## A Grammar of Kusaal

Agolle Dialect
David Eddyshaw
2019

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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.

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## Abbreviations

| AdvP | adverbial phrase |
| :--- | :--- |
| agt | agent noun |
| BNY | Bunkonbid ne Niis ne ba ycla (see Sources) |
| C | consonant |
| cb | combining form |
| CGEL | Cambridge Grammar of the English Language (see References) |
| DK | informant (see Sources) |
| dp | discontinuous past |
| ger | gerund |
| H | High toneme |
| ILK | "An Introduction to Learning Kusaal" (David Spratt) |
| imp | imperative |
| ipfv | imperfective |
| irreg | irregular |
| KB | Kusaal Bible of 2016 (see Sources) |
| KED | "A Short Kusaal-English Dictionary" (David Spratt) |
| KKY | Kusaas Kuob ne Yir yela Gbaun (see Sources) |
| KSS | Kusaal Solima ne Siilima (see Sources) |
| KT | informant (see Sources) |
| L | Low toneme |
| LF | Long Form |
| M | Mid toneme |
| NP | noun phrase |
| NT | Kusaal New Testament Versions of 1976 and 1996 (see Sources) |
| pfv | perfective |
| pl | plural |
| SB | informant (see Sources) |
| SF | Short Form |
| sg | singular |
| V | vowel |
| VP | verb phrase |
| WK | informant (see Sources) |
| 1sg 2pl ... | first person singular, second person plural etc |

Abbreviations of the names of 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 $\underline{8.1}$

ADV
AN
CAT
CNTR
COP
CQ
DEM
DEMST
DP
EXIST
FOC
GER
IDEO
IMP
IN
INDF
IPFV
IRR
LOC
NEG
NEG.BE
NEG.HAVE (another use of the same verb)
NEG.IMP negative imperative marker
19.4

NEG.IND negative indicative marker
NEG.IRR negative irrealis marker
NEG.KNOW negative verb $z \bar{l}^{-+}$
19.5

NEG.LET
NULL
NUM
NZ
PERS
PFV
PL
PQ polar question prosodic clitic
REL relative pronoun
sG singular $\underline{15.2}$
TNS tense marker $\underline{19.3 .1}$
negative verb mit $\underline{19.5}$
semantically empty NP head sj̄ba
15.4 .7
number prefix à- bà- ǹ-bù- $\quad 13.3$
nominaliser (underlyingly $\grave{n}$ ) $\underline{24}$
personifier particle (à- or $\grave{n}$-) $\quad \underline{15.6}$
independent-perfective marker $y \bar{a}^{+}$ 19.6.2.1
15.2
7.1
24.3.2
voc
vocative prosodic clitic $\quad 7.1$

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 20.2; similarly yà' 23.1 is glossed "if" in all cases. The empty particle $n \bar{\varepsilon}$ which follows objects of comparison which lack the article 18 is glossed "like."

Mass nouns are not specified as SG or PL in the glossing; similarly, single-aspect verbs 10.2 are not labelled for aspect. The perfective of dual-aspect verbs is also unlabelled.

In glossing, $\varnothing$ represents words with no surface segmental representation at all, which are detectable only from tonal and segmental effects on preceding words. Prosodic clitics 7.1 are represented by ${ }^{+} \varnothing$, and liaison 7.2 is marked by

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 $\grave{A}-/ \grave{N}^{-}$-, and the liaison words $n^{\varepsilon}$ Loc $n^{\varepsilon}$ dP ya ${ }_{2}$ PL.SUB along with the LF of ${ }^{\circ}{ }^{3 A N . о в ~ 2.3 . ~}$

Polysyllabic words ending in a vowel symbol before a hyphen are always followed by liaison, and as this is predictable, the _ symbol is then omitted: pūvgo-n "inside", not pōogu=n.

## Transcription conventions

Phonetic transcriptions are written in square brackets; they are generally broad, ignoring all allophony not immediately under discussion. Starred forms representing the input of morphophonemic rules are given ad hoc to illustrate the rule in question, and do not represent a uniform underlying level of language.

For Agolle Kusaal orthography see $\underline{3}$. In general, symbols have approximately their IPA values, but long vowels are written with double symbols, e $\iota$ both represent [ I , o $u$ 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 [ $[\mathrm{kp}]$ [gb].

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, along with his tone marking: acute accents represent high tone, grave low; tone marks apply to all following unmarked morae, and a second acute after a first within a single word represents a downstepped H tone.

For Moba, I follow Kantchoa 2005, except that I write y for [j].
For Nawdm, I use the orthography of Babakima 2013.
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 ta:? marbu: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 $\iota \cup$ for IPA I v, as do Urs Niggli's works in English and the working orthography of this grammar.

Words cited in foreign languages are written in sans-serif italics. This colour is reserved for words and word fragments in the working orthography of this grammar; it is not used for Kusaal in the orthography of written sources.

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.

Written sources are cited in their original orthography, with a transliteration into the working orthography of this grammar. The tone marking of examples drawn from written materials 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 Gbaun<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 yzla
Būn-kón̆bìd nē Níis né bà yēlá

Kusaal Solima ne Siilima
Kūsâal Sólımà nē Síilímà

Kusaas Kuob ne Yir yela Gbaun
Kūsâas Kûөb nē Yïr yélà Gbàun
"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. The most recent version marks tone in many headwords.

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

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 Kusaal and the Kusaasi

### 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 Àgı̀l "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 sā'ab, 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 (dj̀כg, "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 pכ̄כr "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 tèn-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 tèn-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, Wīn, invoked in proverbs and greetings but remote from everyday life and not to be approached in prayer or worship. Characteristic proverbs say
$\operatorname{Dìm} n \bar{\varepsilon} \quad$ Wīn, dā tû'as ne Wīnné ${ }^{+} \varnothing$.
Eat:Imp with God:sG, neg.Imp talk with God:Sg neg.
"Eat with God, don't talk with God."

Wīn n̆ý́ kà sīn.
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 būgur, an object such as a stone or horn, but it is the win that is spiritually significant, not its place of attachment. A central figure is the bā'a "diviner", who seeks guidance for a client by casting lots.

A human being is understood as having four components: nìn-gbī "body"; $\check{n} y \grave{-}-v \bar{r} r$ "life" as opposed to death, possessed by all living animals; wīn (in this sense) "genius, spirit, a person's own spiritual self"; and kìkīrıs, protective spirits (called "fairies" in local English.) Men have three kìkïrıs, 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 kikīrıs 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 kìkīrıs.

The key term wīn has yet further senses, overlapping with the European concepts of fate or destiny: wīn-t̂ิวg, 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.

Sj̄כn̆b "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 5.1: À-Wīn from Wìdı-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 wìd-. 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 Gambara) 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 $\grave{A}-D \bar{u} k$, 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 does not serve as a centre for the Kusaal language: as is typical for the zone, it is a multiethnic trading centre around a Muslim quarter or "zongo" (Hausa zangòo "camping ground, lodging place") where the main common language is Hausa.

The major dialect division is between Agolle and Toende. The differences are striking: Agolle vowel breaking $\underline{3.2}$ correlates with numerous other isoglosses, resulting in a sharp discontinuity between Agolle and Toende Kusaal, probably attributable to the depopulation of the border zone along the White Volta caused by the river blindness (onchocerciasis) prevalent in the region until quite 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 between Toende and Agolle 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. Even the inclusion of Kordofanian and Atlantic in Niger-Congo is a long-range hypothesis, rather than a well-established linguistic grouping like IndoEuropean: striking typological similarities with Volta-Congo do not prove genetic unity. For West Africa (and beyond) as a Sprachbund see especially Güldemann 2007.

However, there is unequivocal evidence for Volta-Congo as a genetic grouping. Basic lexical items recur frequently: compare Kusaal bīig "child", dì "eat", nū "drink", kpì "die", tìıg "tree", àtán̆' "three", tùbur "ear" with their Fongbe equivalents ví, dù, nù, kú, átín, àt̀̀n, tó. Guthrie's Proto-Bantu reconstructions parallel all except "child": dí- "eat", nú- "drink", kú- "die", -tí "tree", -tátơ "three", -tó "ear", and his Proto-Bantu tóm- "send" corresponds to Kusaal tòm. 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 congruences in both form and meaning among the VoltaCongo branches. Thus the Kusaal human-plural noun suffix -ba seen in nīdıb "people", plural of nīd, 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 noun class affixes recur throughout Volta-Congo; for example, the suffixes $r^{\varepsilon} \mid a^{+}$seen in Kusaal tùbur "ear", tùba "ears" are cognate to the Bantu prefix pair labelled 5/6 in the Bleek-Meinhof system (Nurse and Phillippson, p104.) Lingala has the cognate of Kusaal tòbur in this very class: litói "ear", plural matói. The affixes of other VoltaCongo languages correspond to the Bantu pronominal/verbal agreement prefixes rather than noun class prefixes; for Proto-Bantu 5/6 these are sg II, 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 (see below), Proto-Oti-Volta ${ }^{*}{ }^{*}{ }_{f}$ have here become $s z$; there is a strikingly simple system of verbal inflection, with almost all inflecting verbs using the bare stem for perfective aspect and adding a suffix *-da for imperfective; some noun classes have been lost, and words referring to trees have been transferred wholesale to the $g^{\text {a }} \mid s^{\varepsilon}$ class (Buli tiilb "tree", Kusaal tìıg, Mooré tìıgá); and there is much distinctive vocabulary, e.g. Kusaal kù'өm "water", Mooré kòóm, vs Moba núm, Buli nyíam, Nawdm nyáálḿ, Nateni néżma (cf Kusaal nì "rain.") The Boulba/Notre language of Benin is an outlier: it shares distinctive lexicon (e.g. kúà "water"), but has devoiced ${ }^{*} g \rightarrow k, * g b \rightarrow k w, *_{z} \rightarrow \widehat{c c ̧}$, reflecting areal features shared with Eastern OtiVolta, and it has not participated in the loss of noun classes, e.g. tìebò "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. (Glossing over complex issues, I will refer to the two last simply as Dagaare and Farefare.) 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 secondary development of a series of contrastively palatalised velars.

Kusaal itself probably constitutes a subgroup with Nabit and Talni, spoken respectively in the Nabdam and Talensi districts adjacent to Bawku West. Tony Naden's Nabit materials 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. | "It is ripe." |
| :---: | :---: | :---: |
| Toende | La bı'ı me. |  |
| Agolle | Lì bì'ig nē. 3IN ripen foc. |  |
| Nabit | La na bu biige. | "It is not yet ripe." |
| Toende | La nan bu bi'ıge. |  |
| Agolle | Lì nàm pō bílige ${ }^{+} \varnothing$. |  |
|  | 3IN still NEG.IND ripen neg. |  |

Talni Bunpok doyam pu bכkəra, buraa dכүam m bokət.
Toende Bupok dכgım bu bokıra, buraa dכgım bokıt.
Agolle [Pư'ā] dv̂'am pū bưákìdā ${ }^{+} \varnothing,[d a ̄ u]$ dó'amì $\varnothing$ búákìd. Woman:sg kindred NEG.IND split:IPFV NEG, man:sg kindred CAT split:IPFV. "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 closely related 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 Gulimancéma, Konkomba, Moba etc are much less close. Gulimancéma and Konkomba typically show nouns with both class prefixes and class suffixes, and the languages have complex and unpredictable verb aspect flexion, making the imperfective by changing the stem tones, and/or dropping a derivational suffix from the perfective or adding one of several different imperfective suffixes.

Both Buli and Gurma have three-tone systems, and the three Western Oti-Volta Tone Patterns 6.1 can be systematically matched with them. However, 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" |
| mう̄כg | mūub | móว́ùg | "grass" |
| tìıg | tìib | tīg | "tree" |

It is Gurma, with L corresponding to Western Oti-Volta Pattern H, which is conservative: cf Proto-Bantu -nùà "mouth", Fongbe ònù = Kusaal nכ̄כr (Pattern H) versus Proto-Bantu -tó "ear", Fongbe tó = Kusaal tùbur.

Nawdm aligns tonally with Western Oti-Volta and Buli: wáàğb "snake", móógú "grass", tiìb "tree." Nawdm has shifted ${ }^{*} p \rightarrow f, *_{s} \rightarrow h,{ }^{*} c \rightarrow s$, and ${ }^{*} z \rightarrow f$. It preserves Proto-Oti-Volta ${ }^{*}$ as $r$ in all word positions 5.3.1, and often has $\uparrow$ [?] 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 -I. 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 Ditammari, Nateni, Byali and Waama. He takes it as given that Manessy's Eastern Oti-Volta is a valid subgroup, but this subgrouping is partly based on initial consonant changes which are probably areal, and shared with Boulba/Notre.

The verbal systems of Ditammari and Nateni are similar, with some verbs opposing a perfective ending -a to imperfective $-u$ (-i after alveolars), and other verbs making the imperfective by changing the stem tones or dropping a derivational suffix from the perfective, as in Gurma. Both languages align with Gurma in showing L tones corresponding to Pattern H. Ditammari resembles Gulimancéma and Konkomba in that nouns usually appear with noun class prefixes and suffixes together.

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 wùm, Boulba wàmú, Buli wom; Waama cáárō "forgeron", Kusaal sāen̆̆; Waama yété "maison", Kusaal yīr, 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. Further progress on this issue will probably only come about after more descriptive work on Adamawa languages. Manessy takes Koromfe as a third branch of "Central Gur" alongside Oti-Volta and Gurunsi. He classified a number of languages as Gur on the basis of very scanty documentation; when adequate descriptions appear, such classifications may need to be revisited. The Senufo languages were previously regarded as a branch of Gur, largely on the basis of their having noun class suffixes rather than prefixes; they are 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. (Clause-medial loss or reduction of word-final vowels is in contrast extremely common throughout the group.) Thus where Mooré has the citation form bíiga "child", the cognate Kusaal word normally appears in the Short Form (SF) bïig. 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):

```
O à n\overline{\varepsilon}}\mathrm{ biilg. "He/she's a child."
3AN COP FOC child:SG.
Ò kā' bïiga + Ø. "He/she is not a child."
3AN neg.be child:SG neg.
O à n\overline{\varepsilon}}\mathrm{ bíigàa +ø? "Is he/she a child?"
3AN COP FOC child:SG PQ?
M bïiga +}\varnothing! "My child!"
1SG child:SG voc!
```

Following apocope, word-final consonant clusters drop the second consonant:

| Lì kā' gbīgımne ${ }^{+} \varnothing$. | "It's not a lion." |
| :--- | :--- |
| 3IN NEG.BE lion:SG NEG. |  |
| Lì à né gbīgım. | "It's a lion." |
| 3IN COP FOC lion:SG. |  |

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 will be used to write the parts of words which are dropped everywhere except before prosodic clitics and liaison: bïig ${ }^{\text {a }}$ "child", gbīgım ${ }^{\text {ne }}$ "lion", $k \bar{u} k^{\text {a }}$ "chair", dūk/ "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 Long Form vīugó "owl" has iu for ii because of the rounding effect of the final vowel, to which the velar $-g$ - is transparent. After apocope this becomes the Short Form vīug "owl": the diphthong iu itself now contrasts with the vowel of vïid "owls", shortened from vïidé. Similarly, āan̆dıga "black plum tree" has the default epenthetic vowel ८ before the flexion, and appears as āan̆dıg after apocope, whereas the gerund gàadvgว "passing" has rounding of the vowel to $v$ before the flexion -gכ, and after apocope this rounding itself becomes contrastive in the usual Short Form gàadvg.

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

| M̀ pū bכ́כdā ${ }^{+}$¢. | "I don't want to." |
| :---: | :---: |
| 1SG Neg.IND want NEG. | Long Form bj̀ dā preceding negative clitic. |
| M̀ bóvdī_bá. | "I love them." |
| 1SG want 3PL.OB. | Modified Long Form bj̀วdī before liaison. |
|  | "I haven't fought." |
| 1SG NEG.IND fight Neg. | Long Form zàbs̄ preceding negative clitic. |
| M zábī_bá. | "I've fought them." |
| 1SG fight 3PL.OB. | Modified Long Form zàbī before liaison. |

In interlinear glossing, liaison is marked by _, as above.
Apocope reduces several liaison words of the underlying form $C V$ to a single consonant. Thus with bj̀ $d^{\text {a }}$ "wants, loves" and $f$ "you (sg)":

M̀ $p \bar{u} \quad$ bว́כdī fó $\quad+\varnothing$. "I don't love you."
1SG NEG.IND want 2 2sG.ob neg. Long Form $f$ of of the pronoun "you (sg)"

M̀ bóวdī f. "I love you."
1sG want 2sG.ob. $\quad$ Short Form $f$ 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 kā' kūka $\quad+\varnothing$. 3IN NEG.BE chair:SG NEG.

Lì kā' kūkı-né $\quad$ † $\varnothing . \quad$ "It's not in a chair." 3in neg.be chair:SG-LOC neg.
kūkı-n
chair:SG-LOC

Lì kā' dōkj́ ${ }^{+} \varnothing$. "It's not a pot."
3in neg.be pot:sg neg.

Lì kā' dōkí-n $\bar{\varepsilon} \quad{ }^{+} \varnothing$. "It's not in a pot."
3IN NEG.be pot:SG-Loc NEG.
dūkí-n
"in a pot"
pot:SG-LOC

The 3sg animate object pronoun ${ }^{\circ}$ "him/her" has the Long Form o [v] which is deleted entirely by apocope, producing a Short Form which is segmentally zero. Its presence is still shown by the replacement of the preceding host-word-final vowel mora by [ $]$ ], always written $\cdot 0$ with a preceding raised point.

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

M̀ $p \overline{\quad} \quad$ bว́כd̄̄ fó $\quad+\varnothing . \quad$ "I don't love you."
1SG NEG.IND want 2SG.OB NEG.
M̀ bכ́כdī f. "I love you"

M̀ pū bว́วd•ó-o ${ }^{+} \varnothing$. "I don't love him/her." [mpubo:dv:]
1SG NEG.IND want-3AN.ob NEG. Long Form o of the pronoun "him/her"
$\grave{M}$ bว́دd•ō ø. "I love him/her." [ṃbo:dच]
1sG want 3AN.OB.
Short Form ø 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 Short Form, because $y$ left word-final by apocope is completely deleted unless preceded by a back vowel:

Gj̀sım!
Look:Imp!

Gう̀sımī ø!
Look:IMP 2PL.SUB!
"Look!"
"Look ye!" by apocope from gj̀sımī-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 à- 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 Long Form of the preceding word and from tone.

```
m̀ zūgú_\varnothing zàbıd lā zúg "because my head hurts" (nominaliser-ǹ)
1sg head:Sg Nz fight:IPFV ART upon
```

M zūgu_ $\varnothing$ zábìd. "My head hurts." (catenator-n) 1SG head:SG CAT fight:IPFV.

Liaison has caused considerable confusion in word division in the traditional orthography, and is largely responsible for the many cases where clause-medial words acquire a mysterious short-vowel "ending."

Kusaal has contrastive vowel glottalisation.
Vowel breaking has caused earlier $\varepsilon \supset$ כ כ כ (preserved as such in the Toende dialect) to become ia ùa 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. CVVC 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.

| dỉ’əsídìb | "receivers" | bāpıdıb |
| :--- | :--- | :--- |
| gbīgımne | "lion" (Long Form) |  |

The only consonant clusters possible within stems following the root are $k k t t$
 Clusters cannot occur word-initially or finally, except for final mm , where there has been loss of earlier syllabicity in the second $m$.

Many nominal stems have a prefix before the root, taking the forms CV- or CVn-, less often CVlın- or CVsın-, e.g. pīpīrıg "desert." Nominals with prefixes may thus contain - $n C$ - clusters at the junction between the prefix and the rest of the stem: dìndēog "chameleon."

Other word-internal clusters are confined to loanwords.
Flexional suffixes, like prefixes, have only a three-way vowel contrast $a / \iota / v$. Suffix vowels are lost by apocope in the surface Short Forms; when they are retained before prosodic clitics, $\iota \cup$ appear lowered to $\varepsilon \supset$. Clusters of two consonants cccur freely across word division (including within compounds) due to apocope of wordfinal short vowels:

Gbīgım lā dāa kūod bún lā.
Lion:SG ART TNS kill:IPFV donkey:Sg ART.


Most common particles are short bound words, like the postposed article $\overline{\text { a }}$ and the preverbal tense marker dāa in this example.

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 $g^{a} \mid s^{\varepsilon}$ noun class, and are all regular:

| būvg | "goat" | būvs | "goats" |
| :--- | :--- | :--- | :--- |
| sàbùa | "lover" | sàbùөs | "lovers" |
| nūa | "hen" | nכ̄כs | "hens" |
| kūk | "chair" | kūgus | "chairs" |
| zàk | "compound" | zà'as | "compounds" |
| dà'a | "market" | dà'as | "markets" |
| bùn | "donkey" | bùmıs | "donkeys" |
| tह̄ך | "land" | $t \overline{\varepsilon n ̌ s ~}$ | "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:

| bōog | "goat" | + pìzlıg | "white" | $\rightarrow$ bù-pìalıg | "white goat" |
| :---: | :---: | :---: | :---: | :---: | :---: |
| būvg | "goat" | + si'a | "another" | $\rightarrow$ bù-sỉa | "another goat" |
| kūk | "chair" | + pìalıg | "white" | $\rightarrow$ kùg-pìlıg | "white chair" |
| $k \bar{u} k$ | "chair" | + kànā | "this" | $\rightarrow$ kùg-kànā | "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, with a few fossilised traces of agreement.

Like virtually all the local languages (including Gaanancii Hausa, and, disconcertingly for a British native speaker, even some local English) Kusaal makes no grammatical distinction between male and female. In the English translations I have used "he" or "she" randomly where the antecedent is unspecified.

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 $-d^{\mathrm{a}}$. There are few real irregularities, though unobvious consonant changes and vowel deletions again complicate the surface picture:

| $k \bar{u}$ | pfv | $k \bar{o} 0 d$ | ipfv | "kill" |
| :--- | :--- | :--- | :--- | :--- |
| $\check{n} y \bar{\varepsilon}$ | pfv | $\check{n} y \bar{\varepsilon} t$ | ipfv | "see" |
| $v \bar{l} l$ | pfv | $v \overline{0} n$ | ipfv | "swallow" |

Dual-aspect verbs also have an imperative flexion $-m^{\text {a }}$, 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:
Ò dìgı $n \bar{\varepsilon} . \quad$ "She's lying down."
3AN be.lying.down foc.
Ò mòr bún. "She has a donkey."
3AN have donkey:sg.

Ò gìm. "She's short."
3AN be.short.

There are two verbs "to be": bè "exist, be in a place" and àen̆ "be something/somehow." Àen̆ is usually followed by the focus particle $n \bar{\varepsilon}$ whenever syntactically permitted, and then loses both the final $e$ and the nasalisation:
Ò à n̄ bïig.
"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' bïiga +\varnothing. "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: kūטb "killing", kūטd "killer", kūטdín "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-kūod "lion-killer."

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

M tís dư'átà 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 $w \overline{0} v$ "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:

$$
\begin{array}{ll}
\text { m̀ bïig } & \text { "my child" } \\
\text { dāụ lā bîig } & \text { "the man's child" }
\end{array}
$$

Adverbs often appear as postpositions preceded by NP dependents, as with zūg "head" used adverbially in
téqbòl 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 Short Form is reduced to $n$ :
mù'arī-n "in a lake" (mù'are "lake", Long Form)
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:PLART.
"The lion killed the donkeys yesterday."

Gbīgıma lā dāa pū kū búy láa ${ }^{+} \varnothing$.
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 àen̆ "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":

Nīdıb kpîid. "People die."
Person:PL die:IPFV.

Nīdıb kpîid n̄̄. "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, marked by a tone overlay affecting the first word and by the tone sandhi of subject pronouns. The tone overlay is absent in negative polarity or irrealis mood and with various preverbal particles; independency marking itself is altogether absent after the clause-linker particle kà even in coordinating function, as in narrative:

```
O zàb duc'átà. "He's fought the doctor."
```

3AN fight doctor:sg.

Ò gj̀s dư'átà. "He's looked at the doctor."
3AN look.at doctor:sg.
with the verbs zàb gj̀s showing identical tones because of the overlay; contrast

Kà ò záb dư'átà. "And he fought the doctor."
And 3AN fight doctor:SG.

Kà ò gj̄s dư'átà. "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 ending $-m^{a}$ :

Dā gj̄s dứ'átāa ${ }^{+} \varnothing!\quad$ "Don't look at the doctor!"
NEG.IMP look.at doctor:SG NEG!
but Gj̀sım dư'átà! "Look at the doctor!"
Look.at:IMP doctor:sG!

Main clauses frequently have adjuncts preceding the subject which express time or circumstance; conditional subordinate clauses, which contain yà' "if" after their own subject, appear before the main clause subject:

Fù yá' bj̀วd, m̀ ná tīsıf bún.
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 tìs "give" is used simply as means of adding an indirect object:
$\grave{M}$ dāa kûes bùnu_ $\varnothing$ tís dư'átà.
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 n̄̄ gbīgım lá kà m̀ 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 $\varnothing$ ) after the subject:
gbīgım lá_ø kū bún "the lion having killed the donkey"
lion:SG ART NZ kill donkey:SG ART

One type of relative clause is internally-headed:
[Paul ǹ sj̄b gbáun-si'a $n$ tís Efesus dím lā] Ø n̆wá.
Paul nz write letter-INDF.IN CAT give Ephesus one.pLART CAT this.
"This is [the letter Paul wrote to the Ephesians]." (NT heading)

Here gbàun-sỉa is gbàun "book" compounded with the dependent pronoun $s i \cdot a$ which marks it as antecedent, and the bracketed sequence is the relative clause. The subordinator is not the pronoun but the nominaliser particle $\grave{n}$.

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 pư'ā kpí 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:
$\dot{M}$ ná tī $f$ tîım yर́ fù nīf dā záb $\bar{\varepsilon}+\varnothing$.
1SG IRR give $2 \mathrm{SG} . \mathrm{OB}$ 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 likewise display independency marking, but have personal pronouns altered as in indirect speech. Content clauses are used for reporting speech and also very generally after verbs expressing communication or thought. Most often they are introduced by y $\bar{\varepsilon}$ "that." There are logophoric uses of contrastive personal pronouns within content clauses.

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.
Dāư dá bè_ Ø mōrí_ò pứ'à-yīmmír, kà pứ'ā lā yह̄ Man:SG TNS EXIST CAT have 3AN wife-single:SG and wife:SG ART that כ̄n pū lह́m bj̀วd y乏́ ò sīd lā dí pu'ā yá'as ${ }^{+} \varnothing$. 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:
$\grave{M}$ zūgu_ø zábìd. "My head is hurting."
1SG head CAT fight:IPFV. (Reply to "Where is the pain?")

Gbīgím kà m̀ dāa ňy $\bar{\varepsilon}$.
"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 in this way, and focussing with $n$ is compulsory for àn今̂'כn "who?" as subject even though it remains in situ before the verb.

```
Fù bôวd bó +ø? "What do you want?"
```

2SG want what CQ?

Bó kà fù ňyz̄tá ${ }^{+} \varnothing$ ? "What can you see?"
What and 2sg see:IPFv cq?

Ànó'כnì_ $\varnothing$ kū bún lā $+\varnothing$ ?
Who cat kill donkey:sg ART CQ?
"Who has killed the donkey?"

Place and manner adjuncts may only precede the subject if preposed with kà:

Moogin ka mam be. "I'm in the bush." BNY p10
Mכ̄כgú-n kà mām bé. (kà required)
Grass:sG-LOc and 1SG.CNTR ExIST.

Kusaal narrative links clause after clause with kà, regularly 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-Pū-zót-yह̄l dá à né ò sàam bîig mà'aa.
PERS-NEG.IND-fear:IPFV-thing:SG TNS COP FOC 3AN father:SG child:SG only.
Kà dāar yīnní kà bïig lā né ò sàam zín̆'i_ø sכ̄n̆sıd.
And day:SG one and child:SG ART with 3AN father:SG sit CAT converse:IPFV.
Kà bīig lā tí yह̀l 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.

## Morphophonemics

## 2 Preliminaries

### 2.1 Morae, syllables and stress

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 $k k p p t t \eta$, 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) $V V \sim(C) V C \sim(C) V V C$. Of these, (C)VVC syllables are superheavy. A CV syllable is superlight if it is not word-initial, word-final or root-initial, and is preceded by another CV syllable which is not itself superlight, as with the bolded syllables in the Long Forms dỉ’əsídıbà "receivers", mう̀lıfo "gazelle."

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-bíl "Zebilla", for example, seem to be homophones, and some roots have been reinterpreted as prefixes:

$$
\begin{array}{cl}
\text { dìtón } & \text { "right hand" } \leftarrow d i{ }^{+}+\text {"eat" } \\
\text { dàtiun } & \text { "right hand" } \\
\text { būtın } & \text { "cup" (originally the instrument noun from bùd "plant seeds") } \\
\text { pl būtıs } & \text { with reanalysis as prefix bū + tīn }
\end{array}
$$

Stress affects the realisation of the H toneme, but the relevant phenomena can be described by reference to syllable weight alone 4.

### 2.2 Free and bound words

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."

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. In Kusaal even members of the open class of nouns have regular "combining forms", used exclusively with following words as parts of compounds. Combining forms 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 combining forms and free words, and compounds may incorporate unbound words: [ānzúrıfà nē sālıma lá'-]māan "[silver and gold goods]-maker." Combining forms are thus best regarded as bound words, not word fragments.

Word status for other bound forms may depend on distinguishing them from affixes. Although non-contrastive personal pronouns and many bound particles resemble free-word affixes segmentally, they show no tendencies to phonological fusion with their hosts other than those also seen between free words, and they clearly differ in tonal behaviour from affixes. For cases where my analyses of wordhood differ from those implied by traditional orthography see 2.3 below.

Because Kusaal stress allocation does not distinguish between bound and free words as such, I will reserve the term "clitic" for prosodic clitics 7.1, and will elsewhere use the non-committal labels "left-bound" and "right-bound."

Boundness is entirely distinct from the syntactic feature of dependency. Most open-class 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 15.4.1.

### 2.3 Word division

Nominals with prefixes, loanwords, and unanalysable stems are written solid, but nominal combining forms are hyphenated the the following word:

| bùrkìn | "honest person" | kpòkpàrıg | "palm tree" |
| :--- | :--- | :--- | :--- |
| zīm-gbân̆'ad | "fisherman" | bù-pìə/ıg | "white goat" |
| bù-kànā | "this goat" | bù-pìəl-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: bukaŋa bù-kànā "this goat", but yamug bipun (Acts 16:16, 1976) for yàmmug-bī-púp "slave girl."

Pronouns reduced to single consonants by apocope $\underline{5.1}$ are still written as independent words in the orthography of this grammar:
M̀ bóวdī_f. $f$ "I love you."
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 boJdi ti．
＂You love us．＂
［fobo：diti］
Fù bว́כdī 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 uf；KB writes $m f$ as objects solid with the preceding word：

```
1996 M nye uf.
"I've seen you."
```



```
    M n̆yहिO_f.
    1Sg see 2SG.ob.
1996 Fu boodi m.
"You love me."
[f`bo:dmm]
2016 Fu bככdim.
    Fù bj́odī_m.
    2sG want 1SG.ob.
1996 M bood if.
"I love you."
[mุbo:dff]
2016 M bככdif.
    M bóvdīff.
    1sG want 25G.OB.
```

The liaison word 7.2 pronoun ${ }^{\circ}[\mho]$＂him／her＂loses its entire segmental form by apocope，after causing the final vowel mora of the preceding word to become［ $\sigma$ ］． This mora is traditionally mistaken for the pronoun itself and written separately；in this grammar it is written $\cdot 0$ ，and the form without apocope is written $\cdot 0-0$ ．

```
Fu boכd o.
"You love her."
[fvbo:dv]
Fù bכ́כd·ō@.
2SG want 3AN.ob.
Fu pu boכd oo.
"You don't love her." [fupvbo:dv:]
Fù pū bว́כd`ó-o +\varnothing.
2SG NEG.IND want-3AN.OB NEG.
Fo ny\varepsilon o.
"You've seen her."
[foj\tilde{\varepsiloñ\widetilde{u}]}][⿱亠⿻⿰丨丨⿱一一
Fò n̆y\varepsiloń.O_ø.
25g see zan.ob.
Fu pu nye oo． ＂You＇ve not seen her．＂ ［fopoj̃̃̃̃̃：］
Fù pū n̆yē＇ó－o \({ }^{+} \varnothing\) ．
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: puogun, bכJdin. 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: pūטgט-n "inside", bう̀دdī-n "might wish."

The personifier particle à/n, traditionally written solid with the following word, will also be hyphenated to its host, as it can be attached to entire phrases 15.6.

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 ne biïg.
3AN COP FOC child:SG.

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

In KB wēn nē appears as nwene: Ka o nindaa nwene winnig ne.
A word-final syllable before a prosodic clitic is often mistaken for a segmentally homophonous particle in older materials, and occasionally in KB:

Amaa fo ane ninsaal ka ka' win ne.
Àmáa fù á n̄̄ nīn-sâal kà kā' wīnné ${ }^{+} \varnothing$.
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)

## 3 Segments

### 3.1 Consonants

The following symbols are used, corresponding to the consonant phonemes of the language (with $k p g b$ as digraphs):

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

Values resemble the corresponding IPA symbols, except as noted below. $t d n s z / r$ represent alveolars in general, but $s z$ are often dental, or even interdental. Before the vowel $u, s$ and $z$ are sometimes heard as [J] [3].
$s$ is often realised as [h] word-internally. It can represent $h$ in loanwords:

Àláasìd (dâar) "Sunday" $\leftarrow$ Hausa Lahàdì ( $\leftarrow$ Arabic)
Dàsmáanì $\quad$ SAbdu-r-Raћma:n(i) (personal name)
or Dàhamáanì
$h$ itself is marginal as a phoneme, occurring only syllable-initially in loanwords; however, these include the very common hālí "as far as."
$r$ represents [r], except after an epenthetic vowel, where it is [l]. It does not occur as a separate phoneme word- or root-initially.
$d$ represents [d]. However, word-initial $d$ is frequently realised as [r] phraseinternally after a word ending in a vowel, and invariably so within compounds:

> nj̄-dâvg [nэгavg] "cock" nā'-dâad [nąra:d] "oxen"
> vs wìd-dāvg [wid:avg] "stallion"

Word-initially, $d$ will be written throughout. Some words are written with rootinitial $r$ after a prefix vowel, following traditional orthography: tīrâana "neighbour", àrazàka "riches", àrazánà+ "heaven", àrakón̆' "one." It is not clear whether $r$ contrasts with $d$ in this position.

In rapid speech non-initial $d$ may also resemble [r], but $d$ and $r$ clearly contrast after root and epenthetic vowels in Agolle Kusaal:

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

$n$ is syllabic when representing various particles, and as the number prefix; when syllabic, it assimilates to the position of a following consonant.

I is never velarised.
$z$ is only found word-initially and after prefixes.
$k t p$ represent $\left[\mathrm{k}^{\mathrm{h}}\right]\left[\mathrm{t}^{\mathrm{h}}\right]\left[\mathrm{p}^{\mathrm{h}}\right.$ ] word-initially and after prefixes, and [k] [t] [p] elsewhere. The aspiration is comparable to that of English initial voiceless stops. After root vowels, $k$ t $p$ represent /kk/ /tt/ /pp/ except when word-final, but are only realised as geminates in very slow speech. Word-final $g d b$ are partly devoiced, but contrast with the unaspirated single $k t p .{ }^{1}$
$\eta$ is realised [ $\eta$ ] word-finally, but [ $\eta$ :] between vowels in slow speech. Original initial ${ }^{*} \eta$ has disappeared, and existing Kusaal $\eta$ is always the result of the assimilations *mg *ng $\rightarrow$ מ.
$k g \eta$ show considerable allophony. Before front vowels, they are palatalised, for some speakers even becoming palatal stops or affricates. Velars may represent original palatal stops or affricates in loanwords:

```
tóklàe "torch" \leftarrow English "torchlight"
sógià "soldier" (probably via Hausa soojà)
```

Before rounded vowels, velars are labialised.
Before $a$ and $\nu$ velars are pronounced further back, or even as uvulars:

```
kj̀bıgā [qwobiga] "hundred"
```

$f v$ are labiodental fricatives, found only word initially, after prefixes, and in the noun class suffix $-f$ :
fūfōm "envy" náaf "cow"

1) 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"/ ya'ap "potter." Apocope in Toende thus occurs in two steps, with the round for rightbound words and perfectives following word-final stop devoicing.
$m$ is syllabic when standing alone as the 1 st sg pronoun "I, my." Unlike syllabic $n$, syllabic $m$ does not assimilate its position of articulation to a following consonant.

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

| Gj̀sımī $m!$ | "Look at me!" |
| :--- | :--- |
| Gj̀sīm. | "Look at me!" vs Gòsım! "Look!" |
| Gj̀sımí fù nû'ug! | "Look at your hand!" |
| Gj̀sím fù nû'ug! | id |

$m$ can form the unique word-final cluster $m m$ [m:], as in $p \bar{a} m m$ "a lot." The second $m$ was once syllabic, but is now consonantal, and cannot bear a toneme.
$k p ~ g b$ represent the labiovelar double closures [ $\overline{\mathrm{kp}}][\overline{\mathrm{gb}}] ; k p$ is not aspirated. They occur only word- and root-initially before unrounded vowels, and for some speakers in reduplication-prefixes like kpùkpàrıg "palm tree" where others have kùkpàrıg etc. Otherwise kp gb are in complementary distribution with labialised velars, which could be ascribed to these phonemes rather than the velars.

| kūm | "death" | cf $k p i ̀$ | "die" |  |
| :--- | :--- | :--- | :--- | :--- |
| kj̄ba | "bones" | cf Gulimancéma | kpábá | id |
| kpàkūr | "tortoise" | cf Dagbani | kpàkpílí | id |

In loanwords $k p g b$ are used for the Hausa labialised velars $k w g w$ :
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:

| n̆y $\bar{\varepsilon}$ | [ $\mathfrak{\sim}$ z] | "see" | n̆wādıg [w̃ãdıg] | "moon" |
| :---: | :---: | :---: | :---: | :---: |
| n̆wغ่' | [ $\mathrm{w} \tilde{\sim}]$ | "beat" |  |  |

ňy ňw reflect earlier initial クm respectively, cf Dagbani nyá "see", クmariga "moon", yme "beat." Some Toende speakers retain initial [n] [ŋm]. Kusaal initial nasalised vowels reflect earlier initial $\eta$ : Dagbani nubi, Kusaal j̀n̆b "chew."
w occurs only root-initially, i.e. word-initially and after prefixes: wìəf "horse", dàwān "pigeon"; however y occurs not only root-initially, but also medially before a: yáaŋ "grandchild", dàyūug "rat", nכ̄yá "mouths." Syllable-final y w are replaced by the glides i/e and $\omega$ respectively $\underline{5.5}$.

### 3.2 Vowels

The vowel system displays marked positional prominence. Diphthongs, glottalisation, emic nasalisation and full quality contrasts appear only in roots $\underline{5.2}$.

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." The vowel ı is more central after velars and labials, and $v$ is slightly fronted after alveolars and $y ; u$ is distinctly fronted after alveolars, and preceding $s$ z may be realised as palato-alveolars: zūg "head" [3yg].

Lax $\iota v$ do not appear after $m$ or $n$ in roots or prefixes. There are few minimal pairs for short $i / \iota u / v$, except as the result of apocope $\underline{5.1 \text {; however, examples are }}$

| lidıg | "astonish, be amazed" | lìdıg | "turn a shirt" WK |
| :---: | :---: | :---: | :---: |
| sībıg | antelope species KED | sībıg | "termite" |
| bùl | "astonish" | bùl | "germinate" |
| òk | "vomit" | ūk | "bloat" |
| $b$ bun | "thing" | bùn | "germinate" ipfv |
| kūdug | "old" | kūdvg | "piece of iron" |
| $t o ̄ / \mathrm{g}$ | "heat up" | tùlıg | "invert" |

The allophony $[\mathrm{r}] \sim[\mathrm{i}]$ and $[\mho] \sim[u]$ in epenthetic and prefix vowels $\underline{5.2}$ is ignored, only $\iota \cup$ being used in writing.

The two remaining vowels are the broken vowels ia ua; the corresponding long vowels are iə uө. All are realised as written, [ra] [ṽa] [iə] [uө]; however, they everywhere pattern as monophthongs, and will be so labelled throughout below. The symbols $\partial \theta$ are used only here, and $i \underset{\sim}{u}$ do not otherwise occur before a vowel symbol.

| tiàk | [tıak] | "change" | puāk [porak] | "female" |
| :---: | :---: | :---: | :---: | :---: |
| kpià' | [kpia] | "shape wood" | kià [kıa] | "cut" |
| pìalıg | [piolıg] | "white" | $b u ̄ ' ө s$ [buès] | "ask" |

Before $y$ word-internally, ia una are realised [iit] [णָr] and written ie ue.
bięēá [binija] "elder siblings" sūēyá [sỡija] "roads"

Word-final iə uө only arise by monophthongisation in external sandhi 7.2 7.3.
Nasalised iən̆ uөй (including after $m n$ ) occur only before underlying ${ }^{*} g$, and in the ipfv of fusion verbs by analogy 5.6. In all other contexts original * $\tilde{\varepsilon} \tilde{\varepsilon}$ * $\tilde{\jmath} \tilde{\jmath}$ and *ẽẽ *õõ have fallen together as $\varepsilon \varepsilon n ̆ ~ כ כ n ̆ . ~ T h e y ~ w e r e ~ d i s t i n c t ~ h i s t o r i c a l l y: ~ c f ~ n כ ̄ כ r ~ " t i m e s ", ~$ Mooré náooré, nכ̄כr "mouth", Mooré nóorè.

Oral $\varepsilon$ כ originate from *Vy *Vw or by levelling in nominal paradigms 5.5.
Short ia ua have just two origins. Apocope $\underline{5.1}$ shortens final iə ue to ia ua:
kià SF of kìa "cut" kūā SF of kūa "hoe"

Elsewhere, ía ua replace $\varepsilon \supset$ before $k$ and before underlying *g, which is deleted, with vowel glottalisation and fusion 5.6. Bj̀k "pit" contrasting with bùàk "split" is due to the rounding change *unakku $\rightarrow$ JKkv, while t $\bar{k} k$ "pull", contrasting with tiàk "change" is due to shortening of a long vowel before an original plosive cluster *tع $k k k$. Presumably nj̄k "pick up" is similarly derived by shortening of *nכวkkı; Toende Kusaal has nう̀k, with a variant form כ'כ' (for *nכ'כg.)

Toende Kusaal preserves the equivalents of the broken vowels as phonetic monophthongs, more open than the Toende vowels corresponding to $\varepsilon \supset \varepsilon \varepsilon ว \supset$, which have expanded in Agolle into the phonetic space vacated by breaking:

| Toende | Agolle |  |
| :---: | :---: | :---: |
| s¢̄̄̄s | sīəs | "waists" |
| pē'ēs | $p \bar{\prime}{ }^{\prime} \varepsilon s$ | "sheep" pl |
| bó'วs | bū'өs | "ask" |
| tōom | tכֹm | "depart, disappear" |

The common Kusaal protolanguage preserved other contrasts, like Mooré; Kusaal ככ/טe pairings correspond to Mooré oo, but Mooré ao corresponds to ככ/ככ: Toende bj̀̀̀t, Agolle bう̀วd, Mooré bàoda "want, wish."

All other sequences of dissimilar vowel symbols represent phonemic
 represents [ $\bar{\sim}$ ]:

| sכ̄en̆ | [sõ̃] | "witch" | mùi [mũi] | "rice" |
| :---: | :---: | :---: | :---: | :---: |
| dāu | [dav] | "man" | gbàup [gbaơy] | "book" |
| biāuñ | [binãonk] | "shoulder" |  |  |

Unlike $y$ w, e i iu do not form syllable boundaries. Word-final -Ve -Vī -Vụ behave just like short vowels in being followed by [?] before pause in statements 3.2.2, and word-initial ya [ja] contrasts with ia [ia] in the tenseness of the semivowel, and probably in timing features; the contrast is not [?ja] ~ [ja].
$i ̄$ [ia] "seek" yā [ja] "houses"

KB has uak "inundate"; cf wak "be sleepless" (from Naden's dictionary.)

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

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

Primary diphthongs arise from word-final *Vw *Vy 5.3.1 and from fusion, fronting and rounding $\underline{5.6} \underline{5.5}$. All also occur nasalised, and if not short, glottalised; those written glottalised below only occur glottalised.

|  | ia [ia] <br> ia'a [Ia:] <br> ua [ua] <br> v'a [ũa] | $\begin{aligned} & \text { iaa [ia:] } \\ & \text { uaa [ua:] } \end{aligned}$ |
| :---: | :---: | :---: |
|  | ae [ar] <br> ie [iI] <br> Ј'e [² <br> ui [ui] <br> ue [ur] <br> v'e [ひ్స్ల] | aee [aI:] <br> iee [ii:] <br> uee [ui:] |
| au [aṽ] <br> عu [عu] <br> iau [riaṽ] <br> ıu [ıত্র] | av $[\mathrm{av}]$ <br> عo $[\varepsilon \sigma]$ <br>   <br> iu $[i u]$ <br> $i o$ $[i v]$ |  |

Long diphthongs become overlong by prolongation of the second mora before the polar-question prosodic clitic 7.1. The diphthongs v'a vn̆'a appear as ú'aa uñ'aa respectively when LF-final.

Secondary diphthongs are created by replacement of final morae of wordfinal root vowels by [ I ] [ $\mathrm{\sigma}]$ before liaison words 7.2.1: ${ }^{\circ}$ [ $\sigma$ ] "him/her" replaces any preceding vowel mora by [ $\quad$ ], never [ $u$ ], and the postposed 2 pl subject ya replaces any preceding vowel mora by [r], never [i]. Any of a $\varepsilon$ ว ı ט iu may precede:

| zū•ó-o | [zuv:] | "steal him" | Long Form 5.1 |
| :---: | :---: | :---: | :---: |
| zú•o | [zuo] | "steal him" | Short Form |
| bēıyá | [beıja] | "be ye!" | Long Form |
| $b \bar{\varepsilon} \iota$ | [beı] | "be ye!" | Short Form |

The symbol o also represents [ $\quad$ ] in the 3sg pronoun $o$, and in the mora preceding it in liaison, which is written $\cdot 0$; any nasalisation mark n̆ precedes $\cdot 0$.
$\left.\begin{array}{llllll} & \text { ò bïig } & \text { [vbi:g] } & \text { "her child" } & \text { zú•o } & \text { [zuo] }\end{array}\right]$ "steal him"

Word-internal long vowels are shortened before $k t p$ :

| gàad | "pass" pfv | gàt | "pass" ipfv |
| :--- | :--- | :--- | :--- |
| $t \bar{\varepsilon} \varepsilon g$ | "drag, draw" | t̄̄k | "pull" (*tz $k k ı)$ |
| Hausa | tèeku | àtìuk | "sea" |
| Hausa | kootù $(\leftarrow$ English | kj́tù | "court" |

An overlong monophthong appears in mà'aa "only"; everywhere else, overlong monophthongs reduce to long 7.1.

Non-glottalised long vowels are shortened before word-internal *y 5.3.1.
Short i u may appear where long vowels might be expected. $Z \bar{u} g$ "head" is the sole case where non-glottalised CV~CVV roots show a short allomorph before $* g$ (cf Farefare zúugó id); sūn̆f "heart" is the only instance of short un̆ not attributable either to apocope or to shortening before $y$; nif "eye" is the only case where ${ }^{*} n C \rightarrow C$ after a root vowel which remains short; bùgúm "fire" has the tonemes that would be regular for *bùugúm; dūnıya "world" corresponds to Hausa duuniyàa and tīlás "necessity" to Hausa tiilàs. However, long ii uu occur in many words, and there seems to be no single regular shortening process involved.

### 3.2.1 Nasalisation

Nasalisation is marked by $\check{n}$ following an entire vowel or diphthong unless it is also glottalised, when the $\check{n}$ precedes the ' mark; however, after initial $y$ or $w$ nasalisation is marked with $\check{n}$ before the $y$ or w:

| tह̄en̆s | [tž:s] | "lands" | án̆sìb [ãsib] | "mother's brother" |
| :---: | :---: | :---: | :---: | :---: |
| $g \bar{\varepsilon} \check{\square}$ | [g ${ }^{\text {c }}$ ] | "get tired" | $g \overline{\text { n̆' }}$ [ [gz̃̃] | "get angry" |
| gēn̆'zd | [gz̃:d] | "get angry" ipfv | n̆wām [w̃ãm] | "calabash" |

Nasalisation is automatic on long vowels after $m n$ : mè $\boldsymbol{c}^{d}$ "build" ipfv [mẽ:d].
Short in̆ un̆ are laxer than oral $i u$, but there are no contrasting short *ı̆̆ *un̆. They nearly always arise from apocope 5.1 of iin̆ uun̆, as in siiin̆f "bee" cb sin̆-, zùun̆g "vulture", cb zùn̆-; the only exception is sūn̆f "heart" (pl sūn̆yá), written sunf in KB.

Contrastive nasalisation often represents originally automatic nasalisation after $*_{\eta} *_{n} * \widetilde{\eta m}$, or arises before underlying *ns *nf 5.4 .

Nasalised iən̆ иөй occur only in fusion verbs 5.6. Long แn̆ von̆ appear solely through the change of *nf*ns to $f s$ with nasalisation of the preceding vowel 5.4:

| píın̆f | "genet" | pl pīıní |
| :--- | :--- | :--- |
| zú'un̆f | "dawadawa seed" | pl zū'טní |
| tèn-zùvn̆s | "foreign lands" | sg tèn-zùn |

### 3.2.2 Glottalisation

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

|  | dà' | [dã] | "buy" | dà'a | [dã:] |
| :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ "market"

Glottalisation may be realised as [? $]$ after the first vocalic mora, or as vowel creakiness, but in either case behaves as a vowel feature. Flapping of initial d 3.1 occurs after $V$ ' as well as after $V$, and the pattern of downstepping before $H$ shows that ' does not begin a syllable 4 . Glottalisation which has arisen from deletion of *g after a ia una $\underline{5.6}$ does not differ phonetically from other types.

An unwritten [?] follows short vowels and diphthongs ending statements and commands, but not questions. Phrase-final dāu "man", for example, is realised [daण̛?ָ]. Before this [? $]$, vowel glottalisation is lost:


Root syllables with no initial consonant are optionally realised with initial [?]: óvn ${ }^{\text {ne "dry season" [?v:n]~ [v:n]; this is not regarded as a consonant phoneme. }}$

There is no vowel glottalisation in Mooré, Dagaare, Mampruli, Hanga or Dagbani, but Farefare, Nabit and Talni share it: yō'vr "name", Farefare yó'úré; kù'өm "water", Talni kwopm; kpá'ט و "guinea fowl", Nabit kpa'uŋ; nכ̄-n̆yâ'aŋ "hen", Nabit nכnya'aŋ. Nawdm has $Ћ$ [ [] in many cognate words, e.g. mtáh' "three" = Kusaal ntán̆'; núfú "arm, hand" = nû'ug; ráfḿ "bile" = Kusaal yā'am (WK), Farefare yá'ám.

Glottalised short vowels are almost all the result of apocope 5.1. Besides $k \bar{a}^{\prime} e^{+}$ "not be" ( $\leftarrow *$ kagı) all other cases precede $m$ or $\eta$ in closed syllables in some words for some informants. The vowels are written long in KB.

| kpغ̇' $\quad$ | "strengthen" | ! | "set alight" |
| :---: | :---: | :---: | :---: |
| nīm | "meat" | kJ̄'m | "hunger" |
| sù'ทā | "well" | sù'm | "goodness" |

Sùp pl sùma "good" never has glottalisation. Toende Kusaal, Farefare, Nabit and Talni lack this phenomenon. It probably arose from gemination of $m \eta$; KB has 385 examples of an sum to 47 of an su'um àn̆ súm "is good", but 30 of ka' sum to 40 of $k a '$ su'um kā' sómm "is not good" clause-finally.

Yām~yā'am probably represents a conflation of once-distinct yām "sense" (Buli yám, Nawdm rárḿ) and yā'am "gall bladder" (Buli yáam, Nawdm ráhń.)

### 3.3 Traditional orthography

For word division see 2.3. Tone is unmarked.
$\| \mathrm{mm} n \mathrm{n}$ are often written single before 2016. KSS uses $n g$ for $\eta$.

Before 2016, e $o$ were used for $\varepsilon$, $i$ for $i$ and $\iota$, and $u$ for $u$ and $v$; e o were sometimes also used for $\iota v$ as root vowels. KB has the same basic conventions as this grammar except that $i$ is used for both [i] and [I]: tiig = tìıg "tree", biig = biig "child."

Word-final short $-\iota$ after $m n$ is usually written $\varepsilon$ in KB; so always with the relative pronouns one kane line bane, and with anכ'כnع "who?" before liaison.
$e o$ are used for [ $[\mathrm{I}][\mho]$ as in this grammar. In addition, the pronouns $\overline{\mathrm{n}} / \mathrm{o} n / \grave{n}$ خ̀nā are written on ona, and KB writes ye "that", ten "land", keך "go" (pfv), ken "go" (ipfv) for $y \bar{\varepsilon} t \bar{\varepsilon} \eta k \bar{\varepsilon} \eta k \bar{\varepsilon} n$. This may reflect actual variants with [r]: cf Toende tī "land", Mampruli tinga "land", versus Toende meŋ, Mampruli manga = m $\eta$ g "self."

After a or $\supset$ epenthetic $\iota$ is often written e: sanrega for sārıgá "prison."
$i e$ is used for iə and ie, but the sequences only contrast in the marginal case of external sandhi when final ie is monophthongised 7.3.
$u o$ is used for $u \theta$ and uo, but traditional orthography always separates the vowel symbols in the latter case: bu'os = bū'өs "ask", zu o = zú•o "steal him."

2016 orthography writes -ue as -uoe and -ve as -voe (similarly when nasalised and/or glottalised): duoe = dūe "raise, rise", su'oe = sū'e "own."

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

Traditional orthography uses e iu for ei und consequently does not mark length consistently in diphthongs, but only two length contrasts are actually found in phonemic diphthongs: of these ae/ae is expressed by writing aae (or aas) for ae versus ae for ae: thus e.g. paae = pāe "reach."

The contrast av/au is unmarked. KB uses au or av consistently for each word, but not as marking length: yavg yàug "grave", but na'araug = nā'-dâvg "ox"; dau = dāu "man" but taun = tāun̆ "sibling of opposite sex." Ambiguity appears before $\eta$ : gbaup = gbāun "skin", mangaup = màngáv מ "crab."

Word-final ia ua are used ambiguously for both ia una and ia ua:

$$
\begin{array}{lllll}
\text { kia }=\text { kià } & \text { "cut" } & \text { sia }=\text { sīa } & \text { "waist" } \\
\text { kua }=\text { kūā } & \text { "hoe" } & \text { sabua }=\text { sàbùa } & \text { "lover" }
\end{array}
$$

' is not written after $i$ when it represents $i$, thereby disambiguating

$$
\text { kpia' = kpià̀ } \quad \text { "shape wood" } \quad \text { kpi'a }=k p i ' a \quad \text { "neighbour" }
$$

Before 2016, úa v'a were usually written o'a, but sometimes u'a, like u'a [ưãa]. All are now written $u^{\prime} a$ : po'a/pu'a = pu'ā "woman", $p o^{\prime} a b / p u^{\prime} a b=p \bar{\prime} ' a b$ "women."

Traditional orthography writes -ey- in Long Forms 5.1 corresponding to Short Forms where final -y becomes -ę: vveya = vūyá, Long Form of vūe "be alive." Older NT versions also write būn-vóyà "living things" as bunvoeya, but KB has bunvoya.

Traditional orthography has dunia, laafia for dūnıya "world", láafìya "health."
KB writes bieya = bi̇ēyá "elder same-sex siblings", but suoya = suēyá "roads", zuoya = zưēya "hills" etc. Older sources have sueya, zueya.

For nasalisation, plain $n$ is used for $\check{n}$, e.g. téns $=t \bar{\varepsilon} \varepsilon n ̆ s ~ " l a n d s ", ~ g \varepsilon n '=g \bar{\varepsilon} n ̆ ' ~$ "get angry", gen' $\varepsilon d=$ gēn̆' $\varepsilon d$ "get angry" (ipfv), nwam = n̆wām "calabash."

Ending a prefix, $n$ represents $n$ : dunduug = dòndùug [dundu:g] "cobra."
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."

## 4 Tones

Tone is mostly distinctive as a syntactic marker, but lexical minimal pairs are not uncommon, e.g. būk "weaken", bùk "cast lots"; gāp "choose", gàn "step over"; kūk "chair", kùk "ghost"; pīd "get bloated", pìd "put on a hat, shoes, ring."

The tone-bearing unit is the syllable 2.1. 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: bāp "ring"; Low (L), marked with a grave: bj̀k "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 the Long Form 5.1:

Lì kā' nú'uḡ ${ }^{+} \varnothing$. "It's not a hand."
3in neg.be hand:sg neg.

Li kā' náaf̄̄ ${ }^{+} \varnothing$. "It's not a cow."
3in neg.be cow:Sg neg.

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 ; superheavy $L$ syllables become $X$ after a preceding $M$, or as a result of the M -spreading external tone sandhi 7.4.3, while other L syllables here 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. bēogv-n for $b \bar{\varepsilon} o g \overline{0}-n$ "morning", àn̆rıma for àn̆rımà "boats." After an acute or circumflex, however, the next tone-bearing syllable is explicitly marked: būnbj́วdir "desirable thing." After a prefix, a tone mark is written on the root even if the toneme is identical: zīnzāung "bat", kùkpàrıg "palm tree."

H and X tonemes are in certain circumstances 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,

```
HH }->\textrm{H}\downarrow\textrm{H
```

$\mathrm{HX} \rightarrow \mathrm{H} \downarrow \mathrm{X}$
$\mathrm{MH} \rightarrow \mathrm{M} \downarrow \mathrm{H}$ if the next syllable is superheavy
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 gj̄s 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 bēogu-n.
1sG look.at egg:SG ART morning-Loc.
"I looked at the egg in the morning."

Kà m̀̀ ḡ̄s náaf lā bēogu-n.
And 1sG look.at donkey:SG ART morning-LOc.
"And I looked at the cow in the morning."
but $\dot{M}$ gós $\downarrow$ náaf lā bēogv-n.
1sG look.at cow:SG ART morning-Loc.
"I looked at the cow in the morning."

Kà m̀̀ 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 $\downarrow \boldsymbol{n} u \hat{\prime} \mathbf{u g}$ lā bēogo-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 CVVC syllable:

Ànó'כnì_ø n̆ȳ̨ púkj̀כn̆rع ${ }^{+} \varnothing$ ? "Who saw a widow?"
Who cat see widow:sg cQ?

Lì kā' púkj̀כn̆r $\bar{\varepsilon}+\varnothing$. "It's not a widow."
3IN NEG.be widow:SG Neg.
but Lì à nē $\downarrow$ púkòכn̆r lā. $\quad$ "It's the widow."
3IN COP FOC widow:SG ART.

Bīig lā sá mè yīr lā.
Child:sg ART tns build house:sG ART.
"The child built the house yesterday."
but Bīig lā $\downarrow$ sá mèzd yīr lā.
Child:SG ART TNS build:IPFV house:SG ART.
"The child was building the house yesterday."

Mān bú-sùn kā'e ${ }^{+}$Ø. "My good goat isn't there."
1SG.CNTR goat-good:SG NEG.BE NEG.

Mān kúkj̄r kā'e ${ }^{+} \varnothing$. "My voice isn't there."
1SG.CNTR voice:SG NEG.BE NEG.
but Mān $\downarrow$ bú-pìəl kā'e ${ }^{+}$ø.
1SG.CNTR goat-white:Sg neg.be neg.
"My white goat isn't there."
$\mathrm{MH} \rightarrow \mathrm{M} \downarrow \mathrm{H}$ when the next syllable is followed by pause, and is not L :

Kà m̀ gj̄s $\downarrow$ bún l̄ā. "And I looked at the donkey."
And 1sg look.at donkey:sg ART.

Ȳ̄ $\downarrow$ gúm kā'e ${ }^{+} \varnothing$. "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.

Ò pū yādı $\downarrow$ gídā ${ }^{+} \varnothing$. "He isn't scattering." 3AN NEG.IND scatter:IPFV NEG.

Lì kā' bī- $\downarrow$ púnā ${ }^{+} \varnothing$. "It's not a girl."
3IN NEG.bE child-girl:SG NEG.

Ò $p \bar{u} \quad \check{y} y \bar{\varepsilon} \downarrow \mathbf{s u ́}^{\prime} \mathbf{u g} \mathbf{g a ̃}^{+} \varnothing$. "She didn't find a knife."
3AN neg.Ind see knife:sG neg.

Lì kā' n̆yī $\downarrow$ rífj ${ }^{+} \varnothing$. "It's not an egusi seed." 3IN neg.be egusi:SG neg.
but Kà m̀ gj̄s 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)

Yōgúm lā kā'e ${ }^{+} \varnothing$.
Camel:sg art neg.be neg.

Lì à nē dôدg lā.
3IN COP FOC hut:SG ART.

Ànó'כnì_ø yādıgídà ${ }^{+} \varnothing$ ? "Who is scattering?" (L after H)
Who CAT Scatter:IPFV CQ?

Lì kā' bī-púyàa ${ }^{+} \varnothing$ ?
3IN NEG.be child-girl:SG PQ?

Àn'́'כnì ø n̆y $\bar{\varepsilon}$ sú'vgà ${ }^{+}$? ? "Who found a knife?" (L after H)
Who cat see knife:sg cQ.
Ò pū dúgè ${ }^{+} \varnothing{ }^{+} \varnothing$ ?
3AN NEG.IND Cook NEG PQ.

A CV syllable is superlight if it is not word-initial, word-final or root-initial, and is preceded by another CV syllable which is not itself superlight. Superlight syllables are toneless, with the toneme of the preceding syllable extended to cover both.

Bà $k a ̄ '$ dī'əsídıbā ${ }^{+} \varnothing$. "They are not receivers." 3PL NEG.BE receiver:PL NEG.

An intervening superlight syllable prevents the insertion of downstep between M and H when the syllable after the superlight is prepausal:

Lì kā' $\downarrow n u ́ ' u g \bar{~}{ }^{+} \varnothing$. "It's not a hand."
3in neg.be hand:SG neg.
but Lì kā' mólıfj ${ }^{+} \varnothing$. "It's not a gazelle." 3IN NEG.be gazelle:SG NEG.

A syllable introduced by $k p t \eta$ cannot be superlight, because written intervocalic $k p t \eta$ represent $k k$ tt $p p$ מף, which close the preceding syllable:

Ka ya pu siakida.
"But you did not agree." (Lk 13:34)
Kà yà pū siákìdā ${ }^{+} \varnothing$.
And 2PL NEG.IND agree:IPFV NEG.

Heavy, root-initial, word-initial and word-final syllables always carry tonemes.

Lì à nē mólìf. "It's a gazelle."
3IN COP FOC gazelle:SG.

Lì kā' būn-sábìllē ${ }^{+} \varnothing$. "It's not a black thing."
3IN NEG.be thing-black:SG neg.

Lì kā' dágว̀bıgā +ø. "It's not a left hand."
3IN Neg.be left.hand:Sg Neg. (Prefix dà-, root gj̀b- 13)

Bà à nē dígà.
"They are dwarfs."
3PL COP FOC dwarf:PL.

Word-division creates a prominence contrast leading to a tonal contrast between the bolded syllables in

Ò $p \bar{v}$ zábì f $f \overline{\text { º }} \quad+\varnothing$. "He didn't fight you."
3AN NEG.IND fight 2SG.OB NEG.
and Lì kā' mólıfj $+\varnothing$. "It's not a gazelle." 3in neg.be gazelle:sg neg.

## 5 Word segmental structure

This section deals with open-class words.
Segmental rules apply in the order: consonant assimilation/epenthetic vowel insertion 5.4, vowel fronting/rounding 5.5, *g-deletion/vowel fusion 5.6, apocope 5.1.

### 5.1 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" appears as the Short Form bïig in isolation and in most contexts, including clause finally for the most part, and clause medially everywhere except when followed by a particular set of "liaison words" 7.2:
Ò dāa ňyē bïig.

3AN tns see child:sg.
bïig l̄a nû'ug "the child's hand"
child:SG ART hand:SG

The Long Form (here, biïga) is found in the final word of

Clauses with a negation (negative particle or negative verb)
Questions, both content and polar
Clauses used as vocatives

Ò kā' bïiga ${ }^{+} \varnothing$. "He/she is not a child."
3AN NEG.be child:SG NEG.

Ò dāa pō n̆yē bïiga ${ }^{+} \varnothing$. "He/she did not see a child."
3AN TNS NEG.IND see child:Sg neg.

Ànó'כnì_ø dāa n̆y $\bar{\varepsilon}$ bíigà ${ }^{+} \varnothing$ ?
Who cat tns see child:sg co?
"Who saw a child?"
$\dot{M}$ bïiga ${ }^{+} \varnothing!\quad$ "My child!"
1SG child:sG voc!

The Long Form also appears as a derivational feature in the citation form of some words (see below.) Direct commands sometimes end in a LF 21.3.

The LF appears in a modified form before liaison, with LF final short vowels losing all contrasts of quality 7.2.

The SF is always derivable from the LF by apocope:

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
(kk tt pp מן become kt p but are written single in any case 3.1)
Word-final $y$ becomes e after back vowels and zero elsewhere

Shortening of final diphthongs by apocope (changes apply
identically to nasalised and/or glottalised diphthongs):

```
ia ->i_a ua ->u_a ia'a ->ia' u'aa ->u'u'a
ae ->ae av ->au_ ui }->\mathrm{ ui
Vaa }->\mathrm{ Va Vee }->\mathrm{ Ve Vov }->\mathrm{ Vv
```

The term "apocope" will be used exclusively for this phenomenon. Apocope is described as a single process, but comparative and internal evidence shows that loss of quality contrasts preceded the complete deletion of word-final vowels clausemedially, which was itself distinct from the clause-final apocope characteristic of Kusaal, Nabit and Talni. In Toende Kusaal, apocope still involves two steps 3.1 fn .

Examples:

Lì à n $\bar{\varepsilon}$ Kūk.
3IN COP FOC chair:SG.

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

Lì kā' kūka. ${ }^{+} \varnothing$. "It's not a chair."
3IN NEG.be chair:SG NEG.


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

Lì à nē dōk.
Dōk lā bódìg yā.
Lì kā' dūkó. /kk/
Lì à nē dūkóv?
Àn'́'כnì n̆y $\bar{\varepsilon}$ dōkó?

Lì à nē gbīgım.
Lì kā' gbīgımne.
Lì à nē gbígìmneع?
Ànó'כnì n̆y $\bar{\varepsilon}$ gbígìmne?

Lì à nē yáarìm.
Lì kā' yáarīmm.
Lì à nē yáarìmm?
Ànó'כnì n̆yē yáarìmm?

Bà à n $\bar{\varepsilon}$ gbīgıma.
Bà kā' gbīgımaa.
Bà à nē gbígımàa?
Ànכ́'כnì n̆y $\bar{\varepsilon}$ gbígımà?

Ò̀ à $n \bar{\varepsilon}$ dāu.
Ò kā dāv.
Ò à nē dávò?
Ànכ́'כnì n̆y $\bar{\varepsilon}$ dáv?

Kà ò siáák.
And 3AN agree.
Ò pū síák $\bar{\varepsilon}+\varnothing$.
3AN NEG.IND agree neg.
"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."

Kà ò dīgı.
Ò pū dīgıyá.

Kà ò vōe.
Ò pū vōyá.

Kà ò Kiá.
Ò pū kía.

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

The derivational type of Long Form appears in many adverbs and quantifiers. Thus with the adjective bèdvg "big" and the adverb bèdvgō "a lot":

