p16
Dāpá_àtán̆' $n$ dá bè.
Man:PL NUM:three cat tns Exist.

Dau da be mori o po'a yimmir
Dāũ dá bè $\smile$ Ø mōrí ò pư'à-yīmmír
Man:SG tns exist cat have 3an wife-single:Sg
"There was a man who had one wife." KSS p26

Pu'a so' da be mor o bipup ka kikirig dol o.
Kà pư'à-sō' dá bè $\varnothing$ mór ò bị-pón kà kìkịrıg dōlló $\varnothing$.
And woman-IndF.AN tNS Exist cat have 3AN child-girl:SG and fairy:SG follow 3AN.ob. "There was a woman whose daughter was oppressed by a devil." (Mk 7:25)

Other verbs expressing location can introduce the subject as a new topic, and verbs of finding, seeing etc can introduce their objects in a similar way.

Ka dau daa zin'i Listra ni ka pu tun'e kenna.

And man:Sg tns sit Lystra loc and neg.ind be.able cat go:IPFV=NEG.
"There was a man in Lystra who could not walk." (Acts 14:8, 1996)

Anina ka o nye dau ka o yv'vr buon Aneas.
Ànịná kà ò ňyz̄ dáu kà ò yū'vr bûөn Aneas. ADv: there and 3AN see man:Sg and 3AN name:SG call:IPFV Aeneas. "There he found a man whose name was Aeneas." (Acts 9:33)

### 24.6 Free personal pronouns

Only free pronoun forms are possible in isolation, apposition, coordination, before relative pronouns, and (for some speakers) with 2nd persons before direct commands after a yà'-clause $\underline{20}$ :

| Mánغ̀? | "Me?" | mān Paul | "I, Paul" |
| :--- | :--- | :--- | :--- |
| tīnám nē fūn | "us and you" | fūn-kánì ... | "you, who ..." |

Where a bound pronoun is permitted, the choice of a free pronoun implies contrast. For the special case of logophoric use see 22.2 .

Focussed pronouns must be contrastive, and contrastive pronouns are normally focussed if syntactically permissible:

Mane an konbkem supla.
Mānı ø án̆ kón̆b-kìm-sùj lā.
1SG.CNTR CAT COP animal-tender-good:SG ART.
"I am the good shepherd." (Jn 10:11)

### 24.7 Emphatics

I have borrowed the term "emphatic" from Jeffrey Heath's Songhay grammars (Heath pp202ff.) Emphatics relate NPs or AdvPs to the discourse context. They follow top-level NPs/AdvPs, except for hālí, which precedes.
mè DK KT SB NT mèn WK; clause finally (all sources) mèn ${ }^{\varepsilon}$ "also, too." The particle may follow kà + ellipted subject pronoun 17.3.
bozugo o ane fo biig men.
bō zúgó ò à né fù bịig mén.
Because 3AN Cop FOC 2 SG child:sg also.
"Because he is your child too." (Genesis 21:13)

O pu'a me kena. "His wife also came." (Acts 5:7)
Ò pu'ā mé kè nā.
3AN wife:SG also come hither.
nธ๊̄ "just, exactly"
dàa-kàn lā nōo
"that very day"

Fv ya'a mor ya'am, fun nos na dii li malisim.
Fì yá' mōr yā'am, fūn nōo ná díl lì mālısím.
2SG if have sense, 2SG.CNTR exactly IRR eat 3IN joy.
"If you have wisdom, it is you who will have joy of it." (Proverbs 9:12)
mà'aa (LF mà'ane) "only"

Asce line an be'عd ma'aa ka m na tun'e nip.
Àsće línì àn̆ bē' $\varepsilon d$ má'àa kà m̀ ná tūn̄'e $\varnothing$ nị́p.
Only rel.In cop bad only and 1SG IRR be.able cat do.
"It's only that which is bad that I can do." (Rom 7:21)
gùllīmm (LF gòllımne) "only"

Li ka'ane Wina'am gollim ne?
Lì kā' n $\bar{\varepsilon}$ Wínà'am gúllìmn $\varepsilon \varepsilon=\varnothing=\varnothing$ ?
3IN NEG.BE FOC God only=NEG=PQ?
"Is it not God alone?" (Lk 5:21)
kòtàan ${ }^{\text {n }}$ "at all":
Áyìı kòtàa.
"Not at all."
hālí can be used as an emphatic, preceding a NP or AdvP with the meaning "even":

Hali tuvmbe' $\varepsilon d$ dim nipid ala.
Hālí tùvm-b̄̄'عd dím nịpìd àlá.
Even deed-bad:pl null.pl do:IPFV adv:thus.
"Even sinners do that." (Lk 6:33)

Before a manner-adverb it means "very"; the adverb itself may be ellipted.

Lì tòe hālí [bédvgū]. "It's very difficult."
3in be.bitter until much.

Hālí can be preposed with kà:

Hali ka nidib mor ban'adnam na.
Hālí kà nịdıb mōr bâñ'ad-nàm nā.
Even and person:pl have sick.person-pl hither.
"People even brought the sick" (Acts 5:15)

Hālí báa is also used for "even" before a NP:

Hali baa lampodi'esidib me niyid ala.
Hālí báa làmpō-dị'əsìdıb mé nị̀pıd àlá.
Even tax-receiver:PL also do:IPFV ADv:thus.
"Even tax-collectors do that." (Mt 5:46)

Hali baa bama wvsa ya'a na zo ka basif, man kv basi fo.
Hālí báa bàmmā wūsa yá' nà zó kà básì f,
Even demst.pl all if IRR run and abandon 2SG.OB,
mān kú bāsı fó=ø.
1SG.CNTR NEG.IRR abandon 2SG.OB=NEG.
"If even they all run away and leave you, $I$ will not leave you." (Mt 26:33)

## 25 Greetings and other formulae

(a) Enquiries after health.

| Gbị́s wēlá? | "How did you sleep?" or |
| :---: | :---: |
| Dúe wēlá? | "How did you get up?" (morning greetings at first meeting) |
| Nịntā ${ }^{\text {a }}$ á wēlá? | "How is the day/afternoon?" |
| Yó'vך á wēlá? | "How is the evening?" literally "night" |
| Fvì yị-dímàa? | "[How are] your household?" |
| Nịn-gbịnáa? | "[How is your] body?" i.e. "How are you?" |
| Fù sìdaa? | "[How is] your husband?" |
| Pư'ā nē bịisc̀ $¢$ ? | "[How are your] wife and children?" |

Pư'ā nē bịissè ?
... and so on, often at great length. Replies may be

| Àláafù bé. | literally "There is health." |
| :--- | :--- |
|  | (Also a general purpose greeting in itself.) |
| Àláafù béo. | ... for him/her. |
| Àláafù bé $\varepsilon$ bá. | ... for them. |

(b) Blessings follow the pattern Bárıkà né fù/yà ... "Blessing with your ..." with the introductory words usually ellipted; the reply to all of these is Náa.

| $K \bar{\varepsilon} n k \bar{\varepsilon} n$. | "Welcome!" Kह̄n, gerund of k $\bar{\varepsilon} \check{n}$ "come" cf Hausa: Barkà dà zuwàa. |
| :---: | :---: |
| $N \bar{\varepsilon}$ zâam zâam. | "Good evening." |
| Tv̄ıma! or Tūvma tōvma! | "(Blessing on your) work!"; includes practically anything which could be regarded as work, making this the commonest daytime greeting. |
| $N \bar{\varepsilon}$ sóňsıgā. | "(Blessing on your) conversation"; greeting a group of people talking; also greeting a person sitting quietly alone, assumed to be conversing with his or her own wīnne/. |
| Nع́ fù būrıyá-sòn. | "Merry Christmas." |
| Né fù yv̀vm-pāalíg. | "Happy New Year." |

(c) Prayers. Reply Àmị!! "Amen!"

Win ná lēbısı f nē láafiya.

Win ná sūpı $f$.
Win ná tā'así $f$.
"Safe journey!" literally "[I pray that] God will bring you back in health." "God will help you"; usually expresses thanks "Safe journey!" ("God will help you travel.")
(d) Statements of fact and commands. Reply Tò "OK", or as appropriate.

Bēogo lā.
Àtínì dáarì lā.
Gbịsım súnā.
Kpèlımī súm.
Pù'usım yị́n.
(e) Miscellaneous formulae

| $\grave{M}$ pô'vs yā [bédvgū]. | "Thankyou [very much]." Reply Tò, or Pù'vsug kā'e. "No thanks [needed]." |
| :---: | :---: |
| Gáafàra. | "Sorry." Like Ghanaian English "sorry", may be just an expression of sympathy. |
| Kābır kābırí! | Formula asking admission to a dwelling. Twi agoo is also used. (Knocking is for robbers trying to find out if anyone is at home.) |
| Dị̀m sūgvrú. | "Please forgive me." |
| $\grave{M}$ bélìm nē. | "I beg you." Not "please"; Kusaasi etiquette needs no spoken equivalent of "please." |
| X lábāar á wēlá? | "What is the news of X?" A common initial reply is Dīıb má'àa. "Only food." i.e. "good." |
| $\grave{M} \mathrm{mōr}$ kû'өm náa? | "Shall I bring water?" Traditional first words to guest. "No, thank you" is Kù'өm á sóm. ("Water is good.") |
| Wīn yél sídà. | "Bless you!" Literally "God speaks truth"; WK explained: "If you sneeze, it means someone elsewhere is praising you." |
| Fù wúm Kūsáalc̀ ? | "Do you understand ['hear'] Kusaal?" |
| $\bar{\varepsilon} \varepsilon \check{n}$, m̀ wóm. | "Yes, I do." |
| Áyìı, m̀ pū wómmā. | "No, I don't." |

"See you on Monday."
"Sleep well."
"Remain well"; Goodbye, to those remaining.
"Greet (those) at home"; Goodbye, to leaver. Reply Tò "OK", or Bà nà wūm "They will hear."

## 26 Selected lexical fields

### 26.1 Kinship terms

Pervading the whole system is the importance of birth order among same-sex siblings, and its irrelevance between siblings of opposite sex. Many basic terms do not in themselves distinguish sex. Seniority goes by family branch, so I am senior to you if my parent is senior to your parent of the same sex, regardless of our own ages. Seniority among wives is determined by marriage order and is also independent of actual age. Age, as opposed to seniority, is in itself of little significance and many people do not know their own ages exactly.


I am my mother's brother's ān̆sína; to all the other relatives above I am bịi iga "child" or specifically dà-kòつn̆r $r^{\varepsilon}$ "son" or pư'à-yùa "daughter." Although the Kusaasi are not matrilineal, the mother's brother is felt to be a particularly close relation with a traditionally benevolent role towards his sister's child.

There are no special terms for aunts or uncles by marriage.

My grandparent is my yáab ${ }^{\mathrm{a}}$ (ơ yāa-dáu, ọ yāa-pư'áa )
grandchild yáaŋa ${ }^{\text {a }}$

These words are also used for ancestor/descendant.

My elder sibling of my own sex is my bị̀ $\partial r^{\varepsilon /}$
younger sibling of my own sex is my pịtú
sibling of opposite sex is my tāunn̆'

These words are also used for cousins, with seniority, as always, going by family branch.

| My | wife | is my | $y \grave{-}$-pu'áa ${ }^{\text {a }}$ or simply $p u{ }^{\prime} \bar{a}^{\text {a }}$ |
| :---: | :---: | :---: | :---: |
|  | wife's parent |  | dị̀m ${ }^{\text {ma }}$ (ơ' dị̀zm-dāu, ¢ ¢ dị̀zm-puāk ${ }^{\text {a }}$ ) |
|  | wife's sibling |  | dàkịiga (ơ dàkì-dāu, ¢̣ dàkị-puāk ${ }^{\text {a }}$ ) |

Dị̀m ${ }^{\mathrm{ma}}$ is also used in polite address to an unrelated person of opposite sex and similar or greater age to oneself but not old enough to be called $\grave{m}$ mà "my mother" or $\grave{m}$ bā' "my father." Parents-in-law are greatly respected, but with siblings-in-law there is a traditional reciprocal joking relationship; certain whole ethnic groups are said to bear this relationship to each other, called "playmate" in local English. At Bùgúm-tōon̆r ${ }^{\varepsilon}$, the Fire Festival, one throws eggs at one's brothers-in-law.

I am my wife's parents' bịìig "child" and my wife's siblings' dàkịì ${ }^{\text {a }}$.

| My | husband is my | $s i \bar{d}{ }^{\text {a }}$ |
| :---: | :---: | :---: |
|  | husband's parent | dàyáam ${ }^{\text {ma }}$ (ơ dàyāam-dáu, ̣̂ dàyāam-púák ${ }^{\mathrm{a}}$ ) |
|  | husband's elder brother | sìd-kpēen̆m ${ }^{\text {m }}$ |
|  | husband's younger brother | sid-bịl ${ }^{\text {a }}$ |
|  | husband's sister | sìd-puāk ${ }^{\text {a }}$ |

I am my husband's parents' bịì $g^{\text {a "child"; all my husband's siblings (of both }}$ sexes) call me pu'āa "wife."

My co-wife is my nịn-tāa, "rival" in Ghanaian English. In traditional stories the role of the "wicked stepmother" in European folklore is assumed by one of the father's other wives.

Two men married to sisters are dàkị-tù $\theta s^{\varepsilon}$; two women married to brothers are nịn-tāas ${ }^{\varepsilon}$, "co-wives." "Fiancée" is pun'à- $\bar{\varepsilon} l^{\prime} \eta^{a}$.

### 26.2 Personal names

See Haaf pp87ff for a detailed account of Kusaasi personal naming practices.
Personal names are preceded by the personifier particle, $\dot{A}$ - by default but $\grave{N}$ before adjective stems, where $\dot{N}$ - is a syllabic nasal assimilated to the point of articulation of a following consonant. Most names are based on common nouns, but a few are based on adjectives, and some on whole VPs, or even clauses.

On Kusaal personal names in English-language contexts see 1.1.
The Kusaasi do not use surnames traditionally. Christians use English (or French) baptismal names in speaking European languages, and in official contexts use their Kusaal personal names as "surnames."

Many names allude to a guardian spirit ( $\operatorname{si} g\left(r^{\varepsilon /}\right)$ assigned to a newborn child through the father's consultation with a diviner ( $b \bar{a} ' a$ ); this may be the $w \bar{i} n^{\text {ne/ }} \underline{1.1}$ of an ancestor, or of a spiritually powerful tree:

| $\dot{A}-W i n^{\mathrm{n} \varepsilon /}$ | Awini | person with a $\operatorname{si} g \not \iota^{\varepsilon /}$ from father's family |
| :---: | :---: | :---: |
| $\grave{A}-B \bar{v} g r^{\varepsilon}$ | Abugri | person with a sī $g \iota^{\varepsilon /}$ from mother's family |
| À-Tııg ${ }^{\text {a }}$ | Atiga | "tree" as sīgır ${ }^{\text {/ }}$ |
| $\grave{A}-K u ̄ d v g{ }^{\text {a }}$ | Akudugu | "piece of iron" (sc. as a marker on a treesīgırer ); displaced as a common noun by the $\mathrm{pl}-\mathrm{as}-\mathrm{sg} k \bar{u} t^{\varepsilon}$ |

A younger sibling of $\grave{A}-W i n^{\mathrm{n} \varepsilon /}$ with the same $s i \bar{i} g r^{\varepsilon /}$ is called $\grave{A}-W i n-b i ̣ l^{\mathrm{a}}$ "Awimbillah", of $\grave{A}-K u \bar{d} v g^{\circ}, \grave{A}-K u ̀ d-b i ̣ l a ~ " A k u d i b i l l a h " ~ e t c . ~ N a m e s ~ f o r ~ g i r l s ~ m a y ~ f o l l o w ~$ the pattern $\grave{A}-W i n-p u a ́ k{ }^{\mathrm{a}}$ "Awimpoaka."

Other names refer to birth circumstances:

| À-Nà'ab ${ }^{\text {a }}$ | Anaba | "chief" but in the sense "afterbirth" (because a chief leaves his house after his retainers): sole survivor of twins |
| :---: | :---: | :---: |
| À-Fūug ${ }^{\text {/ }}$ | Afugu | "clothing": child born with a caul |
| $\grave{A}-T \bar{u} l^{\text {l }}$ | Atuli | (tùlı $g^{\varepsilon}$ "invert"): breech-delivered child |

A whole clause is seen as a birth-circumstance personal name in

$$
\text { À-Tìım bódìg yā } \quad \text { "The medicine has got lost." }
$$

Many names relate to customs intended to break a cycle of stillbirths. One such custom is the apotropaic practice of throwing away the dead child or just burying it in a pot; the next surviving child may then be called e.g.

| $\grave{A}-$ Tàmpūvr | Tampuri | "ashpit, rubbish tip" |
| :--- | :--- | :--- |
| $\dot{A}-D \bar{v} k^{\rho /}$ | Aruk | "pot" |

Another strategy is pretended adoption by an outsider, resulting in names like Jambeedu "Fulani", or

| À-Sāana/ | Asana | "guest, stranger" |
| :--- | :--- | :--- |
| À-Sāan-dv́ | Sandow | "guest" + dāu u"man" |
| À-Zàngbèog | Azangbego | "Hausa person" |
| À-Nàsà-pūāk |  |  |
|  | Anasapoaka | "European woman"; also "child delivered |
|  |  | by a European midwife" |

Names based on adjectives:

| $\grave{N}-D \bar{a} v g^{\circ}$ | Ndago | "male" |
| :--- | :--- | :--- |
| $\grave{N}-P u \bar{a} k^{\mathrm{a}}$ | Mpoaka | "female" |
| $\dot{N}-B \overline{1} \bar{l}^{\mathrm{a}}$ | Mbillah | "little" |

Muslims often use day-of-the-week names depending on birth. The system does not cover all weekdays; examples are À-Tínì "Girl born on Monday", À-Tàláatà "Girl born on Tuesday", Àrzúmà "Boy born on Friday", À-Síbì "Boy born on Saturday."

Muslims also have formal Arabic names, sometimes adapted into Kusaal, like Dàhamáanì/Dàsmáanì YAbdu-r-Raћma:n. KKY p6 has the interesting girl's name Amoryam, ? Arabic Maryam "Mary", interpreted as À -Mōr Yām "Has Common Sense."

### 26.3 Places

For Kusaal place names in English-language contexts see 1.1.
This section has been improved by consultation with John Turl, who maintains an extensive website dedicated to Ghanaian toponymy (see References.)

Many Kusaal place names have transparent meanings.
Place names include:

| $B j{ }^{\text { }}$ | Bawku | "pit, geographical depression" |
| :---: | :---: | :---: |
| Kūk ${ }^{\text {a/ }}$ | Koka | "mahogany tree" |
| Kùkpàrıg ${ }^{\text {a }}$ | Kokpariga | "palm tree" |
| Tèmpáan ${ }^{\text {ne }}$ | Tempane | perhaps "new villages" |
| Mư'à-nōor ${ }^{\text {c/ }}$ | Mogonori | "lakeside" ("lake-mouth") |
| Bàs-yōn ${ }^{\text {ne/ }}$ | Basyonde | "abandon sacks" ?reason for name |
| Kügor ${ }^{\text {/ }}$ | Kugri | "stone" |
| $B \bar{v} g r^{\varepsilon}$ | Bugri | $b \bar{v} g r^{\varepsilon}$, object housing a wīn ${ }^{\text {ne/ }}$ |
| Wìdì-n̆yá'an ${ }^{\text {a }}$ | Woriyanga | archaic for wìd-n̆yá' $\eta^{\text {a }}$ "mare" |
| $B i ̣-n a ̀ ' a b^{\text {a }}$ | Binaba | "prince" |
| Gàarv | Garu | Hausa gàaruu "wall around a town or compound" |
| Wịid-nà'ab ${ }^{\text {a }}$ | Widinaba | "chief of the clan Wịid ${ }^{\text {a" }}$ |
| Pūsıga/ | Pusiga | "tamarind" |
| Tịl ${ }^{18 /}$ | Tilli | "tree trunk" cf Toende Kusaal tíl id (Hasiyatu Abubakari, p.c.) |
| Dènvgo | Denugu | No known meaning |
| Pùlıma Kû'өm ${ }^{\text {m }}$ | Pulimakom | "water by pùlıma (grass sp)" |


| Widāan ${ }^{\text {a }}$ | Widana | for Wid-dāan ${ }^{\mathrm{a}}$ "Horse-Owner", title of a chief's $n \bar{\jmath}-d i ̣ ̂ ' \partial s^{\text {a }}$ "linguist." |
| :---: | :---: | :---: |
| Mị'isı $g^{\text {a }}$ | Missiga | Explained locally as "mission", i.e. of the Assemblies of God; perhaps influenced by mị̀'isvgo "baptism" |
| Sā-bịl ${ }^{\text {a }}$ | Zebilla | "small grass"? |
| Sā-pịəlì ${ }^{\text {a }}$ | Sapeliga | "Isoberlinia Doka" |
| Kòl-tā'amís ${ }^{\varepsilon}$ | Kultamse | "dog almonds" |

The meanings for "Sapeliga" and "Kultamse" are based on a 1935 agricultural report which lists for the Farefare/Nabit area sapelaga "Isoberlinia doka", ta-anga "Butyrospermum parkii" (Kusaal tá'aŋ²), and kulta-anga "Andira inermis" (p.c. Turl.) WK thought that the $s \bar{a}-$ of $S \bar{a}-b i l^{\mathrm{a}}$ and $S \bar{a}-p i ́ \partial l i ̀ g{ }^{\mathrm{a}}$ was a plant used in making brooms. No *sāa' occurs in my data (only sāa "rain"), but Farefare sáagá is "a kind of grass used for making brooms", and Blench 2006 identifies Mampruli/Dagbani saa as Sporobolus subglobosus A. Chev, used for binding in making mats and traps.

For Kı̀lvgú $\eta^{3}$ "Kulungungu", Turl cites a Bisa-speaking informant who suggests Bisa Kuurgongu, "Crooked Sheanut Tree."

| Àgòl ${ }^{1 \varepsilon}$ | Agolle | cf àgól ${ }^{\text {l }}$ "upwards" |
| :---: | :---: | :---: |
| Tùөn ${ }^{\text {n }}$ | Toende | cf tù $n^{\mathrm{n} \varepsilon}$ "in front", "West" |
| Bārug ${ }^{\text {/ }}$ | North | "Bisa country" |
| Nyá'an ${ }^{\text {a }}$ | East | "behind" |
| Zuēya | South | "hills", i.e. the Gambaga Escarpment |
| Tùөn ${ }^{\text {n }}$ | West | "in front" |

The forms above were given by WK; KB has ya-dagobvg yà dàgòbıga ("your left hand") for "south" and ya-datiuy yà dàtìu $\eta^{3}$ ("your right hand") for "north," along with ya-nya'ap "east", ya-tuona "west."

Words referring to ethnic groups and clans create place names by adding the suffix -go to the stem. These need not refer to established political entities or
 "Kusaasiland"; Mòog ${ }^{\text {º }}$ "Mossi country."

Places outside Kūsâvg ${ }^{\circ}$ generally do not have Kusaal names (an exception is Sānkâan̆s ${ }^{\varepsilon}$ "Sankanse" in Burkina Faso.) For "Accra" the Twi-derived Ankara is usual. Toende has Wa'arvk for "Ouagadougou", but I could not elicit any Agolle equivalent; Mooré Waogdgo apparently does not have a transparent meaning.

There seems to be no Agolle Kusaal proper name for the White Volta river, which is simply kj̄lvg ${ }^{\text {a }}$ "river"; presumably this is because it is the only real river within $K \bar{u} s a ̂ v g^{\circ}$.

### 26.4 Ethnic groups and clans

The great majority of ethnic group names are $g a \mid s \varepsilon$ or $a \mid b a$. The corresponding languages belong to the $l \varepsilon$ subgroup of $r \varepsilon \mid a a$, and the place inhabited has $\mathrm{sg} g 0$.

| Ethnic group (pl) | Language | Place |  |
| :---: | :---: | :---: | :---: |
| Kūsâas ${ }^{\text {e }}$ | Kūsâal ${ }^{\text {c }}$ | Kūsâvg ${ }^{\text {a }}$ | Kusaasi |
| $\check{N ̌ w a ̄ m p u ̄ r ı s^{\varepsilon /}}$ | Ňwāmpūrll ${ }^{\text {®/ }}$ | Ňwāmpūrvg ${ }^{\text {/ }}$ | Mamprussi |
| Bārıs ${ }^{\text {/ }}$ | Bāt ${ }^{\text {/ }}$ | Bārug ${ }^{\text {/ }}$ | Bisa |
| Mòos ${ }^{\varepsilon}$ | Mòol ${ }^{\text { }}$ | Mòog ${ }^{\text {ºm }}$ | Mossi |
| Dàgbām ${ }^{\text {ma/ }}$ | Dàgbān ${ }^{\text {ne/ }}$ | Dàgbāun ${ }^{\text {a/ }}$ | Dagomba |
| Bìm ${ }^{\text {ma }}$ | $B i$ nn ${ }^{\text {n }}$ | Bìup ${ }^{\text {a }}$ | Moba |
| Sìmịis ${ }^{\text {c }}$ | Sìmịil ${ }^{\text {c }}$ | Sìmịug ${ }^{\text {a }}$ | Fulbe |
| Yàan̆s ${ }^{\text {e }}$ | Yàan ${ }^{\text {n }}$ |  | Yansi |
| Gūrís ${ }^{\text {® }}$ | Gūrín ${ }^{\text {ne }}$ |  | Farefare |
| Yārıs ${ }^{\text {/ }}$ | Yāt ${ }^{\text {z/ }}$ |  | Yarsi |
| Zàngbèzd ${ }^{\text {c }}$ | Zàngbècl ${ }^{\varepsilon}$ |  | Hausa |
| $B u ̀ l ı s^{\varepsilon}$ | Bùl ${ }^{\text {l }}$ |  | Bulsa |
| Tàlıs ${ }^{\text {e }}$ | Tâlın ${ }^{\text {n }}$ |  | Tallensi |
| Nàbıdıb ${ }^{\text {a }}$ | Nàbır ${ }^{\text {e }}$ |  | Nabdema |
| Bùsâan̆s ${ }^{\varepsilon}$ | Bùsâan̆l ${ }^{\text {a }}$ |  | Bisa |
| Nàsàa(r)-nàm ${ }^{\text {a }}$ | Nàsāal ${ }^{\text {c }}$ |  | European |
| Kàmbùmıs ${ }^{\text {® }}$ | Kàmbìnır ${ }^{\varepsilon}$ |  | Ashanti |

$B \bar{a} r ı s^{\varepsilon /}$ means "Bisa", not just Bareka; Bìm ${ }^{\text {ma }}$ is "Moba", not just Bemba (WK.) Note Tùөn ${ }^{\text {n } \varepsilon}$ "Toende area", Tùөnnır ${ }^{\varepsilon}$ "Toende dialect of Kusaal", Àgòllı "Agolle area", Àg̀̀llı "Agolle dialect of Kusaal": Ò pinàn̆'ad Àggòl. "She speaks Agolle Kusaal."