```
Lì à nē būn-bźdùg.
```

3IN COP FOC thing-big:sG.

Lì kā' būn-bédvgj̄ ${ }^{+} \varnothing$. "It's not a big thing." 3IN NEG.be thing-big:sg NEG.

M̀ pû'us yā bédugū. "Thank you very much."
1sg greet PFV much.

The LF is undoubtedly historically primary, with the SF derived by apocope, but it does not automatically follow that the LF must be primary synchronically. 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 actually 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 $k \bar{u} k$ "chair" and $d \bar{u} k$ "pot" above, but Tone Patterns are suprasegmental stem features 6.1.

Nevertheless, it is descriptively simplest to regard LFs as primary. With SFs ending in consonants the LF may end in a $\varepsilon$ or $\supset$; SF-final $m n$ or I may or may not be geminated; -m may become -mn- instead of -mm-. Even before liaison 7.2, with vowel quality neutralised, the same issues arise with consonants:
ka ban ka kikirbe'ednam daamne ba daa nye laafiya kà bàn kà kìkīr-bê'عd-nàm dâamnī bá dāa n̆y $\bar{\varepsilon}$ láafìya 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 tīlás "necessity", LF tīlásè from Hausa tiilàs id, and in e.g.

Pu'abi du'a sieba la wosa, so' kae gat Joon ne [sic 2.3].
Pū'abí ø dứ'à sīəba lā wūsa, sכ̄' kā'e_ø gát Joonع +ø.
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 front vowels or fronting diphthongs now have LFs obtainable simply by lengthening the final vowel or diphthong:

| $k \bar{\square}$ | LF $k$ ט̄ | "kill" | mà | LF màa | "mother" |
| :---: | :---: | :---: | :---: | :---: | :---: |
| kūgá | LF kūgáa | "stones" | bāa | LF bāa | "dog" 7.1 |
| sīa | LF sīaa | "waist" | sàbù | LF sàbùaa | "girlfriend" |
| dià ${ }^{\text {' }}$ | LF di̇ā'a | "get dirty" | but | Farefare dêge |  |
| dư'à | LF dư'àa | "bear, beget" |  | Farefare dı̀gè |  |
| zう | LF zò | "run" |  | Farefare zòè |  |
| dāu | LF dão | "man" |  | Mooré ráoa |  |
| tāuñ | LF távn̆ | "opposite-sex sib" |  | Mooré tãoa |  |

(A marginal exception to predictability is the fact that words ending in ia' may have LFs in íja'a like díā' "get dirty" or in i'a like kpià' "shape wood with an axe.")

Most SFs ending in fronting diphthongs or front vowels behave likewise:

| pāe | LF pāée | "reach" | nìe | LF nìee | "appear" |
| :--- | :--- | :--- | :--- | :--- | :--- |
| dūe | LF dūée | "raise/rise" | wìdı | LF widıı | "horses" |

Two nouns have variant sg LFs in -ya: sāen̆ "blacksmith", LF sāen̆ or sān̆ya and sj̄en̆ "witch", LF sj̄en̆ or sj̄n̆ya. All other LFs in -ya occur in single-aspect verbs 10.2, 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, prolonging any final short diphthong and then applying phrase-medial loss of fronting 7.2.

The exact shape of a Long Form differs in different contexts．Final vowel length may be neutralised，final short vowel qualities may be altered or completely neutralised，and final tonemes may be altered．Changes to LFs occur clause－medially before liaison 7．2，and clause－finally before prosodic clitics 7．1，which have no segmental form of their own but cause the preceding word to appear as a LF rather than the default SF．Derivational LF types are described as showing apocope－blocking （see below．）The LF as such is an abstraction，representing the underlying word－form which produces the surface SF through apocope，and the various surface LFs through application of the rules for each environment．For convenience，the LF preceding the negative prosodic clitic will be taken as basic segmentally．It shows underlying final short $-\iota-v$ as－$\varepsilon-$ כ，＊－mv＊－mı as－mm－mm and－iə－uө as－ia－ua 7．1．

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．

| biig ${ }^{\text {a }}$ | ＂child＂ | $k \bar{u} k^{\text {a }}$ | ＂chair＂ |
| :---: | :---: | :---: | :---: |
| $d \bar{u} k^{3 /}$ | ＂pot＂ | siàk ${ }^{\text {d }}$ | ＂agree＂ |
| $g b ı ̄ g ı m ~ \frac{n \varepsilon}{\text { n }}$ | ＂lion＂ | yàarım ${ }^{\text {m }}$ | ＂salt＂ |
| dīgıya／ | ＂be lying down＂ | zi＇${ }^{\text {ya }}$ | ＂be standing＂ |

When the LF ends in a long vowel or diphthong，superscript notation writes the SF followed by the mark ${ }^{+}$：

| gbīgıma＋ | ＂lions＂ | SF gbīgıma | LF gbīgımaa |
| :---: | :---: | :---: | :---: |
| mうlı＋ | ＂gazelles＂ | SF mうlı | LF mう̀lı |
| gòñ | ＂hunt＂ | SF gòn̆ | LF gว̀วn̆ |
| tìeñ ${ }^{+}$ | ＂inform＂ | SF tìen̆ | LF tìeen̆ |
| $k i a^{+}$ | ＂cut＂ | SF kià | LF kìa |
| kuā＋ | ＂hoe＂ | SF kuā | LF kūa |
| dāu ${ }^{+}$ | ＂man＂ | SF dāu | LF dāu |
| sāeñ ${ }^{+}$ | ＂blacksmith＂ | SF sāeñ | LF sāen̆ |

Words ending in LF ia＇a údaa are written with superscript ${ }^{a}$ rather than ${ }^{+}$to distinguish them from words ending in LF i＇a u＇a：

|  | kpià＇${ }^{+}$ | ＂shape wood＂ | SF kpià＇ | LF kpì＇a |
| :---: | :---: | :---: | :---: | :---: |
| but | diā＇a | ＂get dirty＂ | SF dijā＇ | LF dịā＇a |
|  | kuā ${ }^{+}$ | ＂hoe＂ | SF kuā | LF kūa |
| but | $p u ' \bar{a}^{\text {a }}$ | ＂woman＂ | SF pu＇ā | LF pu＇āa |

Words with LFs in -ya where the SFs changes the word-final -y to -e are also written with superscript ${ }^{\text {a }}$ :

| $v \bar{u} e^{\text {a/ }}$ | "be alive" | SF vōe | LF vōyá |
| :---: | :---: | :---: | :---: |
| tōe ${ }^{\text {a/ }}$ | "be bitter" | SF tōe | LF tōyá |

Words with segmentally identical SF and LF and are written with ${ }^{=}$, as in dà'a= "market." In a few cases where superscript notation is impractical, the forms will 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, and writes an acute mark / after forms with LF-final H. For the actual realisation before different prosodic clitics and liaison words see 7.4.

Words like SF nû'ug LF nú'ugj̀ "hand", where the X of the SF has to become H in the LF, are written in superscript notation with their SF tonemes: nû'ug "hand." So too are words like SF nóbìr LF nóbırè "foot, leg", which show a toneless superlight second syllable in the LF corresponding to a L closed syllable in the SF: nóbìr ${ }^{\varepsilon}$ "foot", di'əsídìba "receivers." The orthographic convention that macrons and graves apply to all following unmarked syllables means that no special superscript notation is needed to express the change from LF superlight to SF closed toneme-bearing syllables in words like wābug ${ }^{\text {/ }}$ "elephant" or digır ${ }^{\varepsilon}$ "dwarf."

Apocope-blocking is seen with some nouns ending in $-\iota$ or -0.8 .5 , 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.

Apocope-blocked words uses LFs as citation forms. They lack the lowering of postconsonantal final $\iota v$ to $\varepsilon$ ว seen before prosodic clitics, but do change final $-m v$ to -mm. Final L tonemes change to M. Apocope-blocked words make secondary LFs before prosodic clitics by prolonging a short final vowel; except in polysyllabic words with M tonemes throughout, final M tonemes become H in such LFs.

| būudı+ | "tribe" | bz̀dvg $\overline{0}^{+/}$ | "a lot" |
| :--- | :--- | :--- | :--- |
| sùnāà | "well" | ànāasí+/ | "four" |
| $y \bar{a}^{+/}$ | "houses" |  |  |

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"; gùllīmm SF gùl/ımne LF "only";
 DK KT SB NT mèn WK; clause-finally (all sources) mèn ${ }^{\varepsilon}$ "also, too."

### 5.2 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 $b d g 1 m n s r$.

Stems are derived from roots by adding up to three of the derivational suffixes $b d g I m n s r$. Only $d I m$ can follow another suffix. Nominal stems may also have derivational prefixes $V C V C V N C V s \iota N$ or CVIıN, where $N$ is a nasal homorganic with the following consonant and ı is an epenthetic vowel: tītā'ar "big", bùmbàrıg "ant", sīlınsîun̆g "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 ı ט aa ו vט. Most bound words of the form $(C) V(V)$ have the same vowel restrictions, though the various particles $n \bar{\varepsilon}$ show $\varepsilon$ for $\iota$. Prosodic clitics 7.1 cause short LF-final $\iota v$ to be lowered to $\varepsilon \supset$, here realised [e] [o]; short $\iota v$ remain as such only before apocope-blocking 5.1.

Prefix $\iota v$ are realised [i] [u] when the first vowel mora of the root is $i$ or $u$; as this is non-contrastive, the orthography uses $\iota v$ throughout. Thus tītā'ar [titã:r] "big",
 [silinsĩũg] "spider", vòlınvùun̆l [vulimvũ:l] "mason wasp", dòndùug [dundu:g] "cobra" (KB dunduug.) Only [i] [u] occur after $m$ or $n$ : nìn-tāa [ninta:] "co-wife."

As affix vowels, short $\iota$ and $v$ contrast only after velars and word-initially: $\iota$ is the default after alveolars, and $v$ after labials, labiodentals and labiovelars, but prefixes show $v$ rather than $\iota$ before root $u / v / \partial$ (dùndùug "cobra") and $\iota$ instead of $v$ before $i / \iota / \varepsilon$ (kpīkpīn "merchant.") In flexions -mm appears in place of *-mv; ı appears after labial consonants only by analogy in pfv LFs like zàbe "fight." Velars followed by affix-vowel $u$ could be analysed as labiovelars, with 3sg ò $\leftarrow$ *クmù.

Before vowel-initial flexions CVV root-stems become CVy or CVd 5.3.1.

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: kùndò ${ }^{\text {a }}$ "jackal", gōmpūz̄̄r $r^{\varepsilon /}$ "duck", dànk̇̀ [daŋkoy] "measles." Except in loanwords, the only other word-internal clusters permitted are kk tt pp $\quad$ nn mm II mn, of which kk tt pp מף 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 2.3]
kà bà lí bà tùba kà pū wómnā ${ }^{+} \varnothing$.
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 $r^{\varepsilon} \mid a^{+}$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 2.3].
m̀ nāan kú āa-n Kiristo túm-tūmna ${ }^{+} \varnothing$.
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 tòm-tōmnıb "servants", but habitual adjectives from $m$-stem verbs show $m m$ before epenthetic vowels: būn-tómmìr "useful thing" (pl tūmna for some), bù-sān̄'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 $\iota$. Before LF -gכ- כמ- it becomes $v$, remaining $u$ in the SF 5.5.

|  | SF āan̆dıg | LF āan̆dıga | "black plum tree" |
| :--- | :--- | :--- | :--- |
| but | SF gàadıg | LF gàadıgə | "(sur)passing" |
| pl | SF mālıma | LF mālımaa | "sacrifices" |
| but | SF mālın | LF mālıכ | "sacrifice" |

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

| gbīgım [ģbigım] | "lion" | yōgóm [jugom] "camel" |
| :---: | :---: | :---: |
| dūgod [dugod] | "cooking pots" | dūgudíb [dugodib] "people who cook" |

Otherwise, rounding of epenthetic vowels after short rounded root vowels varies between sources. It is contrastive only before velars, where it can lead to reinterpretation of $-g^{\mathrm{a}}$ as $-g^{\mathrm{J}}$. Here WK has rounding with intervening $b m$ or $l$, and also with intervening $m m$ even if the preceding vowel is not rounded: nóbìr "leg" but n亏̄bug "grow", k亏̄lug "river", yàmmug "slave."

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

| tìsıd | ［tisid］ | ＂gives＂ | sīgıd | ［sigid］ | ＂lowers＂ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| būgur | ［bugur］ | ＂spirit＇s dwelling＂ | kūgur | ［kugur］ | ＂stone＂ |

Epenthetic vowels show two distinct levels of prominence．The weaker is seen in superlight CV syllables 2．1．A CV syllable is superlight if it is a word－internal non－ root vowel and is preceded by another CV syllable which is not itself superlight， working from left to right．Bolded syllables are thus superlight in the LFs di＇əsídıbà ＂receivers＂，mう̀lıfo＂gazelle＂，but in LF yūgodıre＂hedgehog＂only the second syllable is superlight，not the third，and in LF yùugıre＂delaying＂（gerund）there is no superlight syllable．With marginal exceptions after－Vr－，superlight syllables do not carry tonemes，and they do not show contrasts of vowel quality even in surface forms． They are structurally analogous to the second morae of long vowels or diphthongs． Epenthetic $\iota v$ in syllables which are not superlight（typically in the third mora of a stem，disregarding any prefix）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＊－gu＊－kkv＊－クロט．Apocope removes conditioning factors，rendering diphthongs contrastive，just as with the epenthetic vowels above：

|  | SF vīid | LF vīid $\dot{c}$ | ＂owls＂ |
| :--- | :--- | :--- | :--- |
| but | SF vīug | LF vīugó | ＂owl＂ |

## 5．3 Root alternations

## 5．3．1 CV～CVV～CVC

Most roots ending in a vowel show a long vowel before all flexional and derivational suffixes：$k \bar{v}^{+}$＂kill＂ipfv $k \bar{u} u d^{\mathrm{a} /}$ ．Some words with short vowels throughout are probably simply＊CV－stems，e．g．$z u \overline{g^{\prime /}}$＂head＂pl $z \bar{u} t^{\varepsilon /, ~ z a ̄}{ }^{+/}$＂millet＂，mùì ${ }^{+}$＂rice＂， $k \bar{I}^{+/}$＂millet＂；cf $\underline{6.2 .4}$ on the absence of $M$ dropping after their cbs．

A number of such roots show vowel length alternation．Those with glottalised vowels are all underlyingly $* C V g$ ，and their behaviour is due to $* g$ deletion and vowel fusion 5．6．Non－glottalised types show a long vowel before the class suffixes $-g^{a}-g^{\text {J }}$ and short elsewhere，with following ${ }^{*} d \rightarrow t t * b \rightarrow p p$（but not $* m \rightarrow m m$ or $* l \rightarrow I I$ ）：

| dāog ${ }^{\text {J }}$ | ＂male＂ | cf $d \bar{a} p^{\text {a }}$ | ＂men＂ |
| :---: | :---: | :---: | :---: |
| biig ${ }^{\text {a }}$ | ＂child＂ | cf billa | ＂little＂ |
| dう̀ $\mathrm{g}^{\text { }}$ | ＂hut＂ | $\mathrm{pl} d \grave{ } \mathrm{t}^{\varepsilon}$ |  |
| fūug ${ }^{\text {／}}$ | ＂clothing＂ | pl fūt ${ }^{\text {／}}$ |  |


| $\check{n y} \bar{\varepsilon}^{+}$ | ＂see＂ |  | imp ňyèm ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: |
| $k \bar{\varepsilon}^{+}$ | ＂allow＂ | $i p f v k \bar{\varepsilon} t^{\text {a／}}$ | $\operatorname{imp} k \grave{l d}^{\text {a }}$ |
| $d i^{+}$ | ＂eat＂ | $i p f v$ dit ${ }^{\text {a }}$ | imp dìm ${ }^{\text {a }}$ |
| $y i^{+}$ | ＂emerge＂ | ipfv $y$ īt ${ }^{\text {a／}}$ | imp yim ${ }^{\text {a }}$ |
| $z{ }^{+}$ | ＂run＂ | ipfv zòt ${ }^{\text {a }}$ | imp zòm ${ }^{\text {a }}$ |
| $d \bar{v}^{+}$ | ＂rise＂ | ipfv dōtal | imp dòm ${ }^{\text {a }}$ |
| $1 \mathrm{lu}^{+}$or $\mathrm{li}^{+}$ | ＂fall＂ | ipfv lùt ${ }^{\text {a }}$ or lit ${ }^{\text {a }}$ | imp lùm ${ }^{\text {a }}$ or lìm ${ }^{\text {a }}$ |

$V V$ before $\operatorname{sg}-g^{\text {a }}$ or $-g^{3}$ may be introduced into the pl ，optionally or always：

| dāug ${ }^{\text { }}$ | ＂male＂ | pl dāad $^{\text {¢ }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| biig $^{\text {a }}$ | ＂child＂ | pl bïis $^{\text {e }}$ |  |  |
| pכ̄כg ${ }^{\text {／}}$ | ＂field＂ | $\mathrm{pl} p \overline{\mathrm{~J}} \mathrm{~d}^{\varepsilon /}$ | or | $p \bar{t} t^{\varepsilon /}$ |
| dう̀ $\mathrm{g}^{\text {² }}$ | ＂hut＂ | pl dう̀ว ${ }^{\text {e }}$ | or | $d \grave{t}{ }^{\varepsilon}$ |
| füug ${ }^{\text {／}}$ | ＂clothing＂ | pl fūud ${ }^{\text {／}}$ | or | füt ${ }^{\varepsilon /}$ |

Before derivational suffixes the vowel is usually long：

| dìs ${ }^{\text {c }}$ | ＂feed＂ | $d i^{+}$ | ＂eat＂ |
| :---: | :---: | :---: | :---: |
| dàalım ${ }^{\text {m }}$ | ＂masculinity＂ | dāpa | ＂men＂ |
| $v \bar{u}^{\prime} \mathrm{g}^{\varepsilon /}$ | ＂come alive＂ | $v \bar{u} r^{\varepsilon /}$ | ＂alive＂ |
| yīis ${ }^{\text {／}}$ | ＂make go／come out＂ | $y i^{+}$ | ＂emerge＂ |

There are exceptions before s，e．g．$y \bar{i} s^{\varepsilon}$ beside yīis $s^{\varepsilon /}$ above，and the alternating
 ipfv tit ${ }^{\text {a }}$ or tisı $d^{\text {a }}$ ．

Gerunds in－$b^{\text {² }}$ always show long vowels：$d \bar{\iota} \iota b^{3}$＂food＂，n̆y $\bar{\varepsilon} \varepsilon b^{\text {J／}}$＂seeing＂；so do all regualr gerunds in $-r^{\varepsilon}$ ：$n \bar{\jmath}-l \hat{\jmath} \supset r^{\varepsilon}$＂fasting＂（＂mouth－tying＂），fū－yદ̂عr ${ }^{\varepsilon}$＂shirt－wearing＂，but WK has nā＇－lór ${ }^{\varepsilon}$＂place for tying up cows＂，wìd－Īr ${ }^{\varepsilon /}$＂place for tying up horses．＂

Historically，such roots probably ended in a consonant preserved before vowel－ initial suffixes，assimilated before homorganic consonants，and otherwise deleted with vowel fusion to produce CVV．For example，three roots with CVp－allomorphs show evidence of an underlying form＊CVw with＊wb $\rightarrow p p$ ：dāu ${ }^{+}$＂man＂（Mooré ráoa） pl dāpa；tāun̆ ${ }^{+/}$＂sib of opposite sex＂pl tān̆páp t tòn ${ }^{+}$＂shoot＂（Mooré tão）tān̆p ${ }^{\text {º }}$＂war．＂

Kusaal CVV roots with CVt－allomorphs typically have Mooré cognates with fronting diphthongs or front vowels：e．g．Mooré zòe＂run＂lùı＂fall＂，ipfvs zòeta，lùıta， versus kú＂kill＂，ipfv kúvdà．Mooré shows much less levelling than Kusaal in such cases．Sporadic monophthongisation of earlier＊Vy explains the Kusaal alternation $l \grave{u}^{+} \sim i^{+}$＂fall＂，and Western Oti－Volta contrasts like Kusaal dう̀sg ${ }^{\text { }}$ ，Mampruli／Dagbani duu，Mooré ròogó as against Hanga dì̀，Farefare dèegò，Dagaare dié＂hut，room．＂

These diphthongs usually correspond to Nawdm Vr: tè' $\varepsilon g^{\text {a }}$ "baobab", Mooré tò ععgá, Nawdm tòd pl tòrá (Nawdm *rr $\rightarrow$ d); dè $g^{\text {a "warthog", Mooré rèoogó ( } \leftarrow ~}$ *rèegó), pl reto, Nawdm dj̀d́ pl dı̀rá. Positing Proto-Oti-Volta *l $\rightarrow$ Nawdm $r$, Western Oti-Volta has geminated *ll $\rightarrow$ *r, single ${ }^{*} l \rightarrow * y$ after a short root vowel, root-initially and before $* a$, and single $* l \rightarrow *_{r}$ elsewhere. Only Mooré and Agolle Kusaal maintain a three-way contrast $r / d / l$ after vowels; elsewhere $r / d$ fall together as $r$, except in Dagbani, where $r / l$ fall together as $l$, with original $d$ appearing as $r$ (cf the Songhay loanword bùrkìna, Mooré bùrkĩná, Dagbani bilchina "honourable.")

| *l | Kusaal <br> $\boldsymbol{y} \overline{a ̄}^{\prime} a m^{\mathrm{m} /}$ | Mampruli yam | Dagbani | Nawdm ráhón | "gall" |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (ì) yí' | (n) $\boldsymbol{y} \boldsymbol{i}$ | (a) $\boldsymbol{y} i$ | (m)réh | "two" |
|  | $\boldsymbol{y}{ }^{+}$ | y | yo | riw | "close" |
|  | $z i ' e{ }^{\text {ya }}$ | zeya | zieya | jehra | "be standing" |
|  | yàarım ${ }^{m}$ | yaarim | yalim | yáàrḿ | "salt" |
|  | nj̄) ${ }^{\text {c/ }}$ | noori | noli | nóór | "mouth" |
|  | tùbur ${ }^{\text { }}$ | tubri | tibili | tóbŕ | "ear" |
| *ll | yīr ${ }^{\varepsilon /}$ | yiri | yili |  | "house" |
|  | gū ${ }^{\text {a/ }}$ | guri | guli |  | "guard" |
|  | mう̄ ${ }^{\text {a/ }}$ | mari | mali | mada $(d \leftarrow r r)$ | "have" (Nawdm tenir) |
| *d | $m \overline{\boldsymbol{d}^{\text {d }}}{ }^{\text {¢ }}$ | mori | mori | mod | "swell" |
|  | $m \bar{\partial} \boldsymbol{d}^{\varepsilon}$ | moori | mori | móót | "grass" pl |

Mooré/Agolle Kusaal $r$ following a short root vowel is either due to gemination or the result of analogy or borrowing: thus Dagbani kpari "lock" corresponds to Kusaal *kpàr $r^{\varepsilon}$ (not *kpàd $d^{\varepsilon}$ ), with $r$ probably from an obsolete single-aspect *kpàr ${ }^{a}$ $\leftarrow * k p a l l a \leftarrow * k p a d l a ~ " b e ~ l o c k e d " ~(c f ~ g u ̀ l \varepsilon ~ " s u s p e n d ", ~ g u ̀ l l a ~ " b e ~ s u s p e n d e d ") ; ~ t h e ~ g e r u n d s ~$
 aspect root-stems; borrowing may underlie the irregular correspondences seen in Mampruli nyarigŋu, Dagbani ŋarig, Toende Kusaal âarò̀ and Agolle àn̆ron ${ }^{\text {P "boat." }}$

Buli has $y$ for *l initially ( $y$ áam "gall"); $r$ for *ll (yérí "house", tara "have" = Kusaal tā $r^{\text {a/ }}$ ); and $i$ or zero otherwise (tūik "baobab", dòk "hut", nóai "mouth.") "Warthog" is dèrì or dùok, with the same stem but different noun classes: the vowel in dèrì is monophthongised, with $r \leftarrow * l l$ (stem-final + flexion-initial ${ }^{*}$ ).

In Moba *l appears as I: ńlé "two", lōōń "close", dōōlg̀ "pig", tōōlg̀ "baobab." Yàm "gall" may reflect confusion between two originally distinct Oti-Volta words "gall" and "sense." Gulimancéma has zero for *l before consonants.

The Eastern Oti-Volta languages differ among themselves in the reflexes of */: e.g. Byali dyā "two", tēēbū "baobab", dīgə̄̄ "warthog", nūī "mouth", but Waama y "two", tōōríbū "baobab", dōríbū "warthog", nכ́rē "mouth."

Before the noun class plural suffix $-a^{+}$, stems ending in a root vowel insert $-y-$, with shortening of long vowels; shortening of iə ue produces ie ue [iri] [uri], found solely in this context. Historically, this may represent analogical introduction of the *l of the sg suffix before $\mathrm{pl}-\mathrm{a}^{+}$; cf the regular Nawdm pattern nóór "mouth" pl nóórá.

| $g a ̄ n r^{\varepsilon /}$ | "ebony fruit" | pl gãn̆yá+ (short sg vowel from pl) |
| :---: | :---: | :---: |
| bàlàar ${ }^{\text {¢ }}$ | "stick, club" | pl bàlàya+ |
| kòk $\mathrm{r}^{\text {r }}$ | "voice" | pl kùkう̄yá+ (*CVy- root) |
| nכ̄วr ${ }^{\text {¢/ }}$ | "mouth" | pl nכ̄yá ${ }^{+}$ |
| zūor | "tail" | pl zōya+ |
| bīər ${ }^{\text {¢ }}$ | "elder same-sex sib" | pl biēyá ${ }^{+}$ |
| $z u ̄ ө r^{\varepsilon}$ | "hill" | pl zuēya+ |

Before the stative verb ending *-ya 10.2 unglottalised long vowels are shortened, but glottalised vowels remain long:

|  | tכֹg ${ }^{\text {a }}$ | "bitter" | t̄ea ${ }^{\text {a/ }}$ | "be bitter" (Mooré tóe) |
| :---: | :---: | :---: | :---: | :---: |
| but | sū'vlím ${ }^{\text {m }}$ | gerund of | $s \bar{U}^{\prime} \mathrm{e}^{\mathrm{ya} /}$ | "own" |

The $y$ belongs to the suffix: t̄̄e $e^{\mathrm{a} /}$ is not a *CVy root (cf Nawdm tóógú "amer.")
 "witch" pl sj̄כn̆ba there are no CVt- allomorphs (cf Mooré sãado "smithing", sốodo "witchcraft"), and the roots were perhaps originally *CVñ.

A different rule of attachment of $-a^{+}$is followed after root-stems ending with glottalised long vowels $C V^{\prime} V$, which change to $C V d$ :

| tītā'ar ${ }^{\text {e }}$ | "big" | pl tītāda ${ }^{+}$ |
| :---: | :---: | :---: |
| pòn̆'ว $r^{\varepsilon}$ | "cripple" | pl pòñda+ |
| $y \bar{u}^{\prime} r^{\varepsilon /}$ | "name" | pl yūdá+ |
| $y u ̄ ' ө r^{\varepsilon}$ | "penis" | pl yưāda+ |

Stems in *-ag- *-iag- *-uag- $\underline{5.6}$ may inflect as CVC- stems, or may show analogical forms with - $d$-:

| bà'ar | "idol" | pl bà'a+ or bàda+ *bagrı; Farefare bàgrè |
| :--- | :--- | :--- |
| sía' $a r^{\varepsilon}$ | "forest" | $\mathrm{pl} \mathrm{sià'a+}$ |
| mú'ar | "reservoir, dam" | pl múa'àa+ or mò'ada+ |

In $C V^{\prime} V \sim C V d$ alternations an original root-final consonant appears as $d$ before vowels but is deleted with glottalisation elsewhere. This consonant may simply have been $* d$, with $* V d r \rightarrow V^{\prime} V r$ after short root vowels and a cb based on the sg. Stems
with sg CVd- in the $r^{\varepsilon} \mid a^{+}$noun class could be explained by levelling. Levelling of the pl on the sg would naturally be avoided due to the ambiguity of $C V^{\prime} V^{+}$forms, and many such words are in fact commoner in the pl, e.g. $k p \bar{\varepsilon} n{ }^{\prime} d r^{\varepsilon /}$ "cheek." Deverbal nouns (as in nīf-nכ́dìr "trachoma") are remodelled on finite forms, and adjectives level stems across noun classes. The second component of pư'à-sādır $r^{\varepsilon /}$ "young woman" is "nulliparous", with former ${ }^{\mathrm{a}} \mid b^{\mathrm{a}}$ agreement: cf Mooré pòg-sádà "young woman." Languages without glottalisation treat $r^{\varepsilon} \mid a^{+}$class cognates of $C V^{\prime} V$-stems exactly like CVV- stems (Mooré põya, Kusaal pj̀ňda+ "cripples"), but the rules for originally unglottalised stems before $\mathrm{pl} \mathrm{a}^{+}$also differ among Western Oti-Volta subgroups.

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

| $1{ }^{+}$ | "tie" | $1 \overline{\partial d ı g}{ }^{\text {E/ }}$ | "untie" |
| :---: | :---: | :---: | :---: |
| cf lóe | "tie" (Mooré) | lódgè (or lókè) | "untie" (Mooré) |
| $p \bar{v}^{+}$ | "divide" | pūdıg ${ }^{\varepsilon /}$ | "divide" |
| cf pói | "divide" (Mooré) |  |  |
| bò | "get lost" (Toende) | bj̀dıg ${ }^{\text {e }}$ | "lose, get lost": |
| yāar ${ }^{\text {/ }}$ | "scatter" | yādıg ${ }^{\text {¢/ }}$ | "scatter" |

*CVw roots become glottalised before derivational ${ }^{*} g$ and ${ }^{*}$, probably reflecting another historical consonant cluster change; thus $y \grave{\varepsilon}^{+}$"dress oneself", $y \varepsilon ̀ \varepsilon g^{\varepsilon}$ "undress oneself", dì+ "eat", dìıs ${ }^{\varepsilon}$ feed", but

| kj${ }^{+}$ | "break" intrans | $k{ }^{\prime}{ }^{\prime} \mathrm{g}^{\varepsilon}$ | "break" trans/intrans |
| :---: | :---: | :---: | :---: |
| pj̀ ${ }^{\text {a }}$ | "be few" | $p \grave{\prime} \mathrm{~g}^{\varepsilon}$ | "diminish" |
| $v \overline{v e}^{\text {a/ }}$ | "be alive" | $v$ vi'og $^{\varepsilon /}$ | "make, come alive" |
| cf vopa | "live things" (Farefare) | $v$ v̄'us $^{\varepsilon /}$ | "breathe, rest" |
|  | "broken" | $k{ }^{\text {k }}$ ' $s^{\varepsilon}$ | "break several times" |
| tòn ${ }^{+}$ | "shoot" | tòn'ว $s^{\varepsilon}$ | "hunt" |

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

| $n \bar{j}^{+}$ | "tread" | nōbá+ | "feet" |
| :---: | :---: | :---: | :---: |
| cf nao | "tread" (Mooré) |  |  |
| sכ̄วn̆r ${ }^{\text { }}$ | "liver" | sobri | "liver" (Mampruli) |
| sãoore | "liver" (Mooré) | sabili | "liver" (Dagbani) |

There are few $C V b$ - stems in the $r^{\varepsilon} \mid a^{+}$noun class. Nóbì $r^{\varepsilon}$ "foot" has introduced $-b$ - from the plural (Toende sg $n \bar{\jmath} ' \bar{j} t)$ and tùbur ${ }^{\varepsilon}$ "ear" may have done so; others are deverbal or adjectival: cf the discussion of $C V^{\prime} V \sim C V d$ alternations above.
$C V V \sim C V g$ alternations appear in:

| wiid $^{\text {a }}$ | "draw water" ipfv | wìk | pfv $\left(\leftarrow *_{\text {wiggı }}\right)$ |
| :--- | :--- | :--- | :--- |
| $v \bar{i}^{+}$ | "uproot" | $v \overline{i k}^{\varepsilon /}$ | "uproot" $\left(\leftarrow \leftarrow^{*}\right.$ viggı $)$ |

### 5.3.2 CVVC~CVC

Roots of the form CVVC are confirmed by cases where they alternate with CVC. The alternation appears in derivation:

| tōoma ${ }^{+}$ | "work" noun | tòm ${ }^{\text {m }}$ | "work" verb |
| :---: | :---: | :---: | :---: |
| yع́op | "one" | yīun ${ }^{\text {a/ }}$ | "single" |
| $k a ̄ a l^{\varepsilon /}$ | "count" | kāılı/ | "number" |
| tōológ ${ }^{\text {a }}$ | "hot" | tōla/ | "be hot" |

The short allomorph is invariable before derivational suffixes other than -/ım-"-ness/-hood" and the $-y$ - of stative verbs; thus sáannìm ${ }^{m}$ "strangerhood" $\leftarrow$ *saanlımmo, kpi'əm ${ }^{\text {ma/ "be strong" } \leftarrow * \text { kpi'əmya, but }}$

| màa $\\|^{\varepsilon}$ | "sacrifice" (verb) | mālın ${ }^{\text {a }}$ | "sacrifice" (noun) |
| :---: | :---: | :---: | :---: |
| pìslıg ${ }^{\text {a }}$ | "white" | pèlıg ${ }^{\text {E }}$ | "whiten" |
| $k p i ' o \eta^{3}$ | "strong" | kpغ' $\eta^{\varepsilon}$ | "strengthen" |
| lìə ${ }^{\text { }}$ | "become" | $l$ lèbıg ${ }^{\text {¢ }}$ | "turn over" |
| tūológ ${ }^{\text {a }}$ | "hot" | $t o ̄ l ı g^{\varepsilon /}$ | "heat" |
| yāar ${ }^{\text {¢/ }}$ | "scatter" | yādıg ${ }^{\text {¢/ }}$ | "scatter" |
| dē $\varepsilon \eta^{\text {a }}$ | "first" | dè ${ }^{\varepsilon}$ | "go first" |
| pìəb ${ }^{\text {c }}$ | "blow" (flute) |  | "blow" (wind) |
| yùul ${ }^{\text {® }}$ | "swing" intransitive | yùlıg ${ }^{\text {c }}$ | "swing" transitive |

Alternation appears in flexion in a few nouns:

| zíija ${ }^{\text {a }}$ * $\leftarrow$ Ziímgā $)$ | zīmí ${ }^{+}$ | zīm- | "fish" |
| :---: | :---: | :---: | :---: |
| náaf $\left(\leftarrow\right.$ * ${ }_{\text {āáágfū })}$ | nïigí ${ }^{+}$ | nā'- ( * *nāg-) | "cow" |
| wáaf $(\leftarrow *$ wāágfū $)$ | wïgí ${ }^{+}$ | wā'- ( $\leftarrow *$ wāg-) | "snake" |
| pïim ${ }^{\text {m/ }}$ | pīmá+ |  | "arrow" |
| yòvm ${ }^{\text {me }}$ | yòma ${ }^{+}$ |  | "year" |

### 5.4 Consonant cluster assimilation

The changes described below precede deletion of postvocalic ${ }^{*} g$.
Except between a prefix and a root, adjacent consonants within a word must either assimilate to one of the clusters $k k p p t t y m n n I I m n$ or insert an epenthetic vowel ( $\iota$ by default.) Nasals take up the position of articulation of a following consonant, and then homorganic consonants form clusters; however, alveolars often fail to assimilate due to remodelling by analogy in flexion.

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

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

The unusual change $I d \rightarrow n n$ is carried out with complete regularity. It is found throughout Western Oti-Volta, with e.g. Mooré showing $l d \rightarrow n d$.

The forms in square brackets occur only under certain phonological conditions:
$b m \rightarrow m m \quad$ only occurs after a short root vowel
$m s \rightarrow \tilde{i} s \quad$ never occurs after a short root vowel; elsewhere it is optional.
*ns, and *ms when it assimilates, become $s$ with nasalisation of a preceding root vowel, and lengthening of a preceding short root vowel:

| $t \bar{\varepsilon} \eta^{a}$ | "land" | pl | $t \bar{\varepsilon} \varepsilon n ̆ s^{\varepsilon}$ | $\leftarrow *$ tensı |
| :--- | :--- | :--- | :--- | :--- |
| $k \dot{l} \iota \vdash^{\mathrm{a}}$ | "door" | pl | $k \dot{l} / \iota s^{\varepsilon}$ | $\leftarrow * k \nu / \iota n s \iota$ |

For the pl būtus ${ }^{\varepsilon}$ of būtıクロ "cup" see 2.1.
*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:

| nīfl | "eye" | pl | nīní |
| :--- | :--- | :--- | :--- |
| píın̆f | "genet" | pl | pīıní |

*ss inserts an epenthetic vowel in the plural pūsıs $s^{\varepsilon /}$ of $p u \overline{s i} g^{\text {a/ "tamarind." All }}$ other examples of $g^{\mathrm{a}} \mid s^{\varepsilon}$ plurals ending in -sıs ${ }^{\varepsilon}$ in my materials are for ${ }^{*}$-sınsı, from stems in $* m$. A plural ${ }^{*} p u \overline{s^{\varepsilon /}}$ would have appeared to show no ending in SF; substituting a flexion from a different noun class would be inhibited by the strong association of tree names with the $g^{\text {a }} \mid s^{\varepsilon}$ class and of fruits with $r^{\varepsilon} \mid a^{+}$and $g^{\top} \mid d^{\varepsilon}$.

The word n̆wā $m^{m \varepsilon}$ WK "calabash" has $* m r \rightarrow n n$ for some speakers (n̆wān ${ }^{\mathrm{n} \varepsilon} \mathrm{SB}$ ), and the pl may be remodelled on the sg: n̆wāna+ (Lk 11:39, 1976) n̆wāma+ SB WK; cf also 1976 NT kobkennib = kj̀n̆b-kīmmıb ${ }^{\mathrm{a}} \leftarrow$ *kj̃b-kımdıba "herdsmen."

## Derivation precedes flexion in consonant cluster formation.

Regardless of origin, stem-final $k k p p t t \eta m n n$ never assimilate further; stem-final mm assimilates only with $\mathrm{mmm} \rightarrow m \mathrm{~m}$ in imperatives 10.1. Thus e.g. $k \bar{j} t^{\varepsilon /}$ "slaughter", ipfv kj̄tíd ${ }^{\mathrm{a}}$; dàm ${ }^{\mathrm{m}}$ "shake", ipfv dàmmıd ${ }^{\mathrm{a}} \mathrm{ipfv}$, gerund dàmmvg ${ }^{\text {² }}$ but imperative dàm ${ }^{\text {ma }}$.

However, stem-final // $r(r)$ assimilate the initial of the noun class suffix $-r^{\varepsilon}$ : kùg$\boldsymbol{d} \overline{\boldsymbol{\varepsilon}} \boldsymbol{I} \boldsymbol{\varepsilon}^{/}$"chair for leaning on." This assimilation has led to the sg SF forms of agent nouns from single-aspect verbs in $/ I r(r)$ being reinterpreted as $r^{\varepsilon} \mid a^{+}$class 8.3.1.

Stem-internal $n n$ and $m m$ become single $n$ and $m$ after after epenthetic vowels and long root vowels. Pībınn ${ }^{\text {nع }}$ pl pībına+ "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-12.1.1 is -nd-: zǐndi = zin̆'in ${ }^{\varepsilon}$ "sit down"; vábende = vàbın ${ }^{\varepsilon}$ lie prone"; tàbende "get stuck to" cf Kusaal tàb ${ }^{\varepsilon}$ id. The corresponding Nawdm suffix is $-n t-:$ jehra ipfv = zi' $\mathrm{e}^{\text {ya }}$ "be standing, jehnt pfv = zi'ən ${ }^{\varepsilon}$ "stand up." Geminate $m m$ has become single $m$ in most sources after after epenthetic vowels and long root vowels in single-aspect verbs 12.1.5.1.

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 *nd $\rightarrow n n$ in the ipfv after short root vowels, but nowhere else; this may reflect the origin of derivational $n$ from *nn. Gerunds never show assimilation.

| bùn ${ }^{\text {c }}$ | bùn ${ }^{\text {na }}$ | bùnım ${ }^{\text {a }}$ | "reap" |
| :---: | :---: | :---: | :---: |
| $b u ̄ n ı b^{\text { }}$ |  |  | gerund |
| digı ${ }^{\text {® }}$ | $d i ̀ g ı n ı d^{\text {a }}$ | dìgınım ${ }^{\text {a }}$ | "lie down" |
| dìgınvg ${ }^{\text {a }}$ |  |  | gerund |
| gว่วก | gذ̀'วnıda | gذ̀วnım ${ }^{\text {a }}$ | "extend neck" |

$M$-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:
wòm $^{\mathrm{m}} \quad$ wòm ${ }^{\text {ma }} \quad$ wòm ${ }^{\text {ma }}$ "hear"
but ka nan kpen womid ye $m$ bes li povgin nannanna la.
kà nán kpèn wòmıd yé m̀ béع_lì pūvgo-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:

| tכֹ $\mathrm{m}^{\mathrm{m} /}$ |  | tòom ${ }^{\text {ma }}$ | "depart" |
| :---: | :---: | :---: | :---: |
|  |  |  | gerund |
| kàrım ${ }^{\text {m }}$ | $k a ̀ r ı m ~\left[/ k a ̀ r ı m ı d^{\text {a }}\right.$ | kàrım ${ }^{\text {ma }}$ | "read" |
| kàrum/kàrımug ${ }^{\text { }}$ |  |  | gerund |

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 $n \bar{\varepsilon}^{+/}$:

| M̀ pū kárìmmā. | "I'm not reading." |
| :--- | :--- |
| M kárìm n̄̄. | "I'm reading." |
| Kà bà kárımìd. | "And they were reading." |
| Kà bà kárim. | only "And they read." |

Examples for assimilation versus epenthetic vowel insertion:

| *gg $\rightarrow$ kk | $\begin{gathered} g i ̀ k^{a} \\ \text { cf } k \bar{l} / g^{a} \end{gathered}$ | "dumb" sg <br> "river" sg | gìgis ${ }^{\varepsilon} \mathrm{pl}$ <br> $k \bar{J} / s^{\varepsilon} \mathrm{pl}$ |
| :---: | :---: | :---: | :---: |
| *dd $\rightarrow$ tt | $b \grave{t}{ }^{\text {a }}$ | "plant" ipfv | bòd ${ }^{\varepsilon} \mathrm{pfv}$ |
|  | cf dūgud ${ }^{\text {a/ }}$ | "cook" ipfv | $d \bar{u} g^{\varepsilon} \mathrm{pfv}$ |
| $* b b \rightarrow p p$ | sjp ${ }^{\text {/ }}$ | "writing" ger | s亏̄b ${ }^{\varepsilon} \mathrm{pfv}$ |
|  | cf $k p a ̄ r ı b^{\text { }}$ | "locking" ger | kpàr ${ }^{\varepsilon} \mathrm{pfv}$ |
| $* / d \rightarrow n n$ | $k \grave{n}{ }^{\text {ne }}$ | "bags" pl | kう̀log ${ }^{\text {a }}$ sg |
|  | cf zūөbíd ${ }^{\varepsilon}$ | "hairs" pl | zūөbúg ${ }^{\text {² }} \mathrm{sg}$ |
| *mg $\rightarrow$ g | bù ${ }^{\text {a }}$ | "donkey" sg | bùmıs ${ }^{\text {p }} \mathrm{pl}$ |
| *ng $\rightarrow$ و | gbàun ${ }^{\text {a }}$ | "book" sg | gbàna ${ }^{+} \mathrm{pl}$ |
|  | cf ňwādıga/ | "month" sg | n̆wādıs ${ }^{\varepsilon /} \mathrm{pl}$ |
| * $n r \rightarrow n n$ | $t^{\text {an }}$ nع | "earth" sg | tāna ${ }^{+} \mathrm{pl}$ |



### 5.5 Diphthongisation before *-ya *-gv *-kkv *-gŋט

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 | vūe | LF | vōyá | "be alive" |
| :--- | :--- | :--- | :--- | :--- |
| SF | tj̄e | LF | tōyá | "be bitter" |
| SF | sāen̆ | LF | sān̆ya | "blacksmith" |
| SF | sj̄ĕn̆ | 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[r]:

```
sว̄n̆'eya/ \leftarrow*sõ'ว̃ya "be better than"
sū'eya/ < *su'uya "own" (cf sō'vlímm "property")
```

Short unrounded root vowels become diphthongs in $u$ before LF *و $\quad$ *kku:

| gbàun ${ }^{\text {² }}$ | $\leftarrow * g b a n \eta u$ | "book" | pl gbàna ${ }^{+}$ |
| :---: | :---: | :---: | :---: |
| lāuk ${ }^{\text {d }}$ | $\leftarrow$ *lakku | "goods item" | pl la' $\mathrm{la}^{\text {¢ }}$ |
| yiun ${ }^{\text {a/ }}$ | $\leftarrow * y ı \square \cup$ | "single" | pl yīná ${ }^{+}$ |

Tense $i$ does not diphthongise in the only case in my materials: nin- $g b i \eta^{3 /}$ "body" pl nìn-gbīná+; this may be due to the analogy of the alternative sg nìn-gbīn.

Short ía becomes íau, but short una becomes $\boldsymbol{\sim}$ : *uakkv $\rightarrow$ okkv

| bíāunňk | $\leftarrow$ *biãkku | "shoulder" | pl biān̄'ad |
| :--- | :--- | :--- | :--- |
| bj̀k | $\leftarrow$ bưakkv | "pit" | pl bù'ad |

Unrounded second morae of long vowels become [ $\mho$ ] before LF *gv * $\operatorname{*g}$ :

| dàug ${ }^{\text { }}$ | $\leftarrow *$ daagu | "log" | pl dàad ${ }^{\text {¢ }}$ |
| :---: | :---: | :---: | :---: |
| fĒn̆'og ${ }^{\prime}$ | $\leftarrow * f \tilde{\varepsilon} ' \underline{\varepsilon} g$ ט | "ulcer" |  |

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

|  | vīug ${ }^{\text {/ }}$ | $\leftarrow *$ viigo | "owl" | pl vīid ${ }^{\text {¢/ }}$ |
| :---: | :---: | :---: | :---: | :---: |
| but | dàbiog ${ }^{\text { }}$ | $\leftarrow *$ dabizgu | "coward" | pl dàbīəd ${ }^{\text {¢ }}$ |
|  | kpi'on ${ }^{\text {a }}$ | $\leftarrow *$ kpi'əŋŋט | "strong" | pl kpiəəma+ |

No parallel case with uu/uv occurs, because of the rule *uegv $\rightarrow \boldsymbol{\jmath} \boldsymbol{\jmath g} \boldsymbol{v}$ :

```
Sà'dàbj̀כg}\mp@subsup{}{}{\top}\leftarrow*Sa'dabuөgv "place of the Sarabose Sà'dàbùөs  clan"
lām-f\hat{Og}\mp@subsup{}{}{\circ}\leftarrow*lam-fuөgv "toothless" (lām}\mp@subsup{}{}{m\varepsilon/ "gum", fùe+ "extract")
```

Pl vowels are remodelled on the sg: lām-f今̂วd ${ }^{\varepsilon}$ "toothless." The only stem in final $u \theta$ in the $g^{\supset} \mid d^{\varepsilon}$ class is the formally-plural zùө $d^{\varepsilon}$ "friendship", where there is no sg
 (? tones) "bald", and there is stem alternation before $g^{\text {a }} \mid s^{\varepsilon}$ and $g^{\top} \mid d^{\varepsilon}$ suffixes in
bi'a+
$b \bar{\varepsilon}{ }^{\prime} o g{ }^{\text {a }}$
bi'əs ${ }^{\varepsilon}$
bià'-
"bad"
$b \bar{\varepsilon}^{\prime} \varepsilon d^{\varepsilon}$
bè'-
$B i ' \partial m^{m}$ "enemy" shows the same root with derivational ${ }^{*} m$. The alternation suggests a rule *iagu $\rightarrow \boldsymbol{\varepsilon v g} \boldsymbol{v}$, parallel to *uөgv $\rightarrow$ כวgv, with the pl vowels again remodelled on the sg. The broken vowel of dàbiog ${ }^{\text { }}$ "coward" is perhaps carried over from an obsolete *dàbīəm ${ }^{\mathrm{m}}$ "coward" (= Mooré ràbéعmà.)

The epenthetic vowel $\iota$ is rounded to $u$ before LF *-gv *-מט:

|  | āañdıg ${ }^{\text {a }}$ | $\leftarrow$ *ããdıga | "black plum tree" |
| :---: | :---: | :---: | :---: |
| but | gàadug ${ }^{\text {a }}$ | $\leftarrow *$ gaadıgu | "(sur)passing" (gerund) |
| pl | mālıma ${ }^{+}$ | $\leftarrow *$ malımaa | "sacrifices" |
| but | mālun | $\leftarrow *$ malınŋט | "sacrifice" |

### 5.6 Deletion of $\boldsymbol{*}_{\boldsymbol{g}}$ with 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 añ ían̆ uan̆ before any vowel, affix or epenthetic, with fusion resulting in glottalised long vowels and diphthongs:

| *agV | $\rightarrow$ a'a | *an̆gV | $\rightarrow$ an̆'a |
| :--- | :--- | :--- | :--- |
| *iagV | $\rightarrow$ ia'a | *ian̆gV | $\rightarrow$ ian̆'a |
| *uagV | $\rightarrow$ v'a (word-final u'aa) | *unan̆gV | $\rightarrow$ vn̆'a (word-final un̆''aa) |

ia'a v'a ían̆'a טn̆'a contrast with i'a u'a in̆'a un̆'a, except when shortened by apocope. There is no phonetic difference between a'a an̆'a arising from ${ }^{*} g$-deletion and underlying glottalised $a^{\prime} a$ an̆'a, as in dà'a= "market", pl dà'as $s^{\varepsilon}\left(g^{\text {a }} \mid s^{\varepsilon}\right.$ class.)

This rule applies later than the assimilation $* g g \rightarrow k k \underline{5.4}$; thus

|  | pināñ'a | "speak" pfv | pinān'ad ${ }^{\text {a/ }}$ | ipfv |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | pu'āa | "woman" | $p \bar{u}^{\prime} a b^{\text {a }}$ | pl | ( ${ }^{\text {a }} b^{\text {a }}$ class) |
| but | zàk ${ }^{\text {a }}$ | "compound" | zà'as ${ }^{\text { }}$ | pl | ( $g^{\text {a }} \mid s^{\varepsilon}$ class) |
|  | lāuk ${ }^{\text {ºn }}$ | "item of goods" | $1 \overline{l a}^{\prime} a d^{\text {¢ }}$ | pl | ( $g \mid d^{\varepsilon}$ class) |
|  | piàuňk ${ }^{\text {J }}$ | "word" | pinàn'ad ${ }^{\text {c }}$ | pl | ( $g \mid d^{\varepsilon}$ class) |
|  | puāk ${ }^{\text {a }}$ | "female" (adj) | $p \bar{u}^{\prime} a s^{\varepsilon}$ | pl | ( $g^{\text {a }} \mathrm{s}^{\varepsilon}$ class) |
|  | $b j{ }^{\text { }}$ | "pit" | $b o{ }^{\prime}{ }^{\text {d }}$ | pl | ( $g \mid d^{\varepsilon}$ class) |

Exceptional is kā'e ${ }^{+}$"not be" $\leftarrow *$ kagı.

* $\boldsymbol{g}$ is deleted after aa io ue and their glottalised counterparts (but not after aט כ כ כ o o o osulting from rounding before *gט.) When an affix vowel follows the *g, fusion creates overlong diphthongs (similarly with the glottalised vowels):

| *aaga | $\rightarrow$ aa 7.1 | *aagı | $\rightarrow$ aee |
| :--- | :--- | :--- | :--- |
| *iəga | $\rightarrow$ iaa | *iəgı | $\rightarrow$ iee |
| *uөga | $\rightarrow$ uaa | *uegı | $\rightarrow$ uee |

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

| but | būug ${ }^{\text {a }}$ |  | "goat" | pl būus ${ }^{\text {® }}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | bāa= | $\leftarrow$ *baaga | "dog" | pl bāas ${ }^{\text {¢ }}$ |
|  | sia ${ }^{+}$ | $\leftarrow *$ sizga | "waist" | pl Sīəs ${ }^{\text {¢ }}$ |
|  | sàbùa+ | $\leftarrow *$ sabuega | "lover" | pl sàbùes ${ }^{\text {® }}$ |

The diphthongs aee iee uee appear in dual-aspect "fusion" verbs $\underline{10.1}$ with stems in *Caag *Ciəg *Cuөg and their glottalised counterparts:

| pāe ${ }^{+/}$ | $\leftarrow$ *paagı | "reach" |
| :--- | :--- | :--- |
| kpi' $e^{+}$ | $\leftarrow$ *kpi'əgı | "approach" cf $k p i ' \partial s^{\varepsilon}$ "neighbours" |
| dūe $e^{+/}$ | $\leftarrow$ *duөgı | "raise, rise" |

Original open nasalised * $\tilde{\varepsilon} \tilde{\varepsilon}$ *ว̃̃̃ only undergo vowel breaking 3.2 before ${ }^{*} g$, elsewhere falling together with the reflexes of former close *ẽẽ *õõ as $\varepsilon \varepsilon n ̆ ~ כ ว n ̆: ~$ breaking occurs in all contexts where ${ }^{g} g$ would suffer deletion and nowhere else. Alternations arise in nouns and adjectives in the $g^{\mathrm{a}} \mid s^{\varepsilon}$ class between SF-final ian̆ uan̆ and word-internal $\varepsilon \varepsilon n ̆ ~ כ כ n ̆ ~ b e f o r e ~ a ~ c o n s o n a n t, ~ a n d ~ i n ~ d e r i v a t i o n ~ b e t w e e n ~$ fusion verb forms from *-gı, ending in SF ien̆ uen̆, and cognate forms with $\varepsilon \varepsilon n ̆ ~ כ כ n ̆: ~$

| ziň'a+ | "red" $g^{\text {a }} \mid s^{\varepsilon}$ class sg | zèn̆' $\varepsilon s^{\varepsilon}$ | "red" $g^{\text {a }} \mid s^{\varepsilon}$ class pl |
| :---: | :---: | :---: | :---: |
|  |  | zèn̆'og ${ }^{\text { }}$ | "red" $g^{\supset} d^{\varepsilon}$ class sg $\underline{5.5}$ |
| dùañ ${ }^{+}$ | "dawadawa" sg | dう̀эn̆s ${ }^{\text {e }}$ | "dawadawa" pl |
| Mùa+ | "Mossi person" | Mj̀ ${ }^{\text {c }}$ | "Mossi people" |
|  |  | Mj̀ $\mathrm{g}^{\text {د }}$ | "Mossi country" |
| nie ${ }^{+}$ | "appear" | nèz $\left.\right\|^{\text {® }}$ | "reveal" |
| n̆yū'e ${ }^{+/}$ | "set alight" | n̆yכ̄'วs ${ }^{\text {¢/ }}$ | "smoke" (noun) |
| sūeñ ${ }^{+/}$ | "anoint" | sכ̄n̆ ${ }^{+}$ | "rub" |
| sūn̆'e+/ | "become better" WK | sōn̆'e ${ }^{\text {ya/ }}$ | "be better than" ( $\leftarrow$ *sõ'ว̃ya) |

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 6.2.1.

$$
\begin{array}{lll}
\text { náaf } & \leftarrow \text { *naagfu } & \text { "cow" pl nïigí+ cb nā'- } \\
\text { dí'ər } & \leftarrow \text { *di'əgrı } & \text { "receiving" }\left(d i ̄ e^{+/} \text {"receive" } \leftarrow * d i ̄ ə g i ́\right)
\end{array}
$$

However, broken iən̆ иөn̆ appear instead of $\varepsilon \varepsilon n ̆ ~ כ ว n ̆: ~$

| $n غ \grave{\varepsilon} r^{\varepsilon}$ |  |  | "empty" ( $\leftarrow$ "clear") |
| :---: | :---: | :---: | :---: |
| but | nìar ${ }^{\text {c }}$ | $\leftarrow * n i ̃ a ̃ g r ı$ | gerund of nie ${ }^{+}$"appear" |
|  |  |  | "cause to rot" |
| but | $p u ́ n{ }^{\prime} ө r^{\varepsilon}$ | $\leftarrow$ *pũ'ẽgrı | gerund of pūn̆'e+/ "rot" |

Tones show that the imperfective of fusion verbs has no underlying *g, and
 texts, and all my informants, consistently introduce iən̆ иөn̆ into imperfectives and imperatives by analogy: pun'od pūn̆'өd ${ }^{\mathrm{a} /}$.

## 6 Word tonal structure

### 6.1 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 (H, 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: $\quad$ all-M in irrealis | all- L in other moods |

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 6.2.1.

Superlight syllables $\underline{2.1}$ 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 kūgurह́ SF kūgor (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 $\operatorname{sg}$ and cb 6.2.3.

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.

### 6.2 Nominals

For prefixes see 6.2.4. They are ignored in counting stem syllables below.
Examples will be given as sg, pl, cb 8.1. Cbs are always affected by apocope.
Quantifiers and adverbs have the same segmental and tonal structure as nouns and adjectives, though often with the addition of apocope-blocking 5.1.

### 6.2.1 Pattern H

Disregarding prefixes, Pattern 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.

| $v \bar{u}^{\varepsilon /}$ | vōyá+ |
| :---: | :---: |
| yīr ${ }^{\text {r/ }}$ | $y \overline{a b}^{+/}$ |
| füug ${ }^{\text {/ }}$ | fūud ${ }^{\text {/ }}$ |
| $d \bar{u} k^{3 /}$ | dūgud ${ }^{\varepsilon /}$ |
| nīd ${ }^{\text {a/ }}$ | nīdıba' |
| kügur ${ }^{\text {/ }}$ | kūgá ${ }^{+}$ |
| $g \mathrm{j}^{\text {a/ }}$ | gōtíb ${ }^{\text {/ }} \mathrm{tt} /$ |
| sābılíg ${ }^{\text {a }}$ | sābllís ${ }^{\text {e }}$ |
| sābíll | sābılá ${ }^{+}$ |
| yōgúm ${ }^{\text {me }}$ | yōgumá+ |
| dīə $\mathrm{s}^{\mathrm{a} /}$ | dỉəsídìb ${ }^{\text {a }}$ |
| sūguríd ${ }^{\text {a }}$ | sūgurídìb ${ }^{\text {a }}$ |
| kō'alína | kū'alís ${ }^{\text {e }}$ |
|  |  |
| sāan ${ }^{\text {a/ }}$ | sáam ${ }^{\text {ma }}$ |
| sáannìm ${ }^{\text {m }}$ |  |


| $v \bar{r} r-$ | "alive" |
| :--- | :--- |
| $y \bar{i}-$ | "house" |
| fū- | "shirt, clothes" |
| $d \bar{u} g-$ | "cooking pot" |
| nīn- | "person" |
| kūg- | "stone" |
| gōt- | "seer, prophet" |
| sābıl- | "black" |
|  |  |
| yōgum- | "camel" |
| dī'əs- | "receiver" |
| sūguríd- | "forgiver, forbearer" |
| kū'alín- | traditional smock |
| sū'өラ- | "rabbit" |
| sāan- | "stranger, guest" |
|  | "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:

| nūa+/ | SF nūa | LF nūáa | "hen" |
| :--- | :--- | :--- | :--- |
| $v o \bar{m} \mathrm{~m}^{\mathrm{m} /}$ | SF vōm | LF vómm | "life" |
| dāam $\mathrm{m} /$ | SF dāam | LF dáamm | "millet beer" |

Two subtypes of Pattern H show the H toneme shifted to the left of its expected position because an underlying segment has been lost.

H may appear on a superlight syllable if it is preceded by $r$ derived from *rr:

```
n̆yīríf
```

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 $\underline{5.4}$ or by deletion of ${ }^{*} \underline{\underline{5.6}}$. The first syllable still behaves as superheavy and carries H :

| niís ${ }^{\text { }}$ | $\leftarrow *$ niinsı | (beside nïmís ${ }^{\varepsilon}$ ) | "birds" (sg niip ${ }^{\text {a } / \mathrm{y}} \mathrm{/} /$ ) |
| :---: | :---: | :---: | :---: |
| píın̆f | $\leftarrow$ *punfo | (pl pīıní ${ }^{+}$) | "genet" |
| wáaf | $\leftarrow *$ waagfu | (pl wïgí ${ }^{+}$) | "snake" |
| yáab ${ }^{\text {a }}$ | $\leftarrow * y a a g b a$ |  | "grandparent" |
| vúөr ${ }^{\text {c }}$ | $\leftarrow *$ vuegrı |  | "fruit of red kapok" |
| náar ${ }^{\text {e }}$ | $\leftarrow *$ naagrı | gerund of nāe ${ }^{+/}$ | "finishing" |
| díə $\mathrm{r}^{\varepsilon}$ | $\leftarrow * d i ' \partial g r ı$ | gerund of $d \bar{i} e^{+/}$ | "getting" |
| $p u ́ n{ }^{\prime} ө r^{\varepsilon}$ | $\leftarrow * p$ ว̃'ว̃grı | gerund of pūn̆' $\mathrm{e}^{+/}$ | "rotting" |

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

| nû'ug ${ }^{\text { }}$ | nû'us ${ }^{\text { }}$ | $n \bar{u}^{\prime}-$ | "hand, arm" |
| :---: | :---: | :---: | :---: |
| à-gâvn̆g ${ }^{\text {a }}$ | à-gâaň ${ }^{\varepsilon}$ | à-gān̆- | "pied crow" |
| gbêzn̆m ${ }^{\text {m }}$ | no pl | gbēn̆- | "sleep" |
| nóbì ${ }^{\text {E }}$ | nว̄bá ${ }^{+}$ | nว̄b- | "foot, leg" |
| ǵślı | gēlá ${ }^{+}$ | $g \bar{\varepsilon} /-$ | "egg" |
| Kísùg ${ }^{\text {a }}$ | kīsá ${ }^{+}$ | kīs- | "hateful, taboo" (adj) |
| áňsìb ${ }^{\text {a }}$ | ān̆s-nám ${ }^{\text {a }}$ | ān̆s- | "mother's brother" |

So too the gerunds sún̆sìga "talking", gósìga "looking", kìkírùg ${ }^{\text {º }}$ "hurrying."
The superheavy X syllables only occur in the SFs: corresponding LFs have open initial syllables with H: LF nú'ug̀̀ "hand", tonally identical to the LF wáafj "snake."

Some of these words have probably lost a segment: $s r$ can represent older ss $r r$, and cf Mooré gãoobgó "pied crow." Nû'ug ${ }^{\text {P }}$ hand" has added further class suffixes to old $\left.{ }\right|^{\varepsilon}$ class forms: Nawdm núfú pl níhí, Gulimancéma nùu pl nii. Nóbìr ${ }^{\varepsilon}$ "leg" is remodelled segmentally on the basis of the plural: cf Toende sg nj̄’̄t pl nכba.

## 6．2．2 Pattern L

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

| sù＇ug ${ }^{\text {a }}$ | sù＇us ${ }^{\text {® }}$ | sù＇－ | ＂knife＂ |
| :---: | :---: | :---: | :---: |
| zàk ${ }^{\text {a }}$ | zà＇as ${ }^{\text { }}$ | zà＇－ | ＂dwelling－compound＂ |
| mうlıf | mうl ${ }^{+}$ | mうl－ | ＂gazelle＂ |
| pùgudıb ${ }^{\text {a }}$ | pùgud－nàm ${ }^{\text {a }}$ | pùgud－ | ＂father＇s sister＂ |
| sàala ${ }^{\text {a }}$ | sàalıb ${ }^{\text {a }}$ | sàal－ | ＂human＂ |
| nj̀ıı ${ }^{\text {a }}$ |  |  | ＂lover＂ |
| bう̀odım ${ }^{\mathrm{m}}$ | no pl |  | ＂will＂ |
| ż̀tım ${ }^{\text {m }}$ | no pl |  | ＂fear＂ |
| dàalım ${ }^{\text {m }}$ | no pl |  | ＂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＂ |
| :---: | :---: | :---: | :---: | :---: |
|  | $m$ men ${ }^{\text {a }}$ | $m$ memıs ${ }^{\text {e }}$ | mèzワ－ | ＂turtle＂ |
|  | àn̆ron ${ }^{\text {a }}$ | àn̆rıma ${ }^{+}$ | àn̆ron－ | ＂boat＂ |
|  | kàrun ${ }^{\text {／kàrımug }}$ |  |  | ＂reading＂（gerund） |
|  | yàlun | yàlıma＋ | yàlon－ | ＂wide＂ |
|  | zìlım ${ }^{\text {me }}$ | zìlıma＋ | zilım－ | ＂tongue＂ |
| But | siilín ${ }^{\text {a }}$ | siilímıs ${ }^{\varepsilon}$ | siilín－ | ＂proverb＂ |
|  |  | siilís ${ }^{\varepsilon}$ |  |  |
|  |  | siilímà ${ }^{+}$ |  |  |
|  | zàan̆súp | zàaňsímà＋ | zàan̆sún－ | ＂dream＂ |
|  | nכ̀nılím ${ }^{\text {m }}$ |  | nว̀nılím－ | ＂love＂ |
|  | sòmıdím－tāa＝ |  |  | ＂co－helper＂12．2．1．4 |
|  | dàalím ${ }^{\text {m }}$ | dàalímis ${ }^{\text {® }}$ | dàalím－ | ＂male sex organs＂ |
|  | bi＇isím ${ }^{\text {m }}$ |  |  | ＂milk＂ |

Tonally exceptional，with H after a light root syllable，is
bùgóm ${ }^{m}$ no pl bùgóm－or bùgōm－＂fire＂

Tàdımís ${ }^{\varepsilon}$＂weakness＂，bùdımís ${ }^{\varepsilon}$＂confusion＂may derive from＊－mımsı．

### 6.2.3 Pattern A

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

| $b u ̄ g^{\text {a }}$ | $b u ̄ s^{\varepsilon}$ | $b$ bì | "goat" |
| :---: | :---: | :---: | :---: |
| tān ${ }^{\text {ne }}$ | tāna ${ }^{+}$ | tàn- | "earth" |
| $s i d^{\text {a }}$ | $s i ̄ d ı b^{\text {a }}$ | sìd- | "husband" |
| $p u ' \overline{c o}^{\text {a }}$ | $p \bar{u}^{\prime} a b^{\text {a }}$ | pu'à- | "woman, wife" |
| $s a \overline{ }{ }^{\prime} b^{\text { }}$ | no pl | sà'- | "millet porridge" |
| $g b i ̄ g ı m^{\text {ne }}$ | gbīgıma+ | gbìgım- | "lion" |
| n̆wāan ${ }^{\text {a }}$ | n̆wāamıs ${ }^{\text {¢ }}$ | n̆wàaŋ- | "monkey" |
| $m \bar{\varepsilon} \varepsilon d^{\text {a }}$ | $m \bar{\varepsilon} \varepsilon d ı b^{\text {a }}$ | mèzd- | "builder" |
| siākıd ${ }^{\text {a }}$ | sīākıdı ${ }^{\text {a }}$ | siàkıd- | "believer" |
| būtın ${ }^{\text {a }}$ | $b \bar{t} t u s^{\varepsilon}$ | bùtın- | "cup" |
| $m \bar{\varepsilon} \varepsilon d ı \eta^{\text {a }}$ | $m \bar{\varepsilon} \varepsilon d \stackrel{s^{\varepsilon}}{ }$ | mèzdıワ- | "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) 6.5:

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

Pattern A all-M LFs become all-L before the interrogative clitics 7.4.1. Certain Pattern A words show LF-final H instead of the expected $M$ toneme before the negative prosodic clitic, but not before liaison words. For WK this occurs when the LF has more than two syllables and does not end in a long vowel or -a, and also with disyllabic LFs ending in -mmV or -mm:

| yūgodıré | yūgoda+ | yùgod- | "hedgehog" |
| :---: | :---: | :---: | :---: |
| n̆wāan ${ }^{\text {a }}$ | n̆wāamıs ${ }^{\text {/ }}$ | n̆wàan- | "monkey" |
| $b a ̄ p ı d^{\text {a }}$ | bāpıdıba' | bàmıd- | "wise man" |
| $k p a ̄ r ı d ı \eta^{\text {a }}$ | $k p a ̄ r ı d s^{\varepsilon /}$ | kpàrıdın- | "thing for locking" |
|  | gbīgıma+ | gbigım- | "lion" |
| zうכm ${ }^{\text {m/ }}$ | zכ̄ma+ | zว̀m- | "fugitive" |
| tādım ${ }^{\mathrm{m} /}$ | tādımıs ${ }^{\text {¢ }}$ | tàdım- | "weak person" |

Some speakers allow this H optionally before the interrogative prosodic clitics:
Lì à nc̄ gbīgımmé $\varepsilon$ ?
"Is it a lion?" WK only; rejected by DK
Lì à nē gbígìmmé? "Is it a lion?" both WK and DK

### 6.2.4 Prefixes

Noun prefixes $\underline{13}$ are tonally L or M. L noun prefixes do not affect the rest of the tone pattern; M prefixes only affect cbs, which always have $H / X$ after the prefix:

| H | dàyūug ${ }^{\text {/ }}$ | dàyūud ${ }^{\text {/ }}$ | dàyū- | "rat" |
| :---: | :---: | :---: | :---: | :---: |
| H | Bùsána | Bùsâan̆s ${ }^{\text { }}$ | Bùsāŋ- | "Bisa person" |
| L | kùkpàrıg ${ }^{\text {a }}$ | kùkpàrss ${ }^{\text { }}$ | kùkpàr- | "palm tree" |
| A | dàkiig ${ }^{\text {a }}$ | dàkiis ${ }^{\text { }}$ | dàkì- | "sib-in-law via wife" |
| H | zīnzāunŋ | zīnzāná+ | zīnzáun- | "bat" |
| H | Ňwāmpūrıg ${ }^{\text {a/ }}$ | Ňwāmpūrıs ${ }^{\text {/ }}$ | Ňwāmpúr- | "Mamprussi person" |
| H | gūmpūz̄̄r $\mathrm{r}^{\varepsilon /}$ | gūmpūz̄̄yá+ | gōmpūzér- | "duck" |
| H | pīpīrıga/ | pipiorıs ${ }^{\text {/ }}$ | pipír- | "desert" |
| H | tīntōñríg ${ }^{\text {a }}$ | tīntōn̆rís ${ }^{\text { }}$ | tīntóñr- | "mole" ( $r \leftarrow * r r$ ) |
| L | sāmán ${ }^{\text {nع }}$ | sāmánà ${ }^{\text {a }}$ | sāmán- | "courtyard" |
| A | fūfōm ${ }^{\text {m }}$ | fūfōma+ | fūfúm- | "envy; stye in the eye" |

Cbs from CV-stems sometimes behave tonally like prefixes:

| H | $p u ̄ k p a ̄ a d^{\text {a/ }}$ | pūkpāadíb ${ }^{\text {a }}$ | pūkpá- | "farmer" 13.1.4 |
| :---: | :---: | :---: | :---: | :---: |
| A | $z u ̄ g-k u ̄ g r^{\varepsilon /}$ | $z u ̄ g-k u ̄ g a^{+}$ | zūg-kúg- | "pillow" 8.2 |
| A | $k a ̄-w \bar{n} n n ı r^{\varepsilon /}$ | kā-wह̄nna ${ }^{+}$ | kā-wદ́n- | "corn" |

### 6.3 Verbs

Verbs show just two Tone Patterns, H and A. Patterns L and A have fallen together, probably through the regular falling together of the patterns in most perfectives (which resemble nominal cbs tonally) and by the development of imperfectives from derived stems 6.5. On top of this there has been extensive tonal levelling, extending also to the great majority of gerunds.

Dual-aspect verbs have three finite forms 10.1 but the $-m^{\text {a }}$ imperative is found only with tone overlay 19.6.1.1. Perfective and imperfective will be cited below, in that order. Single-aspect verbs have just one finite form, which is imperfective.

### 6.3.1 Pattern H

As in nominals, Pattern H 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 in accordance with the usual rule. However, they show final H before liaison-word pronouns:

Ò $p \bar{u} d \bar{g} g \varepsilon$.
Ò pō dúgèz?
Kà ò dūgí It
"She didn't cook."
"Didn't she cook?"
"And she cooked it."

Examples for Pattern H:

| ňy $\bar{\varepsilon}^{+}$ | n̆yz̄t ${ }^{\text {a/ }}$ | "see" |
| :---: | :---: | :---: |
| $k \overline{0}^{+}$ | kūud ${ }^{\text {/ }}$ | "kill" |
| $d \bar{u} g^{\varepsilon}$ | dūgud ${ }^{\text {a/ }}$ | "cook" |
| kū ${ }^{\text {® }}$ | kūnna/ | "go home" |
| yādıg ${ }^{\varepsilon /}$ | $y a ̄ d ı g i ́ d{ }^{\text {a }}$ | "scatter" |
| m亏̄ग ${ }^{\text {¢/ }}$ | móon ${ }^{\text {na }}$ | "proclaim" |
| dīgıl ${ }^{\text {¢/ }}$ | dīgín ${ }^{\text {na }}$ | "lay down" |
| $n \overline{k^{\varepsilon / ~}}$ /kk/ | nכ̄kíd ${ }^{\text {a }}$ /kk/ | "take" |
| Iāním ${ }^{\mathrm{m}} / \mathrm{yy}$ / | lāním ${ }^{\text {ma /yy/ }}$ | "wander searching" |
|  | $v$ vee ${ }^{\text {a/ }}$ | "be alive" |
|  | dīgıya/ | "be lying down" |
|  | tijya/ | "be leaning" (objects) |
|  | zān̆la/ | "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:

| t̄̄כm |  |  |  |
| :--- | :--- | :--- | :--- |
| m/ | SF tラ̄כm | LF tóวmm | "disappear" |
| pāe + | SF pāe | LF pāée | "reach" |

For the tonemes of stative verbs like $k p \not{ }^{\prime} \quad m^{m a /}$ "be strong" see 12.1.5.1. Fusion verbs show no sign of ${ }^{\prime} g$ in the imperfective tonally, or in agent nouns:

| $p a \bar{e}+1$ | $p a ̄ a d^{\text {a/ }}$ | "reach" |
| :---: | :---: | :---: |
| di'e ${ }^{+/}$ | $d i ' \partial d^{\text {a/ }}$ | "get" |
| pūn̆' ${ }^{+/}$ | pūn̆'өd ${ }^{\text {a/ }}$ | "rot" WK |

Contrast the corresponding gerunds: páar $r^{\varepsilon} i^{\prime} \partial r^{\varepsilon} p u ́ n{ }^{\prime} ' ө r^{\varepsilon}$.

### 6.3.2 Pattern A

All stem tonemes are $L$ in the indicative and imperative, and $M$ in the irrealis.

| $b u ̀ d^{\varepsilon}$ | bùt ${ }^{\text {a }}$ | "plant" |
| :---: | :---: | :---: |
| $d i^{+}$ | $d i t{ }^{\text {a }}$ | "eat" |
| $m \dot{\varepsilon}^{+}$ | $m e ̀ z d^{\text {a }}$ | "build" |
| zà ${ }^{\varepsilon}$ | $z a ̀ b ı d^{\text {a }}$ | "fight, hurt" |
| bùel ${ }^{\text {¢ }}$ | bùon ${ }^{\text {na }}$ | "call" |
| bj̀dıg ${ }^{\text { }}$ | bj̀dıgıd ${ }^{\text {a }}$ | "get lost, lose" |
| $n i \eta^{\varepsilon}$ | nìı $\mathrm{d}^{\text {a }}$ | "do" |
| màal ${ }^{\text {¢ }}$ | $m a ̀ a n{ }^{\text {na }}$ | "sacrifice" |
| $d i ̀ g ı n^{\varepsilon}$ | dìgınıd ${ }^{\text {a }}$ | "lie down" |
| wàhım ${ }^{\text {m }}$ | wànım ${ }^{\text {ma }}$ | "waste away" |
| siilım ${ }^{\text {m }}$ | siilım ${ }^{\text {ma }}$ | "cite proverbs" |
| zàan̆sım ${ }^{\text {m }}$ | zàan̆sım ${ }^{\text {ma }}$ | "dream" |
|  | tàbıya | "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 bj̄dıg.
Ò nà v $\bar{n}$.
Ò kù zābe.
Ò kù bう̄dıge.
Ò nà bj̀dıgeع?
Ò kù bj̄dıgıda.
Ò kù būөnna.
Ò nà bj̄dıgı m.
Ò kù bj̄dıgı má.
Ò kù bj̄dıgıdı má.
Ò kù zābıdı-né.
O kù sīilımm.
Ò nà zāb nâ'ab lā.
"He'll get lost."
"She'll be beautiful."
"She won't fight."
"He won't get lost."
"Will she get lost?" 7.1
"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."

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

> Ò kù zāb•óo..
> or Ò kù zāb•o-o.
"He won't fight him."
"He won't fight him."

### 6.4 Particles

Particles with the segmental structure of nouns have similar tonal structures. For the tonemes of bound liaison words see 7.4.2. Left-bound particles with SF CV which are not liaison words carry M or L; M changes to H in the LF CVV. Tonally unique is independent-perfective $y \bar{a}^{+}$19.6.2.1, which remains $M$ before the negative prosodic clitic and becomes L before the interrogative clitics 7.1:

## Lì bj̀dıg n $\bar{\varepsilon}$. <br> Lì bj̀dıg néع? <br> but Lì bj̀dıg yā. <br> Lì bj̀dıg yàa?

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

### 6.5 Tone in 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 12.1.1. Gīŋllím ${ }^{m}$ "shortness", from the Pattern A adjective gīna "short", possibly represents a five-mora-stem Pattern A toneme allocation (but cf gïin̆lím ${ }^{m}$ id.)

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

| áňsìba | "maternal uncle" | ān̆sín $\eta^{a}$ | "sister's child" |
| :--- | :--- | :--- | :--- |
| Kísùg | "hateful" | $k^{\text {īs }}$ |  |
| gósìg | "hate" |  |  |

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:

| bïiga $^{\text {a }}$ | "child" | bìilím |  |
| :--- | :--- | :--- | :--- | :--- |
| nà'ab | "childhood" | $(--)$ |  |
| nā'am | "chief" | "chiefship" | $(-m-)$ |

When added to $L$ or A roots the derivational suffixes $b g / s$ 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 5.4.

All segmentally 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 |


| $d \bar{u} g^{\varepsilon}$ | "cook" | $\rightarrow$ | dūgub ${ }^{\text {/ }}$ |
| :---: | :---: | :---: | :---: |
| $n \overline{k^{\varepsilon /}}$ | "take" | $\rightarrow$ | nכ̄kír ${ }^{\text { }}$ |
| $d i ̄ g ı^{\varepsilon /}$ | "lay down" | $\rightarrow$ | dīgulúg ${ }^{\text {a }}$ |
| $m \grave{\varepsilon}^{+}$ | "build" | $\rightarrow$ | $m \bar{\varepsilon} \varepsilon b^{\text {J }}$ |
| sùn ${ }^{\text {c }}$ | "help" | $\rightarrow$ | sùpır ${ }^{\text {c }}$ |
| digın ${ }^{\varepsilon}$ | "lie down" | $\rightarrow$ | dìgınug ${ }^{\text {a }}$ |
| zàan̆sım ${ }^{\text {m }}$ | "dream" | $\rightarrow$ | zàan̆súp ${ }^{\text {a }}$ |

The assignment of 3- and 4-mora Pattern A verb gerunds to Pattern L is natural, as the great majority have a suffix which in nominals only derives Pattern L.

Imperfective gerunds formed with $* d$ from Pattern A verbs are Pattern L: bj̀วdım" "will", mèとdím-tāa= "fellow-builder." This Pattern-L-deriving *d is probably historically identifiable with the $d$ preceding the original ipfv -a in the imperfective of dual-aspect verbs; extensive levelling has now resulted in - $d^{\text {a }}$ behaving as a single flexional suffix. This accounts for the fact that original 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 $-y^{a}$ 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.

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

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

Pattern H

Pattern A
Pattern L

The suffix *d in these formations is Pattern-A-deriving: bうَכdır ${ }^{\varepsilon}$ "desirable", $m \bar{\varepsilon} \varepsilon d \iota \imath^{\mathrm{a}}$ "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.

## 7 External sandhi

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

Sandhi after right-bound words often differs from that between word-forms capable of ending a phrase and even left-bound following dependents. Perfectives behave as if right-bound in tone sandhi and with word-final stop devoicing in Toende Kusaal 3.1 fn ; perfectives and single-aspect verbs ending in fronting diphthongs monophthongise phrase-internally like cbs, and unlike singulars (even singulars before the article $/ \bar{a}^{+} /$):

| sāenh Iā | "the blacksmith" |  |  |
| :--- | :--- | :--- | :--- |
| sàn̆-kànā | "this blacksmith" |  |  |
| Ò sò'v lór. | "She owns a lorry." | sō'eya/ | "own" |
| Lì nàa nē. | "It is finished." | nāe $e^{+/}$ | "finish" |

### 7.1 Prosodic clitics

Prosodic clitics ${ }^{2}$ cause a preceding word to appear as a Long Form, completely suppressing apocope. All four cause lowering of short LF-final $\iota v$ 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 -mı and -mu become - $m m$ whenever the $m$ is not geminated. The final $m$ was presumably once syllabic, but currently $-m m$ is non-tone-bearing [m:]. Word-final iə ue diphthongise to ia ua before prosodic clitics: pfv LF kìa "cut" vs ipfv kìəd, pfv LF kūa "hoe" vs ipfv $k u \bar{\theta} \theta$. None of these changes occur before liaison.

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

|  | sia ${ }^{+}$ | "waist" | SF sīa | LF sīaa | $\leftarrow *$ siaga |
| :---: | :---: | :---: | :---: | :---: | :---: |
| but | dà' ${ }^{\text {a }}=$ | "market" | SF dà'a | LF dà'a | $\leftarrow * d a ' a g a$ |
|  | $b \bar{a} a=$ | "dog" | SF bāa | LF bāa | $\leftarrow$ *baaga |
|  | $k v^{\prime} \cdot{ }^{=}$ | "kill him" | $k \overline{0}^{+}$"kill" | o "him/her" | SF/LF [kv:] |

2) The concept of prosodic "clitics" is also useful for describing complex clause structures. Mooré has the clause-final particle yé after negative VPs, and segmental vocative and interrogative clitics are also 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 negative prosodic clitic appears at the end of a clause containing a negated or negative verb 19.5. Superscript notation represents LFs as they appear before the negative prosodic clitic segmentally, with lowering of short final to ı 0 to $\varepsilon$ ):

Lì à nē nóbìr. $\quad$ "It's a leg." 3IN COP FOC leg:sg.

Lì kā' nóbırē ${ }^{+} \varnothing$. "It's not a leg." 3in neg.be leg:Sg neg.

Lì à nē dōk. "It's a cooking pot."
3IN COP FOC pot:SG.

Lì kā' dōkó ${ }^{+} \varnothing$. "It's not a pot."
3IN neg.be pot:Sg neg.

Long final $ו$ u vo are not lowered:

Bà à nē mólí.
3PL COP FOC gazelle:PL.

Bà kā' mólīı ${ }^{+} \varnothing$ "They are not gazelles."
3PL NEG.be gazelle:PL nEG.

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

```
M biïs\varepsilon +ø! "My children!"
1SG child:PL voc!
```

Pu'aa, bo ka fo kaasida?
Pư'āa ${ }^{+} \varnothing$, bó kà fù kāasídà ${ }^{+} \varnothing$ ?
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-nípìdā ${ }^{+} \varnothing$
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 $a \varepsilon \supset \iota v$ contrast in final vowels by quality alone:
Lì à nē nóbìr.
"It's a leg (nóbìre)."
3IN COP FOC leg:sg.
Ànó'כnì_ Ø n̆yモ̄ nóbırè $+\varnothing$ ?
Who CAT see leg:SG CQ?
$L i ̀$ à $n \bar{\varepsilon}$ nóbırè̀ ${ }^{+} \varnothing$ ? "Is it a leg?"
3IN COP FOC leg:SG PQ?
Lì à $n \bar{\varepsilon} k \bar{u} k$.
Ànó'כnì ňyē kókà?
Lì à nē kúkàa?
Lì à $n \bar{\varepsilon}$ gbīgım.
Ànó'כnì ňy $\bar{\varepsilon}$ gbígìmnع?
Lì à nē gbígìmneє?
Lì à nē dūk.
Ànó'כnì n̆y $\bar{\varepsilon}$ dūkó?
Lì à nē dūkóv?
Ànó'כnì ňyē móli?
Ànó'כnì n̆yē bédugú?

> "It's a chair $\left(k \bar{k} k^{a}\right) . "$
> "Who saw a chair?"
> "Is it a chair?"
> "It's a lion ( $g b i ̄ g ı m{ }^{\mathrm{n} \varepsilon}$ )."
> "Who saw a lion?"
> "Is it a lion?"
> "It's a cooking pot ( $\left.d \bar{u} k^{J}\right)$."
> "Who saw a pot?"
> "Is it a pot?"
> "Who saw gazelles (mòl+ ${ }^{+}$)?"
> "Who saw a lot (bèdvgō${ }^{+/}$)?"

### 7.1.1 Long Forms in clause adjuncts

Clause adjuncts are not followed by M spreading, even though M spreading elsewhere can cross phrase boundaries. Some single-word clause adjuncts always end in a LF, and occasional examples occur with yà'-clauses:

Kikirig ya'a mor buude, fun tis o ka o lebig o moogin.
Kìkīrıg yá' mכ̄r būode, fūn tís•ò_ø kà ò lèbıg ò mכ̄כgט-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.)

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

Forms displaying this feature cannot be used as VP or NP constituents．
The LF form is like that seen before the negative prosodic clitic．In KB，all examples written brogu precede liaison；clause adjuncts with a final vowel are always written beogo．Similarly，KB consistently shows final $-v$ in the apocope－blocked word bedegv bèdvg $\bar{v}^{+/}$＂a lot＂，but just as consistently has final－כ in bכzugد bj̄ zúgう̄ ＂because＂，dinzugว dìn zúgう̄＂therefore＂，alazugว àlá zùgう̄＂therefore．＂
bכzugo ba zi＇one tomi m la naa．
bj̄ zúḡ̄，bà zī＇ónì tòmı＿m lā náa ${ }^{+} \varnothing$ ．
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）

## 7．2 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 dūm ${ }^{\mathrm{m} \supset}$ 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．There are two sets．
Position 1 left－bound liaison words are the locative particle $n^{\varepsilon} \underline{16.3}$ ，which attaches directly after nominal sg or pl forms，along with the discontinuous－past marker $n^{\varepsilon}$ 23．1．1 and the postposed 2 pl subject pronoun ya 21.3 ，which attach directly after verb forms．In this grammar，all these words are hyphenated to the preceding host word，except when ${ }^{\text {ya }}$ is completely deleted by apocope．

Position 2 left－bound liaison words comprise the bound object personal pronouns $m^{a} f \circ l^{+} t l^{+} y a^{+} b a^{+}$15．4．1．They either attach directly to a verb word or after discontinuous－past $n^{\varepsilon}$ or 2 pl subject ${ }^{\text {ya }}$ ．They are written as separate words， except with the 3sg animate pronoun，which is deleted by apocope．

Liaison words which are either right－bound or free comprise all the right－bound personal pronouns mì fù ò lì tì yà bà，the personifier particle à／ǹ $\underline{15.6}$ ，àn今̂＇כn $n^{\varepsilon}$＂who？＂ 15．4．4，nominaliser－ǹ 24 ，catenator－n 22．1，all words with the number prefixes à bà bù 13．3，and all words with manner－adverb prefix à 13．2．Liaison is not invariable before these words，except with with personal pronouns immediately preceded by a verb within the same verb phrase；older texts show liaison more widely．

| Tì gj̀sí_bà bïis. | "We looked at their children." |
| :--- | :--- |
| 1PL look.at 3PL child:PL. | (Liaison before bà "their") |

The basic liaison change is that when the preceding host word LF ends in a short vowel it becomes $\iota$. For some speakers, this $\iota$ 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. If the host LF ends in an overlong vowel sequence it is reduced to long, and fronting diphthongs are simplified to monophthongs. The liaison words o ya ya+ yà and words beginning with the number prefix à subsequently cause new quality changes in the mora preceding liaison.

Examples:

| $k \bar{u} k^{\text {a }}$ | "chair" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | $k \dot{0} k ı-n^{\varepsilon /}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $d \bar{u} k^{\prime \prime}$ | "pot" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | dūkí-n ${ }^{\text {c }}$ |
| bj̀ ${ }^{\text {a }}$ | "want" | $+t l^{+}$ | "us" | $\rightarrow$ | bj̀ ${ }^{\text {dī tí+ }}$ |
| pj̄ $g^{\text {/ }}$ | "field" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | pכ̄วgú-n ${ }^{\text {® }}$ |
| yàug ${ }^{\text {a }}$ | "grave" | $+n^{\varepsilon}$ | "at" | $\rightarrow$ | yàugū-n ${ }^{\varepsilon /}$ |

Bà bj̀วdī m.
Bà pū bว́כdī má.
"They love me."
"They don't love me."

| tòm ${ }^{\text {m }}$ | "send" | $+t{ }^{+}$"us" | $\rightarrow$ | tùmı tī ${ }^{+1}$ |
| :---: | :---: | :---: | :---: | :---: |
| dāam ${ }^{\text {m/ }}$ | "beer" | $+n^{\varepsilon}$ "at" | $\rightarrow$ | dāamí-n ${ }^{\text {® }}$ |
| kù'өm ${ }^{\text {m }}$ | "water" | $+n^{\varepsilon}$ "at" | $\rightarrow$ | kù'өmī-n ${ }^{\text {/ }}$ |

Kà bà ňyદ́ع $m$.
Kà bà kía lī.

| dà'a= | "market" | $+n^{\varepsilon}$ "at" | $\rightarrow$ | dā'a-n ${ }^{\text {¢/ }}$ |
| :---: | :---: | :---: | :---: | :---: |
| $p a e^{+/}$ | "reach" | $+t \iota^{+}$"us" | $\rightarrow$ | páa $\operatorname{li}^{+/}$ |
| pie ${ }^{+/}$ | "wash" | $+t l^{+}$"us" | $\rightarrow$ | pío tī ${ }^{+1}$ |
| dūe ${ }^{+/}$ | "raise" | $+t{ }^{+}$"us" | $\rightarrow$ | dúe tī ${ }^{+/}$ |

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:

$$
\begin{array}{llllll}
s \bar{u}^{\prime} \mathrm{e}^{\mathrm{ya} /} & \text { "own" } & +\iota^{+} & \text {"it" } & \rightarrow & \text { sú'v } u I_{\imath}^{+/} \\
v \bar{u} e^{\mathrm{a} /} & \text { "live" } & +n^{\varepsilon} & \mathrm{dp} & \rightarrow & \text { vōv-n } n^{\varepsilon /}
\end{array}
$$

"And they saw me." (n̆y $\bar{\varepsilon}^{+}$"see")
"And they cut it." (kià+ "cut")

Four liaison words are reduced by apocope to segmental zero，and the only sign of their presence as SFs is the preceding liaison，with any associated changes to the vowel quality and toneme of the mora before liaison．This is invariably the case with the pronoun ${ }^{\circ}[\mho]$＂him／her＂and the postposed 2 pl subject pronoun ya：

|  | bj̀ว ${ }^{\text {a }}$ | ＂want＂ | ＋ 0 | ＂him／her＂ | $\rightarrow$ | bう̀วd•ó－o | （SF bj̀ ${ }^{\text {d }}$－ō） |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SF | gう̀sımī ø | ＂look ye！＂ |  |  |  | Tradition | gosimi |
| LF | gòsımī yá |  |  |  |  | Tradition | go |

Nominaliser－$\underline{24}$ combines with a preceding pronoun subject to produce a special set of pronouns 15．4．1，but for my informants it is segmental zero in all other contexts；its presence remains apparent in the change of pre－liaison M tonemes to H ． Older texts frequently show $n$ and／or liaison，but even texts which use $n$ nearly always omit it after words with SFs ending in nasal consonants．In KB，$n$（without liaison） occurs mostly after foreign proper names．

All sources realise catenator－n 22.1 21．4．1 after pause as a syllabic nasal assimilated to the position of the following consonant．Elsewhere，WK has liaison before segmental zero：

```
Kà ò zว́כ_ø \(k \bar{\varepsilon} \eta ~ n a ̄ . \quad\) "And he came running"
And 3AN run CAT come hither．
```

Bכ̄כ＿$\varnothing$ lá ${ }^{+}$？？＂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 $-m-n-/$ 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 zūөbíd wūsa kálli＿ø àn̆ sỉəm
2PL hair：PL all number：SG NZ COP INDF．ADV
＂how much the number of all your hairs is＂（Lk 12：7）
toum kane ka m tommi tisid Wina'am la.
tò̀m-kànı kà ì tómmī_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)

### 7.2.1 Vowel quality changes

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 $\underline{5.5}$, with any back mora becoming $e[\mathrm{r}]$ but no change to front morae:

| but | Bà bj̀ dī yá. |  | "They love you." |
| :---: | :---: | :---: | :---: |
|  | Kà bà ňyć yā. |  | "And they saw you (pl)." (ňy $\bar{\varepsilon}^{+}$"see") |
|  | Kà bà kúe yā. | [kvija] | "And they killed you (pl)." (kū+ "kill") |
|  | Kà bà kíe yā. | [kirja] | "And they cut you (pl)." (kià ${ }^{+}$"cut") |

This recreates a fronting diphthong in monophongised 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 $\iota$ takes place before the 2 sg object pronoun $f$ "you":

```
        Kà bà kîa f.
or Kà bà kîo f.
    Kà bà ňy\varepsiloń\varepsilon f.
or Kà bà n̆y\varepsilońo f.
    M gbáň'a f.
or M̀ gbán̆'v f.
```

"And they cut you (sg)."
"And they saw you (sg)."
"I've grabbed you (sg)."

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 ${ }^{\circ}[\mho]$ "him/her" and the postposed 2 pl subject pronoun ${ }^{\text {ya }}$, both of which lose their entire segmental form in their SFs, share the property that they completely override the vowel quality of the pre-liaison mora, creating secondary diphthongs 3.2.

The mora before ${ }^{\circ}$ becomes $\cdot 0.2 .3$ [ $\sigma$ ], always lax. In the LF this mora fuses with the [ $\sigma$ ] of the LF of the pronoun itself create a long vowel [ v :], written $\cdot 0-\mathrm{O}$ :

| bj̀ ${ }^{\text {da }}$ | "wants" | + ${ }^{0}$ | $\rightarrow$ | bj̀วd•ó-o | SF bjod ${ }_{\text {ou }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| tòmı | "send" | + ${ }^{0}$ | $\rightarrow$ | tòm•ó-o | SF tòm•ō |
| kia | "cut" | + 0 | $\rightarrow$ | ki.o-o | SF ki.o |
| $\check{n y} \bar{\varepsilon} \varepsilon$ | "see" | $+{ }^{\circ}$ | $\rightarrow$ | n̆y $\bar{\varepsilon} \cdot o ́-O$ | SF n̆y ¢ 0 |

Fù bóวd•ō_ø.
"You love her."
[fubo:dv]
2SG want 3AN.ob.

Fò pū bכ́วd•óo ${ }^{+} \varnothing$. "You don't love her." [fopubo:du:]
2SG NEG.IND want-3AN.ob NEG.

Fò n̆yé.O_ø.
2SG see 3AN.ob.

Fò pū n̆yē•ó-o ${ }^{+} \varnothing$. "You've not seen her." [fopoj̃̃̃̃̃:]
2SG NEG.IND See-3AN.OB NEG.

| $z \bar{u}^{+}$ | "steal" | + 0 | $\rightarrow$ | zú•O-o | SF [zuo] | LF [zuv:] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $d i^{+}$ | "eat" | + 0 | $\rightarrow$ | di $\cdot 0^{-0}$ | SF [dio] | LF [dıv:] |
| kià ${ }^{+}$ | "cut" | + ${ }^{0}$ | $\rightarrow$ | $k i \cdot O^{-0}$ | SF [kiv] | LF [kiv:] |
| $p \bar{a} e^{+/}$ | "reach" | + 0 | $\rightarrow$ | pá $0^{-0}$ |  |  |
| pie ${ }^{+/}$ | "wash" | + 0 | $\rightarrow$ | píooo |  |  |
| dūe ${ }^{+/}$ | "raise" | + 0 | $\rightarrow$ | dú $0^{-0}$ |  |  |

Mane a o.
Mānı Ø áňo_ ø.
1SG.CNTR CAT COP 3AN.OB.
"I am he." (Jn 18:5, 1976)
(àeñ̆a "be")

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 | gว̀sımī_ | ø |  | "look ye!" | Traditional: gosimi |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| LF | gj̀sımí_ | yá |  | $\underline{21.3}$ | Traditional: gosimiya |

Before liaison words beginning with à- the quality of the final vowel mora of the preceding word is not predictable from the phonology alone.

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

```
Ò nìní àlá.
3AN do ADV:thus
yeli Abaa
"said to Dog" KSS p20
\(y\) g̀lıÀ-Bāa
say PERS-dog:SG
```

Fusion verbs 10.1 show forms in final $e[r]$ in these cases, instead of the monophthongs aa iə ue usual before another word in the VP 7.3:
... [n] loo Abaa zuur
"... tying Dog's tail" 15.6 KSS p20
...n lóว À̀-Bāa zôvr
...CAT tie PERS-dog:Sg tail:sg
but ka ba gban'e Adayug
kà bà gbáň'e_À-Dàyūug
and 3PL seize PERS-rat:SG

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

Ka fu aan anכ'כne?
"And who are you?" (Jn 1:19)

Kà fù áan̆ ànó'כnغ̀ ${ }^{+} \varnothing$ ?
And 2 sG COP who CQ ?

Before the number prefix $a$ - the pre-liaison vowel is instead $-a$ :

M̀ mór n̄̄ bïisá_ àtán̆'. "I have three children."
1SG have foc child:PL Num:three.

Pè ${ }^{2}$ à àlá $\quad+\varnothing$ ? "How many baskets?"
basket:PL Num:how.many CQ? (contrast àlá "thus" above)

These rules are consistent in written materials. However, my informants contract -á à- to á- with the number prefix:

Nū'-bíbìs álá kà fù n̆yḡtá ${ }^{+} \varnothing$ ?
hand-small:PL NUM:how.many and 2SG see:IPFV cQ?
"How many fingers do you see?"

Elsewhere, my informants show liaison before à only between imperatives and àlá, where -í à- is contracted to either -á- or -í- depending on the speaker: gj̀sımí lá or gว̀sım álá "Keep on looking!"

WK and DK both always round the LF-final vowel before ò "his/her":

Bà gj̀sú_ò bïig. "They've looked at her child."
3PL look:at 3AN child:SG.

All written sources show -i (i.e. -ı [r]), presumably the original form.
The number prefix a- originated as *クa-13.3, and prefix-initial ${ }^{*} \eta$ seems to have disappeared early throughout Western Oti-Volta. Sandhi effects may outlive the complete disappearance of a consonant, as with the French "H aspiré"; the personifier particle and the manner-adverb prefix probably began with consonants like $y$ or $w$ which, though now also deleted, were maintained long enough for consonant-initial sandhi to be preserved.

### 7.2.2 The pronoun ya before liaison

The pronoun ya adopts the allomorph -ní- before liaison. The pronoun was historically *na, which regularly became *yã with subsequent loss of emic nasalisation, as always with affix vowels. When the $-a$ is deleted by apocope, $y$ is also deleted. When followed by a liaison word, the vowel a was not deleted but became $\iota$, before which $n$ became $n-$. (Cf also $n i ̀ \eta^{\varepsilon}$ "do" $=$ Toende Kusaal ẽ̃ $\quad$, locative $n^{\varepsilon} \sim n \bar{\iota}^{+/}=$ Toende -ı, nìe+ "appear" = Toende yẽe, nīna "body"= Mooré yînga.)

$$
\text { Dā d̄̄llı_yá } \quad+\varnothing!\quad \text { "Follow ye not!" }
$$

NEG.IMP follow 2PL.SUB NEG!

```
Di'əmī ø!
receive:IMP 2PL.SUB!
```

Dì'əmī-ní bā!
receive:IMP-2PL.SUB 3PL.OB

Dì'əmī-n•ó_ ø! "Receive ye her!"
receive:IMP-2PL.SUB 3AN.ob.

Biise, siakimini ya du'adib пэуa.
Bïise ${ }^{+} \varnothing$, síàkımī-ní_ yà dō'adıb nóyà.
Child:PL voc, agree:IMP-2PL.SUB 2PL parent:PL mouth:PL.
"Children, obey your parents." (Eph 6:1)

Dì'əmī-ní àlá!
receive:IMP-2PL.SUB ADV:thus!
"Keep ye on receiving!"
(Realised Dì'əmī-nć lá! or di'əmī-n álá!)

### 7.3 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:

biis ňwá<br>zàam n̆wá<br>but pư'ā ñwá

| "these children" | [bi:sa] |
| :--- | :--- |
| "this evening" | [za:ma] |
| "this woman" | [porawã] |

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

| yīr lā | "the house" | [jira] |
| :--- | :--- | :--- |
| pòkj̀วn̆r 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 nīdıb lā "the people."

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

| Bà kpiid nes. | "They're dying." | [ba $\widehat{\mathrm{kp}} \mathrm{i}: \mathrm{d} \varepsilon$ ] |
| :---: | :---: | :---: |
| M zót nē. | "I'm afraid." | [m zot: $\varepsilon$ ] |
| M̀ mór nē bïisá àyí'. | "I have two children with me." | [ṃ more bi:sa:ji] |
| Lì pè' $\mathrm{l}^{\prime} \mathrm{n}$. | "It's full." | [lı pe:l: 1 ] |
| Lì sàn̆'am n̄̄. | "It's spoilt." | [lı sãa: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 $\dot{m}$ :

| dànk̇̀n | "measles" | [daykoy] |
| :--- | :--- | :--- |
| nīn-bámmā | "these people" | [nimbam:a] |
| nàm zī' | "still not know" | $[$ nanzı̃ $]$ |


|  | N-Bil | Mbillah (personal name) | [mpil] |
| :---: | :---: | :---: | :---: |
| but | M nóni̊_f. | "I love you." | [minonıf] |

I follow traditional orthography in writing final nasals of prefixes as $n$ everywhere except before $p b m$, where I write $m$.

Within phrases, word-final short vowels denasalise before initial $n$ or $m$ :

```
àwá nā "like this here" (àn̆wá "like this")
k\overline{\varepsilon}nā "come hither" (k\overline{\varepsilon}n̆+ "come")
```

Some right-bound CVn̆- elements lose nasalisation even when the following consonant is not a nasal. Thus with compounds of sūn̆f/ "heart" like sū-málısìm ${ }^{m}$
 sumalism sukpi'oŋ/sukpi'eun supeen, reflecting the bleaching and phonological simplification which has created noun prefixes from some original cbs 13.1.4. KB restores the nasalisation in writing: sunkpi'eun "boldness", sunpeとn "anger."

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

```
    M á n\varepsilon̄ dāu. "I'm a man."
but Lì àn̆ sónā. "It's fine."
```

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

Combining forms, and verb forms which are not VP-final, may not end in fronting diphthongs unless the next word begins with $y$. Otherwise, the fronting diphthongs are replaced by the corresponding monophthongs 3.2: ae $\rightarrow$ a; oe $\rightarrow 0$; $v e \rightarrow v ;$ ae $\rightarrow$ aa; ve $\rightarrow v v ; i e \rightarrow i ə ; u e \rightarrow u \theta$. Thus sāen̆ lā "the blacksmith", but sàn̆kànā "this blacksmith" and e.g.

| Ò sù'v ט́rr. | "She owns a lorry." (sū'e $\mathrm{e}^{\text {ya/ }}$ "own") |
| :--- | :--- |
| Lì àn̆ sónā. | "It's good." (àeña "be something") |

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

غ̇n̆rıgım ø pāa dư'átà.
Shift.along:IMP CAT reach doctor:SG.
"Shift along up to the doctor." (pāe+/ "reach")

| Lì nàa nc̄. | "It is finished." | nāe ${ }^{+/}$"finish" |
| :--- | :--- | :--- |
| Dúe wह̄lá? | "[You] arose how?" 28 | $d u \bar{e} e^{+/}$"arise" |

Kā'e ${ }^{+}$"not be/not have" loses e before complements but not adjuncts:

Ò kā' bīiga ${ }^{+} \varnothing . \quad$ "She is not a child."
3AN neg.be child:Sg neg.

Dāu lā kā' dóvgō-n láa ${ }^{+} \varnothing$.
Man:SG ART NEG.BE room:SG-LOC ART NEG.
"The man's not in the room." (dう̀วgū-n lā as complement)
but $S^{\prime}$ ' kae na nyani dol zugdaannam ayi'...
Sう̄' kā'e_ø ná ňyāŋı_ø d̄̄l zūg-dâan-nàm àyí'... ind.an neg.be CAT IRr prevail Cat follow head-owner:pL num:two ...
"Nobody can serve two masters." (Mt 6:24)

Dāu kā'e dóogū-n láa ${ }^{+} \varnothing$.
Man:sG neg.be room:SG-Loc ART neg.
"There's no man in the room." (dj̀دgū-n lā as adjunct)

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

| voen | $=v \bar{u}-n$ |  | "would live" (Gal 3:21, 1996) |
| :--- | :--- | :--- | :--- |
| Kristo da faąn ti | $=$ Kristo dá fāan̆ tí |  | "Christ saved us." (Gal 5:1) |
| $m$ wa'e ne |  | m̀ wá'a n $\bar{\varepsilon}$. |  |
| "I'm going" ILK |  |  |  |

Àeña " "be something" is always written aa or aan before liaison; this might reflect consistent absence of stress, but it seems more likely that the rarity of phrasefinal àeña has prevented the analogical introduction of phrase-final spelling phrasemedially. Fāen̆ ${ }^{+/}$"save" is perhaps written faaenn instead of faann to distinguish the forms from those of fän̆ " "grab, rob"; the 1996 NT has two instances of the certainly spurious faaenm for imperative faanm. (See also 14.1 on faangid "saviour", faangir "salvation.") Errors like Nopilim pu naae da (1 Cor 13:8, 1996 NT) for KB Nכמilim pu naada "Love does not come to an end" confirm that the orthographic tradition has encompassed the writing of diphthongs for undoubted monophthongs.

### 7.4 Tone sandhi

The tone overlay of independency marking 19.6.1.1 precedes external tone sandhi, which follows apocope. M dropping and the change of M to L induced by the interrogative prosodic clitics apply before other external tone sandhi rules, which otherwise apply left to right.

### 7.4.1 Before prosodic clitics

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

| mうı ${ }^{+}$ | "gazelles" | SF mうlı | LF mòlù |
| :---: | :---: | :---: | :---: |
| yàarım ${ }^{\text {m }}$ | "salt" | SF yàarım | LF yàarīmm |
| tìm ${ }^{\text {m }}$ | "medicine" | SF tìım | LF tīımm |

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

|  | Lì ká' ò tīımm. | "It's not her medicine (tìım $\left.m^{m}\right) . "$ |
| :--- | :--- | :--- |
| 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 ${ }^{+/}$ | "reach" | SF pāe | LF pāée |
| nūa+/ | "hen" | SF nūa | LF nūáa |
| $y \overline{a b}^{+/}$ | "houses" | SF yā | LF yáa |
| $1 \bar{a}^{+/}$ | (article) | SF lā | LF láa |
| bèdugū+/ | "a lot" | SF bèdugū | LF bèdugúu |
| $g a ̄ a n ̆=/$ | "Nigerian ebony" | SF gāan̆ | LF gáan̆ |
| dāam ${ }^{\text {m/ }}$ | "millet beer" | SF dāam | LF dáamm |
| tāuñ ${ }^{+/}$ | "opposite-sex sib" | SF tāun̆ | LF táun̆ |
| dāam ${ }^{\text {m/ }}$ | "millet beer" | SF dāam | LF dáamm |
| vōm ${ }^{\text {m/ }}$ | "life" | SF vūm | LF vómm |

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:
n̆y $\cdot 0^{-0}$
"see him/her"
SF n̆yદ́•o
LF ňyદ̄•ó-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, polar or content, end with a L or H toneme. The two interrogative prosodic clitics cause preceding words with all-M tonemes to change to all-L. This is an actual change of tonemes, not just a matter of intonation, and it precedes $M$ spreading, to which the new $L$ tonemes are subject 7.4.3. In Kusaal (unlike Dagbani) this lowering only affects the final word, not a sequence of several all-M words.

$$
\begin{aligned}
& \text { Ànó'כnì ø n̆yé bà bìiga + } \varnothing \text { ? } \\
& \text { Who CAT see 3PL child:sG CQ? } \\
& \text { "Who saw their child }\left(\text { bīiga }^{\mathrm{a}}\right) \text { ?" }
\end{aligned}
$$

Ànó'כnì n̆yē bíigà?
Àn'́'כnì ňyē sú'vgà?
Fù bôวd bó?
Ànó'วnì n̆yē zuéyà?
M ná bj̄dıg.
M̀ ná bj̀dıgeع?
Ò pō dūge.
Ò pū dúgèz?
"Who saw a child?" tonally identical to
"Who saw a knife (sù' $v g^{\mathrm{a}}$ )?"
"What ( $b \bar{j}^{+}$) do you want?"
"Who saw hills (zurēya ${ }^{+}$)?"
"I will get lost."
"Will I get lost?"
"She didn't cook."
"Didn't she cook?"

### 7.4.2 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 m̀ pū zábì fj.
M zábī bá.
M̀ pū bóvdī fó.
M̀ pū bว́วdī báa.
Kà m̀ pū zábì báa.
Ànó'כnì 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亏̄כg ${ }^{\text {/ }}$ | "field" | $+n^{\varepsilon}$ | $\rightarrow p$ כ̄כgט́-n ${ }^{\varepsilon}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | biig ${ }^{\text {a }}$ | "child" | $+n^{\varepsilon}$ | $\rightarrow$ biigı $-n^{\varepsilon /}$ | WK |
|  | $m o ̀ ' a r^{\varepsilon}$ | "dam, lake" | $+n^{\varepsilon}$ | $\rightarrow$ mò'arī-n $n^{\varepsilon /}$ |  |
|  | yàad ${ }^{\varepsilon}$ | "graves" | $+n^{\varepsilon}$ | $\rightarrow$ yàadī-n ${ }^{\varepsilon /}$ | WK |
|  | kūudíba | "killers" | $+n^{\varepsilon}$ | $\rightarrow$ Kūodíbī-n ${ }^{\varepsilon /}$ | WK |

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

|  | $d \bar{u} g^{\varepsilon}$ | "cook" | $+n^{\varepsilon}$ | $\rightarrow d \bar{u} g u-n^{\varepsilon /}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | bj̀dıg ${ }^{\text { }}$ | "lose" | $+n^{\varepsilon}$ | $\rightarrow$ bj̀dıgī-n ${ }^{\text {¢/ }}$ |
|  | yādıg ${ }^{\text {ع }}$ | "scatter" | $+n^{\varepsilon}$ | $\rightarrow$ yādıgı-n ${ }^{\varepsilon /}$ |
| ipfv | kūod ${ }^{\text {/ }}$ | "kill" | $+n^{\varepsilon}$ | $\rightarrow$ kūodı-n ${ }^{\varepsilon /}$ |
| ipfv | yādıgíd ${ }^{\text {a }}$ | "scatter" | $+n^{\varepsilon}$ | $\rightarrow$ yādıgídī-n $n^{\varepsilon /}$ |

Dā dכ̄llı yá ${ }^{+} \varnothing!\quad$ "Follow ye not!"
NEG.IMP follow 2PL.SUB NEG!

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

|  | bj̀dıg $^{\varepsilon}$ | "lose" | $+m^{\text {a }}$ "me" |
| :--- | :--- | :--- | :--- |$\quad \rightarrow$ bj̀dıgı ma

Pattern H fusion verb perfectives behave exactly like CVV-stems:

$$
\begin{array}{llll}
\text { pāe } e^{+/} & \text {"reach" } & +m^{a} \text { "me" } & \rightarrow \text { páa } m^{a} \\
d i \bar{c} e^{+/} & \text {"get" } & +b a^{+} \text {"them" } & \rightarrow \text { dí'ə } b \bar{a}^{+/}
\end{array}
$$

After all other verb forms, including all imperfective forms and all forms with independency-marking tone overlay 19.6.1.1, object pronouns change LF-final L to M:

| $z a ̀ b ı d^{\text {a }}$ | "fights" | $+m^{\text {a }}$ "me" | $\rightarrow$ zàbıdī mal |
| :---: | :---: | :---: | :---: |
| dit ${ }^{\text {a }}$ | "eats" | + $\iota^{+}$"it" | $\rightarrow$ ditio lí+ |
| yādıgíd ${ }^{\text {a }}$ | "scatters" | + ba+ "them" | $\rightarrow$ yādıgídī bá ${ }^{+}$ |
| kūod ${ }^{\text {a/ }}$ | "kills" | + ma "me" | $\rightarrow$ kūodí ma |

With independency-marking:

| bj̀dıg | "lose" | $+m^{\mathrm{a}}$ "me" | $\rightarrow$ bj̀dıgī $m^{\mathrm{a} /}$ |
| :--- | :--- | :--- | :--- |
| $y a \bar{d} \iota g^{\varepsilon /}$ | "scatter" | $+m^{\mathrm{a}}$ "me" | $\rightarrow$ yàdıgı̄ $\mathrm{m}^{\mathrm{a}}$ |

SF-final $\cdot \bar{o}$ corresponds to LF-final $\cdot o$ óo; otherwise final M is imposed as usual before the negative clitic:

| M̀ bóod ${ }_{\text {co }}$. |  | "I love him/her." |
| :---: | :---: | :---: |
| M̀ pū bóدd•ó-o. |  | "I don't love him/her." |
| Kà bà kúo. | [kv:] | "And they killed him." |
| Kà bà pū kúo. | 7.1 | "And they didn't kill him." |
| Kà bà kíoo. |  | "And they cut him." |
| Kà bà pū kíō-o. |  | "And they didn't cut him." |

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

Kà bà n̆yé•o.
Kà bà pū ňyz̄•ó-o.
"And they saw her."
"And they didn't see her."

Irrealis mood forms of Pattern A verbs have M before liaison; LF-final -0-o may be H or M :

> Ò nà bj̄dıgı m.
> Ò kù bj̄dıgı má.
> Ò nà bj̄dıgı bá.
> Ò kù bj̄dıgı báa.
> Ò kù bj̄dıgıdı má.
> Ò kù zābıdı má.
> Ò kù zāb•ó-o.
> or Ò kù zāb•o-o.

Toneme changes induced by liaison words follow external tone sandhi induced by words before the host; thus dà'a= "market" $+n^{\varepsilon}$ "at" $\rightarrow$ dā'a- $n^{\varepsilon / ; ~ m \grave{\varepsilon}+" b u i l d " ~}+n^{\varepsilon}$ $\mathrm{dp} \rightarrow m \bar{\varepsilon} \varepsilon-n^{\varepsilon /} ; k \dot{v}^{+}$"kill" [k $\bar{u}^{+}$with independency marking] $+m^{\mathrm{a}}$ "me" $\rightarrow k \bar{u} v m^{\mathrm{a} /}$; but

Ò bè nદ́ dâ'a-n.
Dāu lā mêe-n.
Dāư lā kûv 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 kūv bá. $\quad$ "She has killed them."
Dāu lā kóv bá.
"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 7.4.3; as always, preceding M must become H :

Kà bà ditī bá. "And they were eating them."
And 3PL eat:PFV 3pL.ob.
(ipfv without independency marking)
but Kà bà dití_ bà dīıb. "And they were eating their food." (ML $\rightarrow$ HL) And 3PL eat:IPFV 3PL food.

Noun LFs before fixed-L liaison words end in H :
bane na yel Zugsobi ba tuuma a si'em la
bànı nà yह̄l Zūg-sóbí bà tōomá_ø àn̆ sīəm 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 toneme 7.4.3 of nominaliser-ǹ a final M tone becomes H. For my informants this is the only sign of the presence of the particle, except when it is combined in the special form of the preceding subject pronouns.

Dāun lā záb nâ'ab lā. "The man has fought the chief." man:SG ART fight chief:SG ART
but dāu lá ø 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 $k \bar{\varepsilon}$ nā yर́ ò túm_ø tìsı_bā
but 3AN come hither that 3AN work CAT give 3PL.OB
"but he came to serve them" (Mt 20:28)

M̀ nók sú'ugù Ø kiá nīm lā.
1sG pick.up knife:SG CAT cut meat:SG ART.
"I cut the meat with a knife."

### 7.4.3 M spreading

Most words not bound to the right cause an initial L toneme in a following word to change to X toneme on a superheavy syllable and H otherwise, unless there is an intervening pause; so do all words bound to the right which end in M .

If the L toneme is "fixed" (see below) a preceding M toneme must become H instead 4. M spreading follows
all words, bound or free, ending in M toneme
all other words which are not bound to the right, except
Verb perfectives without independency-marking tone overlay 19.6.1.1
Certain words affected by M dropping 7.4.4
Words ending in an affix vowel with H toneme
right-bound subject pronouns 19.6.1.2 (including ellipted subjects 20.2.2)
ò lì bà except preceding independency marking
$\dot{m}$ fù tì yà except preceding independency marking after y $\bar{\varepsilon}$

Catenator- $n$ is transparent to M spreading 7.4.2.
M spreading does not occur after clause adjuncts 20.2.1. The occurrence of M spreading is otherwise unaffected by syntax:

Bà tìs nâ'ab lā bún.
3PL give chief:SG ART donkey:sg.
"They gave the chief a donkey (bùna)."

Bà n̆wè' nâ'ab lā sónā. "They beat the chief well (sùnā+/)."
3PL beat chief:SG ART good:ADV.

Raising is absent after words ending in an affix vowel with H toneme:
$\grave{M}$ dìga lú yā. $\quad$ "My dwarfs have fallen down."
1SG dwarf:PL fall PFV.
but M̀ yōgumá lù yā. "My camels have fallen down."
1SG camel:PL fall PFV.

M spreading examples, with zà $b^{\varepsilon}$ "fight" gj̄s ${ }^{\varepsilon}$ "look at" nà'ab ${ }^{\text {a }}$ "chief":
Kà-clause, without independency-marking tone overlay; all subject pronouns are followed by raising; perfectives are followed by raising only if ending in M :

Kà m̀ záb nà'ab lā.
Kà ò záb nà'ab lā.
Kà m̀ gj̄s nâ'ab lā.
Kà ò gōs nâ'ab lā.
"And I've fought the chief."
"And he's fought the chief."
"And I've looked at the chief."
"And he's looked at the chief."

Main clause, with independency marking; the verbs have tone overlay and are now both followed by M spreading; 3rd persons are not followed by M spreading:

| M̀ záb nâ'ab lā. | "I've fought the chief." |
| :--- | :--- |
| Ò zàb nâ'ab lā. | "He's fought the chief." |
| M̀ gós nâ'ab lā. | "I've looked at the chief." |
| Ò gj̀s nâ'ab lā. | "He's looked at the chief." |

A minimal pair: ba "them" is followed by M spreading; bà "they, their" is not:

Ò gj̀sī bá bédugū. Ò gj̀sí bà bèdugū.
"She looked at them a lot." (ba object)
"She looked at a lot of them." (bà possessive)

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 personal pronouns personifier particle | m̀ fô ò lì tì yà bà à-/ǹ |
| :---: | :---: |
| ànô'כn ${ }^{\text { }}$ "who?" |  |
| nominaliser (however realised) | ̀̀ |
| all words with number prefixes | à-bà- bù- |
| manner-adverb prefix | à- |
| linker particle | kà |

Initial à- 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. "They kill them."
3PL kill:IPFV 3PL.OB.
but
Bà kùvdí_bà būus.
3PL kill:IPFV 3PL goat:PL.
Lì à né à-dàalóy. $\quad$ "It's a stork"
3IN COP FOC PERS-stork:SG.
ba diib $n$ yit na'aten la na zug
bà dílb ǹ yīt ná'-tह̄ŋ 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'ay n ti paae ya tuona la.
wōv sáa_ Ø nāanı iáăn̆k yà n̆yá'aŋ $n$ tí páe_yà tù̀na 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)

Though the matter rarely arises, fixed-L syllables are subject to being changed to M before the negative prosodic clitic 7.4.1; thus né $t i ̀$ "with us" but

Amaa o pu lal ne tii.
Àmáa ò pū lāl né tīı ${ }^{+} \varnothing$.
But 3 SG Neg.Ind be.far with 1PL Neg.
"But he is not far from us." (Acts 17:27)

After words ending in M, this tone 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 similarly be attributed to floating tonemes, here delinked by apocope. However, M spreading may also be determined by syntactic role or by analogy, and prior tonal behaviour persists even after segmental remodelling by addition of segments. Words with identical L-final sg and cb, like mà "mother", zuà "friend", dư'átà "doctor", lànnıg "squirrel" show M spreading after sg but not cb; the single-aspect verbs $b \grave{\varepsilon}^{+}$and $n \grave{\eta} \eta^{\varepsilon}$ are followed by M spreading, unlike Pattern A perfectives; lè "but", though not even a verb, is followed by M spreading when affected by independency marking.

### 7.4.4 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 seems to be 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:


Examples with a cb as head:

| bù-pìəlıg ${ }^{\text {a }}$ | "white goat" | bù-pāalíga | "new goat" |
| :--- | :--- | :--- | :--- |
| bī-pún-pìəlıg | "white girl" | bī-pú-pāalíga | "new girl" |
| n亏̄-píəlìg | "white hen" | n̄̄-páalìg ${ }^{\text {a }}$ | "new hen" |

With a cb as dependent ( $n \bar{\partial} r^{\varepsilon /}$ "mouth", dỉ'əsa/ "receiver" pl dỉəsídì $b^{\mathrm{a}}$ ):
nכ̄-dî'əs ${ }^{\text {a }} \quad$ "chief's interpreter" pl n̄̄-díəsìdıba

There is no M dropping after personal pronouns:

| m̀ bïig | "my child" | m̀ tìıg | "my tree" |
| :--- | :--- | :--- | :--- |
| mān bïig | "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 biēéyá bìs $\quad$ "my elder same-sex siblings' children (bīis ${ }^{\varepsilon}$ )"
m̀ biēyá fùud $\quad$ "my elder same-sex siblings' clothes (fūud ${ }^{\varepsilon /}$ )"

M dropping after free NPs also followed by M spreading:

| dāu bîig | "a man's child" | nà'ab bîig | "a chief's child" |
| :--- | :--- | :--- | :--- |
| dāū lā yógùm | "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 bîig．＂They＇ve given（it）to the chief＇s child．＂ 3PL give chief：SG ART child：SG．（M dropping applied to bïiga＂child＂）

Bà tìs nâ＇ab lā bïig．＂They＇ve given the chief a child．＂ 3PL give chief：SG ART child：Sg．（No M dropping applied to bïigá）

It occurs regardless of the meaning or role of the preceding dependent：
mכ̄כgo－n wábòg lā＂the wild（in－the－bush）elephant（wābvg ${ }^{\partial /}$ ）＂

M dropping follows cb heads，but never uncompounded heads：

```
    kūg-yínnì "one stone" with yínnì as adjective 15.5.2.1
but kūguryūnní "one stone"
wābvg lā "the elephant"
wābıs pïga "ten elephants"
```

The final element of a compound induces following M spreading in accordance with the usual rules 7.4 .3 regardless of whether it has been subject to M dropping：

| bù－wう̄k | ＂tall goat＂ | nj̄－wók | ＂tall hen＂ |
| :---: | :---: | :---: | :---: |
| bù－w̄̄k－píəlìg | ＂tall white goat＂ | bù－w亏̄k－páalìg | ＂tall new goat＂ |
| nכ̄－wók－pìalıg | ＂tall white hen＂ | nכ̄－wว́k－pāalíg | ＂tall new hen＂ |
| $b \grave{-w \grave{k} k ~ d i ̂ ı b ~}$ | ＂tall goat＇s food（ $\mathrm{d}_{\mathbf{c}}\left(b^{\text {J }}\right.$ ）＂ | nכ̄－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（bj̀dıg yā）＂and＂my elder same－sex siblings＇ （m̀ biēēá） X has got lost＂：

Pattern H and A nouns，affected by M dropping：

| wābug ${ }^{\text {／}}$ | ＂elephant＂ | Dāu lā wábùg bj̀dıg yā． |  |
| :---: | :---: | :---: | :---: |
| pう̄วg ${ }^{\text {／}}$ | ＂field＂ | Dāu lā pôวg bj̀dıg yā． |  |
| bā ${ }^{\text {a }}$ | ＂ring＂ | Dāư lā bán bòdıg yā． |  |
| $p \bar{v} g^{\text {a }}$ | ＂inside＂ | Dāư lā pôvg bj̀dıg yā． |  |
| wābug ${ }^{\text {／}}$ | ＂elephant＂ | M bièēá wàbug bódìg yā． | no M spreading |
| $b a ̄ \eta^{\text {a }}$ | ＂ring＂ | M̀ biēeyá bàn bódìg yā． | no M spreading |
| yügodır ${ }^{\text {e }}$ | ＂hedgehog＂ | M̀ biēēyá yùgodır bódìg yā． | no M spreading |
| yügodır ${ }^{\text {e }}$ | ＂hedgehog＂ | Dāu lā yúgudìr bódìg yā． | three syllables |

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

| bùn ${ }^{a}$ | "donkey" | Dāū lā bún bódìg yā. |
| :--- | :--- | :--- |
| àňrun | "boat" | Dāū lā áňròn bódìg yā. |
| dj̀วg | "house" | Dāū lā dôدg 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 gần̆g bódìg yā. |
| :--- | :--- | :--- |
| náaf | "cow" | Dāū lā nâaf bj́dìg yā or Dāun lā nâaf bj̀dıg 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:

|  | dāu lā bú-pìəlıg | "the man's white goat (bò-pìlıg)" |
| :---: | :---: | :---: |
|  | dāu lā bú-pāalíg | "the man's new goat (bù-pāalíg)" |
|  | dāu lā nó-píalìg | "the man's white hen ( $n \overline{\text {-píəlìg)" }}$ |
|  | dāu lā nó-páalìg | "the man's new hen ( $n \overline{\text {-páalìg)" }}$ |
| but | dūg-kánā | "this pot" ( $\bar{u}^{\prime} k^{\prime /} \mathrm{cb}$ dūg- "pot") |
|  | [sālıma dóg-]kànā | "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 dôدg]
pò'usvg [fûug dôدg]
```

```
"tent" (füug`/ "cloth", d\grave{כg}\mp@subsup{}{}{\circ}\mathrm{ "house")}
"tabernacle" (pù'vsug` "worship")
```

but Lì kā' [[[dāu Iā bîig] bìər] nâaf] zùvrē.
"It's not the man's child's elder-same-sex-sibling's cow's tail." WK
(bïiga "child" bīər ${ }^{\varepsilon /}$ "elder sib of same sex" náaf "cow" zūor ${ }^{\varepsilon}$ "tail")

## Morphology

## 8 Noun flexion

### 8.1 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 regular and frequent occurrence, being for example the regular method of construing a noun with a following 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 n̆wād-bíla "star" (KB nwadbil) suggest that consonant-final cbs once ended in an epenthetic vowel, but this is no longer the case.

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 superscript notation forms of the suffixes, as the ${ }^{a}\left|b^{a}, g^{a}\right| s^{\varepsilon}, g^{\supset}\left|d^{\varepsilon}, r^{\varepsilon}\right| a^{+}$and $f^{\rho} \mid \iota^{+}$noun classes. Two unpaired non-count suffixes $-b^{\top}-m^{m}$ 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 $r^{\varepsilon} \mid a^{+}$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 $g^{\top} \mid d^{\varepsilon}$ stems ending in $m n$ following a short vowel, which always use the plural suffix $-a^{+}$instead of $-d^{\varepsilon}$, as do all gerunds with $\operatorname{sg} g^{\text {J }}$. Mampruli and Dagbani also show -a for the plural of $m n$ stems in this class (cf Mampruli gbangu "skin", pl gbana), so this suppletion is probably driven by the fact that cluster assimilation would cause the expected plural to resemble a $r^{\varepsilon} \mid a^{+} \mathrm{sg}$. Suppletion does not take place in Mooré or Farefare, where the $g^{ग} \mid d^{\varepsilon} \mathrm{pl}$ suffix has a rounded vowel, unlike the $r^{\varepsilon} \mid a^{+} \mathrm{sg}$ : cf Mooré gãongò "skin" pl gãndo.

Adjectives avoid potentially ambiguous suffixes altogether $\underline{9}$.
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 $-g^{\text {a may result in LFs }}$ ending in $-כ$, as in $n \hat{u}^{\prime} u g^{\supset}$ "hand", and ${ }^{\text {a }} \mid b^{\mathrm{a}}$ stems in I $n r$ following a short root vowel show LF $-\varepsilon$ with / and $n$ geminated, as if the suffix were $r^{\varepsilon}$, e.g Bin $n^{\text {n } \varepsilon}$ "Moba person."

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

The classes are thus as follows：

| ${ }^{\mathrm{a} \mid b^{\mathrm{a}}} \quad b^{\mathrm{a}}(\mathrm{sg})$ | $s i ̄ d^{a}$ <br> nà＇ab ${ }^{a}$ | sīdıba <br> nà＇－nàm ${ }^{\text {a }}$ | sìd－ nà＇－ | ＂husband＂ <br> ＂chief＂ |
| :---: | :---: | :---: | :---: | :---: |
| $g^{\text {a }} s^{\varepsilon}$ | $b u ̄ g^{\text {a }}$ | $b \overline{o v s}{ }^{\varepsilon}$ | bò－ | ＂goat＂ |
| $g{ }^{1} d^{\varepsilon}$ | dう̀ $g^{3}$ bū＇өsúg ${ }^{\text { }}$ | $d ว ̀ \partial d^{\varepsilon}$ <br> bū＇өsá ${ }^{+}$ | dう̀ bū＇өs－ | ＂hut＂ <br> ＂question＂ |
| $r^{\varepsilon} \mid a^{+}$ <br> ${ }^{\varepsilon}$ | nว̄วr ${ }^{\text {／}}$ <br> Kūsâal ${ }^{\varepsilon}$ | nōyá＋ | nכ－ | ＂mouth＂ <br> ＂Kusaal＂ |
| $\mathrm{flı}^{+}$ | mう̀ıf | $m \grave{l}{ }^{+}$ | mò－ | ＂gazelle＂ |
| $b$ | sā＇ab ${ }^{\text {a }}$ |  | sà＇－ | ＂porridge＂ |
| $m^{\mathrm{m}}$ | tì $\mathrm{m}^{\mathrm{m}}$ |  | tì－ | ＂medicine＂ |

Stems in $m$ with long root vowels in the ${ }^{\text {a }} b^{\text {a }}$ class avoid the plural suffix $b^{a}$ ； some $g^{\text {a }} \mid s^{\varepsilon}$ class nouns with human reference have alternative plurals with $b^{\text {a }}$ ； countable nouns in the $m^{m}$ class form plurals with $-a^{+}$or $-s^{\varepsilon}$ or nàma；and the small
 is found only in the irregular adjective bila＂little．＂

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

| $p \bar{\varepsilon}^{\prime} \mathrm{og}^{\text {／}}$ | $p \bar{\varepsilon}^{\prime} \varepsilon s^{\varepsilon /}$ |  | $p \bar{\varepsilon}^{\prime}-$ | ＂sheep＂ |
| :---: | :---: | :---: | :---: | :---: |
|  | $g b \grave{c}^{\prime} \varepsilon d^{\varepsilon}$ |  | gbè＇－ | ＂forehead＂ |
|  | gbèda＋ |  |  |  |
| bīāuñ ${ }^{\text {a }}$ | $b i \overline{a ̄ n ̃ ' a d ~}{ }^{\text {¢ }}$ | WK | bi̇àň＇－ | ＂shoulder＂ |
|  | biān̆＇ada＋ | SB |  |  |

The sg SF is usually enough to identify the noun class correctly，given whether the word has human reference．Where it is not enough，there is often vacillation between classes，suggesting that speakers do use these criteria to determine class membership；this is confirmed by the assignment of loanwords to noun classes．

Nouns with sg SF ending in a long monophthong，or in an unrounded vowel followed by a velar，belong to $g^{\text {a }} \mid s^{\varepsilon}$（exceptions are $b \bar{a} ' a=$＂traditional diviner＂and nàyïiga＂thief＂，both ${ }^{\mathrm{a}} \mid b^{\mathrm{a}}$ ）；all nouns ending in a rounding diphthong followed by a velar belong to $g^{\supset} \mid d^{\varepsilon}$ ，as do most ending in a rounded monophthong followed by a velar，but a fair number are $g^{\text {a }} \mid s^{\varepsilon}$ ．

Human-reference nouns are otherwise ${ }^{a} \mid b^{a}$, except for stems ending in a long vowel, which have been transferred to $r^{\varepsilon} \mid a^{+}$in Agolle Kusaal. The $b^{\mathrm{a}}$-singular subclass contains most human-reference nouns in sg SF -b, and also sàam ${ }^{\text {ma }}$ "father", diəm ${ }^{\text {ma }}$ "man's parent-in-law", dàyáam ${ }^{\text {ma "woman's parent-in-law"; exceptional is }}$ $z \bar{\partial} m^{\text {ne }}$ "fugitive" ( $r^{\varepsilon} \mid a^{+}$).

All nouns in SF - $f$ belong to $f\left(\iota^{+}\right.$.
Underived mass nouns in $-m$ belong to $m^{m}$, and in $-b$ or $-p$ to the $b^{3}$ class.
Non-human-reference count nouns ending in I $n r$ belong to the $r^{\varepsilon} \mid a^{+}$class, as do those ending in $m$ apart from a few $m^{m}$-class count nouns like yā'am ${ }^{\mathrm{m} /}$ "gall, gall bladder", pūum ${ }^{\mathrm{m} /}$ "flower", dàalím ${ }^{\mathrm{m}}$ "male sex organs", pù'alím ${ }^{\mathrm{m}}$ "female sex organs." Piiim ${ }^{\mathrm{m} /}$ "arrow" is a relic of a "long thin things" $ग^{\varepsilon}$ class, lost in Western Oti-Volta.

The class membership of regular deverbal nouns is predictable.

As with almost all noun class systems, there are correlations between class membership and meaning, though with frequent exceptions. These associations can be exploited to change the significance of a stem 11.2.

The ${ }^{a} \mid b^{a}$ class has exclusively human-reference membership, though many nouns referring to people belong to other classes. There is a subclass of nouns for elders and other important people which use the plural $b^{\text {a }}$ as singular.

The $g^{\text {a }} \mid s^{\varepsilon}$ class has general membership but notably includes the great majority of tree names, many larger animals, and tools. Almost all ethnic group names belong to ${ }^{\text {a }} \mid b^{\mathrm{a}}$ or $g^{\mathrm{a}} \mid s^{\varepsilon}$ except for Zàngbèog ${ }^{\supset}$ "Hausa" and Nàsāara+ "European"; the place inhabited by the group has sg $-g^{3}$.

The $g^{\top} \mid d^{\varepsilon}$ and $r^{\varepsilon} \mid a^{+}$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 $g^{\supset} \mid d^{\varepsilon}$ seem to be pejorative: bāl $\bar{\varepsilon} r v g^{J /}$ "ugly person", dàbīog ${ }^{\text {º }}$ "coward", z亏̄lug ${ }^{\text {/ }}$ "fool." Some original ${ }^{\text {a }} b^{\text {a }}$ class nouns have been reallocated to $r^{\varepsilon} \mid a^{+}$for phonological reasons e.g. bīər $r^{\varepsilon /}$ "elder same-sex sibling."

The $I^{\varepsilon}$ subclass includes all names of languages.
The small $\digamma^{\rho} \iota^{+}$class includes two groups: animals, and small round things. It contains all names of seeds. No $\mathrm{f}^{\mathrm{l}} \iota^{+}$noun refers to people.

The $b^{\text {T }}$ class has only three members known to me that are not gerunds: $s \bar{a}^{\prime} a b^{\text { }}$ "millet porridge, TZ", tān̆ $p^{3}$ "war" and $k^{-1}\left(b^{ว /}\right.$ "soap."

The $m^{\mathrm{m}}$ 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 $m^{\mathrm{m}}$ or $b^{\text {J }}$ or formally plural.

### 8.2 Remodelled combining forms

For levelling between sg and pl forms see 5.3 5.5.
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.

| nifol | nīní ${ }^{+}$ | nīn- or nīf- | "eye" |
| :---: | :---: | :---: | :---: |
| zin̆'a+ | zèn̆'عs ${ }^{\text { }}$ | ziàn̆'- or zèn̆'- | "red" (adjective) |
| w亏̄k ${ }^{\text {/ }}$ | wā'ad ${ }^{\varepsilon /}$ | wā'- or wōk- | "long, tall" (adjective) |
| tān̆p ${ }^{3}$ |  | tàn̆p- | "war" |
| $z u ̄ g^{\prime /}$ | $z u ̄ t^{\varepsilon /}$ | $z u \overline{-} \quad$ or $z u ̄ g-$ | "head" |

Mooré and Toende show zu- consistently in cases where Agolle has zūg-: Mooré zusoaba, Toende zùsóp, Agolle zūg-sóba "boss"; Mooré zúkúká, Toende zùkúk, Agolle $z u ̄ g-k \overline{0} g v r^{\varepsilon}$ "pillow." Zūg-sób ${ }^{\text {a }}$ "Lord" is very frequently read $Z \bar{u}-s$ śb $^{\text {a }}$ in the audio version of the NT. The cb $z \bar{u} g$ - sometimes behaves tonally like a noun prefix 6.2.4.

The "regular" cb of nīf/ "eye" is nīn-, but as a head it appears as nīf-: nīf-kánā "this eye." Nīn- still predominates as a dependent: nīn-dáa= "face", nīn-tám ${ }^{m}$ "tears", nīn-gótis ${ }^{\varepsilon}$ "spectacles." Gbàun ${ }^{\supset}$ "letter, book" now has the cb gbàun-, but the "regular" cb gbàn- still occurred as a generic complement in the 1976 NT e.g. gbanmi'id gbànmīid "scribe" ("book-knower") where later versions have gbaunmi'id. Similarly, the 1976 NT zipgban'ad zīm-gbân̆'ad "fisherman" has been replaced by KB ziingban'ad.

With $m$ and $n$ stems, the remodelled forms have become the regular cbs:

| zīnzāun ${ }^{\text {/ }}$ | zīnzāná+ | zīnzáun- | "bat" |
| :---: | :---: | :---: | :---: |
| àňrup ${ }^{\text {a }}$ | àn̆rıma+ | àn̆rop- | "boat" |

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

| $g b \bar{\varepsilon} r^{\varepsilon /}$ | gbēyá+ | $g b \bar{\varepsilon} r$ - | "thigh" |
| :---: | :---: | :---: | :---: |
| $k \dot{k} k \overline{\text { jr }}$ ¢ | kùkว̄yá ${ }^{+}$ | kùkう̄r- | "voice" |
|  |  | (but kùkj̄-títā'ar | "loud voice" NT) |

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 | $k \bar{I}^{+}$ | $k \bar{i}-$ or $k \bar{a}-$ | "cereal, millet" |
| :--- | :--- | :--- | :--- |
| lā'af | līgıdı+ | là'- or lìg- | "cowrie" pl "money" |

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

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

Disambiguation is clearly involved with some longer remodelled cbs：

| kj̀log ${ }^{\text {a }}$ | $k \grave{n}{ }^{\text {ne }}$ | kj̀log－ | ＂bag＂ |
| :---: | :---: | :---: | :---: |
| lànnıg ${ }^{\text {a }}$ | lànnıs ${ }^{\text { }}$ | lànnıg－ | ＂squirrel＂ |
| kj̀log－kànā | ＂this bag＂ | cf cb kjl－from | k亏̄lıg ${ }^{\text {a }}$＂river＂ |
| lànnıg－pìəıg | ＂white squirrel＂ | cf cb làn－from | lān ${ }^{\text {n¢ }}$＂testicle＂ |

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－sùn＂good man＂，vs sg dāu＂man＂；dàp－sùma＂good men＂，vs pl dāp＂men．＂

Remodelled cbs are traditionally written as separate words；as the orthography does not mark tone，this can lead to ambiguity，e．g．yamug bipup（Acts 16：16，1976） for yàmmug－bī－pún＂slave girl＂not yàmmug bí－pún＂slave＇s girl＂15．8．1．4．

## 8．3 Paradigms

By default，class suffixes attach after a stem－final epenthetic vowel or root vowel．Complications arise from consonant assimilation，rounding before $-g^{3}-k^{\top}-\eta^{\top}$ ， deletion of ${ }^{*} g$ after aa iə uө aаn̆ عहn̆ ככn̆，and with $C V V$－stems before ${ }^{\text {a }}, \iota^{+}$and $a^{+}$．

## 8．3．1 ${ }^{\mathrm{a}} \mid b^{\mathrm{a}}$

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

| $s i^{\prime} d^{\text {a }}$ | $s i ̄ d ı b^{\text {a }}$ | sìd－ | ＂husband＂ |
| :---: | :---: | :---: | :---: |
| nīda／ | nīdı $b^{\text {a／}}$ | nīn－irreg | ＂person＂ |
| sàal ${ }^{\text {a }}$ | sàalı ${ }^{\text {a }}$ | sàal－ | ＂human being＂ |
| kpāad ${ }^{\text {a／}}$ | kpāadíb ${ }^{\text {a }}$ | kpāad－ | ＂farmer＂ |
| kūod ${ }^{\text {a／}}$ | kūvdíba | kūod－ | ＂killer＂ |
| kpīkpīn ${ }^{\text {na／}}$ | kpīkpīnníba | kpīkpín－ | ＂merchant＂ |
| $y \bar{u}$ ¢m－yט̂＇um ${ }^{\text {na }}$ | yōom－yô＇umnìb ${ }^{\text {a }}$ | yōom－yô＇um－ | ＂singer＂ |
| bì－pital | bi－pitííb ${ }^{\text {a }}$ | bì－pit－ | ＂younger child＂ |
| wād－tís ${ }^{\text {a }}$ | wād－tísìb ${ }^{\text {a }}$ | wād－tís－ | ＂lawgiver＂NT |
| zà＇－n亏̄－gúr ${ }^{\text {a }}$ | zà＇－nj̄－gúrìb ${ }^{\text {a }}$ | zà＇－nう̄－gúr－ | ＂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＂6．2．3．Many also have nàm ${ }^{\text {a }}$ plurals．

| Kù̀s ${ }^{\text {a }}$ | kūesıdı ${ }^{\text {a }}$ | kùөs- | "seller" |
| :---: | :---: | :---: | :---: |
| di'əs ${ }^{\text {a }}$ | di'əsıdıb ${ }^{\text {a }}$ | di'əs- | "receiver" |
| tò'as-tù'as ${ }^{\text {a }}$ | $t$ tò'as-tū'asıdıb ${ }^{\text {a }}$ | tù'as-tò'as- | "talker" |
| sighs ${ }^{\text {a/ }}$ | sīgısídìb ${ }^{\text {a }}$ | sīgıs- | "lowerer" |
| dicsa | dìs-nàm ${ }^{\text {a }}$ | dìs- | "glutton" |

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

| sj̀s ${ }^{\text {a }}$ | sj̄sıdıba | sj̀s- | "beggar" |
| :---: | :---: | :---: | :---: |
| tis ${ }^{\text {a }}$ | $t i ̄ s ı d ı b^{\text {a }}$ | tis- | "giver" |
| $k i \bar{s}{ }^{\text {a/ }}$ or $k i \bar{s} ı d^{\text {a/ }}$ | kīsıdíb ${ }^{\text {a }}$ | kīsıd- (only) | "hater" |

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

| zàb-zà ${ }^{\text {a }}$ | zàb-zàb-nàm ${ }^{\text {a }}$ | zàb-zàb- | "warrior" |
| :---: | :---: | :---: | :---: |
|  | zàb-zābıdıb ${ }^{\text {a }}$ |  |  |
|  | gbān-záb-nàm ${ }^{\text {a }}$ | gbān-záb- | "leatherbeater" |
| n̆wī-t́́k ${ }^{\text {a }}$ | n̆wī-tékıd ${ }^{\text {b }}{ }^{\text {a }}$ |  | "rope-puller" |

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

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

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

|  | kpīimís ${ }^{\text {e }}$ | kpīim- | "dead person, corpse" |
| :---: | :---: | :---: | :---: |
| zū'өm ${ }^{\mathrm{m} /}$ |  | zū'өm- | "blind person" |
| tādım ${ }^{\text {m/ }}$ | tādımıs ${ }^{\varepsilon}$ | tàdım- | "weak person" |
|  | tàdım-nàm ${ }^{\text {a }}$ |  |  |

WK accepted $-b^{\mathrm{a}} \mathrm{pl}$ forms as LFs but not SFs in the two words

| $k p \varepsilon \overline{\varepsilon n} m^{\text {m }}$ | kp¢̄¢n̆mma LF only |  |
| :---: | :---: | :---: |
|  | kpèzn̆m-nàm ${ }^{\text {a }}$ kpèzn̆m- | "elder" |
| $b i{ }^{\prime} \quad m^{m}$ | bi̇əmma LF only |  |
|  | bì'əm-nàm ${ }^{\text {a }}$ bi'əm- | "enemy" |

Stems in In r following a short root vowel show sg LF－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 $b^{\text {a }}$－plural words in cases where the stem final would not assimilate sg $-r^{\varepsilon} \underline{5.4}$ ．

The assimilation＊nb $\rightarrow m m$ takes place in the plural：

| Dàgbān ${ }^{\text {ne／}}$ | Dàgbāmma／ | Dàgbān－ | ＂Dagomba person＂ |
| :---: | :---: | :---: | :---: |
| $B i$ nn ${ }^{\text {n }}$ | Bìm ${ }^{\text {ma }}$ | Bin－ | ＂Moba person＂ |
| Kòtān ${ }^{\text {ne／}}$ | Kùtām ${ }^{\text {ma／}}$ | Kùtān－ | member of EW＇s clan |
| Mכ̄ $\mathrm{r}^{\text {ع／}}$ | Móom ${ }^{\text {ma }}$ irreg | Mכ̄r－ | ＂Muslim＂ |

Agent nouns from single－aspect verbs with stems in－II or $-r(r)$ not only show alternative $-\varepsilon$ LF sg forms but also have analogical plurals in $-a^{+}$alongside $-b^{\text {a }}$ ．
or

| n̆yà＇an－dj̀la | n̆yà＇an－dj̀lıb ${ }^{\text {a }}$ | n̆yà＇an－dう̀l－ | ＂disciple＂NT |
| :---: | :---: | :---: | :---: |
| ňyā＇an－dólı | ňyā＇an－dóllà ${ }^{+}$ | ňyā＇an－dól－ | id WK |
| gbàn－zān̆ıla／ | gbàn－zān̆llíba | gbàn－zān̆l－ | ＂book－carrier＂KT WK |
| bù－zān̆ıla／ | bù－zān̆llíb ${ }^{\text {a }}$ | bù－zān̆l－ | ＂goat－carrier＂WK |
| bù－zān̆ıl｜${ }^{\text {／}}$ | bù－zān̆llá＋ |  |  |
| gbàn－mōr ${ }^{\text {a／}}$ | gbàn－mōríb ${ }^{\text {a }}$ | gbàn－mōr－ | ＂book－owner＂DK |
| gbàn－tār ${ }^{\text {a／}}$ | gbàn－tāríb ${ }^{\text {a }}$ | gbàn－tār－ | id DK |
| bù－mう̄r ${ }^{\text {a／}}$ | bò－mōríb ${ }^{\text {a }}$ | bù－m̄̄r－ | ＂goat－owner＂WK |
| bù－mう̄r ${ }^{\text {c／}}$ | bù－mōrá ${ }^{\text {a }}$ |  |  |

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

| dāu ${ }^{+}$ |  | dāpa | dàu－，dàp－5．3．1 | ＂man＂ |
| :---: | :---: | :---: | :---: | :---: |
| tāuñ ${ }^{+/}$ |  | tān̆p ${ }^{\text {a／}}$ | tāun̆－，tān̆p－ | ＂sib of opposite sex＂ |
| sāeñ ${ }^{+}$ | WK | sāan̆ ${ }^{\text {a }}$ | sàn̆－ | ＂blacksmith＂ |
| sāeñ ${ }^{\text {a }}$ | DK |  |  |  |
| sj̄eñ ${ }^{+}$ | WK | sว̄วn̆b ${ }^{\text {a }}$ | sìn̆－ | ＂witch＂ |
| sjēñ ${ }^{\text {a }}$ | DK |  |  |  |

＊CVg－stems appear in

| pư＇āa $\leftarrow$＊puaga | $p \bar{a}^{\prime} a b^{a}$ | pư＇à－ | ＂woman，wife＂ |
| :--- | :--- | :--- | :--- |
| bā＇a $=\leftarrow$＊baga | bā＇ab | bà＇－ | ＂traditional diviner＂ |

Note the irregular long SF vowel of bā＇a＝．
Sg final -v is dropped in the cb and pl in

| pītó ${ }^{+}$ | pitíl ${ }^{\text {a }}$ | pit－ | ＂younger sibling |
| :---: | :---: | :---: | :---: |
|  |  |  | of same sex＂ |

Sàam－pīt ${ }^{\mathrm{a} /}$＂father＇s younger brother＂and bì－pit ${ }^{\mathrm{a} /}$＂younger child＂are regular．
Some CVV stems introduce－$d$－in the sg and in the pl or cb：

| wìıd ${ }^{\text {a }}$ | wìm ${ }^{\text {a }}$ | wìld－ | ＂hunter＂ |
| :---: | :---: | :---: | :---: |
| sכ̄n̆＇วda／ | sכ̄n̆＇วb ${ }^{\text {a／}}$ | sכ̄n̆＇วd－ | ＂someone better than＂ |
| $p \bar{u}^{\text {k }}$ pāad ${ }^{\text {a／}}$ | $p \overline{\mathrm{u}} \mathrm{p}$ āadíb ${ }^{\text {a }}$ | pūkpá－ | ＂farmer＂ |

Other CVV stems have become $r^{\varepsilon} \mid a^{+}$class，accounting for human－reference nouns in $r^{\varepsilon} \mid a^{+}$like pòkj̀つn̆r ${ }^{\varepsilon}$＂widow＂，dà－kう̀כn̆r $r^{\varepsilon}$＂bachelor＂，bīər $r^{\varepsilon /}$＂elder same－sex sib＂， $p \grave{n}$＇ว $r^{\varepsilon}$＂cripple＂，$\check{n} y \bar{\varepsilon} ' \varepsilon r^{\varepsilon /}$＂next－younger sib．＂Related languages，including Toende Kusaal，may keep pl－bá Toende pókốót pl pokõp＂widow＂，dákốot pl dakõp ＂bachelor＂，but sg yẽ̃＇et pl yẽra＂next－younger sib．＂

A subclass referring to older／important people has $-b^{\mathrm{a}}$ for sg ，with pl nàm ${ }^{\mathrm{a}}$ 8．4：

| nà＇ab ${ }^{\text {a }}$ | nà＇－nàm ${ }^{\text {a }}$ | nà＇－ |
| :---: | :---: | :---: |
| yáaba（＊yāágbā） | yāa－nám ${ }^{\text {a }}$ | yāa－ |
| pògudıb ${ }^{\text {a }}$ | pùgud－nàm ${ }^{\text {a }}$ | pògud－ |
| áňsì ${ }^{\text {a }}$ | ān̆s－nám ${ }^{\text {a }}$ | ān̆ |
| sàam ${ }^{\text {ma }}$（＊mb） | sàam－nàm ${ }^{\text {a }}$ | sàam－ |
| diəm ${ }^{\text {ma（ }}$＊mb） | dìəm－nàm ${ }^{\text {a }}$ | dìəm－ |
| dàyáam ${ }^{\text {ma }}\left({ }^{(m b)}\right.$ | dàyāam－nám ${ }^{\text {a }}$ | dày |

＂chief＂
＂grandparent＂
＂father＇s sister＂
＂mother＇s brother＂
＂father＂
＂man＇s parent－in－law＂
＂woman＇s parent－in－ law＂

## 8．3．2 $g^{\mathbf{a}} \mid s^{\varepsilon}$

Straightforward examples include：

| $b \bar{u} g^{\text {a }}$ | $b \bar{u} v s^{\varepsilon}$ | $b \dot{\text { bu }}$ | ＂goat＂ |
| :---: | :---: | :---: | :---: |
| n̆wādıg ${ }^{\text {a／}}$ | n̆wādıs ${ }^{\text {／}}$ | n̆wād－ | ＂moon，month＂ |
| āan̆dıg ${ }^{\text {a }}$ | āañdıs ${ }^{\text {e }}$ | àan̆d－ | ＂Vitex doniana＂ |
| bù－dìbıg ${ }^{\text {a }}$ | $b \dot{\text { b }}$－dìbıs ${ }^{\text {e }}$ | bù－dìb－ | ＂male kid＂ |
| kpiibıg ${ }^{\text {a }}$ | kpiibıs ${ }^{\text {e }}$ | kpiio－ | ＂orphan＂ |
| yàmmıg ${ }^{\text {a }}$ | yàmmıs ${ }^{\varepsilon}$ | yàm－ | ＂slave＂ |
| $k \bar{\jmath} / g^{\text {a }}$ | $k \bar{l} / s^{\varepsilon}$ | kうl－ | ＂river＂ |
| kpùkpàrıg ${ }^{\text {a }}$ | kpùkpàrıs ${ }^{\text {® }}$ | kpòkpàr－ | ＂palm tree＂ |
| pūsıga／ | pūsıs ${ }^{\text {／}}$ | pūs－ | ＂tamarind＂ |
| $z z^{\prime} g^{\text {a }}$ | zว̄งs ${ }^{\text {¢ }}$ |  | ＂run，race＂ |

Root－stems in Caa Ciə Cue delete the ${ }^{*} g$ of the sg suffix $-g^{\text {a }} \underline{\underline{5.6}}$

| bāa $=7.1$ | bāas | bà－ | ＂dog＂ |
| :--- | :--- | :--- | :--- |
| sīa $^{+}$ | sīəs $^{\varepsilon}$ | sià－ | ＂waist＂ |
| sàbùa ${ }^{+}$ | sàbùəs $^{\varepsilon}$ | sàbùà－ | ＂lover，girlfriend＂ |

Nasal ian̆ uan̆ here alternates with $\varepsilon \varepsilon n ̆ ~ ว \supset n ̆: ~$

| zin̆ ${ }^{\text {a }}{ }^{+}$ | zèn̆＇عs ${ }^{\varepsilon}$ | ziàn̆＇－or zėn̆＇－ | ＂red＂（adjective） |
| :---: | :---: | :---: | :---: |
| nū＇－ín̆＇a＋ | $n u ̄ '-\varepsilon \hat{n}^{\prime} ' \varepsilon s^{\varepsilon}$ | nū＇－દ́n̆＇－ | ＂fingernail＂ |
| nūa＋／ | $n$ П̄วs ${ }^{\text {／}}$ | nう－ | ＂hen＂ |

Stems in ${ }^{*} C V g$－display consonant assimilation in the sg via ${ }^{*} g g \rightarrow k k$ ：
gìk ${ }^{\text {a }} \quad$ gìgıs ${ }^{\varepsilon} \quad$ gìg－$\quad$＂dumb person＂
＊Cag－＊Ciag－＊Cuag－delete ${ }^{*} g$ when there is no assimilation $\underline{\text { 5．6 }}$

| zàk ${ }^{\text {a }}$ | zà＇as ${ }^{\text {¢ }}$ | zà＇－ | ＂compound＂ |
| :---: | :---: | :---: | :---: |
| puāk ${ }^{\text {a }}$ | $p o ̄ ' a s^{\varepsilon}$ | pu＇à－ | ＂female＂（adjective） |

Stems in $-m$－and $-n$－show $* m g \rightarrow \eta$ and $* n g \rightarrow \eta$ in the sg，with cbs remodelled on the sg．In the pl＊ns $\rightarrow \tilde{\text { is }} \underline{5.4}$ ，but＊ms never assimilates in 2－mora stems，and need not do in longer stems．No 3－or 4－mora $n$－stems occur in this class．

| $t \bar{\varepsilon} \eta^{\text {a }}$ | tह̄عn̆s ${ }^{\text { }}$ | tèn－ | ＂land＂ |
| :---: | :---: | :---: | :---: |
| pà ${ }^{\text {a }}$ | pàan̆s ${ }^{\varepsilon}$ | pàn－ | ＂power＂ |
| bù ${ }^{\text {a }}$ | bùmıs ${ }^{\text {c }}$ | bùn－ | ＂donkey＂ |
| $n a ̄ \eta^{\text {a }}$ | nāmıs ${ }^{\text {c }}$ | nàn－ | ＂scorpion＂ |
| sú＇өワ ${ }^{\text {a }}$ | sū＇өmís ${ }^{\varepsilon}$ | sū＇өŋ－ | ＂rabbit＂ |
| níi ${ }^{\text {a }}$ | níis ${ }^{\text {c }}$ | niì－ | ＂bird＂ |
|  | nīmís ${ }^{\text { }}$ |  |  |
| $k \dot{l}{ }^{\text {a }}$ | kùlıs ${ }^{\text {c }}$ | kùlıク－ | ＂door＂ |
|  | kùlımıs ${ }^{\text {e }}$ |  |  |
| $k{ }^{\text {colín }}{ }^{\text {a }}$ | kō＇alís ${ }^{\text {c }}$ | Kōalín－ | sleeveless traditional smock |
|  | kō＇alímis ${ }^{\varepsilon}$ |  |  |
| $m \bar{\varepsilon} \varepsilon d \iota ŋ^{\text {a }}$ | $m \bar{\varepsilon} \varepsilon d \stackrel{s^{\varepsilon}}{ }$ | mèzdıワ－ | ＂building tool＂ |
|  | $m \bar{\varepsilon} \varepsilon d ı m ı s^{\varepsilon}$ |  |  |
| piosín ${ }^{\text {a }}$ | pīəsís ${ }^{\text {e }}$ | pīəsín－ | ＂sponge for washing＂ |
|  | pīəsímis ${ }^{\text {e }}$ |  |  |

Various irregularities are seen in

| biig ${ }^{\text {a }}$ | biïs ${ }^{\text {c }}$ | bī- or bì | "child" |
| :---: | :---: | :---: | :---: |
| bèrın ${ }^{\text {a }}$ | bèrıgıs ${ }^{\text {¢ }}$ |  | a plant used for fibre |
| tàmpūa+ | tàmp亏̄วs ${ }^{\text {® }}$ | tàmpj- | "housefly" DK (no n̆) |
| $b u ̄ t ı \square^{\text {a }}$ | $b \bar{t} t u s^{\varepsilon}$ | bùtı- | "cup" 2.1 |
| sāpá+ | sānsá+ /ns/ | sān- | "time" |

These human-reference nouns have alternative plurals with the suffix $-b^{a}$ :

| dàsā ${ }^{\text {a }}$ | dàsām ${ }^{\text {ma }}$ | dàsàn- | "young man" |
| :---: | :---: | :---: | :---: |
|  | or dàsāan̆s ${ }^{\varepsilon}$ |  |  |
| Yàan ${ }^{\text {a }}$ | Yàam ${ }^{\text {ma }}$ | Yàan- | "Yanga, Yansi person" |
|  | or Yàamıs ${ }^{\varepsilon} /$ Yàan̆s ${ }^{\varepsilon}$ |  |  |
| Sà'dàbùa+ | Sà'dàbù ${ }^{\text {b }}$ |  | clan name |
|  | or Sà'dàbù S $^{\text {® }}$ |  |  |

Several $s^{\varepsilon}$-plural stems with rounded root vowels or epenthetic vowels rounded after $m$ have $\operatorname{sg} g^{\supset}$ for the expected $g^{\text {a }}$. 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 yungu pl yunsi "night.")

Some original $g^{\supset} d^{\varepsilon}$ nouns have substituted $\mathrm{pl}-s^{\varepsilon}$ for $-d^{\varepsilon}$ instead of $-a^{+}$8.3.3:

|  | à-dàalón ${ }^{\text {² }}$ | à-dàalís ${ }^{\varepsilon} \mathrm{WK}$ | à-dàalón- | "stork" |
| :---: | :---: | :---: | :---: | :---: |
|  |  | à-dàalímis ${ }^{\text {c }}$ |  |  |
| cf | sí'u ${ }^{\text {a }}$ | sīimís ${ }^{\text {a }}$ | si'un- | a kind of big dish |
|  | dìsón ${ }^{\text {a }}$ | dìsís ${ }^{\text {a }}$ | dìsón- | "spoon" |
|  |  | dìsímà ${ }^{+}$ |  |  |

Two words of this type drop -s- from the stem in the plural:

| wīlısúp ${ }^{\text {a }}$ | wīlımís ${ }^{\text {e }}$ | wīlısúp- | a kind of snail |
| :---: | :---: | :---: | :---: |
| yālısún | yālımís ${ }^{\text {e }}$ | yālısúp- | "quail" |

### 8.3.3 $g^{د} \mid d^{\varepsilon}$

All stems in $m n$ after a short vowel, and all gerunds, use $\mathrm{pl} a^{+}$instead of $d^{\varepsilon}$. Before the sg $-g^{3}-k^{3}-\eta^{3}$ stem-final vowels are rounded, changing epenthetic vowels to $v$ and creating rounding diphthongs from root vowels 5.5.

| dàug ${ }^{\text { }}$ | dàad ${ }^{\varepsilon}$ | dà- | "piece of wood" |
| :---: | :---: | :---: | :---: |
| vāon̆g ${ }^{\text {/ }}$ | vāan̆d ${ }^{\text {/ }}$ | vān̆- | "leaf" |
| fĒn̆'og ${ }^{\text {/ }}$ | fz̄n̆' $\varepsilon d^{\varepsilon /}$ | f®̄̆̆'- | "ulcer" |
| dàbiog ${ }^{\text { }}$ | dàbīəd ${ }^{\varepsilon}$ | dàbià- | "coward" |
| vīug ${ }^{\text {/ }}$ | viìd ${ }^{\text {¢/ }}$ | vī- | "owl" |
| mjog ${ }^{\text { }}$ | $m \bar{\partial}{ }^{\text {¢ }}$ | mう- | "grass, bush" |
| dòndùug ${ }^{\text {J }}$ | dòndùud ${ }^{\text {e }}$ | dòndù- | "cobra" |
|  | zùөd ${ }^{\text {c }}$ |  | "friendship" |
| wābug ${ }^{\text {/ }}$ | wābıd ${ }^{\varepsilon /}$ | wāb- | "elephant" |
| zūebúg ${ }^{\text { }}$ | zūөbíd ${ }^{\text {c }}$ | zūөb- | "(human head) hair" |
| bālह̄rıg ${ }^{\text {/ }}$ | bālह̄rıd ${ }^{\text {/ }}$ | bālćr- | "ugly person" |
|  | bālērcs |  |  |
| $b \bar{\varepsilon} s \cup g{ }^{\text {a }}$ | $b \bar{\varepsilon} s ı d^{\varepsilon}$ | bès- | kind of pot |

Some stems ending in root vowels have plurals of the form $C V t^{\varepsilon} \underline{\text { 5.3.1: }}$
dう̀ว $g^{\text {º }}$
$d \grave{\partial d^{\varepsilon}}$ or $d \grave{t} t^{\varepsilon} \quad d \grave{-}$
"hut, room; clan"

So too $p \bar{\partial} \partial g^{\text {J/ "farm, field", fūug }}$ / "clothing, shirt." The sg has a short vowel in
$z u ̄ g^{\partial /} \quad z u ̄ t^{\varepsilon /} \quad z u ̄-$ or $z u ̄ g-\quad$ "head"
*Cag- *Ciag- *Cuag- stems $\underline{5.6}$ show $\operatorname{sg}-k^{3}$, and ua becomes $\sim$ before $-k^{\top} \underline{5.5}$ :

| Iāuk ${ }^{\text { }}$ | $l a ̄ ' a d^{\varepsilon}$ |  | là'- | "(item of) goods" |
| :---: | :---: | :---: | :---: | :---: |
| biāuñ ${ }^{\text { }}$ | binān̆'ad ${ }^{\text {¢ }}$ | WK | bi̇àn̆'- | "shoulder" |
|  | biān̄'ada ${ }^{+}$ | SB |  |  |
| $1 \mathrm{~K}^{\text {J }}$ | 10 'ad ${ }^{\text {¢ }}$ |  | lu'à- | "quiver (for arrows)" |

Stems in CVd show -t- in the pl $\underline{5.4}$ via *dd $\rightarrow t$ :
$u ̀ d v g{ }^{\text {º }}$
$u ̀ t^{\varepsilon}$
ùd-
"(piece of) chaff"

Stems in CVg develop $k k$ in the singular via $* g g \rightarrow k k:$

| $d \bar{u} k^{\prime /}$ | $d \bar{u} g u d^{\varepsilon /}$ | $d \bar{u} g-$ | "cooking pot" |
| :---: | :---: | :---: | :---: |
|  | dūgub dút ${ }^{\text {c }}$ |  | "cooking pots" SB |

Stems in I develop the cluster $n n$ in the pl via */d $\rightarrow n n$ :

| z̄̄lug ${ }^{\rho}$ | $z \overline{1} n^{n \varepsilon /}$ | z̄̄/- | "fool" |
| :--- | :--- | :--- | :--- |
| sìlug | $\operatorname{sìn}^{\text {ne }}$ or $\operatorname{sìlss~}^{\varepsilon}$ | sìl- | "hawk" |

The only $m n$ stems making plurals with $-d^{\varepsilon}$ are CVVC root-stems:
làngávク

> làngāamá or làngáam ${ }^{\mathrm{m} \varepsilon}$
làngāon-
"crab"
 placename Tદ̀mpáan ${ }^{\text {ne }}$ "Tempane", if the second element is from pāalíg ${ }^{\text {a }}$ "new."

All stems in $n m$ following a short vowel use the plural suffix $a^{+}$instead of $d^{\varepsilon}$. They show *mg $\rightarrow$ מף and $* n g \rightarrow$ in the sg, with cbs remodelled on the sg.

| gbàu ${ }^{\text {a }}$ | gbàna+ | gbàn- or gbàun- | "letter, book" |
| :---: | :---: | :---: | :---: |
| zīnzāun/ | zīnzāná+ | zīnzáun- | "bat" |
| àn̆ron ${ }^{\text {a }}$ | àn̆rıma+ | àn̆ron- | "boat" |
| mālon | mālıma+ | màlon- | "sacrifice" |

The expected $u$-glide is absent in the sg and cb of
nìn-gbīn ${ }^{2 /} \quad$ nìn-gbīná ${ }^{+}$nìn-gbī-- "body"

This may represent the influence of the alternate sg form nin-gbin ${ }^{\mathrm{n} \varepsilon /}$.
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 $r^{\varepsilon}$ 11.1.1. Only stems in $-s$ - and -sım- have plurals, always with $-a^{+}$:

| bū'өsúg ${ }^{\text {a }}$ | bū'өsá+ | bū'өs- | "question" |
| :---: | :---: | :---: | :---: |
| zàan̆sún ${ }^{\text {a }}$ | zàan̆símà ${ }^{+}$ | zàan̆súy- | "dream" |

Gerunds of 3-mora $n$-stem verbs never assimilate *ng מע, and gerunds of 3mora $m$-stems only assimilate *mg $\rightarrow$ ク optionally: thus digınug "lying down",



The place name Dènug ${ }^{\text {º }}$ Denugu" (?? Dènnug ${ }^{\text {) }}$ ) also fails to assimilate *ng.

### 8.3.4 $r^{\varepsilon} \mid a^{+}$

Straightforward examples include:

| kūgor ${ }^{\text {/ }}$ | kūgá ${ }^{+}$ | kūg- | "stone" |
| :---: | :---: | :---: | :---: |
| dìgır ${ }^{\text {E }}$ | diga+ | dig- | "dwarf" |
| bàlàpır ${ }^{\text {c }}$ | bàlàna+ | bàlàn- | "hat" |
| yūgodır ${ }^{\text {e }}$ | yūgvda+ | yùgod- | "hedgehog" |
| $p u$ 'à-sādır ${ }^{\text {¢ }}$ | pư'à-sādá+ | pu'à'-sād- | "young woman" |
| nóbì ${ }^{\text {E }}$ | nว̄bá ${ }^{+}$ | nכ̄b- | "leg" |
| lūıbır | līıba+ | lìlb- | "twin" |
| sāngónnìr ${ }^{\text { }}$ | sāngónnà ${ }^{+}$ | sāngón- | "millipede" |
| bi'isıre | bì'isa+ | bi'is- | "woman's breast" |
| sūmmır ${ }^{\text {e }}$ | sūmma+ | sùm- | "groundnut" |

$C V V$ - and $C V^{\prime} V$-stems (for the allomorphs before $\mathrm{pl}-\mathrm{a}^{+}$see $\underline{\text { 5.3.1) }}$ )

| bīər ${ }^{\text {c/ }}$ | biēēá ${ }^{+}$ | binā- | "elder same-sex sib" |
| :---: | :---: | :---: | :---: |
| zӣөr ${ }^{\text {e }}$ | zuēya+ | zưà- | "hill" |
| nว̄วr ${ }^{\text {/ }}$ | nว̄yá ${ }^{+}$ | ก̄̄- | "mouth" |
| $z \bar{u} v r^{\varepsilon}$ | zōya+ | zù- | "tail" |
| tītā'ar ${ }^{\text {c }}$ | tītāda ${ }^{+}$ | tītá'- | "big" (adjective) |
| n̆y $\bar{z}^{\prime} \varepsilon r^{\varepsilon /}$ | n̆y $\overline{\text { c }}$ dá ${ }^{\text {a }}$ | n̆y $\overline{\text { ' }}^{\prime}$ | "next-younger sibling" |
| pòn'or ${ }^{\text {e }}$ | pòn̆da+ | pòn̆'- | "cripple" |
| $y \bar{U}^{\prime} \iota^{\varepsilon /}$ | yōdá ${ }^{+}$ | $y \bar{v}^{\prime}-$ | "name" |
| $y u ̄ ' ө r^{\varepsilon}$ | yuāda+ | yư'өr- 8.2 | "penis" |

Stems in *Cag- *Ciag- *Cuag- 5.6 may have forms made by analogy with original CV'V-stems, instead of or alongside forms with vowel fusion:

| bà'ar ${ }^{\text { }}$ | bà'a+ or bàda+ | bà'- | "idol" (Farefare bàgrغ̀) |
| :---: | :---: | :---: | :---: |
| n̆yā'ar ${ }^{\text {¢ }}$ | n̆yā'a+ | n̆yà'- | "root" ( $\leftarrow$ *ncg-) |
| sià'ar ${ }^{\text {e }}$ | sià'a+ | sià'- | "forest" |


| biān̄＇ar $r^{\varepsilon /}$ <br> mù＇ar ${ }^{\varepsilon}$ | biáň＇a＋ mu＇àa＋ | biān̆＇－ mu＇à－ | ＂wet mud，riverbed＂ <br> ＂reservoir，dam＂ |
| :---: | :---: | :---: | :---: |
|  | or mù＇ada＋ |  |  |
| zànkù＇ar ${ }^{\text { }}$ | zànku＇àa＋ | zànku＇à－ | ＂jackal＂ |
|  | or zànkù＇ada＋ |  |  |
| kòndò＇ar ${ }^{\text { }}$ | kùndư＇àa＋ | kùndư＇à－ | ＂barren woman＂ |
|  | or kùndù＇ada＋ |  |  |

So too，even in a case where the glottalisation is not derived from＊g：

$$
\text { kì-dà'ar } \quad \text { kì-dà'ada+ WK "bought-in millet" }
$$

Stems in deleted ${ }^{*} g$ after a long vowel include fusion verb gerunds 10.1 like

$v u ́ \theta r^{\varepsilon} \quad v$ vuaáa＝vūe－$\quad$ fruit of red kapok＂

Some root－stems show $C V$ with a short vowel before $r^{\varepsilon}$ ，with $c b C V r-8.2$ ：
$g b \bar{\varepsilon} r^{\varepsilon /}$
gbēyá＋
$g b \bar{\varepsilon} r-$
＂thigh＂

Similarly kùkj̄r ${ }^{\varepsilon /}$＂voice＂$k p a ̀ k \bar{k} r^{\varepsilon /}$＂tortoise＂gān̆ $r^{\varepsilon / ~ " e b o n y ~ f r u i t " ~ g u ̄ m p u ̄ z z ̄ r ~}{ }^{\varepsilon /}$ ＂duck＂ňyう̀－vōr ${ }^{\varepsilon /}$＂life＂．

2－mora stem verbs make gerunds in $-r^{\varepsilon}$ instead of $-b^{\rho}$ after a noun cb：$n \bar{\jmath}-1 \hat{\jmath} \partial r^{\varepsilon}$ ＂fasting＂（＂mouth－tying＂），fū－yદ̂عr ${ }^{\varepsilon}$＂shirt－wearing＂；vowel shortening appears in nā＇－ lór ${ }^{\varepsilon}$＂area in compound for tying up cows＂and wìd－I亏 $r^{\varepsilon /}$＂area for tying up horses．＂

Stems in $m n / r$ undergo consonant assimilation in the sg：＊rr $\rightarrow r, * / r \rightarrow I I$ ， $* n r \rightarrow n n, * m r \rightarrow m n$ ；on the instability of the cluster $m n$ see 5．2．

| kùkpàr ${ }^{\text {e }}$ | kùkpàra＋ | kùkpàr－ | ＂palm fruit＂ |
| :---: | :---: | :---: | :---: |
| $k p a ̄{ }^{\text {ne }}$ | kpāna＋ | kpàn－ | ＂spear＂ |
| $m a ́ ' a n^{\text {ne }}$ | mā＇aná＋ | mā＇an－ | ＂okra＂ |
| $p i ̄ b ı n^{\text {ne }}$ | pībına＋ | pibın－ | ＂covering＂ |
| dūm ${ }^{\text {ne }}$ | dūma＋ | dùm－ | ＂knee＂ |
| zว̄m ${ }^{\text {ne }}$ | zうэma＋ | zว̀m－ | ＂fugitive＂ |
| yòvm ${ }^{\text {ne }}$ | yòma＋ | yòvm－ | ＂year＂5．3．2 |
|  | gbīgıma＋ | gbigım－ | ＂lion＂ |
| $g \varepsilon ́ l \mid \varepsilon$ | gह̄lá ${ }^{+}$ | $g \bar{\varepsilon} /-$ | ＂egg＂ |
| úıl｜ | ìlá ${ }^{+}$ | ìl－ | ＂horn＂ |

With unusual sandhi in the sg, and presumably analogical levelling

```
ňwānn\varepsilon SB n̆wāna+ NT ňwàn-/n̆wàm- "calabash"
ňwāmm}\mp@subsup{}{}{m\varepsilon}\mathrm{ WK n̆wāma+ SB WK NT
```

An exceptional suppletive plural, segmentally and tonally, is seen in

```
dāar\varepsilon}\mp@subsup{\mp@code{@ dābá+ dà- "day"}}{}{\mathrm{ + }
```

These two $r^{\varepsilon} \mid a^{+}$class words probably have 1-mora stems:

| [Mampruli zari] | $z \bar{a}^{+/}$ | $z \overline{-}-$ | "millet" |
| :--- | :--- | :--- | :--- |
| $y \bar{i} \bar{r}^{\varepsilon /}$ | $y \bar{a}^{+/}$ | $y \bar{l}-$ | "house" |

Language names 29.4 have the suffix $-\mu^{\varepsilon}$ after stems ending in a root vowel:

| Language |  | Speakers |  |
| :---: | :---: | :---: | :---: |
| Kūsâal ${ }^{\text {® }}$ | Kusaal | Kūsâas ${ }^{\text {¢ }}$ | Kusaasi |
| M ${ }^{\text {J }}$ ¢ | Mooré | Mว̀วs ${ }^{\text {® }}$ | Mossi |
| Zàngbèz $\left.\right\|^{\varepsilon}$ | Hausa | Zàngbèzd ${ }^{\varepsilon}$ | Hausa |
| Nàsāal ${ }^{\text {¢ }}$ | English/French | Nàsàa-nàm ${ }^{\text {a }}$ | Europeans |

Stems in -r-show the distinctive assimilation $* r l \rightarrow t t \underline{5.4}$, but other stems ending in a consonant show forms indistinguishable those with the flexion $r^{\varepsilon}$ :

| Yāt ${ }^{\varepsilon /}$ | Yarsi | Yārıs ${ }^{\text {¢ }}$ | Yarsi |
| :---: | :---: | :---: | :---: |
| Bāt ${ }^{\text {/ }}$ | Bisa | Bārıs ${ }^{\text {/ }}$ | Bisa |
| Nàbır ${ }^{\text {E }}$ | Nabit | Nàbıdıb ${ }^{\text {a }}$ | Nabdema |
| Tùennır ${ }^{\text {E }}$ | Toende Kusaal | Tùөn ${ }^{\text {ne }}$ | Toende area |
| Dàgbā $n^{\text {ne/ }}$ | Dagbani | Dàgbām ${ }^{\text {ma/ }}$ | Dagomba |
| $B i n^{\text {ne }}$ | Moba | Bim ${ }^{\text {ma }}$ | Moba |
| Yàan ${ }^{\text {n }}$ | Yansi | Yàan̆s ${ }^{\text {® }}$ | Yansi |
| Gōrínn ${ }^{\text {n }}$ | Farefare | Gōrís ${ }^{\text {® }}$ | Farefare |
| Tàlın ${ }^{\text {ne }}$ | Talni | Tàlıs ${ }^{\text {c }}$ | Tallensi |
| Bùlı | Buli | Bùlıs ${ }^{\text {a }}$ | Bulsa |
| Àg̀̇ı ${ }^{\text {c }}$ | Agolle Kusaal | Àġ̀ ${ }^{\text {® }}$ | Agolle area |

Unexpected epenthesis occurs in:

| Kàmbùnır | Twi | Kàmbùmıs | Ashanti |
| :--- | :--- | :--- | :--- |
| $\check{N} w a ̄ m p u ̄ r \iota^{\varepsilon /}$ | Mampruli | Ňwāmpūrıs | Ashamprussi |

## 8．3．5 $\boldsymbol{f}^{\boldsymbol{P}} \boldsymbol{l}^{+}$

The plural $-\iota^{+}$causes the stem vowels aa iə $\varepsilon \varepsilon$ to undergo＂umlaut＂to ii． Straightforward examples for the $\rho^{\rho} \iota^{+}$class are

| molıf | mうっ ${ }^{+}$ | mうl－ | ＂gazelle＂ |
| :---: | :---: | :---: | :---: |
| biilíf | biill ${ }^{+}$ | biil－ | ＂seed＂ |
| n̆yïríf | ňyīrí＇ | ňyīr－ | ＂egusi＂ |
| zūríf | zūrí＋ | zūr－ | ＂dawadawa seed＂ |
| būn－búvdiff |  |  | ＂plant＂ |
| ［Mampruli kaafu］ | $k \bar{I}^{+/}$ | kī－or kā－ | ＂cereal，millet＂ |
| ［Mooré muiifu］ | mùì ${ }^{+}$ | mùi－ | ＂rice＂ |

Two words have stems in＊Caag－with deletion of ${ }^{\text {g }} \underline{5.6}$ ：

| náaf | nïigí |  |  |
| :--- | :--- | :--- | :--- |
| wáaf | wïigí $^{+}$ | nā＇－ | $\underline{5.3 .2}$ |

Stems in－n－show consonant assimilation in the sg with＊nf $\rightarrow$ ：$f$ f．4：

| $n i p^{\prime \prime}$ | nīní ${ }^{+}$ | nīn－or nīf－ | ＂eye＂ |
| :---: | :---: | :---: | :---: |
| píın̆f | pīní ${ }^{+}$ | pīn－ | ＂genet＂ |
| kíiñf | kīiní ${ }^{+}$ |  | ＂millet seed＂ |
| zó＇ nñ $^{\text {P }}$ | zū＇טní ${ }^{+}$ |  | ＂dawadawa seed＂ |
| míif | miini ${ }^{+}$ |  | ＂okra seed＂ |

Sg miif $\rho^{\prime}$ is remodelled after the umlauted pl：cf má＇an ${ }^{\text {ne }}$＂okra．＂ In two words stem $-d$－is lost in the sg：

| wìaf | wìdı ${ }^{+}$ | wìd－ | ＂horse＂ |
| :--- | :--- | :--- | :--- |
| lā＇af | līgıdı |  |  |

Some words only have $f{ }^{\rho} \iota^{+}$class suffixes in one number：

| ziip ${ }^{\text {a }}$ | zīmí ${ }^{+}$ | zīm－ | ＂fish＂ |
| :---: | :---: | :---: | :---: |
| wālıg ${ }^{\text {a }}$ | wālıs ${ }^{\varepsilon}$ or wālı́ ${ }^{+}$sic | wàl－ | a kind of gazelle |
| sībıga／ | sībí＋ | sīb－ | a kind of termite |
| siilñfol or siilnğgal | sīin̆s ${ }^{\text {／}}$ | sīn̆－ | ＂bee＂ |
| sūn̆fol or sūun̆r ${ }^{\text {¢ }}$ | sūn̆yá＋ | sūn̆－ | ＂heart＂ |
| $k p a ́ v \eta^{\text {a }}$ | kpỉiní ${ }^{+}$ | kpā＇－irreg | ＂guinea fowl＂ |

### 8.3.6 $b^{\boldsymbol{J}}$

Only three $b^{3}$ class nouns have been found which are not gerunds:

| sā'ab | sà'- | "millet porridge, TZ" |
| :--- | :--- | :--- |
| tān̆p | tàn̆p- | "war" $\underline{5.3 .1}$ |
| $k \bar{l}^{\prime}\left(b^{J}\right.$ |  | "soap" |

All regular gerunds from 2-mora-stem dual-aspect verbs belong here 11.1.1:
 at", and stems in $m$ show ${ }^{*} m b \rightarrow m m$ : $k \bar{\imath} m^{m 〕}$ from $k i ̀ m{ }^{m}$ "tend a flock/herd", wūm ${ }^{m}$ from wòm ${ }^{m}$ "hear." Stems in $n$ do not assimilate, however: būnı $b^{\top}$ from bùn ${ }^{\varepsilon}$ "reap."
$Y_{i ̄} s^{\varepsilon}$ "make go/come out" has the expected gerund yīs $b^{\text {J// }}$, the alternate form yiiis ${ }^{\varepsilon /}$ has yïisí $b^{\top}$, the only 3-mora stem in the $b^{\text {² }}$ class.

## $8.3 .7 \mathrm{~m}^{\mathrm{m}}$

Most words in this class are mass nouns. Straightforward forms include:

| dāam ${ }^{\text {m/ }}$ | dā- | "millet beer, pito" |
| :---: | :---: | :---: |
|  |  | "dew" |
| $k \bar{u} d ı m^{m}$ |  | "olden days" |
| dū'uním ${ }^{\text {m }}$ | dū'un- | "urine" |
| dàalım ${ }^{\text {m }}$ |  | "masculinity" |
| yàarım ${ }^{\text {m }}$ | yàar- | "salt" |
| zāan̆sím ${ }^{\text {m }}$ | zāan̆s- | "soup" |

$M$-stems can be identified from cbs in $m$, pls in $-m a^{+}$or $-m \iota s^{\varepsilon}$, or non-initial H tonemes in Pattern L 6.2.2.

| $v \bar{u} \mathrm{~m}^{\mathrm{m} /}$ |  | vōm- | "life" |
| :---: | :---: | :---: | :---: |
| $k u{ }^{\text {m }}{ }^{\text {m }}$ |  | kùm- | "death" |
| z亏̄m ${ }^{\text {m/ }}$ |  | zว̄m- | "flour" |
| bùgóm ${ }^{\text {m }}$ |  | bùgúm- | "fire" |
| yā'am ${ }^{\text {m/ }}$ |  | yā'am- | "gall; gall bladder" |
| pūum ${ }^{\text {m/ }}$ |  | pūum- | "flowers, flora" |
| bi'isím ${ }^{\text {m }}$ |  |  | "milk" |
| dàalím ${ }^{\text {m }}$ | dàalímis ${ }^{\text { }}$ | dàalím- | "male sex organs" |
| рїim ${ }^{\text {m/ }}$ | pīmá ${ }^{+}$ | pìm- | "arrow" 5.3.2 |

Piim ${ }^{\mathrm{m} /}$ "arrow" is a remnant of an old "long, thin things" $ગ^{\varepsilon}$ class, preserved in e.g. the Gurma languages and Nawdm: cf Nawdm fíimú "arrow", plural fímí.

### 8.4 Nàm plurals

Nàm ${ }^{\text {a }}$ is not a suffix. It appears as a NP head, with a predependent noun appearing as cb if it is a count noun and as sg or pl if it is a mass noun.

It is used: when pl stems differs from the sg ; to avoid ambiguous regular plurals; with nouns using $-b^{\text {a }}$ or a bare stem as sg 8.3.1; with loanwords; with pronouns 15.2 and quantifiers 15.5.1; with plural forms with singular meanings; for mass nouns with count meanings; with forms with the personifier particle 15.6.