Kusaasi clan names include, among many others:

| Clan (pl) | Place |  |
| :---: | :---: | :---: |
| Kùtāmma/ | Kùtāun ${ }^{\text {/ }}$ | WK's clan |
| Zùes ${ }^{\text {® }}$ |  |  |
| Wịid-nam ${ }^{\text {a }}$ | Wịidvg ${ }^{\text { }}$ |  |
| Nàbıdıb ${ }^{\text {a }}$ | Nàbıdvgo |  |
| Gòos ${ }^{\varepsilon}$ | Gòsg ${ }^{\text { }}$ |  |
| Sà'dàbù $\theta S^{\varepsilon}$-bù $\theta b^{\text {a }}$ | Sà'dàbòog ${ }^{\text {a }}$ |  |
| Nà'dàm ${ }^{\text {ma }}$ | Nà'daun ${ }^{\text {a }}$ |  |
| Gùm-dìm ${ }^{\text {a }}$ | Gòm ${ }^{\text {m }}$ |  |

Subclans of Zùes ${ }^{\varepsilon}$ include Zunà-sābılís ${ }^{\varepsilon}$ "Black Zoose" and Zưà-wịiba or Zưàwịis ${ }^{\varepsilon}$ "Red Zoose." Clan Nàbıdıba is distinct from the ethnic group "Nabdema" (WK.)

### 26.5 Trees and fruits

Tree names are almost all $g a \mid s \varepsilon$ class, like tì $g^{\text {a }}$ "tree"; their fruits belong to classes $r \varepsilon \mid a a$ or $g o \mid d \varepsilon$.

| Tree | Fruit |  |
| :---: | :---: | :---: |
| $\bar{a} a n ̆ l^{\text {a }}{ }^{\text {a }}$ | $\bar{a} a n ̆ d ı r^{\varepsilon}$ | Vitex doniana |
| dùan̆ | dòon̆ ${ }^{\text { }}$ | dawadawa |
| gāan̆' | $g a ̄ \check{n} r^{\varepsilon /}$ | Nigerian ebony |
| gù $\eta^{\text {a }}$ | gòm ${ }^{\text {m }}$ | kapok |
| kìkà ${ }^{\text {a }}$ | kìkàm ${ }^{\text {me }}$ | fig tree |
| kpùkpàrıg ${ }^{\text {a }}$ | kpòkpàr ${ }^{\text {¢ }}$ | palm |
| lị́ə $\partial \eta^{\text {a }}$ | lị'əm ${ }^{\text {m }}$ | Ximenia americana |
| $p u \bar{s} g^{\text {a/ }}$ | pūsıril | tamarind |
| sisị̂bì ${ }^{\text {a }}$ | sīsịbì ${ }^{\text {c }}$ | neem |
| tá'a ${ }^{\text {a }}$ | tá'am ${ }^{\text {m }}$ | shea butter |
| $t \bar{c} \cdot \varepsilon g^{\text {a }}$ | tغ̀'og ${ }^{\text {a }}$ | baobab |
| vúө $\square^{\text {a }}$ | vúөr ${ }^{\varepsilon}$ | red kapok |

The stems for "red kapok" and its fruit are slightly different: tree *vuөgm- fruit *vuөg-

### 26.6 Colours

Kusaal, like many local languages, has a basic three-colour system: zèň'og ${ }^{\circ}$ "red", for all reddish shades, sābılíg $g^{\mathrm{a}}$ "black" for all darker shades, and pị̀əlı $g^{\mathrm{a}}$ "white" for all lighter shades. Wịug ${ }^{\circ}$ is synonymous with $z \grave{\Sigma} n{ }^{n} \prime o g{ }^{\circ}$. Kusaal has many other standard expressions for colour (e.g. wōv támpōvr n $\bar{\varepsilon}$ "like ash", i.e. "grey"), often with parallels in other West African languages: "three-colour" means that any colour can be allocated to one of only three terms, not that only three colour terms exist.

### 26.7 Time

The day begins at sunrise. Answers to bò-wị̀nne "what time of day?" may be

| bēogv-n $n^{\varepsilon /}$ | "morning" | bèkkèkè̀on̆g ${ }^{\circ}$ | "very early morning" |
| :--- | :--- | :--- | :--- |
| zàam | " | "evening" | àsùbá |

Wịn ${ }^{\text {ne }}$ "time of day" (cf wịnnı $g^{\text {a }}$ "sun") always has a predependent.
Clock times are calqued from Hausa: kérıfà àtán̆' "three o'clock" = karfèe ukù.
The deictic particle n̆wà "this" is commonly attached to time words, e.g. zàam n̆wá [za:ma] "this evening", yú'vך n̆wá [yỡ:ŋ:a] "tonight."

Answers to būn-dâar ${ }^{\varepsilon}$ "which day?" may be

| zịná | "today" | sù' $\theta S^{\text {a }}$ | "yesterday" |
| :---: | :---: | :---: | :---: |
| $b \bar{\varepsilon} o g^{\circ}$ | "tomorrow" | dāar ${ }^{\text {e }}$ | "day after tomorrow/ day before yesterday" |

Weekday names are of Arabic origin. Many older speakers count in days, not weeks; the traditional "week" is a three day market cycle, differing from village to village and carrying on regardless of any weekdays or festivals.

| Àláasìd dâar | "Sunday" | Àtínì dâar | "Monday" |
| :--- | :--- | :--- | :--- |
| Àtàláatà dâar | "Tuesday" | Àlárıbà dâar | "Wednesday" |
| Àlàmíisì dâar | "Thursday" | À(r)zúmà dâar | "Friday" |
| Àsịbıt̀ dâar | "Saturday" |  |  |

Dāar ${ }^{\varepsilon}$ "day" is "twenty-four hour period" (nịntāŋ "day as opposed to night") and is used with predependents to specify a particular day; the word dàbısır ${ }^{\varepsilon}$ is also used for "day" in counting periods of time, occurring usually in the plural:

Dābá àyópòe dâar kà fù ná lह̄b nā. "You'll come back in a week."
Dābá àyópòe kà fò ná lēb nā.
Àláasìd dâar kà fù ná lēb nā.
Tì kpélìm ànịnā dábısà bị'əlá.
"You'll come back for a week." "You'll come back on Sunday." "We stayed there a few days."

Longer periods of time:

| dābá àyópòe | "week" | bákpàe | "week" |
| :---: | :---: | :---: | :---: |
| ňwādıga/ | "moon, month" |  |  |
| sह̄on̆g ${ }^{\text {a }}$ | "rainy season" | v́vn ${ }^{\text {ne }}$ | "dry season" |
| sāpál ${ }^{\text {l }}$ | "Harmattan" | dàwàlıg ${ }^{\text {a }}$ | "hot humid time just before the rains" |
| yòvm ${ }^{\text {m }}$ | "year" | dūnná | "this year" |

Ňwād-kánì gàad lā "last month", ňwād-kánì kēn nā lā "next month." "Time" in general is sāŋá pl sānsá cb sān-:

| sān-kánc̀? | "when?" | sān-kán lā | "at that time" |
| :--- | :--- | :--- | :--- |
| sāŋá kám | "all the time" | sāŋá bèdvḡ̄ | "a long time" |
| sānsá bèdvgū | "many times" | sāךá bị'əlá | "for/in a short time" |

## 27 Texts

### 27.1 Balaam's Donkey

Numbers 22:21-35, KB.

Balaam da duoe beogun loo o buŋv dol Moab na'ayikpem la keŋ. Amaa Wina'am sunf da duoe ne on key la, ka Zugsob maliak kidigi zi'en suor la zug ye o gey o. Balaam da ban'adne o bov, ka o yammis ayi' dol o. Buy la da nye Zugsob maliak la ka o zi'e suor la zug ka fuoe su'vgo zanl o nu'ugin, ka o buni kpen' moogi gaad. Ka Balaam pin'ili bu'ud bun la ye o leb suor puog.

Zugsob maliak la da tolisi zi'en lombon'od ayi' bane ka ba me' zaŋguoma ayi' $\mathrm{b} \varepsilon$, ka suobaanlig beє li teysuk la. Buy la n da nyє Zugsob maliak la, o da miee labin zaŋguom la urig Balaam nobir. Ka o lem bv' o ya'as.

Zugsob maliak la da len vurigi tolis zi'en tuon zin'ikane ka so' ku nyani fendig datiuy bé dagobuga. Buy la da len nye Zugsob maliak la, o da digin ne Balaam wusa teŋin, ka Balaam sunf duoe hali ka o vob bon la ne o dansaar. Ka Zugsob ke ka bvy la ya'ae o noori pian' Balaam ye, "Bo kimm ka m maalif ka li ke ka fu bu'vm noor atan' sa?" Balaam da lebis o ye, "Fv morim ne maan galim! M ya'a morin su'ugv m nu'ugin m naan kuonif nannanna." Buy la da lebis Balaam ye, "Man ka'anc fu mey bon one ka fu ban'ad saya wusa ti paae zinaa? Fu nam mi' nyє ka m maal anwa tisi foo?" Ka o lebis ye, "Ayei!"

Ka Zugsob yo'og Balaam nini ka o nyє maliak la zi'e suor la teysuk ka fuoe so'vgo zanl. Ka o igin ka vanbin te⿹in. Zugsob maliak la da bu'os o ye, "Bo ka fu bv' boy la noor atan' sa? M kena ye m ginif bozugo ken la ka' su'vm m nini nii. Noor atan' ka bon la nyém ka yuk. Bon la ya'a po yukine, anwaa m kovnif ka basin boŋ la." Balaam da lebisi y $\varepsilon$ l Zugsob maliak la ye, "M tom taal, m pa'a pu bay ye fu zi'en $\varepsilon$ suorin la ye fo geŋi ma. Nannanna li ya'a po malisi fo m na lebi kul." Ka maliak la
 Balaam dol Balak na'ayikpem la key.

Balaam tns rise morning-LOC cat tie 3an donkey:Sg cat accompany Moab ná'-yị-kpém lā Ø kév.
chief-house-elder:plart cat go.
"Balaam got up in the morning, saddled his donkey and went with the courtiers of the king of Moab."

Àmáa Wínà'am sún̆f dà dùe n $\bar{\varepsilon}$ ón k $\bar{\varepsilon} \eta$ lā, kà Zūg-sób málīāk
But God heart:sg tns rise with 3AN:NZ go ART, and Head-null.AN angel:sG kị̄dıgıø zị̂ən sūөr lā zúg yर́ ò gịワó乙 ø.
meet CAT stand road:SG ART upon that 3AN obstruct 3AN.Ob.
"But God was angry that he went, and an angel of the Lord met him and stood in the road to obstruct him."

Balaam dá bàn̆'ad né ò bùy, kà ò yàmmıs ày!̣́' dōlló Ø. Balaam tns ride:IPFV FOC 3AN donkey:SG, and 3AN slave:PL NUM:two accompany 3AN.ob. "Balaam was riding his donkey, and his two slaves accompanied him."

Bòn lā dá n̆yè Zūg-sób málịāk lá kà ò zị́e sūer lā zúg Donkey:SG ART TNS see Head-nUll.AN angel:SG ART and 3AN be.standing road:SG ART upon kà fúe sò'vgo ø zán̆l ò nú'ugī-n, kà ò bv́nì ø kpèn̆' and draw knife:SG CAT have.in.hand 3AN hand:SG-LOC, and 3AN cut.across cat enter mūogı Ø gâad. grass:SG cat pass.
"The donkey saw the angel of the Lord standing in the road with a drawn sword in his hand and cut across into the grass and went on."

Kà Balaam pịn̄'ill ø bū'vd búv lā yé ò léb sūөr pôvg. And Balaam begin cat beat:IPFV donkey:sg art that 3AN return road:sg inside. "Balaam started beating the donkey to make it return to the road."

Zūg-sób máliāa lā dá tòlısı ø zî̀ən lòmbò'od àyịí bánì kà bà mé Head-null.an angel:Sg art tns do.next cat stand orchard:pl num:two rel.pl and 3pl build
 wall:PL NUM:two cat demarcate, and road-narrow:SG EXIST 3IN middle:SG ART. "The angel of the Lord then stood where dividing walls had been built between two orchards and there was a narrow path between them."

Bòn lá ǹ dà n̆ȳ̄ Zūg-sób málíāk lā, ò dà mị̀e $\varnothing$ làbın Donkey:SG art nz tns see Head-null.AN angel:sg art, 3an tns squeeze cat hide.behind zàngùөm lā Øø ūrıg Balaam nóbìr. Kà ò lém bú'o Ø $\varnothing$ yâ'as. wall:SG art cat scrape Balaam leg:sg. And 3an again beat 3an.ob again. "When the donkey saw the angel of the Lord, it squeezed against the wall and scraped Balaam's leg. And he beat it again."

Zūg-sób máliāk lā dá lèm vūrıgı ø tōlıs ø zị̂əə tùөn Head-null.an angel:Sg art tns again shift.along cat do.next cat stand in.front
 place-rel.SG and indf.an neg.IRr prevail cat turn right or left=NEG. "Then the angel of the Lord moved along to stand in front of a place where nobody could turn to the right or the left."

Bùn lá $\varnothing$ dà lèm n̆yē $Z u ̄ g$-sób málīāk lā, ò dà dìgın n $\bar{\varepsilon}$ Donkey:Sg art nz tns again see Head-null.an angel:Sg art, 3an tns lie.down with Balaam wūsa tēpı-n, kà Balaam sún̆f dūe hālí kà ò vōb Balaam all ground:SG-LOC, and Balaam heart:SG rise so.far and 3AN strike bún lā né ò dànsàar. donkey:SG ART with 3AN staff:SG.
"When the donkey again saw the angel of the Lord, it lay down along with Balaam on the ground, and Balaam was so angry he beat the donkey with his staff."

Kà Zūg-sób ké kà bùy lā yá'e ò nōorı ø pī̃ăn̆ Balaam y $\bar{\varepsilon}$, And Head-null.an let and donkey:Sg art open 3an mouth:Sg cat speak Balaam that Bō kị́mm kà m̀ máalì $f$ kà lì ké kà fù bú'vⓜ nōor átán̆' sá=ø? what IDEO and 1SG make 2SG and 3IN let and 2SG beat 1SG time:SG nUM:three hence=CQ? "Then the Lord caused the donkey to open its mouth to speak to Balaam: 'Just what have I done to you to make you beat me these three times?'"
 Balaam tns reply 3AN.OB that, 2SG have 1SG FOC CAT make:IPFV CAT joke:IPFV! 1SG if mōrı-n sú'vgì m̀ nú'ugī-n, ̀̀ nāan kūv-ní $f$ nānná-nā. have-dp knife:sG 1Sg hand:SG-Loc, 1SG then kill-dp 2SG now. "Balaam replied: 'You are holding me in contempt! If I'd had a sword in my hand, I would have killed you right now.'"

Bòn lā dá lèbıs Balaam ȳ̄, Mān kā' né fò mēŋ bón ónì kà Donkey:SG Art tns reply Balaam that, 1SG.CNTR NEG.BE FOC 2SG self donkey:SG Rel.AN and fù bān̄'ad sāŋá wūsa ø tí pāe zịnáa=ø=ø? Fù nám mị'乙 ø n̆yć kà 2SG ride:IPFV time all CAT after reach today $=\mathrm{NEG}=\mathrm{PQ}$ ? 2SG already know cat see and m̀ mâal àn̆wá $\smile \varnothing$ tísì $f \grave{\jmath}=\varnothing$ ? Kà ò lćbìs y $\bar{\varepsilon}$, Áyìu! 1SG make thus CAT give $2 \mathrm{SG}=\mathrm{CQ}$ ? And 3AN reply that No.
"The donkey replied to Balaam: 'Am I not your own donkey that you have always been riding up until today? Have you ever known me to behave like this to you?' He replied, 'No.'"
 And Head-null.an open Balaam eye:pl and 3an see angel:sg art cat be.standing road:sg lā tén-sūk, kà fúe sv̀'vgo $\smile ~ z a ̄ n ̆ l . ~ K a ̀ ~ o ̀ ~ i ́ g i ̀ n ~ k a ̀ ~ v a ́ b i ̀ n ~ t \bar{\varepsilon} \eta ı-n . ~$ art centre:SG and draw knife:SG cat hold. And 3AN kneel and lie.prone ground:Sg-Loc. "Then the Lord opened Balaam's eyes so he could see the angel standing in the middle of the road with a drawn sword in his hand, and he knelt and lay face down."

Zūg-sób málīāk lā dá bù'өsōø ȳ̄, Bó kà fù bv̄' bv́n lā Head-null.AN angel:Sg ART tns ask 3AN.ob that, What and 2SG beat donkey:SG ART
 time:SG NUM:three hence=CQ? 1SG come hither that 1SG obstruct 2SG because go:GER ART
 NEG.BE good:ABSTR 1SG eye:PL LOC=NEG. Time:SG NUM:three and donkey:SG ART see 1SG kà yūk. Bùn lā yá' pū yūkı-ní àn̆wáa=ø m̀ kv̄v-ní $f$ kà and deviate. Donkey:SG ART if NEG.IND deviate-dP thus=NEG 1SG kill-dP 2SG and básī-n búp lā. release-DP donkey:SG ART.
"The angel of the Lord asked him: 'Why have you beaten the donkey these three times? I came here to obstruct you because your journey is not good in my eyes. Three times the donkey saw me and turned aside. If the donkey had not turned aside, I would have killed you and spared the donkey."

Balaam dá lèbısı Ø yćl Zūg-sób máliāk lā ȳ̄, M̀ tóm tâal, m̀ pá' Balaam tns reply cat say Head-null.AN angel:Sg ART that, 1SG work fault:SG, 1SG TNS $p \bar{u}$ bán yé fù zị̂'e n̄̄ sūөrí-n lā yé fù gị̀í mā=ø. NEG.IND realise that 2 SG be.standing FOC road:SG-LOC ART that 2SG obstruct 1 SG=NEG. Nānná-nā, lì yá' pū mālısí fō=ø, m̀ ná lēbı ø kūl. Now, 3IN if NEG.IND be.pleasing 2SG=NEG, 1SG IRR return CAT go.home. "Balaam replied to the angel of the Lord: 'I have transgressed. I did not realise that you were standiing in the road to obstruct me. Now, if it is not pleasing to you, I will return home.'"
 And angel:sg art reply cat say Balaam that, Accompany person:pl art cat go, àmáa yغ̀lım n $\bar{\varepsilon}$ mán yé fù yél sị'əl má'àa.
but say:IMP FOC 1SG:NZ that 2SG say INDF.IN only.
"But the angel replied to Balaam: 'Go with the people, but say only what I tell you.'"

Kà Balaam dōl Balak ná'-yị-kpém lā」ø kéך.
And Balaam accompany Balak chief-house-elder:PL ART cat go.
"So Balaam went with Balak's courtiers."

### 27.2 Three Murderers

From Kusaal Solima ne Siilima p16. The story is clearly related to Chaucer's Pardoner's Tale; the fable is familiar throughout Europe, Asia and Africa, and is probably ultimately derived from a Buddhist Jātaka story. (Hamel and Merrill 1991.)

The style is much less formal than in the passage from KB above.

## NING KUUDIBA ATAN'

Dapa atan' n da be. Ba da ane dap kanda su'unga. Ka daar yinni ka ba la'asi zin'ini gban'e ye ba duom ia budaalim la'ad $n$ ginni kuum nidib ma'aa ka da lem tum si'ela. Ba sid due ia su'us ne zan'ana ne tiraad ne piima ne lu'ad, ne kpana ne mali su'unga n pin'ili ginni ied nidib ye ba ya'a nye so' ban ku.

Ba giligi ala ne nwadisa atan' ne dabisa atan' ba po nye nidii na kuu. Ka kpelim mor ken ne ken ne ken. Daba anu daar ba nye ne lallisa ka si'el zie sabili wuu nidne, ka ba kpeem la ye ba kem kuu o, ye o sob ya'a pun ton'e ka morne lauksia'a wusa ba na nyangi kuu o. Ka onga gingid kpe, ka onga gingid kpe, ba ti keng paae nye ka li ka'a nida, ka ane boto ka ligidi pe'el ma'aa ma'aa ma. Ka ba ye, Ato, ka nannanna nwa, ti ye ti ning ligidi nwa walla? Ka ba ye, ba na pudigne. Amaa ba ye li nar ka ba yis ligidi la $n$ keng da'a daam na nu yiiga ka nyaan pudig ligidi la. Ka yis ligidi la bi'ela ye biig la kem da' yoor na ka ba nu.

Biig la ken la o ten'esidne on na nnig [sic] si'em ku bane kpelim anniga [sic] la ka vaae ligidi la wusa wusa n su'e, o yeli o meng ye, o na da' ne daam ka bo tikuudim n los daamin la n paae tii ba ka ba nuu kpi ka o su'e ligidi la wusa. Ka sid da' daam la ka bo tikuudim $n$ los.

Ziisige, ka baba yi'i la kpellim la, me gban'e ne ye ba ku biig la keng daam la da'ab la ka me su'e ligidi la. Biig la n mor daam la paa na la, ka onga kiak [sic] kpe, ka on kiak [sic] kpe, n kia o ku ka yu'un zang daam la nu wan wan, li pu yuuge, ka ba wusa wusa me kpelim kpi zin'i kan la noo ka ba so'o so' pu nyangi paam la'af la baa yinni mori kule ba yaane.

Din ka Kusaas ye fu ya'a ten'es bee tumbe'ed ye fu tisi fu tiraan, fu maane fu meng ya'as la.

Nịn-kúvdìbá àtán̆'. "Three murderers."
Person-kill:AGT:PL NUM:three.

Dāpá_àtán̆' $n$ dá bè. Bà dà à nē dáp-kān̆da súyā. Man:PL NUM:three cat tns exist. 3PL tns cop foc man-tough:PL well. "There were once three men. They were really tough men."

Kà dāar yīnní kà bà lá'asì Ø ziṇn'inìø gbān̆'e yé bà dûөm乙ø īa búdàalım And day:SG one and 3PL gather cat sit cat grab that 3PL rise:IMP CAT seek courage lâ'ad $n$ gịinnı $\varnothing$ kū nị̃dıb má'àa kà dā lém tùm sị'əla=ø. goods:PL CAT roam:IPFV CAT kill person:PL only and NEG.IMP again work INDF.IN=NEG. "One day they sat down to meet and decided to go and find some weaponry and go round looking to kill people so as never to have to work again."

Bà sìd dùe $\varnothing$ Ø īa sû'vs n̄ záň'anà n $\bar{\varepsilon}$ tí-dāad n $\bar{\varepsilon}$ pịmá n $\bar{\varepsilon}$ 3PL truly rise cat seek knife:PL with bludgeon:PL with bow:PL with arrow:PL with
 quiver:PL with spear:PL with gun:PL well cat begin CAT wander:IPFV CAT seek:IPFV nịdıb yé bà yá' n̆y $\bar{\varepsilon}$ sō' bān k $\quad$.
person:PL that 3PL if find INDF.AN 3PL.CNTR kill.
"So indeed they went and sought lots of swords, bludgeons, bows, arrows, quivers, spears and guns and began looking round for people to find someone to kill."
 3PL go.round thus with month:PL NUM:three with day:PL nUM:three. 3PL nEG.IND find $n i ̣ d\urcorner \quad \varnothing$ ná $k \bar{v} v=\varnothing$. Kà kpélìm mōr k $\bar{\varepsilon} n \quad n \bar{\varepsilon} \quad k \bar{\varepsilon} n \quad n \bar{\varepsilon} \quad k \bar{\varepsilon} n$. person:SG CAT IRR kill=NEG. And remain have go:GER with go:GER with go:GER "They went round like this for three months and three days and didn't find a person to kill. They carried on walking and walking and walking."

Dābá ${ }^{\circ}$ ànū dâar bà n̆y $\bar{\varepsilon}$ nē lāllí sà kà sị'əl zị'e sābíllì ø Day:PL NUM:five day:SG 3PL find with far hence and indF.in stand black:SG Cat
 like person:Sg like, and 3PL elder:SG ART that 3PL go:IMP CAT kill 3AN.ob, that 3AN nUll.AN yá' pùn túň'e kà mōr nē láukk-sị'a wūsa, bà nà ňyāpl ø kúo ø. if already be.able and have FOC item-INDF.IN all, 3PL IRR prevail CAT kill 3AN.OB. "On the fifth day they saw something standing in the distance, black like a human being, and the eldest of them said that they should go and kill him; when he himself was ready and had every piece of equipment, they would be able to kill him."
 And DEMST.AN intercept:IPFV there, and DEMST.AN intercept:IPFV there, 3PL after go cat pāe_ $\varnothing$ n̆y $\varepsilon$ kà lì kā' nị̄dá= $\varnothing$, kà á $n \bar{\varepsilon}$ bōtú kà lịgıdı pê'عl reach CAT see and 3IN NEG.BE person:SG=NEG, and COP FOC sack:SG and money fill mà'aa má'àa má.
only only IDEO.
"And this one blocked this way, and that one blocked that way, but after they got there they saw that it wasn't a person but a bag chock full of money."

Kà bà y $\bar{\varepsilon}$, Àtò, kà nānná-nā n̆wá, tì yé tì nị́ lị̆ $\mathrm{c} \imath d ı ~ \check{~ n ̌ w a ́ ~ w a ̄ l a ́=ø ? ~}$ And 3PL say, So.then, and now this, 1PL that after do money this how=cQ? "They said: 'Well, now! What are we going to do with this money?'"

Kà bà y $\bar{\varepsilon}$, bà nà pūdıg n $\bar{\varepsilon}$. Àmáa bà yé lì nár kà bà yịs lị̆gıdı lā $n$ And 3PL say, 3PL IRR share FOc. But 3PL that 3IN must and 3PL extract money art cat k̄̄ŋ $\varnothing$ dá' dāam Ø $\varnothing$ ná nū yịigá kà n̆yāan pūdıg lịgıdı lā. go CAT buy beer CAT IRR drink firstly and next share money art.
"And they said they'd share it. But first they said they should take some money out to buy beer to drink, and then share out the money."

Kà yịs lịgıdı lā bị'əlá yz bịị lā kém $\varnothing$ dá' yūvr ná kà bà nū. And extract money art little that child:SG ART go:IMP Cat buy jug:Sg hither and 3PL drink. "And they took out a little of the money so the youngest could go and buy a jug so they could drink."
 Child:SG ART NZ go:IPFV ART, 3AN think:IPFV FOC 3AN:NZ IRR do INDF.ADV CAT kill REL.PL remain ànị́nā lā, kà váe lịgıdı lā wūsa wūsa $n$ sū'e, ò yèlí $\grave{l}$ ò m $\bar{\varepsilon} \eta y \bar{\varepsilon}$, there ART, and gather money art all all CAT own, 3AN say 3AN self that, ò nà dā' nē dāam, kà bó tì-kv̄vdím $n$ lós dāamí-n lā 3AN IRR buy FOc beer, and seek medicine-killing cAT immerse beer-LOC ART $n$ pāe $\varnothing$ tíl $\smile b a ́ ~ k a ̀ ~ b a ̀ ~ n u ̄ u \smile ø ~ k p i ̣ ́ k a ̀ ~ o ̀ ~ s u ̄ ' e ~ l i ̣ g ı d ı ~ l a ̄ ~ w u ̄ s a . ~$ CAT reach CAT give 3PL.OB and 3PL drink CAT die and 3AN own money art all. "As the youngest was travelling, he was thinking how he might kill those who stayed in that place and take absolutely all of the money as his own; he said to himself that he would buy the beer, and look for a poison to put into the beer and go and give it to them to drink and die so he'd possess all of the money."

Kà síd dà' dāam lā, kà bó tì-kv̄vdím $n$ lós.
And truly buy beer ART, and seek medicine-killing cat immerse.
"And indeed he bought the beer and sought poison to put in it."

Zị̂'isíg $\bar{\varepsilon}=\varnothing$, kà bà bàyị́' lá $\varnothing$ kpèlım lā mé gbāñ'e n $\bar{\varepsilon}$ yé bà kū NEG.KNOW=NEG, and 3PL NUM:two ART NZ remain ART also grab FOC that 3PL kill
bịig lá ø $k \bar{\varepsilon} \eta$ dāam lā dâ'ab lā, kà mé sū'e lị̆gıdı lā.
child:SG ART NZ go beer ART buy:GER ART, and also own money art.
"Unbeknownst, the two who had stayed behind had also decided to kill the youth who had gone to buy the beer and themselves keep the money."

Bịig lá $n$ mōr dāam lā ø pāa nā lā, kà ò $\begin{aligned} & \text { ā kịá } k p \bar{\varepsilon} \text {, }\end{aligned}$ Child:SG ART nz have beer ART CAT reach hither art, and DEMST.AN cut here,
 and 3an.CNTR cut here, cat cut zan.ob cat kill, and then take beer art cat nū wán wán, lì pū yúug $\bar{\varepsilon}=\varnothing$, kà bà wūsa wūsa mé kpélìm kpị drink IDEO IDEO, 3IN NEG.IND delay=NEG and 3PL all all also immediately die zìn̆-kàn lā nó $k a ̀$ bà sō' sō' pū n̆yāpı乙ø pâam lā'af lā place-DEM.SG ART exactly and 3PL INDF.AN INDF.AN NEG.IND prevail CAT receive cowry:SG ART báa yīnní $\varnothing$ mōrı $\varnothing$ kūlí bà yáa-n $\bar{\varepsilon}=\varnothing$. not.one cat have cat go.home 3pl house:PL-LOC=NEG. "When the youth arrived back with the beer, this one cut him here and that one cut him there, cutting him to death, and they then picked up the beer and drank it in gulps; before long both of them died immediately in the exact same place, and none of them was able to take even a single coin home."

Dìn kà Kūsâas yé fù yá' tz̄n̆'عs bēe túm bē' $\varepsilon d$ yé fù tísì 3IN.CNTR and Kusaasi:pl that 2SG if think or act bad that 2SG give fù tīrâan, fù mâanní fù mē y yâ'as lā. 2SG neighbour:SG, 2SG make:IPFV 2SG self again ART.
"That's why the Kusaasi say: if you think or do evil toward your neighbour, you're doing it to yourself in return."

### 27.3 Proverbs

Kusaal Solima ne Siilima pp38ff.; other proverbs appear in the grammar above.

Ku'om kaadi lebisne m geegun.
Kù'өm káadì ø lébìs né ̀̀ gēogv-n.
Water bail:IPFV cat return FOC 1SG between.legs:SG-Loc.
"Water is bailed and returns between my legs." (Charity begins at home.)

Ku'om zotne bian'ar zug.
Kù'өm zót nē bīān̆'ar zúg.
Water run:IPFV Foc riverbed:Sg upon.
"Water runs on mud." (i.e. what's in it for me?)

Kuga la'asidne zuorin.
Kūgá là'asıd n̄̄ zūөrı-n.
Stone:pl gather:IPFV FOC hill:SG-LOC.
"Stones build up on a hill." (The rich get richer and the poor get poorer.)

Awiak seung zi' senne.
À-wīāk $\quad s \bar{\varepsilon} o \check{o n g} \quad z i ̄ 1 \quad s i ́ n n \bar{\varepsilon}=\varnothing$.
PERS-hatch rainy.season NEG.KNOw hawk:PL=NEG.
"One hatched in the rainy season doesn't know about hawks." (Fool's paradise.)

Po nye saa kuubo, ka nye saa niib.
$P \bar{u} \quad \check{n} y \bar{\varepsilon}$ sāa kúvb̄$=\varnothing, \quad$ kà n̆y $\bar{\varepsilon}$ sāa nị̂ib.
NEG.IND see rain threaten:GER=NEG, and see rain rain:GER.
"Didn't see the rain coming, but did see the rain." (Wise after the event.)

Ba pu nokid na'ambinni lobigid naafo.
Bà pū nōkíd nā'-bịnnì ø lōbıgíd náaf̄̄=ø.
3PL NEG.IND take:IPFV cow-dung:SG CAT throw.at:IPFV Cow:SG=NEG.
"They don't take cow dung and throw it at the cow." (Coals to Newcastle.)

Zu'om ya'a ye o na lobug, bangim ka o none kugir.
Zū'өm yá' yé ò nà lōbıg, bàyım kà ò nò nē kūgır.
Blind.person:SG if that 3AN IRR throw.at, realise:IMP and 3AN stand.on FOC stone:SG. "If a blind man says he'll stone you, know that he's got a stone under his foot."

Nong daan fuug tigidne gum ka li po tigid ki'ibo.
Nōŋ-dâan fûug tìgıd n̄̄ góm, kà lì pū tīgıd kī'ıbó=ø. Poverty-owner:SG shirt:SG sate:IPFV Foc cotton, and 3IN NEG.IND sate:IPFV soap=NEG.
"A poor man's shirt has a lot of material but not a lot of soap." (Waste not, want not.)

Balerigu zi' ye o a balerigu, ka tadim mi' ye o [a] tadim.
Bālērvgı $\varnothing$ zī' yé ò à bālērvgó=ø, kà tādım mị' yé ò à tādım.
Ugly:sG CAT NEG.KNOw that 3AN COP ugly:SG=NEG, and poor:sG know that 3AN COP poor:SG.
"The ugly man doesn't know he's ugly, but the poor man knows he's poor."
(i.e. self-delusion about poverty is not possible.)

Fu ya'a bood tampiing siind, fu po lem zot lieng daug nyoogo.
Fù yá' bōod támpị̀ing sịin̆d, fù pū lém zòt lịəə dâvg n̆yōogo=ø. 2SG if want rock:SG honey, 2SG NEG.IND again run:IPFV axe:SG wood:SG sympathy=NEG. "If you want honey out of a stone, you don't feel sorry for the axeshaft."

Moodi pilig ka yu'ada be.
Mōodı ø pịilig kà yū'ada bé.
Grass:pl cat strip.off and rafter:PL Exist.
"The thatch has come off but the rafters remain." (Where there's life there's hope.)

Buribig kunni o ba' yirne nobkoog daar.
Bì-dìbıg kúnní ò bā̀ yír n $\bar{\varepsilon}$ nōb-kôog dâar.
Goat-young.male:sG go.home:IPFV 3AN father:sG house:SG with leg-break:GER day:SG.
"The kid goes back to his father's house on the day he breaks his leg."

Adi'e buud po zin'i na'ayiree.
À-dị'e būvd pū zịñ'i ná'-yịr $\quad$ ́́ $=\varnothing$.
PERS-receive innocence NEG.IND be.sitting chief-house:SG=NEG.
"He who has been declared innocent doesn't hang around the courthouse."

Ba ye balerug ka fu ye zumauk.
Bà $y \bar{\varepsilon}$ bālērvg, kà fù y $\bar{\varepsilon} \quad z u \bar{g}-m a ́ u{ }^{\prime} k$.
3PL that ugly:SG, and 2SG that head-crumpled:SG.
"They say 'ugly' and you say 'funnyface.'" (Six of one, half a dozen of the other.)

Bungdaug po kaasidi o tiraan tengine.
Bùj-dāvg pū kāasídí ò tīrâan téทī-né=ø.
Donkey-male:SG NEG.IND cry.out:IPFV 3AN neighbour:SG land:SG-LOC=NEG.
"The jackass doesn't bray in his neighbour's territory."

Kpeem ane te'eg, o tigidne balaya.
Kp $\bar{\varepsilon} \varepsilon n ̆ m ~ a ́ ~ n \bar{\varepsilon}$ tर̂' $\varepsilon g$, ò tìgıd n $\bar{\varepsilon}$ bálàya.
Elder:SG Cop FOc baobab:SG, 3AN sate:IPFV FOC stick:PL.
"An elder is like a baobab - no shortage of sticks." (Uneasy lies the head ...)

A proverb related to me by KT:

Sāan-súy á n̄ yị-dâan án̆sìb.
Stranger-good:SG cop FOc house-owner:SG mother's.brother:SG.
"A good guest is a householder's uncle."

KT explained: Entertaining a guest gives the householder a reason to bring out all his best food and drink and enjoy himself. (The mother's brother is traditionally a generous benefactor to his sister's child.)

## 28 Vocabulary

Words are ordered by Short Forms. Vowel glottalisation and the distinctions $n / n$, ə/e/e/ $/ \varepsilon, i / \ell / i, \theta / o / \rho$ and $u / v / u$ are ignored in the ordering; $\eta$ follows $n$.

The abbreviations $n$ adj adv ideo $q s v d v$ stand respectively for noun, adjective, adverb, ideophone, quantifier, single-aspect verb and dual-aspect verb.

Nouns are listed under the sg. Adjectives are listed under the ga|sع class form if extant; if not, $g$ o|d $\varepsilon$ or $r \varepsilon \mid a a$. Dual-aspect verbs are listed under the perfective; other forms are listed only if irregular. Regular deverbal nominals are not listed. Compounds are not listed if they are regularly formed and have transparent meanings. Those that are listed are included under the entry for the first element.

Personal and place names are not listed: see $26.2 \underline{26.3}$ for examples.
Binomial names of plants are mostly taken from Haaf (see References); he checked the identifications carefully with botanical experts.

Arabic words have probably all been transmitted via other languages.

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A
à- personifier particle (default allomorph) 12.6
āan̆dıg}\mp@subsup{g}{}{\textrm{a}}\textrm{pl
a}an̆dır` pl āan̆da n. black plum fruit
àan̆s}\mp@subsup{s}{}{\varepsilon}dv. tear
àbv̀lá q. adv. how many-fold?
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à-dàalv́\eta}\mp@subsup{}{}{\circ}\mathrm{ pl à-dàalís}\mp@subsup{}{}{\varepsilon}\mathrm{ à-dàalímìs }\mp@subsup{}{}{\varepsilon}\mathrm{ cb à-dàalv́n- n. stork 12.6
àen̆"a}\mathrm{ ger àan̆límm
àen̆ dv. get torn; resultative adj àan̆lv́\eta}\mp@subsup{}{}{\circ}\mathrm{ torn
à-gâvn̆g}\mp@subsup{g}{}{\top}pl \grave{a}-gâan̆\mp@subsup{d}{}{\varepsilon}cb à-gān̆-n. pied crow \underline{12.6
àgól`}\mp@subsup{l}{}{\varepsilon}\mathrm{ àgōlá adv. upwards
Àg\grave{ll}}\mp@subsup{}{}{\varepsilon}n\mathrm{ . Agolle district of Kusaasi territory; n. Agolle Kusaal dialect
à-k}\overline{ra-dị̂əm}\mp@subsup{}{}{\mathrm{ ma pl à-k}̄ra-dị̂əm-nàm}\mp@subsup{}{}{\mathrm{ a }}n\mathrm{ . praying mantis }\underline{12.6
àlá adv. thus
àlá q. so many; how many?
àláafù n. health; in greetings 25; cf láafiya }\leftarrow\mathrm{ Arabic Pal-fa:fiya
Àláasìd dâar^n. Sunday \leftarrow Arabic
Àlàmịisì dâar}\mp@subsup{}{}{\varepsilon}n\mathrm{ . Thursday }\leftarrow\mathrm{ Arabic
Àlárıbà dâar}\mp@subsup{}{}{\varepsilon}n\mathrm{ . Wednesday }\leftarrow\mathrm{ Arabic
àlá zùg}\mp@subsup{}{}{`}\mathrm{ therefore 17.2.1
àlópìr}\mp@subsup{}{}{\varepsilon}\mathrm{ pl àlópìya n. aeroplane }\leftarrow\mathrm{ English
àmáa but 17.2.1 }\leftarrow\mathrm{ Hausa }\leftarrow\mathrm{ Arabic
àmह̄\etaá adv. really, truly
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àmị amen $\leftarrow$ Arabic Pa:mi:n; in replies to greetings $\underline{25}$
à-mús ${ }^{\varepsilon}$ pl à-mús-nàm ${ }^{\mathrm{a}}$ n. cat 12.6; cf Hausa mussàa id
ànāasí $q$. four
ànị adv. there
ànịi $q$. eight
ànị $n a \bar{a}^{\prime} a d v$. there
ànị́nà adv. promptly
ànô'on ${ }^{\varepsilon}$ who? 12.4.4
àn̆rv $\eta^{3}$ pl àn̆rıma cb àn̆rvŋ- n. boat (written aaruŋ in the 1976/1996 NT)
$\bar{a} n s^{\varepsilon} d v$. pluck (leaves)
án̆sìb ${ }^{\mathrm{a}} \mathrm{pl}$ ān̆s-nám ${ }^{\mathrm{a}} c b$ ān̆s- $n$. mother's brother
$\bar{a} n \sin ^{\varepsilon /} d v$. break at an angle
ān̆sín $\eta^{\mathrm{a}} \mathrm{pl}$ ān̆sís ${ }^{\varepsilon} \mathrm{Cb}$ ān̆sın-n. (man's) sister's child
àntù' $a p l a ̀ n t u ̀ ' \theta s^{\varepsilon} c b$ àntư'à- $n$. lawsuit
ànū $q$. five
àn̆wá adv. like this
ānzúrıfà $n$. silver $\leftarrow$ Hausa azùrfaa
àrakón̆' q. one
àrazàk ${ }^{\mathrm{a}}$ pl àrazà'as ${ }^{\varepsilon}$ cb àrazà'- generally pl: $n$. wealth, riches $\leftarrow$ Arabic Par-rizq
àrazánà $n$. heaven $\leftarrow$ Arabic Pal-fanna
Àrzúmà dâar ${ }^{\varepsilon} n$. Friday $\leftarrow$ Arabic
àsć $\varepsilon$ except, unless $1517.2 .1 \leftarrow$ Hausa sai
Àsịbıtì dâar ${ }^{\varepsilon} n$. Saturday $\leftarrow$ Arabic
àsīda adv. truly
àsùbá $n$. dawn $\leftarrow$ Arabic Pas ${ }^{\text {T}} s^{\text {ºb }} a b a: \hbar$
àtán̆' q. three
Àtàláatà dâar ${ }^{\varepsilon} n$. Tuesday $\leftarrow$ Arabic
àtáyāl q. three exactly
Àtínì dâar ${ }^{\varepsilon} n$. Monday $\leftarrow$ Arabic
àtìuk ${ }^{3} n$. sea $\leftarrow$ Hausa tèeku
àwánā/ adv. like this
àwāe q. nine
àyịí q. two
áyìı no 18.4
ày!!́nā' q. two exactly
àyópòe q. seven
àyúөbù q. six

## B

bà they, their (right-bound); ba them (left-bound) 12.4.1
bā¹/pl bā'-nám ${ }^{\text {a }}$ cb bā'- n. father 5.4
bāa pl bāas ${ }^{\varepsilon}$ cb bà- n. dog
báa ( $\leftarrow$ Hausa bâa "not exist") in constituent negation $\underline{23}$
bā'a pl bā'ab ${ }^{\mathrm{a}}$ cb bà'- n. traditional diviner; bà'-kj̀lvg ${ }^{\circ} \mathrm{pl}$ bà'-kòn ${ }^{\text {ne }}$ cb bà'-kòl- $n$. diviner's bag
bā'a pl bā'as ${ }^{\varepsilon} c b$ bà'- $n$. peg to hang things on
bà'an ${ }^{\mathrm{n} \mathrm{\varepsilon}}$ pl bà'ana cb bà'an- n. stocks (punishment)
bàan̆lıga pl bàan̆lıs ${ }^{\varepsilon} a d j$. narrow, slender
bāan̆líga adj. quiet
bāan̆lím ${ }^{\mathrm{m}} a d v$. quietly
bà'ar ${ }^{\varepsilon}$ pl bàda bà'a cb bà'- n. idol
bābá beside postposition 13.5; cf bābur ${ }^{\varepsilon /}$ sphere of activity
bàbıgā́ q. many
bákpàe $n$. week $\leftarrow$ Hausa bakwài "seven"
bàlàar ${ }^{\varepsilon}$ pl bàlàya cb bàlà- n. stick, staff, club
bàlà ır $^{\varepsilon}$ pl bàlàna cb bàlàn- n. hat
bālह̄rvg ${ }^{\rho /} p l$ bālērıd ${ }^{\varepsilon /}$ bālह̄rıs ${ }^{\varepsilon /}$ cb bālćr- n. ugly person; cf $l \bar{\varepsilon} r^{\varepsilon}$ get ugly
bàmmā ${ }^{/}$these, those demonstrative 12.4.2
bàn ${ }^{\varepsilon}$ these, those demonstrative 12.4.2
bán they (subject of $\grave{n}$-clause); bān ${ }^{\varepsilon}$ they, them (contrastive) 12.4.1
bān̆' dv. ride
bānāa pl bānāas ${ }^{\varepsilon}$ cb bànà- (tone sic in my materials) $n$. traditional "fugu" smock
bàn̆'ad ${ }^{\mathrm{a}} \mathrm{pl}$ bàn̆'ad-nàm ${ }^{\mathrm{a}} n$. ill person
$b a ̄ n ̆ ' a l^{\varepsilon /} d v$. make to ride (horse, bicycle)
bān̆'as ${ }^{\varepsilon}$ cb bàn̆'- n. pl as sg disease

bān-kúsćlı ${ }^{l \varepsilon} p l$ bān-kúsc̄lá cb bān-kús $\bar{l}-\mathrm{n}$. lizard
bā $\eta^{\mathrm{a}} \mathrm{pl}$ bāan̆s ${ }^{\varepsilon} c b$ bàn- $n$. ring, chain, fetter
bà $\eta^{\text {a }} n$. agama lizard
$b a ̀ \eta^{\varepsilon} d v$. come to know
báp wallop!
Bārıg ${ }^{\mathrm{a} /} \mathrm{pl}$ Bārıs ${ }^{\varepsilon /}$ cb Bār-n. Bisa person (not only the Bareka, WK)
bárıkà $n$. blessing; in greetings $\underline{25} \leftarrow$ Arabic baraka
Bārvg ${ }^{\text {o/ }}$ n. Bisa country; North 26.3
bàs ${ }^{\varepsilon} d v$. go away; abandon; throw out
$B a \bar{t} t^{\varepsilon /} n$. Bisa language
bàtán̆' q. three (after a personal pronoun)
bàūpo n. found only as in Ò kpèn̆' báunjù. He was circumcised. $\leftarrow$ Songhay "pool"
bày $\bar{\varepsilon} o g^{3 /}$ betrayer of secrets (cf yē $\varepsilon s^{\varepsilon /}$ )
bày!̣í q. two (after a personal pronoun)
bàyópòe q. seven (after a personal pronoun)
bè ger bèlím ${ }^{\mathrm{m}}$ (sic) sv. exist; be in a place 16.12.1
$b \bar{\varepsilon} d ı g^{\varepsilon /} d v$. go rotten
$b \check{c} d v g^{\top}$ bèdr $r^{\varepsilon} p l$ bèda cb bèd- adj. great
$b \varepsilon ̇ d v g \bar{v}^{\prime}$ q. much, a lot
$b \bar{\varepsilon} \varepsilon$ or 17.2.1 18.2

bèlım ${ }^{\mathrm{m}} d v$. beg
$b \varepsilon ̀ l ı s^{\varepsilon} d v$. comfort
$b \bar{\varepsilon} n^{\mathrm{n} \varepsilon} p l$ bēna cb bèn-n. end
$b \varepsilon ̀ n ̆ ' ~ g e r ~ b \bar{\varepsilon} n ̄ ' \varepsilon s^{\varepsilon} d v$. fall ill
$b \varepsilon ̇ n ̌ s ı g^{\varepsilon} d v$. serve soup
$b \varepsilon \eta^{\varepsilon} d v$. mark out a boundary
$b \bar{\varepsilon} \eta i ́ d^{\varepsilon} c b b \bar{\varepsilon} \eta-n$. pl bean leaves, Vigna unguiculata; b $\bar{\varepsilon} \eta i ́ d n \bar{\varepsilon} k i ̣ l n ~ n . ~ b e a n l e a f-a n d-~$
millet, a traditional snack
bēŋír ${ }^{\varepsilon} p l$ bēŋá $c b \quad b \bar{\varepsilon} \eta-n$. brown bean
$b \bar{\varepsilon} o g^{3}$ n. tomorrow 17.2.1; Kà b̄̄og nị́e kà ... The next day ...

$b \bar{\varepsilon} o g v-n^{\varepsilon /} n$. morning
$b \varepsilon ̀ r ı \eta^{\text {a }} p l$ bèrıgıs ${ }^{\varepsilon}$ sic $n$. a plant used for fibre (KED), Hibiscus cannabinus
bērıga cb bèrıg- pl leaves of bèrıŋ used for soup (KED)
$b \bar{\varepsilon} s \cup g^{\circ} \mathrm{pl} b \bar{\varepsilon} s ı d^{\varepsilon} c b$ bès- $n$. a kind of wide-mouthed pot
binān̆'ar ${ }^{\varepsilon /} p l$ bīān̆'adá bíáñ'a cb bi्थ āñ'- $n$. wet mud, black mud; riverbed

bịál ${ }^{l \varepsilon}$ pl bị̀əlá adj. naked
$b i ̣ ə l^{\varepsilon} d v$. accompany
bị'əlá $q$. a little; bị'əl bị̄'əl q. and adv. a very little; little by little

bịəən ${ }^{\mathrm{n} \varepsilon} \mathrm{pl}$ bịəəna cb bị̀ən- $n$. shin
bị̀r $r^{\varepsilon /} p l$ bìēyá $c b$ bina $-n$. elder sibling of the same sex
$b i ̣ ' \partial s^{\varepsilon} d v$. doubt
$b i ̣ g s^{\varepsilon} d v$. show, teach
bịilga $p l$ bịi $s^{\varepsilon}$ cb bị- bị- $n$. child; bị-díbì $\eta^{\mathrm{a}} n$. boy; bị-lịa $n$. baby; bị-nà'ab ${ }^{\mathrm{a}}$ n. prince; $b i ̣-p i ̣ t ~ t^{\mathrm{a} /} p l$ bì-pịtít $b^{\mathrm{a}} c b$ bị̀-pịt- $n$. father's younger brother; bị-pú $\eta^{\mathrm{a}} n$. girl
$b \underset{i}{\prime}$ 'ig${ }^{\varepsilon} d v$. ripen, become pregnant
bịilífo pl bịilí cb bịil- $n$. seed
bịilím ${ }^{\mathrm{m}} n$. childhood
$b i ̄ \imath m{ }^{\mathrm{m} /} \mathrm{cb}$ bī- n. soup, stew
bị'isím ${ }^{\mathrm{m}} n$. milk (human or animal)
bị̀'isır ${ }^{\varepsilon}$ pl bị̀'isa cb bị̀'is- $n$. woman's breast
bịla ${ }^{\mathrm{a}}$ pl bị̣bıs ${ }^{\varepsilon}$ cb bịl- or bị̀- $a d j$. little, small
bịlıg ${ }^{\varepsilon} d v$. roll (transitive)
bịlım ${ }^{\mathrm{m}} d v$. roll (intransitive)
bìmbìm ${ }^{\mathrm{m} \varepsilon}$ pl bìmbìma cb bìmbìm-n. altar NT (KED: mound or pillar of earth)
$B i ̀ n{ }^{\text {ne }} p l$ Bìm ${ }^{\text {ma }} c b$ Bìn- $n$. Moba, Bimoba person (not only Bemba, WK)
$B i ̀ n{ }^{\text {ne }} n$. Moba language
$b i ̣ n{ }^{\mathrm{n} \varepsilon} n$. excrement
Bìu ${ }^{3} n$. Moba country
bò $d v$. seek; bòsd ${ }^{\text {a }}$ ipfv used for: want, like, love (sexual, romantic); ipfv ger bòodım ${ }^{\mathrm{m}}$
will 9.2.1.4
bō cb bò- what? why? 12.4.4; bò-būudı what sort of ..?; b̄̄-zúgō because 17.2.1, why? 13.6; bう̀-wị̀n ${ }^{\text {ne }}$ what time of day?; bō kị́mm "exactly what?"
$b \grave{b ı} g^{\varepsilon} d \nu$. wrap round, tie round
$b \grave{d} d g^{\varepsilon} d v$. lose, become lost
bòdòbòdò $n$. bread (? ultimately $\leftarrow$ English)
bj̀k ${ }^{\top} p l$ bv̀'ad ${ }^{\varepsilon} c b$ bư'à- n. pit
$b \overline{s ı r} r^{\varepsilon} p l$ bōsa cb bòs- $n$. puff adder
bōtv n. sack
$b \bar{v} d v$. beat
buà̀k ${ }^{\varepsilon} d v$. split
bù'ar ${ }^{\varepsilon}$ pl bư'àa cb bư'à- n. hole
bv̄'ar ${ }^{\varepsilon /} p l$ bư'áa cb bu'ā- $n$. skin bottle
$b v^{\varepsilon} \operatorname{ger} b \bar{v} d ı g^{\mathrm{a}} b \bar{v} d v g^{3} d v$. plant seeds
bùdàalım ${ }^{\mathrm{m}} n$. manhood, courage
bùdım ${ }^{\mathrm{m}} d v$. get confused
bùdımís ${ }^{\varepsilon} n$. confusion
bù'e $d v$. pour out
$b \grave{v} g^{\varepsilon} d v$. get drunk; cf Hausa bùgu id
$b \bar{v} g v d^{\mathrm{a}} n$. client of a $b a \bar{\prime} a$ traditional diviner
bùgulım ${ }^{\mathrm{m}} d v$. cast lots
$b \bar{u} g v r^{\varepsilon} p l b u \bar{v} g a c b b u ̀ g-n$. dwelling-place of a $w \bar{i} n^{n \varepsilon}$ localised spirit; also a $w \bar{i} n^{n \varepsilon /}$ as
a sīgıril 26.2 inherited from one's mother's family
bùgóm ${ }^{\mathrm{m}}$ cb bùgōm- bùgóm- n. fire; Bùgóm-tōכn̆r ${ }^{\varepsilon} n$. Fire Festival
$b \bar{v} g s^{\text {a/ }} s v$. be soft
būgusíga būgusír ${ }^{\varepsilon}$ pl būgusá cb būgus- adj. soft, weak
$b \bar{g} \operatorname{lisíg}^{\prime} / a d v$. softly
būgusím ${ }^{\mathrm{m}} n$. softness, weakness
$b \bar{v} k^{\varepsilon /} d v$. weaken
$b u ̀ k^{\varepsilon} d v$. cast lots
bù $l^{\varepsilon} d v$. germinate, ooze
būl ${ }^{1 \varepsilon}$ pl būla n. shoot, sprout
$b u ̀ l^{\varepsilon} d v$. astonish
$B u ̀ l^{l \varepsilon} n$. Buli language
Bùlıga pl Bùlıs ${ }^{\varepsilon}$ cb Bùl- n. Bulsa person
bùlı $g^{\text {a }} p l$ bùlıs ${ }^{\varepsilon}$ cb bùl- $n$. well, pond
bùmbàrıg ${ }^{\mathrm{a}} \mathrm{pl}$ bùmbàrıs ${ }^{\varepsilon}$ cb bùmbàr- $n$. ant
$b u ̀ n^{\varepsilon} d v$. reap, harvest
$b \bar{\sim} n^{\mathrm{n} \varepsilon /} \mathrm{pl}$ būná būn-nám ${ }^{\mathrm{a}}$ cb būn- $n$. thing (concrete or abstract); būn-bv́vdif? $n$. plant; būn-gịn $\eta^{\mathrm{a}} n$. short chap (informal, joking); būn-kón̆bù ${ }^{\circ} \mathrm{pl}$ būn-kón̆bìd ${ }^{\varepsilon}$ cb kòn̆b- (sic) n. animal; būn-kúdì $g^{\circ} n$. old man
būn-dâar ${ }^{\varepsilon}$ which day? 13.6
bù $\eta^{\text {a }} \mathrm{pl}$ bùmıs ${ }^{\varepsilon}$ cb bùク- $n$. donkey
$b u ̀ \eta^{\varepsilon} d \nu$. take a short cut
$b u ̀ e l^{\varepsilon} d v$. call, summon; Ò yv̄'vr bûen X. She is called X. 16.9.2
bù̀r $r^{\varepsilon}$ pl buèya cb bùà- n. grain store, silo
$b u ̄ ' \theta s^{\varepsilon} d v$. ask; ger bū'өsv́g${ }^{\circ} n$. question; bu'oska引a this question (Jn 18:34)
bù-pịiga q. adv. ten times
būráa $n$. man, male adult (in ILK, but characteristically Toende Kusaal; see dāu) būrıyá $n$. Christmas $\leftarrow$ Twi/Fante bronya
bùrkìn ${ }^{\text {a }}$ pl bùrkìn-nàm ${ }^{\mathrm{a}}$ cb bùrkìn- $n$. free person; honourable person $\leftarrow$ Songhay
Bùsâan̆l ${ }^{\varepsilon} n$. Bisa language
Bùsán ${ }^{\text {a }}$ pl Bùsâan̆s ${ }^{\varepsilon}$ cb Bùsāŋ- $n$. Bisa person
būtı ${ }^{\text {a }}$ pl būtııs ${ }^{\varepsilon} \underline{3.5}$; cb bv̀tıך- n. cup (in general; originally "seed-planting [cup]")
$b \bar{u} d^{\varepsilon}$ n. pl as sg innocence
būudı cb bùud- $n$. kind, sort, ethnic group
$b \bar{v} v g^{\mathrm{a}} p l \mathrm{~b} \bar{v} v s^{\varepsilon} c b$ bù- $n$. goat; bù-dìbı $g^{\mathrm{a}}$ n. male kid