Examples:

| mà ${ }^{+}$ | mà nám ${ }^{\text {a }}$ <br> (tone sic, as if u | mà- <br> ompounded) | "mother" |
| :---: | :---: | :---: | :---: |
| $b \bar{a}^{++/}$ | bā'-nám ${ }^{\text {a }}$ | bā'- | "father" |
| zuà ${ }^{+}$ | zừà-nàm ${ }^{\text {a }}$ | zunà- | "friend" |
| bùrkìn ${ }^{\text {a }}$ | bùrkìn-nàm ${ }^{\text {a }}$ | bùrkìn- | "honourable person" |
| $k$ k̀̇k ${ }^{+}$ | kèzkè-nàm ${ }^{\text {a }}$ |  | "bicycle" |
| dāan ${ }^{\text {a }}$ | dàan-nàm ${ }^{\text {a }}$ | dàan- | "owner of ..." |
| tīrâan ${ }^{\text {a }}$ | tīrâan-nàm ${ }^{\text {a }}$ | tīrâan- | "neighbour, peer" |
|  | dà-pūטdá nàm ${ }^{\text {a }}$ |  | "crosses" |
|  | kūt nám ${ }^{\text {a }}$ |  | "nails"; sg also "iron" |
|  | bē'zd nám ${ }^{\text {a }}$ |  | "evils" |
|  | bùgóm nám ${ }^{\text {a }}$ |  | "fires, lights" |
|  | sā'ab nám ${ }^{\text {a }}$ |  | "portions of porridge" |
|  | dāam nám ${ }^{\text {a }}$ |  | "beers" |

### 8.5 Nouns with apocope-blocking

A number of nouns ending in $-\iota^{+}$or $-0^{+}$display apocope-blocking 5.1:

$$
\begin{aligned}
& \text { būudı+ } \\
& \text { nà'ası+ } \\
& \text { kābırı́' } \\
& \text { sūgurú+ } \\
& \text { pïinı }^{+}
\end{aligned}
$$

bùud-
"honour" "entry permission" "forbearance" "gift"

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

With piïnı＋${ }^{+}$cf Mampruli piini id；Mampruli also has $r^{\varepsilon} \mid a^{+}$type sg piinni pl piina， but Dagbani pini shows that single $n$ is original，because Dagbani preserves long vowels in originally closed syllables．The word may reflect a noun class obsolete in Western Oti－Volta；ii is probably umlauted from aa，as in $f^{\rho} \iota^{+}$class plurals（cf Gulimancéma paabu＂gift．＂）

## 8．6 Loanwords

Loanwords adopt noun classes by analogy 8.1 or make nàm ${ }^{\text {a }}$ plurals 8.4 ：

| $g^{\text {a }} s^{\varepsilon}$ ：à ${ }^{\text {a }}$ azà $k^{\text {a }}$ | àrazà＇as ${ }^{\text {® }}$ | àrazà＇－ | ＂riches＂ |
| :---: | :---: | :---: | :---: |
|  |  |  | Hausa arzikii |
| màliàk ${ }^{\text {a／}}$ | màliā＇as ${ }^{\text {c／}}$ | màliā＇－ | ＂angel＂DK（Arabic） |
| $g \mid d^{\varepsilon}: ~ g a ̄ d u g^{\prime \prime}$ | $g \overline{a ̄}^{\varepsilon /}$ | gād－ | ＂bed＂Hausa gadoo |
| ノう̀mbう＇دg ${ }^{\text {a }}$ |  | ノうmbう＇－ | ＂garden＂ |
|  |  |  | Hausa làmbuu |
| $r^{\varepsilon} \mid a^{+}: 1$＇r $^{\varepsilon}$ | $\begin{aligned} & \text { lóyà }{ }^{+} \text {tones sic } \\ & \text { or lósma } \end{aligned}$ | lór－ | $\begin{aligned} & \text { "car, lorry" } \\ & \text { cf Mכ̄r } \quad \text { 8.3.1 } \end{aligned}$ |
| àlópìr ${ }^{\text {c }}$ | àlópiya＋ |  | ＂aeroplane＂SB |
| wādır ${ }^{\text {¢ }}$ | wādá＋ | wād－ | pl＂customs，law＂ <br> （English＂order＂） |
| $g a ̄ d v^{+}$ | gādv－nám ${ }^{\text {a }}$ | gādv－ | ＂bed＂WK |
| kèzk ${ }^{+}$ | kદ̀ $k$ kè－nàm ${ }^{\text {a }}$ | kદ̀をkغ̀－ | ＂bicycle＂Hausa kèekè |
| dāká ${ }^{+}$ | dāká－nàm ${ }^{\text {a }}$ | dāká－ | ＂box＂Hausa àdakàa |
| téebùl ${ }^{\text {E }}$ | téعbùl－nàm ${ }^{\text {a }}$ | tézbòl－ | ＂table＂ |
| Nàsāara＋ |  | Nàsàar－ | ＂white person， |
|  | or Nàsàa－nàm ${ }^{\text {a }}$ | Nàsàa－ | European" 29.4; |

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 7．4．3：

```
dư'átà nâ'ab
dư'átà-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 6．2．4：dūnıya＋＂world＂（Arabic dunya：）， dūnıyá－kànā＂this world．＂

## 9 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 būug ${ }^{\text {a }}$ "goat":

| bù-pìəlıg | bù-pìəlıs | bù-pìəl- | $\left(g^{a} \mid s^{\varepsilon}\right)$ | "white goat" |
| :--- | :--- | :--- | :--- | :--- |
| bù-pìəl | bù-piəla+ | bù-pìl- | $\left(r^{\varepsilon} \mid a^{+}\right)$ | id |

A few traces of agreement remain, accounting for all cases with $m^{m}$ 15.8.1.1. There is also some preference for $g^{\mathrm{a}} \mid s^{\varepsilon}$ suffixes for human reference: nīn-sábıliss ${ }^{\varepsilon}$ "Africans", where nīn-sábılà+ is accepted by informants but is much less common, and Zưà-wìis ${ }^{\varepsilon}$ "Red Zoose" (clan), where the adjective does not normally use pl $s^{\varepsilon}$. The suffixes ${ }^{\text {a }} \mid b^{a}$ and $f^{\rho} \mid \iota^{+}$appear only in set expressions; $b^{\supset}$ never occurs at all.

WK claims a meaning difference in intensity in gradable adjectives with sg suffixes of different classes, consistently ranking them $g^{\text {a }} r^{\varepsilon} g$ in decreasing order, so that fū-píəlìg "white shirt" is whiter than fū-pîəl 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 $g^{\text {a }} \mid s^{\varepsilon}$ and $g^{\supset} \mid d^{\varepsilon}$ classes:


Other adjectives are either $g^{\text {a }}$ - or $g^{\jmath}$-type, along with $r^{\varepsilon} \mid a^{+}$class suffixes; this probably reflects simplification of the old agreement system prior to its complete abandonment. Adjectives of the $g^{\text {a }}$ type include:

| wàbıg $^{\text {a }}$ | wàbıs $^{\varepsilon}$ | wàb- |
| :--- | :--- | :--- |
| wàbır $^{\varepsilon}$ | wàba $^{+}$ | "lame" |


| vènnıg ${ }^{\text {a }}$ vènnı $\iota^{\varepsilon}$ rare | vènnıs ${ }^{\varepsilon}$ vènna+ | vغ̀n- | "beautiful" |
| :---: | :---: | :---: | :---: |
| vèn̆llıg ${ }^{\text {a }}$ | vèn̆llıs vèn̆lla+ |  | "beautiful" |
| $\begin{aligned} & \text { sābılíga } \\ & \text { sābíl' } \end{aligned}$ | sābılís ${ }^{\varepsilon}$ sābılá+ | sābıl- | "black" |

Similar are wēnnır ${ }^{\varepsilon}$ "resembling" pāalíg${ }^{\text {a }}$ "new" záal ${ }^{\varepsilon}$ "empty" bàan̆/ıga "slim" pìəlıga "white."
$\mathrm{Sg} r^{\varepsilon}$ is not used with $g^{\text {a }}$-type stems in $m n$ :
$d \varepsilon \overline{\varepsilon \eta^{a}}$
$d \bar{\varepsilon} \varepsilon n s^{\varepsilon}$
"first"
d $\bar{\varepsilon} \varepsilon m \stackrel{s^{\varepsilon}}{ }$
dèعŋ-
dēहna+
$\mathrm{Pl} s^{\varepsilon}$ is not used with 2-mora stems in $m n$, or with any stems in $s d$ :

| gīク ${ }^{\text {a }}$ | gīma+ | gìn- | "short" |
| :--- | :--- | :--- | :--- |
| būgusíga <br> būgusír | būgusá |  |  |

Similarly mā'asír $r^{\varepsilon}$ "cold, wet" mālısír $r^{\varepsilon}$ "sweet" t $\bar{\varepsilon} b ı s_{i ́ r} r^{\varepsilon}$ "heavy" lābısír $r^{\varepsilon}$ "wide."
Adjectives of the $g^{\rho}$-type only show $\mathrm{pl} d^{\varepsilon}$ in a few 2 -mora stems ending in vowels or plosives:

| nèog ${ }^{\text {º }}$ <br> nè $\varepsilon r^{\varepsilon}$ | $n \varepsilon ̀ \varepsilon d^{\varepsilon}$ nèya ${ }^{+}$ | $n غ$ - | "empty" |
| :---: | :---: | :---: | :---: |
| wìug ${ }^{\text { }}$ | wìid ${ }^{\text {¢ }}$ | wì- | "red" |
| wiir ${ }^{\text {¢ }}$ | wìya+ |  |  |
| w $\bar{j}^{\text {a/ }}$ | $w a ̄ ' a d^{\varepsilon /}$ | wā'- or wōk- | "long, tall" |
| wā'ar ${ }^{\varepsilon /}$ rare | wá'a+ |  |  |


| $k u ̄ d v g{ }$ $k \bar{d} d \iota^{\varepsilon}$ | $k \bar{u} t^{\varepsilon}$ rare kūda ${ }^{+}$ | kùd- | "old" |
| :---: | :---: | :---: | :---: |
| bèdug ${ }^{\text { }}$ $b \dot{d} d r^{\varepsilon}$ rare | bèda+ | bèd- | "great" |
| tītā'ug ${ }^{\text { }}$ rare tītā'ar ${ }^{\text { }}$ | tītāda ${ }^{+}$ | tītá'- | "big" |

Adjectives of the $g^{\partial}$-type with stems in Im $n r s$ do not use $s g r^{\varepsilon}$, and accordingly end up with $\mathrm{sg} g^{\supset} \mathrm{pl} a^{+}$only:

| sùn ${ }^{\text {a }}$ | sòma ${ }^{+}$ | sùn- | "good" |
| :---: | :---: | :---: | :---: |
| kísòg ${ }^{\text {a }}$ | kīsá ${ }^{+}$ | kīs- | "hateful, taboo" |
| dà-zह̄mmúg ${ }^{\text { }}$ | dà-zēmmá+ | dà-zह̄m- | "equal piece of wood" |
| tōológ ${ }^{\text {a }}$ | tōolá ${ }^{+}$ | tōol- | "hot" |
| lāllóg ${ }^{\text {a }}$ | lāllá ${ }^{+}$ | lāl- | "distant" |
| mi'isug ${ }^{\text { }}$ | mi'isa+ | mi'is- | "sour" |
| wàun ${ }^{\text { }}$ | wàna+ | wàun- | "wasted, thin" |
| kpīo ${ }^{\text {º }}$ | kpīəma+ | kpi'on- | "hard, strong" |
| zùlv ${ }^{\text {² }}$ | zùlıma+ | zùlon- | "deep" |
| yī-pón̆ròg ${ }^{\text { }}$ | yī-pón̆rà ${ }^{+}$ |  | "nearby house" |


Resultative adjectives derived with *-lım-12.2.1.2.2 belong here. KT (but not WK ) also has forms without - $m$ - in both sg and pl :

| kpiilún ${ }^{\text {a }}$ | kpiilímà ${ }^{+}$ | kpiilún- | "dead" | WK |
| :---: | :---: | :---: | :---: | :---: |
| nīn-kpílì̀ ${ }^{\text {a }}$ | nīn-kpiilìma+ |  | "dead person" | KT |
| gēen̆lón ${ }^{\text {² }}$ | gēen̆límà ${ }^{+}$ | gēen̆lón- | "tired" | WK |
|  | nīn-gécn̆lìma+ |  | "tired person" | KT |
| pè'عاט́n ${ }^{\text {a }}$ | pè' $\mathrm{lím}^{\text {a }}{ }^{+}$ | pè'عاט́n- | "full" | WK KT |
|  | dōg-pé'clà ${ }^{+}$ |  | "full pots" | KT |

Habitual adjectives are derived with $d$ 12.2.1.2.1, but the $d$ is often assimilated or dropped, so not all habitual adjectives are $d$-stems. They are $g^{\text {a }}$-type for WK , but $g{ }^{\text {-type }}$ for KT. In either case, the pl suffix is always $a^{+}$, as expected:

| $k \bar{u}$ dír ${ }^{\text {E }}$ | kūodá+ | kūvd- | "murderous; |
| :---: | :---: | :---: | :---: |
| kūodíga WK |  |  | liable to be killed" |
| kūodúg ${ }^{\text {KT }}$ |  |  |  |


| $t \bar{O} m m \iota^{\varepsilon}$ | $\begin{aligned} & \text { tūmma+ WK } \\ & \text { tūmna+ }{ }^{+} \text {KT } \end{aligned}$ | tòm- | "working, helpful" |
| :---: | :---: | :---: | :---: |
| sīnnír ${ }^{\varepsilon}$ rare sinníga | sīnná+ | sin- | "silent" |
| $m \overline{\mathrm{r}}{ }^{\text {¢/ }}$ | mōrá+ | $m \bar{r}$ - | "having" |
| kùg-d $\bar{\varepsilon}^{\prime \prime}$ \| ${ }^{\prime}$ | kùg-dह̄llá+ |  | "chair for leaning on" |

Stems in $g k \eta$ do not use the sg suffixes $g^{\text {a }} g^{J}$ :

|  | būn-túlıgà ${ }^{+}$ |  | "heating thing" |
| :---: | :---: | :---: | :---: |
| n̆wī-téki ${ }^{\text { }}$ | n̆wī-tह́kà ${ }^{+}$ | n̆wī-ték- | "pulling-rope" |
| būn-sónì ${ }^{\text {E }}$ | būn-sónà ${ }^{+}$ |  | "helpful thing" |

Adjectives derived from 4-mora stem verbs in -m in KT's speech take $g^{\text {a }}$ or $g{ }^{\text {ºn }}$ $\operatorname{sg}$ and $-a^{+} \mathrm{pl}$; they may drop the $-m$ - in the plural:

| nīn-pú'alìn ${ }^{\text {a }}$ | nīn-pú'alìma ${ }^{+}$ | "harmful person" |
| :--- | :--- | :--- |
| nīn-záan̆sòn ${ }^{\text { }}$ | nīn-záan̆sà |  |

Some adjectives simply belong to a single noun class even though this cannot be accounted for by the stem-suffix incompatibilities outlined above:

| $v o ̄ r^{\varepsilon /}$ | vōyá ${ }^{+}$ | $v \bar{r}$ - | "alive" |
| :---: | :---: | :---: | :---: |
| dāog ${ }^{\text { }}$ | dāad ${ }^{\varepsilon}$ | dà- | "male" |
| tכ̄วg ${ }^{\text { }}$ | tכֹ $\mathrm{d}^{\text {¢ }}$ | tう- | "bitter" |
| pūāk ${ }^{\text {a }}$ | $p \bar{\prime}^{\prime} a s^{\varepsilon}$ | pu'à- | "female" (human) |
| ňyá'an ${ }^{\text {a }}$ | ňyá'as ${ }^{\text {e }}$ | ňyā'an- | "female" (animal) |
|  | n̆yā'amís ${ }^{\text {¢ }}$ |  |  |
| n̆yc̀esín ${ }^{\text {a }}$ | n̆yc̀ensís ${ }^{\text { }}$ | n̆yèzsín- | "self-confident" |

and similarly vèn̆llín $\eta^{a}$ "beautiful" mālısína "pleasant" lāllín ${ }^{\text {a }}$ "distant."
bīla bïbcs ${ }^{\varepsilon} \quad$ bìl- or bì- "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", pìlià "lamb", bùdíblá "boy", púglá "girl", kíĺlá "young guinea fowl"; Mooré bìríblá "boy", bìpúglá "girl", bùllá "kid." The plural stem bib- is reduplicated.

## 10 Verb flexion

Though written solid with the verb in traditional orthography, discontinuouspast $n^{\varepsilon} \underline{23.1 .1}$ and the 2 pl subject ya 19.7 .3 are not flexions but bound liaison words.

### 10.1 Dual-aspect

Some $90 \%$ of verbs are dynamic 19.2 dual-aspect verbs, using the stem form for perfective aspect and adding $-d^{\mathrm{a}}$ for imperfective. Synchronically, $-d^{\mathrm{a}}$ 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 - $m^{\text {a }}$ marks imperative mood whenever the verb carries the independency-marking tone overlay 19.6.2.2.

Perfective, imperfective and $-m^{\text {a }}$ imperative are cited in order.
Straightforward examples include:

| $k \bar{u}^{+}$ | kūod ${ }^{\text {a/ }}$ | kùum ${ }^{\text {a }}$ | "kill" |
| :---: | :---: | :---: | :---: |
| kpèn̆ ${ }^{+}$ | $k p \varepsilon ̇ n ̆ ' \varepsilon d^{\text {a }}$ | kpèn̆' $\varepsilon m^{\text {a }}$ | "enter" |
| kià ${ }^{+}$ | $k i ə \partial{ }^{\text {a }}$ | kìm ${ }^{\text {a }}$ | "cut" |
| kuā ${ }^{+}$ | $k u ̄ \theta d^{\text {a/ }}$ | kùөm ${ }^{\text {a }}$ | "hoe" |
| $g \grave{n}{ }^{+}$ | gว̀วn̆ ${ }^{\text {a }}$ | gว̀วn̆m ${ }^{\text {a }}$ | "hunt" |
| $d \bar{u} g^{\varepsilon}$ | dūgud ${ }^{\text {a/ }}$ | dùgum ${ }^{\text {a }}$ | "cook" |
| yùug ${ }^{\text { }}$ | yùugıd ${ }^{\text {a }}$ | yùugım ${ }^{\text {a }}$ | "delay, get late" |
| yādıg ${ }^{\text {¢/ }}$ | yādıgíd ${ }^{\text {a }}$ | yàdıgım ${ }^{\text {a }}$ | "scatter" |
| piān̄̆'a | pīān'ad ${ }^{\text {a/ }}$ | piàn̆'am ${ }^{\text {a }}$ | "speak; praise" |
| dư'àa | dù' $\mathrm{d}^{\text {a }}$ | dò'am ${ }^{\text {a }}$ | "bear, beget" |
| $n \overline{k^{\varepsilon /}}$ | nj̄kíd ${ }^{\text {a }}$ | njkım ${ }^{\text {a }}$ | "take" |
| $g a ̄ \eta^{\varepsilon /}$ | gānída | gànıma | "choose" |
| $k p a ̀ r^{\varepsilon}$ | kpàrıd ${ }^{\text {a }}$ | kpàrıma | "lock" |
| sūgor ${ }^{\text {/ }}$ | sūgoríd ${ }^{\text {a }}$ | sùgurım ${ }^{\text {a }}$ | "forgive" |
| bàs ${ }^{\text {c }}$ | $b a ̀ s ı d^{\text {a }}$ | bàsım ${ }^{\text {a }}$ | "go/send away" |
| sīgis ${ }^{\text {/ }}$ | sīgısíd ${ }^{\text {a }}$ | sigısım ${ }^{\text {a }}$ | "lower" |
| $k \bar{\partial} t^{\varepsilon /}$ | $k j ̄ t i ́ d{ }^{\text {a }}$ | kj̀tım ${ }^{\text {a }}$ | "slaughter" |

Some root-stems ending in a vowel show a CV- allomorph in both imperfective and imperative, with $-t$ - for $-d-$ 5.3.1:

| $d i^{+}$ | $d i t{ }^{\text {a }}$ | dìm ${ }^{\text {a }}$ | "eat" |
| :---: | :---: | :---: | :---: |
| $\check{n y} \bar{\varepsilon}^{+}$ | n̆yżta/ | n̆yèm ${ }^{\text {a }}$ | "see" |

and likewise $i^{+} / / \grave{u}^{+}$"fall", $d \bar{v}^{+}$"go up", $y \bar{i}^{+}$"go/come out", zj+ "run, fear."

Stems in $-d$－show $-t$－in the ipfv via $* d d \rightarrow t t:$

| bùd | bùt | bùdım | ＂plant＂ |
| :--- | :--- | :--- | :--- |
| gàad $^{\varepsilon}$ | gàta $^{\text {a }} \underline{3.2}$ | gàadım $^{a}$ | ＂pass，surpass＂ |

Stems in／generate a cluster in the ipfv via＊／d $\rightarrow n n \underline{5.4}:$

| $v \bar{u} l^{\varepsilon}$ | $v o ̄ n n a / ~$ | vòlıma | ＂swallow＂ |
| :---: | :---: | :---: | :---: |
| màal ${ }^{\text {¢ }}$ | màanna | màalım ${ }^{\text {a }}$ | ＂make；sacrifice＂ |
| dīgı ${ }^{\varepsilon /}$ | dīgín ${ }^{\text {na }}$ | dìgılıma | ＂lay down＂ |

Only 2 －mora $b$－stems assimilate $* b m \rightarrow m m$ ：

| $l غ b^{\varepsilon}$ | $l \mathrm{l}$ bıd ${ }^{\text {a }}$ | $l$ lèm ${ }^{\text {ma }}$ | ＂return＂ |
| :---: | :---: | :---: | :---: |
| $s \overline{\mathrm{j}} \mathrm{b}^{\varepsilon}$ | sj̄bıd ${ }^{\text {a／}}$ | sj̀m ${ }^{\text {ma }}$ | ＂write＂ |
| $l$ liəb ${ }^{\text {c }}$ | lìzbıd ${ }^{\text {a }}$ | lìəbım ${ }^{\text {a }}$ | ＂become＂ |
| $\bar{\varepsilon} \varepsilon \bar{\square} b^{\varepsilon /}$ | $\bar{\varepsilon}$ ¢n̆bíd ${ }^{\text {a }}$ | غ̀عn̆bım ${ }^{\text {a }}$ | ＂lay a foundation＂ |

Only 2－mora $n$－stems show＊nd $\rightarrow n n$ ；only $k \bar{\varepsilon} \eta^{\varepsilon /}$（below）shows＊nm $\rightarrow m m$ ：

| bùn ${ }^{\text { }}$ | bùn ${ }^{\text {na }}$ | bùnım ${ }^{\text {a }}$ | ＂reap＂ |
| :---: | :---: | :---: | :---: |
| $m \overline{n^{\varepsilon}}$ | mōnna／ | mònım ${ }^{\text {a }}$ | ＂make porridge＂ |
| gう＇วn ${ }^{\text {¢ }}$ | gう̀＇วnıd ${ }^{\text {a }}$ | gذ̀＇nıma | ＂extend neck＂ |
| dìgın ${ }^{\varepsilon}$ | dìgınıd ${ }^{\text {a }}$ | dìgınım ${ }^{\text {a }}$ | ＂lie down＂ |

The $n n$－stem $\operatorname{sùn}^{\varepsilon}$ does not assimilate at all：
sùn ${ }^{\mathrm{n} \varepsilon} \quad$ 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 5．4．

| siilım ${ }^{\text {m }}$ | siilım ${ }^{\text {ma }}$ | siilım ${ }^{\text {ma }}$ | ＂quote proverbs＂ |
| :---: | :---: | :---: | :---: |
| lāทím ${ }^{\text {m }}$ | Iāním ${ }^{\text {ma }}$ | lànım ${ }^{\text {ma }}$ | ＂wander searching＂ |
|  | $k a ̀ r ı m{ }^{\mathrm{m}} / k$ àrımıd ${ }^{\text {a }}$ | kàrım ${ }^{\text {ma }}$ | ＂read＂ |
| tכ̄כm ${ }^{\text {m／}}$ | tóכm ${ }^{\text {ma／tכ̄mída }}$ | tう̀m ${ }^{\text {ma }}$ | ＂depart＂ |
| tùm ${ }^{\text {m }}$ | tòm ${ }^{\text {ma }}$ | tòm ${ }^{\text {ma }}$ | ＂work＂ |

Like tùm ${ }^{\mathrm{m}}$ are wùm ${ }^{\mathrm{m}}$＂hear＂，kìm ${ }^{\mathrm{m}}$＂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 ${ }^{m}$ are zàm ${ }^{m}$ "cheat, betray", dàm ${ }^{m}$ "shake", lغ̀m ${ }^{m}$ "sip, taste"; the cognate Mooré verbs have -mb-: zâmbe "cheat", râmbe "stir", lèmbe "taste".

Fusion verbs show deleted ${ }^{*} g$ after aa iə uө aan̆ عદn̆ ככn̆ 5.6. *G-deletion appears only in the perfective and gerund; elsewhere $* g$ is absent, not deleted (for the tonal implications see 6.3.1.) For the perfective forms before liaison see see 7.2.

| fāen̆ ${ }^{\text {+ }}$ | fāan̆d ${ }^{\text {/ }}$ | fàan̆m ${ }^{\text {a }}$ | "save" |
| :---: | :---: | :---: | :---: |
| dī $e^{+/}$ | $d i ̄ \partial d^{\text {a/ }}$ | di'əm ${ }^{\text {a }}$ | "get, receive" |
| dūe ${ }^{+/}$ | dūөd ${ }^{\text {/ }}$ | dùөm ${ }^{\text {a }}$ | "rise, raise" |
| pūn̆' $e^{+/}$ | pūn̆'өd ${ }^{\text {a/ }}$ | pùn̆'өm ${ }^{\text {a }}$ | "rot" WK |

Irregular dual-aspect verbs are few. Only two are irregular in the actual flexional suffixes taken:

| $k \bar{\varepsilon}^{+}$ | $k \bar{\varepsilon} t^{\mathrm{a} /}$ | $\left.k \dot{c}\right\|^{\mathrm{a}}$ | "let, allow" |
| :--- | :--- | :--- | :--- |
| $k \bar{\varepsilon} \check{n}^{+}$ | $k \bar{\varepsilon} n^{\mathrm{a} /}$ | $k \dot{\varepsilon} m^{\mathrm{a}}$ | "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", jehla ipfv.

| wik ${ }^{\text { }}$ | wiid $^{\text {a }}$ 5.3.1 | wikım ${ }^{\text {a }}$ | "fetch water" |
| :---: | :---: | :---: | :---: |
| iān̆ ${ }^{\text {¢ }}$ | iān̄'ad ${ }^{\text {a/ }}$ | iàn̆kım ${ }^{\text {a }}$ | "leap, fly" |
| gīlıg ${ }^{\text {/ }}$ | gīn ${ }^{\text {na/ }}$ | gilıgım ${ }^{\text {a }}$ | "go around" |
| $k \bar{\varepsilon} \eta^{\varepsilon /}$ | $k \bar{\varepsilon} n^{\text {na/ }}$ | kèm ${ }^{\text {a }}$ | "go" |
| yèl ${ }^{\text {® }}$ | $y \varepsilon ̇ t^{\text {a }}$ | $y \grave{l} \iota^{\text {a }}$ | "say" |
| $g \bar{\sim} s^{\varepsilon}$ | $g \bar{s} s d^{\text {a/ }}$ | gòsıma | "look" |
|  | or $g \bar{j} t^{\text {a/ }}$ | gòm ${ }^{\text {a }}$ |  |
| $t i s^{\varepsilon}$ | tìsıda | tisım ${ }^{\text {a }}$ | "give" |
|  | or tita |  |  |

A perfective tì may appear before bound object pronouns, e.g. tì $f$ "give you."

### 10.2 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 19.2; 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:

| $m i^{+}$ | "know" | zī'+ | "not know" |
| :--- | :--- | :--- | :--- |
| $b \grave{l}^{+}$ | "be somewhere, exist" | $k a ̄ ' e^{+}$ | "not be" ( $\leftarrow$ *kagı) |
| $t u ̄ n ̆ ' e ~$ | "be able" 22.2.1 | $n \grave{\eta^{\varepsilon}}$ | "love" |

 when the verb word carries the tone overlay of independency marking. Unlike perfectives, these forms are never followed by particle $y \bar{a}^{+}$19.6.2.1. 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 7.4.3.

|  | M nón. | "I love him." (e.g. in reply to a question) |
| :---: | :---: | :---: |
| not | *M̀ nó yā | specifically stated to be impossible by WK |

Mit ka Zugsob tumtum a one non zaba.
Mit kà Zūg-sób túm-tōm á ónì nว̀ zábāa ${ }^{+} \varnothing$.
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 nכ́n $f$. "And she loves you."

The agent noun nخ̀מıd ${ }^{\text {a }}$ has Pattern $L$ instead of the expected A:

Ò nj̀nıd kā'e. "There's nobody who loves him." WK

The majority of single-aspect verbs have the suffix ${ }^{*}-y^{a}$. Nawdm has many imperfective-only verbs of parallel structure, like jehra ipfv "être debout" = Kusaal zi'e ${ }^{\text {ya }}$, where Nawdm $r$ and Kusaal $y$ both represent Proto-Oti-Volta *l. With only one aspect, these verbs have not undergone the extensive levelling which has made dualaspect $-d^{\text {a }}$ into a unitary flexion. In particular, when $* y$ has assimilated to a preceding root-final consonant, resulting in $n n \mathrm{~mm} / /$ 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 $/ / r(r)$ are subject to further assimilation just like single I $r \underline{5.4}$. Dynamic verbs with unassimilated $y$ mostly express stances:

| īgıya/ | "be kneeling" | dīgıya/ | "be lying down" |
| :--- | :--- | :--- | :--- |
| vābıya/ | "be prone" | làbıya | "crouch in hiding" |
| tàbıya | "be stuck to" | zi'eya | "be standing still" |
| ziñ'iya | "be sitting" | ti'iyal | "be leaning (object)" |
| gō'eya/ WK | "have neck extended" | wà'eya | "travel to" |

Statives include transitive and intransitive types:

| àeñ ${ }^{\text {a }}$ | "be something/somehow" |  |  |
| :---: | :---: | :---: | :---: |
| $s \bar{L}^{\prime} \mathrm{e}^{\text {ya/ }}$ | "own" | sכ̄n̄'e $\mathrm{e}^{\text {ya/ }}$ | "be better than" |
| tうe ${ }^{\text {a/ }}$ | "be bitter" | $v o ̄ e^{\text {a/ }}$ | "be alive" |

Stance verbs with unassimilated $y$ have derived inchoative and causative dualaspect verbs in $n$ and / 12.1.1. 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 - $d^{\text {a }}$ to express habitual meaning; others use the ipfv of the derived assume-stance verb instead:

|  | Ò zin̆'i n ${ }_{\text {c }}$ | "She's sitting down." WK KT |
| :---: | :---: | :---: |
|  | Ò pū zín̆'idā. | "She doesn't sit down" WK |
| but | Ò pū zín̆'inìdā. | "She doesn't sit down." KT |
|  | Ò vàbı nē. | "He's lying prone." |
|  | Ò pū vābıdá. | "He doesn't lie prone." WK |
| but | Ò pū vábınìdā. | "He doesn't lie prone." KT |
|  | Ò dìgı nē. | "She's lying down." |
|  | Ò pū dīgıdá. | "She doesn't lie down" WK |
|  | Lì zi'ə nē. | "It's standing up." |
|  | Lì pū zí'ədā. | "It (a defective tripod) doesn't stand up." WK |
|  | Lì tìi n ${ }_{\text {c }}$ | "It's leaning against something." |
|  | Li tìid. | "It can be leant against something." WK |
|  | Lì pō tỉiyá. | "It's not leaning against something." |
|  | Lì pū tỉ idá. | "It's not for leaning against something." WK |

Dynamic single－aspect verbs in $n n m m / I r(r)$ include stance verbs and others：

| $\sin ^{n a /}$ | ＂be silent＂ | $d \bar{\varepsilon} \\|^{\text {la／}}$ |  | ＂be leaning（person）＂ |
| :---: | :---: | :---: | :---: | :---: |
| gòla | ＂be hanging＂ | g亏̄ıla／ | KT | ＂have neck extended |
| djıla／ | ＂accompany＂ | zān̆ıla／ |  | ＂carry in one＇s hands＂ |
| gūr ${ }^{\text {a／}}$ | ＂guard＂ | tèn̆r ${ }^{\text {a }}$ |  | ＂remember＂ |
| sùr ${ }^{\text {a }}$ | ＂have head bowed＂ | $g \overline{r a}{ }^{\text {a／}}$ | DK | ＂have neck extended＂ |

They make imperfective gerunds；in these and in agent nouns，deverbal adjectives and instrument nouns，the stem is in $n n m m I I r(r)$ and $d$ is omitted． Similarly，they do not have distinct continuous，habitual or inchoative forms．

Stative verbs in $n n m m / l r(r)$ again include transitive and intransitive types：

| $n \bar{\varepsilon} n^{\text {na／}}$ | ＂envy＂ | $v \varepsilon n^{\text {na }}$ | ＂be beautiful＂ |
| :---: | :---: | :---: | :---: |
| w $\chi^{\text {na／}}$ | ＂resemble＂ | $k p{ }^{\prime}{ }^{\text {a }}$ ma／ | ＂be strong＂ |
| $k p \bar{\varepsilon} \varepsilon n ̆ m$ ma／ | ＂be older than＂ | zùlım ${ }^{\text {ma }}$ | ＂be deep＂ |
| sòm ${ }^{\text {ma }}$ | ＂be good＂ | gīm ${ }^{\text {ma／}}$ | ＂be short＂ |
| yàlım ${ }^{\text {ma }}$ | ＂be wide＂ | z $\bar{\varepsilon} m^{\text {ma／}}$ | ＂be equal to＂ |
| tàdım ${ }^{\text {ma }}$ | ＂be weak＂ | wā＇am ${ }^{\text {ma／}}$ | ＂be long，tall＂ |
| vèn̆ıla | ＂be beautiful＂ | lāıla／ | ＂be far from＂ |
| tōla／ | ＂be hot＂ | $m \bar{r}{ }^{\text {a／}}$ | ＂have＂ |
| tār ${ }^{\text {a／}}$ | ＂have＂ | dùr ${ }^{\text {a }}$ | ＂be many＂ |
| kàr ${ }^{\text {a }}$ | ＂be few＂ | $n \bar{a} r^{\text {a／}}$ | ＂be necessary＂ |
| pòn̆r ${ }^{\text {a }}$ | ＂be near to＂ |  |  |

$M$－stems show single $m$ in most sources after after epenthetic vowels and long root vowels 5．4．

A number of stative verbs end in $-s^{\mathrm{a}}$ ：

| mìis ${ }^{\text {a }}$ | ＂be sour＂ | būgus ${ }^{\text {a／}}$ | ＂be soft＂ |
| :---: | :---: | :---: | :---: |
| mā＇as ${ }^{\text {a／}}$ | ＂be cool＂ | $t \bar{b} b i s^{\text {a／}}$ | ＂be heavy＂ |
| mālıs ${ }^{\text {a／}}$ | ＂be sweet＂ | lābssa／ | ＂be wide＂ |
| n̆yèzs ${ }^{\text {a }}$ | ＂be self－confident＂ | $k i \bar{s}^{\text {a／}}$ | ＂hate＂ |

The $s$ of these forms is a derivational suffix producing stative forms．
There is one intransitive stative verb in－$d^{\mathrm{a}}: ~ p \grave{\partial} \boldsymbol{d}^{\mathrm{a}}$＂be few，small．＂
Some dual－aspect－verb imperfective forms have become independent stative verbs，e．g．bう̀دd ${ }^{\text {a }}$＂want，like＂（bう̀＋＂seek＂），zう̀ta＂fear＂（zう̀＋＂run．＂）

## 11 Stem conversion

### 11.1 Nouns from verbs

### 11.1.1 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. Gerunds from other single-aspect verbs are based on derived stems 12.2.1.4.

Gerunds may be used as abstract count nouns describing particular instances of the activity of the verb, and may then have plurals 15.2 .

The Tone Patterns of all regularly formed gerunds are predictable 6.5.
Dual-aspect verbs freely form gerunds by adding the following class suffixes to the stem. The choice after 3-mora stems reflects avoidance of suffixes which would give rise to opaque forms, with the usual $-g^{\supset}$ replaced by $-r^{\varepsilon}$ after stems ending in underlying ${ }^{*} g$.

| 2-mora stems |  | $-b^{\text {J }}$ but |
| :---: | :---: | :---: |
| 3-mora stems in *g |  |  |
| [surface $-g^{\varepsilon}-k^{\varepsilon}-\eta^{\varepsilon}-a e^{+}-i e^{+}-u e^{+}$] |  | $-r^{\varepsilon}$ |
| all oth |  | $-g$ |
| $k \overline{0}^{+}$ | "kill" | $k \bar{u} b^{\text {/ }}$ |
| $d \bar{u} g^{\varepsilon}$ | "cook" | dūgub ${ }^{\text {r }}$ |
| du'à ${ }^{\text {a }}$ | "bear, beget" | $d \bar{u}^{\prime} a b$ |
| kàd ${ }^{\varepsilon}$ | "drive away" | $k a ̄ d ı b^{\text { }}$ |
| pì ${ }^{\text {E }}$ | "cover" | pīlı ${ }^{\text {J }}$ |
| kpàr ${ }^{\text {¢ }}$ | "lock" | $k p a ̄ r ı{ }^{\text {b }}$ |
| bàs ${ }^{\text {® }}$ | "abandon, go away" | $b a ̄ s b^{3}$ |
| sว̄ $b^{\varepsilon}$ | "write" | sjop ${ }^{\text {a/ }}$ |
| $15 b^{\varepsilon}$ | "throw stones at" | $15 p^{\prime /}$ |
| kìm ${ }^{\text {m }}$ | "tend a flock/herd" | kīm ${ }^{\text {m }}$ |
| wòm ${ }^{\text {m }}$ | "hear" | $w \bar{o} m^{\text {m }}$ |

2-mora $n$-stems do not assimilate $* n b \rightarrow m m:$ bùn ${ }^{\varepsilon}$ "reap", gerund būnı $b^{\top}$.

| yùug ${ }^{\text {® }}$ | "delay" | yùugur ${ }^{\text {® }}$ |
| :---: | :---: | :---: |
| $n \overline{k^{\varepsilon /}}$ | "take" | n̄̄kír ${ }^{\text { }}$ |
| nì ${ }^{\text {® }}$ | "doing" | nìmır ${ }^{\text {r }}$ |
| $g b a ̄ n ̆ ' e^{+/}$ | "grab" | $g b a ́ n ̆ ' a r^{\varepsilon}$ |
| $d i \bar{e} e^{+/}$ | "get" | dí'ər ${ }^{\varepsilon}$ |
| $d u \bar{e}{ }^{+/}$ | "rise" | dúer ${ }^{\varepsilon}$ |
| $g$ àad ${ }^{\varepsilon}$ | "(sur)pass" | gàadvg ${ }^{\text {P }}$ |
| 1 liəb ${ }^{\text { }}$ | "become" | lìzbug ${ }^{\text {a }}$ |
| dīgı $\\|^{\varepsilon /}$ | "lay down" | dīgılóg ${ }^{\text {a }}$ |
| yāar ${ }^{\text {/ }}$ | "scatter" | yāaróg ${ }^{\text { }}$ |
| sīgıs ${ }^{\text {/ }}$ | "lower" | sīgısúg ${ }^{\text {a }}$ |
| dàm ${ }^{\text {m }}$ | "shake" | dàmmug ${ }^{\text {( and thus with all } m m \text {-stems) }}$ |

3-mora $n$-stems never assimilate *ng $\rightarrow$ クロ:

| dìgın | "lie down" | dìgınvg |
| :--- | :--- | :--- |
| zin̆'in $^{\varepsilon}$ | "sit down" | zin̆'inug |

3-mora $m$-stems assimilate $* m g \rightarrow \eta$ optionally:

| tכֹom ${ }^{\text {m/ }}$ | "depart, disappear" | tóv ${ }^{\text {º }}$ | or t̄̄omúg ${ }^{\text { }}$ |
| :---: | :---: | :---: | :---: |
| sàn̆'am ${ }^{\text {m }}$ | "destroy" | sàn̄'vŋ | or sàn̆'amug ${ }^{\text {a }}$ |
| kàrım ${ }^{\text {m }}$ | "read" | kàron ${ }^{\text {a }}$ | or kàrımug ${ }^{\text {a }}$ |

4-mora stems in -sım -lım follow the rule and use $-g^{3}$ (always assimilating), but stems in *-gım drop the $-m$ - and use $-r^{\varepsilon}$ :

| siilım $m^{\mathrm{m}}$ | "cite proverbs" | siilún |
| :--- | :--- | :--- |
| zàan̆sım |  |  |
| zàan̆sún |  |  |

2-mora stems regularly use $-r^{\varepsilon}$ instead of $-b^{\mathcal{J}}$ in compounds:

| pư'à-dīır | "marriage" | nīn-kôvr | "murder" |
| :--- | :--- | :--- | :--- |
| dā-nûur | "beer-drinking" | mذे-pīlı | "grass roof" |
| fū-yह̂er | "shirt-wearing" WK |  |  |

Irregular perfective gerunds are rare with stems of three or four morae. A few have plural-as-singular forms $15.2 ; y \overline{i n} s^{\varepsilon /}$ "make go/come out" has yïisíb ${ }^{\text {² }}$, like the alternate form $y \bar{i} s^{\varepsilon}$ with yīs $\left(b^{J /}\right.$. However, almost 20\% of 2-mora-stem verbs in KED use suffixes other than $b^{\top}$. Most irregular 2-mora stem verbs have regular gerunds:

| tis ${ }^{\text {® }}$ | "give" | $t i ̄ s b^{\text {a }}$ |
| :---: | :---: | :---: |
| $k \bar{\varepsilon}^{+}$ | "let" | $k \varepsilon \bar{\varepsilon} b^{\prime}$ |
| $g \grave{0} 1^{\text {¢ }}$ | "suspend" | $g \bar{u} / c b^{\text {J }}$ |

Few segmentally irregular gerunds are also tonally irregular. However, forms with the suffix $-g^{3}$ are Pattern L from Pattern A verbs unless there are variants with $g^{\text {a }}$ or $s^{\varepsilon}$ showing that the word really belongs to $g^{\text {a }} s^{\varepsilon}$ with LF remodelling 8.3.2.

Many 2-mora stem verbs with irregular gerunds have stems ending in $m$ or $b$, where the regular formation would have produced ambiguous SFs 8.1.

| $1 i^{+}$ | "fall" | liig ${ }^{\text {a }}$ |
| :---: | :---: | :---: |
| $z i^{+}$ | "carry on head" | zīid ${ }^{\text {ع/ }}$ |
| bèn̆ ${ }^{+}$ | "fall ill" | $b \varepsilon \overline{n ' ~} \varepsilon s^{\varepsilon}$ |
| $k \bar{z} \check{n}^{+}$ | "come" | $k \bar{\varepsilon} n^{n \varepsilon /}$ |
| $z{ }^{+}$ | "run" | zūa+ ${ }^{\text {also z}}$ z ${ }^{\text {a }}{ }^{\text {a }}$ |
| $v \bar{u}^{+}$ | "make noise" | vūug ${ }^{\text {/ }}$ |
| pīāñ'a | "speak" | piàuñ̌k |
| $b u ̀ d^{\varepsilon}$ | "plant" | $b \bar{d} d ı g^{\text {a }}$ also būdug ${ }^{\text { }}$ |
| yغ̇ı ${ }^{\text {® }}$ | "say, tell" | yغ̇lug ${ }^{\text {( }}$ (cf Mooré yèele) |
| $k u ̄ l^{\varepsilon}$ | "go home" | kūlıg ${ }^{\text {a/ }}$ also kūlıg ${ }^{\text {/ }}$ |
| tàns ${ }^{\varepsilon}$ | "shout" | tàn̆sug ${ }^{\text {a }}$ |
| sכ̄n̆s ${ }^{\varepsilon}$ | "converse" | sóñsì ${ }^{\text {a }}$ |
| $g \overline{s^{\varepsilon}}$ | "look" | gósìg ${ }^{\text {a }}$ |
| sj̀s ${ }^{\text {c }}$ | "pray, beg" | sj̄sıg ${ }^{\text {a }}$ |
| $k i r^{\varepsilon}$ | "hurry" | kikírùg ${ }^{\text {ºr }}$ or kīrıb ${ }^{\text {/ }}$ |
| $l غ b^{\varepsilon}$ | "return" | $l \bar{z} b ı g^{\text {a }}$ |
| tè ${ }^{\varepsilon}$ | "carry in both hands" | $t \bar{b} b ı g^{\text {a }}$ |
| kàn̆ ${ }^{\varepsilon}$ | "scorch" | kān̆bır ${ }^{\text {e }}$ |
| う̀n̆ ${ }^{\text { }}$ | "chew" | う̄n̆bır ${ }^{\text {e }}$ |
| $l u ̄ b^{\varepsilon}$ | "buck" | $l u ̄ b ı r^{\text {/ }}$ |
| zà ${ }^{\text {¢ }}$ | "fight" | zàbır ${ }^{\text { }}$ |
| tèn̆ ${ }^{\varepsilon}$ | "tremble" | tèn̆bug ${ }^{\text { }}$ |
| tòm ${ }^{\text {m }}$ | "work" | tōoma+ |
| tòm ${ }^{\text {m }}$ | "send" | tìtūmıs ${ }^{\text { }}$ |
| wòm ${ }^{\text {m }}$ | "hear" | wōm ${ }^{\text {mº }}$ or wòmmug ${ }^{\text {² }}$ 12.2.1.4 |

Dynamic single-aspect verbs in $-y^{a}$ where the $y$ is not assimilated form perfective gerunds from the root using various noun classes:

| zin̆'i'ya | "be sitting" | zīn'ig ${ }^{\text {a }}$ also "place", regular $g^{\text {a }} \mid s^{\varepsilon}$ class |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $z i ' e^{y a}$ | "be standing" | $z i a^{+}$ | KED | $z$ l' $^{\prime} g^{\text {a }}$ | irreg |
| dīgıya/ | "be lying" | dīk ${ }^{\text {a/ }}$ | KT | dīgır ${ }^{\text {/ }}$ | WK |
| īgıya/ | "be kneeling" | $i{ }^{\text {a/ }}$ | KT | īgır ${ }^{\text {g/ }}$ | WK |
| vābıyal | "be lying prone" | vāpp/ | KT | vābır ${ }^{\text {/ }}$ | WK |
| ti'jya/ | "be leaning" | ti'ib* | (of an | object) |  |

Gòla "be hanging" uses $g \bar{l} / b^{\top}$, from the cognate dual-aspect verb $g \grave{l}^{\varepsilon}$, and the
 *pj̀ňd ${ }^{\varepsilon}$ with $r$ for $d$ by analogy. Stative $k i \bar{s}{ }^{\mathrm{a} / ~ " h a t e " ~ h a s ~ t h e ~ g e r u n d ~ k i ́ s u ̀ g ~}{ }^{\text {² }}$.

Other single-aspect verbs have imperfective gerunds 12.2.1.4.

### 11.1.2 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.

| $\bar{\varepsilon}$ ¢n̆bír ${ }^{\text { }}$ | "(physical) foundation" | $\bar{\varepsilon} \varepsilon$ ň̆búg ${ }^{\text { }}$ | "laying a foundation" |
| :---: | :---: | :---: | :---: |
| $d \bar{u} k^{\text {J/ }}$ | "cooking pot" | dūgub ${ }^{\text {/ }}$ | "cooking" |
| dà'a= | "market" | dā'ab ${ }^{\text {² }}$ | "buying" |
| $k \bar{u} k^{\text {a }}$ | "chair" | $k \bar{u})^{\text {a }}$ | "resting on something" |
| $z u ̄ g-k u ̄ g u r^{\varepsilon}$ | "pillow" |  |  |
| sūāk ${ }^{\text {a/ }}$ | "hiding place" | $s \bar{L}^{\prime} a b^{\prime /}$ | "hiding" |
| sว̄bır ${ }^{\text {/ }}$ | "piece of writing" | sjop ${ }^{\text {a/ }}$ | "writing, orthography" |
| $k u ̄ t^{\varepsilon}$ | "iron, nail" | $k u ̄ d u b^{\text {J }}$ | "working iron" |
| kùөsım ${ }^{\text {m }}$ | "merchandise" | kù̀sug ${ }^{\text { }}$ | "selling" |
| pèbısım ${ }^{\text {m }}$ | "wind" | $p \varepsilon ̇ b ı s u g{ }^{\text {a }}$ | "blowing of the wind; wind" |

Vābırel $l a \bar{b} \iota^{\varepsilon /}$ dī $g r^{\varepsilon /} \bar{i} g r^{\varepsilon /}$, used by WK as gerunds, are used by KT as concrete nouns meaning "place for lying prone" etc, contrasting with the gerunds vāp/ etc.

Three concrete deverbal nouns, from pibı $\|^{\varepsilon}$ "cover", zàn̆bı $\|^{\varepsilon}$ "tattoo", màa $\left.\right|^{\varepsilon}$ "sacrifice" show single $-n$ - in place of -l-:

| pībınn | pībına+ | pìbın- | "covering" |
| :--- | :--- | :--- | :--- |
| zāňbın | ne | zān̆bına+ | zàn̆bın- |

My informants definitely had single $-n$ - in these words, but this is probably a secondary simplification of *nn $\underline{\text { 5.4 }}$. Toende, like Mooré, has Pattern L for these words: zãbín, màan. As $n n$ is the regular reflex of */d, these forms may be derivatives with *d in its instrument-noun sense: cf tūөdır ${ }^{\varepsilon}$ "mortar", from tu्रà " grind in a mortar." The Tone Pattern A is consistent with this.

It is exceptional for regularly formed gerunds to acquire concrete meaning, but a clearcut example is dīı $b^{\text { }}$ "food."

### 11.2 Nominals from nominals

The partial association of noun class and meaning 8.1 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 $g^{\text {a }} \mid s^{\varepsilon}$ classes, their languages, which belong to the $-\xi^{\varepsilon}$ subclass of $r^{\varepsilon} \mid a^{+}$8.3.4 and the associated place, which has the suffix $-g^{\top} \underline{29.4}$. Another case of sg $-g$ deriving an associated place name is

$$
\text { wèzd }{ }^{\text {a }} \text { "hunter" } \quad \text { wèog }{ }^{\text { }} \text { "deep bush" }
$$

Some names of liquids take $-d^{\varepsilon}$ rather than $-m^{m} \underline{15.2}$; hence also
sīin̆fol "bee" sīin̆d ${ }^{\varepsilon /}$ "honey"

Names of trees are almost all $g^{\text {a }} \mid s^{\varepsilon}$ class, and their fruits $r^{\varepsilon} \mid a^{+}$or $g^{ग} \mid d^{\varepsilon} \underline{29.5}$.
The strong association of the $m^{m}$ class with abstracts can be used to convert adjective stems to abstract nouns; less commonly, the sg suffix $-g^{\text { }}$ serves in the same way. When there are derived stative verbs, these nouns somewhat resemble gerunds, and can, for example, be preceded by combining forms as generic arguments 15.7.1. However, they cannot be used in the immediate-future construction with bj̀ $d^{a}$ "want" 19.3.4, and unlike imperfective gerunds, which show the expected Tone Patterns for gerunds 6.5, they show the same tone pattern as the adjective. Examples of abstract nouns formed from adjective stems with $\mathrm{m}^{\mathrm{m}}$ :

| $v \bar{o} \mathrm{~m}^{\mathrm{m} /}$ | "life" | sùm ${ }^{m}$ | "goodness" |
| :---: | :---: | :---: | :---: |
| pj̀ ${ }^{\text {d }}$ ım ${ }^{\text {m }}$ | "scarcity" | vદ̀nnım ${ }^{\text {m }}$ | "beauty" |
| vėn̆llım ${ }^{\text {m }}$ | "beauty" | būgusím ${ }^{\text {m }}$ | "softness" |
| tह̄bısím ${ }^{\mathrm{m}}$ | "weight" | mā'asím ${ }^{\text {m }}$ | "coolness, damp" |
| mālısím ${ }^{\text {m }}$ | "sweetness" | lābısím ${ }^{\text {m }}$ | "width" |
| pìalım ${ }^{\text {m }}$ | "brightness" | tītā'am ${ }^{\text {m }}$ | "multitude" |
| $k \dot{v} d ı m^{m}$ | "old times" |  |  |



The suffix $-g{ }^{\text {ºn }}$ is used to make abstract nouns when the sg adjective form also has $-g^{\text {; }}$; the abstract noun form is identical:

| lāllóg ${ }^{\text {a }}$ | "distance" | zēmmóg ${ }^{\text { }}$ | "equality" |
| :---: | :---: | :---: | :---: |
| kpion ${ }^{\text {a }}$ | "hardness, strength" | yàlup | "width" |
| mìisug ${ }^{\text { }}$ | "sourness" | tכ̄og | "bitterness" |
| zùlva | "depth" | tūológ ${ }^{\text {a }}$ or tūllím ${ }^{\text {m }}$ | "heat" |

Some stems referring to people form abstract nouns with $-m^{m}$ or $-g^{\text {J }}$ :

| gbán̆yà' ${ }^{\text {a }}=$ | "lazy person" | $\rightarrow$ | gbáňyà'am ${ }^{\text {m }}$ | "laziness" |
| :---: | :---: | :---: | :---: | :---: |
| dàmà'a= | "liar" | $\rightarrow$ | dàmà'am ${ }^{\text {m }}$ | "lying" |
| sāan ${ }^{\text {a/ }}$ | "guest" | $\rightarrow$ | sáup ${ }^{\text {² }}$ | "hospitality" |
| kpēen̆m ${ }^{\text {m }}$ | "elder" | $\rightarrow$ |  | "eldership" |
| sj̄eñ ${ }^{\text {a }}$ | "witch" | $\rightarrow$ | sว̄วn̆g ${ }^{\text {a }}$ | "witchcraft" |

Cf also zù̀ $d^{\varepsilon}$ "friendship" from zunà ${ }^{+}$"friend."
The $m^{m}$ class suffix with adjective stems often creates manner adverbs:
pāalím ${ }^{\mathrm{m}}$ "recently" bāan̆lím ${ }^{\mathrm{m}}$ "quietly"
zāalím ${ }^{\mathrm{m}} \quad$ "emptily"

So too nè $\varepsilon m^{\mathrm{m}}$ "for free", from $n \varepsilon ̀ \varepsilon r^{\varepsilon}$ "empty."
Several adjective stems form manner-adverbs with an ending -ga+, i.e $g^{\text {a }} \mid s^{\varepsilon}$ class sg with apocope-blocking 5.1:

| sùnā+/ | "well; very much" | mā'asígā ${ }^{+/}$ | "coolly" |
| :---: | :---: | :---: | :---: |
| tōolígā+/ | "hotly" | gīna+ | "shortly" |
| būgusígā ${ }^{+/}$ | "softly" | sàalínā+/ | "smoothly" |
| n̆yèzsínā+/ | "self-confidently" |  |  |

## 12 Derivational suffixes

The statement of underlying open-class word structure made in 5.2 implies that roots are only of the shapes $C V(V)(C)$, so that any stem consonant which does not immediately follow the root vowel is not part of the root; neither is any consonant following a long root vowel unless the root shows CVC~CVVC allomorphy.

For simplicity, all such consonants will be called "derivational suffixes", though there may not always be parallel stems lacking the suffix or with different suffixes. Nevertheless, many such consonants are clearly identifiable as derivational. Regular highly productive suffixing processes derive agent nouns, deverbal adjectives and instrument nouns from verbs, and there are several less systematic processes deriving nominals from other nominals. Cognate stems make it possible to recognise many suffixes involved in verb derivation from roots; there are clear patterns, but no completely consistent correlations of suffix and meaning.

The derivational suffixes are $g s n I d m$, along with $b$ and $r$ in just a handful of words. The suffix $n$ may represent historical */d 5.4.
$g s n b r$ never follow another derivational suffix. $g$ and $s$ cause a preceding CVVC to become CVC, and a preceding oral ככ to become glottalised.

I follows another suffix only as part of the combination Im.
$d$ is very productive in the formation of deverbal nouns and adjectives; 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 Im.

The rules for consonant assimilation differ slightly from the rules operative in flexion, probably because they are less subject to analogical remodelling.

For Tone Patterns in derivation see 6.5.

### 12.1 Verbs

All verb derivation is by suffixes, probably always added to roots rather than word stems. Clear meanings can often be recognised in suffixes, but there is no straightforward match of form and meaning.

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 CVV root $+s \iota m$ or $l ı m$, never CVVC root $+m$; some stative verbs have stems in CVVmm.

### 12.1.1 Assume-stance verbs

Stance verbs have derived dual-aspect verbs in $-n^{\varepsilon}$ signifying "assume the stance" and in - $l^{\varepsilon}$ "make assume the stance"; all the $-n^{\varepsilon}$ verbs are Pattern A regardless, but the $-l^{\varepsilon}$ verbs have the same Pattern as the base stance verb.

| Stance verb |  | Assume-stance | Make-assume-stance |
| :---: | :---: | :---: | :---: |
| dīgıyal | "be lying" | dìgın ${ }^{\text {c }}$ | dīgıı ${ }^{\text {E/ }}$ |
| vābıya/ | "be lying prone" | vàbın ${ }^{\text {E }}$ | vābı $1^{\text {// }}$ |
| īgıyal | "be kneeling" | igın ${ }^{\text {¢ }}$ | īgı $\\|^{\varepsilon /}$ |
| làbıya | "be crouching hidden" | " làbın ${ }^{\text {c }}$ | làbı ${ }^{\text {® }}$ |
| zin̆̆'iya | "be sitting" | zì̆'ıin ${ }^{\text {c }}$ | zin̆'il ${ }^{\text {c }}$ |
| $z i ' e^{\text {ya }}$ | "be standing" | zi'ən ${ }^{\text {¢ }}$ | zi'əl ${ }^{\text {¢ }}$ |
| ti'iya/ | "be leaning" (of thing) | ) ti'in ${ }^{\varepsilon}$ | tril ${ }^{\text {/ }}$ |
| gכ̄'eya/ | "be looking up" WK | gذ'วn |  |
| sùr ${ }^{\text {a }}$ | "have bowed head" | sùn ${ }^{\text {ne }}$ | sùn ${ }^{\text {ne }}$ sic |
| - | "cover oneself" | ligin ${ }^{\text {c }}$ | lìgı ${ }^{\text {® }}$ |
| - | "perch" (of bird) | zùөn ${ }^{\text {¢ }}$ | zùel ${ }^{\text {¢ }}$ |
| - | "perch" (of bird) | yà'an ${ }^{\text { }}$ | yà'al ${ }^{\varepsilon}$ |

The resultative perfective of zùe ${ }^{+}$is used for "be perching":

Níin lā zúe n̄̄. "The bird is perching." KT Bird:sg art perch foc.

Nawdm has exactly parallel formations, e.g. jehra ipfv "être debout", jefnt pfv "se mettre debout", jehlg pfv, jehla ipfv "poser verticalement".

Other derivational relationships involving stance verbs are seen in

| gùl ${ }^{\text {la }}$ | "be suspended" | gù ${ }^{\text {E }}$ | gùl ${ }^{\text {E }}$ |
| :---: | :---: | :---: | :---: |
| tàbıya | "be stuck to" | tà ${ }^{\text {® }}$ | tàbı ${ }^{\text {ع }}$ |
| $d \bar{\varepsilon} \\|^{\text {a/ }}$ | "be leaning" (person) | dغ̀lım ${ }^{\text {m }}$ |  |

### 12.1.2 Causatives

$-\boldsymbol{s}$ - is a common causative suffix:

| $k p \varepsilon \grave{n}^{\prime}+$ | "enter" | $k p \varepsilon ̀ n ̆ ' \varepsilon s^{\varepsilon}$ | "make enter" |
| :---: | :---: | :---: | :---: |
| nie ${ }^{+}$ | "appear" | nغ̇をs ${ }^{\varepsilon}$ | "reveal" |
| $y i^{+}$ | "go/come out" | yīis ${ }^{\varepsilon /}$ or yīs $^{\varepsilon}$ | "make go/come out" |
| $d i^{+}$ | "eat" | dìs ${ }^{\text {c }}$ | "feed" |
| $n \bar{u}^{+}$ | "drink" | nūlıs ${ }^{\text {/ }}$ | "make drink"; also nūlıg ${ }^{\varepsilon /}$ |


| $s i g^{\varepsilon}$ | ＂go down＂ | sīgıs ${ }^{\text {／}}$ | ＂lower＂ |
| :---: | :---: | :---: | :---: |
| $l \varepsilon b^{\varepsilon}$ | ＂return＂ | $l$ lèm ${ }^{\varepsilon}$ | ＂make return；answer＂ |
| $m u '{ }^{\text {a }}$ | ＂suck＂（of a baby） | mù＇as ${ }^{\text { }}$ | ＂give to suck＂ |
| ［Mooré tá | ＂arrive＂］ | tā＇as ${ }^{\text {／}}$ | ＂help to travel，walk＂ |
| z $\mathrm{m}^{\text {ma／}}$ | ＂be equal＂ | zēmıs ${ }^{\text {／}}$ | ＂make equal＂ |
| kpiòig ${ }^{\text { }}$ | ＂go out（fire）＂ | kpiis ${ }^{\text {® }}$ | ＂quench＂ |

－I－has been seen above as the causative suffix for stance verb roots．It is also found with other roots with location－related meanings：

| n̆yá＇an ${ }^{\text {a }}$ | ＂behind＂ | n̆yā＇a｜${ }^{\text {／}}$ | ＂leave behind＂ |
| :---: | :---: | :---: | :---: |
| $g \bar{\varepsilon} o g$ | ＂space between legs＂ | $\left.g \bar{\varepsilon} \varepsilon\right\|^{\varepsilon /}$ | ＂put between legs＂Tones sic |
| $l i k^{\text {a }}$ | ＂darkness＂ | ligul ${ }^{\text {¢ }}$ | ＂cover up＂ |
| bān̆＇＋ | ＂ride＂ | bān̆＇al ${ }^{\varepsilon /}$ | ＂put on a horse／bicycle etc＂ |
| $g \bar{u}^{+}+$ | ＂guard＂ | gū＇ulv／ | ＂set someone on guard＂ |
| $y \dot{\varepsilon}^{+}$ | ＂dress oneself＂ | yદ̀દ ${ }^{\text {® }}$ | ＂dress another person＂ |

Verbs derived with $-g$－from nominal roots are usually patientive ambitransitives but may have separate causatives in－I－：

| mā＇${ }^{+/}$ | ＂get cool＂ | mā＇a｜${ }^{\varepsilon /}$ | ＂make cool＂ |
| :---: | :---: | :---: | :---: |
| pūn̆＇e＋／ | ＂rot＂ | pコ̄n̆＇ر｜ | ＂cause to rot＂ |
| nie ${ }^{+}$ | ＂appear＂ | nèz $1^{\varepsilon}$ | ＂reveal＂ |
| mā＇${ }^{+/}$ | ＂get cool，wet＂ | mā＇a｜${ }^{\varepsilon /}$ | ＂make cool，wet＂ |
| wō＇og ${ }^{\text {／}}$ | ＂get wet＂ | wō＇ols／ | ＂make wet＂ |

There is no obvious reason for the choice of suffix in

| zà $b^{\varepsilon}$ | ＂fight＂ | zàbı $\left.\right\|^{\varepsilon}$ | ＂cause to fight＂ |
| :--- | :--- | :--- | :--- |
| $d u^{\prime} a^{a}$ | ＂bear，beget＂ | $d \dot{c} a^{\varepsilon} /^{\varepsilon}$ | ＂make interest（of a loan）＂ |

－g－forms causatives in a few verbs：

| djııla／ | ＂accompany＂ | d亏̄lıg ${ }^{\text {¢ }}$ | ＂make accompany＂ |
| :---: | :---: | :---: | :---: |
| $g \overline{\mathrm{ram}}{ }^{\text {a／}}$ | ＂look up＂DK | gう̄dıg ${ }^{\varepsilon /}$ | ＂make look up＂DK |
| tèn̆rra | ＂remember＂ | tien̆ ${ }^{+}$ | ＂bring to mind，remind＂ |
| yùul ${ }^{\text {® }}$ | ＂swing＂intransitive | yùlıg ${ }^{\text {¢ }}$ | ＂swing＂transitive |
| kj ${ }^{+}$ | ＂break＂intransitive | $k)^{\prime} g^{\varepsilon}$ | ＂break＂ambitransitive |
| $n \bar{u}^{+}$ | ＂drink＂ | $n u ̄ / g^{\varepsilon /}$ | ＂make drink＂；also nūlıs ${ }^{\varepsilon /}$ |

## 12．1．3 Reverse action

－g－attached to dynamic－verb roots implies reversal：

| $y \grave{k}^{+}$ | ＂dress oneself＂ | $y \varepsilon)^{\varepsilon} g^{\varepsilon}$ | ＂undress oneself＂ |
| :---: | :---: | :---: | :---: |
| pid ${ }^{\text {® }}$ | ＂put（hat etc）on＂ | pidıg ${ }^{\text {e }}$ | ＂take（hat etc）off＂ |
| pil ${ }^{\text {c }}$ | ＂cover＂ | pilıg ${ }^{\text {a }}$ | ＂uncover＂ |
| $ら^{+}$ | ＂tie up＂ | 万人dıg ${ }^{\text {¢ }}$ | ＂untie＂ |
| yう ${ }^{+}$ | ＂close＂ | $y)^{\prime} \mathrm{g}^{\text {¢ }}$ | ＂open＂ |
| غ̇nัd ${ }^{\varepsilon}$ | ＂block up＂ | غ̇n̆dıg ${ }^{\text {® }}$ | ＂unblock＂ |
| yà＇al ${ }^{\text {® }}$ | ＂hang up＂ | yàk ${ }^{\text {¢ }}$ | ＂unhang＂ |
| pà＇al ${ }^{\text {e }}$ | ＂put on top＂ | pàk ${ }^{\varepsilon}$ | ＂take off top＂ |
| pibı ${ }^{\text { }}$ | ＂cover up＂ | pibıg ${ }^{\text {e }}$ | ＂uncover＂ |
| tàbı ${ }^{\text {ya }}$ | ＂be stuck to＂ | tàbıg ${ }^{\text {c }}$ | ＂unstick，get unstuck＂ |
|  | ＂gather together＂ | lāk ${ }^{\text {／}}$ | ＂open＂（eye，book）；tone sic |
|  |  | lákè | （Mooré）＂un－stick together＂ |

Possibly a reversal sense also underlies

| lìəb | ＂become＂ | lèbıg | ＂turn over＂ |
| :--- | :--- | :--- | :--- |
| fān̆ |  |  |  |

Reversive $-g$－is a peculiarity of the Western group within Oti－Volta；the other groups show alveolar suffixes：Moba lōōń＂close＂lōōd＂open＂，Byali byá＂close＂byērá ＂open＂，Nawdm riw pfv＂close＂rawdg pfv rawda ipfv＂open．＂Proto－Bantu had－vl－and $-v k-$ ，perhaps respectively transitive and intransitive；an alveolar variant may have been disfavoured in Western Oti－Volta because of the adoption of－da as the regular imperfective flexion for dynamic verbs．

## 12．1．4 Plural action

－s－may have a pluractional sense：

| $k{ }^{+}$ | ＂break＂ | kj̀＇つs ${ }^{\text {® }}$ | ＂break several times＂ |
| :---: | :---: | :---: | :---: |
| tòn ${ }^{+}$ | ＂shoot＂ | tòn＇วs ${ }^{\text {¢ }}$ | ＂hunt＂ |
| pìəb ${ }^{\text {a }}$ | ＂blow（flute etc）＂ | $p \varepsilon ̇ b ı s^{\varepsilon}$ | ＂blow（wind）＂ |
| làbıya | ＂crouch in hiding＂ | làbıs ${ }^{\text {c }}$ | ＂walk stealthily＂ |
| vōeal | ＂be alive＂ | vō＇us ${ }^{\varepsilon /}$ | ＂breathe，rest＂ |
| īănk ${ }^{\text {¢／}}$ | ＂fly，jump＂ | jān̆＇as ${ }^{\text {¢／}}$ | ＂leap，jump repeatedly＂ |
| yā＇e ${ }^{+/}$ | ＂open mouth＂ | yā＇as ${ }^{\text {／}}$ | ＂open repeatedly＂WK |
| $d i ' e^{+/}$ | ＂receive＂ | di＇əs ${ }^{\text {／}}$ | ＂receive（many things）＂ |
| $g \bar{u}^{+}$ | ＂guard＂ | $g u \bar{\prime} u s^{\varepsilon /}$ | ＂watch out；guard（many）＂ |

-d- appears with a pluractional sense in

$$
k \bar{\partial} d \iota g^{\varepsilon /} \quad \text { "slaughter one animal" } k \bar{\partial} t^{\varepsilon /} \quad \text { "slaughter several animals" }
$$

This suffix is perhaps historically connected with the *d of the ipfv suffix *-da, by way of the distinctively habitual sense seen in stance verbs 10.2 .

### 12.1.5 Denominal verbs

### 12.1.5.1 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 $-y^{\text {a }}$, 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 6.5. 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. $k p \upharpoonright \quad ə m^{\mathrm{ma}}$ / "be strong" $k p \varepsilon \overline{\varepsilon n ̆ m} \mathrm{~m}^{\mathrm{ma/}}$ "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 | vènnıg ${ }^{\text {a }}$ | "beautiful" | $v \varepsilon ̇ n^{\text {na }}$ | "be beautiful" |
| :---: | :---: | :---: | :---: | :---: |
|  | vèn̆lııg ${ }^{\text {a }}$ | "beautiful" | vèn̆lı ${ }^{\text {a }}$ | "be beautiful" |
|  | zùlvp | "deep" | zùlım ${ }^{\text {ma }}$ | "be deep" |
|  | pòjoıı ${ }^{\text {a }}$ | "small" | pjod ${ }^{\text {a }}$ | "be few, small" |
|  | mìisug ${ }^{\text {a }}$ | "sour" | mi'is ${ }^{\text {a }}$ | "be sour" |
|  | sùn | "good" | sòm ${ }^{\text {ma }}$ | "be good" |
|  | yàlon | "wide" | yàlım ${ }^{\text {ma }}$ | "be wide" |
| H | būgusír ${ }^{\text {E }}$ | "soft" | $b u ̄ g u s^{\text {a/ }}$ | "be soft" |
|  | $v o ̄ r^{\varepsilon /}$ | "alive" | $v \bar{u} e^{\text {a/ }}$ | "be alive" |
|  | mā'asír ${ }^{\text {E }}$ | "cool" | mā'as ${ }^{\text {a/ }}$ | "be cool" |
|  | $t \bar{b} b i s i ́ r{ }^{\text {e }}$ | "heavy" | $t \bar{c} b s^{\text {a/ }}$ | "be heavy" |
|  | mālısír ${ }^{\text {e }}$ | "sweet" | mālıs ${ }^{\text {a/ }}$ | "be sweet" |
|  | lābısír ${ }^{\text {c }}$ | "wide" | lābss ${ }^{\text {a/ }}$ | "be wide" |
|  | zēmmóg ${ }^{\text { }}$ | "equal" | z $\bar{\varepsilon} m^{\text {ma/ }}$ | "be equal to" |
|  | lāllúg ${ }^{\text {a }}$ | "far" | lāıla/ | "be far from" |


| A | tכ̄og | ＂bitter＂ | tōea／ | ＂be bitter＂ |
| :---: | :---: | :---: | :---: | :---: |
|  | $g i \eta^{\text {a }}$ | ＂short＂ | gīm ${ }^{\text {ma／}}$ | ＂be short＂ |
|  | kpion ${ }^{\text {a }}$ | ＂strong＂ | kpiəəm ${ }^{\text {ma／}}$ | ＂be strong＂ |
|  | kpē $\frac{1}{}{ }^{\text {m }}$ | ＂elder＂ | kpह̄عn̆m ${ }^{\text {ma／}}$ | ＂be older than＂ |
|  | $w \bar{\varepsilon} n n \iota^{\varepsilon}$ | ＂resembling＂ | $w \bar{\varepsilon} n^{\text {na／}}$ | ＂resemble＂ |

More complex stem changes occur in

| tōológ ${ }^{\text {a }}$ | ＂hot＂ | tōla／ | ＂be hot＂ |
| :---: | :---: | :---: | :---: |
| n̆yと̀esín ${ }^{\text {a }}$ | ＂self－confident＂ | n̆yغ̀ ${ }^{\text {a }}$ | ＂be self－confident＂ |
| wう̄k ${ }^{\text {／}}$ | ＂long，tall＂ | wā＇am ${ }^{\text {a／}}$ | ＂be long，tall＂ |

## 12．1．5．2 Dual aspect

－g－attached to nominal／adjectival roots has the meaning＂make／become ．．．＂：

| n̆yう̄＇วs ${ }^{\text {／／}}$ | ＂smoke＂ | n̆yū＇e＋／ | ＂set alight＂ |
| :---: | :---: | :---: | :---: |
| n̆wïiga／ | ＂rope＂ | n̆wiil ${ }^{\text {¢／}}$ | ＂make a rope＂ |
| tādım ${ }^{\text {m／}}$ | ＂weak person＂ | tàdıg ${ }^{\text {E }}$ | ＂become weak＂ |
| kpi＇a＋ | ＂neighbour＂ | kpì＇${ }^{+}$ | ＂approach＂ |
| $z u ̄ ө r^{\varepsilon}$ | ＂hill＂ | zùe ${ }^{+}$ | ＂get higher，more＂ |
| À－Tūlı | ＂Breech－Delivered＂ 29.2 | tùlıg ${ }^{\varepsilon}$ | ＂invert＂ |
| mā＇asír ${ }^{\text {¢ }}$ | ＂cool，wet＂ | mā＇ $\mathrm{e}^{+/}$ | ＂get cool，wet＂ |
| $b \bar{g} u s i ́ r r^{\varepsilon}$ | ＂soft＂ | $b \mathrm{~b}^{\text {k／}}$ | ＂soften＂ |
| $t \bar{b}{ }^{\text {cisír }}$ | ＂heavy＂ | $t \bar{\varepsilon} b \iota^{\text {g }}$ | ＂get／make heavy＂ |
| $g i \eta^{\text {a }}$ | ＂short＂ | gì ${ }^{\text {E }}$ | ＂scrimp＂ |
| kpi＇on ${ }^{\text {a }}$ | ＂strong＂ | $k p \dot{\prime}^{\prime} \square^{\varepsilon}$ | ＂strengthen＂ |
| $v o ̄ r^{\varepsilon /}$ | ＂alive＂ | $\left.v \overline{0}^{\prime}\right)^{\text {b／}}$ | ＂make／come alive＂ |
| pj̀ ${ }^{\text {dig }}{ }^{\text {a }}$ | ＂few＂ | pذ＇วg ${ }^{\text {® }}$ | ＂diminish，belittle＂ |
| pìlıg ${ }^{\text {a }}$ | ＂white＂ | pèlıg ${ }^{\varepsilon}$ | ＂whiten＂ |
| sābılíg ${ }^{\text {a }}$ | ＂black＂ | sj̄bıg ${ }^{\text {¢ }}$ | ＂blacken＂ |
| nīn－múa＋ | ＂concentration＂ | mù＇${ }^{+}$ | ＂redden，become intense＂ |
| $k u ̄ d u g$ | ＂old＂ | kùdıg ${ }^{\text {e }}$ | ＂shrivel up，dry out，age＂ |
| sòn ${ }^{\text {ºm }}$ | ＂good＂ | sùn ${ }^{\text {c }}$ | ＂help＂ |
| tūológ ${ }^{\text {a }}$ | ＂hot＂ | $t \bar{l} / g^{\varepsilon /}$ | ＂heat up＂ |
| mi＇isug ${ }^{\text {a }}$ | ＂sour＂ | mi＇ig ${ }^{\text {¢ }}$ | ＂turn sour＂ |
| zùlı ${ }^{\text {² }}$ | ＂deep＂ | zùlıg ${ }^{\text {¢ }}$ | ＂deepen＂ |
| lāllúg ${ }^{\text {a }}$ | ＂far＂ | lālıg ${ }^{\text {¢ }}$ | ＂get to be far，make far＂ |
| màuk ${ }^{\text {a }}$ | ＂crumpled up＂ | màk ${ }^{\varepsilon}$ | ＂crumple up＂ |
| d $\bar{\varepsilon} \varepsilon \eta^{\text {a }}$ | ＂first＂ | $d \varepsilon \eta^{\varepsilon}$ | ＂precede＂ |


| $n \varepsilon ̀ \varepsilon r^{\varepsilon}$ | "clear, empty" | nìe ${ }^{+}$ | "appear" |
| :--- | :--- | :--- | :--- |
| $s \grave{n ̆ ' e ~} e^{\text {ya/ }}$ | "be better than" | sūn̆'e ${ }^{+/}$ | "become better than" WK |

With the addition of $-m$ as a second derivational suffix:
wàun ${ }^{\text {د }}$ "wasted" wàpım ${ }^{m}$ "waste away"
-lım- derives verbs from noun roots, meaning "act as ..." or "make/become ...":

| pu'āa | "woman" | pù'alım ${ }^{\text {m }}$ | "cook" |
| :---: | :---: | :---: | :---: |
| pòn̆'วr ${ }^{\text {e }}$ | "cripple" | pòn̆'دlım ${ }^{\text {m }}$ | "cripple, get crippled" |
| gìk ${ }^{\text {a }}$ | "dumb" | gìgılım ${ }^{\text {m }}$ | "become dumb" |
| wàbır ${ }^{\text {e }}$ | "lame" | wàbilım ${ }^{\text {m }}$ | "make, go lame" |
| $g \bar{o}^{\prime} u s^{\varepsilon}$ | "semi-ripe things" | gò'vlım ${ }^{\text {m }}$ | "become semi-ripe" |
| $b u ̄ g u d^{\text {a }}$ | "client of diviner" | bùgulım ${ }^{\text {m }}$ | "cast lots" |
|  |  | bùk ${ }^{\text {c }}$ | "cast lots" |

Miscellaneous denominal dual-aspect verbs formed with $s m b$ are seen in

|  | zừ ${ }^{+}$ | "friend" | zù $\theta S^{\varepsilon}$ | "befriend" |
| :---: | :---: | :---: | :---: | :---: |
|  | $n \bar{\varepsilon} \varepsilon r^{\varepsilon /}$ | "millstone" | $n \bar{\varepsilon} \varepsilon \mathrm{~m}^{\mathrm{m} /}$ | "grind with a millstone" |
|  | $y a ̄ ' a d^{\varepsilon}$ | "clay" | yà'ab ${ }^{\text {e }}$ | "mould clay" |
| cf | yàge | (Mooré) "m |  |  |

### 12.1.6 Miscellaneous cases

-m-derives some preverbs 19.7.2:

|  | $l غ ̇ b^{\varepsilon}$ | "return" | lغ̀m | "again" |
| :---: | :---: | :---: | :---: | :---: |
| cf | là'as ${ }^{\text {e }}$ | "gather together" | là'am | "together" |
|  | $d \varepsilon \eta^{\varepsilon}$ | "go first" | dèpım | "first" |
| cf | malig | (Toende) "do again" | màlıgım | "again" |

It has no obvious meaning in kj̀n̆sım ${ }^{\mathrm{m}}$ "cough" $=k \grave{n}$ s $^{\varepsilon}$ id.
-g- occurs with no clear meaning in

| sכ̄n̆ ${ }^{+}$ | "rub" | sūen̆+/ | "anoint" |
| :---: | :---: | :---: | :---: |
| $n \overline{5} b^{\text {c }}$ | "get fat" | nว̄bıg ${ }^{\varepsilon /}$ | "grow" (child, plant) |
| $n \bar{a}^{+}$ | "join" | $n a \bar{e}{ }^{+/}$ | "finish"; compare |
|  |  |  | Hausa gamàa "join, finish" |

-r- appears in

| $k a ̄ a b^{\varepsilon /}$ "offer, invite" | $k a ̄ b ı r^{\varepsilon /}$ | "ask for admission" |
| :--- | :--- | :--- |
|  | cf $k$ kábıs | Toende id |
| [no simplex] | sūgur | "forbear, be patient with" |

Both words appear frequently in pan-regional set formulae $\underline{28}$ and may well be loanwords. They may be back-formations from the nouns kābırí ${ }^{+}$and sūgurú+, where $r ı / r u$ possibly originated in the equivalent of $r^{\varepsilon} \mid a^{+}$class singular flexions 8.5.

### 12.2 Nominals

### 12.2.1 From verbs

The derivational processes described below are very productive; agent noun formation in particular is almost flexional in its regularity and generality, though this is less true of deverbal adjective formation. Deverbal noun and adjective formation generally shows more analogical levelling than derivational processes elsewhere, in keeping with the strong Kusaal tendency to regularity and transparency in verb morphology.

The Tone Patterns of deverbal nouns and adjectives are predictable 6.5.

### 12.2.1.1 Agent nouns

Agent nouns can be freely made from almost all verbs which can be used in direct commands. Informants readily supply isolated forms on demand, but in conversation and texts they usually occur as second elements of compounds. All belong to the ${ }^{\mathrm{a}} \mid b^{\mathrm{a}}$ class, although those derived from II- or $r(r)$-stem single-aspect verbs may also show $r^{\varepsilon} \mid a^{+}$class forms 8.3.1. Despite their regularity of formation, agent nouns often develop specialised meanings, as will be seen in the examples. The name "agent noun" is not altogether felicitous; as with English derivatives in "-er", the formation may be found with verbs whose subject is not an agent: agent nouns can even be created from stative verbs if they are usable in direct commands.

The formant of agent nouns and habitual adjectives is the derivational suffix - $d$. It is probably historically related to the $-d$ - of the imperfective flexion $-d^{\text {a }}$, but the tonal effects differ, and derivational - $d$ shows much less regularity in its mode of attachment; agent nouns show more levelling and regularisation than habitual adjectives. These variations arise from a tendency to limit stem length, resulting in deletion of either -d itself or the suffix preceding it. The absence or presence of the suffix affects the Tone Pattern in forms derived from Pattern A verbs 6.5.

Most dual-aspect verbs have an agent noun with a singular form segmentally identical with the imperfective. For tones see 6.5. If there are alternate forms, the less "regular" form appears as the agent noun.

| $k \overline{0}^{+}$ | "kill" | kūטd ${ }^{\text {a/ }}$ | "killer" |
| :---: | :---: | :---: | :---: |
| $m \dot{\varepsilon}^{+}$ | "build" | $m \bar{\varepsilon} \varepsilon d^{\text {a }}$ | "builder" |
| $d i^{+}$ | "eat" | $d i ̄ t a ~$ | "eater" |
| $g \overline{s^{\varepsilon}}$ | "look" | $g \overline{y^{\text {a/ }}}$ | "seer, prophet" |
| $d \bar{u} g^{\varepsilon}$ | "cook" | dūgud ${ }^{\text {a/ }}$ | "cook" |
| du'àa | "bear, beget" | $d \bar{\prime} \cdot a d^{\text {a }}$ | "elder relation" |
| $k{ }^{\text {a }}{ }^{\varepsilon}$ | "drive away" | saríyà-kāta | "judge" |
| sj̄b ${ }^{\text {c }}$ | "write" | sōbıd ${ }^{\text {a/ }}$ | "writer" |
| bùn ${ }^{\text { }}$ | "reap" | būn ${ }^{\text {na }}$ | "reaper" |
| tòm ${ }^{\text {m }}$ | "work" | tòm-tōm ${ }^{\text {na }}$ | "worker" |
| $k i m^{\text {m }}$ | "tend flock" | kj̀ňb-kīm ${ }^{\text {na }}$ | "herdsman, shepherd" |
| kpàr ${ }^{\text {¢ }}$ | "lock" | kpārıd ${ }^{\text {a }}$ | "lock-er" |
| gbis ${ }^{\text { }}$ | "sleep" | gbissı ${ }^{\text {a/ }}$ | "sleeper" |
| siàk ${ }^{\text {c }}$ | "believe" | siākıd ${ }^{\text {a }}$ | "believer" |
| j̄āň ${ }^{\varepsilon /}$ | "jump, fly" | iāñ'ad ${ }^{\text {a/ }}$ | "flier" |
| sòn ${ }^{\text {¢ }}$ | "help" | sūpıd ${ }^{\text {a }}$ | "helper" |
| bà $\square^{\varepsilon}$ | "understand" | $b a ̄ \eta ı d^{\text {a }}$ | "wise man" |
| $k \bar{\varepsilon} \eta^{\varepsilon /}$ | "go" | $k \bar{\varepsilon} n^{\mathrm{na} /}$ | "traveller" |
| gàad ${ }^{\text {¢ }}$ | "pass" | tùen-gāt ${ }^{\text {a }}$ | "leader" |
| m亏َد ${ }^{\text {¢/ }}$ | "proclaim" | $m$ mכו-môวnna | "proclaimer" |
| màal ${ }^{\text {¢ }}$ | "sacrifice" | màal-māan ${ }^{\text {na }}$ | "sacrificer" |
| pà'al ${ }^{\text {c }}$ | "teach" | $p a ̄ ' a n^{\text {na }}$ | "teacher" |
| sūgvr ${ }^{\text {/ }}$ | "forbear" | sūgurída | "forgiver" |
| yō'um ${ }^{\text {m/ }}$ | "sing" | yōom-yט̂'um ${ }^{\text {na }}$ | "singer" |
|  |  | pl yōvm-yט̂'umnìb ${ }^{\text {a }}$ |  |
| sàn' ${ }^{\text {a }}{ }^{\text {m }}$ | "spoil" | $p u$ 'à-sān̆'am ${ }^{\text {na }}$ | "adulterer" |
|  |  | pl pư'à-sān̆'amıdıb ${ }^{\text {a }}$ |  |

Pattern H fusion verbs, which delete the H toneme of the stem in the imperfective 6.3.1, show the same form for the agent noun:

| $n a ̄ e^{+/}$ | "finish" | nāad ${ }^{\mathrm{a} /}$ | "someone who doesn't |
| :--- | :--- | :--- | :--- |
| give up easily" WK |  |  |  |

3-mora stems in -s consistently drop the -d in the sg and cb:

| $s i ̄ g l s^{\varepsilon /}$ | "lower" | $\begin{gathered} \operatorname{sig} ı s^{\mathrm{a} /} \\ \text { pl sīgısídìba } \end{gathered}$ | "lowerer" |
| :---: | :---: | :---: | :---: |
| $k u ̀ \theta S^{\varepsilon}$ | "sell" | $k u ̀ \theta s^{\text {a }}$ | "seller" |
|  |  | $\mathrm{pl} k u \bar{\theta} \boldsymbol{s} \stackrel{\text { dı }}{ }{ }^{\text {b }}$ |  |
| $p o{ }^{\prime} u s^{\varepsilon}$ | "worship" | pò'us ${ }^{\text {a }}$ | "worshipper" |
|  |  | pl pō'usıdıba |  |
| tò'as ${ }^{\text {e }}$ | "talk" | tù'as-tò'as ${ }^{\text {a }}$ | "talker" |
|  |  | pl tò'as-tū'asıdıba |  |
| $d i \quad \partial s^{\varepsilon /}$ | "receive" | $n \overline{-}-d i ̂ ' \partial s^{\text {a }}$ | "chief's spokesman" |
|  |  | pl $n \overline{-}$-dí'əsìdı ${ }^{\text {a }}$ | ("linguist") |

Some 2-mora stems also irregularly drop the $-d$ in the sg and cb :

| zà ${ }^{\text {® }}$ | "fight" | zàb-zà ${ }^{\text {a }}$ | "warrior" |
| :---: | :---: | :---: | :---: |
|  |  | gbān-záb ${ }^{\text {a }}$ | "leather-worker" |
| tis ${ }^{\text { }}$ | "give" | tis ${ }^{\text {a }}$ | "giver" |
| sว̀s ${ }^{\text {e }}$ | "beg" | sj̀s ${ }^{\text {a }}$ | "beggar" |

Stems in -mm- form reduplicated agent nouns with nàm ${ }^{a}$ plurals:
dàm ${ }^{m} \quad$ "shake" dàm-dàmma "shaker"

The nn-stem sùnn ${ }^{\text {n }}$ "bow the head" has an agent noun stem in -nn-, but the tonemes show retention of the $-d$-formant:

| sùnn | "bow head" | sūnna <br> pl sūnnıba |
| :---: | :---: | :--- |
|  | cb sùn- | "deep thinker, close |
| observer" WK |  |  |
|  | $($ cf ipfv sùnnıd $)$ |  |

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 $-k-0$ or $-\eta-:$

| $y a ̄ d ı g^{\varepsilon /} \quad$ "scatter" $\quad y a ̄ t{ }^{\text {a/ }}$ | technical term for one |
| :--- | :--- | :--- |
|  | participant in a |
|  | housebuilding ritual |

Various irregular formations in my materials include:

| $t \bar{\varepsilon} k^{\varepsilon /}$ | "pull" | $\check{n} w i$-ték ${ }^{\text {a }}$ | "rope-puller" |
| :---: | :---: | :---: | :---: |
|  |  | pl n̆wī-t́́kìdı ${ }^{\text {a }}$ |  |
| nว̀ ${ }^{\text {® }}$ | "love" | nכ̀ıı ${ }^{\text {a }}$ | "lover"; tones irreg |
| ti'əb ${ }^{\text {c }}$ | "heal" | ti'ab ${ }^{\text {a }}$ | "healer"; tones irreg |

For 4-mora stems: KT has no agent nouns; WK drops the final -m- and proceeds as for 3-mora stems:

| siilım ${ }^{\text {m }}$ | "cite proverbs" | siiin ${ }^{\text {na }}$ | "speaker of proverbs" |
| :---: | :---: | :---: | :---: |
|  |  | pl siïnnı ${ }^{\text {a }}$ |  |
| pò'alım ${ }^{\text {m }}$ | "harm" | $p \bar{u}^{\prime} a n^{\text {na }}$ | "harmer" |
| zàan̆sım ${ }^{\text {m }}$ | "dream" | zàañs ${ }^{\text {a }}$ | "dreamer" |
|  |  | pl zāan̆sıdı${ }^{\text {a }}$ |  |

Single-aspect verbs with unassimilated $y$, and the bare-stem type, add $-d$-:

| zin̆'iya | "be sitting down" | $z i n h^{\prime} i d^{\text {a }}$ | "sitter" |
| :---: | :---: | :---: | :---: |
| $z i ' e e^{\text {ya }}$ | "be standing still" | zïəd ${ }^{\text {a }}$ | "stander" |
| $m i^{+}$ | "know" | $m i i d^{\text {a/ }}$ | "knower" |
|  |  | gbàn-míid ${ }^{\text {a/ }}$ | "scribe" NT |
| $z i ̄ 1+$ | "not know" | $z i ̄ '\left(d^{\text {a/ }}\right.$ | "ignorant person" |
| sū'eya/ | "own" | sū'ud ${ }^{\text {a/ }}$ | "owner" |
| sว̄n̆'eya/ | "be better than" | sכ̄n̆'ว $d^{\text {a// }} \mathrm{pl}$ s ${ }^{\text {a }}$ | 8.3.1 |
| dīgıya/ | "be lying down" | dīgıd ${ }^{\text {/ }}$ | "lier-down" |
| īgıyal | "be kneeling" | ígıd ${ }^{\text {a/ }}$ | "kneeler" |
| vābıya/ | "be lying prone" | vābıd ${ }^{\text {a/ }}$ | "lier prone" |
| làbıya | "be crouching" | lābıd ${ }^{\text {a }}$ | "croucher in hiding" |
| àeñ ${ }^{\text {a }}$ | "be something" | āaňd ${ }^{\text {a }}$ | "someone who continually is something" sic WK |

Stems in $n n / I r(r)$ drop -d throughout. Those in $/ / r(r)$ may use $r^{\varepsilon} \mid a^{+}$class suffixes, coinciding in form with habitual adjectives 8.3.1.

| $\sin ^{n a /}$ | "be silent" | nīn-sínn ${ }^{\text {na }}$ | "silent person" |
| :---: | :---: | :---: | :---: |
| nēn ${ }^{\text {na/ }}$ | "envy" | nīn-nén ${ }^{\text {na }}$ | "envious person" |
| djıla/ | "be with" | n̆yà'an-dj̀la | "disciple" (irreg. tone) |
|  |  | or ňyà'an-dj̀lı |  |
| zān̆ıla/ | "be holding" | nj̄-záñla | "holder of hens" |
|  |  |  |  |
| $d \bar{\varepsilon} \\|^{\mathrm{l}} /$ | "be leaning" | nīn-dél ${ }^{\text {a }}$ | "person prone to lean" |


| $m \bar{\partial} r^{\text {a/ }}$ | "have" | $b \grave{\text { bom }}$ - ${ }^{\text {a/ }}$ | "owner of goats" |
| :---: | :---: | :---: | :---: |
|  |  | or bù-mう̄r ${ }^{\text {c/ }}$ |  |
| tāral | "have" | bù-tār ${ }^{\text {a/ }}$ | "owner of goats" |
|  |  | or bò-tār ${ }^{\text {/ }}$ |  |

The simplification to single $s r$ leads to analogical formations with $-d$ - in

| $k i \bar{s}^{\text {a/ }}$ | "hate" | $k i s^{\text {a/ }}$ or $k i \bar{s} \iota^{\text {d }}{ }^{\text {a/ }}$ | "hater" |
| :---: | :---: | :---: | :---: |
| tè̇n̆r ${ }^{\text {a }}$ | "remember" | tĖn̆rıd ${ }^{\text {a }}$ | "rememberer" |
| $g u ̄ r^{\text {a/ }}$ | "be on guard" | gūrıd ${ }^{\text {a/ }}$ | "guard" |
|  |  | $z a ̀ '-n \overline{-g u ́ r ~}{ }^{\text {a }}$ | "gatekeeper" |

### 12.2.1.2 Deverbal adjectives

### 12.2.1.2.1 Habitual

In principle these adjectives have the same stem as the agent noun, but they 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. It is not usual for a habitual adjective to have a past passive sense like an English past participle, though examples occur, e.g sūm-dúgvdà+ "cooked groundnuts" WK, ziiŋdugida $=$ zïin-dúgudà+ "cooked fish" (Lk 24:42), beside the more usual sense in ni'im dugida = nïm-dúgudà+ "meat for cooking" (1 Samuel 2:15.)

When used without a preceding noun cb, habitual adjective forms have the meaning of agent nouns: $k \bar{v} v d^{\prime} r^{\varepsilon}$ pl $k \bar{u} v d a ́+~ " k i l l e r " ~=~ k \bar{u} v d^{\mathrm{a} /} \mathrm{pl} k \bar{v} v d^{\prime} b^{\mathrm{a}}$. However, with a preceding cb the meanings differ: pu'à-kūvd ${ }^{\text {a/ }}$ "woman-killer, killer of women" vs pư'à-kūvdír ${ }^{\varepsilon}$ "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:

| gòñ ${ }^{+}$ | "hunt" | $p u ' a ̀-g כ ̄ כ n ̆ d ı r^{\varepsilon}$ | "prostitute" |
| :---: | :---: | :---: | :---: |
| là'+ | "laugh" | $p u$ 'à-lā'adır ${ }^{\text {e }}$ | "woman prone to laughter/ woman to be laughed at" |
| $\check{n} y \bar{\varepsilon}^{+}$ | "see" | bōn-n̆yćtì ${ }^{\text {e }}$ | "visible object" |
| kuā ${ }^{+}$ | "hoe" | $n \bar{\square}-$ dá-kūөdír ${ }^{\text {c }}$ | "ox for ploughing" |
| $y \dot{\varepsilon}^{+}$ | "don clothes" | fū-yć dìr $^{\varepsilon}$ | "shirt for wearing" WK |
|  |  | $f u ̄-y \varepsilon ́ \varepsilon d \nu ̀ g{ }^{\text {a }}$ | KT |
| $k \bar{v}^{+}$ | "kill" | tì-kūטdím ${ }^{\text {m }}$ | "poison" ("killing medicine") |
| dư'àa | "bear/beget" | tèn-dū'adıg ${ }^{\text {a }}$ | "native land" |
| $d \bar{v} g^{\varepsilon}$ | "cook" | sūm-dúgudà ${ }^{+}$ | "cooked groundnuts" WK |


| $s i g^{\varepsilon}$ | "descend" | yī-sígıdìr ${ }^{\text {e }}$ | "lodging-house" |
| :---: | :---: | :---: | :---: |
| su'āa | "hide" | y $\bar{\varepsilon}$--sú'adì ${ }^{\varepsilon}$ | "confidential matter" |
| う̀n̆ ${ }^{\text { }}$ | "chew" | būn-ón̆bıdà ${ }^{+}$ | "solid food" |
| bùn ${ }^{\text {¢ }}$ | "reap" | būn-búnnìr ${ }^{\text {e }}$ | "thing for reaping" |
| tòm ${ }^{\text {m }}$ | "work" | būn-tómmìr ${ }^{\text {en }}$ | "useful thing" |
| $v \bar{u} l^{\varepsilon}$ | "swallow" | tì-vōnním ${ }^{\text {m }}$ | "oral medication" |
| $g b i s^{\varepsilon}$ | "sleep" |  | "woman always sleeping" |

3-mora stems in $* g$ drop -d in all cases except where the ${ }^{*} g$ derivational suffix is deleted in the imperfective, whether regularly or otherwise 10.1. The dropping of $-d$ is thus much more consistent than in agent nouns.

| gillg ${ }^{\text {g/ }}$ | "go around" |  | "prostitute" |
| :---: | :---: | :---: | :---: |
| sūeñ ${ }^{\text {+/ }}$ | "anoint" | $k p a ̄$-sว́วn̆dìm ${ }^{\text {m }}$ | "anointing oil" |
| tōlıg ${ }^{\text {g/ }}$ | "heat up" | būn-túlıgìr ${ }^{\text {c }}$ | "heater, thing for heating" |
| $p \varepsilon \grave{l} \stackrel{g^{\varepsilon}}{ }$ | "whiten" | būn-pélıgì ${ }^{\text {c }}$ | "whitening thing, whitener" |
| yādıg ${ }^{\varepsilon /}$ | "scatter" | būn-yátìr ${ }^{\varepsilon}$ | "scattering thing" (cf yāta/) |
| iāñ ${ }^{\text {¢ }}$ | "fly, jump" | būn-íán̆'adìr ${ }^{\text {b }}$ | "flying creature" |
| pàk ${ }^{\text { }}$ | "surprise" | $y \bar{l}$-pákì ${ }^{\text {c }}$ | "disaster" |
| $t \bar{\varepsilon} k^{\varepsilon /}$ | "pull" | n̆wī-tékì ${ }^{\text { }}$ | "rope for pulling with" |
| $k \bar{\varepsilon} \eta^{\varepsilon /}$ | "go" | bùn-kēnnír ${ }^{\text {c }}$ | "donkey that doesn't sit still" |
| Sòn | "help" | būn-sónìr ${ }^{\text {e }}$ | "helpful thing" |
| nכ̀ ${ }^{\text {® }}$ | "love" | bì-nว̀מı ${ }^{\varepsilon}$ | "beloved child" |

3-mora stems in -m retain the -d, forming the consonant cluster -mm-:
sàn̆'am ${ }^{m} \quad$ "destroy" bù-sān̆'ammır ${ }^{\varepsilon} \quad$ "scapegoat" WK

3-mora stems in -s all drop the -d:

| pè̀ıs ${ }^{\text {c }}$ | "sharpen" | $b u ̄ n-p \varepsilon ́ l ı s i r^{\varepsilon}$ | "sharpening thing" |
| :---: | :---: | :---: | :---: |
| kùos ${ }^{\text {¢ }}$ | "sell" | $b u ̄ n-k u ́ \theta s i ̀ r^{\text {e }}$ | "item for sale" |

4-mora stems (all from KT) drop -d (whereas agent nouns drop stem-final -m):

| siilım ${ }^{m}$ pò'alım ${ }^{m}$ | "cite proverbs" | $b u ̄ n-s i ́ l o ́ n \square^{\text {a }}$ | "thing relating to proverbs" |
| :---: | :---: | :---: | :---: |
|  | "harm" | nīn-pó'alìn ${ }^{\text {a }}$ | "harmful person" |
|  |  | pu'à-pò'alín ${ }^{\text {a }}$ | "harmful woman" |
| zàan̆sım ${ }^{\text {m }}$ | "dream" | nīn-záan̆sòn ${ }^{\text {a }}$ | "dreamy person" |
|  |  | pu'à-zàan̆súp ${ }^{\text {a }}$ | "dreamy woman" |

Dynamic single-aspect verbs show the same stem as the agent noun:

| dīgıya/ | "be lying" | $b$ bù-dīgıdír ${ }^{\text {c }}$ | "donkey that lies down a lot" |
| :---: | :---: | :---: | :---: |
| vābıya/ | "be prone" | bùn-vābıdír ${ }^{\text {c }}$ | "donkey always lying prone" |
| zin̆'iya | "be sitting" |  | "stone for sitting on" (i.e. not a $b \bar{u} g u r^{\varepsilon} \mathrm{WK}$ ) |
| zān̆ıla/ | "be holding" | $n \overline{-z a ́ n ̃ o l ~}{ }^{\text {® }}$ | "hen for holding" |
| $d \bar{\varepsilon}{ }^{\text {la/ }}$ | "be leaning" | nīn-dı́lı | "person you can lean on" WK |
|  |  | $k \dot{̀}$-d $\left.\bar{\varepsilon}^{\prime \prime}\right\|^{\prime \prime}$ | "chair for leaning on" |
| gùl ${ }^{\text {a }}$ | "be hanging" | būn-gúlغ | "thing for suspending" |

### 12.2.1.2.2 Resultative

Resultative adjectives are only derived from verbs which can use the perfective form in a resultative sense 19.2.2; it is not clear how productive the formation is. Almost all such verbs are either intransitive or patientive ambitransitive 19.8.1, 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 $\underline{9}$.

| kpì ${ }^{+}$ | "die" | kpiilún ${ }^{\text {a }}$ | "dead" |
| :---: | :---: | :---: | :---: |
| $g \bar{\varepsilon} \check{n}^{+}$ | "get tired" | gēعn̆lón ${ }^{\text {a }}$ | "tired" |
| $p \dot{c}^{\prime} \varepsilon^{\varepsilon}$ | "fill" | pغ̇'عاט́n ${ }^{\text {a }}$ | "full" |
| kj ${ }^{+}$ | "break" | kj̀ ${ }^{\text {án }}$ | "broken" |
| yغ̇+ | "wear" | yèzlún | "worn" (of a shirt) |
| $\mathrm{y}^{+}$ | "close" | yว̀ว ${ }^{\text {ºb }}$ | "closed" |
| pò'alım ${ }^{\text {m }}$ | "harm" | pò'alón ${ }^{\text {a }}$ | "damaged" |
| àen̆ ${ }^{+}$ | "tear" | àan̆lón ${ }^{\text {a }}$ | "torn" |

### 12.2.1.3 Instrument nouns

Instrument nouns can be created freely by adding $-m$ to habitual-adjective stems in $d t$ or $s$. All are $g^{\text {a }} \mid s^{\varepsilon}$ class. Meanings may overlap with those of agent nouns.

| $k \bar{u}^{+}$ | "kill" | Kūudína | "thing for killing with" |
| :---: | :---: | :---: | :---: |
| $\grave{う}^{+}$ | "tie" | sinà-Iכّdín ${ }^{\text {a }}$ | "belt" ("waist-tying thing") |
| $d \bar{u} g^{\varepsilon}$ | "cook" | dūgudín ${ }^{\text {a }}$ | "cooking utensil" |
| $s \overline{b^{\varepsilon}}$ | "write" | sj̄bıdín ${ }^{\text {a }}$ | "writing implement" |
| $k p a ̀ r^{\varepsilon}$ | "lock" | $k p a ̄ r ı d ı \eta^{\text {a }}$ | "thing for locking" |
| n̆wà'e+ | "cut wood" | n̆wā'adıท ${ }^{\text {a }}$ | "axe" |
| $p i e^{+/}$ | "wash self" | pīədín ${ }^{\text {a }}$ | "thing for washing oneself" |


| $s \grave{v}^{+}$ | ＂bathe＂ | sūvdın ${ }^{\text {a }}$ | ＂sponge＂ |
| :---: | :---: | :---: | :---: |
| $g \bar{s} s^{\varepsilon}$ | ＂look＂ | nin－gótì ${ }^{\text {a }}$ | ＂mirror＂ |
|  |  | nīn－gótis ${ }^{\text {® }}$ | ＂spectacles＂［nin－＂eye＂］ |
| bùd ${ }^{\text {c }}$ | ＂plant＂ | būtıワ ${ }^{\text {a }}$ 2．1 | ＂cup＂（originally＂seed cup＂） |
| pīəs ${ }^{\text {／}}$ | ＂clean＂ | piosína | ＂cleaning implement＂ |
| $k{ }_{\text {kues }}{ }^{\text {® }}$ | ＂sell＂ | $k u ̄ e s ı \eta^{\text {a }}$ | ＂professional salesperson＂ |
| dā＇e＋／ | ＂push＂ | dā＇adín ${ }^{\text {a }}$ | ＂pusher（person or thing）＂ |
| zin̆＇i＇ya | ＂be sitting＂ | zīn̆＇idın ${ }^{\text {a }}$ | ＂thing for sitting on＂ |

## 12．2．1．4 Imperfective gerunds

Dynamic single－aspect verbs in $-y^{a}$ ，where $y$ is not assimilated，make perfective gerunds，as do a few others 11．1．1；intransitive stative verbs usually lack gerunds altogether．Other single－aspect verbs usually make $m^{\mathrm{m}}$－class gerunds by adding derivational－lım－after root vowels and－m－after $n n ~ I I r(r)$ ：

| $s \bar{u}^{\prime} \mathrm{e}^{\text {ya／}}$ | ＂own＂gerund： | sō＇olím ${ }^{\text {m }}$ cf so＇olimkan Mt 12：25， 1996 |
| :---: | :---: | :---: |
| $m i^{+}$ | ＂know＂ | mitilim ${ }^{\text {m }}$ |
| $z i ̄+$ | ＂not know＂ | zī＇límm |
| àeñ ${ }^{\text {a }}$ | ＂be something＂ | àan̆lím ${ }^{\mathrm{m}}$ |
| $b \grave{c}^{+}$ | ＂be somewhere＂ | bèlím ${ }^{\text {m }}$［short vowel sic］ |
| kā＇e ${ }^{+}$ | ＂not be＂ | kā＇alím ${ }^{\text {m }}$ |
| $w \bar{n}{ }^{\text {na／}}$ | ＂resemble＂ | w $\bar{\varepsilon} n n i m^{\mathrm{m}}$［tones show this is deverbal］ |
| $\sin ^{\text {na／}}$ | ＂be silent＂ | sinním ${ }^{\text {m }}$ |
| $n \bar{\varepsilon} n^{\text {na／}}$ | ＂envy＂ | nह̄nním ${ }^{\text {m }}$ |
| dj̄ıa／ | ＂accompany＂ | dכılím ${ }^{\text {m }}$ |
| zān̆ıla／ | ＂hold in the hand＂ | zān̆llím ${ }^{\text {m }}$ |
| $d \bar{c} \mathrm{l}^{\text {a／}}$ | ＂be leaning（of person）＂ | dēllúg ${ }^{\text {or }}$ or ${ }^{\text {cllím }}{ }^{\text {m }}$ |
| m亏̄r ${ }^{\text {a／}}$ | ＂have＂ | mう̄rím ${ }^{\text {m }}$ |
| tāral | ＂have＂ | tārím ${ }^{\text {m }}$ |
| nār ${ }^{\text {a／}}$ | ＂be necessary＂ | nārím ${ }^{\text {m }}$ |
| $g u ̄ r^{\text {a／}}$ | ＂guard＂ | gūrím ${ }^{\text {m }}$ |

These forms obey the tonal rules for gerund formation 6．5．The non－initial H toneme in Pattern $L$ confirms that they are $m$－stems 6．2．2．

Stative verbs derived from imperfectives of dual－aspect verbs 19．2．3 also form imperfective gerunds；the tonemes show that these are not $m$－stems：