## D

dà before two days ago, tense particle 16.3.1
dā not with imperative mood 16.5
dàa day after tomorrow, tense particle 16.3.1
dāa before yesterday, tense particle 16.3.1
dà' $d v$. buy
dà'a pl dà'as ${ }^{\varepsilon}$ cb dà'- $n$. market
dà'abır ${ }^{\varepsilon} n$. slave
dàalım ${ }^{\mathrm{m}} n$. masculinity
dàalím ${ }^{\mathrm{m}} \mathrm{pl}$ dàalímìs ${ }^{\varepsilon} n$. male organs
dāam ${ }^{\mathrm{m} /} c b$ dā- $n$. millet beer, "pito"; dā-nûur ${ }^{\varepsilon} n$. beer-drinking; dā-bịn ${ }^{\mathrm{n} \varepsilon}$ cb dā-bịn- $n$. beer residue; NT yeast (cf bị̀n ${ }^{\text {n }}$ )
dàam ${ }^{\mathrm{m}} d v$. disturb, trouble (cf Hausa dàamaa id)
dāan ${ }^{\mathrm{a}} \mathrm{pl}$ dàan-nàm ${ }^{\mathrm{a}}$ cb dàan- $n$. owner of ... 12.7.2
dāar ${ }^{\varepsilon} p l$ dābá cb dà- $n$. day (24-hour period); dà-pịiga $n$. ten days
dāa-sí' $\varepsilon r \bar{\varepsilon}$ perhaps 17.2.1
dàbịəə ${ }^{\mathrm{m}}$ tone sic $n$. fear
dàbịog ${ }^{3}$ pl dàbịə $\partial{ }^{\varepsilon}$ cb dàbịà- n. coward
dàbısır ${ }^{\varepsilon}$ pl dàbısa cb dàbıs- n. day (as one of several)
dādúk ${ }^{5} n$. a kind of large pot
$d \bar{a} ' e^{\prime} d v$. push; blow (of wind)
Dàgâad ${ }^{\mathrm{a}} \mathrm{pl}$ Dàgáadìb ${ }^{\mathrm{a}}$ Dàgâad-nàm ${ }^{\mathrm{a}}$ cb Dàgâad- n. Dagaaba person (L prefix sic)
Dàgbānn ${ }^{\mathrm{n} /}$ pl Dàgbām ${ }^{\mathrm{ma/}}$ cb Dàgbān- $n$. Dagomba person
Dàgbānne/n. Dagbani language
Dàgbāun $\eta^{2 / n}$. Dagomba country, Dagbon
dàgòbı $g^{\mathrm{a}} n$. left-hand; (yà) dàgòbıg ${ }^{\mathrm{a}}$ South KB $\underline{26.3}$
dāká pl dāká-nàma cb dāká- n. box $\leftarrow$ Hausa àdakàa
dàkịi ${ }^{\mathrm{a}} \mathrm{pl}$ dàkịis ${ }^{\varepsilon}$ cb dàkị̀- $n$. wife's sibling; dàkị-dāu $n$. wife's brother; dàkì-pūāka $n$.
wife's sister; dàkì-tùa $n$. wife's sister's husband
dà-kj̀on̆r ${ }^{\varepsilon}$ pl dà-kòn̆ya cb dà-kòn̆-n. unmarried son $\underline{26.1}$
dàm ${ }^{\mathrm{m}}$ ipfv dàmmıd ${ }^{\mathrm{a}} d v$. shake
dàmà'a n. liar cf mà'
dàmà'am ${ }^{\mathrm{m}} n$. lie, untruth, lying
dàmà'ar ${ }^{\varepsilon} n$. lie, untruth
dāmpūsāar ${ }^{\varepsilon} n$. stick
dànkòj${ }^{\circ} n$. measles
dànsàar ${ }^{\varepsilon} n$. staff, club
dà-pāala/n. young man, son
dà-sā $\eta^{\mathrm{a}}$ pl dà-sāan̆s ${ }^{\varepsilon}$ dà-sām ${ }^{\text {ma }}$ cb dà-sà $\eta$ - $n$. young man
dà-tāa pl dà-tāas ${ }^{\varepsilon}$ cb dà-tà- n. enemy
dàtìu $\eta^{\circ} n$. right-hand; (yà) dàtìu $\eta^{5}$ North KB $\underline{26.3}$
dāu $p l$ dāp ${ }^{\mathrm{a}}$ cb dàu- dàp- $\underline{\underline{2} .2}$ n. man (as opposed to woman)
dàv $g^{\circ} p l d a ̀ a d^{\varepsilon} c b$ dà- $n$. piece of wood, log; pl also: wood (material); dà-kịəd ${ }^{\text {a }} n$.
wood-cutter; dà-kpị̀'əd ${ }^{\mathrm{a}} n$. carpenter; dà-pūvdír${ }^{\varepsilon} n$. cross-piece, pl dà-pūvdá $n$. used as sg cross NT
dāvg ${ }^{\circ}$ pl dāad ${ }^{\varepsilon}$ cb dà- $a d j$. male
dàwàlıg ${ }^{\mathrm{a}} n$. hot humid season before the rains
dàwān ${ }^{\mathrm{n} \varepsilon /}$ pl dàwāná cb dàwān- $n$. pigeon
dàyáam ${ }^{\text {ma }} p l$ dàyāam-nám ${ }^{\text {a }}$ cb dàyāam- $n$. husband's parent; dàyāam-dáu $n$. husband's father; dàyāam-puák ${ }^{\mathrm{a}} n$. husband's mother
dàyūug ${ }^{\supset /}$ pl dàyūud ${ }^{\varepsilon /}$ cb dàyū- n. rat
dèbıř pl dèba n. mat, pallet, bed
$d \varepsilon ̀ \varepsilon g^{\text {a }} p l d \varepsilon ̀ \varepsilon s^{\varepsilon} n$. warthog
$d \bar{\varepsilon} \varepsilon \eta^{\mathrm{a}} \mathrm{pl} d \bar{\varepsilon} \varepsilon \check{n} s^{\varepsilon} d \bar{\varepsilon} \varepsilon m ı s^{\varepsilon} d \bar{\varepsilon} \varepsilon n a \operatorname{cb} d \varepsilon ̀ \varepsilon \eta-q$. first
d $\bar{\varepsilon} l^{\mathrm{la}}$ ger $d \bar{\varepsilon} l l v$ g $^{\mathrm{o}}$ d $\bar{\varepsilon} l l i m^{\mathrm{m}}$ sv. be leaning on something (of a person)
$d \varepsilon ̀ l ı m^{\mathrm{m}} d v$. begin to lean on something (of a person)
$d \bar{\varepsilon} \eta^{\mathrm{a}} \mathrm{pl} d \bar{\varepsilon} m ı s^{\varepsilon} c b d \varepsilon ̀ \eta-n$. accidental bruise; defect
$d \varepsilon ̀ \eta^{\varepsilon} d v$. go, do first
dغ̀yım beforehand, preverb 16.8
dì it, its (right-bound) 12.4.1 $=l i ̀$
dì ipfv dìt ${ }^{\mathrm{a}} \quad i m p d i ̀ m a n d$. eat, receive; ger dīıb $b^{\top} n$. food; Ò dı̀ pu'ā. He's married a wife. Ò dı̀ n̆yán. She's ashamed.
$d i a^{\prime}{ }^{\mathrm{a}} d \nu$. get dirty
diāa'ad ${ }^{\varepsilon /}$ n. dirt
$d i ̣ ' e l d v$. receive, get
dị̀əm ${ }^{\text {ma }}$ pl dị̀əm-nàm ${ }^{\text {a }}$ Cb dị̀əm- $n$. wife's parent; also in polite address to an unrelated person of opposite sex and similar or greater age than onself; dị̀m-dāu $n$. wife's father; dị̀əm-pūāk ${ }^{\mathrm{a}} n$. wife's mother
$d i ̣ ' ə m^{\mathrm{m}} d v$. play, not be serious
dị'əma $n$. festival
$d i ̣ ं ' \partial s^{\varepsilon /} d v$. receive (many things)
$d \bar{l} g \imath^{\mathrm{ya} /}$ ger $d \bar{\imath} \mathrm{k}^{\mathrm{a} /} \mathrm{KT} d \bar{\imath} g ı r^{\varepsilon /} \mathrm{WK} s v$. be lying down
dīgısá n. pl lairs
$d \overline{\mathrm{i}} \mathrm{gl} l^{\varepsilon /} d v$. lay down
$d i ̀ g n^{\varepsilon} d v$. lie down
dìgır ${ }^{\varepsilon}$ pl dìga cb dìg-n. dwarf
$d \grave{\imath} s^{\varepsilon} d v$. feed; agt dìıs ${ }^{\mathrm{a}} n$. glutton
dìısún ${ }^{\circ}$ pl dìısímà dìısís ${ }^{\varepsilon}$ cb dìısv́n- $n$. spoon
dìm ${ }^{\mathrm{a}}$ dummy head pronoun, animate pl; dìn ${ }^{\mathrm{n} \varepsilon}$ inanimate sg 12.4.7
dín it (subject of $\grave{n}$-clause) 12.4.1
$d_{\bar{i}} n^{\varepsilon}$ it (contrastive) 12.4.1 $=l_{\bar{i}} n^{\varepsilon}$
dìnd $\bar{\varepsilon} o g^{9 /}$ pl dìnd $\bar{\varepsilon} \varepsilon d^{\varepsilon /}$ cb dìnd $\bar{\varepsilon}-n$. chameleon
dìndìıs ${ }^{\mathrm{a}} n$. glutton
dìn zúg ${ }^{\top}$ therefore 13.6
dìtú ${ }^{3} n$. right-hand (see dàtìu $\eta{ }^{\text {T }}$ )
dì-zōrvg²/ pl dì-zōrá cb dì-zōr-n. crumb
dōl ${ }^{\mathrm{la} /}$ ger dōllím ${ }^{\mathrm{m}}$ sv. accompany in a subordinate role; Ànó'onì dōllí fò? Who has come with you? (to an elderly patient.) Bà dòl n $\bar{\varepsilon}$ tāaba. They went together.
$d \bar{\jmath} l ı g^{\varepsilon /} d v$. make accompany, send along with
$d \bar{\jmath} l ı s^{\varepsilon /} d v$. investigate, trace
$d \bar{n} n ̆ l g^{\varepsilon /} d v$. stretch oneself
$d \grave{n}{ }^{\prime} \supset s^{\varepsilon} d v$. water plants
dう̀og ${ }^{\circ} \mathrm{pl}$ dòวd ${ }^{\varepsilon}$ dòt ${ }^{\varepsilon}$ cb dò- n. house, hut; clan; dòog bị̂ig ${ }^{\mathrm{a}} n$. housecat
dòvn̆ $g^{\circ} p l$ dòon̆ $d^{\varepsilon} c b$ dòn̆- $n$. dawadawa fruit
$d \bar{v} i p f v d \bar{v} t^{\mathrm{a} /} \operatorname{imp} d v ̀ m^{\mathrm{a}} d v$. go up
$d u^{\prime} \grave{a}^{\mathrm{a}} d v$. bear, give birth, beget; agt dū'ad ${ }^{\text {a }} n$. elder relation
$d \dot{v} ' a l^{\varepsilon} d \nu$. make interest (of a loan)
$d \bar{v}{ }^{\prime} a m^{\mathrm{m}} n$. birth
dùan̆ pl dòon̆s ${ }^{\varepsilon}$ cb dòn̆- $n$. dawadawa Parkia clappertoniana [biglobosa]
dú'atà $n$. doctor $\leftarrow$ English
$d u \bar{e}{ }^{\prime} d v$. raise, rise
$d \bar{u} g^{\varepsilon} d v$. cook

$d u ̀ m^{\mathrm{m}} d v$. bite
$d \bar{u} m^{\mathrm{m} \varepsilon} d \bar{u} m^{\mathrm{n} \varepsilon} p l$ dūma $c b$ dùm- $n$. knee
dùndùug ${ }^{\circ} \mathrm{pl}$ dùndùud ${ }^{\varepsilon}$ cb dùndù- $n$. cobra
dūnıya cb dūnıyá- $5.5 n$. world $\leftarrow$ Arabic dunya:
dūnná adv. this year
dū $\eta^{\mathrm{a}} \mathrm{pl}$ dūmıs ${ }^{\varepsilon}$ cb dùn- n. mosquito
dūer ${ }^{\varepsilon /} p l$ dūēyá cb dūā- $n$. stick
$d u{ }^{\prime} \theta s^{\varepsilon /} d v$. lift up, honour
$d u ̀ r^{\mathrm{a}} s v$. be many
$d \bar{u} ' u n^{\varepsilon /} d v$. pass water ( $g e r$ recorded as $d \bar{u} ' u n v ́ g$ )
dū'uním ${ }^{\mathrm{m}}$ cb dū'un- $n$. urine
dūvsá n. pl. steps

## E

$\bar{\varepsilon} \varepsilon \check{n}$ yes 18.4
$\bar{\varepsilon} \varepsilon \check{n}$ or $\bar{\varepsilon} \varepsilon \check{n}$ tí see $\check{n} y \bar{\varepsilon} \varepsilon, \check{n} y \bar{\varepsilon} \varepsilon$ tí habitually auxiliary tense marker 16.3.1
$\bar{\varepsilon} \varepsilon n \breve{h^{\varepsilon /}} d v$. lay a foundation
$\bar{\varepsilon} \varepsilon n ̆ b^{\prime} r^{\varepsilon} n$. foundation 8.1.2
غ̀n̆bıs ${ }^{\varepsilon} d v$. scratch
غ̀n̆ $d^{\varepsilon} d v$. block up, plug up
غ̇n̆dı $g^{\varepsilon} d v$. unblock, unplug
$\bar{\varepsilon} \breve{n} r g^{\varepsilon /} d v$. shift along (e.g. a bench)

F
$f^{5}$ you sg (left-bound) 12.4.1
fāan̆ q. every
fāen̆'dv. save; agt fāan̆d ${ }^{\mathrm{a} /}$ fāan̆gíd ${ }^{\mathrm{a}} n$. saviour 11.1
fān̆ dv. grab, rob
fáss ideo. for pị̀̀lı $g^{\mathrm{a}}$ white
$f \bar{\varepsilon} \varepsilon g^{\varepsilon /} d v$. (of food) get old, cold
$f \varepsilon ̌ n ̆ d ı g^{\varepsilon /} d v$. turn round (tone uncertain)

fịəb ${ }^{\varepsilon} d v$. beat
fị'ig $g^{\varepsilon} d v$. cut off
fịin̆ q. a little (liquid)
fitlá $n$. lamp $\leftarrow$ Hausa fịitilàa; in $K B$ adapted to the re|aa class: sg fitir pl fita fว̄os ${ }^{\varepsilon /} d v$. blow, puff (wind); ger fコ̄osúg ${ }^{3} n$. hypocrisy NT
fò you, your sg (right-bound) 12.4.1
fùe $d v$. draw out
$f \overline{f u} f \bar{m}{ }^{\mathrm{m} \varepsilon} \mathrm{pl}$ fūfūma cb fūfúm- $n$. envy; stye (believed to result from envy)
fún you $s g$ (as subject of ǹ-clause); fūn SF fúnè LF you sg (contrastive) 12.4.1
$f u \overline{u g} g^{\rho /} p l f u ̄ u d^{\varepsilon /} f u t^{\varepsilon /} c b f u \bar{u}-n$. shirt, clothing; pl also: cloth

## G

gàad $^{\varepsilon} d v$. pass, surpass 19.1
gáafàra sorry formula $\underline{25}$ (Hausa gaafaràa, ultimately $\leftarrow$ Arabic)
gà'al $l^{\varepsilon} d v$. button up
gà' $a m^{\mathrm{m}} d v$. grind teeth
gāan̆' pl gāan̆s ${ }^{\varepsilon /}$ cb gā̆n̆- n. Nigerian ebony Diospyros mespilliformis
gàas ${ }^{\varepsilon} d v$. pass by
gādv gādvg ${ }^{\rho /} p l$ gādv-nám ${ }^{\mathrm{a}}$ gāt ${ }^{\varepsilon /}$ cb gād- gādv- $n$. bed $\leftarrow$ Hausa gadoo
gàlım ${ }^{\mathrm{m}} d v$. joke
gàlıs ${ }^{\varepsilon} d v$. exceed, get to be too much
gān̆r $r^{\varepsilon /}$ pl gān̆yá cb gān̆r-n. fruit of Nigerian ebony
gà $\eta^{\varepsilon} d v$. step over
$g \bar{a} \eta^{\varepsilon /} d v$. choose
$g b a ̄ n ̄ ' e l d v$. catch
gbáňyà'a n. lazy person 11
gbán̆yà'am ${ }^{\mathrm{m}} n$. laziness; 1976 NT gonya'am
gbàū๋ pl gbàna cb gbàn- gbàūŋ- n. book WK
$g b a ̄ u \eta^{\prime /}$ pl gbāná cb gbān- gbāun $n$. animal skin WK; animal skin, book DK $g b \varepsilon ̂ \varepsilon \check{n} m^{\mathrm{m}} c b$ $g b \bar{\varepsilon} \check{n}-n$. sleep

$g b \bar{\varepsilon} r^{\varepsilon /} p l$ gbēyá cb gbēr-n. thigh
gbīgım ${ }^{\text {n } \varepsilon} p l$ gbīgıma cb gbìgım-n. lion
gbịnn ${ }^{\mathrm{n}} \mathrm{pl}$ gbị̀na $c b$ gbịn- $n$. buttock; base (e.g. of a mountain); postposition 13.5
gbịn-vòวn̆ $r^{\varepsilon} n$. anus
$g b i ̣ s^{\varepsilon} d v$. sleep
$g \varepsilon \bar{\varepsilon} \varepsilon l^{\varepsilon /} d v$. place between one's legs (Pattern H)
$g \varepsilon \bar{\varepsilon} \check{n} m^{\mathrm{m} /} d v$. go mad, madden
$g \varepsilon \bar{\varepsilon} \check{n} \operatorname{mís}^{\varepsilon} n$. pl as sg madness
gé $\varepsilon \check{n} \eta^{\mathrm{a}} \mathrm{pl}$ g $\bar{\varepsilon} \varepsilon n ̆ m i ́ s{ }^{\varepsilon} n$. madman
gél ${ }^{l \varepsilon} p l$ gz̄lá cb gēl-n. egg

$g \bar{\varepsilon} n \breve{n}^{\prime} d v$. get angry
$g \bar{\varepsilon} o g^{3} n$. place between one's legs (Pattern A sic)
gịinhlím ${ }^{\mathrm{m}} n$. shortness
gìk ${ }^{\mathrm{a}} \mathrm{pl}$ gìgıs ${ }^{\varepsilon} c b$ gìg-n. dumb person
gìgılım ${ }^{\mathrm{m}} d v$. become dumb
gịl $g^{\varepsilon /}$ ipfv $g i ̣ n ~ n i n d ~ d v$. go around 7.1
gịm ${ }^{\mathrm{ma} /} s v$. be short
gị̀ $\eta^{\mathrm{a}}$ pl gịma cb gị $\eta$ - $a d j$. short
$g i ̀ \eta^{\varepsilon} d v$. scrimp
$g i ̣ \eta^{\varepsilon /} d v$. surround, intercept, obstruct
gịna adv. shortly
gịŋılím ${ }^{\mathrm{m}} n$. shortness
$g \bar{\partial} d ı g^{\varepsilon /} g \grave{\prime} ' n^{\varepsilon} d v$. look up
$g \bar{\partial} l^{\mathrm{la} /} g \bar{\partial} r^{\mathrm{a} /} g \overline{\mathrm{a}} \mathrm{e}^{\mathrm{ya} /}$ sv. be looking up
gòn̆ $d v$. hunt; ipfv gò̀n̆̌ $d^{\mathrm{a}}$ wander, ger gòon̆dım ${ }^{\mathrm{m}}$ wandering 9.2.1.4
Gòsg ${ }^{\mathrm{a}} \mathrm{pl}$ Gòos ${ }^{\varepsilon}$ n. clan name
Gòog ${ }^{\rho} n$. place of the Gòวs ${ }^{\varepsilon}$ Goosi clan
$g$ g̀' $^{\prime} n^{\varepsilon} d v$. look up
$g \bar{\partial} r^{\mathrm{a} /} s v$. be looking up

gū' $d v$. guard, protect
$g \grave{l} l^{\varepsilon} i p f v$ gùn ${ }^{\text {na }} d v$. suspend
gùl ${ }^{\text {la }}$ ger gūlıb ${ }^{\text {o }}$ sv. be suspended
gòllīmm SF gùllımne LF only; emphatic 24.7
gòm ${ }^{\mathrm{m} \varepsilon} \mathrm{pl}$ gòma $n$. kapok fruit; also thread WK
Gùm ${ }^{\mathrm{m} \varepsilon} n$. place of the clan Gùm-dìm ${ }^{\mathrm{a}}$
gūmpūz $\bar{\varepsilon}^{\varepsilon /} p l$ gūmpūz $\bar{y} y a ́ ~ c b ~ g u ̄ m p u ̄ z \varepsilon ́ r-n . ~ d u c k ~$
gùn̆'a pl gòn̆'os ${ }^{\varepsilon}$ cb gòn̆'- n. thorn; Acacia; gòn̆'-sābılíg ${ }^{\mathrm{a}}$ Acacia hockii
gòngōm ${ }^{\mathrm{m} \varepsilon} n$. kapok material
gù ${ }^{\text {a }}$ pl gùmıs ${ }^{\varepsilon}$ cb gùク- n. kapok tree Ceiba pentandra
gūr ${ }^{\mathrm{a} /}$ ger gūrím ${ }^{\mathrm{m}} s v$. be on guard, watch for $\underline{22.1}$
$G \overline{r i ́ n}{ }^{\mathrm{n} \varepsilon} n$. Farefare language
$G \bar{r} r^{\prime} \eta^{\mathrm{a}} \mathrm{pl}$ Gūrís${ }^{\varepsilon} n$. Farefare person
$g \bar{u}^{\prime} u l^{\varepsilon /} d v$. put on guard
gò'vlım ${ }^{\mathrm{m}} d v$. become half-ripe
gùvr ${ }^{\varepsilon}$ pl gùya $c b$ gù- $n$. upland; bank of river
gūvr ${ }^{\varepsilon}$ pl gūya cb gù- n. ridge of back
$g u \bar{\prime} u s^{\varepsilon /} d v$. take care, watch out
$g v^{\prime} v s^{\varepsilon} n$. pl half-ripe fruit

## H

hālí until, up to and as far as, even $\underline{15} \underline{17.2 .1} 19$ 24.7; ? $\leftarrow$ Arabic ћatta:; hālí báa even

## I

$i ̄ a ̄ d v$. seek
$i ̄ a \breve{n} ' a s^{\varepsilon /} d v$. leap


$i ̣ g l^{\varepsilon /} d v$. make to kneel
$i ̣ g ı n^{\varepsilon} d v$. kneel down
úılı pl īılá cb īıl-n. horn
ịsur ${ }^{\varepsilon}$ pl ịsa cb ịs- n. scar
ìsı $g^{\varepsilon} d v$. get up early

## K

kà and, that $\underline{17.2}$
$k a \bar{a} d v$. bail (water)
$k a \bar{a} a b^{\varepsilon /} d v$. offer, invite
$k a ̄ a l^{\varepsilon /} d v$. count
kāas ${ }^{\varepsilon /} d v$. cry out, weep; (cock) crow
kà'asıge LF only; sv. not exist 16.5
$k a ̄ b ı g^{\varepsilon /} d v$. ladle out (liquid)
$k a \bar{a}\left\langle r^{\varepsilon /}\right.$ ger kābırí $d v$. call out asking for admission $\underline{25}$
$k^{\varepsilon} d^{\varepsilon} d v$. drive away; kàd sàrịyà dv. judge 16.9.1; agt sàrị́yà-kāta $n$. judge NT

kāl ${ }^{1 \varepsilon /} p l$ kālá cb kāl- n. number
kàlıgā́ q. few
kàm ${ }^{\text {a }} q$. every
Kàmbùnır ${ }^{\varepsilon} n$. Twi language
Kàmbù $\eta^{\mathrm{a}}$ pl Kàmbùmıs ${ }^{\varepsilon}$ cb Kàmbùn- n. Ashanti person
kàn ${ }^{\varepsilon}$ this, that demonstrative 12.4.2
kàn̆ $b^{\varepsilon}$ ger kān̆bir ${ }^{\varepsilon} d v$. scorch
$k a ̄ n ̆ d v g^{\circ} a d j$. fat, tough (person)
kàmā' this, that demonstrative 12.4.2
$k a ̀ r^{\mathrm{a}} s v$. be few
kàrım ${ }^{\mathrm{m}} d v$. read
kàs $\bar{\varepsilon} t^{\mathrm{t} /} n$. witness; testimony (Mooré kàsétò "proof, testimony"; probably ultimately $\leftarrow$ French cachet; pl kàs $\bar{\varepsilon} t i ́ b^{\mathrm{a}}$ witnesses)
$k \bar{\varepsilon} i p f v k \bar{\varepsilon} t^{\mathrm{a} /}{ }^{\mathrm{imp}} \mathrm{k} \bar{\varepsilon} l^{\mathrm{a}} d v$. let, cause to ... 7.119 .2
$k \varepsilon ̇ \varepsilon k \grave{\varepsilon} p l$ kè $\varepsilon k \varepsilon \grave{\varepsilon}-n a ̀ m^{\mathrm{a}}$ cb kè $\varepsilon k \grave{\varepsilon}$ - $n$. bicycle $\leftarrow$ Hausa kèekè
$k \dot{\varepsilon} \varepsilon s^{\varepsilon} d v$. say farewell to
$k \check{l} l ı g^{\varepsilon}$ or $k \varepsilon ̀ l ı s^{\varepsilon} d v$. listen
$k \bar{\varepsilon} \check{n}$ ipfv $k \bar{\varepsilon} n^{\mathrm{a} / ~ i m p ~ k e ̀ m ~}{ }^{\mathrm{a}}$ ger $k \bar{\varepsilon} n^{\mathrm{n} \varepsilon /} d v$. come 7.1; always with nā 16.11; k $\bar{\varepsilon} n k \bar{\varepsilon} n$ welcome! 25
 $k \bar{\varepsilon} n^{\text {na/ }} n$. traveller
kérıfà or kárıfà $\leftarrow$ Hausa karfèe; in telling time, e.g. kérıfà àtán̆' three o'clock
kịl cb kị- kā-n. cereal, millet; kị-dà'ar ${ }^{\varepsilon}$ pl kị̀-dà'ada n. purchased millet; kā- wह̄nnır ${ }^{\varepsilon}$ pl kā-wēnna cb kā-wén- n. corn
kià dv. cut
$k i ̣ ̆ d ı g^{\varepsilon /} d v$. cross over, meet; À-Kịdıgı Bū'өs n. the constellation Orion
$k i ̄ ' \imath b^{J /} n$. soap; WK has instead the Mampruli loan kịibú cb kịìb-
kịinñ ${ }^{9}$ pl kịiní $n$. millet seed
$k i ̀ S^{\varepsilon} d \nu$. listen
$k i ̄ ' i s^{\varepsilon /} d v$. deny
kìkàm ${ }^{\mathrm{m} \varepsilon}$ pl kìkàma n. fig
kìkà $\eta^{\mathrm{a}}$ kìnkà ${ }^{\mathrm{a}}$ pl kìkàmıs ${ }^{\varepsilon}$ cb kìkàn-n. fig tree Ficus capensis
$k i \grave{k i ̣} r ı g^{\text {a/ }} p l$ kìkịr $r s^{\varepsilon /} c b$ kìkịr- $n$. "fairy" in local English; protective spiritual beings associated with a person (three for a man, four for a woman because of the dangers of childbirth.) Wild kìkịrls ${ }^{\varepsilon /}$ hostile to man live in the bush: "Their feet are attached backwards to confuse trackers." WK; kìkịr-bê' $\varepsilon d^{\varepsilon} n$. NT evil spirit, demon (KB just uses kìkịrı $g^{\text {a/ }}$ )
kịlım ${ }^{\mathrm{m} /} d v$. become, change into
$k i ̀ m{ }^{\mathrm{m}} d \nu$. tend flock, herd; agt kj̀n̆b-kīm ${ }^{\text {na }} n$. herdsman, shepherd
$k i ̣ r^{\varepsilon}$ ger kìkị́rù $g{ }^{\top} k i ̣ r ı b{ }^{\top} d v$. hurry, tremble
kịs $s^{\mathrm{a} /}$ ger kị́sv̀ $g^{\mathrm{o}}$ agt kịs $s^{\mathrm{a} /} k i ̣ s ı d^{\mathrm{a} /} s v$. hate
kịsù $g^{\circ}$ adj. hateful, taboo
kò $d v$. get broken, break (intransitive); resultative adj kòolv́ $\eta^{\circ}$ broken
kj̀bıgā (SF and LF identical) q. one hundred; kj̀bısị two hundred
kōbır ${ }^{\varepsilon}$ pl kj̄ba cb kj̀b- $n$. bone
$k \bar{\partial} d \imath g^{\varepsilon /} d v$. slaughter (one animal) by cutting its throat
$k \bar{d} v$ n. banana $\leftarrow$ Twi kwadu
$k \grave{l}{ }^{\varepsilon} d v$. put something around the neck
kòlıbır ${ }^{\varepsilon}$ pl kòlıba n. bottle
k̄̄lı $g^{\mathrm{a}}$ pl kōlıs ${ }^{\varepsilon}$ cb kòl-n. river; k̄̄lvgv-n nó-dâvg ${ }^{\circ} n$. crayfish
kòlvg ${ }^{\mathrm{O}} \mathrm{pl}$ kòn ${ }^{\mathrm{n} \varepsilon} \mathrm{cb}$ kòlvg- $\underline{\underline{2} .2}$ n. sack, bag
$k \bar{m} m^{\mathrm{m} /}$ cb kōm- $n$. hunger
 or human body hair; cf $z \bar{u} \theta b u ́ g^{\text {º }}$; kj̀n̆b-kīm ${ }^{\text {na }} p l$ kj̀n̆b-kīmmıba $n$. shepherd, herdsman
$k j ̄ n ̆ ' o k o ~ a d v$. alone, by oneself
$k j ̀ n ̆ s^{\varepsilon} d v$. cough
kòn̆sım ${ }^{\mathrm{m}} d v$. cough
$k \grave{'} g^{\varepsilon} d v$. break (transitive or intransitive)
$k \grave{\prime}^{\prime} \supset s^{\varepsilon} d v$. break several times
$k \bar{\partial} t^{\varepsilon /} d v$. slaughter (several animals) by cutting their throats
kj̀tàa ${ }^{\text {ne }}$ at all; emphatic 24.7
kótù $n$. lawcourt $\leftarrow$ English, probably via Hausa
kpà'a pl kpà'a-nàma $n$. rich person
kpāad ${ }^{\mathrm{a} /}$ pl kpāadíb ${ }^{\mathrm{a}}$ cb kpāad- $n$. farmer, cultivator
kpà'am ${ }^{\mathrm{m}} n$. riches
$k p \bar{a} a n ̆ m^{\mathrm{m} /} c b$ kpā̆̆- $n$. grease, ointment; kpān̆-són̆'odìm ${ }^{\mathrm{m}} n$. anointing oil
kpàkūr ${ }^{\varepsilon /}$ pl kpàkz̄yá cb kpàkūr-n. tortoise
kpān ${ }^{\mathrm{n} \varepsilon}$ pl kpāna cb kpàn- n. spear
kpàn̆dır ${ }^{\varepsilon}$ pl kpàn̆da cb kpàn̆d- n. baboon
kpàr ${ }^{\varepsilon} d v$. lock


$k p \bar{\varepsilon} a d v$. here

$k p \bar{\varepsilon} \varepsilon \check{ } \mathrm{~m}^{\mathrm{ma} /} s v$. be older than
$k p \varepsilon ̄ l a ́ ~ a d v$. here
kpèlım still; immediately after, preverb 16.8
$k p \grave{l} l ı m^{\mathrm{m}} d v$. remain
$k p \varepsilon ̀ n ~ r e d u c e d ~ f o r m ~ o f ~ t h e ~ p r e v e r b ~ k p e ̀ l ı m ~$
kpèn̆' dv. enter
$k p \bar{n} \check{d} d r^{\varepsilon /} p l$ kp $\bar{\varepsilon} n ̆ d a ́ ~ c b ~ k p \bar{\varepsilon} n ̆ d-n$. cheek
$k p \varepsilon ̀ n ̆ ' \varepsilon s^{\varepsilon} d v$. make enter
$k p \varepsilon^{\prime} \eta^{\varepsilon} d v$. strengthen
$k p \bar{\varepsilon} o n \eta^{3} n$. seniority
$k p i ̣ ̀ ~ d v$. die; resultative adj kpịilv́n ${ }^{3}$ dead
kpị'a pl kpị'əs ${ }^{\varepsilon}$ cb kpìà'- n. neighbour
$k p i a ̀ ' d v$. shape wood with axe etc
kpị'e $d v$. approach
$k p!̣ i ' \partial m{ }^{\mathrm{ma} /} s v$. be strong, hard
kpịibı $g^{\mathrm{a}}$ pl kpịibıs ${ }^{\varepsilon}$ cb kpịib-n. orphan
$k p \grave{i l i} g^{\varepsilon} d v$. go out (fire)
$k p i ̄ ' l i ́ m{ }^{\mathrm{m}} d v$. finish, come to an end

$k p i ̣ i s^{\varepsilon} d v$. quench (fire)
kpīkpịnnna/ pl kpīkpịnníba cb kpīkpín-n. merchant
kpị' o $\eta^{3}$ pl kpị̀'әтa cb kpị'oŋ- adj. strong, hard
kpìsınkpịl ${ }^{l \varepsilon}$ pl kpìsınkpịla cb kpìsınkpịl- $n$. fist
kpìsukpịl ${ }^{1 \varepsilon} n$. fist
kpùkpàr ${ }^{\varepsilon}$ pl kpùkpàra n. palm tree fruit
kpùkpàrıg ${ }^{\text {a }}$ pl kpùkpàrıs ${ }^{\varepsilon}$ cb kpùkpàr- n. palm tree (Borassus akeassii/aethiopum)
kpùkpàun ${ }^{3}$ pl kpùkpàma cb kpùkpàun $\eta$ - n. arm, wing
kù not; negates irrealis mood 16.5
$k \bar{v} d v$. kill (= Mooré kú)
$k \bar{v} d v$. gather, threaten (of rain): Sāa kú yā. It looks like rain (= Mooré kúr)
$k u \bar{a} d v$. hoe, farm
kv̄'alína pl kū'alímìs ${ }^{\varepsilon}$ kū'alís ${ }^{\varepsilon} c b$ kv̄'alín- $n$. sleeveless traditional smock
$k u ̀ d^{\varepsilon} d \nu$. work iron
$k \dot{d} d ı g^{\varepsilon} d v$. shrivel up, dry out, age
$k \bar{v} d ı m^{\mathrm{m}} n$. the olden days; also for kūlım qv
$k \bar{v} d v g{ }^{3} k \bar{v} d ı r^{\varepsilon} p l ~ k \bar{u} d a ~ k \bar{u} t^{\varepsilon} c b$ kùd-adj. old
$k u \bar{d} v^{\circ} \mathrm{pl} k \bar{u} t^{\varepsilon}$ (used as $\mathrm{sg} \underline{12.2}$ ) cb kùt- $n$. iron, nail; sg only in names $\underline{26.2}$
$k u ̄ g v r^{\varepsilon /} p l$ kūgá cb kūg-n. stone
$k \bar{u} k^{\mathrm{a}}$ pl kūgus ${ }^{\varepsilon}$ cb kùg-n. chair
kùk ${ }^{\mathrm{a}} n$. ghost
$k \bar{v} k^{\mathrm{a} /} n$. mahogany tree, Khaya senegalensis; cf Hausa kuukàa
kùkj̀m ${ }^{\mathrm{m} \varepsilon}$ pl kùkòma cb kùkòm- $n$. leper
kùkōr ${ }^{\varepsilon /}$ pl kùkōyá cb kùkōr- n. voice
kùkpàrı ${ }^{\mathrm{a}}$ see kpùkpàrıg ${ }^{\mathrm{a}}$ id
$k u \bar{l}{ }^{\varepsilon}$ ger kūlıg ${ }^{\mathrm{a} /} d v$. return home; transitive marry (woman subject, man object)
kūlım always, post-subject particle 17.2.3
kùlı $\eta^{\mathrm{a}}$ pl kùlımıs ${ }^{\varepsilon}$ kùlıs ${ }^{\varepsilon}$ cb kùlıŋ-n. door
kùm ${ }^{\mathrm{m}} d v$. cry, weep
$k \bar{u} m^{\mathrm{m}} c b$ kùm- $n$. death; kùm-vō'vgír${ }^{\varepsilon} n$. resurrection NT
kùndò'ar ${ }^{\varepsilon}$ pl kùndv̀'ada cb kùndư'à- $n$. barren woman
kùndı̀ $\eta^{\text {a }}$ pl kùnd̀̀mıs ${ }^{\varepsilon}$ kùndòna $n$. jackal, hyena
 current in a river
$k u ̀ \theta s^{\varepsilon} d v$. sell
kùrkūr ${ }^{\varepsilon /}$ pl kùrkūyá cb kùrkūr-n. pig
Kūsáa pl Kūsâas ${ }^{\varepsilon}$ cb Kūsá- n. Kusaasi person
Kūsâal ${ }^{\varepsilon} n$. Kusaal language
Kūsâvg ${ }^{3} n$. Kusaasi country
Kùtān ${ }^{\mathrm{n} \varepsilon /}$ pl Kùtām ${ }^{\mathrm{ma/}}$ cb Kùtān- n. member of WK's clan
Kùtāun ${ }^{\text {s/ }} n$. country of clan Kùtām ${ }^{\mathrm{ma/}}$ Kutamba
$k \bar{v} v$ or $17.218 .2 \leftarrow$ Hausa koo

$k \grave{v} l^{\varepsilon} d v$. get drunk

## L

lā'definite article $\underline{12.8 .5}$
là' $d v$. laugh
lā'afº n. cowrie; pl lịgıdı n. cowries, money; cb lịg- là'-; là'-bịəlífo n. small coin láafiya $n$. health $\leftarrow$ Arabic Pal-fa:fiya; replaced by laafe láafı in 1996 NT and KB là'am together, preverb 16.8
là' $a m^{\mathrm{m}} d v$. associate with; together with $\underline{19.1}$
là'as ${ }^{\varepsilon} d v$. gather together (transitive); Bà là'as tāaba They gathered together.
làbāarع cb làbà- $n$. news $\leftarrow$ Arabic Pal-Paxba:r
làbı ${ }^{\text {ya }} s v$. be crouching, hiding behind something (cf Hausa la6èe "crouch behind something to eavesdrop" 11.1)
làbı $l^{\varepsilon} d v$. make crouch behind something
làbın $n^{\varepsilon} d v$. crouch behind something
làbıs $s^{\varepsilon} d \nu$. walk stealthily
lābıs ${ }^{\mathrm{a} /} s v$. be wide
lābısíga lābısír${ }^{\varepsilon}$ pl lābısá cb lābıs- adj. wide
lābısím ${ }^{\mathrm{m}} n$. width
$l a \bar{k}{ }^{\varepsilon /} d v$. open (eye, book)
lāl ${ }^{\text {a/ }} s v$. be distant
$l_{a ̄ l}^{l} g^{\varepsilon /} d v$. get to be far, make far
lāllí $a d v$. far off
lāllína pl lāllís ${ }^{\varepsilon}$ cb lāllín- adj. distant
lāllúgº pl lāllá cb lāl- adj. distant
lām ${ }^{\mathrm{m} \varepsilon / ~ p l ~ l a ̄ m a ́ ~ c b ~ l a ̄ m-~ n . ~ g u m ~(o f ~ t o o t h) ; ~ l a ̄ m-f o ̂ ว ~} g^{\circ}$ pl lām-fôod ${ }^{\varepsilon}$ adj. toothless
làmp $\overline{-}-d i ̣ ̂ ' \partial s^{\mathrm{a}} n$. tax collector $11 \leftarrow$ French l'impôt
lān ${ }^{\mathrm{n} \varepsilon}$ pl lāna cb làn- $n$. testicle
làngáv $\eta^{\circ}$ pl làngáam ${ }^{\mathrm{m} \varepsilon}$ làngāamá cb làngāvŋ- $n$. crab (cf màngáv $\eta^{\circ}$ id)
lànnı $g^{a}$ pl lànnıs ${ }^{\varepsilon}$ cb lànnıg- 5.2 n. squirrel
$l a \bar{a}^{\prime} \eta^{\varepsilon /} d v$. set alight
lāทím ${ }^{\mathrm{m}} d \nu$. wander around searching
lāuk ${ }^{\top} p l l a \bar{'}^{\prime} a d^{\varepsilon} c b$ là'- $n$. item of goods pl goods
là'v $\eta^{3} p l$ là'ama $n$. fishing net
$l \varepsilon ̀ b^{\varepsilon}$ ger $l \bar{\varepsilon} b ı g^{\mathrm{a}} d v$. return (intrans)
$l \varepsilon ̀ b ı g^{\varepsilon} d v$. turn over; return
$l \varepsilon ̀ b ı s^{\varepsilon} d v$. answer; send back; divorce (wife)
lદ̀ $\varepsilon$ but, VP particle 16.7
lغ̀m again, preverb 16.8
lغ̀m ${ }^{\mathrm{m}}$ ipfv lèmmı ${ }^{\mathrm{a}} d v$. sip, taste
$l \bar{\varepsilon} r^{\varepsilon} d v$. get ugly
lì it, its (right-bound); ll it (left-bound) 12.4.1
lị ipfv lịt ${ }^{\mathrm{a}}$ imp lị̀ma $\operatorname{ger}$ lịi $g^{\mathrm{a}} d v$. fall
lī $d v$. block up
lịa where is ...? 18.4
lịd ${ }^{2} g^{\varepsilon} d v$. turn a shirt WK
lì ${ }^{\prime} g^{\varepsilon} d v$. astonish, be amazed
lị̀ə ${ }^{\varepsilon} d v$. become
$l \grave{l}{ }^{\prime} \partial l^{\varepsilon} d v$. approach, come near
$l!̣ ̂ ə m{ }^{\mathrm{m} \varepsilon} \mathrm{pl}$ lị̄'əmá $n$. fruit of yellow plum tree

lị́ə $\partial \eta^{\mathrm{a}}$ pl lḷ̀'əmís ${ }^{\varepsilon} n$. yellow plum tree, Ximenia americana
$l i ̣ g^{\varepsilon} d v$. patch
lịgıl ${ }^{\varepsilon} d v$. cover
lịgın $n^{\varepsilon} d v$. cover oneself
līıbır ${ }^{\varepsilon}$ pl līıba cb lı̀ıb- $n$. twin
lịk ${ }^{\mathrm{a}} \mathrm{pl}$ lị̆gıs ${ }^{\varepsilon} n$. darkness
lìlāalína pl lìlāalís ${ }^{\varepsilon}$ lìlāalímìs ${ }^{\varepsilon}$ cb lìlāalín- n. swallow
lín it (subject of $\grave{n}$-clause); līn $n^{\varepsilon}$ it (contrastive) 12.4.1
lin $^{\varepsilon}$ that demonstrative 12.4.2
lìná that demonstrative 12.4.2
$1 \overline{\mathrm{o}} d \mathrm{v}$. tie
$l^{\circ} b^{\varepsilon}$ or $l \overline{\mathrm{~L}} \mathrm{~b} \mathrm{~g}^{\varepsilon /} d v$. throw stones at
lōbıdíga pl l̄̄bıdís ${ }^{\varepsilon} n$. water drawing vessel
lōdı $g^{\mathrm{a} /} \mathrm{pl} \operatorname{lō} d ı s^{\varepsilon /}$ cb lōd- $n$. corner; lōdıgín kúg-sún ${ }^{\circ}$ cornerstone NT
${ }^{\circ} \bar{\circ} d \imath g^{\varepsilon /} d v$. untie

lòmbj̀' $g^{\rho} \mathrm{pl}$ lı̀mbò' $\mathrm{d}^{\varepsilon} \mathrm{Cb}$ lòmbう̀'- $n$. garden $\leftarrow$ Hausa làmbuu
l̄̄na pl lōmıs ${ }^{\varepsilon}$ cb lò $\eta-n$. a kind of frog
$l^{\prime} \eta^{\varepsilon /} d v$. go across river, road etc
lór ${ }^{\varepsilon}$ pl lóyà lóom ${ }^{\text {ma }}$ cb lór- n. car, lorry $\leftarrow$ English
$l o ̀ s^{\varepsilon} d v$. dip, immerse in liquid
lù ipfv lùt ${ }^{\mathrm{a}} \mathrm{imp}$ lùm ${ }^{\mathrm{a}} d v$. fall
lū $b^{\varepsilon}$ ger lūbir ${ }^{\varepsilon /} d v$. buck, kick, struggle, throw off rider
$l u \overline{g^{\varepsilon}} d v$. swim
lūgor ${ }^{\varepsilon} n$. organ, member

## M

$\grave{m} \mathrm{I}, \mathrm{my}$ (right-bound); $\mathrm{m}^{\mathrm{a}}$ me (left-bound) 12.4.1
mà cb mà- $n$. mother; pl mà nám ${ }^{\mathrm{a}}$ (tone sic) mother's sisters/co-wives; mà-bịiga $n$. sibling with same mother; mà-bịl ${ }^{\text {a }} n$. mother's younger sister or junior co-wife; $m a ̀-k p \bar{\varepsilon} \varepsilon \check{n} m^{\mathrm{m}} n$. mother's elder sister or senior co-wife; mà-pīt ${ }^{\mathrm{t} /} n$. mother's younger sister
$m a ̀ ' d v$. lie, deceive
mà'aa SF mà'ane LF only; emphatic 24.7
$m_{a ̀ a l}{ }^{\varepsilon} d v$. prepare, sacrifice; agt màal-māan ${ }^{\text {na }} n$. sacrificer; priest NT; traditionally just a worker who conducts the actual slaying for the tè $\eta$-dāan ${ }^{\text {a }}$ earth-priest
$m a \bar{a}^{\prime} a l^{\varepsilon /} d v$. make cool, wet
māan ${ }^{\mathrm{n} \varepsilon}$ pl māana cb màan- n. sacrifice 8.1.2
má'an ${ }^{\mathrm{n} \varepsilon} p l$ mā'aná cb mā'an- $n$. okra
mā'as ${ }^{\mathrm{a} /} s v$. be cool, wet
mā'asíga mā'asír ${ }^{\varepsilon}$ pl mā'asá cb mā'as- adj. cool, wet
mā'asígā' adv. coolly
mā'asím ${ }^{\mathrm{m}} n$. coolness, wetness
$m a \bar{d} \imath g^{\varepsilon /} d v$. overflow, abound
$m a ̄ ' e l d v$. cool down
màk ${ }^{\varepsilon} d v$. crumple up
$m a \overline{k^{\varepsilon /}} d v$. measure, judge

written malek in NT versions before 2016
màlıfo pl màlı $n$. gun, rifle (ultimately $\leftarrow$ Arabic)
màlıgım again; preverb 16.8
mālss ${ }^{\mathrm{a} /} s v$. be sweet, pleasant
mālısíga mālısír ${ }^{\varepsilon}$ pl mālısá cb mālıs- adj. sweet, pleasant
mālısím ${ }^{\mathrm{m}} n$. sweetness
mālısín ${ }^{\text {a }} \mathrm{pl}$ mālısís ${ }^{\varepsilon}$ cb mālısín- adj. sweet, pleasant
mālv ${ }^{3}$ pl mālıma cb màlvŋ- $n$. sacrifice
mām I, me 12.4.1
mán I (as subject of $\grave{n}$-clause); mān SF mánè LF I, me (contrastive) 12.4.1
màngáv $\eta^{\top} \mathrm{pl}$ màngáam ${ }^{\mathrm{m} \varepsilon}$ màngāamá cb màngāvŋ- $n$. crab ( cf làngáv ${ }^{\circ} \mathrm{id}$ )
màuk ${ }^{\circ}$ pl mà'ad ${ }^{\varepsilon} a d j$. crumpled up
$m \grave{\varepsilon} d v$. build

$m \bar{\varepsilon} d^{\varepsilon} d v$. mash up
$m \varepsilon ̀ \varepsilon \eta^{\mathrm{a}} \mathrm{pl} m \varepsilon ̀ \varepsilon m ı s^{\varepsilon} c b m \varepsilon ̀ \varepsilon \eta-n$. turtle
mèlıgım ${ }^{\mathrm{m}} n$. dew
$m \bar{\varepsilon} \eta^{\text {a/ }}$ self 12.4.6
$m \bar{\varepsilon} \eta^{\prime} r^{\varepsilon} a d j$. genuine
$m \bar{\varepsilon} t^{\varepsilon /}$ cb mēt-n. pl as sg pus
mị' ger mị̂'ilím ${ }^{\mathrm{m}}$ sv. know; agt gbàn-mịi'ida/n. scribe ("book-knower") NT
mịe $d v$. squeeze(?) 27.1; uncertain meaning and tones
mịíf pl mịiní n. okra seed
mị'ig ${ }^{\varepsilon} d v$. become sour
mị̀is ${ }^{\text {a }} s v$. be sour
mị̀'isvgº pl mị̀'isa cb mị̀'is- $a d j$. sour
mịl $g^{\varepsilon /} d v$. get dirty
mìmịilím ${ }^{\mathrm{m}}$ mìmịilúg ${ }^{3} n$. sweetness
mịt see that it doesn't happen that... 16.5; always mid in $K B$
$m \bar{d} d v$. strive, struggle
$m \bar{\jmath} d^{\varepsilon} d v$. swell
$m \bar{\partial} d ı g^{\varepsilon /} d v$. be patient, endure
mòlıfº pl mòlı cb mòl- n. gazelle
$m \bar{\jmath} n^{\varepsilon} d v$. grind millet to make $s a \overline{1} a b^{\top}$ porridge


Mò $g^{\circ} n$. Mossi realm; Mòวg Nâ' $a b^{\mathrm{a}} n$. the Moro Naba, King of the Mossi
$m \overline{o l} l^{\varepsilon /} d v$. proclaim; agt mōol-môon ${ }^{\text {na }} n$. proclaimer
Mòol $l^{\varepsilon} n$. Mooré language
Mōr ${ }^{\varepsilon /}$ pl Móom ${ }^{\text {ma }}$ cb Mōr-n. Muslim
$m \overline{y^{2}}{ }^{\mathrm{a}}$ ger mōrím ${ }^{\mathrm{m}} \mathrm{sv}$. have, possess; mōr nā bring 16.11
Mùa pl Mòos ${ }^{\varepsilon}$ cb Mò- $n$. Mossi person
$m u{ }^{\prime} a^{\mathrm{a}} d v$. suck (of a baby)
mưàk ${ }^{\mathrm{a}} \mathrm{pl}$ mv̀'as ${ }^{\varepsilon} c b$ mư'à- n. maggot
mv̀'ar ${ }^{\varepsilon} \mathrm{pl}$ mư'àa mù'ada cb mú'à- n. dam; reservoir
mù' $a s^{\varepsilon} d v$. give (to baby) to suck
mù'e $d v$. redden; catch fire/ignite; become intense, severe
mùi cb mùì n. pl as sg rice
$m u ̀ l^{\varepsilon} d v$. itch
$m u ̀ m^{\mathrm{m}} d v$. bury