```
bj̀כdım" "will" (Pattern L, unlike bכ̄כdır " "desirable")
g\grave{כňdım"m "wandering" (g\grave{n}\mp@subsup{}{}{+}}\mp@subsup{}{}{m}\mathrm{ "hunt")}
z\grave{tım"m "fear" [M̀M zót n\overline{\varepsilon}}\mathrm{ "I'm afraid."]}]
```

The gerund wommug of wòm ${ }^{\mathrm{m}}$ "hear" (written wumug before 2016, but read with -mm- in the 1996 audio NT) perhaps represents *wumdvgכ. A number of deverbal abstract nouns from 3-mora verb stems in -s- appear in the $m^{m}$ class and resemble gerunds in tone. They too are probably imperfective gerund forms: for the dropping of the $-d$ - formant compare agent nouns and deverbal adjectives.

| pò'us ${ }^{\text { }}$ | "greet, thank" | pù'usım ${ }^{\text {m }}$ | "worship" |
| :---: | :---: | :---: | :---: |
|  |  | pò'usug ${ }^{\text {a }}$ |  |
| $k \overline{0}^{+}$ | "kill" | nīn-kúvsìm ${ }^{\text {m }}$ | "murderousness" |
| $y \overline{\jmath ̄} / s^{\varepsilon /}$ | "untie" | yōlısím ${ }^{\text {m }}$ | "freedom" |

Unequivocal imperfective gerund forms with -m- derived from almost all agentive verbs occur as predependents of the bound noun

$$
\text { -tāa= -tāas }{ }^{\varepsilon} \quad \text {-tà- or -tā- } \quad \text { "companion in ..." }
$$

For dynamic single-aspect verbs with stems in -II -nn -r(r), and all stative verbs with deverbal gerunds, the forms are identical to the usual imperfective gerunds:

| $m i^{+}$ | "know" | mĩilím-tāa= | "partner in knowledge" |
| :---: | :---: | :---: | :---: |
| $z \bar{l}^{+}$ | "not know" | zī'llím-tāa= | "partner in ignorance" |
| $b{ }^{+}$ | "exist" | bèlím-tāa= | "partner in existence" WK |
| d亏̄ıla/ | "be with" | dכ̄llím-tāa= | "fellow-companion" |

For the irregular stative verb nכ̀ $\eta^{\varepsilon}$ WK has two forms with different nuances:

| nว̀ ${ }^{\text {® }}$ | "love" |  | nว̀nılı́m-tāa= | "fellow liker" |
| :---: | :---: | :---: | :---: | :---: |
|  |  | or | nòpıdím-tāa= | "fellow lover" |

Dual-aspect verbs add -m- to the habitual adjective stem, but with gerund Tone Patterns:

| $m \dot{\varepsilon}^{+}$ | "build" | mèzdím-tāa= | "fellow-builder" |
| :---: | :---: | :---: | :---: |
| $d i^{+}$ | "eat" | ditím-tāa= | "messmate" |
| $p \bar{v}^{+}$ | "share" | pūvdím-tāa= | "fellow-sharer" |
| kpèn̆'+ | "enter" | kpèn̆'عdím-tāa= | "fellow-resident" |
| $z a ̀ b^{\varepsilon}$ | "fight" | zàbıdím-tāa= | "opponent" |
| $d \bar{u} g^{\varepsilon}$ | "cook" | dūgudím-tāa= | "fellow-cook" |
| fāñ ${ }^{+}$ | "snatch" | fāan̆dím-tāa= | "fellow-robber" |
| tòm ${ }^{\text {m }}$ | "work" | tòmmím-tāa= | "co-worker" |


| pù'us ${ }^{\text {e }}$ | "worship" | pò'usím-tāa= | "fellow-worshipper" |
| :---: | :---: | :---: | :---: |
| dìs | "feed" | dìsím-tāa= | "fellow-feeder" |
| Sùn ${ }^{\text {c }}$ | "help" | sòním-tāa= | "fellow-helper" |
|  |  | sùpıdím-tāa= |  |
| sinà ${ }^{\text {E }}$ | "agree" | siàkím-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 12.1.1:

| īgıya/ | "be kneeling" | īg lím-tāa= | "fellow-kneeler" |
| :---: | :---: | :---: | :---: |
|  |  | or īgıdím-tāa= | "fellow-kneeler" WK |
| zin̆'i'ya | "be sitting" | zin̆'ilím-tāa= | "fellow-sitter" |
|  |  | or zin̆'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" | làbılím-tāa= | "fellow croucher in hiding" |
| $z i '{ }^{\text {ya }}$ | "be stood" | zi'əlím-tāa= | "fellow-stander" |
|  |  | or zi'ədím-tāa= | "fellow-stander" WK |
| dīgıya/ | "be lying" | dīgılím-tāa= | "fellow-lier" |
|  |  | or dìgıním-tāa= | "fellow-lier" WK |

### 12.2.1.5 Other deverbal nominals

-s- appears in a few concrete nouns derived from verbs:

| $d i ̄ g ı y a / ~$ | "be lying down" | dīgısá+ | "lairs" |
| :--- | :--- | :--- | :--- |
| $d \bar{u}^{+}$ | "go up" | dūvsá+ | "steps" |

-m-derives nouns from verbal roots in
zj̀ $\quad$ "run"
zว̄эm ${ }^{\text {mع }} \quad$ "refugee"
kpì ${ }^{+}$"die"
kprimm/ "corpse"
-d- appears as an instrument noun formant instead of the usual -dım- in

$$
\text { tuà̀ }{ }^{+} \quad \text { "grind in a mortar" tūөdır }{ }^{\varepsilon} \quad \text { "mortar" }
$$

See also on pïbınn ${ }^{\text {n }}$ "covering" etc, where the $n$ may represent *ld 11.1.2.
-b- derives nouns from verbal roots in

| kpì | "die" | kpìibıga | "orphan" |
| :--- | :--- | :--- | :--- |
| dà'+ | "buy" | dà'abır | "slave" |

This -b may be connected with the stem of biiga "child"; cf Gulimancéma kpebíga "orphan", kpé "die", bíga "child". It is conceivable that līıbır "twin" is a similar formation from Proto-Oti-Volta *li "two" with an aberrant reflex of */; cf Buli yībīk, Gulimancéma lébíli id. Sàlıbır ${ }^{\varepsilon}$ "bridle" and $k \grave{l} \iota b ı r^{\varepsilon}$ "bottle" are not analysable.

### 12.2.2 From nominals

-s- and -I- form adjectives from roots which are probably primarily adjectival:

| mā'e ${ }^{+/}$ | "cool down" | mā'asír ${ }^{\text {c }}$ | "cold, wet" |
| :---: | :---: | :---: | :---: |
| $b \overline{k^{\varepsilon /}}$ | "weaken" | būgusír ${ }^{\text {e }}$ | "soft" |
| $t \bar{\varepsilon} b \mathrm{~g}^{\varepsilon /}$ | "get heavy" | $t \bar{b} b ı i^{\text {r }}$ | "heavy" |
| mi'ig ${ }^{\text {¢ }}$ | "get sour" | mi'isug ${ }^{\text {a }}$ | "sour" |
| $s \bar{\square} b^{\varepsilon}$ | "get dark" | sābılíg ${ }^{\text {a }}$ | "black" |

-d-features in a number of nouns with no evident derivational meaning, such as yūgvdır ${ }^{\varepsilon}$ "hedgehog", lā'afP "cowrie" pl līgıdı+ "money", pùgvdı $b^{\text {a }}$ "father's sister." It can form abstract nouns from human-reference words (examples from KB, Naden):

| pu'à̀-sādır ${ }^{\text {E/ }}$ | "young woman" | pu'asatim | "girlhood, virginity" |
| :---: | :---: | :---: | :---: |
| būn-kúdùg ${ }^{\text {a }}$ | "old man" | bunkuttim | "old age" |
| gedvg | "fool" | grtim | "folly" |
| pùkj̀วn̆r ${ }^{\text {c }}$ | "widow" | pokontim | "widowhood" |
| bā'-bîig ${ }^{\text {a }}$ | "brother" | ba'abiidvg | "brotherhood" |

-m- appears in both concrete nouns, mostly with human reference, and abstracts:

| bi'a+ | "bad" | bi'əm ${ }^{\text {m }}$ | "enemy" |
| :---: | :---: | :---: | :---: |
| tàdıg ${ }^{\text { }}$ | "become weak" | tādım ${ }^{\mathrm{m} /}$ | "weak person" |
| áňsìb ${ }^{\text {a }}$ | "mother's brother" | ān̆sín ${ }^{\text {a }}$ | "sister's child" |
| yáab ${ }^{\text {a }}$ | "grandparent" | yáan ${ }^{\text {a }}$ | "grandchild" |
| *yāágbā |  | *yāágmgā |  |
| vúer ${ }^{\text {¢ }}$ | "red kapok fruit" | vúөク ${ }^{\text {a }}$ | "red kapok" |
| *vūógrı̄ |  | *vūégmgā |  |
| bi'isır | "breast" | bi'isím ${ }^{\text {m }}$ | "milk" |
| nà'ab ${ }^{\text {a }}$ | "chief" | nā'am ${ }^{\text {m }}$ | "chiefship" |
| zōlog ${ }^{\text {/ }}$ | "fool" | $z$ zうımís ${ }^{\text {® }}$ | "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
tādım ${ }^{\mathrm{m} /}$ "weak person" tàdımís ${ }^{\varepsilon}$ "weakness"

Added to existing adjectival stems, -m- produces no change of meaning:

| n̆yc̀es ${ }^{\text {a }}$ | "be self-confident" | n̆yદ̀esín ${ }^{\text {a }}$ | "self-confident" |
| :---: | :---: | :---: | :---: |
| vèn̆llıg ${ }^{\text {a }}$ | "beautiful" | vèn̆llína | "beautiful" |
| mālısíg ${ }^{\text {a }}$ | "pleasant" | mālısín ${ }^{\text {a }}$ | "pleasant" |
| lāllóg ${ }^{\text {a }}$ | "distant" | lāllín ${ }^{\text {a }}$ | "distant" |
| nā $r^{\text {a/ }}$ | "be necessary" | nàrun ${ }^{\text {a }}$ | "necessary" |
| w亏̄k ${ }^{\text {a/ }}$ | "long, tall" | wā'ama/ | "be long, tall" |

$-m$ - is seen in a good many unanalysable 3-mora nominal stems, such as the


-I- and -lım- derive abstract nouns from nouns and adjectives. The suffix -lım- is the only derivational suffix before which CVVC roots do not become CVC 5.3.2, 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" |
| biig ${ }^{\text {a }}$ | "child" | biilím ${ }^{m}$ | "childhood" |
| tītā'al ${ }^{\text {¢ }}$ | "proud person" | tītā'alım ${ }^{\text {m }}$ | "pride" |
| $g i \eta^{\text {a }}$ | "short" | giiin̆lím ${ }^{\text {m }}$ | "shortness" |
| w̄̄k ${ }^{\text {/ }}$ | "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" | gīplím ${ }^{\text {m }}$ | "shortness" |

## 13 Prefixes

### 13.1 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. No finite verb form has a prefix.

Noun prefixes usually have no identifiable individual meanings. Even where parallel stems without prefixes or with different prefixes exist, there are no regular processes relating the various forms. Noun prefixes are common in particular semantic fields, however, such as small animals, reptiles and insects.

Most noun prefixes fall into just a few phonological types, with limited possibilities for vowel distinctions and for tones. Segmentally, they are mostly of the shape $C V(n)$, where $V$ shows only the three-way a $\iota v$ vowel distinction of affix vowels; the $\iota / v$ distinction itself and realisations as [i] or [u] are predictable 5.2. There is also a complex reduplicated type CVsın or CVIın. 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 6.2.4.

The distinction between noun prefixes and combining forms is not absolute, and a few prefixes clearly originated as cbs, sometimes with phonological simplifications. Other prefixes are related to verbal negative particles. Nevertheless, cbs and noun prefixes are distinct in principle, and most cases readily distinguishable in practice. Thus, an element is a combining form if it is part of a noun paradigm, if it ends in a consonant other than a nasal, if it has a vowel other than short a $\iota v$ without glottalisation or contrastive nasalisation, or if it has M toneme and is followed by M dropping affecting singular and plural forms. On the other hand, an element is a noun prefix if it is formed by reduplication of the stem-initial consonant, or if it has M toneme and is not followed by M dropping affecting singular and plural forms.

Complicating the issue are many stems with elements preceding the final root which do not fit into the common segmental prefix patterns, though behaving tonally as prefixes. Most are loanwords, but not all, and many names of ethnic groups and of Kusaasi clans are of this type.

For the personifier particle as part of some common nouns referring to living creatures see 15.6; it is not a prefix but a right-bound particle.

### 13.1.1 Reduplication-prefixes

The simplest type of noun prefix copies the initial $C$ of the root, followed by a vowel which is $\iota$ by default, but $v$ after labials, labiodentals and labiovelars; $v$ replaces $\iota$ before root $u / v / \partial$ and $\iota$ replaces $v$ before root $i / \iota / \varepsilon$. A few forms show Ca. No cases occur with voiced stops or voiced fricatives.

| kùkう̄r ${ }^{\text {E/ }}$ | "voice" | kùk̇̀m ${ }^{\text {m }}$ | "leper" |
| :---: | :---: | :---: | :---: |
| kikàn ${ }^{\text {a }}$ | "fig tree" | kikīrıg ${ }^{\text {a/ }}$ | "tutelary spirit" |
| $k[p] \dot{k} k$ àrıg ${ }^{\text {a }}$ | "palm tree" | kpīkpinn ${ }^{\text {na/ }}$ | "merchant" |
| tītā'ar ${ }^{\text {c }}$ | "big" | tàtàl ${ }^{\text {c }}$ | "palm of hand" |
| pīpïrıga/ | "desert" | sissi'əm ${ }^{\text {m }}$ | "wind" |
| lìãalín ${ }^{\text {a }}$ | "swallow" | mìmīlím ${ }^{\text {m }}$ | "sweetness" |
| mìmīilóg ${ }^{\text {a }}$ | "sweetness" | kpàkūr ${ }^{\text {/ }}$ | "tortoise" |
| titūmıs ${ }^{\text {e }}$ | "sending" (tùm ${ }^{\text {m }}$ "send") |  |  |
| fūfōm ${ }^{\text {m }}$ | "envy"; "stye" (believed to result from envy) |  |  |
| zà-sìsj̄bır ${ }^{\text {/ }}$ | "evening" (zà- cb of zàamm "evening", sj̄b ${ }^{\text {c }}$ (get dark") |  |  |

More complex is a similar type with a final nasal consonant; voiced stops and fricatives do occur with this type:

| dòndùug ${ }^{\text {º }}$ | "cobra" |  | "chameleon" |
| :---: | :---: | :---: | :---: |
| bìmbìm ${ }^{\text {me }}$ | "altar" | bùmbàrıg ${ }^{\text {a }}$ | "ant" |
| kinnkàn ${ }^{\text {a }}$ | "fig" | tīntōn̆ríg ${ }^{\text {a }}$ | "mole" |
| zīnzāung/ | "bat" | sīnsáan̆= | a kind of tiny ant |
| nכ̄b-púmpàun ${ }^{\text {² }}$ | "foot" |  |  |
| gòngōm ${ }^{\text {me }}$ | "kapok material" (gòm ${ }^{\text {me "kapok fruit") }}$ |  |  |
| zùnż̀ ${ }^{\text {a }}$ | "blind" (zū'өm ${ }^{\text {m/ "go/make blind") }}$ |  |  |
| pòmpj̄og ${ }^{\text { }}$ | "housefly" (tàmpūa+ id) |  |  |

An even more complex type follows the reduplicated $C V$ with -sın or -lın:

| kpisınkpil ${ }^{\text {l }}$ | "fist" | tàsıntà ${ }^{\text {l }}$ | "palm of hand" |
| :---: | :---: | :---: | :---: |
| sīlınsiun̆ ${ }^{\text {a }}$ | "spider" | sīlınsîug ${ }^{\text {² }}$ | "ghost" |
| zīlınzîog ${ }^{\text {a }}$ | "unknown" cf zī'+ "not know" |  |  |
| vòlınvùun̆ı ${ }^{\text {¢ }}$ | "mason wasp" |  |  |
| wàsınwàl ${ }^{\text {¢ }}$ | parasitic gall on trees ("mistletoe" in local English) |  |  |
| nēsınnēog ${ }^{\text {/ }}$ | "envious person" cf nē $n^{\text {na/ "envy" WK }}$ |  |  |

### 13.1.2 Ca(n)

Prefixes may be of the form $C a(n)$, where $C$ is $d b n m / s$ or $z$.

| dàyūug ${ }^{\text {/ }}$ | "rat" | dàwān ${ }^{\text {ne/ }}$ | "pigeon" |
| :---: | :---: | :---: | :---: |
| dàtìup ${ }^{\text {a }}$ | "right hand" | dàgj̀bıg ${ }^{\text {a }}$ | "left hand" |
| dànkj̀ ${ }^{3}$ | "measles" | dàwàlıg ${ }^{\text {a }}$ | "humid season" |
| dàyáam ${ }^{\text {ma }}$ | "woman's parent-in-law" |  |  |
| dàtāa= | "enemy" cf nìn-tāa= "co-wife", Ghanaian "rival" |  |  |
| dàmà' ${ }^{=}$ | "liar" cf mà'+ "lie" |  |  |
| dàkiig ${ }^{\text {a }}$ | "sibling-in-law via wife" |  |  |
| dādúk ${ }^{\text {ºn }}$ | a kind of large pot, cf dōk ${ }^{\text {J/ "pot" }}$ |  |  |
| bàlàpır ${ }^{\text {e }}$ | "hat" | bàlàar ${ }^{\text { }}$ | "stick, staff" |
| bānāa= | traditional s |  |  |
| bālērıg ${ }^{\text {/ }}$ | "ugly" cf $/ \bar{\varepsilon} r^{\varepsilon}$ | ugly" |  |
| bày ®̇og $^{\text {/ }}$ | "betrayer of | ts" cf yē $s^{\text {/ }}$ | a secret" |
| nānzū'us ${ }^{\text {/ }}$ | "pepper" | màngávŋ | "crab" |
| làngáv ${ }^{\text {² }}$ | "crab" |  |  |
| sākáròg ${ }^{\text { }}$ | "fox" | sàbùa+ | "lover, girlfriend" |
| sāmán ${ }^{\text {ne }}$ | "courtyard" | sāngúnnìr ${ }^{\text { }}$ | "millipede" |
| $z a ̀ n k o ̀ ' a r^{\varepsilon}$ | "jackal" | Zàngbèog ${ }^{\text { }}$ | "Hausa person" |

Nàyïiga "thief" is written na'ayiig in NT/KB as if it were a compound 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 a ${ }^{\text {a }} b^{\mathrm{a}}$ class $g$-stem: pl nàyiig-nàm ${ }^{\text {a; }}$ cf nàyiigım ${ }^{\mathrm{m}}$ "thievery." There is an analogical $g^{\mathrm{a}} \mid s^{\varepsilon} \mathrm{pl}$ nàyïis ${ }^{\varepsilon}$. The Farefare cognate is nàyìgà, pl nayigba or nayigsi; Dagbani has nayiza pl nayizsi and also tayiza id.

### 13.1.3 Negative particles as prefixes

Some prefixes are connected with the verb negative particles $p \bar{v} k \dot{u}:$

| Kòndò'ar | "barren woman"; cf du'àa "bear, beget" |
| :--- | :--- |
| nīn-pū-nānna/ | "disrespectful person"; cf $n a \bar{n} n^{\varepsilon}$ "love, respect" |
| tùb-pū-wómnìba | "deaf people" (Rom 11:7) cf tùbur "ear", wùm ${ }^{m}$ "hear." |

However, most cases show no identifiable negative meaning:

| Kùndùn ${ }^{\text {a }}$ | "jackal | $g u ̄ m p u ̄ z \bar{\varepsilon} r^{\varepsilon /}$ | "duck" |
| :---: | :---: | :---: | :---: |
| dāmpūsāar ${ }^{\text {E }}$ | "stick" |  |  |
| bān-kúsél ${ }^{\text {® }}$ | "lizard" ? first element connected with bàn ${ }^{\text {a }}$ |  |  |
|  | the to |  |  |

### 13.1.4 Stranded combining forms

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 8.2.
nìn "body" is accepted by WK as cb of nīn ${ }^{\text {a }}$ nïis ${ }^{\varepsilon}$ [= Mooré yïnga] but the word is rare; as a noun prefix cf

```
nìn-gbīn}\mp@subsup{}{}{/}\quad\mathrm{ "human skin; body"
nìn-tāa= "co-wife"
```

dà "man" is replaced as regular cb by forms segmentally remodelled on sg and pl dàu-, dàp-, but the dà- form is seen in

| dà-pāala/ | "son, boy" | cf pāalíg "new" |
| :--- | :--- | :--- |
| dà-kj̀วn̆r | "son, bachelor" | cf àrakón̆' "one" |

pò "woman" cf pữ'āa "woman" cb pư'à-. Identifiable in e.g.

$$
\text { pòkj̀วn̆r }{ }^{\varepsilon} \text { "widow" }
$$

cf Mooré pùgkôoré "widow"
with Mooré pùgsádà "young woman"
$=$ Kusaal pu'à-sādır ${ }^{\varepsilon /}$
 Tonally, this $p \bar{u}-$ behaves as a M prefix, not a cb 6.2.4.

$$
p \bar{k} k p a ̄ a d^{\mathrm{a} /} \quad \text { "farmer" }\left(=k p a \bar{a} d^{\mathrm{a} /} \text { id }\right)
$$

nà' "chief"(?) appears before a number of nouns signifying animals and insects:


The "chief" cb perhaps relates to traditional folklore; cf à-kj̄ra-dîəm" ma "praying mantis" ("hyena's parent-in-law") and animal and bird names which incorporate the personifier particle 15.6 like à-dàalón $\eta^{ว}$ "stork", à-gâun̆g $g^{ว}$ "pied crow", à-mús ${ }^{\varepsilon}$ "cat."

### 13.2 Adverbs

The manner-adverb prefix à- appears before some stems which are also followed by apocope-blocking 16.4:

| àmēクá+ | "truly" | àsīda+ |
| :--- | :--- | :--- |
| ànínà | "promptly" |  |

The same prefix is also seen in a number of proadverbs and in the locative àgólاع "upwards" 16.3. It is followed by $M$ spreading. Forms with this prefix are all liaison words. It does not cause a preceding LF-final vowel to appear as -a 7.2.1.

### 13.3 Number words

In all uses, the numbers 2 to 9 begin with an inseparable number prefix. Forms with number prefixes are all liaison words 7.2 .

The number prefixes represent fossilised noun class agreement prefixes. With the collapse of noun-class based grammatical gender 8.1, the old ${ }^{a} \mid b^{a}$ class agreement pronouns ò bà have been generalised for animate gender and the old $r^{\varepsilon} \mid a^{+}$ class singular pronoun it has been adopted for inanimate. In Dagbani, where there has been a very similar change, the old plural pronoun ga is still found in older materials for inanimate plural (Olawsky 1999.) Number words originally agreed with the counted noun using a prefix similar to the corresponding plural pronoun, and the à- of the numbers 2-9, àyí' "two", àtán'' "three" etc used as quantifiers 15.5.2.1 represents original *na-. Because of this origin, the à- number prefix, unlike all other à- particles and prefixes, causes a preceding LF-final vowel following a consonant to appear as -a rather than -ı 7.2.1. 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 bàyópj̀e "you seven", bà bàyí' "they two."

The forms of the number words 2-9 used for counting 15.5.2.2 represent the old $m^{m}$ class agreement, in the "abstract" sense of $m^{m} \underline{8.1}$ : thus ǹtán̆' "three", ǹnāas "four", ǹnū "five" (counting.) Nawdm, which preserves class agreement for numbers (nídbá bàtáh "three people") uses the agreement prefix for its cognate $m$-class for counting: mtáh "three" mnàà "four" mnù "five" etc (Fiedler 2012.)

The number prefix bù- appears in various adverbial number words 15.5.2.4. It probably represents either an old $b^{\nu}$ or $m^{\mathrm{m}}$ class agreement.

| àbùyí' | "twice" | àbùtán̆'+ | "three times" |
| :--- | :--- | :--- | :--- |
| àbùnāasí ${ }^{+}$ | "four times" | bùpïiga ${ }^{+}$ | "ten times" | nכ̄כrím bùtán̆' ${ }^{+}$ "three times"

## 14 Unsegmentable complex stems

Numerous words in Kusaal (including the very name of the language, $K \bar{u} s a ̂ a l^{\varepsilon}$ ) 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. 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.

Examples of such complex stems are Kūsâas ${ }^{\varepsilon}$ "Kusaasi", Ňwāmpūrıs ${ }^{\varepsilon /}$ "Mamprussi", Kùtām ${ }^{\mathrm{ma}}$ the name of WK's clan; gbáňyà'a= "lazy person" (gonya'am "idleness" 1976 NT), cf Dagbani gbinyayli "laziness."

### 14.1 Loanwords

As usual cross-linguistically, nouns form by far the largest group of identifiable loanwords. They are sometimes fitted into the noun class system by analogy 8.6. Analogy usually causes the initial à- of loanwords like àrazánà ${ }^{+}$"heaven" and àrazàk ${ }^{\text {a }}$ "riches" to be treated tonally as fixed-L 7.4.3.

Most identifiable loanwords in Kusaal 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 [ $\overline{d 3}$ ], monophthongises diphthongs, and drops the distinction between glottalic consonants and their plain counterparts.

Hausa loans often stand out prominently as foreign elements by their deviation from the typical structure of Kusaal words, with its limitation of possible vowel contrasts by position within the word and its restrictions on consonant distribution.

Among nouns borrowed from Hausa are dāká+ "box", Hausa àdakàa (ultimately from Portuguese arca); gādv+ "bed", Hausa gadoo; kèzkغ̀+"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 possible Kusaal verb shapes 12.1, e.g. dàam " "disturb, trouble", Hausa dàamaa; bòg ${ }^{\varepsilon}$ "get drunk", Hausa bùgu, literally "get thoroughly beaten", a Hausa idiom.

Several function words are loans, probably from Hausa: àséع "except", Hausa sai; kūv "or", Hausa koo; báa "not a...", Hausa bâa.

Loanwords with clear Hausa counterparts did not necessarily originate in Hausa, itself a great borrower of words. Some such words appear in many languages of the Sahel and Savanna. e.g. hālít "until", Hausa har, Kikara Songhay hálì, possibly from Arabic $\hbar a t t a: ~(H e a t h ~ 2005) ~ W i t h ~ l a ̀ b ı y a ~ " b e ~ c r o u c h i n g ~ b e h i n d ~ s o m e t h i n g ",. ~ H a u s a ~$ laбèe "crouch behind something or lean against wall to eavesdrop", Kikara Songhay lá:bú "hide behind or under something", the close match of form and highly specific meaning is striking; if the Kusaal word is a loan, it may owe its single-aspect flexion and dual-aspect assume-stance and make-assume-stance derivatives to analogy with 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.

Words from Arabic are frequent throughout the languages of the Sahel and Savanna; thus, among many others: Kusaal láafíya+, Hausa laafiyàa, Mooré làafí, Kikara Songhay Pàlà:fíyà "health", Arabic Pal-Sa:fiya "(the) wellness"; Kusaal àrazàka, Hausa arzìkii, Mooré àrzźká "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 yàddā̄+/ (yàdā WK) "assent", Hausa yàrda (verb) "consent", Kikara Songhay yárrè "consent", probably from the Arabic yardª:, 3sg masculine ipfv of radiya "be satisfied"; Kusaal Tàláatà+, Hausa Tàlaatàa, Arabic Pa日-Өala:Өa:? "Tuesday."

It is likely that Arabic words have mostly entered Kusaal via Hausa. However, some Kusaal forms clearly resemble Mooré rather than Hausa. Many Mossi people are found in the Kusaasi area, and many Kusaasi themselves 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 màliāk $k^{\mathrm{a} / ~ " a n g e l " ~(a l w a y s ~ m a l e k ~ i n ~ N T ~ v e r s i o n s ~ p r i o r ~ t o ~ 2016) ~ i s ~ d e r i v e d ~}$ from the Arabic malßak. The vocalism suggests transmission via Mooré màlćkà, and the word is usually found in Christian materials, which would be consistent with this pathway (see below.) The forms clearly do not match Hausa màlaa'ikàa, which is from the Arabic plural mala:Pika. A similar case in the realm of religion is Sōtáanà ${ }^{+}$ "Satan", matching Mooré Sotãana rather than Hausa shàidân, which is a learned borrowing of the Arabic fayt ${ }^{\uparrow}$ a:n.

Christian missionary work among the Kusaasi began in Haute Volta (now Burkina Faso) and used Mooré materials, leading to some borrowing and calquing. One word revealed as a loan by its phonology is Wínnà'am ${ }^{\mathrm{m}}$ (WK) Wínà'am ${ }^{\mathrm{m}}$ (always Wina'am NT/KB) "God." It is common in Christian materials; the Creator of traditional religion often appears simply as Wīnnel in proverbs etc. Wínnà'am looks analysable as a compound of $w \bar{\imath} n^{n \varepsilon / ~ " g o d " ~ a n d ~ t h e ~ s t e m ~ o f ~ n a ̀ ' a b ~}{ }^{\text {a }}$ "chief" or nā'am "chieftaincy",
but the tones should then have been *Wīn-nâ'am, and the prevalence of the form Wínà'am with single -n- likewise shows that the form is not in fact a synchronic compound in Agolle Kusaal. Direct borrowing of the corresponding Mooré word Wẽ̃nnàám would not account for the glottalised -a'a-; the immediate source of the loan is probably Toende Kusaal. Niggli's materials have Wínā'am, with a tonal fall like the Agolle Wínà'am, and always with single $n$, probably reflecting consistent loss of consonant gemination in Toende everywhere except before LF affix vowels.
 preservation of $g$ in this position 5.6 is exceptional in my Agolle Kusaal data, the only other cases being faangir "salvation" and the gerund zi' $\partial g^{a}$ of zi'eya "be standing" used by DK KT instead of $z r^{\prime} a^{+}$. The expected agent noun from fāen̆ ${ }^{+/}$"save" is fāan̆ ${ }^{a /}$, presumably avoided as identical to the agent noun of fāñ "rob, snatch", found in NT/KB as faand "robber." WK has fāan̆d ${ }^{a /}$ as the agent noun for both verbs, and specifically confirms that the word has both meanings in his idiolect.

In Toende Kusaal, *g is deleted word-finally after all long vowels (bí "child" = $b_{i i ̈}{ }^{\mathrm{a}}, b \bar{\nu} \bar{u}$ "goat" $=b \bar{u} v g^{\mathrm{a}}$ ), but is otherwise retained by many speakers (Niggli 2012):

## páa

Õ bu paage.
"arriver" (Agolle pāe+ "reach")
"Il n'est pas arrivé." (Agolle Ò pū pāée.)

Niggli's dictionary has both fãagıt and fãat for "saviour", with fãat also glossed as "robber." Thus faangid too is probably a loan from Toende Kusaal.

Wínà'am fāan̆gíd fāan̆gír appear in the actual speech of many Agolle Kusaasi, and are accordingly used in this grammar in transliterating Bible verses. NT versions prior to 2016 also used the Toende forms aarup (Toende âaròn) for àn̆rop "boat", and malek (Toende màĺ́k, Mooré màĺ́kà) for màliāk "angel", but KB has anrop and maliak throughout, matching the usage of my informants and of the audio 1996 version.

One clear Mampruli loanword is WK's kïibú+ cb kïib- "soap", which he uses instead of Kusaal $k l^{-} ' b^{\nu}$. The length and quality of the vowels identify the source as Mampruli kyiibu: contrast Farefare kí'íb́́, Dagbani chibo. Other words with singulars ending in $-\iota^{+}$or $-v^{+}$also probably originated as loans from Mampruli or Mooré 8.5.

Farefare has certainly influenced Nabit and perhaps also Toende Kusaal, but I have no examples of Farefare loanwords in Agolle Kusaal.

Loanwords ultimately from Songhay languages include bùrkìna "honest person", Mooré bùrkĩná "free, noble", Dagbani bilchina "free, not slave", cf Kikara Songhay bòrkǐn "noble (caste)" and bàungט, used only in kpèn̆' bàung v "get circumcised" (kpèn̆'+ "enter"), Mooré kê bãongó id, cf Kikara Songhay bàpgù "pool, spring", à húró bàngù "he entered the pool", i.e. "he was circumcised."

Loans from Twi/Fante ("Akan"), the major lingua franca of southern Ghana, include kj̄dú+ "banana", Twi kwadu; sāafı ${ }^{+}$(?tones) "lock, key", Twi safẽ "key" (from Portuguese chave); būrıyá+ "Christmas", Twi bronya (itself of unclear origin.)

A few loans from English are found. Loanwords which are sufficiently naturalised that they are used by speakers unfamiliar with English have often undergone considerable changes: àlópì ${ }^{\varepsilon}$ "aeroplane", perhaps a back-formation from [alopilm] taken as a locative àlópìrī-n $n^{\varepsilon /}$; dư'átà+ "doctor" (cf Dagbani dó $\left.{ }^{\prime} t \varepsilon ́ ~ i d\right) ;$ tóklàe+ "torch" (from "torchlight"); lór $\varepsilon^{\varepsilon}$ "car, lorry" (often borrowed even in Francophone Africa: cf Mooré lórè, Nawdm lj̀ór.) Pכэtim (Jeremiah 20:10), 1976 NT pootum "complain about officially" is ultimately from the English "report"; cf Mampruli, Buli pooti id.

English stress may be represented by a H toneme which remains fixed throughout the paradigm: l'́yà "cars", not *l̄yá.

Several words of English origin have probably been transmitted via Hausa: kótù+ "court", Hausa kootù; sógịià "soldier", Hausa soojà; tદ́عbùl ${ }^{\varepsilon}$ "table", Hausa teebùr; wādá+ "law", Hausa oodà , from English "order", with Kusaal sg wādıre/ cb wād- created by back-formation.

A clear French loan in Agolle Kusaal is làmp̄̄ (i.e. l'impôt) "tax", as in làmp̄̄dî'əs ${ }^{\text {a }}$ "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 $\bar{\varepsilon} t^{a / ~ " w i t n e s s, ~ t e s t i m o n y ", ~ M o o r e ́ ~}$ kàsétò "testimony, proof", as in kàsét sébrè "receipt" ("evidence writing.") The ultimate origin is probably French cachet in the sense "seal (of authenticity)", with the Mooré -t- perhaps introduced from the corresponding French verb: il cachète "he seals." Mooré kàsétò and Farefare kàsétò have only the abstract sense "testimony"; the adaptation as a ${ }^{\text {a }} b^{\text {a }}$ class human-reference noun "witness" seems to be a Kusaal innovation (Agolle and Toende) enabled by the dropping of the final vowel.

There are naturally many more French loans in the Toende Kusaal of Burkina Faso (Niggli 2014.)

## Syntax

## 15 Noun phrases

### 15.1 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 $/ \bar{a}^{+} /$occurs last in a NP. (For the sole exception, see 19.10.)

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.
dãu lā bútìn
sālıma bútì p
"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 24.3 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:

| $b u ̄ v g^{a}$ | "goat" | bù-pìəlıga | "white goat" |
| :--- | :--- | :--- | :--- |
| $b u ̀$-kànā+/ | "this goat" | bù-pìəl-kànāā | "this white goat" |

Compounds with non-referential cbs as dependents are also common:

| nà'ab lā wíd-zūטr | "the chief's horse-tail" |
| :--- | :--- |
| vs nà'ab lā wîəf zôvr | "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 8.2. Compounding is so productive that the cb is a regular part of noun and adjective flexion 8.1.

For the tone sandhi rules which affect the component following the combining form see 7.4.3 7.4.4. 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-pìl-]kà ${ }^{\text {aja }}$ | "this [white goat]" |
| :---: | :---: |
| [nīn-wók-]pìlıg | "white [tall person]" |
| [zà'-nj̄-]píalìg | "white gate" ("white [compound-mouth]") |

A compound may appear as generic argument to a following deverbal noun:

| [zà'-nj̄-]gúr | "gate-keeper" |
| :--- | :--- |
| $[[z a ̀ '-n \overline{-}] g$ úr-]kà | "this [gate-keeper]" |

Noun-adjective compounds can be used as bahuvrihi adjectives 15.8.1.3:

| nīf-n̆yáuk | "one eye" |
| :--- | :--- |
| bù-[nīf-n̆yáuk] | "[one-eyed] goat" |
| nכ̄b-wók | "long leg" |
| kùg-[nכ̄b-wók] | "[long-legged] stool" |

Bahuvrihis can appear as complements of àeña "be something":

Kùg-kànā á n̄̄ nכ̄b-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 15.7.2 bind tighter than the link between cb generic arguments and deverbal nouns:

```
ānzúrıfà nē sālıma lâ'ad "silver and gold goods"
[ānzúrıfà lá'-]māan
"silversmith" ("[silver goods]-maker")
[ānzúrıfà nc̄ sālıma lá'-]māan "silver- and goldsmith"
```

Otherwise, cbs are bound tighter to following than preceding words, except that determiners of all kinds have the loosest binding:

```
[sālıma bútìn-]kànā
[[sālıma lá'-]màan-]kà\etaā
ò [[sālıma lá'-]māan]
sālıma [zá'-nכ̄כr]
zūgú-n [níf-gbáun]
```

```
"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\varepsilońňdà] kùөs "seller of red (i.e. dyed) cloth"
not *fü-z\varepsilońn̆'-kùөs
```

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:

Bīig lā kōv dāu lā kúv bà wōsa
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 $k \bar{\nu} v$ 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-Wīn n\varepsiloń À-Būgur n\varepsiloń À-Nà'ab
dư'átà n\overline{\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

```
m̀ bā'-bîis n\varepsiloń m̀ sàam-nàmā +\varnothing
```

1SG father-child:PL with 1SG father-PL voc
"my siblings and [my] fathers!" (Acts 7:2)
pư'ā lā $n \bar{\varepsilon}$ dāu lā "the woman and the man"
woman:SG ART with man:SG ART

An exception is yïigá+ "firstly" used as a predependent for "first" 15.7.3:
yiiga sangbaun ne tengbaun ne atzuk
yïigá sàn-gbàun $n \bar{\varepsilon}$ tह́ク-gbàun $n \varepsilon ́$ àtìưk
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 síilímà
Kusaal story:PL with proverb:PL

Kūsâas kûeb nē yīr "Kusaasi agriculture and housing"
Kusaasi:pL hoeing with house:sg
sālıma bútìıs n̄ díısímà "gold cups and spoons"
gold cup:PL with spoon:PL ("all of them gold", KT)
"Kusaasi stories and proverbs"

However, KT WK both agreed that sālıma lâ'ad n̄̄ būtıs must mean "gold goods and [not gold] cups", WK offering the correction

$$
\begin{aligned}
& \text { sālıma lâ'ad né ò būtıs } \quad \text { "gold goods and (gold) cups" WK } \\
& \text { gold item:PL with 3AN cup:PL }
\end{aligned}
$$

where ò refers to sālıma. (See 15.3 on the unexpected gender of the pronoun.) The difference from sālıma bútìıs n̄ 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 nē [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 saŋgbaup ne tengbaung paal.
Kà $亠$ ǹ n̆y $\overline{\text { sán-gbàun- } n \bar{c}}$ tén-gbàun-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 kī] kûes
not possible for "seller of bēníd n $\bar{\varepsilon} k i \overline{ }{ }^{\prime \prime}$ (beanleaf-and-millet, a conceptual unity like "fish and chips", "lox and bagels.")

Dependent NPs or AdvPs can naturally include coordinated components:
o nya'andدlib pii ne yi
ò n̆yà'an-dう̀llıb pīi n̄̄ yí'
3AN after-follower:PL ten with two
dư'átà n̄̄ nâ'ab lā lóyà "Doctor's and the chief's cars"
doctor:SG with chief:SG ART car:PL
sālıma n̄̄ ānzúrıfà lâ'ad "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:

```
du'átà (lóyà) n\overline{\varepsilon} nâ'ab lā lóyà
sālıma (lâ'ad) n\overline{\varepsilon}}\mathrm{ ānzúrıfà lâ'ad
vs [dư'átà n\overline{ nâ'ab lā] lóyà}
[sālıma n\overline{\varepsilon ānzúrıfà] lâ'ad}
```

"[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 n̄̄ 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 16.3; for relative clauses see 24.3 .

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'-bîig pu'á Herodiase ${ }^{+} \varnothing$.
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 lદ̀bıs y $\bar{\varepsilon}, ~ \bar{\varepsilon} \varepsilon n ̆, ~ o ̀ ~ z u ̛ a ̀ ~ A ̀-S i ̄ b ı g ı — ~ n ~ k a ̄ b ı r i ́ d . ~$
...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 à- is not omitted in these cases shows that the relationship is not dependent-head 15.6.

Personal pronouns in apposition use free forms 27.5:

```
Man Paul [...] po'vsidi ya. "I, Paul ... greet you." (2 Thess 3:17)
Mān Paul [...] pó'vsidi\_ 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 8.2. 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 Sup | for Sisun | Sì-sùn |

In the audio version Siig Sun is read Sìıg-sùn (Sîıg-sùn with M spreading) or Sìsùn, not *Sīıg-sún; cf WK's lànnıg-kànā "this squirrel", dàp-bàmmā "these men."

SB showed a greater tendency to produce segmental sg forms before dependent pronouns and even adjectives than my other informants.

### 15.2 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 15.8.

Kusaal resembles English in distinguishing between count nouns, with singular and plural, and mass nouns which normally make no such distinction, and characteristically refer to liquids or substances or abstractions. Abstract nouns may be count nouns, as with gerunds referring to individual events or actions:

| $z \bar{\partial} g^{\text {a }}$ | $z \chi^{\prime} s^{\varepsilon}$ |  | "race" |
| :---: | :---: | :---: | :---: |
| bū'өsúg ${ }^{\text {a }}$ | bū'өsá ${ }^{+}$ | bū'өs- | "question" |
| zàan̆sún ${ }^{\text {a }}$ | zàan̆símà ${ }^{+}$ | zàan̆súp- | "dream" |

Typical underived mass nouns belong to the $b^{3}$ and $m^{m}$ noun classes, which do not have paired $\mathrm{sg} / \mathrm{pl}$ suffixes, but gerunds of 3-mora stem verbs regularly show $\mathrm{sg} r^{\varepsilon}$ or $g^{3}$ suffixes, and a number of words referring to uncountables or abstracts are formally plural, but construed as singular:

| bān̆'as | bàn̆'- | "disease" |
| :--- | :--- | :--- |
| ňȳ̄'כs |  | ňȳ̄'- |
| tàdımís | "smoke" |  |


| zōlımís ${ }^{\text {E }}$ |  | "foolishness" |
| :---: | :---: | :---: |
| $m \bar{\varepsilon} t^{\varepsilon /}$ | $m \bar{\varepsilon}$ t- 8.2 | "pus" |
| kūt ${ }^{\text {c }}$ | kùt- 8.2 | "iron" |
| zù̀d ${ }^{\varepsilon}$ |  | "friendship" |
| $b \bar{u} v d^{\varepsilon}$ |  | "innocence" |
| siiiñ ${ }^{\text {¢ } /}$ |  | "honey" |
| nīn-pôvd ${ }^{\text {c }}$ |  | "pus" |
| wāad ${ }^{\text {/ }}$ |  | "cold weather" |
| sūn̆-p $\varepsilon$ ¢n ${ }^{\text {ne }}$ |  | "anger" |
| ku'à-nūud ${ }^{\text {/ }}$ |  | "thirst" |
| sālıma+ | sàlım- | "gold" |
| sida ${ }^{+}$ | sid- | "truth" |

$K u \bar{t}{ }^{\varepsilon}$ is also "nail"; the original sg $k u \bar{d} v g{ }^{\top}$ appears in the name $\grave{A}-K u ̄ d v g{ }^{\top}$ 29.2.
So too with a number of irregularly formed deverbal abstract nouns:

| gēen̆mís ${ }^{\text {® }}$ | "madness" | $\leftarrow$ | gēعn̆m ${ }^{\mathrm{m} /}$ | "madden, go mad" |
| :---: | :---: | :---: | :---: | :---: |
| bùdımís ${ }^{\text {d }}$ | "confusion" | $\leftarrow$ | bùdım ${ }^{\text {m }}$ | "confuse" |
| titūmıs ${ }^{\text {¢ }}$ | "sending" | $\leftarrow$ | tòm ${ }^{\text {m }}$ | "send" |
| ziid ${ }^{\text {¢ }}$ | "carrying on head" | $\leftarrow$ | $z i^{+}$ | "carry on head" |
| vūud ${ }^{\text {/ }}$ | "noise" | $\leftarrow$ | $v \bar{u}^{+}$ | "make a noise" |
| $k \bar{\varepsilon} n^{\text {ne/ }}$ | "arrival" | $\leftarrow$ | $k \bar{\varepsilon} \check{n}^{+}$ | "come" |
| pinàn'ad ${ }^{\text {¢ }}$ | "speech" | $\leftarrow$ | pinān̆'a | "speak" (irreg. tones) |
| [sg pinàuňk ${ }^{\text {a }}$ | "word"] |  |  |  |
| di'əma+ | "festival" | $\leftarrow$ | di'əm ${ }^{\text {m }}$ | "play, not be serious" |
| tōoma ${ }^{+}$ | "work" | $\leftarrow$ | tòm ${ }^{\text {m }}$ | "work" |
| [sg tōom ${ }^{\text {me }}$ | "deed"] |  |  |  |
| tĒn̆'عsá+ | "thought" | cf | tह̄n̆'عsá yōnní | "one thought" |

(Acts 4:32)

A single object may be referred to by a plural naming its components:

```
dà-pūvdá+ dà-pūvdá nàma}\mp@subsup{}{}{a
dà-pōodír\varepsilon dà-pōodá+ "cross-piece"
```

A Kusaal plural may just happen to correspond to an English mass noun:

| lāuk ${ }^{\supset}$ | lā'ad | là'- | "piece of goods" |
| :--- | :--- | :--- | :--- |
| lā'af | līgıdı |  |  |

The count/mass distinction is significant in the choice of quantifiers 15.5.1 and when plurals are formed with nàm ${ }^{\text {a } 8.4}$, and it affects the meaning of constructions with preceding NPs as dependents 15.7.2.

Mass nouns can be used in count senses (as in English): dāam nám "beers." Some count nouns also have mass senses:
fūug dôدg
dàad bún-nám
"tent" (cloth hut): fūug "item of clothing, shirt"
"wooden things": dàad "pieces of wood"

### 15.3 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 n\overline{\varepsilon}}\mathrm{ 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 zulun na paae o salibir.
Kà wìəf yá' sīgí_ î̀ nī, lì zùlvn 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. Trees, animate in the traditional world view, may have animate gender:

Tiig wela bigisid on a si'em.
Tìıg wélà bigısıd ón àn̆ sỉəm.
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)
(KB: Tiig walaa bigisid Iin an tisi'a, with inanimate gender.)

Babies may be counted as animate or inanimate gender:

Ò/Lì à n $\bar{\varepsilon}$ bí-līa. $\quad$ "He/she/it is a baby."
3AN/3IN COP FOC child-baby:SG.

When body parts are represented as speaking in this NT passage, they have animate gender:

Nobir ya'a yelin ye, "Man ka' nu'ug la zug, m ka' ningbipla nii," lin ku nyapi ke ka o ka' ningbip la nii.
Nóbìr yá' yદ̀lī-n yē, Mán kā' nû'ug lā zúg, m̀ kā' nín-gbīn lā Leg:sg if say-dP that 3AN:Nz NEG.be hand:SG ART upon, 1SG NEG.be body-skin:SG ART níı ${ }^{+} \varnothing$, līn kú n̆yāpı ø ké kà ò kā' nín-gbīŋ lā níı ${ }^{+} \varnothing$. Loc neg, dem.in neg.irr prevail cat cause and zan 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)

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 ${ }^{\mathrm{a}} \mid b^{\mathrm{a}}$ noun class has exclusively human reference. Elsewhere, such distinctions are essentially lexical, as with nīn- "person" vs būn- "thing" as dummy cbs with adjectives. The availability of human-reference nouns as adjectives 15.8.1.4 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 $^{\varepsilon}$ sīəba ${ }^{+}$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{ kügá. "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.

```
Nīf-káyā, j̄n sâň'am nē.
Eye-dEMST.SG, 3AN.CNTR spoil FOC.
"This eye, it's spoilt." KT (Overheard)
```

$\dot{M} p \overline{0} \quad \check{n} y \bar{\varepsilon} \cdot o ́-o \quad{ }^{+} \varnothing$. "I can't find it [a stethoscope]" (Overheard)
1SG NeG.IND see-3AN.OB neG.
sālıma lâ'ad né ò būtıss "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 $l i$ is not changed to animate ò to agree with an animate complement of àeña "be something":

Li ane Zugsob la.
"It is the Lord." (Jn 21:7)
Lì à nē Zūg-sób lā.
3IN COP FOC head-null.an ART.

### 15.4 Pronouns

### 15.4.1 Personal

| Sg | 1st ${ }^{\text {R }}$ | Right-bound <br> $\dot{m}$ | Left-bound $m^{a}$ | Free mān SF mánè LF | Subject+ì mán |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2nd | fò | $f^{\circ}$ | fūn SF fónc̀ LF | fón |
|  | 3 rd an | ò [ $¢$ | ${ }^{\circ}$ [ర] | $\overline{\text { ¢ }}{ }^{\text {¢ }}$ | ón |
|  | 3rd inan | lì or dì | $\iota^{+}$ | $1 \overline{l i}^{\varepsilon}$ or dīn ${ }^{\varepsilon}$ | lín or dín |
| Pl | 1st | tì | $t{ }^{+}$ | tīnám ${ }^{\text {a }}$ | tīnámì ø |
|  | 2nd | yà | ya+ | yānám ${ }^{\text {a }}$ | yānámì_ø |
|  | 3 d | bà | $b a^{+}$ | bān ${ }^{\text {c }}$ | bán |

"an" = animate, "inan" = inanimate.
$M a \bar{m}$ also occurs for 1 sg in any role. The bound forms are non-contrastive; they are all liaison words 7.2. Left-bound pronouns are used for VP objects, right-bound for all other roles. Personal pronouns are never dependent: in e.g. $\grave{m}$ biig "my child", $\dot{m}$ is the head of its own NP, and it is this NP which is the predependent of bïig "child", exactly like nà'ab lā "the chief" in nà'ab lā bîig "the chief's child."

The "+ $\grave{n}$ " forms are used as subjects in $\grave{n}$-clauses 24.1. The 2 pl subject has a form ya used after imperatives 21.3 with the allomorph -ní- before liaison 7.2.2.

Free forms may be used for cbs before relative pronouns:

Fun kane buoli fo men ...
Fūn-kánì bùell_fò mēy...
2SG-ReL.SG call 2sG self ...

Toende Kusaal has $\tilde{v}$ for $\grave{o}$; the original form was probably * $\overparen{\square m} v$, with later * $\widehat{\square m} \rightarrow{ }^{*} \eta$ before the rounded vowel. Toende has ton nam for tīnám yānám.

There are no inclusive/exclusive distinctions and no honorific uses of plural for singular or 3rd person for 2nd.

2 sg is used in proverbs for a generic "one":

Bung ya'a bood ye o lubuf, fu po nyeti o tubaa.

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 yj̀วdī $f$ 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 22.1, e.g.

Diib wusa nari ba di.
"All foods may be eaten." (Rom 14:20)
Dīıb wōsa 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 20.2.2 and logophoric use of the free pronouns 25.2.

### 15.4.2 Demonstrative

| Long | Animate sg う̀מā+/ | Inanimate sg |  | Plural bàmmā+/ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | lìnā+/ | far |  |
| Short | jn ${ }^{\text {® }}$ | $1 i n^{\text {E }}$ | far | bàn ${ }^{\text { }}$ |
| Long |  | né'クá+ | near |  |
| Short |  | $n \bar{\varepsilon}^{\prime+/}$ | near | $n \overline{\text { ch }}$-nám ${ }^{\text {a }}$ NT |
| Long | kànā+/ | kànā+/ |  |  |
| Short | kàn ${ }^{\text { }}$ | kàn ${ }^{\text { }}$ |  |  |

Note the tone difference between $\dot{j} n^{\varepsilon} / i n^{\varepsilon}$ bàn $n^{\varepsilon}$ and free 3rd person pronouns. "Short" demonstratives are used as the basis of relative pronouns 24.3.2, for discourse deixis, and for interrogative "which?":

Fune an dau kan la!
Fōnı ø án̆ dáú-kàn lā!
2SG.CNTR CAT COP man-DEM.SG ART!
"You are that man!" (2 Samuel 12:7)
[i.e. in the story just related.]

Linc？
Nīf－kánè？
Nīn－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 $\overline{l a}^{+/}$and＂this＂by a following ňwà ${ }^{+}$（cf French là and ci．）This use of $\bar{I}^{+} /$as deictic is enabled by the fact that demonstratives automatically make the NP definite 15．8．5．

```
sān-kánā "at this/that time"
dàu-kà\etaā sâam
dàu-kàyā lā sâam
dàun-kàpā n̆wá sâam
```

＂at this／that time＂
＂this／that man＇s father＂
＂that man＇s father＂
＂this man＇s father＂

う̀nā＋／lìnā ${ }^{+} n \bar{\varepsilon}^{\prime} \eta a^{+} n \bar{\varepsilon}^{+/}$appear only as NP heads，and j̀n $n^{\varepsilon} / n^{\varepsilon}$ cannot follow a cb ；however，bàmmā ${ }^{+/}$bàn $^{\varepsilon}$ can be used either uncompounded or after a cb．

Kàn ${ }^{\varepsilon} k a ̀ \eta \bar{a}^{+/}$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 àrakón̆＇＂one＂，but no other quantifiers． NT avoids kà $\bar{a}^{+/} k a ̀ n^{\varepsilon}$ for animate gender．

```
dư'átà lā lór-kànā
bù-kànā lã
nכ̄-pîzl-kànā
fūn-kánì bù@l ...
```

＂this car of the doctor＇s＂
＂that goat＂
＂this white hen＂
＂you who call ．．．＂

## 15．4．3 Indefinite

| Animate sg sj̄＇＋ | Inanimate sg sīəa | Plural <br> sīaba＋（unglottalised vowel） |
| :---: | :---: | :---: |
| si＇a＋ | si＇a＋ |  |

Sう̄＇＋sīəə ${ }^{\text {a }}$ sīəba＋may be used as heads or dependents，and may follow cbs：sí $a^{+}$ can only follow cbs，as a dependent．For NT WK，but not KT，si＇a＋is much commoner than $s i^{\top} \partial^{a}$ used as a dependent．WK feels that for people si＇a＋is pejorative；NT occasionally has $s \bar{\jmath}^{\prime+}$ for inanimate：tèn－s亏̄＇＂a certain land．＂For indefinite pronouns in relative clauses see 24．3．1．

The sense is＂some，someone，something＂，＂a certain＂，indefinite but specific：
yà bì-sכ̄' "a certain child of yours"
2PL child-INDF.AN

The meaning is often "another, a different" (cf Hausa wani, Jaggar p314.)
ka man ti ye m sig la, ka sכ' pun deŋi sig sa.
kà mán tì yé m̀ sīg lā,
and 1SG:Nz after say 1SG descend ART,
kà sכ̄' pún dèクı ø sīg sá.
and indF.AN already before cat descend thither.
"when I'm then about to go down, someone else goes down first." (Jn 5:7)

Mesri ons 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.
Wìnnıg mór ò mēp vén̆llìm kà n̆wādıg mé mōr vén̆llìm-sỉa.
Sun:sg have 3AN self beauty and moon:SG also have beauty-Ind.in.
"The sun has its own beauty and the moon, another beauty." (1 Cor 15:41)

M̀ ná tī $f$ tí-sỉa.
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:

Dàù-s̄̄' 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...

Sうَ'/sīəəl mé-kàma means "anyone, anything, everyone, everything":

O niyid si'el mekama su'vŋa.
Ò nìpıd sỉəl 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 sכ̄' kūdım kú l̄̄m ñy $\varepsilon$ ع_lı̄ yá'asā ${ }^{+} \varnothing$.
And indf.an ever neg.irr again see 3in.ob again neg.
"Nobody will ever see it again." (Rev 18:21, 1996)

Sう̄' kā'e ${ }^{+} \varnothing$. "There's nobody there."
indF.an NEG.be NEG.
$\grave{M} p \overline{\quad} \quad$ yél sỉəəla ${ }^{+} \varnothing$. $\quad$ I didn't say anything."
1SG NEG.IND say INDF.IN NeG.

### 15.4.4 Interrogative

| Animate | Inanimate |  |
| :--- | :--- | :--- |
| ànô'כn | "who?" | $b \bar{j}^{+}$ |

Plurals with nàma may be used if a specifically plural answer is being sought. B̄̄ kímm "what exactly?" with the ideophone kímm is common in KB 30.1.
The initial à- of ànô'כn $n^{\varepsilon}$ behaves like the manner-adverb prefix in liaison 7.2.1:
... ken tisi anכ'כnع?
"to go to whom?" (1 Samuel 6:20)
... kēŋ_ø tísì ànó'כnè ${ }^{+} \varnothing$ ?
... 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?")
bò-bう̄
dā-bó
"what goat?"
"what beer?"
```

The compound bj̀-būudı+ "what kind of?" can also be used as a dependent:
nā'-bó-būudı
dā-bó-būudı

Note the idiom:

Fù á $n \bar{\varepsilon}$ bó-bùudı ${ }^{+}$?? "What tribe do you belong to?"
"what kind of cow?"
"what kind of beer?"

Bj̀- can be used as a predependent, querying a description: "what sort of ...?"

Fù tóm bj́-tùuma ${ }^{+} \varnothing$ ? "What kind of work do you do?"
2SG work:IPFV what-work cQ?

Bo yir ka ya na me' $n$ tis mane?
Bj̀-yír kà yà ná $m \bar{\varepsilon} \quad n$ tís mánè ${ }^{+} \varnothing$ ?
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)

### 15.4.5 Reciprocal

Tāaba+ "one another" appears as tāab clause-medially for some speakers. It can be used after a cb, meaning "fellow-": ò tòm-tùm-tāaba "his fellow-workers."

Sùnımī $\varnothing$ tāaba. "Help one another."
Help:IMP 2PL.SUB each.other.

Tì yûug n̄̄ tāaba. $\quad$ It's been a long time." KT
1PL delay with each.other.

Bà dう̀l $n \bar{\varepsilon}$ tāaba. $\quad$ "They went together." (dj̄/la/ "accompany") 3PL follow with each.other.

### 15.4.6 Reflexive

$M \bar{\varepsilon} \eta^{\text {a/ }}$ "self" always has a predependent. It is used indifferently for $\mathrm{sg} / \mathrm{pl}$ : $\grave{m} m \bar{\varepsilon} \eta$ "myself", yà $m \bar{\varepsilon} \eta$ "yourselves."

```
nà'ab lā mé\eta "the chief himself"
```

chief:Sg ART self

Bà n̆yモ́ع_bà mēŋ. "They've seen for themselves."
3PL see 3PL self.
"Self" forms must be used for complements referring to the clause subject:
$\dot{M}$ n̆wé' $\_m$ mēŋ. $\quad$ I hit myself."
1SG hit 1SG self.


Kusaal resembles English, as opposed to French, in using a pronoun possessor with body parts acted on by their owner, e.g.

Ba po piesidi ba nu'us wov lin nar si'em la ka ditta.
Bà pū pīəsídí_ bà nû'us wōv lín nār sīəm lá kà dítā ${ }^{+} \varnothing$. 3PL NEG.IND clean:IPFV 3PL hand:PL like 3 IN:Nz be.proper 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 mē implies contrast:
M̀ pía_m̀ mēn nû'us. $\quad$ I washed my own hands." 1SG wash 1sG self hand:PL.

Fù mēn kūט bí-lìaa $\quad+\varnothing$ ? "Yourself or the baby?"
2SG self or child-baby:sG cQ? ("Which of you needs the doctor?")

See also 15.8.3 on amēná+ "really, truly" as a modifier "genuine, real"; cf the adjective $m \bar{\varepsilon} \eta i r^{\varepsilon}$ seen in $y \bar{\varepsilon} /-m \varepsilon ́ \eta i ̀ r^{\varepsilon}$ "truth" ("genuine matter.")

### 15.4.7 Dummy head sj̄b

$\mathbf{S} \overline{\mathbf{j}} \boldsymbol{b}^{\mathbf{a}}$ is a dummy head for a preceding NP or AdvP dependent; it specifies number and gender but is otherwise semantically empty.

| Animate | sg | $\operatorname{sj̄}^{\mathrm{a}}$ |
| :--- | :--- | :--- |$\quad \mathrm{pl} \mathrm{dìm}{ }^{\text {a }}$

NP predependent constructions have their usual meanings 15.7.2:
mān dínne $\quad$ "my one, mine"

À-Wīn dím
"Awini's family"

Fōn piân̆'ad n̄̄ tīnám dín.
2SG.CNTR Speak:IPFV FOC 1PL.CNTR NULL.IN.
("We can't speak your language but ...") "You're speaking ours."
pù-pìalım sób ${ }^{\text {a }}$
pl pò-pìəlım dím ${ }^{\text {a }} \quad$ "holy person" (pù-pìalım ${ }^{\mathrm{m}}$ "holiness")
dūnıya ní dìn ${ }^{\text {ne }}$
Bj̀k dím
"earthly one" (1 Cor 15:44)
"Bawku people"
yīigá sōba
"first (person)" beside yïig-sว́b ${ }^{\mathrm{a}}$ id

Cb predependents occur in set expressions:

| yī-sób ${ }^{\text {a }}$ | pl yī-sób-nàm ${ }^{\text {a }}$ | "householder" | ( īr $^{\text {¢/ }}$ "house") |
| :---: | :---: | :---: | :---: |
| yī-dím ${ }^{\text {a }}$ |  | "members of the | ousehold" |
| nīf-sób ${ }^{\text {a }}$ |  | "miser" | (nīf/ "eye") |
| tàn̆p-sj̄b ${ }^{\text {a }}$ |  | "warrior" | (tān̆p ${ }^{\text {"war" }}$ |
| $z u ̄ g$-sób ${ }^{\text {a }}$ | pl zūg-sób-nàm ${ }^{\text {a }}$ | "boss" NT "Lord" | (zūg ${ }^{\text {/ }}$ "head") |

Ò s $\mathfrak{y} b^{\text {a }} / \overline{\mathrm{J}} n ~ s \bar{\jmath} b^{\mathrm{a}}$ mean "the person we were just talking about."

### 15.5 Quantifiers

### 15.5.1 Overview

Formally, quantifiers resemble noun sg or pl forms, frequently with apocopeblocking 5.1; most number words are also preceded by number prefixes.

Quantifiers are count or mass 15.2, 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:

```
    nīdıb b\varepsilońdvgō "a lot of people"
nīdıb bábıgā "many people"
kù'өm b\varepsilońdvgū "a lot of water"
not *kù'өm bábıgā *"many water"
```

Mass quantifiers are

| bèdugō+/ | "a lot" | pāmm LF pāmné | "a lot" |
| :--- | :--- | :--- | :--- |
| fiin̆= | "a little (liquid)" | b「əəlá+ | "a little" |
| wōv= | "all" | wūsa+ | "all" |

Beside number words, count quantifiers are

| bàbıgā+/ | "many" | kàlıgā+/ | "few" |
| :--- | :--- | :--- | :--- |
| fāan̆= | "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 15.8.2, but like pronouns they may also be heads of NPs; they can pluralise with nàmá

Pāmm ké nā.
Bèdugū ké nā.
Bèdugū lā ké nā.
Àyí' ké nā.
Àyí' lā ké nā.
màliā̄-nám túsà pïiga nám
"Many came."
"Many came."
"The crowd came"
"Two came."
"The two came."
"tens of thousands of angels"

Àyí námá_àyí á nē nāasí.
nUM:two PL NUM:two cop foc four.
"Two two's are four."

A quantifier head after a dependent NP is a partitive construction 15.7.2. 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 ňyē dīıb yáa ní mכ̄دgט-n n̆wá
And 3PL that 3PL find food where Loc grass:SG-Loc this
$\varnothing$ dìıs nīdıb bédugū bámmā n̆wá $+\varnothing$ ?
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 wosa "all these people")

### 15.5.2 Number words

### 15.5.2.1 Quantifiers

The numbers in their core role as quantifiers take the forms

| 1 | yīnní+ | 10 | piiga+ | 100 | kj̀bıgā= |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | àyí' ${ }^{+}$ | 20 | pīsí' [pisi] | 200 | kj̀bısí ${ }^{+}$[kobısi] |
| 3 | àtán̆'+ | 30 | pīs tán' ${ }^{+}$ | 300 | kj̀bıs tán̆'+ |
| 4 | ànāasí+ | 40 | pīs nāasí+ | 400 | kj̀bıs nāasí ${ }^{+}$ |
| 5 | ànū ${ }^{+}$ | 50 | pīs nū ${ }^{+}$ | 500 | kj̀bıs nū+ |
| 6 | àyúөbò ${ }^{+}$ | 60 | pīs yúөbò ${ }^{+}$ | 600 | kj̀bıs yúөbò ${ }^{+}$ |
| 7 | àyópjè+ | 70 | pīs yópj̀e+ ${ }^{+}$ | 700 | kj̀bıs yópj̀e ${ }^{+}$ |
| 8 | ànií $=$ | 80 | pios níi= | 800 | kj̀bıs nií= |
| 9 | àwāe ${ }^{+}$ | 90 | pīs wāe ${ }^{+}$ | 900 | kj̀bıs wāe ${ }^{+}$ |

The quantified noun is normally plural, except with yīnní ${ }^{+}$, but may be singular with units of measure: yj̄lugá àtán̆' "\$600 [cedis]."

The forms for $1,4,6,8,10$, and 100 show apocope-blocking $\underline{5.1}$; the forms for 20 and 200 are not apocope-blocked but are combinations with the stem of àyí ${ }^{+}$.

Kj̀bıgā= irregularly has identical LF and SF.
"Thousand" is a regular $r^{\varepsilon} \mid a^{+}$class noun, tūsır $r^{\varepsilon /: ~ t u ̄ s a ́ ~ a ̀ t a ́ n ̆ ' ~ " 3000 . " ~ " H a l f " ~ i s ~}$ $p \bar{u}$-súk ${ }^{\text {a }} \mathrm{pl} p \bar{u}$-súgùs ${ }^{\varepsilon}$. Other numbers are formed with $n \bar{\varepsilon}$ "with, and":
kj̀bıs tán̆' n $\bar{\varepsilon}$ pīs yúधbù n $\bar{\varepsilon} n u \bar{u} \quad$ "three hundred and sixty-five"

11 to 19 have the special contracted forms pīi nē yīnní, pīi n̄̄ yí', pīi nē táň' ... pīi nē wāe (or pïi nā yīnní, pīi nā yí' ...)

The prefix à- is omitted after $n \bar{\varepsilon}$ "with", and sometimes also after focus-n $\bar{\varepsilon}^{+/}$:
$L i ̀ ~ a ̀ ~ n \bar{\varepsilon} ~ n a ̄ a s i ́ . ~ / ~ L i ̀ ~ a ̀ ~ n e ́ ~ a ̀ n a ̄ a s i ́ . ~ " T h e y ' r e ~ f o u r . " ~$

The forms àyínā+/ àtánā+/ mean "two, three exactly." If I have four children

M mór bīisá_ àtán̆'. "I have three children."
1SG have child:PL NUM:three. is true, though misleading
but M̀̀ mór bïisá àtánā. "I have exactly three children." is false.
These forms can also be used after $n \bar{\varepsilon}$ "and", as in piii $n \bar{\varepsilon}$ yínā "twelve exactly." They are exceptional in not permitting focus with the particle $n \bar{\varepsilon}^{+/}$27.1.2.

Yīnní+ can also be construed with a preceding noun cb:

```
    kūg-yínnì+
cf kūgvr yīnní+
"one stone" (M dropping 7.4.4)
"one stone" (no M dropping)
```

Dà-pïiga is "ten days"; pïiga is not otherwise used after cbs.
After personal pronouns the number prefix is bà- instead of à- 13.3: tì bàtán' "we three", yà bàyópj̀e "you seven", bà bàyí' "they two."

### 15.5.2.2 Counting forms

1 to 9 have different forms used in counting, lacking apocope-blocking and using the number prefix $\grave{n}$ - instead of à- 13.3.

| 1 | yéon or àrakón̆' | 6 | ǹyûөb |
| :---: | :---: | :---: | :---: |
| 2 | ǹyí' | 7 | ǹpj̀e [tone sic] |
| 3 | ǹtán̆' | 8 | ǹníi |
| 4 | ǹnāas | 9 | ǹwāe |
| 5 | ǹnū |  | uing pï̀ga, piil n̄ |

Àrakón̆' can also be used as a quantifier: búvg àrakóň' "one goat."

In performing arithmetic the quantifier forms are used:

Àyíi námá_àyí' á nē nāasí.
nUM:two PL NUM:two COP FOC four.
"Two twos are four."

### 15.5.2.3 Adjectives and ordinals

"First" can be expressed by yïigá+ "firstly" as a predependent:
line da an yiiga dabisir
līnı $\varnothing$ dá àn̆ yïigá dàbısır.
3IN.CNTR CAT TNS COP firstly day:SG.
"That was the first day." (Genesis 1:5)

The only ordinal adjective, as in $s \bar{\jmath} b-d \hat{\varepsilon} \varepsilon \eta$ "first census" (Lk 2:2, 1976) is
$d \varepsilon \bar{\varepsilon} \eta^{a}$

| $d \bar{\varepsilon} \varepsilon n ̌ s^{\varepsilon}$ |  |
| :---: | :---: |
| or | $d \bar{\varepsilon} \varepsilon m i s^{\varepsilon}$ |
| or | $d \bar{\varepsilon} \varepsilon n a^{+}$ |

Other ordinal expressions can be created using pàas ${ }^{\varepsilon}$ or $p \varepsilon^{\prime} \varepsilon s^{\varepsilon}$ "add up to":
dàu-kànı pغ̀'عsa_ àyí' 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 dāana "owner of ..."; such phrases are then themselves used either as NP heads or as determiners:

```
àyí' dāan la
bōvgá àtáň' dāan lā
"the second one"
"the third goat"
```

Yīigá 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

$$
\text { yīmmír } \quad \text { yı̄mmá+ } \quad \text { yı̄m- } \quad \text { "single, alone" }
$$

```
e.g. bì-yīmmír "only child"
wāb-yímmìr "solitary elephant"
```

There are two words meaning "one of a pair": ňyàuk $k^{\top}$ pl ňyà' $a d^{\varepsilon}$ is only used for eyes, while $y \bar{u} u \eta^{J /} \mathrm{pl}$ yīná+ is used for other normally paired body parts: n亏̄b-yíun $\eta^{\text { }}$ "one leg", nū'-yíun ${ }^{\text {n }}$ "one hand", nīf-n̆yáuk "one eye", tùb-yīun ${ }^{2}$ "one ear."

### 15.5.2.4 Adverbs

Multiplicatives (answering àbùlá? "how many-fold?") are expressed

```
yīmmó+ "straight away, at once"
àbùyí'+ "twice"
àbùtán̆'+ "three times"
àbv̀nāasí+ "four times"
```

and so on, with apocope-blocking like quantifiers, up to bùpiiga+ "ten times."

This à- 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 nכ̄כrá àlá "how many times?" have forms of the pattern
or

```
```

```
nכ̄or yōnní+
```

```
nכ̄or yōnní+
nכ̄כrá àtán̆'+
nכ̄כrá àtán̆'+
```

nכ̄כrím bùtán̆'+

```
```

nכ̄כrím bùtán̆'+

```
```

"once"
"three times"
"three times" NT

```

This nכ̄כr is not "mouth" (= Mooré nóorè) but corresponds to Mooré náooré "times", homophonous with Mooré náooré "leg"; cf Toende Kusaal nכ̄'כ̄t = Agolle nóbìr "leg". Original ככ and oo fell together when nasalised 3.2. For the semantics cf Hausa sàu ukù "three times" sau "foot(print)." Niggli's dictionary gives Toende nó'כt (tone sic) in the sense "fois" and even has noba ayi beside nכ'כt 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:
\begin{tabular}{llllll}
1 & yīn yīn & 10 & pīi pîig & 100 & kj̀bıg kóbìg \\
2 & àyí' yí' & 20 & pīsí pīsí & 200 & kj̀bısí kóbısí or kj̀bıs yí' yí' \\
3 & àtáň' tán̆' & 30 & pīs táň' tán' & 300 & kj̀bıs tán̆' tán̆' \\
4 & ànāas nāas & 40 & pīs nāas nāas & & etc \\
5 & ànū nū & 50 & pīs nū nū & 1000 & tūsır túsìr \\
6 & àyûeb yûeb & 60 & pīs yûeb yûeb & & \\
7 & àyópjè póe & 70 & pīs yว́pj̀e póe & & \\
8 & àníi níi & 80 & pīs níi níi & & \\
9 & àwāe wāe & 90 & pīs wāe wāe & &
\end{tabular}

Intermediate numbers are made by replacing the last part of the usual quantifier phrase with a distributive: pīs nū nē nāas nāas "by fifty-fours."

The distributives can have a preceding NP as a dependent:
dābá àyópj̀e póe
"weekly" ("by sevens of days")

\subsection*{15.5.3 Proquantifiers}

Quantifiers have corresponding proforms; the à- is the number prefix, and induces preceding LF-final -a not -ı 7.2.1.
\begin{tabular}{lll} 
Demonstrative & Indefinite & Interrogative \\
àlá+ & si’əm \({ }^{\mathrm{m}}\) & àlá+ \\
"so much/many" & "some amount" & "how much/many?"
\end{tabular}

\subsection*{15.6 Personifier particle}

Indigenous Kusaasi personal names \(\underline{29.2}\) are always preceded by the personifier particle, which appears as \(\grave{A}\) - by default, but \(\grave{N}\) - before adjective stems, where \(\stackrel{N}{ }\) - is a syllabic nasal assimilated to the point of articulation of a following consonant. The particle is a liaison word; the \(\grave{A}\) - allomorph, like the manner-adverb prefix à-, is preceded by word-final \(-\iota\), 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 nàmá; 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)."
\begin{tabular}{ll} 
À-Wīn & "Awini" \\
tì Wīn & "our Awini" \\
\(\dot{M}\) Wīn & "my Awini" \\
À-Wīn-kápā & "this Awini" \\
À-Wīn nám & "Awinis" \\
\(\dot{N}\)-Dāog & "Ndago" \\
tì Ǹ-Dāvg & "our Ndago"
\end{tabular}

Although the Kusaal Bible versions (unlike the Mooré Bible) use foreign names without the particle, \(\grave{A}\) - normally appears before them in speech:
\begin{tabular}{ll} 
À-Mūusa & "Moses" \\
À-Yīisa & "Jesus" \\
À-Sïimôכn & "Simon"
\end{tabular}

NT has some personifications of abstractions: À-Sàň'ט "Destruction." In stories where animals are characters, animal names take \(\grave{A}\)-:
À-Bāa
"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-dàalún \({ }^{\text {J }}\) "stork", à-gâvn̆g \({ }^{\text {J }}\) "pied crow", à-kכ̄ra-dîəmna "praying mantis", à-mús \({ }^{\varepsilon}\) "cat." Thus
\begin{tabular}{ll} 
à-dàalón & "a stork" \\
m̀/mān dáalón \\
ISG/1SG.CNTR stork:SG
\end{tabular}\(\quad\) "my stork"

The à- allomorph is not elided after a predependent but is replaced by it, as shown by the M spreading affecting the stem. The fact that à- 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 sj̄'
PERS-send INDF.AN
Apo-kpen'-bapo dim
À-pū kpén̆' bàuno dím
PERS-NEG.IND enter circumcision NULL.PL
"the Uncircumcised" (Eph 2:11)

```

À-dāa yél kā' tîımm \({ }^{+} \varnothing\).
pers-tns say neg.have medicine neg.
"Did-say has no remedy." (No use crying over spilt milk.)

À-n̆ȳ \(n \bar{\varepsilon}\) nīf són̆'ว_ À-wòm tùba.
PERS-see with eye:sG be.better.than PERS-hear ear:PL
"Saw-with-eye beats Heard-with-Ears" (Seeing is believing.)
\begin{tabular}{ll}
\begin{tabular}{l} 
À-Kīdıgı_ \(\varnothing\) Bū'өs \\
PERS-Cross CAT ask
\end{tabular} & \begin{tabular}{l} 
"Crossed over and asked" \\
(name of the constellation Orion.)
\end{tabular} \\
\begin{tabular}{ll} 
Apozotyel & "Doesn't-fear-trouble", character in KSS p35. \\
À-Pū-zót-y \(\bar{\varepsilon} l\) & \\
PERS-NEG.IND-run:IPFV-thing:SG &
\end{tabular}
\end{tabular}
\(\grave{A}-\) as predependent of a clause subject means "someone whose ...":

Bà kèn né À-nà kúv_m̀ nūa yír, kà bà pū kén 3PL go:IPFV FOC PERS-IRR kill 1SG chicken:Sg house:SG and 3PL NEG.IND go:IPFV À-nכ̄כs bé yírē \({ }^{+} \varnothing\).
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.") [Cf Nכ̄os bé. "There are chickens."]

Nominalisations with à- can pluralise with nàmá

À-zī'_ \(\quad \varnothing\) kpí nàm kpîid né kà téňbid.
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.")

\subsection*{15.7 Dependents preceding 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'usùg [fûug dôวg]]
"tabernacle" (God's [worship [cloth hut]])

```

For the rules regarding \(M\) dropping after predependents see 7.4.4.

\subsection*{15.7.1 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 \(\quad\) "beer-drinking" gद̄l-kûөsa \(\quad\) "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:
\begin{tabular}{|c|c|c|c|}
\hline nīn-kôvd \({ }^{\text {a }}\) & "murderer" & bù-kūuda/ & "goat-killer" \\
\hline \(n \overline{-k o ̂ v d ~}{ }^{\text {a }}\) & "hen-killer" & pu'à-kūod \({ }^{\text {a/ }}\) & "woman-killer" \\
\hline nj̄-zánılı \({ }^{\text {¢ }}\) & "holder of hens" & wìd-kùes \({ }^{\text {a }}\) & "horse-seller" \\
\hline bù-kùes \({ }^{\text {a }}\) & "goat-seller" & sàlım-kùes \({ }^{\text {a }}\) & "gold-seller" \\
\hline dā-nûuda & "beer-drinker" & dà-kīəda & "wood-cutter" \\
\hline
\end{tabular}

\author{
zīm－gbâň＇ad \({ }^{\text {a }}\) \\ nう̄－dî＇əs \({ }^{\text {a }}\) \\ tàn－mē \(d^{\text {a }}\) \\ làmpj̄－dî＇əsa \\ gbàn－míid \({ }^{\text {a／}}\) \\ pu＇à－sāñ＇am \({ }^{\text {ma }}\) \\ zà＇－n亏̄－gúr \({ }^{\text {a }}\) \\ k̇̀n̆b－kīm \({ }^{\text {na }}\) \\ bùl－sīgıd \({ }^{\text {a／}}\) \\ tù̀n－gāt \({ }^{\text {a }}\) \\ n̆yà＇an－dj̀la \\ \(p u{ }^{\prime}\)＇à－lā＇ad \({ }^{\text {a }}\)
}
```

"fisherman" ("fish-catcher")
"chief's spokesman" ("command-receiver")
"builder" (tānn\varepsilon "earth")
"tax collector" (French l'impôt)
"scribe" NT ("book-knower")
"adulterer" ("woman-spoiler")
"gate-keeper" (zà'-nכ̄כr夏"gate")
"herdsman" (kj̀n̆b- cb of būn-kóňbùg` "animal")
"well-diver" (bùlıga "well")
"leader" (Ò gàad tûөn "He's gone ahead")
"disciple" (n̆yá'a\etaa "behind", d\overline{\jmathla/ "accompany")}
"laugher at women" WK
(Ò là'ad pū'ab "He laughs at women")

```

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 bāpıd \(d^{a}\)＂wise man＂， siākıd \(d^{a}\)＂believer＂，sūpıd \(d^{a}\)＂helper＂，fāan̆d \({ }^{a /}\)＂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" "sacrificer"
zī-zîida "carrier-on-head"
tù'as-tù'asa a "talker"
zàb-zàb a "warrior" (tone sic)
z\grave{t-z\grave{ta}}\mp@subsup{}{}{a}\mathrm{ "racer, athlete"}
tòm-tōmna "worker"

```

Cbs occur before deverbal instrument nouns in object or adverb senses：
```

sià-Ī\partialdí\etaa "belt" (waist-tying thing)
nīn-gótì\etaa
nīn-gótìs}\mp@subsup{}{}{\varepsilon}\quad\mathrm{ "spectacles"

```

If the head is a gerund，a predependent cb may represent a subject or complement．Gerunds in \(-b^{\nu}\) here replace the suffix with \(-r^{\varepsilon}\) 11．1．1．

If the underlying verb is transitive，a predependent cb cannot be a subject．It is most often an object：
```

$f u ̄-y \hat{\varepsilon} \varepsilon r^{\varepsilon}$
$p u{ }_{\mathrm{C}} \mathrm{à}^{-d i ̄} \iota r^{\varepsilon}$
nīn-kôvr ${ }^{\varepsilon}$

```
＂shirt－wearing＂（nonce－form created by WK）
＂marriage＂（Ò dì pú＇ā＂He＇s married a wife＂）
＂murder＂
```

dā-nûur ${ }^{\varepsilon}$
Sāmán-píər ${ }^{\varepsilon}$
bùgóm-tכ̄כn̆r ${ }^{\varepsilon}$
n亏̄-lวิวr ${ }^{\varepsilon}$
n̄̄-pว̂วr ${ }^{\varepsilon}$
nう̄-nâar ${ }^{\varepsilon}$
nīn-bâal-zว̄วr ${ }^{\varepsilon}$
"beer-drinking"
traditional New Year ("Courtyard Cleaning")
Fire Festival ("Fire Throwing")
"fasting" ("mouth-tying")
"oath" ( $p \bar{\nu}^{+}$"swear")
"covenant" (nā+ "join")
"pity" (Ò zj̀t•ō nīn-báalìg. "He has pity on him")

```

It may represent an AdvP：
```

mう̀-pīl|
kùm-vō'vgír`

```
```

"grass roof" ("covering with grass")
"resurrection"
(O' vò'vg küm\iota-n. "He came alive from death.")

```

Cbs as subjects are seen only with gerunds from intransitive or patientive ambitransitive verbs：
```

n亏̄b-k\hat{ว}\mp@subsup{r}{}{\varepsilon}
nū'-módìr}\mp@subsup{}{}{\varepsilon
win-lïr\&
sūn̄-sâň'vص`
sūnॅ-p\varepsilon̂\varepsilonnn\varepsilon

```
```

"breaking a leg" (kj}\mp@subsup{}{}{+}\mathrm{ is intransitive)
"swelling of the hand"
"sunset" (Wìnnıg lí yā. "The sun has set/fallen.")
"sorrow"
(M sün̆f sân̆'am n\overline{\varepsilon}. "My heart is spoilt")
"anger" (M sūn̆f p\varepsilońlig n\overline{\varepsilon. "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：
```

pù-pìalım ${ }^{\mathrm{m}}$
sūn̆-kpî'on ${ }^{\text {² }}$
sūn̆-má'asìm ${ }^{m}$
nìn-tūllím ${ }^{m}$
wīn-tวิวg ${ }^{\text {² }}$

```
```

"holiness" ("inside-whiteness")

```
"holiness" ("inside-whiteness")
"boldness" ("heart-strength")
"boldness" ("heart-strength")
"joy" ("heart-coolness")
"joy" ("heart-coolness")
(M̀ sūn̆f má'e yā. "I'm joyful.")
(M̀ sūn̆f má'e yā. "I'm joyful.")
"fever" ("body-heat")
"fever" ("body-heat")
"ill fortune" ("fate-bitterness")
```

"ill fortune" ("fate-bitterness")

```

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．
bì－fūug
wìd－zūor
wāb－móวgō－n WK
＂children＇s shirt＂（i．e．suitable for children） ＂horsetail＂
＂in elephant－bush，where there are elephants＂
\begin{tabular}{ll} 
zà'-nכ̄כr & "gate" ("compound-mouth") \\
mà-bïig & "sibling" ("child by [same] mother") \\
bā'-bîig & "half-sibling" ("child by [same] father") \\
tèn-bïig & "native" ("child of a country") \\
nàsàa-sìlug & "aeroplane" (European hawk) ILK
\end{tabular}

WK has the exceptional forms náaf-bì'isím "cow's milk", būvg-bíisím "goat's milk", where the dependent has singular form and tone, but the tone sandhi is that of a compound (note the lack of M spreading after náaf-.)