## $\mathbf{N}$

ǹ clause nominaliser particle $\underline{21}$
$n$ clause catenator particle 19
$\grave{n}$ - personifier particle (allomorph used before an adjective) 12.6
$n^{\varepsilon}$ discontinuous-past marker 16.3.2
$n^{\varepsilon} n \bar{\imath}$ l locative particle 13.3
nà positive irrealis mood marker 16.4
$n \bar{a} /$ hither; VP-final particle 16.11
$n a \overline{d v}$. join
náa reply to greetings invoking blessings $\underline{25}$
nà' $a b^{\mathrm{a}} p l$ nà'-nàm ${ }^{\mathrm{a}} c b$ nà'- $n$. chief, king; nà'-bịị $g^{\mathrm{a}} n$. prince/princess; nà'-yị! $r^{\varepsilon /} n$. palace; nà'-yị--kpém ${ }^{\text {ma } n . ~ p l ~ k i n g / c h i e f ' s ~ r e t a i n e r s ~}$
náaf $p l$ nịi ígí cb $n \bar{a}$ '- $n$. cow; nā'-lór ${ }^{\varepsilon} n$. place in compound for tying up cows;
$n \bar{a}{ }^{\prime}-d a ̂ v g^{3} p l ~ n a ̄ '-d a ̂ a d^{\varepsilon} c b n a \bar{a}^{\prime}-d a ́-n$. ox; nā'-dá-kūөdír$r^{\varepsilon} n$. ox for ploughing
nà $m^{\mathrm{m}} d v$. happen
nā'am ${ }^{\mathrm{m}} \mathrm{cb}$ nà'am- $n$. chieftaincy, kingdom
nāan next, afterwards = ňyāan
nāan or näanı then, in that case, being thus/there $\underline{20.1}$
nà'anā́adv. easily
nà'as ${ }^{\varepsilon} d v$. honour; ger nà'ası n. honour
Nàbıd ${ }^{\mathrm{a}}$ pl Nàbıdıb ${ }^{\mathrm{a}}$ cb Nàbıd- $n$. Nabdema person
Nàbıdvg ${ }^{3} n$. Nabdema country
Nàbır ${ }^{\varepsilon} n$. Nabit language
Nà'dàm ${ }^{\text {ma }} n$. clan name
Nà'dàu $\eta^{3} n$. place of clan Nadamba
nà'-dàwān ${ }^{\mathrm{n} \varepsilon /} n$. pigeon KED (= dàwānn ${ }^{\mathrm{n} \varepsilon /}$ )
$n a ̄ e l d v$. finish
nàm still, yet; auxiliary tense particle 16.3.1
nàm ${ }^{\text {a pluraliser }} 5.4$
nāmıs ${ }^{\varepsilon /} d v$. persecute, suffer
$n a \bar{n}{ }^{\varepsilon} d v$. love, respect, appreciate
nà'-n $\bar{\varepsilon} s ı n n \bar{\varepsilon} o g^{\rho /} n$. centipede WK
nānná adv. now
nānná-nā' adv. now
nānzū'us ${ }^{\varepsilon /} n$. pepper tones uncertain
nā $\eta^{\mathrm{a}} p l$ nāmıs ${ }^{\varepsilon}$ cb nàn- n. scorpion
nār $r^{\mathrm{a} /}$ ger nārím ${ }^{\mathrm{m}}$ sv. be obliged to; impersonal: to be necessary; with following purpose clause 22.1; negated: be obliged not to
nàrv $\eta^{3}$ pl nàrıma cb nàrvŋ- adj. necessary
Nàsāal ${ }^{\varepsilon} n$. English/French language
Nàsāara pl Nàsàa-nàm ${ }^{\text {a }}$ Nàsàar-nàm ${ }^{\text {a }}$ cb Nàsàa- Nàsàar-n. European person $\leftarrow$ Arabic Nas ${ }^{\text {¹ }}$ :ra: "Christians"; Nàsàa-bịị ${ }^{\text {a }} n$. European child
này!̣ị ${ }^{\mathrm{a}}$ pl nàỵ̀ig-nàm ${ }^{\mathrm{a}}$ này!̣is ${ }^{\varepsilon} n$. thief
này!̣igım ${ }^{\mathrm{m}} n$. thievery
nà'-zòm ${ }^{m \varepsilon} n$. locust
$n \bar{\varepsilon}$ preposition: with 15; linking NPs and AdvPs: and 12.1
$n \bar{\varepsilon}$ uncommon variant of y $\bar{\varepsilon}$ that 22.2 (cf Mampruli ni id)
$n \bar{\varepsilon}{ }^{\prime}$ focus particle 24.1.2; aspectual marker 16.2.1
$n \bar{\varepsilon} /$ meaningless particle after objects of $w \bar{v} v$ and $w \bar{\varepsilon} n^{\text {na/ }} \underline{15}$
$n \bar{\varepsilon}^{1 /}$ this (pronoun) 12.4.2
$n \varepsilon ̇ \varepsilon l^{\varepsilon} d v$. reveal
$n \varepsilon ̀ \varepsilon m^{\mathrm{m}} a d v$. for free
$n \bar{\varepsilon} \varepsilon m^{\mathrm{m} /} d v$. grind with a millstone
$n \bar{\varepsilon} \varepsilon r^{\varepsilon /} n$. millstone
$n \varepsilon ̀ \varepsilon s^{\varepsilon} d v$. reveal
$n \varepsilon ̀ \varepsilon s ı m^{\mathrm{m}} n$. light
$n \bar{\varepsilon} m-n \hat{\varepsilon} \varepsilon r^{\varepsilon}$ pl nēm-néyà $n$. someone who grinds
$n \bar{\varepsilon} n^{\text {na/ }}$ ger n $n \bar{n} n i ́ m{ }^{\mathrm{m}} s v$. envy
nह̄'ŋá this (pronoun) 12.4.2
nèog ${ }^{\circ}$ nè $\varepsilon r^{\varepsilon} p l$ nè $\varepsilon d^{\varepsilon}$ nèya $c b n \varepsilon ̀-a d j$. empty
$n \bar{\varepsilon} s ı n n \bar{\varepsilon} o g^{j /}$ pl n $\bar{s} s ı n n \bar{\varepsilon} \varepsilon d^{\varepsilon /}$ cb nēsınné- $n$. envious person WK; others: centipede
ǹfá! Well done! 18.4
$n \bar{\imath}$ l locative particle 13.3 see $n^{\varepsilon}$
$n i ̣ d v$. rain
$n i ̣ ̄ d^{\mathrm{a} / ~ p l ~ n i ̣ ̂ d l} b^{\mathrm{a} /} c b$ nị̄n- $n$. person; nịn-sâal ${ }^{\mathrm{a}}$ pl nịn $n$-sáalì $b^{\mathrm{a}}$ cb nịn-sâal- $n$. human being; nịnpūnān ${ }^{\text {na/ }}$ pl nịnpūnānníb ${ }^{\mathrm{a}}$ cb nịnnpūnán- $n$. disrespectful person; nị̄nsábılìs ${ }^{\varepsilon} n$. Africans
nịe $d v$. appear, reveal
nịfol pl nịní cb nịn $n$ - nịf- $n$. eye; nịf-gbáun $\eta^{\circ} n$. eyelid; nịf-sób ${ }^{a} n$. miser; nịf-n̆yáunk ${ }^{\circ}$ adj. one-eyed 12.8.1.1; nịn-dáa pl nịn-dâas ${ }^{\varepsilon}$ cb nịn-dá- $n$. face; nịn-gótì $\eta^{a} n$. mirror $p l$ nịn-gótìs ${ }^{\varepsilon} n$. spectacles, glasses; nịn-kúgvdì $g^{\mathrm{a}}$ pl nịnn-kúgvdìs ${ }^{\varepsilon} n$. eyebrow; nịn $n-t a{ }^{\prime} a m^{\mathrm{m}} n$. tear(s); nịn-múa $n$. concentration ("eye-redness"); m̀ nịní mù'e $n \bar{\varepsilon}$... I'm concentrating on ... (KB "zealous for ...")
nịi $\eta^{\mathrm{a}}$ pl nịimís ${ }^{\varepsilon}$ nịiis ${ }^{\varepsilon}$ cb nịì $n$. bird
$n i ̣ m m^{\mathrm{n} \varepsilon /} n \underset{i}{1} m^{\mathrm{n} \varepsilon /}$ pl nị̀má cb nị̀m- $n$. meat
nịn-báalì $g^{\mathrm{a}} n$. pity; nịnn-bâal-zōor ${ }^{\varepsilon} n$. pity; Ò zòtō nịn-báalìg. He has pity on him.
$n i ̣ ̄ \eta{ }^{\mathrm{a}} \mathrm{pl}$ nịiis ${ }^{\varepsilon}$ cb nị̀n- nịn- $n$. body (uncommon); nịn-tv̄llím ${ }^{\mathrm{m}} n$. fever; nịn-tāa pl nịntāas ${ }^{\varepsilon}$ cb nị̀n-tà- n. co-wife (Ghanaian English: "rival"); husband's brother's wife; nị̀n-gbị̀ $\eta^{J /}$ pl nị̀n-gbịná cb nị̀n-gbị̆ク-n. body (pl often as sg); nị̀n-gòor ${ }^{\varepsilon} n$. neck
nịn-pôvd ${ }^{\varepsilon}$ n. pl as $s g$ pus
nịntā $\eta^{\mathrm{a} / ~ p l ~ n i ̣ ̂ n t a ̄ a n ̆ s ~}{ }^{\varepsilon /}$ cb nịntán- $n$. heat of the day, early afternoon
$n i ̣ ̀ \eta^{\varepsilon} d v$. do
$n$ lā that is ... 18.4
ǹnāas $q$. four, in counting
ǹnịi $q$. eight, in counting
ǹnū $q$. five, in counting
$n \check{n} w a ̀$ this is ...; n n̆wà nā this here is ... 18.4
$n \overline{ } d v$. tread
$n o ̄ b^{\varepsilon} d v$. get fat
$n \bar{y} b ı g^{\varepsilon /} d v$. grow (e.g. child, plant)
nóbìr ${ }^{\varepsilon}$ pl nōbá cb nōb- n. leg, foot; nōb-bịla ${ }^{\text {a }} n$. toe; nōb-yíup ${ }^{\circ}$ adj. one-legged 12.8.1.1; nōb-ịn'̆'a n. toenail; nōb-púmpàū $\eta^{5} n$. foot
$n \overline{ } k^{\varepsilon /} d v$. pick up, take up
nò $\eta^{\varepsilon}$ agt nòjıdá (irregularly Pattern L) sv. love (family, spiritual); irregularly has the ma-imperative form nòjım ${ }^{\text {a }} 7.2$

nòjılím ${ }^{\mathrm{m}} n$. love
nōo exactly, just; emphatic 24.7
nōor ${ }^{\varepsilon /}$ pl nōyá cb n̄̄- n. mouth; command, message, opinion; n̄̄-dị̂'əs ${ }^{\mathrm{a}} n$. "linguist", a councillor who speaks on a chief's behalf on all official occasions (not only in the region of the old Mossi-Dagomba states 1.1: "linguist" in Ghana typically refers to an Akan chief's herald and spokesman, the okyeame); Wínà'am nódị̂'əs ${ }^{\text {a }}$ ("God's linguist") prophet NT/KB; n $\overline{-1}-l \hat{o} r^{\varepsilon} n$. fasting ("mouth-tying", as throughout West Africa); n̄̄-nâar ${ }^{\varepsilon} n$. covenant; n̄̄-pôor $r^{\varepsilon} n$. oath; nō-gbáun $\eta^{3} p l$ n̄̄-gbánà $n$. lip

ǹpòe q. seven, in counting
ǹtán̆' $q$. three, in counting
$n u \overline{d v}$. drink
 hen; N̄̄-n̆yâ'aŋ-ń́-ò-Bịis the Pleiades
$n u \overline{l ı} g^{\varepsilon /} d v$. make drink
$n u ̄ l ı s^{\varepsilon /} d v$. make drink
 n. thumb; nū'-yíun $\eta^{\circ} a d j$. one-armed 12.8.1.1; nū'--̣!n̆'a pl nū'-ह̂n̆' $\varepsilon s^{\varepsilon}$ $c b n \bar{u} '-\varepsilon ́ n{ }_{n}^{\prime}-n$. fingernail; $n \bar{u} '-w \hat{\varepsilon} \breve{n}^{\prime} \varepsilon d^{\text {a }} n$. mediator
n̆wà this 12.8.5
$\check{n} w a \bar{a}^{\prime} d v$. smash, break up
$\check{n} w a \bar{a} \eta^{\mathrm{a}} \mathrm{pl}$ ňwāamıs ${ }^{\varepsilon} c b$ n̆wàan- n. monkey
$\check{n} w a ̄ d ı g^{\mathrm{a} /} p l \check{n} w a ̄ d ı s^{\varepsilon /} c b \check{n} w a ̄ d-n$. moon, month; n̆wād-bị́l ${ }^{\mathrm{a}} p l$ n̆wād-bị́bìs ${ }^{\varepsilon} n$. star; $\check{N} w a ̄ d-d a ́ r^{\varepsilon} n$. Venus
n̆wà'e $d v$. cut wood
$\breve{n} w a \bar{a}^{\prime} e^{\prime} d v$. strike, break
ǹwāe $q$. nine, in counting

$\check{N} w a ̄ m p u ̄ r ı g^{\text {a/ }} p l \check{N} w a ̄ m p u ̄ r i s^{\varepsilon /}$ cb $N$ Ňwāmpúr- $n$. Mamprussi person
Ňwāmpūrlı ${ }^{\varepsilon /} n$. Mampruli language
Ňwāmpūrvg ${ }^{\rho /} n$. Mamprussi country
$\check{n} w \grave{c}^{\prime} d v$. beat; n̆wè' X nû'ug make an agreement with $\mathrm{X} ; \check{n} w \grave{c}^{\prime} n \check{n y} \bar{\prime}$ 'og boast
$\check{n} w i ̣ i g{ }^{\mathrm{a} /} p l \check{n} w i ̣ i l s^{\varepsilon /} c b \check{n} w i ̣-~ n$. rope; $\check{n} w i ̣-t \varepsilon ́ k^{\mathrm{a}} p l \check{n} w i ̣-t \varepsilon ́ k i ̀ d ı b^{\mathrm{a}} c b$ n̆wị-tćk- $n$. rope-puller; $\check{n} w i ̣-t \varepsilon ́ k i ̀ r^{\varepsilon} p l \check{n} w i ̣-t \varepsilon ́ k a ̀ ~ n$. rope for pulling
$\check{n} w i ̣ i ̀ ~ i g ~ d v . ~ m a k e ~ a ~ r o p e ~$
$\check{n y} y \bar{\prime} a l^{\varepsilon /} d v$. leave behind
$\check{n y a ̄ a n ~ n e x t, ~ a f t e r w a r d s ; ~ p o s t-s u b j e c t ~ p a r t i c l e ~ 17.2 .3 ~}$

n̆yá'an ${ }^{\mathrm{a}}$ behind, postposition 13.5; East 26.3; n̆yà'an-dòlla n̆yà'an-dòll pl n̆yà'andòlla n̆yà'an-dòllıb ${ }^{\text {a }}$ cb n̆yà'an-dòl- $n$. disciple NT; tones unexpected, Pattern $L$ n̆yā'ar pl n̆yā'a cb n̆yà'- $n$. root
$\check{n y} y \bar{e} e^{\mathrm{n} \varepsilon /} a d v$. in the light, brightly, clearly
ňyālú $\eta^{3} \mathrm{pl}$ ňyālımá cb n̆yālvŋ- adj. wonderful
n̆yàn ${ }^{\text {ne }} n$. shame; Ò dì n̆yán. He's ashamed.
$\check{n y} y \overline{\eta^{\varepsilon /}} d v$. overcome 19.1
n̆yàuk ${ }^{3} \mathrm{pl}$ n̆yà' $a d^{\varepsilon} a d j$. only (eye) 12.8.1.1
$\check{n} y \bar{\varepsilon} i p f v \check{n} y \bar{\varepsilon} t^{\mathrm{a} /}{ }^{\text {imp }} \check{n} y \bar{\varepsilon} m^{\mathrm{a}} d v$. see, find; $\check{n} y \bar{\varepsilon}$ láafiya get well
$\check{n} y \bar{\varepsilon} \varepsilon, \check{n} y \bar{\varepsilon} \varepsilon$ tí habitually, auxiliary tense marker 16.3.1
$\check{n} y \bar{\varepsilon} ' \varepsilon r^{\varepsilon /} p l \check{n} y \bar{\varepsilon} d a ́ c b \check{n} y \bar{\varepsilon} '-n$. next-younger sibling
n̆yè $\varepsilon s^{\mathrm{a}} s v$. be self-confident
$\check{n y}$ ỳ̇sım ${ }^{\mathrm{m}} n$. self-confidence

n̆yèzsípāa' adv. self-confidently
ǹyị' $q$. two, in counting
$\check{n y y ̣ ̄ n} n^{n \varepsilon / ~ p l ~ n ̆ y i ̣ n n a ́ ~ c b ~ n ̆ y i ̣ n ~} n-n$. tooth
n̆yị̆ríf pl n̆yịrí n. a kind of edible seed, egusi: Colocynthis citrullus
$\check{n y} y \bar{\partial} d^{\varepsilon} n$. intestines
$\check{n y} \overline{y o}^{\prime} \circ g^{\circ /} n$. chest
$\check{n y} y \overline{o g}{ }^{\circ} n$. sympathy: Ò zòtō ňyōog. She sympathises with him.
 $\check{n y o ̀-v u ̄ r-p a ̂ a l ~}{ }^{1 \varepsilon} n$. new life NT
ňȳ̄'os ${ }^{\varepsilon /} n$. smoke
ǹyûeb q. six, in counting
n̆yūur ${ }^{\varepsilon /}$ pl n̆yūyá cb n̆yū- n. yam

## 0

ò [v] he, she, his, her (right-bound); ${ }^{\circ}$ LF [ $\sigma$ ] him, her (left-bound) 12.4.1
ón he, she (subject of $\grave{n}$-clause); $\bar{n} n^{\varepsilon}$ he, she (contrastive) 12.4.1
j̀n $n^{\varepsilon}$ this, that (animate sg demonstrative) 12.4.2
う̀n̆ $b^{\varepsilon}$ ger $\overline{\text { onnb }}{ }^{\varepsilon} d v$. chew
$\grave{\jmath} \overline{a^{\prime}}$ this, that (animate sg demonstrative) 12.4.2
$\bar{\jmath} \partial s^{\varepsilon /} d v$. warm oneself; Ò ̀̀ $\partial s ı d n \bar{\varepsilon}$ búgóm lā. She's warming herself at the fire.

## $\mathbf{P}$

pà' earlier today, tense particle 16.3.1
pà'al ${ }^{\varepsilon} d v$. teach, inform; agt pā'an na pl pā'annıb ${ }^{\text {a }}$ cb pà'an- $n$. teacher
pà'al ${ }^{\varepsilon} d v$. put on top of something
pāalíga páall ${ }^{\text {l }}$ pl pāalís ${ }^{\varepsilon}$ pāalá cb pāal- adj. new
pāalím ${ }^{\mathrm{m}} a d v$. recently
pāalv́ adv. openly
pàan̆lv́n ${ }^{3}$ pl pàaňlímìs ${ }^{\varepsilon} n$. spider's web
pàam ${ }^{\mathrm{m}} d v$. receive a gift
pàas ${ }^{\varepsilon} d v$. add up to, amount to
$p a \bar{e}{ }^{/} d v$. reach
pàk ${ }^{\varepsilon} d v$. surprise
$p a k^{\varepsilon} d v$. take off from the top
pāmm SF pāmné LF q. much, a lot
pàn̆'alım ${ }^{\mathrm{m}} d v$. dedicate
pàňsı $g^{\varepsilon} d v$. lack
pàn $\eta^{\text {a }} p l$ pàan̆ $s^{\varepsilon}$ cb pàn- $n$. power
pà' tì perhaps; post-subject particle 17.2.3
$p \varepsilon ̀ b ı s^{\varepsilon} d v$. blow (of wind)
$p \varepsilon ̀ b ı s ı m{ }^{\mathrm{m}} p \grave{\delta} b ı \operatorname{sug}^{\circ} n$. wind
$p \varepsilon ̇ ' \varepsilon l^{\varepsilon} d v$. fill; resultative adj pè' $\varepsilon l v ́ \eta{ }^{\circ}$ full
$p \varepsilon \varepsilon l v g{ }^{\circ}$ in $z \bar{u}-p \varepsilon ́ \varepsilon l v ̀ g^{\circ}$ bald 12.8.1.1; cf pie "go bald" (Leviticus 13:40), Mooré pẽoogè
$p \varepsilon^{\prime} \varepsilon s^{\varepsilon} d v$. add up to, amount to
$p \varepsilon ̀ l ı g^{\varepsilon} d v$. whiten, go white
$p \varepsilon \grave{l}{ }^{\varepsilon} s^{\varepsilon} d v$. sharpen
$p \varepsilon ̀ n^{\mathrm{n} \varepsilon} n$. vagina
$p \bar{\varepsilon}^{\prime} \eta^{\varepsilon /} d v$. borrow; knock over WK
$p \varepsilon ̀ o g^{3}$ pl p $\bar{\varepsilon} \varepsilon d^{\varepsilon}$ cb pغ̀- n. basket
$p \bar{\varepsilon}{ }^{\prime} o g^{\rho /} p l p \bar{\varepsilon} ' \varepsilon s^{\varepsilon /} c b p \bar{\varepsilon} '-n$. sheep; p $\bar{\varepsilon}$ '-sá'a n. ewe lamb
$p \bar{\varepsilon} s ı g^{\varepsilon /} d v$. sacrifice
pīā $d v$. dig up

píăn̆'-zùna $n$. foreign language
$p i ̣ b ı g^{\varepsilon} d v$. uncover
pịbıl ${ }^{\varepsilon} d v$. cover up
pịbın ${ }^{\text {n } \varepsilon}$ pl pị̣bına cb pị̀bın- $n$. covering 8.1.2
$p i ̣ d^{\varepsilon} d v$. put on (hat, shoes, rings); clothing item as object; with indirect object put (hat, shoes, rings) on someone else
$p i ̣ d^{\varepsilon} d v$. get bloated
$p i ̣ ̀ ı g^{\varepsilon} d v$. take off (hat, shoes, rings)
$p i ̣ e / d v$. wash (part of one's own body)
$p i ̀ ə b^{\varepsilon} d v$. blow (e.g. flute)
pịəəlı $g^{\mathrm{a}}$ pị̀l ${ }^{\mathrm{l} \varepsilon} \mathrm{pl}$ pịəla pị̀əlıs ${ }^{\varepsilon}$ cb pì̀l- $a d j$. white
pịəlım ${ }^{\mathrm{m}} n$. whiteness
$p i ̣ \partial s^{\varepsilon} d v$. fool someone
$p i ̣ \partial s^{\varepsilon /} d v$. wash
pịiga q. ten
pịim ${ }^{\mathrm{m} / ~ p l ~ p i ̣ ̀ m a ́ ~ c b ~ p i ̣ ̀ m-~} n$. arrow
píıňfo pl pīıní cb pīın- n. genet
pịinı cb pịin- pl as sg (?) n. gift
$p i ̣ l^{\varepsilon} d v$. cover
pịlıg ${ }^{\varepsilon} d v$. uncover
$p i ̣ \breve{n}^{\prime} i^{\varepsilon /} d v$. begin

pịsị́ q. twenty
pịtú pl pịtíiba $c b$ pịt $t$. $n$. younger sibling of the same sex
$p \bar{\partial} d v$. swear
$p \grave{n ̆} d^{\varepsilon} d v$. crouch down
$p \bar{n} ' \rho^{\varepsilon /} d v$. cause to rot
pòn̆'olım ${ }^{\mathrm{m}} d v$. cripple, get crippled
pòn̆'or ${ }^{\varepsilon} p l$ pòn̆da cb pòn̆'- n. cripple
$p \grave{n ̆} r^{\mathrm{a}}$ ger pōn̆rub ${ }^{\mathrm{o}} s v$. be near
pòsd ${ }^{\mathrm{a}} s v$. be few, small
pòsdıg ${ }^{\mathrm{a}}$ pòsdır${ }^{\varepsilon}$ pl pòoda cb pòod- adj. few, small
pòsdım ${ }^{\mathrm{m}}$ n. fewness
$p \bar{\partial} \partial g^{\rho /} p l p \bar{\nu} \partial d^{\varepsilon /} p \overline{ } t^{\varepsilon /} c b$ $p \bar{\jmath}-n$. field, farm
$p$ ò' $\lrcorner g^{\varepsilon} d v$. diminish, belittle
$p \bar{\partial} \partial r^{\varepsilon /} n$. "slogan" of a clan, part of its traditional genealogy WK; $\leftarrow p \overline{0}$ swear (cf
Farefare pote, pore "nom de famille, nom par lequel on jure", also "oath")
$p \bar{u}$ not: negates indicative mood 16.5
$p \bar{u} d v$. divide
$p u{ }_{\sim} \bar{a}^{\mathrm{a}} p l p \bar{v}^{\prime} a b^{\mathrm{a}} c b$ pư'à- $n$. woman, wife; Ò dì pư'ā. He's married a wife; pư'à-dīır $n$.

 young woman; pư'à-sān̄'am na $n$. adulterer; pú'à-yùa n. daughter
$p u \bar{a} k^{\mathrm{a}} p l p \bar{v}^{\prime} a s^{\varepsilon} a d j$. female (human only)
pù'alım ${ }^{\mathrm{m}} d v$. cook
pù'alım ${ }^{\mathrm{m}} d v$. harm, damage; resultative adj pù'alv́ $\eta^{3}$ damaged
pù'alım ${ }^{\mathrm{m}} n$. femininity
pù'alím ${ }^{\mathrm{m}} \mathrm{pl}$ pù'alímìs ${ }^{\varepsilon}$ cb pù'alím- $n$. female sex organs
$p u ̀ d^{\varepsilon} d v$. name
$p \bar{v} d ı g^{\varepsilon /} d v$. divide, share out
pùgudıba pl pùgud-nàm ${ }^{\mathrm{a}}$ cb pùgvd-n. father's sister
pù-kòon̆r $r^{\varepsilon} p l$ pì-kòn̆ya $c b$ pù-kòn̆- $n$. widow
pū-kpāad ${ }^{a /}$ pl pū-kpāadíb ${ }^{\text {a }}$ cb irreg pū-kpá- $n$. farmer
pùlıma n. a species of grass, Imperata cylindrica
pùmpōog ${ }^{\circ} n$. housefly
pùn previously, already; preverb 16.8
$p u ̄ n ̆ ' e l d v$. rot
pūsı $g^{\mathrm{a} /} p l$ pūsıs ${ }^{\varepsilon /}$ cb pūs-n. tamarind
pūsır ${ }^{\varepsilon /}$ pl pūsá n. tamarind fruit
$p \overline{\text {-súk }}{ }^{\mathrm{a}}$ pl pū-súgùs ${ }^{\varepsilon} n$. half $\underline{12.5 .1}$
$p \bar{v} t^{\varepsilon /} n$. pl as sg contents of stomach WK
pūum ${ }^{\mathrm{m} /}$ cb pūum- $n$. flowers
$p \bar{v} v g^{\mathrm{a}}$ cb pì- $n$. inside, belly; Pư'ā lā mór pūvg The woman is pregnant; pūvgv-n $n^{\varepsilon /}$ inside 13.5; pù-pịəlım ${ }^{\mathrm{m}} n$. holiness; pò-tદ̀n̆' $\varepsilon r^{\varepsilon}$ pl pù-tèn̆nda cb pù-tદ̀n̆'- mind $p \bar{v} v r^{\varepsilon /} n$. stomach
pù'vs ${ }^{\varepsilon} d v$. greet, worship, thank; ger pù'vsım ${ }^{m} n$. worship; ger pù'vsug ${ }^{\circ} n$. thanks; $p \grave{̀}$ 'usug dôวg ${ }^{\circ}$ NT temple