\subsection*{15.7.2 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 2.2 .

Definite predependents do not automatically make a NP head definite 15.8.5.
For \(m \bar{\varepsilon} \eta^{\mathrm{a} /}\) "self" and \(s \bar{\jmath} b^{\mathrm{a}}\) as heads after predependents see 15.4.6 15.4.7.
If the head is a demonstrative, indefinite or interrogative pronoun or a quantifier, the construction with a predependent is partitive:
\begin{tabular}{llll} 
nīn-síəbà & "certain people" & sīəba & dependent \\
yà sō' & "some one among you" & s̄̄' & head \\
nīdıb lā síəbà & "certain of the people" & sīəba & head \\
nīdıb síabà & "certain ones among people" & sīəba & head \\
nīdıbá àyí' & "two people" & àyí' & dependent \\
nīdıbá àyí' lā & "the two people" & àyí' & dependent \\
nīdıb lá àyí' & "two of the people" & àyí' & head
\end{tabular}

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 gan so'
Pà'alımī tí nīdıbá àyí' n̆wá fón gāp 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. nīdıb 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 kók "throne" ("chieftaincy chair")
nā'am sú'vlìm "kingdom" ("chieftaincy possession")
pù'usug d\hat{วg "temple" ("worship house")}
tūlıgír bún
dūgub dút
līgıdı tóvmà

```
```

"heater" ("heating thing" = būn-túlıgìr}\mp@subsup{)}{}{\varepsilon}

```
"heater" ("heating thing" = būn-túlıgìr}\mp@subsup{)}{}{\varepsilon}
"cooking pots"
"cooking pots"
"expensive work" (līgıd\iota+ "money")
```

"expensive work" (līgıd\iota+ "money")

```

There are sometimes alternate forms with cbs:
tàn̆p-sōb \(b^{a}\)
pò-pìəl-sว̄b \({ }^{\text {a }}\)
but pù-pìəlım sób \({ }^{\text {a }}\)
pò-pìl-tūvma+
but pò-pìəlım tóvmà \({ }^{+}\)
"warrior" (tān̆p \({ }^{\text { }}\) "war")
"holy person" (Rom 3:10, 1996)
"holy person" (Mt 10:41, 1996)
"holy actions" (Rom 6:13,1996)
"holy actions" (Mt 5:10, 1996)

Language names may appear as abstract nouns describing an ethnic group:

Kūsâal yír n̄̄ kūeb "Kusaasi houses and agriculture"
Nàsāal búgúm "electricity" ("European fire")

Concrete indefinite mass NPs as predependents express the material of which the head consists.
sālıma bútìn
sālıma nē ānzúrıfà lâ'ad
"golden cup"
"gold and silver goods"

Count nouns may appear here in mass senses 15.2:
füug dôدg
dàad bún-nám
"tent" (cloth hut)
"wooden things" (dàug \({ }^{\text { }}\) "piece of wood")

NP predependents of this type can be antecedents of anaphoric pronouns:
sālıma lâ'ad né ò būtıs "gold goods and [gold] cups" WK \(\underline{15.1}\)

This is never the case with dependent cbs, as in sàlım-kùes "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-n̆wïig "current" ("aquatic rope") suggests that the construction with unbound concrete mass predependents is limited to the specific sense "made of ...", so that *kù'өm n̆wîig would be "rope made of water."

With count and/or definite heads, meanings include kin relations, body parts, and ownership:
```

m bïg
dāun lā bîig
dāụ lā bîər bìig nâaf zùvr
Kūsâas wádà

```
```

"my child"
"the man's child"
"the man's elder brother's child's cow's tail"
"customs of the Kusaasi"

```

Nimbع'og yir na san'am.
Nīn-bê'og yír 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 wîəf zûur
nà'ab lā wíd-zōor
"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)

Dāana "owner of ..." (nàmª 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 ठu:):
lór dâana \({ }^{\text {a }}\)
būvg dâan \({ }^{\text {a }}\)
kù'өm dâana \({ }^{a}\)
tìəク dâan \({ }^{\text {a }}\)
dāam dâan \({ }^{\text {a }}\)
pว̄əg lā dâana \({ }^{\text {a }}\)
"car owner"
"goat owner"
"water owner"
"bearded man" Hausa mài geemùu
"beer owner"
"the owner of the field" (Mt 21:40)

Zu-wok daan po gangid bugum.
Zò-wכ̄k dâan pō gánìd búgómm \({ }^{+} \varnothing\).
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-pìるlım dâana
būgusígã dâana
"holy person"
"softly-softly sort of person" WK

```

See 15.5.2.3 on the use of dāan \({ }^{\text {a }}\) with numbers to make ordinal expressions. A cb predependent appears before dāan \({ }^{\text {a }}\) in a few set expressions:
\[
y i ̄-d a ̂ a n^{\mathrm{a}}
\]
"householder" = yī-sób \({ }^{\text {a }}\) (Hausa mài gidaa)
tદ̀ク-dāana \({ }^{\text {a }}\)
(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 kúlòg dāa mālısí m.
Man:Sg art go.home:Ger tns be.sweet 1sG.ob.
"The man's return home pleased me."

A generic object cb may also appear, and adjunct AdvPs or VP-final particles may follow the head:
ya antu'a morim koto ni ne taaba la
yà àntư'à-mōrím kótù ní n̄ 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 lebug la na
Nīn-sâal Bîig lā lébùg lā nā
Person-smooth:SG Child:SG ART return:GER ART hither
"the return of the Son of Man" (Mt 24:27)

\subsection*{15.7.3 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 \({ }^{\text {a 15.7.2. }}\)
\begin{tabular}{ll} 
dūnıya ní nìn-gbīn & "earthly body" \\
kJ̄lugv-n nó-dâvg & "crayfish" ("in-the-river cock") \\
Bj̀k dím & "Bawku people" \\
dàgj̀bıg níf & "left eye" \\
zūgú-n níf-gbáun & "upper eyelid" \\
tह̄ŋı-n níf-gbáunŋ & "lower eyelid"
\end{tabular}

Ba da mor mכวgin bunkכnbid ne ba buudi, yin bonkכnbid ne ba buudi ... Bà dà mòr mכ̄כgu-n bún-kón̆bìd né bà būudı, yín bún-kón̆bìd
3PL TNS have bush:SG-Loc thing-hair:PL and 3PL kind, house:SG:Loc thing-hair:PL né bà būudı...
and 3PL kind ...
"They took wild animals with their kind, tame animals with their kind ..." (Gen 7:14)

Kūsâas kûөb n̄̄ yīr y dàù-kànā Iā yélà gbàun \(\quad\) "a book about that man" WK

Yiiigá+ "firstly" appears as a predependent meaning "first" 15.5.2.3, e.g.
line da an yiiga dabisir.
līnı ø dá àn̆ yïigá dàbısır.
3IN.CNTR CAT TNS Cop firstly day:SG.
"That was the first day." (Genesis 1:5)

\subsection*{15.8 Dependents following the head}

Dependents follow a head noun in the order adjective(s), quantifier, dependent pronoun or AdvP, article or ňwà+ "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, and correspond to uncompounded constructions in most other languages. Consequently the cb needs to be treated as a standard part of noun and adjective paradigms. Cb heads are the most liable to segmental remodelling on the basis of the singular form (or even the plural) 8.2.

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 \(n^{\varepsilon} k a ̀ \eta \bar{a}^{+/}\).

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.

\subsection*{15.8.1 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 19.8.2. Generally, compounds with nīn- "person" or būn"thing" are used instead: nīn-sún \({ }^{\text {د }}\) "good person", būn-vór \({ }^{\text { "living thing" etc. Būnne/ }}\) can make a regular \(r^{\varepsilon} \mid a^{+}\)class plural būná \({ }^{+}\)or pluralise with nàm \({ }^{\mathrm{a}}\) :
```

Būn-námá_àlá kà fò n̆yह̄tá +ø?
Thing-PL NUM:how.many and 2SG see:IPFV CQ?
"How many things do you see?" SB

```

Būn also occurs with abstract and AdvP predependents:
```

tūlıgír bónn\varepsilon "heating thing, heater" = būn-tólıgìr }\mp@subsup{}{}{\mathrm{ ne}
kù'өmī-n búnn\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.

\section*{būn-kúvdìr}
but kūvdír \({ }^{\varepsilon}\)

Note the idioms
```

būn-gín`a "short chap" (informal, humorous)
būn-kúdùg}\mp@subsup{}{}{\circ

```

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:
\begin{tabular}{|c|c|c|c|}
\hline \(b \bar{u} g^{\text {a }}\) & "goat" & \(b u ̄ s^{\varepsilon}\) & "goats" \\
\hline bù-pìalıg \({ }^{\text {a }}\) & "white goat" & bù-pialıs \({ }^{\text {e }}\) & "white goats" \\
\hline bù-sùn \({ }^{\text {a }}\) & "good goat" & bù-sùma+ & "good goats" \\
\hline nūa+1 & "hen" & nכ̄כs \({ }^{\text {/ }}\) & "hens" \\
\hline nō-píəlìg \({ }^{\text {a }}\) & "white hen" & n̄̄-píəlis \({ }^{\text { }}\) & "white hens" \\
\hline n̄̄-sún \({ }^{\text {a }}\) & "good hen" & nכ-sómà \({ }^{+}\) & "good hens" \\
\hline
\end{tabular}

A second adjective or a dependent pronoun can follow a first adjective, which thus itself appears as a cb:
```

nīn-wók-pìəlıga "white tall person"
n亏̄-pîəl-kànā+/ "this white hen"

```

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 kù0s}\mp@subsup{}{}{\textrm{a}}\quad\mathrm{ "seller of red (i.e. dyed) cloth"
    not *fü-z\varepsilońnॅ'-kùөs}\mp@subsup{}{}{\mathrm{ a}

```
i.e. adjective cbs may only precede other adjectives or dependent pronouns.

Compounds with adjectives may develop specialised lexical meanings:
```

nū'-bíla "finger" ("small hand")
tì-sābılímm a traditional remedy ("black medicine")
g\grave{n̆'-sābulíg}\mp@subsup{}{}{\mathrm{ a}}
Haaf gosabliga "Acacia hockii" ("black thorn")

```

\subsection*{15.8.1.1 Class agreement}

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'-bīalíf
dà-si'ər
dàbıs-sỉər ${ }^{\varepsilon}$
yēl-súm ${ }^{\text {m }}$
pu'à-pāala/
dà-pāala/

```
```

"small coin" NT (lā'af? "cowrie", bi`əlá+ "a little" "some day, perhaps" (dāar\varepsilon "day", si`a+, "some")
"some day" (dàbısır₹ "day")
"blessing" (y\overline{\varepsilon}|\varepsilon/ "matter", sòn ` "good")
"bride" (pư'āa "wife", pāalíga "new")
"young man, son" (dāun+ "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:
\begin{tabular}{|c|c|c|}
\hline & dā-páalìm \({ }^{\text {m }}\) & "new millet beer" \\
\hline & & WK does not accept *dā-pâal, *dā-páalìg. \\
\hline & tì-sābılím \({ }^{\text {m }}\) & "black medicine", a specific traditional remedy \\
\hline & tì-vōnním \({ }^{\text {m }}\) & "oral medication" ("swallowing medicine") \\
\hline & tì-kūodím \({ }^{\text {m }}\) & "poison" ("killing medicine") \\
\hline & kpān̆-sכ́כñdìm \({ }^{\text {m }}\) & "anointing oil" (kpāan̆m \({ }^{\mathrm{m} /}\) "oil, grease") \\
\hline & būn-bכ́כdìm \({ }^{\text {m }}\) & "desirable thing" (1 Cor 14:1: nว̀ ılím \({ }^{\text {m }}\) "love") \\
\hline but & būn-bכ́วdì \({ }^{\text {e }}\) & "desirable thing" (BNY p17: a sheep) \\
\hline & būn-n̆yźtìm \({ }^{\text {m }}\) & "the visible world" \\
\hline but & būn-n̆yćtì \({ }^{\text { }}\) & "a visible object" \\
\hline
\end{tabular}

\subsection*{15.8.1.2 Downtoning}

Adjectives may show apocope-blocking 5.1 as a downtoner. Only singular forms seem to be possible. (All examples KT):

Lì à nē fū-píəlìgā.
Lì à nē fū-píəlìgā lā.
\(L i ̀\) à \(n \bar{\varepsilon}\) wîug.
Lì à nē wíugō.
fū-wíugū \(\begin{aligned} & \text { ā }\end{aligned}\)
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."

\subsection*{15.8.1.3 Bahuvrihis}

The combination noun + adjective may be used as a bahuvrihi adjective itself:
```

$L i ̀$ à $n \bar{\varepsilon} n u ̄ 1-k p i i l o ́ n$.
Bīig lā á nē nū'-kpíilóp.
Ò à nē bí-[nū'-kpíilón].
kùg-nכ̄b-wók ${ }^{\text {² }}$
kùg-nכ̄b-wâ'ad ${ }^{\varepsilon}$
zūg-máuk̉ pl zūg-mâ'ad ${ }^{\varepsilon}$
zù-wう̄k ${ }^{\text {/ }}$
nว̄b-gín ${ }^{\text {a }}$
zū-péعlù ${ }^{\supset} \mathrm{pl}$ zū-pé $\varepsilon / a^{+}$
lām-fôว $g^{\supset} \mathrm{pl}$ lām-fôว $d^{\varepsilon}$

```
"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 sכ' 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" 15.5.2.3 are often used in bahuvrihis: nifn̆yáuk \({ }^{\text {º }}\) "one eye", bà-nīf-n̆yáuk \({ }^{\text { }}\) "one-eyed dog"; tòb-yīun \({ }^{\text {J/ "one ear" bì-tòb-yı̄ná+ }}\) "one-eared children."

The construction is not modification of an adjective by a cb. In cases like bì-nū'-kpíilún \({ }^{\text {د }}\) "child with a withered hand" the adjective is modifying the cb immediately preceding it, not vice versa: it is not possible to say *bì-nū'-kpîim \({ }^{m}\). The adjective may even be plural despite singular reference of the whole compound:
\[
\begin{array}{cc}
\text { bì-tùb-kpīda }^{+} & \text {"deaf child" (tùbur } \\
\text { pl } & \text { bì-tùb-kpīda }{ }^{2} \text { ", kpí+ "die") } \\
& \text { bì-tùb-lı̄ıd }{ }^{\varepsilon}
\end{array}
\]

\subsection*{15.8.1.4 Nouns as adjectives}

Human-reference nouns may be used as adjectives modifying other humanreference nouns. This is particularly common with \({ }^{\mathrm{a}} \mid b^{\mathrm{a}}\) class words:
\begin{tabular}{|c|c|c|}
\hline & bì-sāan \({ }^{\text {a/ }}\) or bì-sáan \({ }^{\text {a }}\) & "stranger-child" \\
\hline \multirow[t]{2}{*}{[only} & bù-sáan \({ }^{\text {a }}\) & "stranger goat"] \\
\hline & bì-kpi \({ }^{\text {im/ }}\) \% or bì-kpìilún \({ }^{\text {² }}\) & "dead child" \\
\hline \multirow[t]{2}{*}{[only} & bù-kpìilún & "dead goat"] \\
\hline & bì-dāu \({ }^{+}\)or bì-dāug \({ }^{\text {a }}\) & "male child" \\
\hline \multirow[t]{3}{*}{[only} & bù-dāog \({ }^{\text {a }}\) & "male goat"] \\
\hline & bì-pu'āa or bì-pūāk \({ }^{\text {a }}\) & "female child" \\
\hline & bì-zū'өm \({ }^{\mathrm{m} /}\) or bì-zùnż̀ \({ }^{\text {a }}\) & "blind child" \\
\hline
\end{tabular}

The same behaviour is also seen with some agent nouns:
pu'à-zàan̆s \({ }^{\text {a }}\) "dreamy woman" KT
nīn-nénna "envious person"
bì-sīnna/ or bì-sinnníga "silent child"
only bù-sīnníga or bù-sīnnúg \({ }^{\text {a }}\) "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 \(g^{\mathrm{a}} \mid s^{\varepsilon}\) or \(r^{\varepsilon} \mid a^{+}\)class, even with derivatives of intransitive verbs:
```

pư'à-Kōvdíga
pư'à-kūod}\mp@subsup{}{}{\textrm{a}/
pul'à-lā'adıga}\mp@subsup{}{}{\mathrm{ a m}
pu''à-lā'ada

```
"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:
\begin{tabular}{|c|c|}
\hline bì-zùnż̀ \({ }^{\text {a }}\) & "blind child" \\
\hline bì-gì \({ }^{\text {a }}\) & "dumb child" \\
\hline bì-wàbır \({ }^{\text {e }}\) & "lame child" \\
\hline bì-bāl̄זrıg \({ }^{\text {a }}\) & "ugly child" \\
\hline bì-pòn̆'วr \({ }^{\text {c }}\) & "crippled child" \\
\hline
\end{tabular}

Other examples, which are effectively appositional, include:
nàsàa-bïiga \({ }^{\text {a }}\)
yàmmug-bī-púna
yàm-bī-póna
(vs yàmmog bí-púna
bī-púy-yàmmug \({ }^{\text {a }}\)
nà'-bïig \({ }^{\text {a }}\) or bì-nà'aba
dàu-bïiga or bì-dāu \({ }^{+}\)
```

"European child"
"girl slave" (yamug bipun Acts 16:16, 1976 8.2)
"girl slave" WK
"slave's girl")
"slave girl"
"prince"
"male child"

```

\subsection*{15.8.2 Quantifiers}

Quantifiers as determiners follow the head, except for yïigá+ "firstly." A head can appear as a cb only with yīnní+ "one" and in a few fixed expressions like dà-pïiga "ten days"; elsewhere, quantifiers are not subject to M dropping: kūg-yínnì "one stone" but kūgvr yīnní+ "one stone."

Quantifiers precede dependent pronouns and \(\overline{l a}^{+/}\)"the, that", n̆wà \({ }^{+}\)"this":
bunama atan' nwa "these three things" (1 Cor 13:13)
bōn-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'andدlib pii ne yi
ò ňyà'an-dう̀llıb piii n̄ yí'
3AN after-follower:PL ten with two
"his twelve disciples" (Mt 26:20)

\subsection*{15.8.3 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. Àmēyá "really, truly" occurs in the meaning "genuine, real":

כ̄n sכ̄b á n̄̄ dư'átà àm \(\bar{\eta} \eta a ́ ~ l a ̄ . ~\)
3AN.CNTR NULL.AN COP FOC doctor:SG ADV:real:ADV ART
"That one's the real doctor."

With n̆wādıs yôvm lā póvgū-n "months in the year" (SB) and wābug mj̄دgu-n Iā "the elephant in the bush" (WK), I have not recorded the full contexts, possibly e.g. M̀ dāa n̆y \(\bar{\varepsilon}\) wābug mכ̄כgu-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-sùn Jesus Christ Wínà'am bîig lā yélà.
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 labasun.
Lìnā á n̄̄ Yesu Kiristo ónì à Wínà'am bîig lā lábà-sùn.
demstin cop foc Yesu Kiristo rel.an cop God child:sg art news-good:sg.

\subsection*{15.8.4 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:
\begin{tabular}{llll} 
bïiga & "child" & bì-kànā+/ & "this child" \\
bì-s̄̄'+ \(^{+}\) & "a certain child" & bì-sùn-kà \(n a ̄+/\) & "this good child" \\
bì-kàne? & "which child?" & bì-bó? & "what child?"
\end{tabular}
yعاtววd ауэрэi bane ka maliaknama ayวpэi mor la
y \(\bar{l}\)-tôวd àyópj̀e bánì kà màliāk-námá_àyópj̀e 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)

\subsection*{15.8.5 Deictic particles Iā n̆wà}
\(L \bar{a}^{+/}\)and n̆wà \({ }^{+}\)are corresponding deictic particles "that" and "this." Although n̆wà always retains this sense, \(\bar{l}^{-+/}\)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 21.4.1 and after demonstratives 15.4.2.

Unlike \(l \bar{a}^{+/}\), n̆wà \({ }^{+}\)can stand alone as a NP:

Ňwà á n̄̄ bïig.
This cop foc child:Sg.
"This is a child." WK; tones sic.
\(L \bar{a}^{+/}\)and ňwà \({ }^{+}\)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 19.10 .

As article, \(\bar{l}^{+}{ }^{+/}\)corresponds in many cases to English "the", marking referents as specific and already established. However, unlike "the", \(\bar{l}^{+/}\)is not typically used for "familiar background", unless there was an explicit prior mention of the referent:

> Wìnnıg lí 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", À-Wīn "Awini", Bj̀k "Bawku." Nor is it used with abstract mass nouns:

Noמilim pu naada. "Love does not come to an end." (1 Cor 13:8)
Nう̀מılím pū nāadá \({ }^{+} \varnothing\).
Love neg.Ind finish:IPFV neg.
\(L \bar{a}^{+/}\)is not used in vocatives, contrasting with ňwà \({ }^{+}\), which often appears:

Bïiga \({ }^{+} \varnothing\) !
"Child!"
Child:sg voc!

Bīis n̆wá!
"Children!"
[bi:sa]

There is no indefinite article: a NP with no \(I^{+}+/\)is indefinite if it could have taken \(\bar{I}^{+/}\)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 like biig "child" in
```

M bïig kā'e +}\varnothing. "I've no child" W
1SG child:SG neg.be neg.

```
and with the complement of àeña "be something" when used ascriptively 19.11.2:
```

O à n\overline{\varepsilon}}\mathrm{ bïg.
"She is a child."
3AN COP FOC child:SG.

```

An indefinite NP is only likely to have a specific sense in the context of an explicit introductory presentational statement 27.4:

Dau da be mori o biribing
Dāu dá bè_ø mōrí_ò bī-díbìn
Man:sG TNS EXIST CAT have 3AN child-boy:Sg
"Once there was a man who had a son ..." KSS p35

Anina ka o nye dau ka o yo'vr buon Aneas.
Àníná kà ò n̆yē dáu kà ò yō'ur 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)

Outside such contexts, an indefinite NP is usually generic; unlike English "the", \(\overline{l a}^{+/}\)is not used with a generic sense:

Tomtom pu gat o zugdaana.
Tòm-tūm pū gát ò zūg-dáanā \({ }^{+} \varnothing\).
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.
Tìıg wélàa_ø bigısıd lín àn̆ tí-sỉa.
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.

Generic core arguments are incompatible with aspectual use of \(n \bar{\varepsilon}^{+/}\)19.2.1.
A predependent NP ending in \(I \bar{a}^{+/}\)makes the following head definite, and the head does not itself take the article:
```

    dư'átà lā bîig "the doctor's child"
    not *dư'átà lā bîig lā

```

Only predependents with the article and demonstrative pronouns automatically make their heads definite; predependent personal pronouns or proper names do not:

Wínà'am máliāk
Wínà'am máliāk lā
m̀ bïig
m̀ bīig \(\mathfrak{I}\)
"an angel of God"
"the angel of God"
"my child" (at first mention)
"my child" (previously mentioned)

Contrast the common idiom at first introduction of a possessed referent, where \(I^{+}+/\)is absent, with cases where the referent has already been introduced:

Dau da be mori o biribing
Dāu dá bè_ ø mōrí_ò bī-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 ayวpэi ka o sid la kpi.
J́n dāa án̆ pư'á-sādır lá kà ò kūl sīdı_ ø pāe 3AN:NZ TNS COP woman-nulliparous:SG ART and 3AN marry husband:SG CAT reach yómà àyópj̀e 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

M bīig kā'e \({ }^{+} \varnothing\). "I've no child" WK
1SG child:SG neg.be neg.
\(\dot{M}\) bïig lā kā'e \({ }^{+} \varnothing\). "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 \(b \bar{a}^{+/}\)and sàam ma "father."

For an unambiguously indefinite specific meaning like "some, another", indefinite pronouns are used 15.4.3.

Nā'-síabà ón̆bìd nē mכ̄כd.
Cow ind.fl chew:IPFV foc grass:PL.
"Some cows are eating grass."

An indefinite pronoun is necessary to make the head indefinite after a predependent with the article:
dư'átà lā bí-s̄̄' "a child of the doctor's"
doctor:SG ART child indf.AN

\section*{16 Adverbial phrases}

\subsection*{16.1 Overview}

Adverbial phrases typically appear as clause or VP adjuncts, but also occur as arguments of verbs or dependents in NPs 15.7.3. AdvPs of time, circumstance or reason (but not place or manner) may appear as postlinker adjuncts 20.2.1.

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. Many adverbs do not conform to the structure of ordinary nouns.

Absolute clauses are AdvPs 24.2, as are several relative clause types.
As with NPs, coordination of AdvPs uses the particle \(n \bar{\varepsilon}\).

\subsection*{16.2 Time and circumstance}

AdvPs expressing time 29.7 may be instantiated by proadverbs \(\underline{16.7}\) or by structurally distinctive time adverbs such as zīná+ "today", sù' \(\theta s^{\text {a }}\) "yesterday", dūnná+ "this year." B \(\bar{\varepsilon} o g^{\text { }}\) "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 yó'v \(\eta^{\text { }}\) "night", ט́vn \({ }^{\text {ne }}\) "dry season", nīntā \(\eta^{\text {a/ "heat }}\) of the day", but such nouns inflect and may occur with dependents.

Absolute clauses \(\underline{24.2}\) 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 ànínā dábısà bí'əlà.
1PL remain ADV:there day:PL few.
"We stayed there a few days."

Time AdvPs can be coordinated:

B \(\bar{\varepsilon} o g v-n \quad n \bar{\varepsilon}\) zâam kà fù ná nīŋ tí-kànā.
Morning-Loc with evening and 2SGIRR do medicine-DEMST.SG.
"You'll use this medicine morning and evening."

\subsection*{16.3 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 yìna "outside",
 off" (perhaps from lāl ní \({ }^{+}\).)

The locative particle takes the form \(n \bar{l}^{+/}\)after words ending in a short vowel in SF, after pronouns and after loanwords, and the liaison-word form \(n^{\varepsilon}\) elsewhere:
\begin{tabular}{llll} 
mù'arī-n & "in a lake" & yūdá \(n i ̀\) & "among names" \\
m̀ \(n \bar{\imath}\) & "in me" & mān \(n i ̄\) & "in me"
\end{tabular}
la'asug doدdin ne suoya ni
là'asug dóכdī-n n̄̄ sưēyá nì
assembly:sG house:PL-LOC with road:PL LOC
"in the synagogues and in the streets" (Mt 6:2)

Yīr \({ }^{\varepsilon /}\) "house" has the exceptional sg and pl locative forms yín \({ }^{\text {nع }}\) yáa-n \(n^{\varepsilon}\) which have the particular nuance "home", as in the parting formula

Pù'usım yín. "Greet (those) at home." i.e. "Goodbye."

The article \(l \bar{a}^{+/}\)may precede or follow the locative particle, as may quantifiers:
mò'arī-n lā or mò'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:

\section*{Kem Siloam buligini pie fo nini.}

Kèm Siloam búlogū-nı Ø píə_fù nīní.
Go:Imp Siloam well:sG-LOC CAT wash 2 sG eye:PL.
"Go to the well of Siloam and wash your eyes." (Jn 9:7)

Ka Suntaana kprn' Judas [...] sunfun.
Kà Sōtáanà kpéñ' Judas [...] sún̆fi-n.
And Satan enter Judas [...] heart:SG-Loc.
"Satan entered Judas' heart." (Lk 22:3)

Ka Pailet Izn yi nidibin la na ya'asi yeli ba ye...
Kà Pailet lém yī nīdıbí-n lā nā yá'asì_ø yéli_ bā y \(\overline{1} . .\).
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, transposed into the orthography of this grammar:

Ò bè dâ'a-n.
Ò bè siá'arī-n.
Ò bè pว̄כgú-n.
Ò bè yín.
Ò bè mうَدgu-n.
Ò bè kJ̄lıgı-n
Ò bè tōטmmı-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 16.6:

Ò dìgıl gbáun lā tézbòl lā zúg.
3AN lay.down book:SG ART table:SG ART upon.
"She's put the book on the table."

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."

Kusaasi place names are intrinsically locative:

Ò bè BJ́k.
Ò bè Tદ́mpáan.
Ò kèŋ Bók.
"He's at Bawku." ILK
"He's at Tempane." ILK
"He's gone to Bawku."

They often have a locative proform in apposition, particularly to express rest at a place, as opposed to movement towards or away:

M̀ ná \(k \bar{\varepsilon} \eta\) Bók.
Fù yûug Bók kpz̄láa?
Fù yûug Bókàa? SB
"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 \(n \bar{\imath}^{+/}\)or paraphrases like Jerusalem tह́nī-n "in Jerusalem-land."

The locative particle also appears in some time expressions: b \(\bar{\varepsilon} o g{ }^{\text {ºn }}\) "tomorrow", bēogv-n \({ }^{\varepsilon /}\) "morning", yīigí-n \(n^{\varepsilon}\) "at first" sān-sí'ә-n lā "at one time, once..."

Proforms used as locative heads of relative clauses are intrinsically locative:

Ons ken likin zi' on ken si'ela.
J̀nı kēn līkı-n zī' ón kēn sỉəəla \({ }^{+} \varnothing\).
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 ken zin'ikane ka fu pu booda.
kà mōrí_fù ø kēŋ zín̆'-kànı kà fù pū bóכdā \({ }^{+} \varnothing\).
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)

Locative AdvPs can be coordinated:

Nyalima na be winnigin ne nwadigin \(n \varepsilon\) nwadbibisin.
Ňyālımá nà bé wínnìgī-n nē n̆wādıgí-n ne n̆wād-bíbısī-n.
Wonder:PLIRR 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)

Reason-why AdvPs are constructed by a metaphorical extension of the sense of the postposition \(z \bar{u} g\) "upon"; similarly for proforms:
\[
\begin{array}{llll}
\text { àlá zùg } & \text { "therefore" } & \text { b̄̄ zúgコ } & \text { "why?" } \\
\text { dìn zúg } & \text { "therefore" } &
\end{array}
\]

\subsection*{16.4 Manner}

AdvPs of manner may be instantiated by proforms, and there also are several morphologically distinctive manner-adverb formations; like specialised time adverbs, specialised manner-adverb words do not take dependents. However, various NP types can also be used as manner AdvPs.

Distinctive manner-adverbs often show apocope-blocking 5.1. Some have the manner-adverb prefix à- 13.2 or are derived from adjective stems with the suffixes \(m^{\mathrm{m}}\) or -ga+ 11.2. Others include
pāalú+ "openly" n̆yāe nع/ "brightly, clearly"
\(\check{N} y a \bar{e} e^{n \varepsilon /}\) appears as complement of àeñ̆a "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 lîəb n̆yāe.
... cause and 1pL become brightly.

Ka li sid nie nyain.
"And there truly was light." (Genesis 1:3)
Kà lì síd nìe n̆yāe.
And zin truly appear brightly.

The spelling nyain appears for n̆yāe "brightly" even in texts prior to 2016, where nyainn or nyai might have been expected. The 1992 audio NT renders it [j̃ãĩ].

A number of manner-adverbs are formed by reduplication of roots:
```

nà'anā+/ "easily" kj̄n̆'כkj̄+ "solely, by oneself"
tう'0tラ̄+/ "straight away"

```

Reduplication of nouns or numbers 15.5.2.4 creates distributive manner-AdvPs:
dàbısır dábısìr
zīn'ig zîn'ig
```

"day by day"
"place by place"

```

Reduplication of manner-adverbs themselves is intensifying:
àmēná mēná
àsídà sídà

M wóm Kūsâal bỉəlá. \(\quad\) I know Kusaal a little."
1sg hear:IPFV Kusaal slightly.
"very truly"
"very truly"

M wóm bỉəl bỉəl. "I understand a very little."
1sG hear:IPFV little little.

A very common form of manner-AdvP is a relative clause using the proform \(s i \quad \partial m^{\mathrm{m}}\) "somehow" as head 24.3.1.

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 nכ̄bá. "I went on foot." SB; WK corrected this to
1sG go leg:PL. \grave{M}k\varepsiloń\eta n\overline{\varepsilon} nכ̄bá, using n\overline{\varepsilon "with."}

```

A prepositional phrase with \(n \bar{\varepsilon}\) parallels a count plural used adverbially in

À-ňȳ̄ n̄ nīf són̆'כ_ À-wòm tùba.
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 bédugū.
Ò tùm pāmm.
"She's worked a lot."
"She's worked a lot."

Wūsa "all" readily switches from quantifying an object to adverbial use:

Bà gว̀sī tí wōsa. "They've looked at us all." WK
3PL look.at 1PL.OB all. (for: Bà gj̀sí tì wūsa. 3PL look.at 1PL all.)

This is not a universal property of quantifiers:

Bà gòsī tí bédugū.
Bà gj̀sí tì bèdugū.
"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" 15.5.2.4; other count quantifiers sometimes appear similarly as adverbs:

Bà gj̀sī tí bábıgā.
Bà gj̀sí tì bàbıgā.
"They've looked at us many times." WK
"They've looked at many of us." WK

Manner AdvPs can be coordinated: so for example with sỉəm clauses 24.3.1.

\subsection*{16.5 AdvPs as verb arguments}

The prototypical use of AdvPs is as VP adjuncts; time/circumstance AdvPs also commonly appear as postlinker adjuncts:

Fò dúe wēlá \({ }^{+}\)Ø?
2SG rise how CQ?

Nānná-ná m̀ án̆ nâ'ab. "Now I am a chief." WK
Now-hither 1sG cop chief:Sg.

AdvPs also occur as verb arguments. AdvPs as subjects are most often seen with stative verbs, in particular àeña "be something/somehow."

Yip venl, ka poogin ka'a su'um.
Yī vén̆l kà pōogu-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 bap nopilim an si'em.
Kristo_ø dà kpìi_tì yह̄lá lā ké kà tì báp nว̀מılím_ø àn̆ sīəm.
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 \(\underline{24.2}\) as subject)
In Sùnā bé.
Good:ADV ExIST.
sùgā is however used metalinguistically, meaning "the word sòjā."
Verbs with appropriate meanings frequently take locative AdvPs as complements, rather than as adjuncts 19.8.3.

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 19.11.2:
\begin{tabular}{ll} 
Lì à \(n \bar{\varepsilon}\) zāalím. & "It's empty." \\
Lì à \(n \bar{\varepsilon}\) būgusígā. & "It's soft." \\
Lì à sónā. & "It's good."
\end{tabular}

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 nípì_àláa +ø! "Don't do that!" ("thus")
NEG.IMP do adv:thus neg.

Fu wum ban yet si'em laa?
Fù wóm bán yz̀t sỉəm 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 sỉəm \({ }^{\mathrm{m}}\) "somehow" as head are accordingly used after verbs of cognition, reporting and perception, to express the subordinate interrogative sense "say [etc] what ..." 24.3.1.

For the idiom "X nìp wēlá ...?" "how can X ...?" see 22.2.1.

\subsection*{16.6 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 ne fun suugine?
"[what is there] between us and you?" (Mt 8:29)
tīnám n̄̄ fūn súvgū-ń́ \({ }^{+} \varnothing\) ?
1 pL with 2SG between-LOc cQ?

Many postpositions represent special uses of ordinary nouns. Some are AdvPs which include the locative particle.
```

zūg\mp@code{J/ "onto" (zūg}\mp@subsup{g}{}{\prime/ "head"):}

```
tézbùl lā zúg "onto 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 20.2.1:
\begin{tabular}{ll} 
dāu lā zúg & "on account of the man" \\
bj̄-zúgj̀? & "why?"
\end{tabular}

Mán n̆wغ̀' dāu lā zúg kà police gbáň'a_m.
1SG:Nz strike man:SG ART upon and police seize 1SG.OB.
"Because I struck the man the police arrested me." \(\underline{24.2}\)

Pian＇akane ka m pian＇tisi ya la zug，ya ane nyain．

Word－rel．sg and 1sG speak CAT give 2PL．ob ART upon，2PL COP FOC brightly．
＂Because of the the words I have spoken to you，you are clean．＂（Jn 15：3）

The set expression sāa zúg³ is used for＂sky＂；it is intrinsically locative：

Ka kukJr yi saazug na ．．．
Kà kùkj̄r yī sāa zúg nā．．．
And voice emerge rain onto hither
＂And a voice came from heaven．．．＂（Jn 12：28）
zūgó－ \(\boldsymbol{n}^{\varepsilon}\)＂on＂：
té \(\varepsilon\) bùl lā zúgō－n＂on the table＂

tézbòl lā ténìr＂under the table＂
pūugu－n \(\boldsymbol{n}^{\varepsilon /}\)＂inside＂（ \(p \bar{v} \cup g^{\text {a }}\)＂belly，inside＂）：
dōk lā póvgū－n
n̆wādıs yôvm lā póvgū－n
```

＂in the pot＂ ＂months in the year＂（metaphorical locative）

```
bābá＋＂beside＂（pl of bābır \({ }^{\varepsilon /}\)＂sphere of activity＂）：
m̀ n亏̄bá bàba ＂beside my feet＂
sìsùvgū－ \(\boldsymbol{n}^{\varepsilon /}\)＂between＂（replaced by sòvgū－n \(n^{\varepsilon /}\) in KB）：
tīnám nē fūn sísòvgū－n＂between us and you＂
tù̀日 \(^{\boldsymbol{n \varepsilon}}\)＂in front of＂（with no predependent Gう̀sım tûөn！＂Look to the front！＂）：
dāká lā tûen
＂in front of the box＂
gbìn \({ }^{\text {ne }}\)＂at the bottom of＂（gbìnne＂buttock＂）：
zūer lā gbín＂at the foot of the mountain＂
n̆yá＇aク \({ }^{\mathbf{a}}\)＂behind；after（time）＂（n̆yá＇an \({ }^{\text {a }}\)＂back＂，lì n̆yá＇aク \({ }^{\text {a＂afterwards＂）：}}\)

NĒ＇ná ňyâ＇aŋ kà ò kūl．＂After this she went home．＂
demstin after and 3AN go．home．
\(\boldsymbol{s a ̄}^{\boldsymbol{\prime}} \boldsymbol{a n}^{\varepsilon /}\)＂into／in the presence of＂，＂in the opinion of＂：

Wínà＇am sâ＇an＂in the sight of God＂

Fù ná dỉ＇e tîlm 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．＂
\(\boldsymbol{y} \bar{\varepsilon} / \mathbf{a}^{+}\)＂about，concerning＂（pl of \(\left.y \bar{\varepsilon}\right|^{\mid \varepsilon /}\)＂matter，affair＂）：

Bà yह̀l•ō＿Ø mān yह̄lá wūsa．
3PL say 3AN．OB 1SG．CNTR about all．
＂They told him all about me．＂


\section*{16．7 Proadverbs}
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow{5}{*}{Place} & \multicolumn{2}{|l|}{Demonstrative} & \multirow[t]{2}{*}{Indefinite zin̆＇－sí＇a＋} & \multicolumn{2}{|l|}{Interrogative} \\
\hline & \(k p \bar{\varepsilon}^{+}\) & ＂here＂ & & yáa ní＋ & ＂where？＂ \\
\hline & kpēlá＋ & ＂there＂ & ＂somewhere＂ & yáa & ＂whither \\
\hline & àní \({ }^{+}\) & ＂there＂ & & & ／whence？＂ \\
\hline & ànínā \({ }^{+/}\) & ＂there＂ & & & \\
\hline \multirow[t]{3}{*}{Time} & nānná \({ }^{+}\) & ＂now＂ & sān－sí＇a＋ & sān－kán \({ }^{\text { }}\) & ＂when？＂ \\
\hline & nānná－nā＋／ & ＂now＂ & ＂sometime＂ & \(b u ̄ n-d a ̂ a r^{\varepsilon}\) & ＂which day？＂ \\
\hline & sān－kán \({ }^{\text { }}\) & ＂then＂ & & bう̀－win \({ }^{\text {ne }}\) & ＂what time of day？＂ \\
\hline \multirow[t]{3}{*}{Manner} & àňwá＋ & ＂like this＂ & \(s J^{\prime} \quad 2 m^{\mathrm{m}}\) & w \({ }^{\text {la }}{ }^{+}\) & ＂how？＂ \\
\hline & àwá \(n \bar{a}^{+/}\) & ＂like this＂ & ＂somehow＂ & & \\
\hline & àlá \({ }^{+}\) & ＂like that＂ & & & \\
\hline
\end{tabular}

The indefinites are used in relative clauses 24．3．1．
The à－of the＂manner＂forms is preceded by the LF－final vowel－ı 7．2．1．
Proforms expressing reason are formed with the postposition zūg \({ }^{\nu /}\) ：àlá zùg \({ }^{\nu}\) ＂because of that＂，bう̄zúgò？＂why？＂（cf bう̄ zúgう̄＂because＂20．2．1．）

\section*{17 Ideophones}

Adjectives cannot themselves take adverbs as modifiers. In e.g.

Lì à nē píalìg 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-píalìg 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.
\begin{tabular}{|c|c|c|}
\hline Lì à nē píəlìg fáss fáss. & "It's very white." & \\
\hline Lì à nē sābilíg zím zím. & "It's deep black." & \\
\hline Lì à nē zín̆'a wím wím. & "It's deep red." & \\
\hline Lì à n \(\bar{\varepsilon}\) fū-zín̆'a wím wím. & "It's a deep red shirt." & WK \\
\hline M̀ n̆y fū-zín̆'a wím wím. & "I've seen a deep red shirt." & WK \\
\hline Fū-zín̆'a wím wím bé. & "There's a deep red shirt." & WK \\
\hline M̀ bôวd fū-zín̆'a wím wím lā. & "I want the deep red shirt." & WK \\
\hline Ò à n \(n \overline{\text { w }}\) w \(\bar{k}\) tólılillı. & "She's very tall." & \\
\hline Ò à n \(\bar{\varepsilon}\) gīn tírıgà. & "She's very short." & \\
\hline Ò wà'am tólıîlı. & "She's very tall." & \\
\hline Ò gìm nē tírıgà. & "She's very short." & \\
\hline
\end{tabular}

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\varepsilon\overline{ b\varepsiloň'\varepsilond 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 tòm pāmm.
Ò tòm hālí.
Ò zう̀ pāmm.
Ò z̀̀ hālí.
"She's worked hard."
"She's worked hard." 27.6
"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 zi'eya "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 nyane due o meni zi'e sapii.
kà kú n̆yāpı Ø dúe ò mēpı_ \(\varnothing\) zí'e sāpu.
and neg.IRR prevail Cat rise 3AN self CAT stand IDEO
"and was not able to rise and stand straight." (Lk 13:11, 1996)

\section*{maalim suoraug sappi mכวgin la}
màalım sūā-dâvg sāpı mכ̄ogu-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 ňyāen \({ }^{n /}\) "brightly", for example 16.4.

A third type of ideophone overlaps with emphatics 27.6: so, for example kímm in \(B \bar{\jmath}\) kímm "what exactly?" 15.4.4.

\section*{18 Prepositions}

Prepositional phrases function typically as VP adjuncts, less often as complements. They cannot form components of noun phrases directly. Neither prepositions nor their complements can be coordinated. Except for \(n \bar{\varepsilon}\) "with", the prepositions also appear as clause adjuncts 20.2.1.
\(\boldsymbol{N} \overline{\boldsymbol{\varepsilon}}\) is "with" in both accompanying and instrumental senses. The \(n \bar{\varepsilon}\) "and" which coordinates NPs and AdvPs 15.1 is fundamentally the same word. \(N \bar{\varepsilon}\) may only take NPs or AdvPs as complements (including nominalised \(\grave{n}\)-clauses.)

WK has forms with bound personal pronouns as complements; note the H toneme on the preposition:
\begin{tabular}{|c|c|}
\hline \(n i ́ m a\) & nítī+l \\
\hline nífo & ní yā \({ }^{+/}\) \\
\hline \(n \cdot o^{-0}\) [nõ(:)] & ní bā+ \\
\hline ní \(11+1\) & \\
\hline
\end{tabular}

The ne o of the 1996 NT version is frequently read [nũ] in the audio.
Other speakers only use \(n \bar{\varepsilon}\) with free pronouns; WK has alternative forms also with \(n \varepsilon\) before those bound pronouns which have a vowel in SF : ń \(l i ̀, n \varepsilon ́ t i ̀, ~ n \varepsilon ́ ~ y a ̀, ~ n \varepsilon ́ ~\) bà, with the pronouns having L toneme throughout; SB has the same forms.

Examples for \(n \bar{\varepsilon}\) :

Lìgıním_fù nīf né fù nû'ug.
Cover:IMP 2SG eye:sG with 2SG hand:sG.
"Cover your eye with your hand."

Bà kèn n̄̄ nכ̄bá. "They've gone on foot." WK
3PL go with leg:PL.
\(\operatorname{Dìm} n \bar{\varepsilon}\) Wīn, dā tô'as n̄ Wīnné \({ }^{+} \varnothing\).
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 sumbogosom.
"Go home in peace." (Mk 5:34)
Kùlım nē sùmbūgusím.
Go.home:IMP with peace.
[Bárıkà né fù] kēn kēn.
[Blessing with 2sG] arrival arrival.
"Welcome!" (based on a greeting template 28)
\(\grave{M}\) gén̆' nغ́ fù. "I'm angry with you." SB
1SG get.angry:PRV with 2SG.

The compound preposition là'am n \(\bar{\varepsilon}\) "together with" derives from a \(n\)-catenation construction 22.2.2:
...mor ya'am yinne la'am ne ten'عsa yinne.
... mכ̄r 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)

Wūv means "like." With pronoun complements WK has
\begin{tabular}{|c|c|}
\hline wōo mān LF mánè & wóv tì \\
\hline wōo fūn LF fónc̀ & wóv yà \\
\hline wō \(\bar{\sim} n^{\varepsilon}\) & wóv bà \\
\hline wóv lì & \\
\hline
\end{tabular}

WK permits phrases introduced by wōv to be preposed with kà 27.2 , but rejects this construction for \(n \bar{\varepsilon}+\mathrm{NP}\) :

Wūu bún 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 si'əm relative clause 24.3.1:

Ò ż̀t wōvbún ì ż̀t sỉəm lā.
3AN run:IPFV like donkey:SG Nz run:IPFV INDF.ADV ART.
"He runs like a donkey runs."

Wōv occurs often after w \(\bar{\varepsilon} n^{\text {na／＂resemble＂，introducing its complement；the }}\) preposition \(n \bar{\varepsilon}\) is frequently used instead．In any case，the complement is followed by the empty particle \(n \bar{\varepsilon}\) whenever it does not already have the article \(l \bar{a}+/\) ，even if it is a pronoun，or is specific：
wōט mān \(n \bar{\varepsilon}\)
wōט bú n \(n \bar{\varepsilon}\)
＂like me＂
＂like a donkey＂

Ka o nindaa wenne nintan ne．
Kà ò nīn－dáa wēn nē nīntāク n \(\bar{\varepsilon}\) ．
And 3AN eye－face：sG resemble with sun：sg like．
＂His face is like the sun．＂（Rev 10：1，1996）

Alazugo mori ya＇am wov wiigi ne．．．
Àlá zùg亏̄，mう̀rī yā＇am wōo wīigí n \(\bar{\varepsilon} . .\).
Therefore，have sense like snake：pl like．．．
＂Therefore，be wise as serpents ．．．＂（Mt 10：16）

Wōo，w \(\bar{\varepsilon} n ~ w \bar{o} u\), and \(w \bar{\varepsilon} n n \bar{\varepsilon}\) can also be used for＂about＂with numbers．The complement is not followed by the redundant \(n \bar{\varepsilon}\) in this case：
wōv tūsá àyí＇＂about 2000＂
like thousand：PL num：two
\(W \bar{\varepsilon} n n \bar{\varepsilon} X\) and \(w \bar{\varepsilon} n w_{\bar{u}} \mathcal{X}\) ，using \(w \bar{\varepsilon} n^{\text {na／}}\)＂resemble＂in \(n\)－catenation 22．2．2， behave as unitary prepositional phrases to the extent that the entire sequence \(w \bar{\varepsilon} n+\) preposition＋complement can be preposed with kà，or extraposed after the negative prosodic clitic：

Da lo ya nindaase，wenne foosug dim la ninid si＇em la．
Dā ló yà nīn－dáas̄ \({ }^{+} \varnothing\) ，wēn \(n \bar{\varepsilon}\) fj̄כsúg dím lá \(\varnothing\)
neg．Imp tie 2PL eye－face：PL neg，resemble with puff：GER nULL．PL ART NZ
nìıld sïəm lā．
do：IPFV INDF．ADV ART．
＂Don＇t screw up your faces like the hypocrites do．＂（Mt 6：16，1976）
Àsć \(=\) is＂except for＂
àsع́ع Wínà＇am
＂except for God＂（calquing the Twi gye Nyame）

For pronoun complements the free forms are used．

Hālí' means "up to and including."

O daa pun ane ninkuvd hali pin'ilugun sa.
Ò dāa pón à nē nīn-kûvd hālí pī̆̆'ilógū-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)

For pronoun complements, the free forms are used.
Hālí \({ }^{+}\)can also appear as a prelinker adjunct and as an emphatic 27.6. As emphatic "even" preceding \(n \bar{\varepsilon}\) or là'am \(n \bar{\varepsilon}\) "(together) with" and a \(\grave{n}\)-clause complement, it produces the meaning "despite, even though, even as":

Hali la'am ne on daa an yelsum wusa daan la, o da lieb nכdaan...
Hālí là'am n̄̄ ón dāa án̆ yēl-sóm wōsa dâan lā,
Even together with 3AN:NZ TNS COP matter-goodness all owner:SG ART,
ò dà lìəb nכ̄-dâan...
3AN tNs become poverty-owner:SG...
"Despite his having possessed every blessing, he became poor..." (2 Cor 8:9)

Zugsob yعl ye, Hali ne man voe nwa...
Zūg-sób yél yē, Hālí nē mán vūe ñwá...
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 nē mán dāa sכ̄bı_ø tísì yā sīəm lā
even with 1SG:NZ TNS write CAT give 2PL.OB INDF.ADV ART
m̀ dāa pū sūbí \(\ \bar{\imath}\)...
ISG TNS NEG.IND write 3IN.OB ...
"Despite how I wrote to you, I did not write it ..." (2 Cor 7:12)

\section*{19 Verb phrases}

\subsection*{19.1 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 \(-m^{\text {a }}\) appear only when the tone overlay is present.

The system separates tense, marked by preverbal particles, from aspect, marked by verb flexion and postverbal \(n \bar{\varepsilon}^{+/}\). 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 \(-m^{\text {a }}\) 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:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & Tense & & Mood & Preverb & & LW1 & LW2 & \\
\hline lè & dàa & nàm & \(\varnothing\) ¢ \({ }^{\text {cou }}\) & pòn & VERB & \(n^{\varepsilon}\) & \(m^{\text {a }}\) & \(n \bar{\varepsilon}^{+/}\) \\
\hline & sàa & \(\check{n} y \bar{\varepsilon} \varepsilon(t \iota)\) & \(\varnothing \leftrightarrow d \bar{a}\) & lغ̀m & & ya & \(f^{\circ}\) & \\
\hline & \(\varnothing\) & & nà \(\leftrightarrow k \dot{v}\) & tì & & & - & \\
\hline & pà' & & & kpz̀lım & & & \(1{ }^{+}\) & \\
\hline & sà & & & là'am & & & \(t{ }^{+}\) & \\
\hline & dāa & & & dènım & & & \(y a^{+}\) & \\
\hline & dà & & & ... & & & \(b a^{+}\) & \\
\hline
\end{tabular}
\(\varnothing\) marks slots where the absence of a particle can be contrastive.
The particles in the column "Mood" also mark polarity: positive \(\leftrightarrow\) negative.
LW1, LW2 are slots for left-bound liaison words 19.7.3.
For lદ̀ "but" see 19.7.1; for nàm "still" and \(\check{n} y \bar{\varepsilon} \varepsilon(t l)\) "habitually" see 19.3.2; for aspectual \(n \bar{\varepsilon}^{+/}\)see 19.2.1.

Tone Pattern A verbs have all-M tones in the irrealis mood 6.3.

\subsection*{19.2 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 19.6.2.2. Singleaspect 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.

\subsection*{19.2.1 Aspectual \(n \bar{\varepsilon}\)}

Following a verb word with no free words intervening, the VP focus particle \(n \bar{\varepsilon}^{+/}\)27.1.2 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 \(n \bar{\varepsilon}^{+/}\)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 \(n \bar{\varepsilon}^{+/}\)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 \(n \bar{\varepsilon}^{+/}\)cannot be aspectual.
\(N \bar{\varepsilon}^{+/}\)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, \(n \bar{\varepsilon}^{+/}\)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:

\footnotetext{
Ò kù̀
3AN sell:IPFV 3PL.OB FOC.
}

Ò kùөsıd n̄̄ sūmma lā. "She is selling the groundnuts."
3AN sell:IPFV FOC groundnut:PL ART.
but Ò kù̀sıd sūmma lā n̄̄. "She sells/is selling the groundnuts." 3AN sell:IPFV groundnut:PL ART FOC. (VP focussed: "They're not free.")

O zàbıd. "He fights."
3AN fight:IPFV.

Ò zàbıd n̄̄. "He's fighting."
3AN fight:IPFV FOC.
but Ò pū zábıdā \({ }^{+} \varnothing\). "He's not fighting/He doesn't fight." 3AN NEG.IND fight:IPFV NEG.
\(N \bar{\varepsilon}^{+/}\)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 27.4:

Nīigí j̀n̆bıd n̄̄ mう̄כd. Bà nùud n̄̄ 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: Gう̀sım!
"Look!"
B: M̀ gósìd!
"I'm looking!"
A: Fù gósìd néع?
"Are you looking?"
B: M̀ gósìd!
"I'm looking!"

\subsection*{19.2.2 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 23.2. 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 19.3.5. 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 ní. "It rained." (before yesterday.)
Rain tws rain.
but Sāa ní yā.
Rain rain PFV.
"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 \(y \grave{\varepsilon} l y \bar{\varepsilon} \ldots\)... "He says ...." (translating for the foreign doctor)
3AN say that ...

Performatives naturally fall into this category:

M pô'us yā.
"Thankyou", "I thank you."
1SG greet pFV.
(cf Hausa Naa goodèe, also perfective)

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 n̆yé nū'-bíbısá àtán̆'.
1SG see hand-small:PL Num:three.
"I can see three fingers."

M tên̆'عs 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 \(n \bar{\varepsilon}^{+/}\)whenever syntactically permissible, because there is always a topic-time contrast with the situation preceding the action of the verb:
```

Lì bj̀dıg yā.
"It's got lost."
3IN lose PFV.

```
but Lì bj̀dıg n̄̄.
"It's lost."
3IN lose foc.

Most verbs expressing a change of state in the subject are either intransitive or patientive ambitransitive:
Ò kpì nē.
"He's dead."

3An die foc.
\(\grave{M}\) gén̆ \(n \bar{\varepsilon} . \quad\) "I'm tired."
1sG get.tired foc.

Bà kùdug nē.
"They're old."
3PL grow.old foc.

Lì pغ̀'عl nē.
"It's full."
3iN fill foc.

Lì yò nē.
"It's closed."
3IN close foc.
\(\grave{M}\) búg \(n \bar{\varepsilon}\). \(\quad\) I'm drunk." ( \(\leftarrow\) Hausa bùgu)
1sG get.drunk foc.

Ò lèr \(\quad n \bar{\varepsilon} . \quad\) "He's ugly." WK sic
3AN get.ugly foc.

Lì sj̀bıg nē
"It's black." WK sic
3IN blacken foc.

Agentive transitive verbs of dressing express a change of state in the subject:
\(\grave{M}\) ý́ füug. \(\quad\) I've put a shirt on."
1sG put.on shirt:sG.
\(\grave{M} y \varepsilon ́ \quad n \bar{\varepsilon}\) 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:
\begin{tabular}{ll} 
M̀ dá' nē bún. & "I've bought a donkey." \\
1SG buy foc donkey:SG. & ("What have you bought?"; focussed object)
\end{tabular}

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:

\author{
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 22.1. 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_àyí' yé fū-píəlà \(\varnothing\) zi'e 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_àtán̆' kà fù ná mכ̄r bïig lā \(n\) k \(\bar{\varepsilon}\) nā.
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 \(\underline{24.2}\). In the same way, narrative generally features series of tense-unmarked perfectives describing events strictly in order 19.3.5.

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.
Kùkj̀ma dá zàb tāabá à-sj̄n̆'e bỉəlá yદ̀la.
Leper:PL TNS fight each.other PERS-better.than slightly about.
"Lepers once fought each other about who was a bit better." KSS p40

\subsection*{19.2.3 Imperfective}

Without aspectual \(n \bar{\varepsilon}^{+/}\), 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:

\section*{Nīdıb kpîid.}
"People die."
Person:PL die:IPFV.

Nïigí j̀n̆bıd mう̄כd. "Cows eat grass."
Cow:PL chew:IPFV grass:PL.
\(\dot{M}\) zíñ'i.
"I sit."
1sG be.sitting.
With aspectual \(n \bar{\varepsilon}^{+/}\), the imperfective of dynamic verbs has a meaning analogous to the English "progressive."

Nā'-síəbà J́n̆bìd n̄̄ mj̄כd. "Some cows are eating grass."
Cow-INDF.PL chew:IPFV FOC grass:PL.
\(\dot{M}\) zín̆'i \(\quad n \bar{\varepsilon} . \quad\) "I'm sitting."
1sg be.sitting foc.

With verbs describing events the sense is often "time-limited habitual":

Nīdıb kpîid nē. \(\quad\) "People are dying."
Person:PL die:IPFV Foc.

Patientive ambitransitive verbs expressing changes of state can be used in progressive senses:

M̀ yôวd nē kúlìn lā. "I'm closing the door."
1SG close:IPFV FOC door:SG ART.
Kòlın lā yôวd n̄̄. "The door is closing."
Door:SG ART close:IPFV FOC.
\[
\begin{aligned}
& \text { Lì mà'ad nē. } \\
& \text { 3IN get.cool:IPFV FOC. }
\end{aligned}
\]

However, passives 19.8.1.1 cannot be used with progressive meaning:

Dāam lā nûud.
"The beer gets drunk." WK
Beer ART drink:IPFV.

Dāam nûud zīná. "Beer gets drunk today." WK
Beer drink:IPFV today.
but Dāam lā nûud n̄̄. 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, 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 gìm.
3AN be.short.
\(\grave{M}\) mór pú'ā. "I have a wife."
1sg have wife:sg.
"She's short."
ce

With stative verbs, the default interpretation of following \(n \bar{\varepsilon}^{+/}\)is therefore as focussing the VP or a VP constituent:

Ò gìm n̄̄. "He's short." ("I was expecting someone taller.")
3AN be.short foc.
\(\grave{M}\) mór n̄̄ pứ'ā. \(\quad\) 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.]
\[
\begin{aligned}
& \text { Lì vèn } \quad n \bar{\varepsilon} . \\
& \text { 3IN be.beautiful foc. }
\end{aligned}
\]
but Nānnánā, lì vèn nē. "Just now, it's beautiful."
Now, 3in be.beautiful foc.

Lì dāa vén n̄̄. "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, 3IN tns be.deep foc.
"At that time, it was deep."

Mồar 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 \(n \bar{\varepsilon}^{+/}\)27.1.2, \(n \bar{\varepsilon}^{+/}\) must be aspectual even if the verb is stative and there no explicit time marker:

M̀ mór bīisá àtánā.
1SG have child:PL NUM:three.exactly.
"I've got exactly three children."
but \(\dot{M}\) mór n̄̄ biiisá_ 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 án súnā.
3IN TNS COP good:ADV.

Lì dāa á nē súnā. "At the time, it was good." WK
3IN TNS COP FOC good:ADV.

Lì à nē súpā.
3IN COP FOC good:ADV.
"It was good." WK
"It's good." ("Now; it wasn't before." WK)

Emphatics \(\underline{27.6}\) do not reject focus with \(n \bar{\varepsilon}^{+/}\):
bכzugว o ane fo biig men.
bう̄ zúgว́ ò à né fò bïig mén.
Because 3AN COP FOC 25 g child:SG also.
"Because he is your child too." (Genesis 21:13)

\subsection*{19.3 Tense}

\subsection*{19.3.1 Tense particles}

Tense particles come first in the VP, preceded only by lદ̀ \({ }^{\text {en }}\) "but." They are mutually exclusive. They comprise
\begin{tabular}{ll} 
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
\end{tabular}

The day begins at sunrise:

Fò sá gbìs wēlá \(+\varnothing\) ? "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:
\[
\begin{aligned}
& \text { Ò sáa zàb nà'ab lā. } \\
& \text { 3AN TNS fight chief:SG ART. }
\end{aligned}
\]

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 25.2, and in \(\grave{n}\)-clauses within narrative 19.3.5.)

\subsection*{19.3.2 Auxiliary tense particles}

Two particles may occur in the slot following tense particles but preceding polarity/mood particles.

Nàm means "still" or with a negative "yet":

Tìım lā nám bè \({ }^{+} \varnothing\) ? "Is there any medicine left?"
Medicine ART still EXIST PQ? ("Does the medicine still exist?")
dunia nam po pin'il la
dūnıyá \(\varnothing\) nàm pō pīñ'il lā
world:sg Nz still NEG.IND begin ART
"before the world began" (Mt 25:34) ("The world having not yet begun.")

M̀ nám zī'_ \(\quad\) 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 (see \(\underline{22.2}\) on \(n\)-catenation idioms)
 verb is naturally imperfective.

Ò n̆ȳ̄ع zábìd nâ'ab lā.
3AN usually fight:IPFV chief:SG ART.
"He's accustomed to fight the chief." WK

Ò n̆yc̄e ḡ̄sıd nâ'ab lā.
3AN usually look.at:IPFV chief:SG ART.
"He's accustomed to look at the chief." WK

Ò dāa ňȳ̄ع zábìd nâ'ab lā.
3AN TNS usually fight:IPFV chief:SG ART.
"He was accustomed to fight the chief." WK

Ò ह̄en̆ tí zàbıd nē nâ'ab lā.
3AN usually fight:IPFV FOC chief:SG ART.
"He's accustomed to fight the chief." KT
 3AN usually be.sitting there.

Ò ह̄ \(\varepsilon n ̆ t i ́ ~ d i ̄ g ı ~ k p \overline{l a ́ a . ~ " S h e ' s ~ a c c u s t o m e d ~ t o ~ l i e ~ t h e r e . " ~ K T ~}\)
3AN usually be.lying there.

Ti \(\varepsilon \varepsilon n t i ~ p o ~ s o b i d ~ d i n e ~ k a ~ y a ~ n a ~ k a r i m ~ k a ~ k u ~ n y a p i ~ g b a n ' e ~ l i ~ g b i n n e . ~\)
Tì \(\overline{\varepsilon n ̆ ̆ t i ́ ~ p u ̄ ~ s o ̄ b ı d ~ d i ́ n i ̀ ~ k a ̀ ~ y a ̀ ~ n a ́ ~ k a ̄ r i ́ m ~ k a ̀ ~ k u ́ ~ n ̆ y a ̄ p ı \varnothing ~}\) 1PL usually neg.Ind write:IPFV REL.IN and 2PL IRR read and NEG.IRR prevail CAT gbáň'e lì gbìnnē \({ }^{+} \varnothing\).
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)

\subsection*{19.3.3 Discontinuous past}

My informants use the discontinuous-past marker \(n^{\varepsilon}\) to make an earliertoday past with indicative meaning:
\(\grave{M}\) ón̆bıdī-n sūmma. "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 23.1.1.

\subsection*{19.3.4 Periphrastic future constructions}

Kusaal does not use tense-unmarked indicative imperfectives for immediate future (like English "I'm going home.") Note the use of the perfective in
\begin{tabular}{ll}
\(\grave{M}\) kúl yā. & equivalent in usage to "I'm going home now." \\
1SG go.home PFV. & Perfective as an instantaneous present 19.2.2
\end{tabular}

There are two periphrastic indicative constructions for "to be about to ...": (a) bj̀ \(d^{\text {a }}\) "want" + gerund. The subject need not be animate; the construction is only possible with gerunds from dynamic verbs.

Tìıg lā bôวd lïig. \(\quad\) "The tree is about to fall."
Tree:Sg ART want fall:Ger.

Yo' מטט boכd gaadug, ka beog bככd nier.
Yó'u bôวd gáadùg kà bēog bôวd nîər.
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 25.2.)
\(\grave{M}\) ý́ m̀ kūā sūmma. "I'm going to hoe groundnuts." 1sG that 1sG hoe groundnut:PL.
\(\grave{M}\) ý́ m̀ kiá nīm. \(\quad\) I'm going to cut meat"
1sG that 1 sg cut meat:sg.

\subsection*{19.3.5 Implicit tense marking 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:

Nīdıb kpîid nē. \(\quad\) "People are dying."
Person:PL die:IPFV foc.

Nīdıb kpîid.
"People die."
Person:PL die:IPFV.

Ò mòr pứā.
3AN have wife:sg.

Ò kpì yā.
3AN die pfV.
"She's died."
("present perfect" 19.2.2)

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:
```

    Fù sáa nà kūl. "You'll go home tomorrow."
    2SG TNS IRR go.home.
    or Fò sáa nà kūl b\varepsilon\overline{log.}
2SG TNS IRR go.home tomorrow.
or Fù nà kūl b\overline{Og.}
2SG IRR go.home tomorrow.
cf Fù ná kūl. "You will go home."
2SG IRR go.home (today, tomorrow, next week ...)
M pá' \grave{ňbıdī-n sūmma. "I was eating groundnuts earlier today."}
1SG TNS chew:IPFV-DP groundnut:PL.
or M
1SG chew:IPFV-DP groundnut:PL.

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M̀ sá zàb nâ'ab lā sû'es. "I fought the chief yesterday."
1SG tNs fight chief:SG ART yesterday.
or \(\dot{M}\) záb nâ'ab lā sû'өs.
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 30.1 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 30.2 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, \(k p \bar{\varepsilon}\) "here" and spatio-temporal deictics like kàmā "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.) Informants interpreted isolated kà-clauses without tense marking as fragments of narratives expressing events, leading to consistent rejection of any aspectual interpretation of the particle \(n \bar{\varepsilon}^{+/}\)in favour of constituent focus; but with tense marking, \(n \bar{\varepsilon}^{+/}\)was taken as aspectual just as in clauses without kà:

Lì bj̀dıg n \(\bar{\varepsilon}\).
3IN get.lost foc.
Kà lì bódìg nē.
And 3in get.lost foc.

Bà kùdıg n̄.
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

\footnotetext{
"They're old."
}

Kà bà kúdìg nē. And 3PL get.old foc.

But Kà lì dāa bódìg nē.
And \(\sin\) tns get.lost foc.

Kà bà sá kòdıg nē.
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 yoma pii ne ayi' la, ka ba ken malv la wov ban énti nipid si'em la. Ka malv la dabisa naae la, ka ba Iعbidi kun. Ka Yesu kpelim Jerusalem tenin ka o ba' ne o ma pu baŋ ye o kpelim yaa. Ba daa ten'عs ye o dכIne ba ten dim la, ka ken ...
Kà Yesu_ø dāa án̆ yómà pīi né àyí' lā, kà bà kēŋ málùn And Jesus nztns cop year:pl ten with num:two ART, and 3pl go sacrifice:sg
 art like 3PL:Nz usually do:IPFV IndF.ADV ART. And sacrifice:SG ART day:PL NZ nāe lā, kà bà lébıdì ø kūn. Kà Yesu kpélìm Jerusalem finish ART, and 3PL return:IPFV CAT go.home:IPFV. And Jesus remain Jerusalem ténī-n kà ò bā' né ò mà pū báp yé ò kpغ̀lım land:sG-LOC and 3AN father:SG with 3AN mother:SG NEG.IND realise that 3AN remain yāa \({ }^{+} \varnothing\). Bà dāa tēn̆'عs yé ò d̀̀l né bà tèn-dìm lā, kà k \(\bar{\eta} . .\). PFV NEG. 3PL TNS think that 3AN accompany FOC 3PL land-person.PLART, 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" Ò mà dá à \(n \bar{\varepsilon} . .\). in the genealogy of Jesus in Matthew 1.1ff 1996, which has dozens of clauses of the pattern kà X dư'á Y "and X begat Y":

Ka Jese du'a na'ab David. Ka David du'a Solomon. O ma da ane Uria pu'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 nē 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)

In contrast, the genealogy in Luke 3:23ff 1996, which moves backwards in time, has dozens of consecutive examples of

> kà X sâam dá à \(n \bar{\varepsilon} \mathrm{Y}\) "and X's father was Y"
> and X father:SG TNS COP FOC 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 ane \(Y\) at the beginning of paragraphs in the text, but \(k a\) \(X\) saam an \(Y\) otherwise.

Tense-unmarked dynamic-verb imperfectives can appear without aspectual \(n \bar{\varepsilon}^{+/}\)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 y
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 súnā ón dāa án̆ bílīa láa \({ }^{+} \varnothing\) ?
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'on tien Yesu n sa yel si'el la ye ...
Kà Pita yō'un tíen̆ Yesu \(n\) sà yèl sīəəl lā ȳ̄...
And Peter then remember Jesus nz tns say ind.in 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 27.2, 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 20.2.1, 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

\section*{Ka ban ken la, Jesus gbisid ne.}

Kà bán kēn lā, Jesus gbīsıd 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 gberm zeعg 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 25.2.1; cf:

Amaa ba da zכt o ne dabiem, ban da pu nip o yadda ye o sid ane nya'anda la zug. Amaa ka Barnabas zaŋ Saul n mor o key ...
Àmáa bà dà zòt•ō_ø n̄ dábīəm, bán dà pū nín•ò ø
But 3PLTNS fear:IPFV 3AN.ob FOc fear, 3PL:NZ TNS NEG.IND do 3AN.ob
yáddā yé ò sìd à nē n̆yâ'an-dj̀l lā zúg. Àmáa kà Barnabas
faith that 3AN truly COP FOC after-follower:SG ART upon. But and Barnabas
záp Saul \(n\) mōr•ó_ø ø k \(\bar{\eta} \ldots\)
take Saul cat have 3an.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 bīiga \({ }^{+} \varnothing\), bj̄zúg亏̄ Elizabet dá à n̄̄
3PLTNS NEG.IND have child:SG NEG, because Elizabeth TNS COP FOC
kúndù'ar kà bà bàyí' lā wūsa mé kùdıg nē.
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 kudig hali.)

\subsection*{19.4 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 \(\bar{p} \bar{v}\). 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 \(n \bar{\varepsilon}^{+/}\)with aspectual meaning.

Imperative mood is negated by dā. With dual-aspect verbs carrying the independency-marking tone overlay it shows a special inflection \(-m^{\text {a }}\) 19.6.2.2 but otherwise the verb word coincides in form with the indicative.

Ò vùl tîım kà ò nóbìr pō zábs̄ \({ }^{+} \varnothing\).
3AN swallow medicine and 3AN leg:SG neg.Ind fight neg.
"She took medicine and her leg didn't hurt." WK
Ò vùl tîım kà ò nóbìr dā zábē \({ }^{+} \varnothing\).
3AN swallow medicine and 3an leg:SG NEG.IMP fight neg.
"She took medicine so her leg wouldn't hurt." WK

The \(-m^{\mathrm{a}}\) imperative of dual-aspect verbs is perfective by default:
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K\grave{n̆sım! "Cough!"}

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Imperatives without independency-marking tone overlay make perfective/imperfective distinctions in the usual way by verb flexion:

Dā kón̆s̄̄ \(+\varnothing\) !
NEG.IMP Cough NEG!
Dā kón̆sıdā \(+\varnothing\) ! "Don't cough!" (Explaining before the operation
NEG.IMP cough:IPFV NEG!
"Don't cough!" (To a patient who has coughed during an eye operation with local anaesthetic) what to avoid throughout)

See 21.3 on the postposed 2 pl pronoun \({ }^{\text {ya }}\) in commands to several people.
The particle \(n \bar{\varepsilon}^{+/}\)cannot appear in its aspectual sense with the imperative, but àlá "thus" after imperatives imposes continuous/progressive meaning:

Dìm!
Dìmí àlá!
"Eat!"
"Carry on eating!"

Informants contract -í-à- either to -í- or to -á-: [dimila] [dimala].

Dìmī-ní_ àlá! "Keep ye on eating!" [dımınıla] [dıminala]
Eat:IMP-2PL.SUB ADV:thus!

Single-aspect verbs used as imperatives frequently add àlá:

Zi'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 ànínā! "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!
\(D \bar{a} \quad g \bar{s} \varepsilon{ }^{+} \varnothing!\)
"Don't look!"
NEG.IMP look NEG!

Kèl kà ò gj̄s! "Let her look!"
Cause:IMP and 3AN look!

Kદ̀m nā n gj̄s! "Come and look!"
Come:IMP hither CAT look!

Ḋ̀llī-ní_ m! "Follow ye me!"
Follow-2PL.SUB 1SG.OB!

Mòr nīn-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 6.3. 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 \(\underline{23.1}\) for its use in conditionals.

Ò dāa ná zāb nâ'ab lā. "He would have fought the chief" (but didn't) 3AN TNS IRR fight chief:SG ART.

\subsection*{19.5 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 7.1. Aspectual \(n \bar{\varepsilon}^{+/}\)is incompatible with negative polarity.

Indicative mood is negated by \(p \bar{u}\) (for some speakers \(b \bar{u}\), as in Toende Kusaal.) Imperative is negated by dā; conversely, forms which are negated by dā are imperative. Irrealis is negated by kù, which replaces the positive irrealis marker nà. Younger speakers sometimes use kù for \(p \bar{u}\), but none of my informants accepts this.

> Ò zàb nâ'ab lā.
> 3AN fight chief:SG ART.

Ò pū 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. "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 19.6.1.1. Negative prosodic clitics appear as usual.

Kā'e् \({ }^{+}\)"not be, not have" appears as kā' before a complement 7.3. It is the negative to both "be" verbs, àeñ \({ }^{a}\) "be something/somehow" and \(b \dot{\varepsilon}{ }^{+}\)"be somewhere, exist" and also to \(m \bar{\jmath} r^{a / ~ " h a v e . " ~ * P \bar{u}} b \varepsilon\) is not found, but \(p \bar{u}\) m \(\bar{r}\) is quite common; \(p \bar{u}\) áen̆ is rare but can be found in contrastive contexts 19.11.2. Examples:

Dāu lā kā' ná'abā \({ }^{+} \varnothing\). "The man isn't a chief."
Man:Sg ART NEG.be chief:Sg NEG.

Dāu lā kā' bïiga \({ }^{+} \varnothing\). "The man hasn't got a child."
Man:sg art neg.have child:sg neg.

Pư'ā lā mór bïig, àmáa dāu lā kā'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 kā'e \({ }^{+} \varnothing\). "The man isn't there."
Man:Sg art neg.be neg.

Dāu kā'e dóวgō-n láa \({ }^{+} \varnothing\). "There's no man in the room."
Man:sg neg.be room:sg-loc ART neg.

Dāu lā kā' dóogū-n láa \({ }^{+} \varnothing\). "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 bïig ká'asìg \(\bar{\varepsilon}^{+} \varnothing . \quad\) "She has no child."
3AN child NEG.EXIST NEG.

Mit "see that it doesn't happen that ..." \(\underline{22.3}\) is always imperative. In this sense, the postposed 2 pl subject \({ }^{\text {ya }}\) does not occur, even in address to several people.

Mit ka ya maal ya tuumsuma nidib tuon ye ba gosi.
Mìt kà yà mâal yà tùvm-sùma nīdıb tûөn yé bà gj̄sع \({ }^{+} \varnothing\). 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 has mid without a following negative clitic: Mid ka ya maali ya tovm suma nidib tuon ye ba gכs.

Mit also appears with a NP object in the sense "beware of ..."; no final negative clitic appears in this case:

Miti ziri nodi'esidib bane kene ya sa'an na la.
Mìtī ø zīrí nj̀-dí'əsìdıb 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)

Zī'+ "not know" normally replaces negative particle \(+m \bar{\imath}\). A clause-final LF zi'isige also appears in KB, NT (e.g. Lk 12:40.)

Bùn-bān̆'ad zī' y \(\quad\) tēŋ túllā \({ }^{+} \varnothing\).
Donkey-rider:sg neg.know that ground:sg be.hot neg.
"He who rides a donkey does not know the ground is hot." (Proverb)
\(M \boldsymbol{r}\) does occur with negative particles:

M biig Solomon ane dasan, ka po mi' wov lin nar si'em.
M̀ bïg Solomon á nē dá-sā⿹, kà pū mi
1sG child:sg Solomon foc cop young.man:SG, and NEG.IND know
wōvlín nār sīəmm \({ }^{+} \varnothing\).
how 3 IN:NZ be.proper IndF.ADV NeG.
"My son Solomon is young, and does not know how things ought to be."
(1 Chronicles 22:5)

\subsection*{19.6 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 marker is primarily a tone overlay, but has associated segmental manifestations.

\subsection*{19.6.1 Tonal Features}

\subsection*{19.6.1.1 Tone overlay}

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 \({ }^{\text {"but", next any preverb, then the }}\) 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 7.4.3.)

Examples of tone overlay manifesting independency marking in main clauses (with zà \({ }^{\varepsilon}\) "fight", gう̄s \({ }^{\varepsilon}\) "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 gว̀s 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 gōs nâ'ab lā.
Ò dāa záb nà'ab lā.
Ò dāa gūs nâ'ab lā.
Ò pū záb nà'ab láa.
Ò pū gכ̄s nâ'ab láa.
Ò yá' zàb nà'ab lā.
Ò yá' gコ̄s nâ'ab lā.
J́n zàb nà'ab lā.
Ón gās 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 25.2:

Bà yèl yé 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 bj̀dıg \(g^{\varepsilon}\) "lose", yādıg \(g^{\varepsilon /}\) "scatter" and the pronouns \(m^{a}\) "me" ba+ "them":
\begin{tabular}{clll} 
Intrinsic tones: & \begin{tabular}{l} 
bj̀dıgı \(m^{\mathrm{a}}\) \\
yādıgı́ \(\mathrm{m}^{\mathrm{a}}\)
\end{tabular} & \begin{tabular}{l} 
bj̀dıgıdī \(\mathrm{m}^{\mathrm{a} /}(\mathrm{ipfv})\) \\
yādıgídī \(\mathrm{m}^{\mathrm{a} /}(\mathrm{ipfv})\)
\end{tabular} & \begin{tabular}{l} 
bj̀dıgı \(b \bar{a}^{+/}\) \\
yādıgı́ \(b a^{+/}\)
\end{tabular} \\
With overlay: & \begin{tabular}{l} 
bj̀dıgī \(\mathrm{m}^{\mathrm{a} /}\) \\
yàdıgī \(\mathrm{m}^{\mathrm{a} /}\)
\end{tabular} & \begin{tabular}{l} 
bj̀dıgıdī \(\mathrm{m}^{\mathrm{a} /}\) \\
yàdıgıdī \(\mathrm{m}^{\mathrm{a} /}\)
\end{tabular} & \begin{tabular}{l} 
bj̀dıgī bá+ \\
yàgıdī bá+
\end{tabular}
\end{tabular}

Before a liaison word with initial fixed-L toneme 7.4.3: contrast

Bà kùvdī_bá. "They kill them."
3PL kill:IPFV 3PL.OB.
with
Bà kùvdí_bà būvs.
3PL kill:IPFV 3PL goat:PL.
and
Bà gj̀s•ō_ ø.
3PL look.at 3AN.оB.
with Bà gj̀sú_ ò bïig. "They looked at her child."
3PL look.at 3AN child:SG.
with ML necessarily changed to HL before the fixed-L pronouns.

\subsection*{19.6.1.2 Tone sandhi after subject pronouns}

Bound pronoun subjects are normally followed by M spreading despite their own fixed L tonemes 7.4.3. However, the third persons ò lì bà are never followed by M spreading when the following VP has independency marking.

Examples with zà \(b^{\varepsilon}\) "fight" \(g \bar{j} s^{\varepsilon}\) "look at" nà'ab \({ }^{\text {a }}\) "chief":
Without independency marking after coordinating kà:

Kà m̀̀ záb nà'ab lā.
Kà ò záb nà'ab lā.
Kà m̀ ḡ̄s nâ'ab lā.
Kà ò g⿹̄龴 nâ'ab lā.
"And I've fought the chief."
"And he's fought the chief."
"And I've looked at the chief."
"And he's looked at the chief."

With independency marking:

M záb nâ'ab lā. \(\quad\) "I've fought the chief."
Ò zàb nâ'ab lā. "He's fought the chief."
M gós nâ'ab lā.
Ò g̀̀s nâ'ab lā.
"I've looked at the chief."
"He's looked at the chief."

The first and second person bound subject pronouns are followed by M spreading before a VP with independency marking, unless they are immediately preceded by y \(\bar{\varepsilon}\) "that" (here introducing a content clause 25.2):

Ò tèn̆'عs kà ò zàb nâ'ab lā.
zan think and zan fight chief:sg art.
"He thinks he's fought the chief." WK

Ò tèn̆' \(\varepsilon s\) kà m̀̀ záb nâ'ab lā.
3AN think and 1sG fight chief:SG ART.
"He thinks I've fought the chief."
but Ò yغ̀l yé ò zàb nâ'ab lā.
3AN say that 3AN fight chief:SG ART.
"He says he's fought the chief."
and Ò yદ̀l yé m̀ zàb nâ'ab lā.
3AN say that 1SG fight chief:SG ART.
"He says I've fought the chief."

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 kù zāb nâ'ab láa \({ }^{+} \varnothing\). "He will not fight the chief."
3AN NEG.IRR fight chief:SG ART NEG.

Ò Ièv dāa záb nà'ab lā. "But he did fight the chief."
3AN but TNS fight chief:SG ART.

Ò yèl ý́ m̀ nà zāb nâ'ab lā.
3AN say that 1SG IRR fight chief:SG ART.
"He says I'll fight the chief."

\subsection*{19.6.2 Segmental features}

There are two segmental features of independency marking. They occur when and only when the verb word itself has undergone tone overlay, and are therefore absent whenever the verb is preceded by the particle lغ̀ \(\varepsilon\) "but", a preverb, or a particle with M toneme, or when the VP has irrealis mood or negative polarity. Verbs which have intrinsic \(L\) tonemes have unchanged stem tonemes after overlay, but these segmental features and the following \(M\) spreading reveal its presence.

\subsection*{19.6.2.1 Perfective yā}

Any perfective verb form carrying the independency-marking tone overlay which would otherwise be phrase-final is followed by the particle \(y \bar{a}^{+}\). NT usually writes this particle as -eya, but informants show no trace of liaison, and KB writes ya solid with a preceding ordinary perfective SF. It is perhaps connected historically with the perfective flexion -ra of one conjugation of Nawdm verbs.

Ò zàb yā.
3AN fight PFV.

Ò gòs yā.
3AN look PFV.

Ò sà zàb yā.
3AN TNS fight pFV.

Sāa ní yā.
Rain:sG rain PFV.
\(\dot{M}\) tह̂n̆'عs kà lì lù yā. "I think it's fallen down." (content clause) 1SG think and 3IN fall pFV.

But Ò zàbī_m.
3AN fight 1SG.ob.

Ò gj̀sī m. "He's looked at me." (not final)
3AN look.at 1sG.ob.

Sāa dāa ní. "It rained." (M preverbal particle)
Rain:SG TNS rain.

Ò dāa záb.
3AN TNS fight.

Ò nà zāb.
3AN IRR fight.

Kà ò záb.
And 3an fight.
"She's fought."
"She's looked."
"She fought (yesterday.)"
"It has rained."
"He's fought me." (not final)
"He fought." (M preverbal particle)
"She'll fight." (irrealis)
"And he fought." (no independency marking)

Kà ò gūs.
And 3AN look.

Ò pū záb \(\bar{\varepsilon}{ }^{+} \varnothing\).
3AN neg.Ind fight neg.

Ò pū \(g \overline{\jmath ̄ s \varepsilon}{ }^{+} \varnothing\).
3AN NEG.IND look NEG.

Ò gìm.
Ò mi'.
Ò nว̀.
"And he looked." (no independency marking)
"He's not fought." (negative)
"He's not looked." (negative)
"She's short." (stative)
"She knows." (stative)
"She loves him." (stative)

The particle yā is tonally unique among left-bound words bearing \(M\) toneme in being Pattern A: when the LF occurs in questions, the toneme is L not H 6.4:
Lì bj̀dıg yā.
"It's got lost."
3IN get.lost PFV.
Lì bj̀dıg yàa \({ }^{+}\)?
3IN get.lost PFV PQ?

Phrase constituents can only follow yā\({ }^{+}\)by extraposition 27.3:

Ya yidigya bedegu.
"You are very much mistaken." (Mk 12:27)
Yà yídìg yā bédugū.
2PL go.astray PFV much.

M̀ pû'us yā bédugū. "Thank you very much."
1sG greet PFV much.

\subsection*{19.6.2.2 Imperative -m}

Imperatives of dual-aspect verbs carrying the independency-marking tone overlay adopt the flexion \(-m^{\text {a }} \underline{10.1}\).

Gj̀sım!

Gj̀sımī m!
Look:IMP 1SG.ob!

Gj̀sımí fù nû'ug!
Look:IMP 2SG hand:SG!

Dì'əmī ø!
Receive:IMP 2PL.sub!

Dì'əmī-ní bā!
Receive:IMP-2PL.SUB 3PL.OB!

Dì'əmī-n•ó_ ø! "Receive ye her!"
Receive:Imp-2PL.sUb 3AN.ob!

Dìəə ī-ní_ àlá! "Keep ye on receiving!"
Receive:IMP-2PL.sUB ADV:thus!

But Dā gj̄sع \({ }^{+} \varnothing\) !
NEG.IMP look NEG!

Kغ̀l kà ò gj̄s!
Cause:IMP and 3AN look!

Kغ̀m nā \(n\) gj̄s!
Come:Imp hither cat look!

Ḋ̀lī-ní m!
Follow-2PL.SUB 1sG.ob!
"Look at your hand!"
(or Gj̀sím fù nû'ug! with the vowel absorbed)
"Receive ye!"
"Receive ye them!"
(-ní- for -ya *na before liaison 7.2.2)
"Don't look!" (negative)
"Let her look!"
(No independency marking: subordinate)
"Come and look!"
(No independency marking: subordinate)
"Follow ye me!" (single-aspect verb)

\subsection*{19.7 Other bound words in the VP}

For non-contrastive subject pronouns see 15.4.1 19.6.1.2.