## S

sà yesterday, tense particle 16.3.1
sà hence, ago, VP-final particle 16.11
$s a{ }^{\prime} d v$. be in distress
sàa tomorrow, tense particle 16.3.1
sāa pl sāas ${ }^{\varepsilon}$ cb sà- n. rain; sky; as subject of íān̆k $k^{\varepsilon /}$ "leap": lightning; sāa dínd $\bar{\varepsilon} o g^{\text {a/ }}$ rainbow ("rain chameleon"); sāa zúg ${ }^{3} n$. sky 13.5
$s a \bar{a}^{\prime} a b^{3} c b$ sà'- n. millet porridge, "TZ", the staple food of the Kusaasi
sāafi (?tones) $n$. lock, key $\leftarrow$ Twi safé
 $p l$ sàal-bịi is ${ }^{\varepsilon} n$. human being
sàalínāa $a d v$. smoothly
sàam ${ }^{\text {ma }} p l$ sàam-nàm ${ }^{\text {a }} c b$ sàam- $n$. father; sàam-kp $\bar{\varepsilon} \varepsilon n ̆ m^{\mathrm{m}} n$. father's elder brother; sàam-pị̀ $t^{\mathrm{a} / ~ p l ~ s a ̀ a m-p i ̣ t i ́ t ~}{ }^{\mathrm{a}}$ cb sàam-pị̀t- $n$. father's younger brother
$s a \overline{a m}{ }^{\mathrm{m} / d v}$. mash, crumble
$s \bar{a}^{\prime} a n^{\varepsilon /}$ in the presence of, in the opinion of; postposition 13.5
sāan ${ }^{\mathrm{a} /}$ pl sáam ${ }^{\text {ma }}$ cb sāan- $n$. guest, stranger
sáannìm ${ }^{\mathrm{m}} n$. strangerhood
sàb $\bar{\varepsilon} o g^{\circ} \mathrm{pl}$ sàb $\bar{\varepsilon} \varepsilon d^{\varepsilon} c b$ sàbè- $n$. wind, storm
sābılíga sābíllı pl sābılís ${ }^{\varepsilon}$ sābılá cb sābıl-adj. black
sàbùa $p l$ sàbù $\theta s^{\varepsilon} C b$ sàbưà- $n$. lover, girlfriend
Sà'dàbò og ${ }^{3} n$. place of the clan Sarabose
Sà'dàbùa pl Sà'dàbùes ${ }^{\varepsilon}$ Sà'dàbù $\theta b^{a} \quad$ n. clan name
sādı gím since, because 21.1
sāĕn̆ or sāenña $p l$ sāan̆b $b^{\mathrm{a}} c b$ sàn̆- $n$. blacksmith
sākárù ${ }^{\top}$ pl sākárìd ${ }^{\varepsilon}$ cb sākár- n. fox
sàlıbırn. bridle
sālıma cb sàlım-n. pl as sg gold; sàlım-kù ${ }^{\text {a }}{ }^{\mathrm{a}}$ n. gold merchant
sām ${ }^{\mathrm{n} \varepsilon /} \mathrm{pl}$ sāmá cb sām- $n$. debt; sām-kpâ'as ${ }^{\mathrm{a}} n$. household servant
sāmán ${ }^{\mathrm{n} \varepsilon} \mathrm{pl}$ sāmánà cb sāmán- $n$. open space in front of a zàk ${ }^{\mathrm{a}}$ compound;
Sāmán-pịə $r^{\varepsilon} n$. traditional New Year ceremony
sàn̆' $a m^{\mathrm{m}} d v$. spoil, get spoiled, get broken; destroy
sāngúnnìr ${ }^{\varepsilon} p l$ sāngónnà cb sāngón- $n$. millipede
sāŋá pl sānsá cb sān- n. time 26.7 5.3.2; sān-kán ªdv. then; when?
sān-sị̂'ə-n lā adv. at one time, once ... 17.2.1
sà $\eta-g b a ̀ u \eta^{3} n$. sky, heaven; cf sāa
sāpáll ${ }^{l} n$. Harmattan part of the dry season v́vn $n^{\text {ne }}$
sāpı ideo. straight
sārıgá $n$. prison $\leftarrow$ Hausa sarkàa "chain"
sàrị́yà or sc̀rị́yà $n$. law $\leftarrow$ Arabic Sari:Sa; sàrịyà-kāt ${ }^{\mathrm{a}} n$. judge NT
sāvg ${ }^{J / p l ~ s a ̄ a d ~}{ }^{\varepsilon /} c b$ sā-n. broom, brush
sàvk ${ }^{\top} \mathrm{pl}$ sà' $a d^{\varepsilon} n$. mote of dust
sáv $\eta^{\circ} n$. hospitality
$s \varepsilon ̀ ~ i p f v ~ s \varepsilon ̀ \varepsilon d^{\mathrm{a}} d v$. transplant
$s \bar{\varepsilon} o n ̆ g^{3} n$. rainy season
sì $d v$. skin, flay
sị'a some, any (sg) 12.4.3
sịa pl sị̄əs ${ }^{\varepsilon}$ cb sìà- $n$. waist; sìà-lōodín $\eta^{\text {a }} n$. belt ("waist-tying-thing"); sinà-nị̣ ${ }^{\circ} / n$. kidney $\sin ^{\prime} a^{\prime} a l^{\varepsilon /} d v$. get to be enough
sià 'ar ${ }^{\varepsilon} p l$ sìà'a cb sinà'- n. forest (WK), wilderness
sià $k^{\varepsilon} d v$. agree (Mooré sàke, Buli siagi)
$s i \bar{a} k^{\varepsilon /} d v$. suffice (Mooré sékè, Buli chagi)
sị̂bı $g^{\text {a/ }} p l$ sịbí cb sị̂b- $n$. a kind of termite
sìd truly, post-subject particle 17.2.3
sìda pl sìd-n. pl as sg truth
sīd ${ }^{\mathrm{a}} \mathrm{pl}$ sīdı$b^{\mathrm{a}} c b$ sìd- $n$. husband; sìd-bịll ${ }^{\mathrm{a}} n$. husband's younger brother;

$s i ̣ e / d v$. descend, be humbled
sịəəba some(ones), any (ones) 12.4.3
sị' $\partial l^{\mathrm{a}}$ something, anything 12.4.3
sị' $\partial m^{\mathrm{m}}$ somehow, anyhow 12.4.3 13.6
$s i ̣ ̆ g^{\varepsilon} d v$. descend
sīgir ${ }^{\varepsilon /} n$. guardian spirit, typically but not invariably the $w \bar{i} n^{\mathrm{n} \varepsilon /}$ of an ancestor $\underline{26.2}$
$s i ̣ ̂ g l s^{\varepsilon /} d v$. lower
sịgısír ${ }^{\varepsilon}$ pl sịgısá $n$. stopping-place
sīı $g^{\mathrm{a}} p l \operatorname{sī} \mathrm{~s}^{\varepsilon} c b$ sì- $n$. shade, personal spirit (KED); used in NT for "spirit"; in traditional belief rather Lebenskraft (Haaf) "vital energy", closely associated with a person's tutelary kìkịrrs ${ }^{\varepsilon /}$ (qv); Sì-sù ${ }^{5} n$. Holy Spirit NT; cf Buli chíik
sīı $g^{\mathrm{a}} \mathrm{pl}{\operatorname{sī} \imath s^{\varepsilon} n \text {. African birch, Anogeissus leiocarpa; cf Buli sīik }}^{\text {. }}$
sịilım ${ }^{\mathrm{m}} d \nu$. cite proverbs
ș̣ilín $\eta^{\mathrm{a}}$ sịilú $\eta^{\top}$ pl sịilís ${ }^{\varepsilon}$ sịilímìs ${ }^{\varepsilon}$ sịilímà $c b$ sịilín- $n$. proverb
sịiñ $d^{\varepsilon /} n$. honey

$s i ̄ ̃ ' i ~_{\text {s }} S^{\varepsilon /} d v$. touch
sīlınsị̂ug ${ }^{\top}$ pl sīlınsịiis ${ }^{\varepsilon} n$. ghost
sīlınsị̂un̆ $g^{\circ}$ pl sīlınsị̂in̆ $d^{\varepsilon} n$. spider
sìlvg ${ }^{3} p l \sin ^{n \varepsilon} \operatorname{sillis~}^{\varepsilon} C b$ sìl- n. hawk
$s i ̣ m^{\mathrm{m}} d v$. sink in a liquid
Sìmịilga pl Sìmịiis ${ }^{\varepsilon}$ cb Sìmị̀- $n$. Fulbe person, Fulani
Sìmịil ${ }^{\varepsilon} n$. Fulfulde language
Sìmịug ${ }^{\circ} n$. place of the Fulbe
sịn $n^{\text {na/ }}$ ger sịnnním ${ }^{\mathrm{m}} \mathrm{Sv}$. be silent
sīnsáan̆ $n$. a kind of tiny ant
$\operatorname{sī} \eta^{\mathrm{a}} p l \operatorname{si} \iota \check{n} s^{\varepsilon} c b \sin \eta-n$. a kind of very big pot
$s i ̄^{\prime} \eta^{\varepsilon /} d v$. begin
sīsị́bì ga pl sīsịbìs ${ }^{\varepsilon}$ cb sīsị́b- n. neem tree Azadirachta indica
sīsịbì ${ }^{\varepsilon}$ pl sīsị́bà $n$. fruit of neem tree
sisị' $\partial m^{\mathrm{m}} n$. wind, storm
sìsùvgū- $n^{\varepsilon /}$ between, postposition 13.5 KB suvgon

sō' some(one), any(one), animate sg 12.4.3
sōb ${ }^{\mathrm{a}}$ dummy head pronoun, animate sg 12.4.7
$s \overline{b^{\varepsilon}} d v$. go/make dark; usually write; sōbıril n. piece of writing
sōbı $g^{\varepsilon /} d v$. blacken

sóginià $n$. soldier $\leftarrow$ English
sōlv $\eta^{3 /}$ pl sōlımá n. story
$s \bar{n} d v$. rub
sōn̆'e ${ }^{\mathrm{ya} /} s v$. be better than; agt sōn̆'od $d^{\mathrm{a} / / ~ p l ~ s o ̄ n ̆ ' o b ~} b^{\mathrm{a} /}$ cb sōn̆'od-
sōnnır ${ }^{\varepsilon}$ pl sōnna cb sòn- $n$. courtyard dividing wall
sōn̆s ${ }^{\varepsilon}$ ger són̆sì $g^{\mathrm{a}} d v$. converse, talk with
sว̄on̆ $g^{\circ} n$. witchcraft
sōon̆r ${ }^{\varepsilon} p l$ sōn̆ya $c b$ sìn̆- $n$. liver
sòs ${ }^{\varepsilon}$ ger sōsı $g^{\mathrm{a}} d v$. ask; agt sòs ${ }^{\mathrm{a}} n$. beggar
sù $d v$. take a bath
$s u^{\prime} \bar{a}^{\mathrm{a}} d v$. do secretly, hide
sūāk ${ }^{\mathrm{a} /} n$. hiding place
sūen̆'dv. anoint
$s \bar{u}^{\prime} e^{\text {yal }} s v$. own; ger sū'vlím ${ }^{\mathrm{m}} n$. property, country, realm
$s u \bar{g} v r^{\varepsilon /} d v$. show forbearance, be patient with; sūgvrú $n$. forbearance
sùm ${ }^{\mathrm{m}} n$. goodness; well
sùm ${ }^{\text {ma }} s v$. be good
sùmbūgusím ${ }^{\mathrm{m}} n$. peace
sūmmır ${ }^{\varepsilon} p l$ sūmma cb sùm- $n$. groundnuts; sūm-dúgvdà $n$. cooked groundnuts
sùn ${ }^{\mathrm{n} \varepsilon}$ ger sùnnır ${ }^{\varepsilon}$ or sùnnvg ${ }^{\circ} d v$. bow one's head; agt sūn ${ }^{\text {na }} n$. ("someone who goes about with bowed head") deep thinker, close observer WK
$s u \bar{n}{ }^{\prime} e^{\prime} d v$. become better than
sūn̆f ${ }^{\jmath /}$ sūun̆r ${ }^{\varepsilon /}$ pl sūn̆yá cb sūn̆- $n$. heart; sū̆̆-kpị̂'oŋ ${ }^{\circ} n$. boldness 12.7.1; sūn̆-má'asìm ${ }^{\mathrm{m}} n$. joy (M̀ sūn̆f má'e yā. "My heart has cooled" = I'm joyful); sūn̆-málısìm ${ }^{\mathrm{m}}$ cb sūn̆-málìs- $n$. joy; sūn̆-pêen ${ }^{\mathrm{n} \varepsilon} n$. anger (Mं sūn̆f pélìg n $\bar{\varepsilon}$. "My heart is whitened" = I'm angry); sū̆̆n-sân̆'v $v{ }^{\circ} n$. sorrow (M̀ sūn̆f sân̆'am n $\bar{\varepsilon}$. "My heart is spoilt" = I'm sad)
$\operatorname{sù}^{\varepsilon} d v$. help
sù $\eta^{\circ}$ sùm ${ }^{\mathrm{m} \varepsilon}$ pl sùma cb sùク- adj. good
sv̀nā' adv. well, much

sūөr ${ }^{\varepsilon /}$ pl sūēyá cb sunā- $n$. road; permission in sūөr bé, mōr sūөr 22.1
sù' $\theta s^{\mathrm{a}} n$. yesterday

sù $r^{\text {a }} s v$. have one's head bowed
sùsòm ${ }^{\mathrm{m} \varepsilon} n$. grasshopper
Sūtáanà n. Satan
$s \bar{v} v g^{\varepsilon /} d v$. wither (leaves) WK


## T

tāa tāas ${ }^{\varepsilon}$ fellow- as second part of compound 9.2.1.4
tāaba tāab each other 12.4.5
tā'adır ${ }^{\varepsilon}$ pl tā'ada cb tà'ad- n. sandal
tàal ${ }^{l \varepsilon} p l$ tàala $c b$ tàal- $n$. fault, sin
tá'am ${ }^{\mathrm{m} \varepsilon} \mathrm{pl}$ tā'amá $n$. shea tree fruit
tá'ana pl tā'amís ${ }^{\varepsilon} c b$ tā'aŋ- $n$. shea butter tree Butyrospermum parkii
$t a \bar{\prime} a s^{\varepsilon /} d v$. help someone to walk; in greetings $\underline{25}$
tà $b^{\varepsilon} d v$. get stuck to
tàbı ${ }^{\text {ya }} s v$. be stuck to
tàbı $g^{\varepsilon} d v$. get unstuck from
tàbıl $l^{\varepsilon} d v$. stick to (transitive)
tàdı $g^{\varepsilon} n$. become weak
tādım ${ }^{\mathrm{m} /}$ pl tàdım-nàm ${ }^{\mathrm{a}}$ cb tàdım- $n$. weak person
tàdımís ${ }^{\varepsilon} n$. weakness
Tàlın $n^{\mathrm{n} \varepsilon} n$. Talni language
Tàlı $\eta^{\text {a }} p l$ Tàlıs ${ }^{\varepsilon} c b$ Tàlı $\eta-n$. Tallensi person
tàm ${ }^{\mathrm{m}}$ ipfv tàmmı $d^{\mathrm{a}} d v$. forget
tàmpịing ${ }^{\text {a }} n$. rock
tàmpūa pl tàmpōos ${ }^{\varepsilon}$ cb tàmpò- n. housefly $\underline{\text { 5.3.2 }}$
tàmpūvr ${ }^{\varepsilon}$ cb tàmpù- $n$. ashpit, rubbish tip
tān ${ }^{\mathrm{n} \varepsilon} \mathrm{pl}$ tāna cb tàn- $n$. earth; tàn-mé $d^{\mathrm{a}} n$. builder
tān̆ $p^{3} n$. war; tàn̆p-sōb ${ }^{\text {a } n \text {. warrior }}$
tàn̆s ${ }^{\varepsilon}$ ger tàn̆sug ${ }^{\circ} d v$. shout; Wị̀nnıg tán̆sìd $n \bar{\varepsilon}$. The sun is shining.
tār $r^{\mathrm{a} /}$ ger tārím ${ }^{\mathrm{m}}$ sv. have; more typical of Toende Kusaal; $N T / K B$ always mōra/
tàsıntàl ${ }^{l \varepsilon} n$. palm of hand
tàtàl ${ }^{l \varepsilon} n$. palm of hand
tāun̆' pl tān̆n ${ }^{\text {a/ }}$ cb tāun̆n- tān̆p- $n$. sibling of opposite sex
$t \varepsilon b^{\varepsilon}$ ger t $\bar{\varepsilon} b ı g^{\mathrm{a}} d v$. carry in both hands
$t \bar{b} b ı g^{\varepsilon /} d v$. get heavy
$t \bar{\varepsilon} b u s^{\mathrm{a} /} s v$. be heavy
$t \bar{\varepsilon} b ı s i ́ g{ }^{\mathrm{a}} t \bar{\varepsilon} b ı s^{\prime} r^{\varepsilon} p l$ t̄̄bısá cb tह̄bıs-adj. heavy
$t \bar{\varepsilon} b ı s i{ }^{m}{ }^{\mathrm{m}} n$. heaviness
té $\varepsilon b \grave{̀} l^{\varepsilon}$ pl té bbìl-nàm ${ }^{\text {a }} n$. table $\leftarrow$ English
$t \bar{\varepsilon} \varepsilon g^{\varepsilon /} d v$. drag, draw; t坟 $g \mathrm{X}$ tùbvr punish X
$t \varepsilon{ }^{\prime} \varepsilon g^{\mathrm{a}} \mathrm{pl} t \grave{\varepsilon}^{\prime} \varepsilon s^{\varepsilon} c b t \grave{\varepsilon}^{\prime}-n$. baobab Adansonia digitata
$t \bar{\varepsilon} k^{\varepsilon /} d v$. pull
tèn̆ $b^{\varepsilon}$ ger tèn̆nbvg $d v$. tremble, struggle
tèn̄' $\varepsilon s^{\varepsilon} d v$. remind
$t \bar{\varepsilon} \breve{n}^{\prime} \varepsilon s^{\varepsilon /} d v$. think; ger t $\bar{\varepsilon} n^{\prime} ' \varepsilon s a ́ ~ n$. thought
tèn̆r ${ }^{a}$ ger tēn̆rıb ${ }^{\circ} s v$. remember
 priest; tèn-d̄̄'adı $g^{\mathrm{a}} n$. native land; tè $\eta-g b a ̀ u \eta^{3} n$. earth, land; t $\eta \eta-p \bar{v} v g^{\text {/ }} p l$ tèn-p̄̄vd ${ }^{\varepsilon /} c b$ tè $\eta-p \bar{v}-n$. village, town; tè $\eta-z u ̀ \eta^{3} p l ~ t \varepsilon ̀ \eta-z \grave{v} v n s^{\varepsilon} n$. foreign country; $t \varepsilon ̀ \eta-s \bar{v} k^{\mathrm{a}} n$. centre
$t \bar{\varepsilon} \eta \imath-n^{\varepsilon /}$ or t̄̄$\eta^{\prime} r^{\varepsilon}$ downward; as postposition under 13.5
tèog ${ }^{\circ} \mathrm{pl} t \varepsilon \grave{\varepsilon}^{\varepsilon} d^{\varepsilon} n$. nest

tì we, our (right-bound); $t \iota$ us (left-bound) 12.4.1
tì preverb conveying completion or purpose 16.8
tià 'al $l^{\varepsilon} d v$. come next
tià $k^{\varepsilon} d v$. change
$t i ̣ ' ə b^{\varepsilon} d v$. prepare, get ready; heal in this sense perhaps influenced by Arabic $t^{\wedge} i b b$ "medicinal art"; tị' $\partial b^{\text {a }} n$. healer
tịen̆ $d v$. inform WK (KED remember)
tịen̆ $d v$. stretch out
$t i ̣ \partial \eta^{\mathrm{a}}$ pl tị̀əmıs ${ }^{\varepsilon}$ cb tị̀ə $-n$. beard; tị̀ə $-g \bar{v} v r^{\varepsilon} n$. chin
$t \bar{\imath} g^{\varepsilon} d v$. become sated, have too much/many; ger tī $g r^{\varepsilon /} n$. glut
$t]^{i}{ }^{\prime}{ }^{\mathrm{ya} /}$ ger $t \mathrm{t}^{\prime} i b^{3 /} s v$. be leaning (object)

$t i ̣ ' i l^{\varepsilon /} d v$. lean something
tìım ${ }^{\mathrm{m}} \mathrm{cb}$ tì- $n$. medicine; tì-kv̄vdím ${ }^{\mathrm{m}} n$. poison (killing-medicine); tì-sābılím ${ }^{\mathrm{m}} n$. "black medicine" (a particular traditional remedy); tì-vūnním ${ }^{\mathrm{m}} n$. oral medication
$t$ tị $^{\prime} i^{\varepsilon} d v$. begin to lean
tịlás ${ }^{\varepsilon} n$. necessity $\leftarrow$ Hausa tiilàs $\underline{22.1}$
till $g^{\varepsilon} d v$. survive, be saved
tīnám ${ }^{\mathrm{a}}$ we, us (contrastive); tīnámì we (subject of ǹ-clause) 12.4.1
tīntōn̆ríg ${ }^{\text {a }}$ pl tīnts̄n̆rís ${ }^{\varepsilon}$ cb tīntón̆r- n. mole (animal)
tì $p^{\mathrm{a}} p l$ tìp-nàm ${ }^{\mathrm{a}}$ cb tìp- $n$. healer (see tị̀ $\partial b^{\mathrm{a}}$ id)
tīrâan ${ }^{\mathrm{a}} p l$ tīrâan-nàm ${ }^{\mathrm{a}} \mathrm{cb}$ tīrâan- $n$. neighbour, peer
tīrâannìm ${ }^{\mathrm{m}} n$. neighbourliness
tírıgà ideo. for gị $\eta^{\mathrm{a}}$ short
tìs ${ }^{\varepsilon}$ ipfv tìsıd ${ }^{\mathrm{a}}$ tìt ${ }^{\mathrm{a}}$ agt tìs ${ }^{\mathrm{a}} d v$. give; also tı̀ before bound pronouns: tı̀ $f$ gave you
tītā'al ${ }^{l \varepsilon} n$. proud person
tītā'alım ${ }^{\mathrm{m}} n$. pride
tītā'am ${ }^{\mathrm{m}} n$. multitude
tītā'vg ${ }^{\circ}$ tītā'ar ${ }^{\varepsilon}$ pl tītāda cb tītá'- adj. big, great
tò OK 18.4 ( $=$ Hausa tôo)
tò $d^{\varepsilon} d v$. give to the poor, share
t̄̄e $e^{\text {a/ }} s v$. be bitter, difficult
tóklàe n. torch $\leftarrow$ English "torchlight"
tólìb ideo.
$t \bar{l} l s^{\varepsilon /} d v$. do next, advance, carry on
tólılìlı ideo. for wōk ${ }^{\mathrm{o} /}$ tall
tòn̆ $d v$. shoot
tòn̆' $s^{\varepsilon} d v$. hunt
tōog ${ }^{\circ} \mathrm{pl}$ tธ̄od ${ }^{\varepsilon} c b$ t̀̀- $a d j$. bitter, difficult
tōom ${ }^{\mathrm{m} /} d v$. depart, disappear
tò'stō' $a d v$. straight away
tunà $d v$. grind in a mortar; tuàa $b \overline{1} l^{a} n$. pestle
$t u{ }_{c}{ }^{\mathrm{a}} d v$. speak, plead in court
$t$ t̀ $^{\prime} a l^{\varepsilon} d v$. condemn in court
$t v ̀ ' a s^{\varepsilon} d \nu$. talk
tùbur ${ }^{\varepsilon}$ pl tùba cb tùb- $n$. ear; tùb-kpị̀r $r^{\varepsilon} n$. half of jaw; tùb-yīu $\eta^{\jmath /} a d j$. one-eared 12.8.1.1
$t \bar{v} l^{\text {la/ }} s v$. be hot
tùlı $g^{\varepsilon} d v$. invert
$t \bar{v} l ı g^{\varepsilon /} d v$. heat up
tùm ${ }^{\mathrm{m}} d v$. work; ger tūvm ${ }^{\mathrm{m} \varepsilon} n$. deed pl tūvma $n$. deeds; work cb tùvm-; tùvm-b $\bar{\varepsilon}^{\prime} \varepsilon d^{\varepsilon}$ $n$. bad deeds; tùvm-bē' $\varepsilon d$-dím ${ }^{\text {a }} n$. sinners NT; agt tòm-tūm ${ }^{\text {na }} n$. worker
tùm ${ }^{\mathrm{m}}$ ger tìtūmıs ${ }^{\varepsilon} d v$. send; compare Hausa àikaa "send", aikàtaa "work"
tūn̆'e sv. be able 19.1
tūөdır ${ }^{\varepsilon}$ pl tūөda cb tùөd-n. mortar
tùөn ${ }^{\mathrm{n} \varepsilon}$ in front; as postposition 13.5; West (KB yà tùөna) 26.3; tùөn-gāt ${ }^{\mathrm{a}} n$. leader $T u ̀ \theta n^{n \varepsilon} n$. Toende, western part of Kusaasiland
Tùөnnır ${ }^{\varepsilon} n$. Toende dialect of Kusaal tūsır ${ }^{\varepsilon /} n$. thousand 12.5.1
tòtūll ${ }^{\varepsilon} n$. upside-down thing, cf tùlı $g^{\varepsilon}$
tv̄vlígā' adv. hotly
tūvlv́g$~ p l ~ t u ̄ v l a ́ ~ c b ~ t v ̄ v l-~ a d j . ~ h o t ~$
$t \bar{u} \cdot v s^{\varepsilon /} d v$. meet

## $\mathbf{U}$

ùdvg ${ }^{\top} p l$ ùt $t^{\varepsilon} c b$ ùd- $n$. (piece of) chaff
$\bar{u} g v s^{\varepsilon /} d v$. bring up a child
$\grave{v} k^{\varepsilon} d \nu$. vomit
$\bar{u} k^{\varepsilon} d v$. bloat
$\grave{v} m^{\mathrm{m}} d v$. close eyes
$\bar{u} r ı g^{\varepsilon /} d v$. scrape
v́vn $n^{\mathrm{n}} n$. dry season