\subsection*{19.7.1 Lદ̀ \(\varepsilon\) "but"}

Lદ̀ \(\boldsymbol{\varepsilon}\) "but" precedes even tense particles, but like a preverb, and unlike a postsubject particle 20.2.3, it prevents the independency-marking tone overlay from falling on the verb, and is then itself followed by M spreading:

Kà ò lév dāa záb nà'ab lā.
And 3AN but tns fight chief:sG ART.
"But he fought the chief."

Bà lè záb nà'ab lā. "But they've fought the chief." WK \(3 P L\) but fight chief:SG ART.

Kà bà lé z zàb nà'ab lā. "But they've fought the chief." WK And \(3 P L\) but fight chief:SG ART.

Lè záb nà'ab lā! "But fight the chief!" WK
But fight chief:SG ART!

Ka man pian'ad la lee ku gaade.
Kà mān piâă'̆'ad lā lદ́ kù gāade \({ }^{+} \varnothing\).
And 1sG.CNTR speech art but neg.IRR pass neg.
"But my words will not pass away. (Mt 24:35, 1996)

NT has the \(-m^{\text {a }}\)-imperative, suggesting tone overlay on the verb, in

Lee iemini o na'am so'olim la...
Lèv ìəmī-ní ò nā'am sú'vlìm lā...
But seek:IMP-2PL.SUB 3AN kingship possession ART...
"But seek ye his kingdom ..." (Lk 12:31, 1976)

WK does not accept this, and he corrected e.g.
*Lèv gósìm nâ'ab lā! attempted: "But look at the chief!"
But look.at:IMP chief:sg ART!
to Lદ̀ gj̄s nâ'ab lā.
But look.at chief:sg ART.

\subsection*{19.7.2 Preverbs}

Preverbs follow all other preverbal particles. All carry the independencymarking tone overlay in place of the following main verb (cf lè \("\) "but" 19.7.1.)

Pùn "previously, already":

Ò pùn záb nà'ab lā. "He's already fought the chief."
3AN already fight chief:SG ART.

Kà ò pón zàb nà'ab lā.
And 3AN already fight chief:SG ART.
"And he's already fought the chief."

Lèm "again" (cf lèb \({ }^{\varepsilon}\) "return"):
Ò lèm záb nà'ab lā. "He's fought the chief again" 3AN again fight chief:SG ART.

Kà ò lém 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 \({ }^{+} \varnothing\).
3AN NEG.IND again fight chief:SG ART neg.
"He hasn't fought the chief again."

Ò nà lēm záb nà'ab lā. "He'll fight the chief again."
3AN IRR again fight chief:SG ART.
\(\dot{M}\) nīf lém zábìd n \(\bar{\varepsilon}\). "My eye is hurting again."
1sG eye:sg again fight foc.

Ka so' kudin ku len nyee li ya'asa.
Kà s亏̄' kūdım kú l̄̄m ňyźe_l̄ yá'asā \({ }^{+} \varnothing\).
And ind.an ever neg.irr again see 3 in.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.
Kà ò kpźlìm zū'өm.
And 3AN immediately go.blind.
"Immediately he went blind." (Acts 13:11, 1996: KB Ka o kpen zu'om.)
\(m\) biig Josef nan kpen vue.
\(\grave{m}\) bïig Josef nán kpèn vūę.
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' \(a m^{\mathrm{m}}\) is "associate with."
ka nidib wosa da la＇am kpi ne o．
kà nīdıb wūsa dá là＇am kpì né ò．
and person：PL all TNs together die with 3AN．
＂so all people died together with him．＂（2 Cor 5：14）

Dèクım＂beforehand＂（cf dغ̀り乏＂go，do first＂：\(\grave{m}\) dદ́n̄̄ f＂I＇ve got there before you＂； \(d \varepsilon \eta^{\varepsilon}\) is used with the same meaning in \(n\)－catenation 22．2．）

Pin＇ilugun sa ka Pian＇ad la da pun deyim be．
Pīn̆＇ilógō－n sá kà Pịàn̆＇ad lā dá pòn dènım 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 ku maligim gaadr．
Àmáa mān pîâň＇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）

Tì＂after＂occurs often in n－catenation；for hālí tì pāa ．．．＂up until＂see 20．2．1．If the next following VP in the same clause or series of coordinated clauses is perfective，there is disturbance of the usual iconic alignment of VPs with event order， with tì corresponding to English＂before．＂
hali ka Herod ti kpi．＂Until Herod had died．＂（Mt 2：15）
hālí kà Herod tí kpì．
Until and Herod after die．

Kèm＿ø tí n̆y \(\bar{\varepsilon}\) dư＇átà．＂Go to see the doctor．＂SB
Go：IMP CAT after see doctor：Sg．

Beogv ti nied la ka ba gaad！
Bद̄ogú＿\(\varnothing\) tì nìəd lá kà bà gâad．
Morning nz after appear：IPFV ART and 3PL pass．
＂Before morning appears they have passed！＂（Isaiah 17：14）

\subsection*{19.7.3 Left-bound liaison words}

A verb may be followed by up to two successive left-bound liaison words. They precede all other verb phrase complements and also precede the focus particle \(n \bar{\varepsilon}^{+/}\).

The first slot may be occupied by either ya " 2 pl subject of direct command" \(\underline{21.3}\) or discontinuous-past \(n^{\varepsilon} \underline{23.1 .1}\); they can never occur together.

The second slot is for bound object pronouns. There is no formal distinction between direct and indirect objects. Only one bound object pronoun may occur; cases where a verb has both non-contrastive direct and indirect object pronouns without ellipsis are expressed by n-catenation using tis \({ }^{\varepsilon}\) "give" 22.2.

\subsection*{19.8 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; the matter is complicated in Kusaal by the fact that "obligatory" complements in fact need not be explicitly present: if they are absent, the gap then represents an anaphoric pronoun.

NP and AdvP complements can be classified as direct and indirect objects, as predicative complements, or as locative complements.

\subsection*{19.8.1 Transitivity and objects}

Indirect objects precede direct, and objects precede other complements, except in cases of extraposition due to weight 27.3. A bound pronoun before a noun object therefore cannot be the direct object:

M dāa tísì_lī nâ'ab lā.
1SG TNS give 3 IN.ob chief:SG ART.
"I gave the chief to it."

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 nīdá \({ }^{+} \varnothing\), dā zūudá \({ }^{+} \varnothing .\).
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 pū zámm \({ }^{+} \varnothing\). "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 àeña "be something/somehow":

Mānı \(\varnothing\) án dứátà àmáa fūn pū án̆yā \({ }^{+} \varnothing\).
1SG.CNTR CAT COP doctor:SG but 2SG.CNTR NEG.IND COP NEG.
"I'm a doctor but you aren't."

Mānı ø áň dữ'átà kà fūn mén áęn̆.
1SG.CNTR CAT COP doctor:SG and 2SG.CNTR also cop.
"I'm a doctor and you are too."

Particular cases of null anaphora appear with direct objects preposed with kà 27.2 and in adnominal kà-catenation 22.3.

In replies to questions and reponses to commands, null anaphora of complements may refer to an antecedent in the previous speaker's words:
Q. Fù mór gbāung láa \({ }^{+}\)ø? "Do you have the letter?"

2SG have letter:SG ART PQ?
A. \(\bar{\varepsilon} \varepsilon n ̆, \grave{m}\) mór.

Yes, 1 sg have.
Q. Fù bว́วd•ó-o +ø? "Do you love her?"

2SG want-3AN.OB PQ?
A. Áyìı, m̀ pū bóכdā \({ }^{+} \varnothing\). "No, I don't love her."

No, 1 SG 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:

\section*{bane zuud nidibi gban'ad}
bànı zūud nīdıbı_ ø gbān̄'ad
REL.PL steal:IPFV person:PL CAT seize:IPFV
"those who steal people by force" (1 Tim 1:10)
ons daa zuud
"he who used to steal" (Eph 4:28)
j̀nı dāa zūud
REL.AN TNS steal:IPFV

Some verbs only take objects of a very limited type, often expressed with a "cognate accusative" noun formed from the same stem. They may be obligatorily transitive or agentive ambitransitive:

Fù túm bó-tùvma \({ }^{+}\)? ? What work do you do?"
2SG work:IPFV what-work cQ?

Ka ya ninkuda zaansim zaansima.
Kà yà nīn-kúdà zàaňsım záaňsímà.
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 yj\({ }^{+}\)"close", nāe+/ "finish", zàmıs \(s^{\varepsilon}\) "learn/teach", nāmıs \({ }^{\varepsilon /}\) "suffer/make suffer", bj̀dıg \({ }^{\varepsilon}\) "lose, get lost", bàs \(s^{\varepsilon}\) "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 19.2.2:

M̀ náa tōoma lā. "I've finished the work."
1sG finish work ART.

Tōoma lā náa nē
"The work is finished."
Work ART finish foc.

Almost any verb can potentially take an indirect object expressing benefit, interest etc (this could lead to ambiguity in principle):

Ò dùgū_m.
3AN cook 1SG.OB.

Lì màlısī m.
3in be.sweet 1sG.ob.

Àláafù béع_bá.
Health exist 3pl.ob.
"He cooked (for) me."
"I like it." ("It's sweet for me.")

They are well." ("Health exists for them.")

Ditransitive verbs require an indirect object, which cannot be ellipted unless any direct object is too, with a necessarily anaphoric sense; tis \(s^{\varepsilon}\) "give" is the prototypical example, along with causatives like dìıs "feed", nūlus \({ }^{\varepsilon /}\) "give to drink."

M tís nâ'ab lā dāká. "I've given the chief a box." 1SG give chief:SG ART box:SG.

M̀ tís nâ'ab lā. \(\quad\) I've given it to the chief."
1sg give chief:sg ART.
*M̀ tís dāká.
\(\dot{M}\) tís•ō ø dāká.
1Sg give zan.ob box:sG.
impossible as "I've given him a box", which is

Dā tís•ò_ Ø sỉəəla \({ }^{+} \varnothing . \quad\) "Don't give her anything!" neg.Imp give 3AN.ob indf.in neg.

Dā tís \(\bar{\varepsilon}+\varnothing!\quad\) "Don't give it to her!"
NEG.IMP give neg.
\(\dot{M}\) 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 sàríyà "judge X ", mכ̄r X nīn-báalìg or ż̀ X nīn-báalìg "have pity on X ", nì X yàddā "believe X , believe in X ", zう̀ X dàbīəm "fear X", sijàk X nכ̄כr "obey X", n̆wغ̀' X nû'ug "make an agreement with X."

Ò zว̀t•ō ø nīn-báalìg. "She has pity on him."
3AN feel:IPFV 3AN.OB eye-pity.

Bà zj̀t•ō_ø dábīəm. "They are afraid of him."
3PL feel:IPFV 3AN.OB fear.

Wina'am na kad nidib poten'esua'ada saria.
Wínà'am ná kād nīdıb pú-tèn̆'-sū'adá sàríyà.
God IRR drive person:PL inside-mind-secret:PL judgment.
"God will judge people's secret thoughts." (Rom 2:16, 1996)

Bà nìm•ō_ \(\quad\) yáddā. "They believed her."
3PL do 3AN.OB assent.

Ò n̆wè' nâ'ab lā nû'ug. "He made an agreement with the king." 3AN strike king:SG ART hand:sG.

\subsection*{19.8.1.1 Passives}

For passive meaning expressed by an empty bà "they" as subject see 15.4.1.
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:

Dāká lā tís yā. "The box was given."
Box:Sg ART give pfv.
but *Nà'ab lā tís yā. not possible in sense "The chief was given (it.)" Chief:SG ART give PFV.

Imperfective passives can only appear with habitual/propensity meanings. Stative verbs accordingly cannot make passives.

The verb \(s \bar{\jmath} b^{\varepsilon}\) "write" is a specialised usage of \(s \bar{\jmath} b^{\varepsilon}\) "make/go dark", and is patientive ambitransitive. It can form a resultative; the imperfective sj̄bı \(d^{\mathrm{a} /}\) seems to accept intransitive use only when some adverbial modification is present.

Gbàung lā sób n̄. "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 sónā. "The letter is writing well (i.e. easily.)" WK Letter:SG ART write:IPFV good:ADV.

\subsection*{19.8.1.2 Middle use of intransitives}

The assume-stance verbs 12.1.1, rather than the make-assume-stance series, are often used transitively for parts of one's own body:

Lìgıním_fù nīf né fù nû'ug.
Cover:IMP 2SG eye:SG with 2SG hand:Sg.
"Cover your eye with your hand."

Thus Dìgıním_ fù nû'ug. "Put your hand down." is commoner than
Lie.down:Imp 2sG hand:sG.

Dìgılím_ fò nû'ug. "Put your hand down."
Lay.down:IMP 2SG hand:SG.

Similarly nie+ "appear" is usually intransitive, corresponding to transitive nغ̀ \(\boldsymbol{\varepsilon}^{\varepsilon}\) "reveal", but nìe \({ }^{+}\)is much more frequent than nè \(\left.\right|^{\varepsilon}\) before ò \(m \bar{\varepsilon} \eta^{a /}\) "him/herself" etc.

Ka o nie o meฤ Jemes san'an ...
Kà ò níe ò mēŋJemes sâ'an ...
And 3AN appear 3AN self James among ...
And he revealed himself to James (1 Cor 15:7)

\subsection*{19.8.2 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:

Kعl ka m liebi fu tumtom yinne.
Kह̀l kà m̀ líabì fù tùm-tūm yīnní.
Cause:IMP and 1sg become 2sG work-worker:SG one.
"Make me [become] one of your servants" (Lk 15:19); dynamic lìəb \({ }^{\varepsilon}\)
\(\grave{M}\) á né fù tùm-tūm. \(\quad\) I am your servant."; stative àeñ̆a
1SG COP FOC 2SG work-worker:SG.

Adjectives may appear as NP heads so long as the NP is a predicative complement. The only permitted dependents are the article and ideophones 17. This is most frequent with àe \(\breve{n}^{\text {a }}\) "be something" 19.11.2, but is seen also with other verbs:

Lì à nē píəlìg.
Lì à nē píalìg fáss.
Bà à nē píəlà.
"It's white, a white one."
"It's very white."
"They're white."
si'el zie sabili wuu nidne.
sỉəl zíe sābíllí_ \(\varnothing\) wōv nīd nē.
INDF.IN stand black:SG CAT like person:sg like.
"something stood, black like a person." KSS p16

Mam ane pielug amaa \(m\) ya'a paae bugumin ases ka m leb zin'a.
Mām á nē píəlùg àmáa m̀ yá' pāe búgómī-n,
1SG COPFOC white:SG but 1SG if reach fire-Loc,
àséع kà m̀ lદ́b ziñ'a.
except and 1sg become red:sg.
"I am white, but when I reach the fire I turn red." [a crayfish] (BNY p16)

Most adjectives do not permit this. All examples in my materials involve adjectives without corresponding stative verbs. More often, compounds with nīn"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-pîəl-kànā. "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 pòd \(d^{\varepsilon}\) "name, dub" has as first object a NP with the head \(y \bar{u}^{\prime} u r^{\varepsilon /}\) "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 yō'ur ȳ̄ Yesu.
And 2SG IRR dub 3AN name:sg that Jesus.
"And you will call him Jesus." (Mt 1:21)

Ka o pod biig la yo'vr Yesu.
Kà ò pód bïig lā yô'vr Yesu.
And 3AN dub child:sg art name:sg Jesus.
"And he called the child Jesus. " (Mt 1:25)

Bùe \(\left.\right|^{\varepsilon}\) "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
j̀n kà bà bûөn y \(\bar{\varepsilon}\) Pita lā
rel.an and 3pL call:IPFV that Peter art
"who was called Peter" (Mt 10:2)
\(B u ̀ e^{\varepsilon}\) is often used passively with \(y \bar{u}^{\prime} u r^{\varepsilon /}\) "name" as subject and the name itself as complement:
dau so' ka o yv'ur buon Joon.
dàư-só' kà ò yō'ur bûөn Joon.
man-INDF.AN and 3AN name:sG call:IPFV John.
"a man [habitually] called John." (Jn 1:6)
\(M a ̀ a l^{\varepsilon}\) "make" is used with object and resultative predicative complement in

Ka o maal o men nintita'ar.
Kà ò mâal ò mēŋ nīn-títā'ar.
And 3AN make 3AN self person-great:Sg.
"He made himself out to be a great man." (Acts 8:9. 1976)

A kà-catenation \(\underline{22.3}\) can appear as a resultative predicate.

\subsection*{19.8.3 Locatives}

Locative AdvPs occur as complements after verbs of position and movement. Some verbs require a locative complement, and its absence is anaphoric.
M yí Bj̀k.
"I left Bawku."

1sG emerge Bawku.

M̀ yí yā. "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.
...ka po tun'e kenna..
...kà pū tūn̄'e_ \(\varnothing\) k \(\bar{n} n n a ́ ~+\varnothing . ~\)
...and NEG.IND be.able CAT go:IPFV NEG.
"who couldn't walk." (Acts 14:8)
but Ò kèŋ Bók. "She's gone to Bawku."
3AN go Bawku.

Ò dìgın yā. "He's lain down."
3AN lie.down pFV.
but
Dìgınım kp̄̄! "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 gbáun lā tézbòl lā zúg.
3AN lay.down book:SG ART table:SG ART upon.
"She's put the book on the table."

Àláafù bé• O—.
Health Exist 3An.ob.
"He's well." ("Health exists for him.")
Indirect object but no complement.
but 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."

\subsection*{19.8.4 Prepositional phrases}
\(W \bar{\varepsilon} n^{\text {na/ }}\) "resemble" usually takes a phrase introduced by \(n \bar{\varepsilon}\) or \(w \bar{v} \underline{18}\).

Ka o nindaa wenne nintay ne.
Kà ò nīn-dáa wēn n̄̄ nīntāŋ n̄̄.
And 3AN eye-face:sg resemble with sun:sg like.
"His face is like the sun." (Rev 10:1, 1996)

Lāla/ "be far" usually takes a phrase introduced by n \(\bar{\varepsilon}\) :

Amaa o pu lal ne tii.
Àmáa ò pū lāl né tīı \({ }^{+} \varnothing\).
But 3 SG NEG.IND be.far with 1PL Neg.
"But he is not far from us." (Acts 17:27)

Dj̄/la/ "accompany" with the preposition n \(\bar{\varepsilon}\) means "be in accordance with":

Li dolne lin sob Wina'am gbaunon si'em la ye ...
Lì dう̀l \(n \bar{\varepsilon}\) lín sכ̄b Wínà'am gbáungū-n sỉəm lā y \(\bar{\varepsilon} \ldots\) 3IN follow with 3IN:NZ write God book:SG-Loc Ind.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 \(\bar{\varepsilon}^{+/} \underline{27.1 .2}\) by contexts where focus is prohibited. \(Y_{I^{+}}\)"emerge" does not take a prepositional phrase:

M yí \(\quad n \bar{\varepsilon}\) Bj́k. \(\quad\) "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

\subsection*{19.8.5 Clauses}

Certain verbs require a following subordinate clause introduced by kà or \(y \bar{\varepsilon}\). \(K \bar{\varepsilon}^{+}\)"let" does not appear at all without a following kà-catenation, while if nāra/ "be obliged to" appears without a purpose clause there is a necessarily anaphoric sense; mit in its usual sense "let not" always takes a kà-catenation. Bj̀วda "want, love" takes a purpose clause in the sense "want to ..."; without any object it has an anaphoric meaning in either sense. Gūra/ "be on guard, watch, wait for" takes a NP headed by a gerund or a purpose-clause complement to express "waiting for an event." Àeña "be something/somehow", which is uniquely flexible in the variety of different types of argument it may appear with, may also take a content-clause complement.

Verbs of cognition, reporting, and perception have as complement a content
 such verbs have an anaphoric sense without such an object.

\subsection*{19.9 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 20.2.1.
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Bà dìt n\overline{\varepsilon sā'ab dó-kànā lā póvgū-n.}
3PL eat:IPFV FOC porridge hut-DEMST.SG ART inside:SG-LOC.
"They're eating porridge in that hut."

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\subsection*{19.10 Verb-phrase-final particles}

For the independent-perfective marker \(y \bar{a}^{+}\)see 19.6.2.1.
The particles \(n \bar{a}^{+/}\)"hither" and sà \({ }^{+}\)"hence; ago" follow any complements. The verb \(k \bar{\varepsilon} \breve{n}^{+}\)"come" is invariably used with \(n \bar{a}+/\); the imperative SF \(k e ̀ m\), which coincides for \(k \bar{\varepsilon} n^{+}\)"come" and \(k \bar{\varepsilon} \eta^{\varepsilon /}\) "go", is always disambiguated by the fact that it is followed by \(n \bar{a}^{+/}\)or sà \({ }^{+}\)respectively: kèm nā! "come" kèm sá! "go!"

M mór kû'өm náa \(\quad+\varnothing\) ? "Shall I bring water?" SB
1sG have water hither PQ ?

Bùgóm lā yít yáa ní ná \(+\varnothing\) ?
Fire ART emerge:IPFV where loc hither cQ?
"Where is the light coming from?"

Fò yí yáa ní ná \({ }^{+}\)?
25G 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'an sa.
Fò ná báp lì n̆yá'an sá.
2SG IRR realise 3in behind since.
"You will come to understand afterwards." (Jn 13:7, 1976)

Lazarus pun be yaugon la daba anaasi sa.
Lazarus pón bè yávgō-n lā dābá_ànāasí sà.
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:

Kદ̀m nā n gōs. "Come and look!" SB
Come:Imp hither cat look.

Man ya'a pu kén na tu'asini ba ...
Mān yá' \(p \bar{u}\) k \(\bar{\varepsilon} \varepsilon-n\) nā \(\varnothing\) tó'asī-ní_bā...
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-kánì kēn nā lā
month REL.SG come:IPFV hither ART
"next month" SB

\section*{dunia kane ken la na}
dūnıyá-kànı k̄̄n lā nā
world-rel.sg come:IPFV ART hither
"the world which is coming" (Lk 20:35)
ti tom one tom man na la tovma.
tì túm j̀nı tòm mān nā lā tūuma
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 bכJdim naae.
\(\dot{M}\) dīıb á nē yé ì tóm j̀nı tòmım lā nā bóכdìm \(\varnothing\) nāe.
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.
Nīdıb lā dāa gūr Zakaria yîib nā.
Person:plart tns watch Zechariah emerge:ger hither.
"The people were watching for Zechariah's coming out." (Lk 1:21)

Ninsaal Biig la lebug la na
Nīn-sâal Bîig lā lćbùg lā nā
Person-smooth:sg Child:Sg ART return:GER ART hither
"the return of the Son of Man" (Mt 24:27)

\subsection*{19.11 Verbs "to be"}

\subsection*{19.11.1 Bと̀ "be somewhere, exist"}

With no following locative \(b \dot{\varepsilon}^{+}\)means simply "exist"; before a locative, \(b \dot{\varepsilon}^{+}\) means "be located in a place" when the locative is focussed or foregrounded 27.1, but "exist in a place" otherwise:

\section*{Wínà'am bé.}

God EXIST.

Àláafù bé•O_ø.
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 nē mj̄כgu-n.
1SG.CNTR EXIST FOC grass:SG-LOC.

Moogin ka mam be. "I'm in the bush." BNY p10
Mכ̄כgú-n kà mām bé.
Grass:sG-LOC and 1SG.CNTR ExIST.

Dāū lā bé nē dó-kànā lā póvgū-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-sכ̄' bé dó-kànā 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 \(k a \overline{ }{ }^{-} e^{+}\)see \(19.5 ; ~ * p \bar{u} b \varepsilon ́\) is not used.
\(B \dot{\varepsilon}^{+}\)plays a role analogous to a "passive" to \(m \bar{\partial} r^{a / ~ " h a v e " ~ i n ~ c o n s t r u c t i o n s ~ l i k e: ~}\)
\(\grave{M}\) bïig bé. \(\quad\) I have a child." Equivalent to \(\grave{M}\) mór bïig.
1SG child:SG EXIST.
\(\dot{M}\) bïig kā'e \({ }^{+} \varnothing\). \(\quad\) I have no child." Equivalent to \(\dot{M}\) kā' bïiga.
1SG child:SG neg.be neg.
\(B \grave{\varepsilon}^{+}\)can be used in direct commands:
\(B \varepsilon \varepsilon^{\prime}\) ànínā.
"Be (i.e. stay) there!" SB
ExIST ADV:there.
\(B \bar{\varepsilon} \iota-n i ́\) àlá ànínā. "Be ye there!" [be:nala anina] EXIST-2PL.SUB ADV:thus ADV:there.

\subsection*{19.11.2 Àeñ "be something/somehow"}

For the loss of \(e\) and nasalisation see 7.3.

Ò à n̄ bïig.
"She is a child."
3AN COP FOC child:SG.
but Mānı Ø án̆ dư'átà kà fūn mén áęn̆. 1SG.CNTR CAT COP doctor:SG and 2SG.CNTR also cop.
"I'm a doctor and you are too."

The usual negative uses kā'e \({ }^{+}\)"not be", but pō áeñ does occur, for example in expressing contrasts:
M̀ \(k a ̄ '\) dư'átāa \({ }^{+} \varnothing . \quad\) "I'm not a doctor."
1SG NEG.BE doctor:SG NEG.

Mānı \(\varnothing\) án̆ dư'átà àmáa fūn pū áňyā \({ }^{+} \varnothing\).
1SG.CNTR CAT COP doctor:SG but 2SG.CNTR NEG.IND COP NEG.
"I'm a doctor but you aren't."

Àeña \({ }^{\text {a }}\) can be used in direct commands:

Āa-ní àlá bāan̆lím! "Be (ye) quiet!"
cop-2PL.SUB ADV:thus quiet:ABSTR!

As with English copular clauses, the sense may be ascriptive or specifying (CGEL p266.) If it is ascriptive, the complement is non-referring, and normally focussed with \(n \bar{\varepsilon}^{+/}\)if permitted 27.1.2:
Ò à n̄ biïg.
"She is a child."

3AN COP FOC child:SG.

In specifying constructions focus frequently falls on the subject, which usually then has \(n\)-focus 27.1.1:

Mane an konbkem supla.
Mānı ø án̆ kóňb-kìm-sòn 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 án̆•o_ø.
1SG.CNTR CAT COP 3AN.OB.

Nobibisi a mam disun.
Nō-bíbısì ø án̆ mām dí-sùn.
Hen-small:PL CAT COP 1SG.CNTR food-good:SG.
"Chicks are my favourite food." BNY p13

When the complement of \(\bar{e} e \breve{n}^{a}\) is definite, the construction is usually specifying, with the subject in focus:

M̀ á nē dư'átà. "I'm a doctor." ("What do you do?")
1SG COP FOC doctor:SG.
Ascriptive.
but Mānı Ø án̆ dư'átà 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 nonrecoverable" because of their internal structure or other factors: see 27.1.2.1.

Àen̆a allows a wide range of different types of NP as arguments. It shares with deadjectival stative verbs the ability to take an AdvP of any type as subject 16.5:

Zīná à n̄ dá'a. "Today [time] is market."
Today cop foc market:sG.

Yin venl, ka poogin ka'a su'um.
Yìn vén̆l kà pōogv-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 nopi ya si'em la ane bedego.
Mán nخ̀pıyā sīəəm lā á n̄̄ bédugū.
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)

Àen̆ \(n^{a}\) takes a predicative complement. Some adjectives can appear as NP heads as predicative complements after àeñ \({ }^{a}\) and other verbs 19.8.2, but typically àeña 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.
Māmá nē sābllíg, là'am nē wālá m̀ vén̆l 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 nē būgusígā
"It's soft."
IIN COP FOC soft:ADV.
\(L i ̀ ~ a ̀ ~ n \bar{\varepsilon}\) zāalím. "It's empty."
3IN COP FOC empty:ABSTR.

Lì àn̆ súnā.
"It's good." 27.1.2
3IN COP good:ADV.

Absolute clauses \(\underline{24.2}\) and even content clauses may be complements of àeñ \({ }^{\text {a }}\) :
\(M\) diib ane ye \(m\) tom one tomi \(m\) la na bכJdim 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)

\section*{20 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.

\subsection*{20.1 Clause types}

Criteria for describing a clause as main or subordinate do not always neatly align. Independency marking of VPs 19.6 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.
\begin{tabular}{|l|l|l|}
\hline & independency-marked & not independency-marked \\
\hline main \(\underline{21}\) & main without kà & main with initial kà \\
\hline complementised \(\underline{25}\) & \(y \bar{\varepsilon} / k a ̀ ~ c o n t e n t ~\) & \(y \bar{\varepsilon} /\) kà purpose \\
\hline catenated \(\underline{22}\) & & \(n / k a ̀ ~ c a t e n a t i o n ~\) \\
\hline nominalised & & \begin{tabular}{l} 
ǹ absolute/relative \(\underline{24}\) \\
yà' conditional 23
\end{tabular} \\
\hline
\end{tabular}

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:

M̀ pū bôวd yर́ fù k̄̄ŋ Bók̄̄ \({ }^{+} \varnothing\).
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 ban ye o kpelim yaa.
Kà ò bā' né ò mà pū bán yé ò kpèlım yāa \({ }^{+} \varnothing\).
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 nyع Zugsob la suorin, ka o pian' tis o si'em],
\(\boldsymbol{n \varepsilon}\) [Saul \(n\) mכו Yesu yela ne sunkpi'eup Damaskus tenin si'em.]
... pá'alì_bā ón dāa ňyē 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
n̄ sūn̆-kpî'on Damaskus ténī-n sỉəəm.
with heart-strength Damascus land:SG-Loc ind.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 pu nar ka ba buolim ye Tumtumma.
kà pū nár kà bà búelì_m ȳ̄ Tóm-tūmma \({ }^{+} \varnothing\).
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 extraposition 27.3. 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 nככr yinne ne Yesu Kristo.
Àmáa Wínà'am ké yá kà yà áň nכ̄כr 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 pu bככd [ye fu ti yel beog daar [ye fune ke [ka mam Abram lieb bummora.]]] \(\grave{M} p \bar{u}\) bว̂วd yદ́ fù tí yह̀l bēog dāar ȳ̄ fūnı ø 1SG NEG.IND want that 2sG after say tomorrow day.after.tomorrow that 2SG.CNTR CAT ḱ́ kà mām Abram lîəb būn-mórā \({ }^{+} \varnothing\). 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 mì yē bïig lā kpínē 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.
Paulǹ sj̄b gbáun-sỉan 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)

\subsection*{20.2 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 19.3.5 \(22.3 \underline{25}\) 27.2.

Kusaal is strictly SVO; deviations not achieved by kà-preposing always represent extraposition. Indirect objects precede direct, and objects precede other complements. VP adjuncts follow complements.

Emphatics \(\underline{27.6}\) 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 19.6, and they have structural possibilities not permitted to other clauses, including lacking VPs altogether.

\section*{20．2．1 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
\begin{tabular}{|c|c|c|c|}
\hline kūט & ＂or＂ & \(b \varepsilon \bar{\varepsilon}\) & ＂or＂ \\
\hline dìn zúgう̄ & ＂therefore＂ & lìn zúgう̄ & ＂therefore＂ \\
\hline àlá zùgう̄ & ＂thus＂ & bう̄ zúgう̄ & ＂because＂ \\
\hline
\end{tabular}

Bj̄ zúḡ̄，stigmatised as a calque in ILK，is freely used in NT／KB for＂because．＂

Police gbân̆＇a＿m bj̄ zúgó m̀ n̆wé＇dāu lā．
Police seize 1sg．ob because 1sg hit man：sg art．
＂The police arrested me because I hit the man．＂（ILK）

It also appears after an absolute clause，like the postposition zūg／alone．
Prelinker adjuncts may precede but never follow linker particles．
\begin{tabular}{llll} 
àmáa & ＂but＂ & hālí & ＂until＂ \\
àsé & ＂unless＂ & àlá zùg & ＂thus＂
\end{tabular}

Hālí and àséع are also used as prepositions 18.
KB has no examples of kà àmáa to 365 of àmáa kà，one of kà àséع to 247 of àś́ع 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＂\(y \bar{\varepsilon}\) 25．2．1．Thus

Ka sieba la＇o．Amaa ka sieba yel ye ．．．
Kà sīəba lá＇•O＿ø．Àmáa kà sīəba y \(\varepsilon\) l y \(\bar{\varepsilon} \ldots\)
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 po gani ti ye ti tom dian＇ad tovma，amaa ye ti be nyain．
Wínà＇am dāa pū gāní tī yદ́ tì tóm dịā＇ad túvmà \({ }^{+} \varnothing\) ，
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 kà-preposed elements:

Amaa on sadigim kpi la, bכ ka m lem loכd nכวr ya'asع?
Àmáa ón sādıgím kpí lā, bó kà m̀ lém
But 3AN:Nz since die ART, what and 15G again
\(\overline{\jmath \supset \partial d ~ n כ ̄ \partial r ~ y a ́ ' a s \varepsilon ̀ ~}{ }^{+} \varnothing{ }^{+} \varnothing\) ?
tie:IPFV mouth:SG again NEG CQ?
"But since he has died, why should I still be fasting?" (2 Samuel 12:23)

Some constituents occur exclusively as postlinker adjuncts: yà'-clauses "if/when ..." 23.1, sādıgím-clauses 24.2, bēogó "tomorrow" and dāa-sí' \(\varepsilon\) ह̄ "perhaps." Yà'-clauses and sādıgím-clauses can only appear after main clauses by extraposition.

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 kàpreposing 27.2. 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 n̄̄ nâ'ab. "Now I am a chief."
Now-hither 1SG cop foc chief:Sg.
is grammatical, but *Mラ̄دgú-n mām bé was corrected by WK to

Mכ̄دgú-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'an "afterwards", lín à s̉əəm 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-nā\({ }^{+/}\)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 -う appear very often before kà (177/371 cases), i.e. as kà-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 zúgう̄ and lìn zúgj̄.

Bj̄ zúg without -َ appears in KB only as kà-preposed bj̄ zúg kà ...? "why ...?"
Bozug ka li aan ala? "Why is it so?" (Haggai 1:9)
\(B \overline{z u ́ g}\) kà lì áan̆ àlá \(+\varnothing\) ?
What on and sin cop thus cQ?

Hālí can be a prelinker adjunct before a \(n\)-catenated clause:

Ti nwa'ae li hali paae Nofa.
Tì n̆wá'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 yezd fuugo, hali ka li yuug.
Ò pū yह̂عd fūugó \({ }^{+} \varnothing\), 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 ku basif ka fu keys ases ka fo nipi m zug bareka.
M kú bāsíff kà fù k \(\bar{\eta} \eta \varepsilon \varepsilon^{+} \varnothing\) às \(\varepsilon\) k kà fù nípi_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)

Wōv "like" 18 appears as a linker adjunct before content clauses:
ka tuumbe'ed ku len so'e ti wuu ti aa li yamugo.
kà tòvm-bē'عd kú lह̄m sú'ט_tī wōv tì áaň_li yàmmugj̄ \({ }^{+} \varnothing\).
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.
\(\grave{M}\) piáň'adī_ø tísıdī_ yá wōv yà á né m̀ bīis n̄̄.
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)

\subsection*{20.2.2 Subjects}

Kusaal is not a pro-drop language. A dummy subject pronoun \(l i ̀\) (never ò) is required in impersonal constructions:

\section*{Lì tùl.}

3in be.hot.

Lì àn̆ súnā.
3IN COP good:ADV.

Lì nàr kà fò kūl
3IN must and 25G go.home.
"It's good."
Contrast Mooré yaa sõama, with no pronoun.
"It's necessary for you to go home."

Zi'isige 19.5 appears without a subject as "unbeknownst" at KSS p16. Lì may be omitted in yà'-clauses:

Ya'a ka'ans alaa, \(m\) naan ko yeline ya ye ...
Yà' kā'a-ní_àlá, m̀ nāan kú y \(\bar{\prime} l ı-n i ́ \_y a ̄ ~ y \bar{\varepsilon} . .\).
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 21.3 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 yél ... 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 15.4.1) even in the face of semantic inappropriateness, though it cannot override number:

Pư'ā lā dá' dāká kà kēŋ 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 kēŋ Bók.
Woman:PLART 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 kà-preposed absolute clause:

Ban wom ne'عクa la ka sin.
Bán wòm nē'pá lá kà sīn.
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 yàa \({ }^{+} \varnothing\) ? "[Have you] finished?"
Finish PFV PQ?

\subsection*{20.2.3 Post-subject particles}

For yà' "if" 23.1; nominaliser-ǹ 24; sādıgím "since" 24.2; nāan(ı) 23.1.2.
sìd "truly"

Ò sid dāa á n̄̄ nâ'ab. "Truly, he was a chief." WK
3AN truly tns cop foc chief:sG.


Ka so' kudin ku len nyee li ya'asa.
Kà sכ̄' kūdım kú lह̄m n̆ý́ع_lī yá'asā \({ }^{+} \varnothing\).
And ind.an ever neg.irr again see 3in.ob again neg.
"Nobody will ever see it again." (Rev 18:21, 1996)
n̆yāan or nāan "next, afterwards":

Ka Yesu tans ne kukotita'ar ka nyaan kpi.
Kà Yesu tán̆s nē 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?
J̄nı_ ø pá' tì àn̆ Kristo lā bé \({ }^{+} \varnothing\) ?
3AN.CNTR CAT perhaps cop Christ ART or PQ?
"Perhaps he is the Christ?" (Jn 4:29)
yō'on "then, next"

Manoa yo'on da ban ye o ans Zugsob maliak.
Manoa yū'on dá bàn yé ò à n \(\bar{\varepsilon}\) 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)

\subsection*{20.3 Ellipsis}

Informal ellipsis is liable to be declared incorrect by speakers if their attention is drawn to it; it does not affect meaning. It is common in greetings 28. More systematic ellipsis may imply anaphora or avoid repetition, as after kà (above), with VP complements 19.8.1, coordination within NPs 15.1, implicit tense marking 19.3.5, or in replies to questions 19.2.1. Ellipsis can become formalised, as with yह̀l before \(y \bar{\varepsilon}\) 25.2, questions with kóv+ or bé \({ }^{+}\)21.2, indirect commands 25.1 25.2.1, kà-preposing and \(n\)-focus 27.1.1 27.2 or hālí \({ }^{+}\)as a stand-alone intensifier 27.6.

Clause-level bound words may be left standing alone, but not phrase-level:

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 \(\underline{27.6}\)

Ellipsis of repeated elements in clause coordination is common, e.g.

Dāu lā n̆yé bī-díbìク kūv bī-púnàa \({ }^{+} \varnothing\) ?
Man:sG ART see child-boy:sg or child-girl:sG PQ?
"Did the man see a boy or a girl?"

\section*{21 Main clauses}

Main clauses show information-packaging possibilities \(\underline{27}\) not found in subordinate clauses other than content clauses, which are downranked main clauses and show the same structures 25.2 . Unless preceded by coordinating kà, they display independency marking 19.6. They divide into declarative types (the unmarked default), content and polar questions, commands, and types lacking VPs. They are coordinated with \(k a ̀ ~ " a n d ", ~ k \bar{u} v ~ " o r ", ~ b \bar{\varepsilon} \varepsilon ~ " o r " ; ~ k \bar{u} v ~ a n d ~ b \bar{\varepsilon} \varepsilon ~ a r e ~ s y n o n y m s ~ i n ~ t h i s ~ u s e . ~\) Coordinating kà corresponds to English zero before lદ̀ 19.7.1 and in narrative 19.3.5.

\subsection*{21.1 Content questions}

Content questions (except those with lia 21.4.2) 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 7.4.1. \(N \bar{\varepsilon}^{+/}\)may not appear 27.1.2.

There is no special interrogative word order, but if the subject contains the interrogative pronoun it must be \(n\)-focussed 27.1.1 whenever syntactically possible, and interrogatives other than subjects are very often kà-preposed 27.2:

Fù bôวd bó +ø? "What do you want?"
2SG want what cQ?

Fù bôวd línè + \(\quad\) ? "Which do you want?"
2SG want Dem.In cQ?

Ànó'כnì_ Ø n̆yz̄ bíigà \(\quad+\varnothing\) ? "Who has seen a child?"
Who cat see child:sg cQ?

Ànô'כn bíigì ø n̆wá +ø? "Whose child is this?"
Who child:Sg CAT this CQ?

Dāu lā n̆ý́ ànó'כnè +ø? "Whom did the man see?"

Ànว̂'כn kà dāu lā n̆ý́ع \({ }^{+} \varnothing\) ? "Whom did the man see?"
Who and man:sg ART see cQ?

Preposing is obligatory for bう̄ zúg, "why?" and for bう̄ when used for "why?":

Bó kà fô kúmmà +ø? "Why are you crying?"
What and 2SG weep:IPFV cQ?

\subsection*{21.2 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 7.4.1. \(N \bar{\varepsilon}^{+/}\)appears as in statements. The answer expected is \(\bar{\varepsilon} \varepsilon \check{n}\) 21.4.4.

Dāu lā n̆yé bíigàa \({ }^{+} \varnothing\) ? "Has the man seen a child?" Man:SG ART see child:sG PQ?
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M á nē dávov + Ø? "Am I a man?"

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1SG COP FOC man:SG PQ?

Bà kùvd nē búvsè \({ }^{+} \varnothing\) ?
3PL kill:IPFV FOC goat:PL PQ?

Fù pō wómmàa \({ }^{+} \varnothing+\varnothing\) ? "Don't you understand?"


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 n̆yé bïig kúv \({ }^{+} \varnothing\) ?
Man:SG ART see child:SG or PQ?
"Has the man seen a child?" (I expect so.)

Dāu lā n̆yé bïig béع \({ }^{+} \varnothing\) ?
Man:SG ART see child:sG or PQ?
"Has the man seen a child?" (I expect not.)

\subsection*{21.3 Commands}

For indirect commands, see 25.1 25.2.1. In direct commands the subject is 2 nd person: 2 sg pronouns are deleted, and 2 pl pronouns moved to immediately after the verb, assuming the liaison-word form ya 7.2.1 7.2.2. Thus

Fù gós biìg lā. "You (sg) have looked at the child."
2sG look.at child:SG ART.

Yà gós bïig lā. "You (pl) have looked at the child."
2PL look. at child:SG ART.
but Gj̀sım bīig lā! "Look (sg) at the child!"
Look.at:IMP child:SG ART!

Gว̀sımī ø bīig lā! "Look (pl) at the child!"
Look.at:IMP 2PL.SUB child:SG ART!

Dā ḡ̄s bïig láa +ø! "Don't (sg) look at the child!" NEG.IMP look child:SG ART NEG!

Dā gj̄sıø bīig láa \({ }^{+} \varnothing\) !
NEG.IMP look 2PL.SUB child:SG ART NEG!
"Don't (pl) look down!"

Dā ḡ̄sع \({ }^{+} \varnothing!\quad\) "Don't (sg) look."
NEG.IMP look NEG!
\(D \bar{a} \quad\) j̄̄sı_yá \({ }^{+} \varnothing!\quad\) "Don't (pl) look."
neG.IMP look 2PL.SUB NEG!
\(2 \mathrm{sg} / 2 \mathrm{pl}\) subject pronouns are not changed after yà'-clauses:

Fo ya'a mor pu'a, fon da moدd ye fo bas oo.
Fò yá' mכ̄r pư'ā, fūn dā mכ̄כd yé fù bás•ō-o +ð.
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 25.2.1, even when the addressee is the same as in the original utterance:

Ò yદ̀l yદ́ bà gj̀sım tह̄ŋı-n.
3AN say that 3PL look:IMP ground:SG-Loc.
"She said to them: Look down!" WK

Ò yદ̀l yદ́ fù gว̀sım tع̄ŋı-n.
3AN say that 2SG look:IMP ground:SG-Loc.
"She said to you sG: Look down!"

Ò yદ̀l yદ́ yà gj̀sım tह̄ŋı-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 yદ̀l yદ́ bà gว̀sımī ø t \(\bar{\eta} \eta \iota-n\).
3AN say that 3PL look:IMP 2PL.SUB ground:SG-Loc.
"He said to them: Look down!"

Kèmī_ ø nā \(n\) gj̄sı_ø!
Come:Imp 2pl.sub hither CAT look 2PL.SUB!
"Come (ye) and look!" (WK Kèmı̄ nā n gj̄s!)

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!
Gj̀sımīyá!
"Look!"
"Look! (plural)

\subsection*{21.4 Verbless clauses}

\subsection*{21.4.1 Identificational clauses}

Verbless identificational clauses have the form NP + catenator- \(n+\) deictic particle or wà nā "this here." The NP may be an interrogative pronoun.

Kùlını ø lā.
"That is a door."
Door:sg cat that.

Kùlıクı ø wá nā. "This here is a door."
Door:Sg cat this hither.

Bēogu ø lā.
Tomorrow cat that.
\(B \bar{\partial}\) _ø lá \({ }^{+} \varnothing\) ?
"What's that?"
What cat that cQ?

Ňwāamıs_ø n̆wá!
Monkey:PL CAT this!
"Monkeys!" [w̃ã:misa]
(Said by a passenger in my car, on suddenly catching sight of some.)

Identificational clauses may append clauses by catenation:

Anכ'כn nwaa yisid nidib tovmbع'عdi basida?
Àn亏̂'כn \(\varnothing\) n̆wáa_ \(\varnothing\) yīsıd nïdıb tôvm-bē'عdı \(\varnothing\) básıdà + \(\varnothing\) ?
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)

Yعl bככ nwa ka Wina'am ke ka li paae ti?
Yع̄l-bว́〇 ø n̆wá kà Wínà'am ké kà lì páa_ tì \({ }^{+} \varnothing\) ?
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)

Verbless clauses can be embedded in verbal clauses:

Ya ningid bככ nwa?
Yà nípìd bכ́כ_ø n̆wá \({ }^{+} \varnothing\) ?
2PL do:IPFV what CAT this CQ?
"What is this you are doing?" (Nehemiah 2:19)

Fo maal bo la tis mam?
Fò mâal bכ́כ ø lā \(\varnothing\) tís màm \({ }^{+} \varnothing\) ?
2SG make what CAT that CAT give me CQ?
"What is this that you have done to me?" (Numbers 23:11)

\subsection*{21.4.2 Lìa-clauses}

X + lìa means "where is X?" Although I often heard lìa in spontaneous conversation in the 1990's, no examples appear in the 1996 or 2016 Bible versions.

Fù mà lā lía + ?
2SG mother:sG ART be.where cQ?
"Where is your mother?" (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 lía \({ }^{+} \varnothing\) ?
And Num:nine ART be.where co?

\subsection*{21.4.3 Vocatives}

Vocative clauses usually either precede a main clause, or stand alone. They take the form of NPs followed by the vocative prosodic clitic 7.1:
\(\grave{M}\) pứā né m̀ bīise \({ }^{+} \varnothing\) !
1SG wife:sG with 1SG child:PL voc!
"My wife and my children!"
\(\grave{M}\) dìəmmā \({ }^{+} \varnothing\), bó kà fù kúөsìda \({ }^{+} \varnothing\) ?
1sG parent.in.law:SG voc, what and 2sG sell:IPFV CQ?
"Madam, what are you selling?"

Vocatives do not take the article \(/ \bar{a}^{+} /\), but often end in ňwà "this":
\begin{tabular}{lll} 
Bïis n̆wá! & "Children!" & [bi:sa] \\
Pư'ā n̆wá! & "Woman!" & [põawã] \\
Zכ̄n n̆wá & "Fools!" & [zon:a]
\end{tabular}

\subsection*{21.4.4 Particles as clauses}

Some particles occur characteristically as complete utterances. Some are onomatopoeic; others are widely shared among local languages.

Tう̀.
Báp.
Ǹfá!
"OK." (= Hausa tôo)
"Wallop!"
"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:

> Lì nàa né \({ }^{+} \varnothing\) ?
> 3IN finish FOC PQ?

ह̄ઘn̆.
Áyìı.
"Yes."
"No"

Lì pū nāée \({ }^{+} \varnothing{ }^{+} \varnothing\) ? "Isn't it finished?"
3IN NEG.IND finish NEG PQ?

દ̄ઘn̆.
"No."
Áyìı.
"Yes."

\section*{22 Catenated clauses}

\subsection*{22.1 Overview}

A clause may be followed by one or more VPs, each introduced by catenator- \(n\); for the realisation of this particle see 7.2. Complements, VP adjuncts, and even other clauses introduced by kà may be incorporated within such chains.

Amaa ka Zugsob malek daa ken n yo'og sarega doog za'anoor la yu'un kan, \(n\) more ba \(n\) yiis yin.
Àmáa kà Zūg-sób máliāk dāa k \(\bar{\eta} n\) yô'วg sārıgá dôدg
But and head-null.an angel:sg tns go cat open prison:sg house:sg zá'-nכ̄or lā yō'on-kán, \(n\) mōrí bā \(n\) yīis yín. 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 \(n\) zí'e lá'asùg lā nīdıb sísòvgō-n, \(n\) án And man-INDF.AN rise CAT stand assembly:SG ART person:PL among-LOC, CAT COP Parisee níd kà ò yō'ur bûөn 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 yélà, kà lém àn̆ yū'ur dâan nīdıb 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:

\footnotetext{
\(\grave{M}\) zání m̀ nú'ugù \(\varnothing\) sī'ıs dāká lā.
1sG pick.up 1SG hand:SG CAT touch box:SG ART.
"I touched the box with my hand."
}
?? M̀ zání m̀̀ nû'ug kà sī'ls dāká lā.
"I picked up my hand and touched the box."
\(\dot{M}\) dāa kûes bùju_ \(\varnothing\) tís dư'átà. 1SG TNS sell donkey:SG CAT give doctor:SG.
"I sold a donkey to the doctor."
?? M̀ dāa kûes bùn kà tís dư'átà.
"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 21.4.1:

Anכ'כn nwaa yisid nidib tovmbع'عdi basida?
Ànô'כn_ \(\varnothing\) n̆wáa_ \(\varnothing\) yīsıd nīdıb tôvm-b̄̄' \(\varepsilon d ı \_\varnothing\) básıdà \({ }^{+} \varnothing\) ?
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 constructions using kà in place of catenator- \(n\) 22.3. 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 27.1.2.

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 ( p 175 ) 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; the equivalent in translation in European languages would often be a participle modifying the main verb subject. However, it may be the first component which is semantically subordinate; many verbs have characteristic subordinate "auxiliary" roles in \(n\)-catenation, and whether they precede or follow the "main" verb depends on their own semantics. Moreover, in catenation the order of events, if they are not simultaneous, must always be mirrored in the order of the VPs 19.2.2.

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 Nīn-sâal Bîig kēn nā_ \(\varnothing\) 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' yع fupiela zi'e ba san'an.
Kà dāpá_àyí' yé fū-píəlà_ \(\varnothing\) zi'e 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)
(c) main VP + perfective VP in irrealis or imperative mood, expressing purpose. The preverb \(t i\) is commonly seen in the second VP.

Amaa m po mor antu'a zugv o yعla na sobi tis na'atita'ar laa.
Àmáa m̀ pū mכ̄r ántù'a zúgú_ò yह̄lá_ø nà sj̄bı_ø tís
But 1SG NEG.IND have case:sg upon 3AN about CAT IRR write CAT give
ná'-tītā'ar láa \({ }^{+} \varnothing\).
king-great:SG ART NEG.
"But I have no case about him to write to the Emperor." (Acts 25:26)

Kèm_ ø tí n̆y \(\bar{\varepsilon}\) dư'átà. "Go and see the doctor."
Go:IMP CAT after see doctor:sg.

Man ya'a po kén na tu'asini ba ...
Mān yá' pū kēe-n nā_ Ø tú'asī-ní_bā...
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) Hālı́+ "until" can precede \(n\)-catenated clauses as a prelinker adjunct 20.2.1.

Catenated VPs can be coordinated with kà "and":
ka ken ... n ian'asid ka pian'ad n du'osid Wina'am yu'ur su'una.
kà kह̄ŋ ... \(n\) īān̆'asíd kà piān̆'ad \(n\) dū'өsíd Wínà'am yô'ur súnā.
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 mena.
Sóginì̀-sכ̄' kā'e \(n\) tóm kà yכ̄כd ò mēŋá \({ }^{+} \varnothing\).
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)

\subsection*{22.2 Auxiliary verbs in \(\boldsymbol{n}\)-catenation}

Certain verbs have characteristic specialised meanings in \(n\)-catenation. Dualaspect verbs agree in aspect with the main VP verb.

\subsection*{22.2.1 Preceding the main VP}
b̀̀+ "exist, be somewhere" + ànínā "there" + imperfective "be in the process of ..."

Ò bè ànínā \(n\) n̆wê' \(\varepsilon d\) biig lā.
3AN EXIST ADV: there cat beat:IPFV child:SG ART.
"He's currently beating the child."
àeñ \({ }^{\text {a }}\) "be something/somehow" can be used in foregrounding by clefting 27.1.1:

Li ane o sidi su'oe li.
Lì á né ò sīdı \(\varnothing\) súv \(u\) lī.
3IN COP FOC 3AN husband:SG CAT own 3in.ob.
"It's her husband who owns it." (1 Cor 7:4)
\(\boldsymbol{m i}^{\mathbf{\prime}}{ }^{+}\)"know", \(\boldsymbol{z i}^{\text {'+ }}\) "not know": nàm mi \(n+\) perfective "always have X-ed", nàm zī' \(n+\) perfective "never have X-ed":

Makir bans buudi paadi ya la nan mi' paae sieba men.
Mākír bànı būudı pāadí yā lā nám mỉ_ø pāe sīəba 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)

M̀ nám zī＇＿\(\quad\) 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
\(\boldsymbol{z a ̀ m}^{\boldsymbol{\varepsilon}}\) and \(\boldsymbol{n} \overline{\boldsymbol{\Sigma}} \boldsymbol{k}^{\boldsymbol{\varepsilon} / ~ " p i c k ~ u p, ~ t a k e " ~ w i t h ~ o b j e c t ~ " u s i n g " ~(o f ~ a ~ l i t e r a l ~ o b j e c t ~ a s ~ i n s t r u m e n t) ~}\)

> M nók só'vgù_ø kiá nīm lā.

1sg pick．up knife：SG CAT cut meat：SG ART．
＂I cut the meat with a knife．＂
\(\grave{M}\) zání m̀ nú＇ugò \(\varnothing\) sīıs dāká lā．
1SG pick．up 1SG hand：SG CAT touch box：SG ART．
＂I touched the box with my hand．＂
\(\boldsymbol{m} \boldsymbol{r}^{\mathbf{a} /}\)＂have＂＋object＂bringing＂with motion verbs：

Dābá＿àyópj̀e kà fù mכ̄roó＿ø＿ø k \(\bar{\varepsilon}\) nā．
Day：PL NUM：seven and 2SG have उAN．OB CAT come hither．
＂Bring her here in a week．＂WK
dラ̄Ila／＂accompany in subordinate role，attend＂
 3PL follow 3AN．OB CAT go Bawku．
＂Beginning＂verbs naturally precede：

Ka Pita pin＇ili pa＇ali ba ．．．
Kà Pita pīn＇il＿ø pá＇alì＿bā．．．
And Peter begin cat teach 3PL．ов ．．．
＂Peter began to tell them．＂（Acts 11：4）

Tì dह́クì ø tís•ò ø lór．
1PL precede cat give zan．ob car．
＂We previously gave him a car．＂（dغ̀り\({ }^{\varepsilon}\)＂do／go first＂）

Ka dau sכ＇duoe zi＇en la＇asug la suvgin ．．．
Kà dàư－sכ̄＇dūe＿ø zî＇ən là＇asug lā súvgū－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）
\(\boldsymbol{k} \overline{\boldsymbol{\varepsilon}} \check{\boldsymbol{n}}^{+}\)"come" and \(\boldsymbol{k} \overline{\boldsymbol{\varepsilon}} \boldsymbol{\eta}^{\boldsymbol{\varepsilon} / ~ " g o " ~ c a n ~ b e ~ u s e d ~ s i m i l a r l y ~ a s ~ i n i t i a t o r s: ~}\)
\(\dot{M}\) kénì ø pīə nû'us. \(\quad\) I went and washed my hands."
1SG go CAT wash hand:PL.
\(\boldsymbol{s} \boldsymbol{u}^{\prime} \mathbf{a}^{\mathbf{a}}\) "conceal" is used in this construction for "secretly":

Ka Na'ab Herod su'a buol bapidib la ...
Kà Nà'ab Herod sư'ā_ ø bûel bāpıdıb lā...
And king:sg Herod conceal cat ask understander:PL ART...
"Herod secretly called for the wise men ..." (Mt 2:7)
nìg wālá+ literally "do how?" is used in catenation for "how can ...?" (see also 22.3):

Ninsaal na nip wala an pupiel Wina'am tuonne? Ninsaal biig na nip wala po mor taal Wina'am tuonne?
Nīn-sâal ná nīn wālá \(\varnothing\) àn̆ pú-pìəl Wínà'am tûөnnغ̀ \({ }^{+} \varnothing\) ?
Person-smooth:SG IRR do how CAT COP inside-white:sg God before cQ?
Nīn-sâal bîig nà nīg wālá \(\varnothing\) pū mōr tâal
Person-smooth:Sg child:SG IRR do how cAT NEG.IND have fault:sg
Wínà'am tûөnnغ̀ \({ }^{+} \varnothing\) ?
God before ca?
"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)
n̆yā \(\boldsymbol{\eta}^{\varepsilon /}\) means "overcome" as a main verb:

Ka m nyan dunia. \(\quad\) I have overcome the world." (Jn 16:33)
Kà m̀ n̆yān dūnıya.
And 1SG overcome world:sg.

As a \(n\)-catenation auxiliary it means "carry out successfully, prevail in":

M pū n̆yāpı ø záb nà'ab láa \({ }^{+} \varnothing\).
1SG NEG.IND prevail CAT fight chief:SG ART NEG.
"I wasn't able to fight the chief."

Unlike English "can", ňyā \(\eta^{\varepsilon /}\) 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.

M kú n̆yāpı ø záb nà'ab láa \({ }^{+} \varnothing\).
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 nyapedin ketin ka nidib voen
wād-línì n̆yānídī-n_ ø kētí-n kà nīdıb vōv-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 papi na tun'e si'em
bà dāa tís kà lì zēmísì bà pànı ø nà tūň'e sỉəm \(3 P L T N S\) 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 ko tun'e su'a.
kà lì kú tūn̆'e_ \(\varnothing\) sú'āa \({ }^{+} \varnothing\).
and 3in neg.irr be.able cat hide neg.
"which cannot be hidden" (Mt 5:14)

Ya na tun'e zin' tepin la ne ti.
Yà ná tūn̆'e_ \(\varnothing\) zín'i tह̄ŋı-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)

Fo tun'e nyzt si'ela?
Fò tún̆'e_ ø n̆y \(\bar{\varepsilon} t\) sí'əlàa \({ }^{+} \varnothing\) ?
2SG be.able CAT see:IPFV INDF.IN PQ?
"Can you see anything?" (Mk 8:23)

O po tun'e pian'ada.
Ò pū tūn̄'e_ ø pinān̄'adá \({ }^{+} \varnothing\).
3AN NEG.IND be.able CAT speak:IPFV neg.
"He could not speak." (Lk 1:22)

With ňyāng \({ }^{\varepsilon /}\) as the main verb in the sense "overcome":
bozugo ba ku tun'e nyane ba meja.
bj̄ zúgj̄ bà kù tūn̆'e_ Ø n̆yāクí_bà mēná \({ }^{+} \varnothing\).
because 3PL NEG.IRR be.able CAT control 3PL self NEG.
"because they cannot control themselves." (1 Cor 7:5, 1996)

\subsection*{22.2.2 Following the main VP}
\(\boldsymbol{t i ̀ s}^{\varepsilon}\) "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 Sun.
Fù \(p \bar{u}\) má' \(n\) tìs nīn-sáalā \(\quad \varnothing\), àmáa fù mà'
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 bùnu_ \(\varnothing\) tís dư'átà.
1SG TNS sell donkey:SG cat give doctor:SG.
"I sold a donkey to the doctor."
gàad \({ }^{\varepsilon}\) "pass, surpass" can be used in comparisons:

Isaac kárìm_ø gát John.
Isaac read:IPFV CAT pass:IPFV John.
"Isaac reads better than John." SB
À-Wīn gím_ \(\quad\) gát À-Būgur.
PERS-Awini be.short CAT pass:IPFV PERS-Abugri.
"Awini is shorter than Abugri." SB

Fu sid מכח mam gat bamaa?
Fù síd nכ̀ mām_ø gát bámmáa \({ }^{+} \varnothing\) ?
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.
"She's eaten too much."

3AN eat cat exceed.

Dā kárìm gbánà \(\varnothing\) gálısìdā \(+\varnothing\).
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":

Anכ'כn nwaa yisid nidib tuvmbع'عdi basida?
Ànô'כn_ø n̆wáa_ø yīsıd nīdıb tôvm-b̄̄'عdı_ø 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)

Ending verbs naturally follow the main VP:

Ò dì_ \(\varnothing\) nāe. "He's finished eating."
3AN eat CAT finish.

Ò dìı \(\varnothing\) tīg. \(\quad\) "She's eaten to satiety."
3AN eat cat get.sated.

Motion verbs occur in \(n\)-catenation with meanings like local prepositions e.g.

Ò kàt kíkīr-bê'عd-nàm n yīisíd nīdıb.
3AN drive:IPFV fairy-bad-PL CAT expel:IPFV person:PL.
"He drives evil spirits out of people."

Èn̆rıgım_ \(\varnothing\) páa_m. "Shift along up to me." (pāe \({ }^{+/}\)"reach")
Shift.along:IMP CAT reach 1sG.OB.
\(\boldsymbol{w} \overline{\boldsymbol{\varepsilon}} \boldsymbol{n}^{\text {na/ }}\) "be like" is very common in \(n\)-catenation. W \(\bar{\varepsilon} n^{\text {na/ }}+\) complement sequences are often treated like prepositional phrases \(\underline{18}\). As a main verb:

Ka o nindaa wenne nintan ne.
Kà ò nīn-dáa w \(\bar{\varepsilon} n \quad n \bar{\varepsilon}\) nīntāク 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)
\(W \bar{\varepsilon} n^{n a /}\) takes a prepositional phrase with wōv "like" or n \(\bar{\varepsilon}\) "with" as complement. Any object without the article \(\bar{I}^{+}+\), even a pronoun or proper name, must be followed by a meaningless \(n \bar{\varepsilon}\). Before numbers and measurements w \(\bar{\varepsilon} n^{\text {na/ }}\) means "about, approximately"; numbers appearing alone are not followed by n \(\bar{\varepsilon}\) :

Li ane wov maila ayi' ne.
\(L i ̀\) à \(n \bar{\varepsilon}\) wōv maila àyí' \(n \bar{\varepsilon}\).
3IN COP FOC like mile NUM:two like.
"It's about two miles." (Jn 11:18)
but ka ba kal an wov kobiga ne pisi.
kà bà kāl án̆ wōo kóbıgā n̄̄ pīsí.
and 3PL number:SG cop like hundred with twenty
"and their number was about 120." (Acts 1:15)
là'am \(\mathbf{m}^{\mathbf{m}}\) "together" is also found as a preverb 19.7.2 and in the compound preposition là'am \(n \bar{\varepsilon}\) "together with" 18 . As a main verb it means "associate with":
... ye labasun moolug la ket ka buudi wusa la'amid ne taaba pudugid Wina'am piini.
... y \(\bar{\varepsilon}\) lábà-sùn móכlùg lā két kà būudı wūsa lá'amìd
... that news-good:sG proclamation ART cause:IPFV and tribe all gather:IPFV n̄̄ tāaba_ \(\varnothing\) pūdıgíd Wínà'am píinì.
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'as \(\mathbf{s}^{\mathbf{a}}\) "again" is rarely preceded by liaison (never in KB) and has now effectively simply become an adverb; it is even preposable with kà 27.2. 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 lém yètı \(\varnothing\) yâ'as
and 1SG again say:IPFV CAT again

Ya'as ka mos... "Again I looked ..." (Rev 5:11, 1976)
Yà'as kà m̀ gว̄s...
Again and 1sg look ...

\subsection*{22.3 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 \(2: 7 \mathrm{kz}\) ka fo men 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 pu nyani kovo.
Lì dà kè kà bà pū n̆yāpı_ \(\varnothing\) kú o \(\varnothing \quad{ }^{+} \varnothing\).
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 kudim nipidi lin ye li ke ka ba da nye Kristo kum dapuudir namisug laa.
Bà kūdım nípìdī lí yé lì ké kà bà dā n̆yē Kristo kúm
3PL ever do:IPFV 3IN.OB that 3IN cause and 3PL neg.IMP see Christ death
dà-pōodír námısùg láa \({ }^{+} \varnothing\).
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'llímm \({ }^{+} \varnothing\).
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 \(k \varepsilon ́ \varepsilon-n ~ k a ̀, ~ w i t h ~ d i s c o n t i n u o u s-p a s t ~ n e ~ t h e ~ c a t e n a t e d ~ c l a u s e ~ g e n e r a l l y ~ h a d ~\) \(n^{\varepsilon}\) in the 1976 Bible, but this is no longer invariable. Aspect usually matches:

Ka li ans wada la ket ka toumbs'عd nyet paŋ.

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 \(\left.k \grave{\varepsilon}\right|^{\text {a }}\), followed by a kà-clause with imperative mood, creates a way of expressing commands to third or first persons:

Kह̀l kà ò gכ̄s tह̄ŋı-n.
Cause:IMP and 3AN look ground:SG-Loc.
"Let him look down."

Dā ké kà dàbīəm bé \({ }^{+} \varnothing!\)
neg.Imp cause and fear exist neg.
"Don't be afraid." ("Let fear not exist.")

Kèl [or Kغ̀lí_ ø] kà tì pô'us Wínà'am.
Cause:IMP cause:IMP 2PL.SUB and 1PL greet God.
"Let us praise God."
Kغ̀l kà ... is often ellipted informally, leaving the lack of independency marking as the only sign that the clause is a command:
\(\grave{M}\) gós nīf lā. "I've looked at the eye."
1SG look.at eye:SG ART.
but \(\grave{M}\) gj̄s nīf lā.
1sG look.at eye:SG ART.
\(\dot{M}\) dígınè \({ }^{+} \varnothing\) ?
1SG lie.down PQ?
"Am I to lie down?" (Overheard in clinic)
No independency imperative \(-m^{\text {a }}\)

Ò záb nà'ab lā.
3AN fight chief:SG ART.
"He should fight the chief." M spreading after ò, not záb 19.6.1.2

Mit is a defective verb used only in the imperative 19.5. 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 toom soma nidib tuon ye ba gos.
Mit kà yà máalì yà tùvm-sòma nīdıb tûөn yé bà gj̄s. 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 nìg 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 nip wala ka o an David yaana?
Lì nì wēlá kà ò án̆ David yâaŋà \(\quad+\varnothing\) ?
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 nys faangirs?
\(\dot{M}\) ná nīŋ wēlá kà n̆yē fāan̆gírè \({ }^{+} \varnothing\) ?
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 zín̆'i Listra ní kà pū tūn̄'e_ \(\varnothing\) k \(\bar{\sim} n n a ́ ~ † \varnothing . ~\)
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 Iכככ ka pu nuud daam
Kà Joon k \(\bar{\varepsilon}\) nā \(\varnothing\) lכ̄כd nכ̄כr kà pū nūud dáamm \({ }^{+} \varnothing\).
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 ku kpii ...
Yà sīəba bé kpēlá \(\varnothing\) kú kpīi \({ }^{+} \varnothing\)...
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 19.8.1. The sense resembles a non-restrictive relative clause:

Anina ka o nye dau ka o yo'vr buon Aneas.
Àníná kà ò ňyē dáư kà ò yō'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 pu'usid Wina'am ka li nar ka ya kad saria.
Lì à né yà tāaba bánì pò'usıd 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 21.4.1, the NP of the main clause can be the anchor:

> Yعl bככ nwa ka Wina'am ke ka li paae ti?
> Yह̄l-bóכ ø ňwá kà Wínà'am ké kà lì páa_tì +ø?
> Matter-what cat this and God cause and 3IN arrive 1PL.OBCQ?
> "What is this that God has made to come to us?" (Genesis 42:28)

Adnominal kà-catenation is the basis of kà-clefting and kà-preposing 27.2.
The subject of the catenated clause does not normally refer to the anchor; if it does, the kà-catenation is a resultative predicate 19.8.2:
...ka la'am maan gigis ka ba wum ka pia'ad.
...kà lâ'am màan gígìs kà bà wóm kà piān̆'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":
M dāa n̆y \(\overline{\text { dā }}\) dā 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"

M̀ dāa pū ňy \(\bar{\varepsilon}\) dāu lá kà ò áň ná'abā \({ }^{+} \varnothing\).
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:
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*M̀ dāa pū n̆y\overline{\varepsilon}dāu lá kà ò á n\overline{\varepsilon ná'abā +`.}

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1SG TNS NEG.IND see man:SG ART and 3AN COP FOC chief:SG nEG.

\section*{23 Conditional clauses}

\subsection*{23.1 Overview}

Conditional clauses have a subordinate yà'-clause as a postlinker adjunct before the subject of the main clause, after any other adjuncts. Yà'-clauses cannot be coordinated with each other, though they may contain coordinated subclauses, and a main clause may contain more than one yà'-clause:

Fù yá' bj̀วd, m̀ yá' lèb nā, m̀ ná yכ́o f.
2SG if want, 1 SG if return hither, 1SG IRR pay 2SG.ob.
"If you want, when I return, I will pay you."

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:

Fo ya'a mor pu'a, fon da mכدd ye fo bas oo.
Fò yá' mōr pư'ā, fūn dā mכ̄כd yé fù bás•ō-o \(+\varnothing\).
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)

Occasionally, the yà'-clause appears clause-finally because of extraposition due to weight, notably in constructions meaning "it would be better if ...":

Dinzug li naan a su'um ba ya'a pu du'an dau kayaa.
Dìn-zúg lì nāan án̆ súm bà yá' pō dô'a-n dáu-kànáa \({ }^{+} \varnothing\).
Thus 3 IN 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)

The main clause can be of any type, including a command, as above, or a question; it may have elements preposed with kà 27.2:

Fù yá' gj̄s kpह̄lá, bó kà fù ñy \(\bar{t}\) tá \(+\varnothing\) ?
2sG if look here, what and 2sG see:IPFV cQ?
"If you look here, what do you see?"

Yà'-clauses express tense independently. They can have irrealis mood, but an indicative event-perfective need not have past reference in a yà'-clause:

Fu ya'a na dollimi keŋ, m na keŋ.
Fù yá' nà dכ̄Ilí mī ø k \(\bar{\eta}, \dot{m}\) ná \(k \bar{\eta} \eta\).
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 po kene, Supid la ku kezn ya ni naa.
M̀ yá' \(p \bar{u} \quad k \bar{\varepsilon} \eta \varepsilon^{+} \varnothing\), sūpıd lā kú k \(\varepsilon\) हn̆_yà nī náa \({ }^{+} \varnothing\).
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)

\subsection*{23.1.1 Discontinuous-past \(\boldsymbol{n}\)}

The left-bound liaison word \(n^{\varepsilon}\) can express a discontinous today-past 19.3.3, but much more often has a meaning analogous to the modal remoteness expressed by the use of the English preterite in non-temporal usage (CGEL pp148ff.) It expresses a hypothetical or unlikely state of affairs; if it is accompanied by post-subject nāan( \(ا\) ), the sense is contrary-to-fact. It can attach to any verb form in indicative or irrealis mood, but is incompatible with the imperative. In \(n\)-catenation, if \(n^{\varepsilon}\) is found in the first VP it is usually repeated in all. It appears most often in yà'-clauses, but occurs both with and without nāan( \(ا\) ) in other clause types; without nāan( \(ا\) ) this is most often in the expression bj̀วdī-n "might wish":
m pa'ati nye ka ya pu wenne wuu man boodin ye ya aan si'em laa.
\(\grave{m}\) pá' tì n̆yé kà yà \(p \bar{u} \quad w \bar{n} n \quad n \bar{\varepsilon}\)
1SG perhaps see and 2PLNEG.IND resemble with
wōv mán bう̀วdī-n yદ́ yà âa-n sỉəm láa \({ }^{+}\)ø.
like 1SG:NZ want-DP that 2PL COP-DP INDF.ADV ART NEG.
"I will perhaps find you not as I might wish." (2 Cor 12:20, 1996)

Man bơdin ne yaname naan aan ma'asiga bec yaname naan aan tovliga.
Mān bว́วdī-n n̄ yānámì ø nāan âa-n mā'asígā b̄̄ع
1SG.CNTR want-DP that 2PL NZ then cop-DP cold:ADV or
yānámíø nāan âa-n tōolígā.
2PL NZ then cop-DP hot:ADV.
"I might wish you had been cold or you had been hot." (Rev 3:15)

\subsection*{23.1.2 Nāan(t) "in that case"}

Post-subject nāan(l) is distinct from n̆yāan "next, afterwards, then", but n̆yāan itself has a frequent alternative form nāan. Thus, in parallel NT passages:

Fu na ki'is noor atan' ye, fu zi' ma, ka noraug nyaan kaas.
Fù ná kī'ıs nóvr àtán̆' yé fù zí'l mā \({ }^{+} \varnothing\),
2SG IRR deny occasion:SG num:three that 2SG neg.know 1sG.ob neg, kà nכ̄-dâvg n̆yāan kāas.
and hen-male:sG next cry.
"You will deny three times that 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.
Fò ná kī'ıs mān nóvr àtán̆' kà nj̄-dâvg
2SG IRR deny 1SG.CNTR occasion:SG nUm:three and hen-male:sg
nāan kāas nóor àyí.
next cry occasion:sg num:two.
"You will deny me three times before the cock crows twice." (Mk 14:30, 1996)

The distinct particle nāan(ı) has a core verbal sense "be(ing) there/thus"; it can appear with its own locative complement, typically before a \(n\)-catenated clause:
\(M\) nye ka Sutaana naane arazana ni \(n\) lu wenne saa yiti iank si'em la.
\(\dot{M}\) n̆yć kà Sōtáanà nāaní_ \(\varnothing\) àrazánà nín lù_ \(\varnothing\) w \(\bar{n} n \quad n \bar{\varepsilon}\)
1sg see and Satan be.there cat sky LOC Cat fall cat resemble foc
sáa ø yītl_ \(\quad\) iān̆k sìəm lā.
rain:SG NZ emerge:IPFV CAT leap INDF.ADV ART.
"I saw Satan in heaven fall like lightning." (Lk 10:18, 1996)
dap bans gur ye ba zugdaan naan pu'adiir di'ema zin'igin kul na
dàp-bànı gūr yદ́ bà zūg-dâan nāan pư'á-dīır dí'əmà
man-REL.PL wait that 3PL head-owner:SG be.there wife-taking:SG feast:PL
zín̆'igī-n_ ø kūl nā
place:sG-LOC CAT go.home hither.
"men who are waiting for their lord at a wedding feast to return ..." (Lk 12:36)

Ka nwadbibis na naan agola lit temin na.
Kà n̆wād-bíbìs ná nāan àgólà ø lít tēpı-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)

Nāanı evidently originated in nāan followed by catenator-n, but I will omit cAT in the interlinear glossing henceforward.

Most cases of modal nāan(l) appear in conditional main clauses. In other main clauses nāan without \(n^{\varepsilon}\) is often a by-form of n̆yāan as described above; if not, the meaning is "in that case, matters being thus." Examples of nāan(l) in subordinate clauses are uncommon in KB, which usually simply shows the irrealis marker nà where older versions have nāan.
\(N a \bar{a} n(\iota)\) without \(n^{\varepsilon}\) is often effectively equivalent to yà' "if/when."

Li an sum ye dau yinne naan kpi nidib la yعla gaad ...
Lì àn̆ súm ȳ̄ dāu yūnní nāan kpí nīdıb lā yélà - ø 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 kpisipkpil ka fu sin ka mor suguru, li su'um a bo?
Fón nāanı tóm bē'ed kà bà sīgısú_ \(f\) n̄ kpísìnkpìl 25G:Nz then do bad and 3PL put.down 25G.0B with fist:SG kà fù sín kà mōr sūgurú, lì sòm án̆ bó \({ }^{+} \varnothing\) ? and 2 SG be.silent and have forbearance, JIN 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.
Nう̀pır lém kā'e_ø gâad nīdí_ ø nāan kpí ò zừà-nàm zúgj̄ \({ }^{+} \varnothing\).
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 zunzop naani ve'ed zunzop ne.

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)

When \(n \bar{a} a n(\iota)\) is accompanied by discontinuous-past \(n^{\varepsilon}\) the meaning is contrary-to-fact, as in conditional clauses:

Li su'm ka fu daa naan zanin m ligidi \(n\) su'an banki ni.
Lì sò̀m kà fù dāa nāan zání-n_m̀ līgıdı \(n\) sō'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 keך nyęn nodi'es la be Samaria la!
\(\grave{M}\) zūg-dâan lā yá' nāan síákì Ø k \(\bar{\eta} \varnothing\) ñy \(\bar{\varepsilon} \varepsilon-n\)
1sg head-owner:Sg ART if then agree cat go cat see-dp
nó-dî'əs lá ø bè Samaria lā!
mouth-transmitter:SG ART NZ EXIST Samaria ART!
"If only my lord would agree to go to see the prophet in Samaria!" (2 Kings 5:3)

\subsection*{23.2 Open}

Conditional clauses without discontinuous-past \(n^{\varepsilon}\) or nāan( \()\) express "if", and also "when" with a main clause with present or future reference. With main clauses with past reference, yà' is only used for conditionals; for the meaning "when", an absolute clause with time reference is used as a postlinker or VP adjunct 24.2.

Nid ya'a tom tovma, o di'ed yככd.
Nīd yá' tùm tūuma, ò di'əd yj̄כd.
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 po vo'vg kumine, alaa ti labasop la moدlog la ane zaalim.
Kà Kristo yá' dà pū vō'טg kūmı-né \({ }^{+} \varnothing\), àláa_ tì làba-sùp
And Christ if tNs neg.Ind come.alive death-LOC neg, ADV:thus 1PL news-good:SG lā móวlùg lā á nē 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' siàk, tì ná dīgllí_ \(f\).
2SG if agree, 1PL IRR lay.down 2SG.ob.
"If you agree, we'll put you to bed [i.e. admit you to hospital.]"

Brog ya'a nie fo na wom o pian'ad.
Bēog yá' nìe, fù ná wóm ò pìàn̆'ad.
Tomorrow if appear, 2SG IRR hear 3AN speech.
"When tomorrow comes, you will hear his words." (Acts 25:22)

Cf Hausa ìdan gàrii yaa waayèe zaa mù tàfi "When dawn comes we'll go." (Jaggar p608), where ìdan is likewise "if/when."

\subsection*{23.3 Hypothetical}

If discontinuous-past \(n^{\varepsilon}\) occurs in the yà'-clause and the main clause does not have nāan( \(ا\) ), the meaning is hypothetical. The main clause has irrealis mood; in the 1976 NT, but not later Bible versions, it also has \(n^{\varepsilon}\).

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' yèl̄̄-n y \(\bar{\varepsilon}\), ón pū án̆ nû'ug lā zúg,
Leg:sG if say-dp that 3AN:NZ NEG.Ind cop hand:sg art upon,
ò kā' nín-gbīŋ núı \({ }^{+} \varnothing\), līn kú n̆yāクı-n_ ø
3AN NEG.BE body-skin:SG LOC NEG, DEM.IN NEG.IRR accomplish-dP CAT
kéع-n kà ò kā' nín-gbīn níı \({ }^{+} \varnothing\).
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)

2016: Nobir ya'a yelin ye, "Man ka' nu'ug la zug, m ka' nipbipla nii," lin ko nyani ke ka o ka' niggbiŋ la nii.

Later versions also use open conditionals with irrealis mood in the main clause:

Wief ya'a sigin li ni, li zulun na paaen o salabir.
Wìəf yá'sīgí-n lì nī, lì zùlon 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)

2016: Ka wief ya'a sigi li ni, li zulv na paae o salibir.

\subsection*{23.4 Contrary-to-fact}

If the main clause has nāan( \(ا\) ), there is a contrary-to-fact implication. Both main and yà'-clause have discontinuous-past \(n^{\varepsilon}\) :

Man ya'a po kén na tu'asini ba, ba naan ku morin taale.
Mān yá' pū k \(\bar{\varepsilon} \varepsilon-n \quad n a ̄ \_\varnothing\) tú'asī-ní_bā, bà nāan kú
1SG.CNTR if NEG.IND come-dP hither CAT talk-DP 3PL.OB, 3PL then NEG.IRR mכ̄rı-n tâallē \({ }^{+} \varnothing\).
have-dP fault:SG NEG.
"If I had not come to speak to them, they would not have been guilty."
(Jn 15:22)

Ya'a ka'ane alaa, m naan ku yeline ya ye ...
Yà' kā'a-ní_àlá, m̀ nāan kú yz̄lı-ní yā ȳ̄...
If NEG.be-DP ADV:thus, \(15 G\) 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)

Ba ya'a daa mi'ine li, ba naan ku kpa'an Zugsob one an na'atita'ar la dapuudir zugo.
Bà yá' dāa mīi-ní_ lī, bà nāan kú kpā'a-n 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-pōodá zùgう̄ \({ }^{+} \varnothing\).
cop king-great:sG ART wood-cross:sg 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)

Ya ya'a mi'in line na tisi ya sumbugusum zina nwa, li naan aan su'um! Yà yá' mīi-n línì nà tīsı yá súmbūgusím zīná ñwá, 2PL if know-dp rel.In IRR give 2PL.ob peace today this, ì nāan âa-n súm!
3IN then COP-DP good:ABSTR.
"If you had known this day what would have brought you peace, that would have been good." (Lk 19:42)

Contrary-to-fact conditions in the past are also sometimes marked by combining the irrealis mood with preverbal past tense markers in the main clause; the yà'-clause has \(n^{\varepsilon}\) as usual:

Bozugə Josua ya'a da tisini ba vo'usum zin'ig, Wina'am da ko Iem pian' dabis-si'a yعla ya'asع.
Bj̄ zúgj̄ Josua yá' dà tìsī-ní_bā vō'usím zîn̆'ig, Wínà'am dá kù
Because Joshua if tns give-dp 3PL.ob resting place:SG, God tNS neg.IRR lह̄m píān̆' dábiss-si'a y ह́là yà'as \({ }^{+} \varnothing\).
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)

Similarly, 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 confirmed this meaning, as against "He was going to fight the chief."

\section*{\(24 \boldsymbol{N}\)-clauses}

\subsection*{24.1 Overview}

Kusaal transforms complete clauses into AdvPs or NPs by inserting the postsubject particle \(\grave{n}\) (for the realisation, see 7.2.) 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." \(\grave{N}\)-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 19.3.5.) Irrealis mood must replace the imperative:

Yaname na mor sam si'a ane ye ya מכn taaba.
Yānámì ø nà mōr sām-sía á nē yé yà nón tāaba.
2PL NZ IRR have debt-INDF.IN 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. 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 \(I_{\bar{a}}{ }^{+/}\). After relative clauses \(I_{\bar{a}}{ }^{+/}\)has its usual function; clauses without \(\overline{I a}^{+/}\)are usually indefinite but specific.

כ̄n sכ̄b á n̄̄ dáúlkànı 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 bう̀วd yध́ bà n̆yé \(f\) ké nā.
Man-REL.PL want that 3PL see 25 G .0 ob come hither.
"Some men who want to see you have come."

\section*{one du'a ne Siig}
"someone born of the Spirit" (Jn 3:8)
j̀nı dư'à n̄ Sūıg
rel.an bear with spirit:SG
ons tomi m la na
j̀nı tòmım lā nā
REL.AN send 1SG.ob art hither
"he who sent me hither" (Mk 9:37)
(ว̀nı = 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 \(I_{\bar{a}}{ }^{+/}\). If the clause contains the VP-final particles nā\({ }^{+/}\)"hither" sà \({ }^{+}\)"hence", these may follow an article belonging to the \(\grave{n}\)-clause 19.10.

If a \(\grave{n}\)-clause has a negative VP, the negative prosodic clitic is dropped unless the \(\grave{n}\)-clause lacks \(I^{-}+/\)and is itself clause-final in the superordinate clause \(\underline{26}\).

\subsection*{24.2 Absolute clauses}
\(\grave{N}\)-clauses without relative pronouns or indefinite pronouns used as relatives are absolute clauses, meaning "it being the fact that ...":

Dāu lā dāa záb nà'ab lā.
Man:sg ART TNS fight chief:sg ART.
"The man has fought the chief."
dāu lá ø 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 \(\underline{20.2 .1}\) or as VP adjuncts, generally preposed with kà 27.2. 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 n̆y \(̄ t\) súnā, ón dāa án̆ bílīa láa \({ }^{+} \varnothing\) ?
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 y ́lì_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 meך ...
Kà bán yī lā, kà Zūg-sób máliāk níe 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 use as verb arguments, most often as the complement of àeña "be", though occasionally as subjects:

Kristo da kpii ti yela la ke ka ti bay nopilim an si'em.
Kristo_ø dà kpii_tì yह̄lá lā ké kà tì bán nว̀クılím_ø àn̆ sīəəm. 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)

Dine ke ka m a saalbiis zua la ane mam pu sa'amidi ba la'ad ka me pu diti ba ki la.
Dìnı ké kà m̀ án sâal-bïis zưá lā á nē mán
REL.SG cause and 1SG cop smooth-child:PL friend:SG ART COP FOC 1SG:NZ
pū sáň'amìdí_bà lā'ad kà mé pū dítí_ bà kī láa \({ }^{+} \varnothing\).
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":

Tiname sagidim aan o biis la, ti da ten'عs ...
Tīnámì ø sādıgím áan̆_ò bīis lā, tì dā tह̄n̆'عs ...
1PL NZ since COP 3AN child:PLART, 1PL NEG.IMP think ...
"Since we are his children, we should not think ..." (Acts 17:29)

Amaa on sadigim kpi la, bכ ka m lem loכd nכr ya'asc?
Àmáa ón sādıgím kpílā, bó kà m̀ lém
But 3AN:nz since die ART, what and 1Sg again

tie:IPFV mouth:SG again NEG CQ?
"But since he has died, why should I still be fasting?" (2 Samuel 12:23)

For absolute clauses with post-subject nāan(ı) see 23.1.2.

Absolute clauses occur after hālí n̄̄ or hālí là'am n̄ "although, even as" 18, and hālí n tì pāa ..."up until the time when ..." 20.2.1.

Before the postposition zūg \({ }^{\text {J/ "on account of", or bj̄ zúgj̄ "because", absolute }}\) clauses form reason-why AdvPs used as adjuncts:

Ka ba la'as taaba n deni nye Blestus one a na'ab Herod samanna'ab la n maal suer ye o nwe' na'ab nu'ug, ba diib n yit na'aten la na zug.
Kà bà lâ'as tāaba \(n\) dénì ø n̆y \(\bar{\varepsilon}\) Blestus ónì àn̆ nâ'ab Herod And 3pl gather each.other cat do.first cat see Blastus rel.an cop king:sg Herod sāmán-nà'ab lā \(n\) mâal sūөr yย́ ò n̆wé' nà'ab nû'ug, courtyard-chief:SG ART CAT make way:SG that 3AN strike king:SG hand:SG,
bà dīıb ǹ yīt ná'-tह̄ך lā nā zúg.
3PL food Nz emerge:IPFV king-country:SG ART hither upon.
"They gathered together after first seeing Blastus, king Herod's chamberlain, to get him to make an agreement with the king, because their food came from the king's land." (Acts 12:20, 1996)

Kà-preposing 27.2 may be needed to match word order to event order 19.2.2:

Mán ňwغ̀' dāu lā zúg kà police gbáň'a_m.
1SG:NZ strike man:SG ART upon and police seize 1SG.OB.
"Because I struck the man the police arrested me."

It is commoner for causation to be simply implied by an absolute clause as postlinker adjunct or kà-preposed VP adjunct, or just by coordination with kà.

Y \(\bar{\varepsilon} l a ́+\) "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 yélà
Jesus nz enter Jerusalem ART about
"[about] Jesus entering into Jerusalem."
Ban meed yir
"A house being built"
Bán mèzd yīr
3PL:NZ build:IPFV house:SG

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\subsection*{24.3 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 \(\dot{n}\).