## V

$v a \bar{b} \imath^{\text {ya/ }}$ ger vāp ${ }^{\text {/ }}$ KT vābıré WK sv. be lying prone
$v a ̄ b l^{\varepsilon /} d v$. make lie prone
$v a ̀ b ı n^{\varepsilon} d v$. lie prone
vàe $d v$. gather up
vāvn̆ $g^{j /} p l v a ̄ a n ̆ d^{\varepsilon /} c b$ vān̆-n. leaf
$\nu \bar{\varepsilon}{ }^{\prime} d \nu$. lead
$\nu \bar{\varepsilon} \overline{1}^{\prime} \varepsilon g^{\varepsilon /} d v$. drag
$\nu \varepsilon ̀ n^{\text {na }}$ or vèn̆l $l^{\text {la }} s v$. be beautiful
vèn̆llıga pl vèn̆llıs ${ }^{\varepsilon}$ vèñlla $c b$ vèn̆nl- adj. beautiful
vèn̆llín $\eta^{\mathrm{a}} \mathrm{pl}$ vèn̆nlís ${ }^{\varepsilon}$ cb vèñllín- adj. beautiful
vènnı $g^{\mathrm{a}}$ vènnıır ${ }^{\varepsilon} p l$ vènnıs ${ }^{\varepsilon}$ vènna $c b$ vèn- $a d j$. beautiful
vènnım ${ }^{\mathrm{m}} n$. beauty
$v i ̣ ̀ ' d v$. uproot
$\nu i ̣ k^{\varepsilon /} d v$. uproot
vịug ${ }^{\text {/ }}$ pl vịiid ${ }^{\varepsilon /}$ cb vị- n. owl
$v \bar{\jmath} b^{\varepsilon /} d v$. thrash (tones uncertain)
$v u \overline{g e r} v u \bar{u} g^{\rho /} d v$. make a noise; $v u \bar{u} d^{\varepsilon /} n$. noise
$v \bar{e} e^{\mathrm{a} /} s v$. be alive
$v \overline{\nu^{\varepsilon}} d v$. swallow
vv̀lınvùun̆ll ${ }^{l \varepsilon} n$. mason wasp
$v \bar{v} m^{\mathrm{m} /} c b v \overline{\mathrm{v}} \mathrm{m}-\mathrm{n}$. life; vōm-pâal ${ }^{\mathrm{l}} n$. new life
vúө永 pl vūөmís ${ }^{\varepsilon}$ n. red kapok Bombax buonopozense
$v u ́ \theta r^{\varepsilon} p l v u ̄ a ́ a ~ c b v u ̄ \theta-n$. fruit of red kapok
$v \bar{u} r^{\varepsilon /} p l$ vōyá $c b v \bar{v} r-a d j$. alive
$v u ̄ r ı g^{\varepsilon /} d v$. shift along, move over (tones uncertain)
$v \bar{u}^{\prime} \nu g^{\varepsilon /} d v$. come, make alive
$v \bar{v}^{\prime} v s^{\varepsilon /} d v$. breathe, rest
$v \bar{v}^{\prime} v$ sím $^{\mathrm{m}} n$. resting

## W

$w a ̄ ' d v$. dance
$w_{a} a d^{\varepsilon /} n$. cold weather
wáafo pl wịiigí cb wā'- n. snake
$w_{a} a l^{\varepsilon /} d v$. sow, scatter seed
wā'alím ${ }^{\mathrm{m}} n$. length
$w a{ }^{\prime} a m^{\mathrm{a} /} s v$. be long, tall
wàb $g^{\mathrm{a}}$ wàbır $r^{\varepsilon} p l$ wàbıs ${ }^{\varepsilon}$ wàba $c b$ wàb- $n$. lame person
wàbılım ${ }^{\mathrm{m}} d v$. make, go lame
wābvg ${ }^{\rho /} p l$ wābıd ${ }^{\varepsilon /}$ cb wāb-n. elephant
wādır ${ }^{\varepsilon /} p l$ wādá cb wād- $n$. law ( $\leftarrow$ English "order" via Hausa) plural as sg: law wād-tís ${ }^{\mathrm{a}} n$. lawgiver NT
$w a ̀ ' e^{\text {ya }} s v$. be travelling
wālı $g^{\mathrm{a}} \mathrm{pl}$ wālıs ${ }^{\varepsilon}$ wālí (tone sic) cb wàl- n. a kind of gazelle
wà $\imath^{\mathrm{m}} d \nu$. waste away
wàsınwàl ${ }^{l \varepsilon} n$. a parasitic gall on trees, called "mistletoe" in local English
wàun $\eta^{3}$ pl wàna $c b$ wàun $-a d j$. wasted, thin
$w \varepsilon ̀ \varepsilon d^{\mathrm{a}}$ see wı̀ı $d^{\mathrm{a}}$
$w \bar{\varepsilon} \varepsilon l^{\varepsilon /} d v$. be left unsold (KED) but see w $\bar{\varepsilon} o g^{3 /}$
$w \bar{\varepsilon} \varepsilon^{\varepsilon} d \nu$. bear fruit
$w \bar{\varepsilon} l^{l \varepsilon /} p l$ wēlá cb w $\bar{\varepsilon} l-n$. fruit
wēlá or wālá how? 13.6; nị̀ $\eta$ wēlá n/kà how can ...? 19.1
$w \bar{\varepsilon} n^{\text {na/ }} s v$. resemble; in $K B$ w $\bar{\varepsilon} n ~ n \bar{\varepsilon}$ appears as nwene; ger w $\begin{gathered}\text { nním }\end{gathered}{ }^{m}$
wēnnır ${ }^{\varepsilon}$ adj. resembling (Pattern A, specifically confirmed with WK)
$w \varepsilon ̀ o g^{3} n$. deep bush
$w \bar{\varepsilon} o g^{\Omega /} p l w \bar{\varepsilon} \varepsilon d^{\varepsilon /}$ n. cheap thing sold in abundance WK
$w i a ̄ k^{\varepsilon /} d v$. hatch (from an egg)
wì $d g^{\varepsilon} d v$. scatter
wịə ${ }^{\rho} \mathrm{pl}$ wị̀lı Cb wìd- $n$. horse; wìd-lōr $r^{\varepsilon /} n$. place for tying up horses in a compound;
wìd-dāvg ${ }^{\top} n$. stallion; wìd-ňyá' $a \eta^{\mathrm{a}} n$. mare; wìd- $z \bar{v} v r^{\varepsilon} n$. horsetail
wìı $d^{\mathrm{a}}$ or wè $\varepsilon d^{\mathrm{a}} \mathrm{pl}$ wùı $b^{\mathrm{a}} c b$ wı̀ıd- $n$. hunter
Wịid ${ }^{\mathrm{a}}$ pl Wịid-nàm ${ }^{\mathrm{a}}$ cb Wịid- n. member of the clan Wiid
Wịidvg ${ }^{\circ} n$. place of the clan Wiid
wịi $g^{\mathrm{a} /} n$. whistle
wìım ${ }^{\mathrm{m}} n$. sickness, disease ("worse than bān̆'as ${ }^{\varepsilon "} \mathrm{WK}$ )
$w_{i ̣} k^{\varepsilon} i p f v w_{i ̣ i}{ }^{\mathrm{a}} d v$. fetch water 7.1
wịl $^{l \varepsilon} \mathrm{pl}$ wịla cb wịl- n. branch
wīlısún ${ }^{3}$ pl wīlımís ${ }^{\varepsilon}$ cb wīlısún- $n$. a kind of snail 5.3.2
wị́m ideo. for zịn̆'a red
$w \bar{\imath} n^{\mathrm{n} \varepsilon /} \mathrm{pl}$ wīná $c b$ wīn- $n$. God; god; spiritual double, genius; destiny; wīn-tôวgo $n$. misfortune
Wínà'am ${ }^{\mathrm{m}} n$. God 11.1
wị̀nnı $g^{\mathrm{a}}$ cb wị̀n- $n$. sun; talent; wịn-lịīi $i^{\varepsilon} n$. sunset; wịn-kòonnr $r^{\varepsilon} n$. sunset
wị̀u ${ }^{\circ}$ wịir ${ }^{\varepsilon}$ pl wị̀ya wịid $d^{\varepsilon}$ cb wị̀- adj. red
wōk ${ }^{\rho /}$ wā'ar ${ }^{\varepsilon /}$ pl wá'a wā'ad ${ }^{\varepsilon /}$ cb wōk-wā'- adj. long, tall
$w v ̀ m^{\mathrm{m}} d v$. hear; understand (a language); smell
wūsa q. all
$w \bar{v}$ q. all
$w \bar{v}$ like, resembling $\underline{15}$
$w \overline{v^{\prime}} v g^{\varepsilon /} d v$. get wet
$w \bar{v}^{\prime} v l^{\varepsilon /} d v$. make wet

## Y

yà you, your pl (right-bound); ya you pl (left-bound) 12.4.1
ya you pl, left-bound subject after imperative 4.2 12.4.1 18.3
yā independent-perfective particle 16.6.2
yà' if, when $\underline{20}$
yáa adv. whither?
yáab ${ }^{\mathrm{a}}$ pl yāa-nám ${ }^{\mathrm{a}}$ cb yāa-n. grandparent, ancestor; yāa-dáu n. grandfather; yāa-pu'áa $n$. grandmother
yà' $a b^{\varepsilon} d v$. mould clay
yā'ad ${ }^{\varepsilon} c b$ yà'- n. clay
yà' $a l^{\varepsilon} d v$. hang up; make perch (bird)
yà' $a n^{\varepsilon} d v$. perch (of a bird)
Yàan ${ }^{\mathrm{n} \varepsilon} n$. Yansi language (apparently Mooré now)
yáa ní adv. where?
yáa $\eta^{\mathrm{a}} \mathrm{pl}$ irr yáas ${ }^{\varepsilon}$ (consistently without nasalisation) cb yāan- $n$. grandchild, descendant 26.1
Yàan ${ }^{\text {a }} p l$ Yàam $^{\text {ma }}$ Yàamıs $^{\varepsilon}$ Yàas $^{\varepsilon}$ cb Yàap- $n$. Yansi person
yāar ${ }^{\varepsilon /} d v$. scatter
yàarım ${ }^{\mathrm{m}}$ cb yàar- $n$. salt
yà' $a s^{\mathrm{a}}$ yà' $a s^{\varepsilon}$ again $\underline{19.1}$
$y \bar{a} ' a s^{\varepsilon /} d v$. open repeatedly
yàddā or yàdā $n$. faith, trust 16.9.1 $\leftarrow$ Hausa yàrda; probably $\leftarrow$ Arabic yard$a: ;$ yàddā-nínìr ${ }^{\varepsilon} n$. belief
$y \bar{a} d ı g^{\varepsilon /} d v$. scatter; agt yāta/ irreg. agt: participant in a housebuilding ritual
$y a \bar{\prime} e^{\prime} d v$. widen, open (mouth)
yàk ${ }^{\varepsilon} d v$. unhang, unhook
yàlım ${ }^{\text {ma }} s v$. be wide
yālım ${ }^{\mathrm{m} /}$ pl yālım-nám ${ }^{\mathrm{a}} n$. worthless person
yālısún ${ }^{3}$ pl yālımís ${ }^{\varepsilon}$ cb yālısún- $n$. quail $\underline{5.3 .2}$
yàlv $\eta^{3}$ pl yàlıma cb yàlvŋ- adj. wide
yām ${ }^{\mathrm{m} \varepsilon}$ pl yàma cb yàm- $n$. hay WK
$y \bar{a} m^{\mathrm{m} /}$ cb yām-n. gall; gall bladder; common sense. WK yā'am ${ }^{\mathrm{m} / ;}$; probably originally two distinct words 2.2
yàmmı ${ }^{\mathrm{a}}$ yàmmıg ${ }^{\mathrm{a}}$ yàmmog ${ }^{3} \mathrm{pl}$ yàmmıs ${ }^{\varepsilon}$ $c b$ yàm- $n$. slave
yānám ${ }^{\mathrm{a}}$ you pl (contrastive); yānámì you pl (subject of ǹ-clause) 12.4.1
Yārıg ${ }^{\mathrm{a} / ~ p l ~ Y a ̄ r ı s^{\varepsilon /}}$ cb Yār- $n$. Yarsi person; also called Kantonsi; said to have been originally of Manding/Dyula origin
Yāt ${ }^{\varepsilon /} n$. Yarsi language (no longer Dyula/Bambara, but a Western Oti-Volta language)
yàvg ${ }^{\top}$ pl yàad ${ }^{\varepsilon}$ n. grave, tomb
$y \bar{\varepsilon}$ that 22; be about to ... 16.3.3
$y \varepsilon ̀ d v$. dress oneself; resultative adj yغ̀ $\varepsilon$ lú $\eta^{3}$ worn (e.g. of a shirt)
$y \varepsilon ̀ \varepsilon g^{\varepsilon} d v$. undress oneself
$y \varepsilon ̀ \varepsilon \varepsilon^{\varepsilon} d v$. dress someone
$y \varepsilon \bar{\varepsilon} \varepsilon s^{\varepsilon /} d v$. betray a secret
$y \bar{c} l^{\varepsilon} i p f v y z ̀ t^{\mathrm{a}}$ ger yह̀llvg${ }^{\circ} d v$. say, tell
$y \bar{\varepsilon} l^{l \varepsilon /} p l y \bar{\varepsilon} l a ́(a s ~ p o s t p o s i t i o n: ~ a b o u t ~ 13.5) ~ c b ~ y z \overline{l-n . ~ m a t t e r, ~ a f f a i r ; ~ y \bar{\varepsilon} l-m \varepsilon ́ \eta ̀ ̀ ~} r^{\varepsilon}$

$n$. confidential matter; y $\bar{\varepsilon} l$-súm ${ }^{\mathrm{m} \varepsilon} n$. blessing
$y \bar{\varepsilon} \eta^{\prime} m^{\mathrm{m}} d v$. oscillate (like waves)
$y \varepsilon ̇ o g^{\top} p l y \varepsilon ̀ \varepsilon d^{\varepsilon} n$. bird's crop; person displaced from family (KED)
yéoŋ $q$. one, in counting
$y \overline{1} i p f v y i ̣ t^{\mathrm{a}} / \operatorname{imp} y \grave{̀} m^{\mathrm{a}} d v$. go, come out
$y i ̣ d ı g^{\varepsilon} d v$. go astray
$y \overline{i ̄} d \imath g^{\varepsilon /} d v$. untie
yì̀r $r^{\varepsilon} n$. jaw
yỵìigá $q$. firstly; former 12.1; ỵ̣ì $g$-sób ${ }^{\mathrm{a}} n$. first person 12.4.7
$y \grave{i ̣ i} s^{\varepsilon /}$ ger y!̣isííb ${ }^{0} d v$. make go/come out, extract
yīmmír pl yīmmá cb yīm- adj. solitary, lone 12.5.1
yīmmú q. adv. straight away, at once
yīnní q. one
$y i ̣ \eta^{\mathrm{a}} a d v$. outside
$y \grave{̣} r^{\varepsilon /} p l y \bar{a}{ }^{\prime}$ cb yị̀ $n$. house; yị-dâan ${ }^{\mathrm{a}} n$. householder; yị-sób a pl yị-sób-nàm ${ }^{\mathrm{a}} n$. householder; yị-dím ${ }^{\mathrm{a}} n$. members of the household; yī-pón̆rùg ${ }^{3}$ pl yị-pón̆rà $n$. neighbouring house; yị-sígıdìr ${ }^{\varepsilon} n$. lodging-house; yị́n ${ }^{\text {ne }}$ at home pl yáa-n ${ }^{\varepsilon}$ $y!̣ i s^{\varepsilon} d v$. make go/come out, extract
yīu $\eta^{\text {J/ }}$ pl yīná adj. single- 12.8.1.1
yò $d v$. close; resultative adj yòslún ${ }^{\circ}$ closed
$y \overline{o n}^{n} v v$. pay; ger yōod ${ }^{\varepsilon /} n$. pay
$y \bar{l} \iota_{s^{\varepsilon /}} d v$. untie
yōlısím ${ }^{\mathrm{m}} n$. freedom
yōlvg ${ }^{\text {/ }}$ pl yōn ${ }^{\text {nદ/ }}$ cb yōl- $n$. sack, moneybag; (like Hausa jàkaa) £100, $\$ 200$ (cedis)
yò'og $g^{\varepsilon} d v$. open
yòor ${ }^{\varepsilon}$ pl yòya cb yذ̀- $n$. soldier ant
yưà $d v$. bleed; also fornicate WK
yú'adır ${ }^{\varepsilon} p l$ yú'ada n. rafter
yùbı $g^{\text {a }} p l$ yùbıs ${ }^{\varepsilon}$ cb yùb- $n$. small bottle-like pot
yūgvdır ${ }^{\varepsilon} p l$ yūgvda cb yùgvd- $n$. hedgehog
yūgóm ${ }^{\mathrm{m} \varepsilon}$ yūgóm ${ }^{\mathrm{n} \varepsilon}$ pl yūgvmá $c b$ yūgom- $n$. camel
yùlı $g^{\varepsilon} d v$. swing (transitive)
$y u \bar{n} ' e^{l} d v$. set alight
$y u ̄ ' ө r^{\varepsilon} p l y u ̄ a ̄ d a ~ c b ~ y u ̀ ' ө r-n . ~ p e n i s ~$
$y u ̀ u g^{\varepsilon} d v$. get to be a long time, delay; $T i ̀ y u ̂ u g ~ n \bar{\varepsilon} t a ̄ a b a$. It's long since we met.
yùul $l^{\varepsilon} d v$. swing (intransitive)
$y \bar{u} \cdot v m^{\mathrm{m} /} d v$. sing; agt yūvm-yט̂'vm ${ }^{\text {na }} p l y \bar{v} v m-y \hat{'}{ }^{\prime} v m n i ̀ b^{\mathrm{a}} n$. singer

yòvm ${ }^{\mathrm{m} \varepsilon}$ pl yòma $c b$ yòvm- $n$. year; yòvm-pāalíg ${ }^{\mathrm{a}} n$. new year
$y \bar{u}$ 'on then, next 17.2.3
yó'v $\eta^{3} \mathrm{pl}$ yō'vmís ${ }^{\varepsilon}$ cb yō'vŋ-n. night
$y v ̄ ' v r^{\varepsilon /} p l y u ̄ d a ́ c b y \bar{u} '-n$. name
yūvr ${ }^{\varepsilon}$ pl yūya cb yù- $n$. water pot

## Z

$z \bar{a}^{\prime} c b z \bar{a}-n$. millet
zāalíg ${ }^{\mathrm{a}}$ záal ${ }^{\mathrm{l}}$ pl zāalís ${ }^{\varepsilon}$ zāalá cb zāal- adj. empty
$z a ̄ a l i ́ m{ }^{\mathrm{m}} a d v$. emptily
zàam ${ }^{\mathrm{m}} c b$ zà- $n$. evening; zà-sìsōbır ${ }^{\varepsilon /} n$. evening
zàn̆'an ${ }^{\text {n } \varepsilon} p l$ zàn̆'ana $n$. metal hammer, iron-tipped weapon, bludgeon
$z a ̀ a n ̆ s ı m{ }^{\mathrm{m}} d v$. dream
$z a ̄ a n ̆ s i ́ m{ }^{\mathrm{m}}$ cb zāan̆s- n. soup; soup in general, not "fish soup" despite Mampruli zaasim "fish"; cf Toende zãasím "meat soup" (Niggli)
zàan̆sú $\eta^{3} p l$ zàan̆símà cb zàan̆sv́p- $n$. dream
$z a ̀ b^{\varepsilon} g e r z a ̀ b ı r^{\varepsilon} d v$. fight; hurt (of body part); agt zàb-zàba $n$. warrior; agt gbān-záb ${ }^{\text {a }} n$. leather-beater, leather-worker
$z a ̀ b ı l^{\varepsilon} d v$. cause to fight
zàk ${ }^{\mathrm{a}} \mathrm{pl} z a ̀{ }^{\prime} a s^{\varepsilon} c b z a ̀$ '- $n$. compound; zà'-n̄̄or $r^{\varepsilon /} n$. gate; zà'-n亏̄-gúr $r^{\mathrm{a}} n$. gatekeeper $z a ̀ k ı m{ }^{\mathrm{m}} d v$. itch
zàlı $\eta^{\mathrm{a}} \mathrm{pl}$ zàlımıs ${ }^{\varepsilon}$ cb zàlı $\eta$ - $n$. electric eel
$z a ̀ m^{\mathrm{m}}$ ipfv zàmmı $d^{\mathrm{a}} d v$. cheat; agt zàm-zām ${ }^{\text {na }} n$. cheat
zàmıs ${ }^{\varepsilon} d v$. learn, teach
$z a ̄ n ̄ ' a ~ q . ~ e v e r y ~$
$z a ̀ n{ }^{\prime} a s^{\varepsilon} d v$. refuse
zàn̆bı $l^{\varepsilon} d v$. tattoo, mark skin
$z a ̄ n ̆ b ı n^{\text {ne }} p l$ zān̆bına cb zàn̆bın- $n$. tattoo; NT sign 8.1.2
Zàngbèz $\varepsilon^{\varepsilon} n$. Hausa language
Zàngbèog ${ }^{3}$ pl Zàngbèzd ${ }^{\varepsilon} n$. Hausa person
zàngùөm ${ }^{\mathrm{m} \varepsilon} \mathrm{pl}$ zàngùөma cb zàngùөm- $n$. wall
zànkv̀'ar ${ }^{\varepsilon}$ pl zànkư'àa zànkv̀'ada cb zànku'à- n. jackal
$z a ̄ n ̆ l^{\text {la/ }}$ ger zān̆llím ${ }^{\mathrm{m}}$ sv. be holding, carrying in hands
zàňl ${ }^{l \varepsilon} n$. umbilicus
$z a ̀ \eta^{\varepsilon} d v$. pick up, take up
$z \bar{\varepsilon} m^{\mathrm{ma/}}$ ger $z \bar{\varepsilon} m m u ́ g^{\circ} s v$. be equal
$z \bar{\varepsilon} m ı s^{\varepsilon /} d v$. make equal
$z \bar{\varepsilon} m m o ́ g^{\top} p l z \bar{\varepsilon} m m a ́ ~ c b ~ z \bar{\varepsilon} m-a d j$. equal
$z \overline{1}$ ger $z i \bar{i} d^{\varepsilon /} d v$. carry on one's head; agt $z \bar{l}-z i l i d d^{\mathrm{a}} n$. carrier on the head
$z \overline{1} '$ ger $z \bar{i}$ 'llím ${ }^{\mathrm{m}}$ sv. not know 16.5; agt $z \overline{1} ' \imath d^{\mathrm{a} /} n$. ignorant person

$z i!' ə l^{\varepsilon} d \nu$. make to stand; zị'əl n亏̄or ${ }^{\varepsilon /}$ promise, command; with $n$ tìs X: promise to X
$z i ̣ ' ə n^{\varepsilon} d v$. stand still; Ò $z i ̣ ' ə n n \bar{\varepsilon}$. She's pregnant.
$z \bar{\imath} \imath m^{\mathrm{m} /} c b z \bar{\imath}-n$. blood
zịin ${ }^{\mathrm{a}} \mathrm{pl}$ zị̣mí cb zị̀m- $n$. fish; zị̀m- $g b a ̂ n ̆ ' a d^{\mathrm{a}} n$. fisherman
zìlım ${ }^{\mathrm{m} \varepsilon} \mathrm{pl}$ zìlıma cb zìlım- $n$. tongue
zīlınzîog ${ }^{\circ}$ adj. unknown
zị́m ideo. for sābılíga black
zịná today
zịn̆'a zغ̀n̆'v $g^{\top} p l z \varepsilon ̀ n ̆ ' \varepsilon d^{\varepsilon} z \varepsilon ̇ n ̄ ' \varepsilon s^{\varepsilon} z \varepsilon ̇ n ̆ d a ~ c b ~ z \varepsilon ̀ n ̄ '-~ a d j . ~ r e d ~$

$z i ̣ \breve{n}^{\prime} i l^{\varepsilon} d v$. make sit, seat
$z i ̣ n ॅ ' i n{ }^{\varepsilon} d v$. sit down

zīrí n. lie, untruth
 ipfv ger zòtım ${ }^{\mathrm{m}}$ fear 9.2.1.4 $O$ zòtō nịn-báalìg. He has pity on him
$z \bar{\jmath} l^{\varepsilon} d v$. castrate
$z o ̄ l ı m i ́ s^{\varepsilon} n$. foolishness

$z \overline{\mathrm{~J}} \mathrm{~m}^{\mathrm{m} /}$ cb zōm- n. flour

$z \bar{r} \overline{\iota g}^{\mathrm{a} /} n$. small child WK
zōrvgo/ pl zōrán. piece
$z \bar{u} d v$. steal
zưà pl zưà-nàm ${ }^{\text {a }} c b$ zưà- $n$. friend

$z u ̀ ' e d v$. get higher, more
zùe $d v$. perch, get on top (? variant of zù'e)
$z \bar{u} g^{\partial /} p l z u \bar{t} t^{\varepsilon /}$ cb $z \bar{u} g-z \bar{u}-\underline{5.2}$ n. head; as postposition 13.5; $z \bar{u} g v ́-n^{\varepsilon}$ is also used as a
postposition; $z \bar{u} g$-dâan ${ }^{\mathrm{a}} n$. boss, master (replaces $z \bar{u} g$-sób ${ }^{\mathrm{a}}$ in KB for meanings other than "the Lord"); $z \bar{u} g-k \bar{v} g v r^{\varepsilon} p l z u \bar{g}-k \bar{v} g a ~ c b ~ z \bar{u} g-k v ́ g-n . ~ p i l l o w ; ~ z \bar{u} g-$ máuk ${ }^{\top}$ pl $z \bar{u} g$-mâ' $a d^{\varepsilon} a d j$. crushed-headed 12.8.1.1; $z u \bar{u} g$-sób ${ }^{\text {a }} n$. boss; NT

$z u ̀ l ı g^{\varepsilon} d v$. deepen
zùlım ${ }^{\text {ma }} s v$. be deep
zùlvŋ ${ }^{3}$ pl zùlıma cb zùlvŋ- adj. deep
zùlvク $\eta^{3} n$. depth


$z u ̀ \theta d^{\varepsilon} n$. friendship
$z u ̀ \theta l^{\varepsilon} d v$. make to perch
$z u \bar{\prime} ө m^{\mathrm{m} /} \mathrm{pl} z \bar{u} \bar{'}^{\prime} \mathrm{mís}^{\varepsilon} c b z \bar{u}{ }^{\prime} ө m-n$. blind person
$z \bar{u} ' \theta m^{\mathrm{m} / d v} d$. go blind, make blind
$z u ̀ \theta n^{\varepsilon} d v$. begin to perch
$z u ̄ \theta r^{\varepsilon} p l$ zūēya cb zùà- n. hill
$z u ̀ \theta s^{\varepsilon} d v$. befriend
$z u ̄ r^{\prime} f f^{\top} p l z u ̄ r i ́ c b z \bar{u} r-n$. dawadawa seed
$z v ́ ' v n ̆ f{ }^{\top} p l z v ̄ ' v n i ́ ~ n$. dawadawa seed
zùun̆ $g^{\circ} p l$ zùun̆s ${ }^{\varepsilon} z u ̀ u n ̆ d^{\varepsilon} c b ~ z u ̀ n ̆-n . ~ v u l t u r e ~$
$z \bar{v} v r^{\varepsilon} p l z \bar{v} y a ~ c b z u ̀-n . ~ t a i l ; ~ z u ̀-w o ̄ k{ }^{J /} a d j$. long-tailed 12.8.1.1


[^0]:    "my child"
    "the man's child"
    "the man's elder brother's child's cow's tail"
    "customs of the Kusaasi"

[^1]:    "Eat!"
    "Carry on eating!"