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 kane kànı as a relative for human reference (invariably so after proper names), substituting one j̀nı, which cannot be preceded by a cb; the resulting construction is appositional:
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)

Note that this example is unequivocally non-restrictive.
Uncompounded pronouns are obviously necessary with heads that lack cbs or have a coordinate structure:

\section*{kokor kaya lini yi arazana ni la na}
kùkכ̄r-kánā línì yí àrazánàní 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 gbaunun line an nyovopaal dim gbaup la
nīn-bánì yūdá sכ̄b Pē'-bíl lā gbáunū-n línì
person-ReL.pL name:PL write Lamb:SG art book:SG-Loc rel.in
àn̆ ňyó-vō-pâal dím gbáun 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 n̄̄ Timoti bánì àn̆ Yesu Kristo tóm-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:

\section*{Wina'am one gaad si'el wusa la}

Wínà'am ónì gàad sỉəl wūsa la
God rel.an pass indfin all art
"God who surpasses everything." (Lk 1:35)
wov bani gban'ad si'el si'em la
wōv bāní ø gbān̄'ad sỉəəl sīəm 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 sכ' wusa on vo'vg ninkan kumin la zug.
Ò pà'al n̄̄'-nám n̆yāe_ \(\varnothing\) tís sō' wūsa ón vō'ug nīn-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 kana tom si'el laa?
ò nà tūm tûvm-n̆yālımá_ø gàad dàu-kàná_ ø tùm sỉəl láa \({ }^{+} \varnothing\) ?
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)

\subsection*{24.3.1 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 gbaunin la, ane ameŋa.
> Wínà'am nó-dí'əsìdıb n dāa yél sī'əl n sj̄b
> God mouth-receiver:PL NZ TNS say INDF.IN CAT write
> Wínà'am gbáunū-n lā á né àmēná.
> 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 yslim fon nig li si'el.
... fön y f́lìm fún nìnılı̄ sīəə.
... 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 ku gaad one tom o la.
Kà bán tòm sכ̄' lā kú gāad ónì tòm•o ø láa \({ }^{+} \varnothing\).
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)

Ka o niy on tun'e si'el.
Kà ò nípón tūn̄'e sỉəl.
And 3AN do 3AN:Nz be.able indF.in.
"She has done what she could." (Mk 14:8,1996)

M na tisif fun bood si'el wusa.
M̀ ná tīsıff fún bj̀כd sīəl 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 \(s \overline{ }{ }^{\prime}\) ' in the 1996 NT are of this type.)
m na pa'ali ya on nwene so'.
m̀ ná pā'alılıá ón \(w \bar{\varepsilon} n \quad n \bar{\varepsilon} \quad s \overline{ }{ }^{\prime}\).
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'.
"I know who you are." (Lk 4:34)
M̀ mí' fún àn̆ sō'.
1SG know 2SG:NZ COP INDF.AN.

David da tom so' ye o bu'osi ban pu'a la an so'.
David dá tòm sכ̄' yદ́ ò bū'өsıø báp pư'ā lá Ø àn̆ sכ̄'.
David tns send indF.AN that 3AN ask CAT understand 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 ban man yel ye \(m\) an so' la.
yà ná bāŋ mán yغ̀l yદ́ m̀ àň sכ̄' 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 baŋ la'abama an so' bunnes?
Gj̀sım yé fù ná bāŋ lá'-bàmmá ø àn̆ sכ̄' búnnغ̀ع \({ }^{+} \varnothing\) ?
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 ko yeli ya mam nye nכor la so' san'ane.
Àláa mām mé kù yह̄lıyá mán n̆yह̄ nכ̄or lā sō' sá'anē \({ }^{+} \varnothing\).
Thus 1sG.CNTR also neg.IRr say \(2 P L . O B\) 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 nככr sכ' yعla la tisi ya
\(\dot{M}\) ná tūmí_m̀ Bá'_ \(\varnothing\) zì'əl nכ̄or sכ̄' yह́là \(\varnothing\) tísì yā.
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 sīəba
... understand 3PL ancestor-PL NZ COP INDF.PL
"... discover who their ancestors were." (Ezra 2:61)

M mi' man gan sieba la.
M̀ mí' mán gān sīaba lā.
1Sg know 1SG:Nz choose indf.pl ART.
"I know those whom I have chosen." (Jn 13:18)

Man mi' si'el nan ane bi'ela.
Mán mì sỉəl nān á nē bỉəlá.
1sG:Nz know indf.in now cop foc small.adv.
"What I know now is small." (1 Cor 13:12)

J́n yèl sī'əl lā kā' sídāa \({ }^{+} \varnothing\).
3AN:NZ say indF.In ART neg.be truth neg.
"What he says is not true" SB

Kem yeli Joon yaname wum ka nye si'el.
Kèm_ø yēlı_ø Joon yānámìø wòm kà ňyē sỉəl.
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 baŋ man niŋ si'el la gbinnes?
Yà báp mán nìg sỉəl lā gbínnè \({ }^{+} \varnothing\) ?
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 \(s \upharpoonright^{\top} /^{\text {a }}\) in the 1996 NT are as relatives. 75/130 cases in Matthew, Mark, Luke and John show \(s \upharpoonright^{\prime} \partial \rho^{\text {a }}\), the entire relative clause, or both as the complement of a verb of cognition, reporting, or perception. Of the remaining 55 examples, in \(33 s i^{\top} \partial^{a}\) consistently has an abstract uncountable meaning, shading into "whatever", often with wūsa+ "all"; in the other \(22 s i{ }^{\circ} I^{a}\) 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.
Bj̄ zúgó yà àrazà'así_ ø bè sīəəl lā, yà pù-tદ̀ňda mé bè né àní 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 ken likin zi' on ken si'ela.

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)

Si'əm \({ }^{\mathrm{m}}\) is the corresponding indefinite adverbial form "somehow." As Kusaal frequently uses manner-adverbs as predicative complements, relative clauses with \(s \jmath^{\prime} \quad \partial m\) are common as objects of verbs of cognition, reporting, and perception:

Kristo da kpii ti yela la ke ka ti bay nonilim an si'em.
Kristo_ø dà kpii_tì yēlá lā ké kà tì bán nj̀מılím_ø àn̆ sỉəm.
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 \(\bar{a}^{+}+/\)has its usual function with si'əm-relative clauses:

M̀ mí' mán nà nīŋ sīəm. "I know what to do."
1SG know 1SG:NZ IRR do INDF.ADV.

M̀ mí' mán nà nī sīəm lā.
1SG know 1SG:NZ IRR do ind.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 \(s i\) 'əm and past tense marking have \(l \bar{a}+/ ; 75 \%\) lacking \(/ \bar{a} \bar{a}^{+/}\)have irrealis mood. Cf the two standing expressions
ón bj̀วd sỉəm "as he wishes"
3AN:NZ want INDF.ADV
lín àn̆ sỉ’əm lā "as things are"
3IN:NZ COP INDF.ADV ART

Yદ̀ \(l^{\varepsilon}\) "say, tell" tends to take a \(s \grave{\jmath} \not \partial m\)-relative clause with lā in its sense of "say, tell how something is" and without \(l \bar{a}\) in the sense "say how to do something":

Bà yह̀l•ō_ø bán nìn s’’əm lā.
3PL say 3AN.OB 3PL:NZ do INDF.ADV ART
"They told him what they'd done"

Bà nà yह̄lıf fún nà nīn sīəm.
3PLIRR tell 25G.OB 2SG:NZIRR do INDF.ADV.
"They'll tell you what to do."

Pà'al \(l^{\varepsilon}\) "teach, inform", surprisingly, takes a relative clause object without lā:

Bà pà'al•ō \(\varnothing\) bán nìn sỉəm.
3PL inform 3AN.OB 3PL:NZ do INDF.ADV.
"They informed him of what they'd done."
\(G a ̀ a d^{\varepsilon}\) "pass, surpass" is used with a sỉəm-clause for comparing actions:

Mam tum bedegu gaad ban tom si'em la.
Mām túm bédugū ø gâad bán tùm sỉəm 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 si'əm-clause for "decide what to do":

M gbán̆'e mán nà nīŋ sỉəm.
1SG seize 1SG:NZIRR do INDF.ADV.
"I've decided what to do."

With verbs of doing, a si'əm-relative clause can be a manner-adverb:

Bà nìg ón yèll_bā sỉəm lā.
3PL do \(3 A N: N z\) tell 3PL.ob INDF.ADV ART.
"They did as he'd told them."

Si'əm-relative clauses occur often as objects of wōv "like", wह̄nna/ "resemble"
...ka ya na ke ka nidib dıl man wov ziiggba'adibi gban'ad zimi si'em la.
...kà yà ná ké kà nīdıb d̄̄l mān wōv zīin-gbán̆'adìb_ø
...and 3PL IRR cause and person:PL follow 1SG.CNTR like fish-catcher:PL NZ
gbān̄'ad zīmí sỉəm lā.
catch:IPFV fish:PL INDF.ADV ART
"... you will make people follow me like fishermen catch fish." (Mt 4:19)

Hālí (là'am) nē "although" can take a sỉəm-clause for "despite how..." \(\underline{18}\).

Relative clauses with an indefinite pronoun dependent on a preceding cb are uncommon compared with kà-preposing with relative pronouns. KB has only a few cases with \(s \bar{j}^{\prime+}\) or sīəba+; sī \(a^{+}\)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 bככd ye fo ku dau sכ' la ya'a kpi...
Fón bう̀วd yé fù kū dáu-sכ̄' lā yá' kpì...
2SG:Nz want that 25 g 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 ...
Nīdıb lā dá wòm Yesu \(n\) tòm tùvm-sīəba ...
Person:PLART tns hear Jesus nz work work-Indf.PL ...
"The people heard of the deeds that Jesus had performed... " (Mk 3:7, 1996)

Ban da ku ninsieba da ka' bi'elaa.
Bán dà kū nīn-síəbà dá kā' bỉəláa +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 tu'us Samaria na'abi tom ninsieba la na ...
Kèm_ø tō'us Samaria ná'abí ø tòm nīn-síəbà lā nā...
Go:Imp Cat greet Samaria king:sg nz send person-Indf.pl art hither ...
"Go and greet the men sent by the king of Samaria ..." (2 Kings 1:3)

Tiig walaa bigisid lin an tisi'a.
Tìıg wélà \(\varnothing\) bìgısıd lín àn̆ tí-sỉa.
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 nyכ'כs dot ne agol saya dine ka' benne.
Kà bùgóm_ø dit tén-tītá'-sīa lā n̆yô'כs dòt né
And fire \(\quad N z\) eat:IPFV land-big-INDF.IN ART smoke ascend:IPFV FOC
àgól sāŋá dìnı kā' bēnne \({ }^{+} \varnothing\).
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 ten tita'ar la "the great city of Babylon" (Rev 18:21)

Nannanna, yaname daa sob gbaun si'a la ka m sobidi lebisidi ya.
Nānná-nā, yānámi_ø dāa sכ̄b gbáun-sỉa lá kà
Now, 2PL NZ TNS write letter-INDF.IN ART and
m̀ sj̄bıdı_ø lह́bısidī 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 gbaun si'a \(n\) tis Efesus dim la
Paul ǹ sj̄b gbáun-sỉa \(n\) tís Efesus dím lā
Paul nz write letter- indf.in cat give Ephesus null.plart
"the letter which Paul wrote to the Ephesians" (NT heading)

In \(42 / 56\) relative clauses with \(s{ }^{\top} a^{+}\)in the 1996 NT, \(s i{ }^{\top} a^{+}\)follows cbs of nouns referring to times or places:

M Zugsoba, ti zi' fun ken zin'isi'a la.
\(\grave{M}\) Zūg-sóbā \({ }^{+} \varnothing\), tì zī fón kēn zíñ'-sī'a láa \({ }^{+} \varnothing\).
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 bùgúm níe ón bè dó-sỉa lā 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-sí'a lā, kà mān pón bè. Abraham tns still neg.be time-Ind.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 ziin si'a yiiga la, fun ya'am o nככr ...
kà fún gbān̆'e zīŋ-sí'a yīigá lā, fūn yâ'am ò nכ̄כr...
and 2 SG: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 gbaug yiiga daan \(n\) tis Korint dim la nwa.
Paul ǹ sכ̄b gbáung yīigá dāan \(n\) tís Korint dím lā@ 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)

\subsection*{24.3.2 With relative pronouns}

The commonest type of relative clause begins with a relative pronoun or an NP with a relative pronoun as a dependent. 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 j̀nı kànı lìnı bànı (always written one kane line bane in KB ) where the final \(-\iota\) is due to liaison before the nominaliser, which is itself invariably realised \(\varnothing\) in this case.

M̀ n̆ý́ dáu-kànı_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
yī-kán kà mām Paulbé 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
j̀n būudí kà Jew dím kīs
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 \(K B\), the pre-liaison forms are generalised to these cases too; rarely, the nomaliser may be inserted after the relative clause subject as well.
```

    gbaun kane ka dau la sob la
    for gbàun\eta-kàn kà dāu} lā sכ̄b la
letter-dem.sg and man:sg ART write ART
"the letter which the man has written"

```
dau kanc yadda niniri po zu'oe
dàu-kànı yàddā-nípìrı ø pū zú'e lā
man-dem.SG assent-doing:sG NZ nEg.InD become.great ART
"a man whose faith is not great..." (Mt 14:31)

It is thus best to regard j̀nı kànı lìnı bànı synchronically as subordinating relative pronouns rather than demonstrative + nominaliser combinations. Where the historically expected ìn kàn lìn bàn appear as heads of relative clauses they will elsewhere be regarded as allomorphs of the relative pronouns in that context:

M n̆ý́ dáu-kànı zàb nà'ab lā.
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-ǹ 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:
```

bànt zàb nà'ab lā "those who fought the chief"
REL.PL fight chief:SG ART
M n̆y\varepsiloń dáu-kànt zàb nà'ab lā.
1SG see man-REL.SG fight chief:SG ART
"I saw the man who fought the chief."

```
nimbane yoda sob Pebil la gbaunon line an nyovopaal dim gbaun la
nīn-bánì yūdá sj̄b Pद̄'-bíl lā gbáun̄ū-n línì
person-REL.PL name:PL write Lamb:SG ART book:SG-LOC REL.IN
àn̆ n̆yó-vō-pâal dím gbáun 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 an antecedent extracted from a prepositional phrase or from a subordinate clause. The antecedent is preposed with kà and a resumptive pronoun is placed in any gap left by extraction, or for an indirect object, and occasionally for a human-reference direct object. Here kà-preposing has no foregrounding sense. Kà-preposed relative pronouns are commoner than indefinite pronouns as relatives, except with clauses used adverbially or corresponding to English subordinate interrogative clauses.

Gbauy kane ka Jerusalem kpeenmnam daa sob la nwa.
Gbàunŋ-kànı kà Jerusalem kpêعn̆m-nàm dāa sכ̄b lā_ø n̆wá.
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 mכ̄r nā
1SG case REL.IN and 3PL have hither
"the charge they are bringing against me" (Acts 25:11)
yعltood ayopoi bane ka maliaknama ayэpэi mor la
y \(\bar{l}\)-tôวd àyópj̀e bánì kà màliā̄k-námá_àyópj̀e 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)
niykane [1996 niykan] ka ba gban'e o la
nīn-kánì kà bà gbáň'•O_ø lā
person-rel.sG and 3pl seize 3AN.ob ART
"a person whom they have seized" (Acts 25:16) (human VP object)

One ka ba tis o ka li zu'oe, ba me mor puten'عr ye o na lebis line zu'oe.
J̀nı kà bà tís‘ò \(\varnothing\) kà lì zú'e, bà mè mòr
REL.AN and 3PL give 3AN.OB and 3IN become.much, 3PL also have
pó-tĕn̆'عr yé ò nà lह̄bıs línì zư'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)

Búraa sõ dāa bẽ ànīa, ôn kà mān néōn dāa túm lā.
Būrá-sכ̄' dāa bé ànínā, j̀n kà mān n̄̄ \(\bar{n} n\) dāa túm 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
nimbane ka ya ten'es ye ba ans tuongatib la
nīn-bánì kà yà tēn̆'عs yé bà à nē tûөn-gātíb lā
person-REL.PL and 2PL think that 3PL COP FOC ahead-passer:PLART
"those whom you consider to be leaders" (Gal 2:6)
line [1996 lin] ka Kristo bood ye ti pian' la
lìnı kà Kristo bว̂Jd yé tì piān̆' lā
rel.in and Christ want that ipl 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 kà-preposed, but obviously no resumptive pronoun is needed:

Samaritan nid (on buudi ka Jew dim kis)
Samaritan níd, j̀n būudí kà Jew dím kīs
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] povg ka o mor la
bì-kànı pôvg kà ò mכ̄r 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
yī-kán kà mām Paul bé lā yí-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)

\section*{25 Complementised clauses}

Complementised clauses are usually introduced by the clause linker \(y \bar{\varepsilon}\). Both types may appear with kà instead, but usually 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. Complementised clauses can be coordinated with kà:
ka lin ane ye fu ku maali ti be'عde nwene tiname daa po maalif be' \(\varepsilon\) d si'em la asé su'um 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 \(p \bar{u}\) máalì \(f\) b̄̄' \(\varepsilon d\) sỉəm lá às \(\varepsilon\) s sùm má'àa, 1PL NZ TNS NEG.IND make \(25 \mathrm{G} . \mathrm{Ob}\) bad indF.ADV ART except good only kà yદ́ fù yīm nē súmbūgusím lā. and that 25 s 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)

\subsection*{25.1 Purpose clauses}

Purpose clauses lack independency marking and have imperative mood. As there is no \(-m^{\text {a }}\) flexion with dual-aspect verbs, the imperative 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 tìs•ō_ø kû'өm yर́ 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 ý́ fù nīf dā záb \({ }^{+} \not \subset\).
1SG IRR give 2 SG.ob medicine that 2 SG eye:sG neg.Imp fight neg.
"I'll give you medicine so your eye won't hurt."
Ò vòl tîım kà ò nóbìr dā zábē \({ }^{+} \varnothing\).
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 gbáň'a_bā_ ø kpên̆'عs sārıgá nì ȳ̄ bēog níe.
And 3pL seize उPL.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 \(y \bar{\varepsilon}\) :
\(\dot{M}\) bôวd ȳ̄ dāu lā kēy dâ'a-n, kà pu'ā lā dōg 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 bj̀כda "want"; or \(\left.y \grave{\varepsilon}\right|^{\varepsilon}\) "tell." Negative raising occurs with bj̀ว \({ }^{\text {a }}\) but not with \(\left.y \grave{\varepsilon}\right|^{\varepsilon}\).
\(\grave{M}\) bว̂วd yદ́ ò kūl. "I want her to go home."
1SG want that 3AN go.home.

1SG NEG.IND want that isg go.home neg.
"I don't want [me] to go home."
\(\grave{M}\) yélī_f yह́ fù dā kūlє \({ }^{+} \varnothing\).
1SG tell 2 SG.ob that 2SG neg.IMP go.home neg.
"I've told you not to go home."

The verb gūra/ "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.
Nīdıb lā dāa gūr Zakaria yîib 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 yē pư'ā lā dư'á kà ò ón̆b bīig 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 such as nāra/ "be obliged to" (negated "be obliged not to"); mכ̄r sūөr "be allowed to"; lì à [ \(n \bar{\varepsilon}\) ] tīlás "it is necessary":

Fù pū nār yé fù níg àláa \({ }^{+} \varnothing\).
2SG NEG.IND must that 2SG do ADV:thus NEG.
"You're not allowed to do that."

Lì nàr yદ́/kà fù kūl. "You must go home."
3IN must that/and 25G go.home.

In KB there are 258 examples of nar ye to 45 of nar ka.

Yà mór sūөr yé yà kūl. "You may go home."
2PL have way:sg that 2PL go.home.

Sūer bé yélkà 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 m keך Jerusalem.
Lì à n \(\bar{\varepsilon}\) tīlás ý́ \(\grave{m} k \bar{\varepsilon} \eta\) Jerusalem.
3in cop foc necessity that 1sg go Jerusalem.
"I must go to Jerusalem." (Mt 16:21, 1996)

Li ane tilas ka m niyid ala.
Lì à nē tīlás kà min nínìd 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
\(N \bar{a} r^{a /}\) is occasionally used in a personal construction "deserve that":
babayi' la nar ye ba kov ba
bà bàyí lā nár yé bà kúv_bā
3PL Num:two ART must that 3PL kill 3PL.OB
"both of them must be killed" (Leviticus 20:12)

Anכ'כne nar ka na nyani lak titabir la ...
Ànó'כnì』 nár kà ná ňyāpı_ø lāk tītābır lā...?
Who CAT must and IRR prevail cAT unstick glue ART ...?
"Who is worthy to open the seal ...?" (Rev 5:2)

\subsection*{25.2 Content clauses}

Complementised clauses with independency marking 19.6 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.

Verbs taking content clauses as complements include, for example y \(\varepsilon^{\varepsilon} \varepsilon\) "say", wòm \({ }^{m}\) "hear", \(\check{n y} \bar{\varepsilon}^{+}\)"see", t \(\bar{\varepsilon} \mathrm{n}^{\prime} \varepsilon s^{\varepsilon /}\) "think", \(m \bar{r}^{+}\)"know", bàn \({ }^{\varepsilon}\) "come to know", pà'al \({ }^{\varepsilon}\) "teach, show", kàrım \({ }^{m}\) "read", zī'+ "not know" and sinàk \({ }^{\varepsilon}\) "agree":
ban mi' ye biig la kpine la zug
bán mī ȳ̄ biìg lā kpínē 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' ȳ̄ tēŋ tóllā \({ }^{+} \varnothing\).
Donkey-rider:Sg neg.know that ground:sg be.hot neg.
"The donkey-rider doesn't know the ground is hot."
Tone overlay: Tह̄ŋ túl. "The ground is hot." cf tūla/ "be hot"

Fune siak ye fo ya'a ti kae, o na zin'ini fo na'am gbaup la zugכ??
Fōnı ø siáák yé fù yá' tì kā'e, ò nà zīn̆'iní_ fù nā'am
2SG.CNTR CAT agree that 2SG if after neg.be, 3AN IRR sit 2SG chieftaincy
gbáun lā zúgó \({ }^{+} \varnothing\) ?
skin:SG ART upon PQ?
"Did you agree that when you are no more, he will sit on your throne?"
(1 Kings 1:24): postlinker adjunct

Absolute clauses 24.2 cannot be used as objects of such verbs, but another possibility apart from content clauses is NP + yह̄lá "about" 16.6.

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 anכ'כne?
Yà tên̆'عs kà m̀ áan̆ ànó'כnè \({ }^{+} \varnothing\) ?
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 \(t \bar{\varepsilon} n{ }^{\prime} ' \varepsilon s^{\varepsilon /}\) "think." KB has 219 examples of tenes ye to 31 of tenes ka and shows kà after other verbs too:

Ya pon wom ka ba da yعl ye...
Yà pún wòm kà bà dá yह̀l y \(\bar{\varepsilon}\)...
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:

M̀ tên̆'عs kà m̀ lú yā. "I 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 bככdin ne yaname naan aan ma'asiga beє yaname naan aan tovliga.
Mān bว́כdī-n n \(\bar{\varepsilon}\) yānámì ø nāan âa-n mā'asígā bē \(\varepsilon\)
1SG.CNTR want-DP that 2PL Nz then COP-DP cold:ADV or
yānámìø nāan âa-n tōolígā.
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 ȳ̄...
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:

\section*{Festus tans Paul ye o geem ne ... ka Paul lebis ye on pu geem.}

Festus shout Paul that 3AN go.mad Foc ... and Paul reply
\(y \bar{\varepsilon} \quad\) う̄n \(\quad\) ō \(\quad\) ć \(\varepsilon n ̆ m m ~+\varnothing . ~\)
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 yèl ȳ̄ \(\bar{\varepsilon} n\) ná kóv_bā.
3AN say that 3AN.CNTR IRR kill 3PL.ob.

It is possible to say Ò yèl yé ò nà kóv bā, but this is much more likely to mean "He \({ }_{1}\) 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 yćl yé bà dāa kūl.
3AN TNS say that 3PLTNS go.home.
"She said that they had gone home."

Tì dāa tह̄̆̆'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."

\subsection*{25.2.1 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 Peter bū'өs•ó_ ø ȳ Ananias, ȳ̄ bó kà ò ḱ́ kà Sūtáanà And Peter ask 3AN.OB that Ananias, that what and 3AN cause and Satan
kpèn̆' ò sūun̆rí-n ... \(\quad{ }^{+}\)?
enter 3AN heart:SG-LOC ... CQ?
"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 \({ }^{y a}\) after the verb even when there is a preceding pronoun subject 21.3.

Indirect speech is an alternative to catenation with \(k \bar{\varepsilon}^{+} \underline{22.3}\) for expressing third/first person commands; main clause and linker may again be ellipted informally:
```

[M\ yél y\varepsiloń] ò gòsım tह̄\eta\iota-n.
1SG say that 3AN look:IMP ground:SG-Loc.
"[I said] she should look down."
[M̀M t\varepsilon̂n̆'\varepsilons kà]tì pó'usìm Wínà'am.
1SG think and 1PL greet:IMP God.
"[I think] we should praise God."

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A main clause with no VP can also appear in indirect speech:
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Ò y\varepsiloǹl y\overline{\varepsilon}}\mathrm{ báp. "She said Bap!"
3AN say that Bap.

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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 kókór kà lì yī áràzánà ní nā y \(\bar{\varepsilon}\),
And 1sg hear God voice:sg and 3in emerge heaven Loc hither that
ò nīdıbá \({ }^{+} \varnothing\), yé bà yìmī ø tह̄ŋ 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
 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.

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 う̄n yélí_bā y \(\overline{1} . .\).
But that and zan.cntr say zpl.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 כ̄n ké kà bà mōró́_ø 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 nìnī bá Wínà'am né ò pò-pìəlım And now-hither that 3an do 3PL.OB God with 3an inside-whiteness piâă'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 zữà-nàm nદ́ ò sàam-nàmā \({ }^{+} \varnothing\), y ह́ 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)

\section*{26 Negation}

Negation of clauses is achieved by using a negative particle in the VP, \(p \bar{u}\) for indicative, dā for imperative, kù for irrealis replacing the positive marker nà 19.5, along with a clause-final negative prosodic clitic 7.1:

Ti pu bכدd ye dau kaya aan ti na'aba.
Tì pū bôכd yē dáu-kànā áan̆ tì nà'abā \({ }^{+} \varnothing\).
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)
\(\operatorname{Dìm} n \bar{\varepsilon}\) Wīn, dā tû'as nē Wīnné \({ }^{+} \varnothing\).
Eat:Imp with God:Sg, neg.Imp talk with God:sg neg.
"Eat with God, don't talk with God."

Amaa man pian'ad la kv maligim gaads.
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)

The negative prosodic clitic appears at the end of the clause containing the negated verb, passing over all subordinate clauses:

Ti pu bכod ye dau kaŋa aan ti na'aba.
Tì pū bôJd ȳ dáu-kànā áan̆ tì nà'abā \({ }^{+} \varnothing\).
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)

There are no unequivocal examples in my materials of a negative clitic placed before a subordinate clause to exclude it from the scope of a negation. Thus the adjunct \(y \bar{\varepsilon}\)-clause has probably been extraposed in:

Nidib be ka pu tum si'ela ye ba a popielim dim...
Nīdıb bé kà pū túm sỉəla \({ }^{+} \varnothing\) yé bà án̆ pú-pìəlım
person:PL EXIST and NEG.IND work:IPFV INDF.IN NEG that 3PL COP inside-whiteness
dím ...
NULL.PL.
"There are people who haven't done anything that they become blessed" (Rom 4:5, 1976); revised completely in the 1996 version.

Again, in this example, the kà-clause can be taken as a coordinate clause carrying on the narrative:

Ka li po yuuge ka o pu'a me kena.
Kà lì pū yúuḡ̄ \({ }^{+} \varnothing\), kà ò pu'ā mé k \(\bar{\varepsilon}\) nā.
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:

Nīn-bánì pū dít ná kpī.
Person-rel.pl neg.Ind eat:IPFV IRr die.
"People who don't eat will die." WK

M̀ n̆yé nīn-bánì pū dítā \({ }^{+} \varnothing\).
1sg see person-ReL.PL neg.Ind eat:IPFV neg.
"I've seen some people who don't eat." WK

The same is true of VPs nominalised by the personifier particle:

Apozotyel da ane o saam biig ma'aa.
À-Pū-zót-yह̄l dá à né ò sàam bîig 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 nip si'ela, o po'vsim dכog la na lieb zaalim.
Bà yá' pū níp sỉəla \({ }^{+} \varnothing\), ò pù'usım dôدg lā ná līəb 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)

Apparent exceptions in the NT probably all involve yà'-clauses ending in words with final vowels or final \(-m\), and do in fact end with a negative clitic.

Negative raising seems to operate in Kusaal in a way generally analogous to English. It takes place with complement clauses after verbs expressing opinions or judgments:

Li pu nar ye fu di fu ba'abiig po'a Herodiase.
Lì pū nār yé fù dí fù bā'-bîig pữ'á Herodiasع \({ }^{+} \varnothing\).
3IN Neg.Ind must that 25 g 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 bכod ye dau kapa aan ti na'aba.
Tì pū bôวd ȳ̄ dáu-kànā áan̆ tì nà'abā \({ }^{+} \varnothing\).
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 pu ten'عs ye o na keligi m pian'ade.
Mām pū tēn̆'عs ý́ ò nà kēlıgí_m pìàn̆'ad \({ }^{+} \varnothing\).
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)

It does not occur with verbs of knowing or informing:
linzug ka ti ban ye o po yi Wina'am san'an naa.
Lìn-zúg kà tì báp yદ́ ò pū yī Wínà'am sâ'an náa \({ }^{+} \varnothing\).
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 lé pu baŋ ye li ane one.
kà ò lé \(p \bar{u}\) bán yé lì à n \(\bar{\varepsilon}\) う̄n \({ }^{+} \varnothing\).
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 is commonly achieved by clefting, using the patterns

Lì kā' X kà ... /Lì kā' X n ... "It's not X that ..."
X ká'e kà ... /X kā'e n ... "There's no X that ..."

So' kae na nyani dכl zugdaannam ayi'...
Sכ̄' kā'e_ø ná ňyāpı_ø d̄̄l zūg-dâan-nàm àyí' ...
ind.an neg.be CAT IRR prevail CAT follow head-owner:pl num:two ...
"Nobody can serve two masters." (Mt 6:24)

Sogia so' kae' \(n\) tum ka yood o mena.
Sógì̀̀̀-sכ̄' kā'e \(n\) tóm kà yj̄วd ò mēná \({ }^{+} \varnothing\).
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 yعl si'el la zug, ka ti nip o yadda.
Lì lèm kā' fún yèl sīəəl lā zúg kà tì níp•ò Ø yáddáa +ø. 3IN again NEG.be 2SG:Nz say ind.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)

Relative clauses can be used:

Da mor nכor yinne ne bane ka' yadda nipidib la ye ya nip si'ela.
Dā mōr nכ̄כr yīnní nē bánì kā' yáddā-nípìdıb lā
neG.IMP have mouth:SG one with REL.PL NEG.BE assent-doer:PL ART
ý́ yà níg sỉəla \({ }^{+} \varnothing\).
that 2PL do indF.in neg.
"Do not agree with those who are not believers to do anything." (2 Cor 6:14)

The particle báa (Hausa bâa "not exist") appears in báa brəəlá+ "not at all", báa yīnní+ "not one", which are both used with a negative VP. Báa yīnní+ can be used as a NP head, or as a postdependent.

Da tomi si'el baa bi'elaa.
Dā tómīø sỉəl báa bỉəláa +ø.
NEG.IMP work 2PL.SUB INDF.IN at.all NEG.
"Do no work at all." (Leviticus 23:31)

Amaa ba pu nyani nys line tu'al baa yinne.

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 yel ye on mor si'el la, one so'oe lii.
Kà nīd báa yīnní pū yźl ȳ̄ ón mōr
and person:sg not one NEG.Ind say that 3AN:Nz have
sīəəl lā, j̄nı ø súv líl \({ }^{+} \varnothing\).
INDF.IN ART 3AN.CNTR CAT OWn 3IN.OB NEG.
"Not one person said that what he had, he owned." (Acts 4:32)

Fv du'adib baa yinne kae ka o yo'vr buon alaa.
Fù dū'adıb báa yīnní ká'e kà ò yū'ur bûen àláa \({ }^{+} \varnothing\).
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)

\section*{27 Information packaging}

\subsection*{27.1 Focus}

As a starting point, I adopt the formulation from 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 distinction is made between ordinary and contrastive focus.
Separate from the notion of focus is the concept of foregrounding, the usual function of it-clefting in English; as pointed out in CGEL p1424, foregrounded elements in English need not be focussed.

Two syntactic devices in Kusaal relate to focus: subject focussing with catenator- \(n\), and the use of the particle \(n \bar{\varepsilon}^{+/}\). Clefting constructions with the clause linker kà and corresponding ellipted types relate to foregrounding rather than focus, or are motivated simply by ordering constraints.

Main clauses without any special syntactic marking of focus have ordinary focus on the predicate by default.

The usage of the article \(I^{+}+/\)interacts with these focus mechanisms.

\subsection*{27.1.1 With catenator-n}
\(N\)-clefting uses a \(n\)-catenation in the sense of a relative clause with the subject as antecedent, after a main clause with \(L i ̀\) à \(n \bar{\varepsilon}\) "It is ..." The sense resembles that of the formally analogous "it-clefting" of English, foregrounding the clefted element and backgrounding the rest:

Ka dau me po su'oe o meŋ ningbinaa. Li ane o pu'a su'oe li.
Kà dāu mé pū sú'v ò mēŋ nín-gbīnáa \({ }^{+} \varnothing\).
And man:sg also neg.Ind own 3an self body-skin:pl neg.
Lì á né ò pư'ā \(\varnothing\) súv \({ }^{\text {lī. }}\)
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)

Like English it-clefting (CGEL p1416) the construction has an implicature of exhaustiveness and exclusiveness: the wife (only), not the husband, is the owner.

The main clause may be a verbless identificational clause 21.4.1:

Anכ'כn nwaa yisid nidib tovmbع'عdi basida?
Ànô'כn \(\varnothing\) n̆wáa \(\varnothing\) yīsıd nīdıb tûvm-bē' \(\varepsilon d ı \varnothing\) básıdà \({ }^{+} \varnothing\) ?
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)
\(N\)-focus of subjects presumably arose from \(n\)-clefting by ellipsis. The focussed subject stands first, with the rest of the clause introduced by \(n\), phonologically identical to catenator-n. The clause lacks independency marking but has independent tense marking; compare tense marking in ellipted indirect commands 19.3.1.

The meaning of this construction is focus rather than foregrounding:

Wáafù ø dúm•ōø. "A snake bit him." WK
Snake:sg cat bite zan.ob.
would be a felicitous reply to "What's happened?" as well as "Did a dog bite him?"
Focus rather than foregrounding is demonstrated by the fact that interrogative pronouns as subjects are always \(n\)-focussed. As a subject àn⿳⺈'כn "who" thus always appears as ànó'כn n [anว̃:ni] (always NT ano'one, KB ano'כne.)
\[
\begin{aligned}
& \text { Ànó'כnì } \varnothing \text { kābırídà } \quad+\varnothing \text { ? } \\
& \text { Who CAT ask.for.entry:IPFV cQ? } \\
& \text { "Who is asking permission to enter?" }
\end{aligned}
\]

Clauses containing interrogative pronouns may not contain focus-n \(\bar{\varepsilon}^{+/}\), an incompatibility which is most readily explained by analysing interrogative pronouns as intrinsically focussed, though this is only syntactically manifested when they are subjects.

Furthermore, the focus particle \(n \bar{\varepsilon}^{+/}\)in all its roles is excluded from clauses which are \(n\)-focussed, with the corresponding VP aspect distinctions present but unmarked, as in other cases of formal exclusion of the marker:
\(\grave{M}\) zūgu_ø zábìd. \(\quad\) "My head is hurting."
1SG head CAT fight:IPFV. (Reply to "Where is the pain?")
cf M̀̀ zūg 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?")

Accordingly, the ellipted construction with catenator- \(n\) after the subject represents focus, filling the gap caused by the fact that a clause subject cannot be focussed with \(n \bar{\varepsilon}^{+/}\).

\subsection*{27.1.2 With \(n \bar{\varepsilon}\)}

Preceding a VP constituent, the particle \(n \bar{\varepsilon}^{+/}\)focusses that constituent, while VP-final \(n \bar{\varepsilon}^{+/}\)focusses the entire VP contrastively.

On distinguishing constituent-focus \(n \bar{\varepsilon}^{+/}\)from the preposition \(n \bar{\varepsilon}\) "with, and" see 19.8.4. Confusion with the \(n \bar{\varepsilon}\) following objects of comparison is unlikely 18.

The aspect particle \(n \bar{\varepsilon}^{+/}\)bound to the verb 19.2.1 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.
\(N \bar{\varepsilon}^{+/}\)cannot appear in either constituent-focus or aspectual senses
if the subject has \(n\)-focus
in nominalised clauses
in content questions.

\section*{\(N \bar{\varepsilon}^{+/}\)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 Sun.
Fù pū má' \(n\) tìs nīn-sáalā \(\quad \varnothing\), àmáa fù mà'
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, but you have lied to the Holy Spirit."
(Acts 5:4, 1996)
\(N\)-focussing of the subject:
\(\dot{M}\) zūgט \(\varnothing\) zábìd. "My head is hurting/hurts." (No aspectual \(n \bar{\varepsilon}^{+/}\))
1SG head CAT fight:IPFV. Reply to "Where is the pain?"

Ànó'כnì ø dít sá'abj̀ \({ }^{+} \varnothing\) ?
Who cat eat:IPFV porridge cQ?
"Who eats/is eating millet porridge?" (No aspectual \(n \bar{\varepsilon}^{+/}\))

Nominalised clauses:

Ò dāa á n̄̄ bïig. "She was a child."
3AN TNS COP FOC child:Sg.
but ón àn̆ bīig lā zúg "because she's a child"
3AN:NZ COP child:SG ART upon

M̀ yí nē Bók. \(\quad\) "I come from Bawku." SB
1sG emerge foc Bawku.
but Meeri one yi Magdala
"Mary who came from 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 boכd ye fu nyene bovd.
Píàn̆'am kà m̀ bว̂دd yर́ fù ňy \(\bar{\varepsilon} n \bar{\varepsilon}\) būטd.
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 fù kúmmà \({ }^{+} \varnothing\) ? "Why are you crying/do you cry?
What and 2sG cry:IPFV cQ?

Fò nípìd bó \(+\varnothing\) ? "What are you doing/do you do?"
2SG do:IPFV what cQ?

Fù wá'e yáa +ø? "Where are you going/do you go?"
2SG go where cQ?

Bùgóm lā yít yáa ní ná \(+\varnothing\) ?
Fire ART emerge:IPFV where loc hither cQ?
"Where is the light coming from?" SB
\(\grave{M}\) á nē dāu. "I am a man."
1SG COP FOC man:SG.
but Mām án̆ bó +ø? "What am I?"
1SG.CNTR COP what cQ?

Fù áan̆_ànó'כnغ̀ \({ }^{+}\)Ø?
"Who are you?"
2SG COP who CQ?

> Fù bôวd bś +ø? "What do you want?"

2SG want what CQ ?
but Fù bôวd n̄̄ bó \({ }^{+} \varnothing\) ? "What do you want it with?"
2SG want with what cQ? \(\quad N \bar{\varepsilon}\) 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 with \(n \bar{\varepsilon}^{+/}\). They include sùyā+/ "good", sùm \({ }^{m}\) "good", \(b \bar{\varepsilon}^{\prime} \varepsilon d^{\varepsilon}\) "bad", sida+ "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.
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Lì àn̆ sú\etaā. "It's good."
3IN COP good:ADV.
$L i ̀$ àn̆ $b \bar{\varepsilon}^{\prime} \varepsilon d$.
"It's bad."
3IN Cop bad:ABSTR.

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[ye ka] o sariakadib a sum ne sida.
ò sàríyà-kādıb án̆ sóm n̄̄ 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 19.2.3.

\subsection*{27.1.2.1 VP constituent focus}

The use of \(n \bar{\varepsilon}^{+/}\)to focus a VP constituent, as opposed to the entire VP, is possible only in statements and polar questions. The aspectual sense of \(n \bar{\varepsilon}^{+/}\)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:

M̀ dá' búy.
1SG buy donkey:sG.

M̀ dá' nē bún.
1sG buy foc donkey:sG.
"I've bought a donkey."
("What have you done?")
"I've bought a donkey."
("What have you bought?")

Nïigí j̀n̆bıd n̄̄ mכ̄כd. "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' bùnā \(\quad+\varnothing\). "I haven't bought a donkey."
1SG NEG.IND buy donkey:SG NEG.
\(\dot{M} p \bar{u} \quad\) dá' n \(\bar{\varepsilon}\) búnā \({ }^{+} \varnothing\). "I haven't bought a donkey."
1SG NEG.IND buy foc donkey 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 \(n \bar{\varepsilon}^{+/}\)before a definite object is usually aspectual:

Nïigí lā ón̆bìd nē mכ̄כd lā.
Cow:PL ART chew:IPFV FOC grass:PL ART.
"The cows are eating the grass."

Nā'-síabà óňbìd \(n \bar{\varepsilon}\) mכ̄כd 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 po 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 \(\varnothing\) tísìd \(n \bar{\varepsilon}\) kíkīrıs kà \(p \bar{\nu}\) mâannì \(\varnothing\) tísìd Wínā'amm \({ }^{+} \varnothing\). 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 àeña "be something/somehow" in its ascriptive sense 19.11.2 is non-referring and prototypically "unpredictable or pragmatically non-recoverable", and therefore is naturally preceded by \(n \bar{\varepsilon}^{+/}\)for ordinary focus:
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O à n\overline{\varepsilon}}\mathrm{ bïg. "She is a child."
3AN COP FOC child:SG.

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Ò dāa á n̄̄ bīig.
3AN TNS COP FOC child:Sg.

Dīıb á nē būn-són.
Food COP FOC thing-good:sG.

Ò à n̄ bāan̆lím. "She is quiet."
3AN COP FOC quiet:ABSTR.
Lì à n \(\bar{\varepsilon}\) būgusígā.
3IN COP FOC Soft:ADV.
"She was a child."
"Food is a good thing."
"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 wom pian'ad la, ka...
Kà būn-búvdà bànı lù gว̀n̆'כs súvgū-n lā á nē
And thing-planting:PL REL.PL fall thorn:PL among-LOC ART COP FOC
bánì wòm píàn̆'ad lā, kà
REL.PL hear speech ART, and...
"And the seeds which fell among thorns are those who heard the word, but..." (Lk 8:14)

Biis la diemid ne dua gbinin. Ba zamisid ne bula wa'ab. Ba ane Apam biis.
Bïis lā dí'əmìd nē dúan̆ gbínnī-n. Bà zàmisıd n̄
Child:PL ART play:IPFV Foc dawadawa:sG base:sG-Loc. 3PL learn:IPFV Foc
būla wâ'ab. Bà à né À-Pām bîis.
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 yo'ur na ane Joon. \(\quad\) "His name will be John." (Lk 1:60)
Ò yū'ur ná ā nē Joon.
3AN name:SG IRR COP FOC John.

As with objects, when the complement falls under the scope of a negative, focus is usually contrastive:
\(\grave{M}\) á \(n \bar{\varepsilon}\) dư'átà. \(\quad\) I'm a doctor."
1SG COP FOC doctor:SG.

M̀ kā' dư'átāa \({ }^{+} \varnothing\). "I'm not a doctor."
1SG Neg.be doctor:Sg neg.
\(\grave{M}\) kā' n̄̄ dư'átāa \({ }^{+} \varnothing\). "I'm not a doctor." ("I'm a lab assistant.") 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.

Dāư lā bé nē dó-kànā 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 nē mj̄כgu-n.
1SG.CNTR EXIST FOC grass:SG-LOC.
M yí \(n \bar{\varepsilon}\) Bók. \(\quad\) I come from Bawku." SB
1SG emerge foc Bawku.

Yadda nipir yitne labaar la wummug ni.
Yàddā-nínìr yít nē lábāar lā wómmòg 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:

Dàu-sכ̄' bé dó-kànā 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 sā'ab n̄̄ zâam. "We eat millet porridge in the evening." 1PL eat:IPFV porridge foc evening. ("When do you eat porridge?")

\subsection*{27.1.2.2 VP focus}

Focus on the VP as a whole with VP-final \(n \bar{\varepsilon}^{+/}\)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 kùөsıd sūmma lā n̄̄. "She sells/is selling the groundnuts." 3AN sell:IPFV groundnut:PL ART FOC. ("They're not free.")

Aspectual sense ruled out by mood:
Gう̀sım n \(\bar{\varepsilon}\).
"Look!" ("Don't touch." WK)

Look:IMP FOC.

Stative verbs without an explicit time indicator:

Ò gìm n \(\bar{\varepsilon}\).
3AN be.short foc.

Lì zùlım n̄̄. "It's deep."
3IN be.deep foc.
\(\grave{M}\) bóวdī \(f \quad n \bar{\varepsilon} . \quad\) "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. \(\quad\) It gets cooled." (ipfv of mā'al+/ "make cool")
3IN get.cool:IPFV FOC.

Dāká lā zán̆l n̄. "The box gets carried in the hands."
Box:SG ART carry.in.hands foc. ("Not on your head.")

Dāká lā zîid 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 ì̀ bódìg n \(\bar{\varepsilon}\).
And 3IN get.lost foc.

Ò dìgın \(n \bar{\varepsilon}\).
3AN lie.down foc.

Ò zìən n̄̄.
3AN stand.still foc.
"He's laid it down." ("I thought he'd pick it up.")
"It's lost."
Contradicting "someone hid it." 19.3.5
"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 euphemistic use.

\subsection*{27.2 Clefting and preposing with kà}

Kà-clefting arises from constructions with adnominal kà-catenation 22.3 in much the same way that \(n\)-clefting arises by ellipsis from \(n\)-catenation. Kà-clefting has a similar implicature of exhaustiveness and exclusiveness.

The preposed element may be extracted from a subordinate clause:

Li ane ya taaba bane pu'vsid Wina'am ka li nar ka ya kad saria.
Lì à né yà tāaba bánì pò'usıd 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)

Again, the main clause may be a verbless identificational clause 21.4.1:

J̄nı ø lá kà fù dāa n̆y \(\bar{\varepsilon}\).
3AN.CNTR CAT that and \(25 G\) TNS see:IPFV.
"This is he whom you saw." WK
Àn'́'כnì_ø n̆wá kà tì n̆yह̄tá \({ }^{+} \varnothing\) ?
Who cat this and 1PL see:IPFV CQ?
"Who is this that we can see?"

Bכ̄כ_ø lá kà m̀ n̆yz̄tá \({ }^{+} \varnothing\) ?
What CAT that and 1sG see:IPFV CQ?
"What is that that I can see?"

Once again, there is a construction with ellipse of all the main clause except the NP. Independent tense marking is possible in the ellipted structure, as with \(n\)-focus. Preposed direct objects leave a null-anaphora gap.

Asce line an be'ed ma'aa ka matun'e niy.
Àsć línì àn̆ bē'عd má'àa kà m̀ ná tūn̄'e_ \(\varnothing\) níp.
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)
Bó kà fò kúesìda \({ }^{+} \varnothing\) ? "What are you selling?"
What and 2sG sell:IPFV cQ?

The effect of kà-preposing remains foregrounding, not focus. It is compatible both with \(n\)-focus and with the occurrence of the focus particle \(n \bar{\varepsilon}^{+/}\):

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' Jew dím lā yźlà.
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)

Bỉəəl bí'əl kà kJ̄lıg pê' \(\varepsilon\) l \(n \bar{\varepsilon}\).
Little little and river:sg get.full foc.
"Little by little, and a river is full." (Proverb)

Kà-foregrounding of VP objects containing interrogative pronouns is very common. There is no syntactic movement rule for interrogative pronouns/proforms:

Bùgóm lā yít yáa ní ná \(+\varnothing\) ?
Fire ART emerge:IPFV where loc hither cQ?
"Where is the light coming from?" SB

However bj "what?" is very often preposed with kà, as in the example above; preposing is required if the sense is "why?" rather than "what?":
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    BJ́ kà fò kúmmà?
    cf *Fù kúm bó?

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"Why are you crying?"
*"What are you crying?"

Bó kà... is by far the most frequent way of rendering "Why?", and usually has this meaning, but foregrounding of \(b \overline{\text { j in }}\) the normal sense "What?" also occurs:

Bo ka ti na nipe?
"What are we going to do?" (Acts 21:22)
Bó kà tì ná nìne \({ }^{+} \varnothing\) ?
What and 1PLIRR do cQ ?

Other queried NP objects in content questions are often preposed with kà:

Nū'-bíbısá_ àlá kà fù n̆yz̄tá \({ }^{+} \varnothing\) ?
Hand-small:PL num:how.many and 2sG see:IPFV CQ?
"How many fingers can you see?" SB

Kà-preposing can also be used to extract an interrogative pronoun from a prepositional phrase; the original position must be filled by an anaphoric pronoun:

Ka anכ'כnam ka Wina'am sunf da pelig ne ba yoma piisnaasi la?
Kà ànô'כn-nàm kà Wínà'am sún̆f dá pغ̀lıg né bà
And who-PL and God heart:Sg tws whiten with 3PL
yòma pīs nāasí lá \({ }^{+} \varnothing\) ?
year:PL forty ART CQ?
"And who was God angry with for forty years?" (Heb 3:17)

As interrogative pronouns are intrinsically focussed, these constructions, like other cases of preposing with kà, are best regarded as foregrounding, not focus.

Preposing the complement of a single-aspect verb is uncommon, and interrogative pronouns in such cases usually remain in situ, probably necessarily so in the case of àeña "be something":

Ningbin bo buudi ka ba na ti mora?
nìn-gbīn bó-būudí kà bà ná tī mōrá \({ }^{+} \varnothing\) ?
Body-skin:sg what-sort and 3PLIRR afterwards have cQ?
"What kind of body will they have?" (1 Cor 15:35)
but Fù bôدd 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'כnè \({ }^{+} \varnothing\) ? "Then who are you?"
And 2 SG cop who CQ ?

VP adjuncts are often preposed with kà; there is probably a contrast between foregrounding with \(k\) à and focussing with \(n \bar{\varepsilon}^{+/}\):

Ňwādısá_àtán̆' kà fù ná lह̄b nā.
Month:PL NUM:three and 2SGIRR 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?")

Kà-preposed elements cannot be clause subjects, as is to be expected: an adnominal kà-clause normally has a different subject from its main clause.

The only structure other than a NP (including \(\grave{n}\)-clauses) or AdvP that I have found preposed with kà is wōv "like" + object:

Wūv bún né kà ò zót.
Like donkey:sG like and 3AN run:IPFV.
"It's like a donkey that he runs."
*Né ì nû'ug kà m̀ sī'ıs.
*With 1 sg hand:sg and 1 sg touch.
attempted for "With my hand, I touched it."

Kà-preposing is often simply a means of bringing a constituent before the clause subject with no implication of foregrounding at all. Formal kà-preposing is a feature of many relative clauses 24.3.2. Manner, place and reason adjuncts can only precede the subject by kà-preposing, and absolute clauses in adjuncts must often precede the main clause subject so that constituent order parallels event order 24.2:
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Mán n̆wè' dāu lā zúg kà police gbán̆'a_m.

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1SG:Nz hit man:Sg ART upon and police seize 1SG.OB.
"Because I hit the man, the police caught me." ILK

\subsection*{27.3 Extraposition}

A NP or AdvP placed after a distinctively phrase-final verb form must have been extraposed. Extraposed manner-adverbs are intensified:

Ya yidigya bedegu.
Yà yídìg yā bédugū.
2PL go.astray PFV much.

M̀ pû'us yā bédugū. "Thank you very much."
1SG greet pFV much.
"You are very much mistaken." (Mk 12:27)

Objects, other than pronouns, can be extraposed; the sense seems to be that the extraposed element is contrary to expectation:

> Ò dà' yā múí.
> 3AN buy PFV rice.
cf Ò dà' nē múí.
3AN buy foc rice.

Lì à nē múi kà ò dá'. "It's rice that she's bought." ("not millet.") 3IN COP FOC rice and 3an buy.
"She's bought rice." ("of all things!")
"She's bought rice." (reply to "What did she buy?")

Leftward extraposition of objects and complements on the basis of weight, without clefting or kà-preposing, occurs in e.g.

Wilkane beє m ni ka pu wanna, m Ba' nwaadi li ne [sic: 1996 n] basid.
Will-kànı bèz_m̀ ní kà pū wénnā \({ }^{+} \varnothing\),
Branch-ReL.SG EXIST 1SG LOC and NEG.IND bear.fruit:IPVF NEG.
m̀ Bā' n̆wá'ad̄̄lí \(n\) 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 out."
(Jn 15:2)

One ka ba tis o ka li zu'oe, ba me mor puten'عr 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'घr yé ò nà lēbıs línì zư'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)

A heavy indirect object is extraposed to follow the object in

Mam Paul ... tisid gbon kana Wina'am nidib bane a sida dim ka a yinni ne Jesus Christ Efesus tenin la.
Mām Paul... tísìd gbáun-kànā Wínà'am nídìb bànı àn̆
1SG.CNTR Paul ... give:IPFV book-DEMST.SG God person:PL Rel.pL cop
sídà dím kà án̆ yīnní nē Jesus Christ Efesus ténī-n lā.
truth null.pl and cop one with Jesus Christ Ephesus land:Sg-Loc ART
"I, Paul ... give this letter to God's people who are truthful and one in Jesus Christ in Ephesus." (Eph 1:1, 1976; KB ...gbaup kaŋa tisid Wina'am...)

\subsection*{27.4 Presentational constructions}

A number of constructions are employed to introduce new entities into discourse. Referring NPs are indefinite; it is here that absence of the article \(\bar{I}^{+}{ }^{+}\) typically reflects an indefinite but specific rather than generic reference 15.8.5. Dependent indefinite pronouns or quantifiers are possible but not required.
\(B \grave{\varepsilon}^{+}\)"be somewhere/exist" is frequent in presentational clauses, often with a following \(n\)-catenation \(\underline{22}\) or adnominal kà-catenation 22.3.

Farisee dim nid yinne da bs
Farisee dím nìd yīnní dà bè ...
Pharisee null.pl person:Sg one tNS Exist ...
"There was one man of the Pharisees ..." (Jn 3:1)

Dapa atan' \(n\) da 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
Dāu dá bè_ø mōrí_ò pứ'à-yı̄mmír
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 bipun ka kikirig dol o.
Kà pư'à-sכ̄' dábè_ø mór ò bī-púp kà kìkīrıg dכ̄ll•ó_ ø.
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.
Kà dāu dāa zín̆'ilistra ní kà pō tūn̆'e_ ø kēnná \({ }^{+} \varnothing\).
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 yo'vr buon Aneas.
Àníná kà ò n̆yē dáu kà ò yō'ur 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)

\subsection*{27.5 Free personal pronouns}

In some contexts only free pronoun forms are possible, and they are then simply allomorphs of the bound pronouns:
\begin{tabular}{lll} 
Isolation: & Mánغ̀? & "Me?" \\
Apposition: & mān Paul & "I, Paul" \\
Coordination: & tīnám n̄̄ fūn & "us and you" \\
Before relative pronouns: & fūn-kánì ... & "you, who ..."
\end{tabular}
and for some speakers, the 2nd persons before direct commands after a yà'-clause 23. In other contexts, the choice of a free pronoun over bound implies contrast. For the special case of logophoric use see 25.2.

A personal pronoun which is focussed must be contrastive; conversely, contrastive pronouns are normally focussed where possible:

Mane an konbkem supla.
Mānı_ ø án̆ kón̆b-kìm-sòn lā.
1SG.CNTR CAT COP animal-tender-good:SG ART.
"I am the good shepherd." (Jn 10:11)

Contrastive pronouns can be subjects of \(\grave{n}\)-clauses 15.4.1:
wuи mane a si'em la. "as I am." (1 Cor 7:7, 1996)
wōv mánì \(\varnothing\) àn̆ sỉəm lā.
like 1sG.CNTR NZ COP INDF.ADV ART.

\subsection*{27.6 Emphatics}

I have borrowed the term "emphatic" from Jeffrey Heath's Songhay grammars (Heath pp202ff.) Emphatics relate a NP or AdvP to the discourse context. They follow top-level NPs or AdvPs, with the exception of hālí \({ }^{+}\), which precedes.
\(\boldsymbol{m} \grave{\varepsilon}\) DK KT SB NT mèn WK; clause finally (all sources) mèn \({ }^{\varepsilon}\) "also, too"
bozugว o ane fo biig men.
bう̄ zúgว́ ò à né fù bïig mén.
Because 3an cop foc 2sg 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.

The particle may follow kà + ellipted subject pronoun 20.3.
mà'aa (LF mà'anع) "only"

Asec line an be'عd ma'aa ka matun'e niy.
Àsće línì àn̆ bē'ed má'àa kà m̀ ná tūn̄'e_ ø níp.
Only rel.in cop bad only and isg IRr be.able cat do.
"It's only that which is bad that I can do." (Rom 7:21)
(Kà-foregrounding of the NP, which also implies exclusiveness 27.2.)
gòllīmm (LF gùllımne) "only"

Li ka'ane Wina'am gollim ne?
Lì kā' nē Wínà'am gúllìmné \({ }^{+} \varnothing{ }^{+} \varnothing\) ?
3IN neg.be foc God only NEG PQ?
"Is it not God alone?" (Lk 5:21)
\(k^{k}\) tàa \(^{n \varepsilon}\) "at all":

Áyìı kj̀tàa.
nכב= "just, exactly"
dàa-kàn lā nכ̄
"that very day"

Fo ya'a mor ya'am, fun no na dii li malisim.
Fù yá' mכ̄r yā'am, fūn nכ̄כ 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)
hālít \({ }^{+}\)can be used as an emphatic, preceding a NP or AdvP with the meaning "even":

Hali toumbs' \(\varepsilon d\) dim niyid ala.
Hālí tòvm-bē'ed dím nípìd àlá.
Even deed-bad:PL NULL.pL do:IPFV ADV:thus.
"Even sinners do that." (Lk 6:33)

Before a manner-adverb it effectively means "very":

Lì tj̀e hālí bédugū. "It's very difficult."
3IN be.bitter until much.

The adverb may be ellipted: Lì tj̀e hālí.
Hālí may be preposed with kà:

Hali ka nidib mor ban'adnam na.
Hālí kà nīdıb mōr bân̆'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 làmpj̄-dí'əsìdıb mé nìpıd àlá.
Even tax-receiver:PL also do:IPFV ADV:thus.
"Even tax-collectors do that." (Mt 5:46)

Hali baa bama wusa ya'a na zo ka basif, man ku basi fo.
Hālí báa bàmmā wōsa yá' nà zó kà básì f,
Even DEMST.PL all if IRR run and abandon 2SG.OB,
mān kú bāsl_fó + \(\varnothing\).
1SG.CNTR NEG.IRR abandon 25G.ob neg.
"If even they all run away and leave you, \(I\) will not leave you." (Mt 26:33)

\section*{Lexicon and texts}

\section*{28 Greetings and other formulae}
(a) Enquiries after health.

\section*{Gbís wēlá?}

Dúe w̄̄lá?

Nīntāŋ á wह̄lá?
Yó'ט \(\quad\) á wēlá?
Fù yī-dímàa?
Nìn-gbīnáa?
Fù sìdaa?
Pư'ā nē bíisc̀ \(\varepsilon\) ?
"How did you sleep?" or
"How did you get up?" (morning greetings at first meeting)
"How is the day/afternoon?"
"How is the evening?" literally "night"
"[How are] your household?"
"[How is your] body?" i.e. "How are you?"
"[How is your] husband?"
"[How are your] wife and children?"
... and so on, often at great length. Replies may be
\begin{tabular}{ll} 
Àláafù bé. & literally "There is health." \\
& (Also a general purpose greeting in itself.) \\
Àláafù bé•o. & \(\ldots\) for him/her. \\
Àláafù béع bá. & ... for them.
\end{tabular}
(b) Blessings follow the pattern Bárıkà né fò/yà ... "Blessing with your ..." with the introductory words usually ellipted; the reply to all of these is Náa.

\section*{\(K \bar{n} n k \bar{n} n\). \\ \(N \bar{\varepsilon}\) zâam zâam. \\ \(N \bar{\varepsilon}\) són̆sıgā.}

Tūuma! or Tūvma tūuma!

Nع́ fù būrıyá-sùク.
Né fù yò̀m-pāalíg.
"Welcome!" K \(\bar{n} n\), gerund of \(k \bar{\varepsilon} \check{n}\) "come"
cf Hausa: Barkà dà zuwàa.
"Good evening."
"(Blessing on your) work!"; includes practically anything which could be regarded as work, making this the commonest daytime greeting. "(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 wīn \(n^{n \varepsilon /}\).
"Merry Christmas."
"Happy New Year."
(c) Prayers. Reply Àmí! "Amen!"

Wīn ná lह̄bısı f nē láafìya.

Wīn ná sūpı \(f\).
Wīn 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 Tうे "OK", or as appropriate.

Bēogo lā.
Àtínì dáarì lā.
Gbisım súnā.
Kpèlımí súm.
Pù'usım yín.
(e) Miscellaneous formulae
\begin{tabular}{|c|c|}
\hline M̀ pô'vs yā [bédugū]. & "Thankyou [very much]." Reply Tj̀, or Pù'usug kā'e. "No thanks [needed]." \\
\hline Gáafàra. & "Sorry." Like Ghanaian English "sorry", may be just an expression of sympathy. \\
\hline 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.) \\
\hline Dìm sūgurú. & "Please forgive me." \\
\hline M̀ bélìm nē. & "I beg you." Not "please"; Kusaasi etiquette needs no spoken equivalent of "please." \\
\hline X lábāar á wēlá? & "What is the news of X?" A common initial reply is Dīıb má'àa. "Only food." i.e. "good." \\
\hline \(\grave{M}\) mכ̄r kû'өm náa? & \begin{tabular}{l}
"Shall I bring water?" Traditional first words to guest. "No, thank you" is Kù'өm á sóm. \\
("Water is good.")
\end{tabular} \\
\hline Wīn yél sídà. & "Bless you!" Literally "God speaks truth"; WK explained: "If you sneeze, it means someone elsewhere is praising you." \\
\hline Fò wóm Kūsáal̇̀ ? & "Do you understand ['hear'] Kusaal?" \\
\hline \(\bar{\varepsilon}\) हñ, ì wóm. & "Yes, I do." \\
\hline Áyùı, m̀ pū wómmā. & "No, I don't." \\
\hline
\end{tabular}

\section*{29 Selected lexical fields}

\subsection*{29.1 Kinship terms}

Pervading the whole system of Kusaal kinship terms is the importance of birth order among same-sex siblings, and its irrelevance between siblings of opposite sex. Many basic terms do not distinguish sex in the way familiar in European languages. 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 biïga "child" or specifically dà-kj̀כn̆r \({ }^{\varepsilon}\) "son" or pu'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.


These words are also used for ancestor/descendant.

My elder sibling of my own sex is my bīəré
younger sibling of my own sex is my pītú+
sibling of opposite sex is my tāuñ \({ }^{+/}\)

These words are also used for cousins, with seniority, as always, going by family branch.
\begin{tabular}{|c|c|c|c|}
\hline My & wife & is my & yī-pư'áa or simply pu'āa \\
\hline & wife's parent & & dìəm \({ }^{\text {ma }}\) (ơ dìəm-dāu\({ }^{+}\), ¢̣ dìəm-pūāk \({ }^{\text {a }}\) ) \\
\hline & wife's sibling & & dàkiilg \({ }^{\text {( }} 0^{\text {º }}\) dàkì-dāu \({ }^{+}\), ¢ ¢ dàkì-puāk \({ }^{\text {a }}\) ) \\
\hline
\end{tabular}

Dìəm \({ }^{\text {ma }}\) 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 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 Bùgóm-t̄̄כn̆r \({ }^{\varepsilon}\), the Fire Festival, one throws eggs at one's brothers-in-law.

I am my wife's parents' biiig \({ }^{\text {a }}\) "child" and my wife's siblings' dàkiig \({ }^{\text {a }}\).
\begin{tabular}{|c|c|c|}
\hline \multirow[t]{2}{*}{My} & husband is my & \(s i d d^{\text {a }}\) \\
\hline & \multirow[t]{2}{*}{husband's parent} & dàyáam \({ }^{\text {ma }}\) ( \(0^{\text { }}\) dàyāam-dáu \({ }^{+}\), \\
\hline & & Q dàyāam-púák \({ }^{\text {a }}\) \\
\hline & husband's elder brother & sid-kpē n̆ \(^{\text {m }}\) m \\
\hline & husband's younger brother & sid-bīla \\
\hline & husband's sister & sìd-pūāk \({ }^{\text {a }}\) \\
\hline
\end{tabular}

I am my husband's parents' bïiga "child"; all my husband's siblings (of both sexes) call me pú'āa "wife."

My co-wife is my nìn-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 dàkìtù \(\theta s^{\varepsilon}\); two women married to brothers are nìn-tāas \({ }^{\varepsilon}\), "co-wives." "Fiancée" is pú'à- \(\bar{\varepsilon}\) lín".

\subsection*{29.2 Personal names}

See Haaf pp87ff for a detailed account of Kusaasi personal naming practices.
Personal names are preceded by the personifier particle, \(\grave{A}\) - by default but \(\grave{N}\) before adjective stems, where \(\grave{N}\) - 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 ( \(s \bar{g} g\left(r^{\varepsilon /}\right)\) assigned to a newborn child through the father's consultation with a diviner ( \(b \bar{a} ' a=\) ); this may be the \(w i \bar{n}{ }^{n \varepsilon /} 1.1\) of an ancestor, or of a spiritually powerful tree:
\begin{tabular}{|c|c|c|}
\hline À-Wīn \({ }^{\text {n } / ~}\) & Awini & person with a \(\sin ^{\prime} g r^{\varepsilon /}\) from father's family \\
\hline À-Būgur \({ }^{\text {e }}\) & Abugri & person with a \(s \bar{l} g \iota^{\varepsilon / /}\) from mother's family \\
\hline À-Tìıg \({ }^{\text {a }}\) & Atiga & "tree" as sīgır \({ }^{\text {/ }}\) \\
\hline À-Kūdvg \({ }^{\text { }}\) & Akudugu & "piece of iron" (sc. as a marker on a tree\(s i \bar{g}\left(r^{\varepsilon /}\right)\); displaced as a common noun by the \(\mathrm{pl}-\mathrm{as}-\mathrm{sg} k u ̄ t^{\varepsilon}\) \\
\hline
\end{tabular}

A younger sibling of \(\grave{A}-W i ̄ n^{\mathrm{n} \varepsilon /}\) with the same sīgır \(r^{\varepsilon /}\) is called \(\grave{A}-W i ̄ n\)-bíla "Awimbillah", of \(\grave{A}-K u ̄ d v g{ }^{\text {, }}\) À-Kud-bïla "Akudibillah" etc. Names for girls may follow the pattern À-Wīn-pưáka "Awimpoaka."

Other names refer to birth circumstances:
À-Nà'ab \({ }^{\text {a }}\)
Anaba
\(\begin{array}{ll}\text { À-Fūug } / & \text { Afugu } \\ \text { À-Tūl६ } & \text { Atuli }\end{array}\)

A whole clause is seen as a birth-circumstance personal name in

\section*{À-Tìım bódìg yā \\ "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.
\begin{tabular}{lll} 
À-Tàmpūטr & Tampuri & "ashpit, rubbish tip" \\
À-DúkJ & Aruk & "pot"
\end{tabular}

Another strategy is pretended adoption by an outsider, resulting in names like Jambeedu "Fulani", or
\begin{tabular}{lll} 
À-Sāana/ & Asana & "guest, stranger" \\
À-Sāan-dó+ & Sandow & "guest" + dāú \({ }^{+}\)"man" \\
À-Zàngbèog & Azangbego & "Hausa person" \\
À-Nàsà-pūāka & Anasapoaka & "European woman"; also "child delivered \\
& & by a European midwife"
\end{tabular}

Names based on adjectives:
\begin{tabular}{lll}
\(\grave{N}-D \bar{a} u g^{\partial}\) & Ndago & "male" \\
\(\grave{N}-P u \bar{a} k^{a}\) & Mpoaka & "female" \\
\(\grave{N}-\) Bīl \(^{\text {a }}\) & Mbillah & "little"
\end{tabular}

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+ \(\uparrow A b d u-r-R a \hbar m a: n\). KKY p6 has the interesting girl's name Aməryam, ? Arabic Maryam "Mary", interpreted as À-M̄̄r Yām "Has Common Sense."

\subsection*{29.3 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, though by no means all, Kusaal place names have transparent meanings. Place names include:
\begin{tabular}{|c|c|c|}
\hline \(B j k^{\text {a }}\) & Bawku & "pit, geographical depression" \\
\hline Kūk \({ }^{\text {a/ }}\) & Koka & "mahogany tree" \\
\hline Kùkpàrıg \({ }^{\text {a }}\) & Kokpariga & "palm tree" \\
\hline Tèmpáan \({ }^{\text {ne }}\) & Tempane & perhaps "new villages" \\
\hline Mu'à-nכ̄כr \({ }^{\text {c/ }}\) & Mogonori & "lakeside" ("lake-mouth") \\
\hline \(B\) às-yว̄n \({ }^{\text {ne/ }}\) & Basyonde & "abandon sacks" ?reason for name \\
\hline Kügor \({ }^{\text {/ }}\) & Kugri & "stone" \\
\hline Būgor \({ }^{\text {c }}\) & Bugri & \(b \bar{u} g r^{\varepsilon}\), object housing a \(w \bar{i} n^{\text {ne/ }}\) \\
\hline Widili-n̆yá'an \({ }^{\text {a }}\) & Woriyanga & archaic for wìd-n̆yá'an \({ }^{\text {a }}\) "mare" \\
\hline Bì-nà'ab \({ }^{\text {a }}\) & Binaba & "prince" \\
\hline Gàaru \({ }^{+}\) & Garu & Hausa gàaruu "wall around a town or compound" \\
\hline Wiid-nà'ab \({ }^{\text {a }}\) & Widinaba & "chief of the clan Wiid \({ }^{\text {a }}\) \\
\hline Pūsıg \({ }^{\text {a/ }}\) & Pusiga & "tamarind" \\
\hline Til \({ }^{\text {/ }}\) & Tilli & "tree trunk" cf Toende Kusaal tíl id (Hasiyatu Abubakari, p.c.) \\
\hline Dènıg \({ }^{\text {J }}\) & Denugu & No known meaning \\
\hline Pùlıma Kû'өm \({ }^{\text {m }}\) & Pulimakom & "water by pùlıma+ \({ }^{\text {(grass sp) }}\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline Wìdāan \({ }^{\text {a }}\) & Widana & for Wìd-dāanª "Horse-Owner", title of a chief's n亏̄-dî'əsa "linguist." \\
\hline Mi'isıg \({ }^{\text {a }}\) & Missiga & Explained locally as "mission", i.e. of the Assemblies of God; perhaps influenced by mi'isug \({ }^{\text {"baptism" }}\) \\
\hline Sā-bíla & Zebilla & "small grass"? \\
\hline Sā-pízlìg \({ }^{\text {a }}\) & Sapeliga & "Isoberlinia Doka" \\
\hline Kı̀-tā'amís \({ }^{\text {E }}\) & Kultamse & "dog almonds" \\
\hline
\end{tabular}

The meanings given for "Sapeliga" and "Kultamse" are based on a careful 1935 report by an assistant agricultural officer who lists among local trees in the Farefare/ Nabit area sapelaga Isoberlinia doka, ta-anga Butyrospermum parkii (Kusaal tá'ana), and kulta-anga Andira inermis (p.c. John Turl.)
 brooms. No *sāa=/ occurs in my data (only sāa= "rain"), but the Farefare cognate sáagá appears in Niggli's dictionary as "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 Kùlugún \(\eta^{\text { "Kulungungu", Turl cites a Bisa-speaking informant who suggests }}\) a plausible origin in Bisa Kuurgongu, "Crooked Sheanut Tree." Prost's Bisa grammar confirms that adjectives follow nouns, and his dictionary cites kúr "karité." The second element is probably a simplex form of gongeda "arqué" ( \(n g=\) [ y\(]\) ); Prost has an adjectival suffix -da "s'appliquant aux grandes choses ou marquant intensité."
\begin{tabular}{|c|c|c|}
\hline Àg̀̇ı & Agolle & cf àgólı "upwards" \\
\hline Tù̇ \(n^{\text {n¢ }}\) & Toende & cf tù \(ө n^{\text {nع }}\) "in front", "West" \\
\hline Bārug \({ }^{\text {/ }}\) & North & "Bisa country" \\
\hline Ňyá'an \({ }^{\text {a }}\) & East & "behind" \\
\hline Zuēya+ & South & "hills", i.e. the Gambaga Escarpment \\
\hline Tùen \({ }^{\text {n }}\) & West & "in front" \\
\hline
\end{tabular}

The forms above were given by WK; KB has ya-dagəbug yà dàgว̀bıga ("your left hand") for "south" and ya-datiun yà dàtiun \({ }^{3}\) ("your right hand") for "north," along with ya-nya'aŋ "east", ya-tuona "west."

Words referring to ethnic groups and clans create place names by adding the suffix \(-g^{\top}\) to the stem. These can be nonce-formations and need not necessarily refer to any established political entity or permanent settlement: Kùtāun \(\eta^{2 /}\) "any place inhabited by the clan Kùtām \({ }^{\text {ma/ }}\); Kūsâug "Kusaasiland"; Mう̀ \(g^{\text {² }}\) "Mossi country" (Mjेכg Nâ'ab \({ }^{\text {a }}\) "Moro Naba, King of the Mossi.")

Places outside \(K \bar{u} s a ̂ v g^{J}\) generally do not have Kusaal names (an exception is Sānkâan̆s \({ }^{\varepsilon}\) "Sankanse" in Burkina Faso.) For "Accra" the Twi-derived name Ankara is usual. Niggli's dictionary has Toende Wa'arok for "Ouagadougou", but I could not elicit any Agolle equivalent. The Mooré name Waogdgo apparently does not have a transparent meaning for Mooré speakers, and its etymology is uncertain.

There seems to be no Agolle Kusaal proper name for the White Volta river, which is simply \(k \bar{\jmath} l o g^{a}\) "river"; presumably this is simply because it is the only real river within \(K \bar{u} s a ̂ u g{ }^{J}\).

\subsection*{29.4 Ethnic groups and clans}

Names for the group belong to the \({ }^{a} \mid b^{a}\) or \(g^{a} \mid s^{\varepsilon}\) classes (apart from Zàngbह̀og \({ }^{\text {ºn }}\) "Hausa" and Nàsāara+ "European") and their language to the \(\ell^{\varepsilon}\) subclass of \(r^{\varepsilon} \mid a^{+}\). The place they inhabit has the suffix \(-g{ }^{\text {a }}\).
\begin{tabular}{|c|c|c|c|c|}
\hline Ethnic gp sg & Ethnic gp pl & Language & Place & \\
\hline Kūsáa= & Kūsâas \({ }^{\varepsilon}\) & Kūsâal \({ }^{\varepsilon}\) & Kūsâug \({ }^{\text {o }}\) & Kusaasi \\
\hline Ňwāmpūrıg \({ }^{\text {a/ }}\) & Ňwāmpūrıs \({ }^{\text {/ }}\) & Ňwāmpūrıl \({ }^{\varepsilon /}\) & Ňwāmpūrog \({ }^{\text {/ }}\) & Mamprussi \\
\hline Bārıgal & Bārıs \({ }^{\text {¢ }}\) & Bāt \({ }^{\varepsilon /}\) & Bārog \({ }^{\text {J/ }}\) & Bisa \\
\hline Mùa+ & Mj̀ss \({ }^{\text {® }}\) & Mう̀ \({ }^{\text {¢ }}\) & Mj̀ \({ }^{\text { }}\) & Mossi \\
\hline Dàgbān \({ }^{\text {ne/ }}\) & Dàgbām \({ }^{\text {ma/ }}\) & Dàgbān \({ }^{\text {ne/ }}\) & Dàgbāun \({ }^{\text {/ }}\) & Dagomba \\
\hline \(B i n^{\text {n }}\) & Bim \({ }^{\text {ma }}\) & \(B i n^{\text {ne }}\) & Biun \({ }^{\text {a }}\) & Moba \\
\hline Sìmiig \({ }^{\text {a }}\) & Sìmīis \({ }^{\text {a }}\) & Sìmïil \({ }^{\text {¢ }}\) & Sìmiug \({ }^{\text { }}\) & Fulbe \\
\hline Yàan \({ }^{\text {a }}\) & Yàan̆s \({ }^{\text {¢ }}\) & Yàan \({ }^{\text {ne }}\) & & Yansi \\
\hline Gūrín \({ }^{\text {a }}\) & Gōrís \({ }^{\text {® }}\) & Gōrín \({ }^{\text {ne }}\) & & Farefare \\
\hline Yārıga' & Yārıs \({ }^{\text {/ }}\) & Yāt \({ }^{\varepsilon /}\) & & Yarsi \\
\hline Zàngbèog \({ }\) & Zàngbèz \({ }^{\varepsilon}\) & Zàngbèz \(\left.\right|^{\varepsilon}\) & & Hausa \\
\hline Bùlıg \({ }^{\text {a }}\) & Bùlıs \({ }^{\text {E }}\) & Bùlı & & Bulsa \\
\hline Tàlına & Tàlıs \({ }^{\text {E }}\) & Tàlın \({ }^{\text {ne }}\) & & Tallensi \\
\hline Nàbıd \({ }^{\text {a }}\) & \(N a ̀ b ı d ı b^{\text {a }}\) & Nàbır \({ }^{\text {e }}\) & & Nabdema \\
\hline Bùsápa & Bùsâan̆s \({ }^{\varepsilon}\) & Bùsâan̆l \({ }^{\text {¢ }}\) & & Bisa \\
\hline Nàsāara+ & Nàsàa-nàm \({ }^{\text {a }}\) & Nàsāal \({ }^{\text {c }}\) & & European \\
\hline Kàmbùn \({ }^{\text {a }}\) & Kàmbùmıs \({ }^{\text { }}\) & Kàmbùnır \({ }^{\text {E }}\) & & Ashanti \\
\hline
\end{tabular}
\(B \bar{a} r ı s^{\varepsilon /}\) is "Bisa" generally, not just the Bareka; Bìm \({ }^{m a}\) is "Moba" in general, and not only the Bemba (WK.)

Note Tù̀өnn "Toende area", Tù̀nnır \({ }^{\varepsilon}\) "Toende dialect of Kusaal", Àg ̀̀ \(\left.\right|^{\varepsilon}\) "Agolle area", Àg \(\left.{ }^{\prime}\right|^{\varepsilon}\) "Agolle dialect of Kusaal", e.g.

\footnotetext{
Ò piàn̆'ad Àg̀̀l.
"She speaks Agolle Kusaal."
3AN speak:IPFV Agolle.
}

Kusaasi clan names include，among many others：
\begin{tabular}{|c|c|c|c|}
\hline Singular & Plural & Place & \\
\hline Kòtān \({ }^{\text {n } / ~}\) & Kùtāmma／ & Kùtāun \({ }^{\text {／}}\) & WK＇s clan \\
\hline \multirow[t]{3}{*}{Zùa＋} & Zùes \({ }^{\text {® }}\) & & \\
\hline & Zưà－sābılís \({ }^{\text {c }}\) & & subclans \\
\hline & Zưà－wiib \({ }^{\text {a }}\) or Zunà－wiis \({ }^{\text { }}\) & & \\
\hline Wiid \({ }^{\text {a }}\) & Wiid－nam \({ }^{\text {a }}\) & Wiidug \({ }^{\text { }}\) & \\
\hline Nàbıd \({ }^{\text {a }}\) & \(N a ̀ b ı d ı b^{\text {a }}\) & Nàbıdug \({ }^{\text { }}\) & \\
\hline Gjog \({ }^{\text {a }}\) & Gว̀วs \({ }^{\text {® }}\) & Gjog \({ }^{\text {a }}\) & \\
\hline \multirow[t]{3}{*}{Sà＇dàbùa＋} & Sà＇dà \({ }^{\text {cuies }}{ }^{\varepsilon}-b u ̀ b^{\text {a }}\) & Sà＇dàbj̀ \({ }^{\text { }}\) & \\
\hline & \(N\) N＇dàm \({ }^{\text {ma }}\) & Nà＇daun \({ }^{\text {² }}\) & \\
\hline & Gòm－dìm \({ }^{\text {a }}\) & Gòm \({ }^{\text {me }}\) & \\
\hline
\end{tabular}

Nàbıd \({ }^{\text {a }}\) as a clan name is different from the ethnic group＂Nabdema＂（WK．）

\section*{29．5 Trees and fruits}

Tree names are almost all \(g^{\text {a }} \mid s^{\varepsilon}\) class，like tìı \(g^{\text {a }}\)＂tree＂；their fruits belong to classes \(r^{\varepsilon} \mid a^{+}\)or \(g \mid d^{\varepsilon}\) ．
\begin{tabular}{|c|c|c|c|c|}
\hline Tree sg & Tree pl & Fruit sg & Fruit pl & \\
\hline āan̆dıg \({ }^{\text {a }}\) & āañdıs \({ }^{\varepsilon}\) & āañdır \({ }^{\text {e }}\) & āañda＋ & Vitex doniana \\
\hline dùan̆ \({ }^{+}\) & dう̀วn̆s \({ }^{\text {² }}\) & dう̀วn̆g \({ }^{\text {a }}\) & dう̀эn̆ \({ }^{\text {¢ }}\) & dawadawa \\
\hline gāan̆＝／ & gāan̆s \({ }^{\varepsilon /}\) & \(g\) ān̆r \({ }^{\varepsilon /}\) & gān̆yá \({ }^{+}\) & Nigerian ebony \\
\hline gùn \({ }^{\text {a }}\) & gùmıs \({ }^{\text {e }}\) & gòm \({ }^{\text {me }}\) & gòma＋ & kapok \\
\hline kikkàn \({ }^{\text {a }}\) & kikàmıs \({ }^{\text { }}\) & kìkàm \({ }^{\text {m } \varepsilon}\) & kikàma＋ & fig tree \\
\hline kpùkpàrıg \({ }^{\text {a }}\) & kpòkpàrıs \({ }^{\text { }}\) & kpòkpàr \({ }^{\text {¢ }}\) & kpùkpàra＋ & palm \\
\hline lí＇ə⿰习习 & Iアəтís \({ }^{\text {¢ }}\) & lí＇əm \({ }^{\text {m }}\) & İ＇əmá \({ }^{+}\) & Ximenia americana \\
\hline pūsıga＇ & \(p u ̄ s s^{\varepsilon /}\) & pūsırı \({ }^{\text {r }}\) & pūsá＋ & tamarind \\
\hline sīsíbìg \({ }^{\text {a }}\) & sīsíbis \({ }^{\text {e }}\) & sīsíbìr \({ }^{\text {e }}\) & sissíbà \({ }^{+}\) & neem \\
\hline tá＇an \({ }^{\text {a }}\) & tā＇amís \({ }^{\text { }}\) & tá＇am \({ }^{\text {me }}\) & tā＇amá＋ & shea butter \\
\hline \(t\) k̇＇\(^{\prime} g^{\text {a }}\) & \(t \varepsilon{ }^{\prime} \varepsilon s^{\varepsilon}\) & \(t\) ṫ＇og \(^{\text {b }}\) & \(t \varepsilon{ }^{\prime} \varepsilon d^{\varepsilon}\) & baobab \\
\hline vúөŋ \({ }^{\text {a }}\) & vūөmís \({ }^{\varepsilon}\) & vúөr \({ }^{\varepsilon}\) & vūáa \(=\) & red kapok \\
\hline
\end{tabular}

The stems for＂red kapok＂and its fruit are slightly different：tree＊vuөgm－fruit＊vuөg－

\subsection*{29.6 Colours}

Kusaal, like many local languages, has a basic three-colour system:
\begin{tabular}{lll} 
zèn̆'og & "red" & all reddish shades \\
sābılíga & "black" & all darker shades of colour \\
pìalıg & "white" & all lighter shades of colour
\end{tabular}

Wìug \({ }^{3}\) is synonymous with \(z \varepsilon\) ňn' \(^{\prime} o g\). Kusaal has many other standard expressions for colour (e.g. wōv támpūvr n̄̄ "like ash", i.e. "grey"), often with parallels in other West African languages: the system is "three-colour" because any colour can be allocated to one of only three terms, not because only three colour terms exist.

\subsection*{29.7 Time}

The day begins at sunrise. Answers to bj̀-wìnn "what time of day?"
\begin{tabular}{|c|c|c|c|}
\hline bēogu-n \({ }^{\text {¢/ }}\) & "morning" & àsùbá+ & "dawn" ( \(\leftarrow\) Arabic) \\
\hline bèkèkèon̆ \({ }^{\text {د }}\) & "very early morning" & zàam \({ }^{\text {m }}\) & "evening" \\
\hline wìn-līir \({ }^{\text {e }}\) & "sunset" & yóvo \({ }^{\text {a }}\) & "night" \\
\hline wìn-kうेวn̆r \({ }^{\text {¢ }}\) & "sunset" & nīntā \(\eta^{\text {a/ }}\) & "heat of the day, early afternoon" \\
\hline
\end{tabular}

Winne "time of day" (cf wìnnıga "sun") always has a predependent.
There are no traditional expressions for clock time; NT/KB adapts the Hausa constructions, as with kह́rıfà àtán̆' "three o'clock", Hausa Karfèe ukù.

The deictic particle n̆wà "this" is commonly attached to time words:
zàam n̆wá "this evening" [za:ma] yó'ט n̆wá "tonight" [yỡ:ŋ:a]

Answers to būn-dâare "which day?":
\begin{tabular}{llll} 
zīná+ & "today" & sù' \(\theta s^{a}\) & "yesterday" \\
\(b \bar{\varepsilon} o g^{\circ}\) & "tomorrow" & dāar \(^{\varepsilon}\) & "day after tomorrow/ \\
& & & day before yesterday"
\end{tabular}

Weekday names are of Arabic origin, the seven-day week being a Muslim importation. (The traditional "week" is a three day market cycle, differing from village to village and carrying on regardless of any weekdays or festivals. Many older speakers do not use weeks at all, but count in days instead.)
\begin{tabular}{llll} 
Àláasìd dâar & "Sunday" & Àtínì dâar & "Monday" \\
Àtàláatà dâar & "Tuesday" & Àlárıbà dâar & "Wednesday" \\
Àlàmíisì dâar & "Thursday" & À(r)zúmà dâar & "Friday" \\
Àsíbıtì dâar & "Saturday" & &
\end{tabular}

Dāar \({ }^{\varepsilon}\) "day" is "twenty-four hour period" (nīntā \(\quad\) "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 àyópj̀e dâar kà fù ná lह̄b nā. Dābá àyópj̀e kà fò ná lह̄b nā. Àláasìd dâar kà fù ná lह̄b nā. Tì kpélìm ànínā dábısà bỉəlá.

Longer periods of time:
\begin{tabular}{|c|c|c|}
\hline dābá àyópj̀e & "week" & also bákpàe \(\leftarrow\) Hausa bakwài "seven" \\
\hline n̆wādıg \({ }^{\text {a/ }}\) & "moon, month" & \\
\hline n̆wād-kánì kēn nā lā & "next month" & ("the month which is coming") \\
\hline n̆wād-kánì gàad lā & "last month" & ("the month which has passed") \\
\hline
\end{tabular}

There are two seasons:
\(s \bar{\varepsilon} 0{ }^{\prime} g^{\nu} \quad\) "rainy season" óvn \({ }^{\text {ne }} \quad\) "dry season"

The Harmattan part of óvn is called sāpálı and the very hot humid part before the rains is dàwàlıg \({ }^{\text {a }}\).

"Time" in general is sāŋá+ pl sānsá+ cb sān-; "time of day" is wìnne; "time" as in "several times" is nכ̄כr 15.5.2.4. Examples with sāpá+:
\begin{tabular}{llll} 
sān-kánè? & "when?" & sān-kán lā & "at that time" \\
sāná kám & "all the time" & sāná bèdvgū & "a long time" \\
sānsá bèdvgū & "many times" & sāŋá bīəlá & "for/in a short time"
\end{tabular}

\section*{30 Texts}

\subsection*{30.1 Balaam's Donkey}

From the 2016 Kusaal Bible, Numbers 22:21-35.
 sunf da duoe ne on ken la, ka Zugsob maliak kidigi zi'en suor la zug ye o gen o.
Balaam da ban'adne o buy, ka o yammis ayi' dכl o. Bu la da nye Zugsob maliak la ka o zi'e suor la zug ka fuoe sv'vgv zanl o nu'ugin, ka o buni kpen' mכogi gaad. Ka Balaam pin'ili bu'vd bog la ye o leb suor povg.

Zugsכb maliak la da tכlisi zi'en Iכmbכn'כd ayi' bane ka ba me' zaŋguoma ayi' ben, ka suobaanlig bé li tensok la. Bun la n da nye Zugsob maliak la, o da miee labin zanguom la urig Balaam nobir. Ka o lem bv' o ya'as.

Zugsכb maliak la da len vurigi tכlis zi'en tuon zin'ikane ka sכ' ku nyapi fendig datiup beє dagəbuga. Bup la da Ien nye Zugsob maliak la, o da digin ne Balaam wusa tenin, ka Balaam sunf duoe hali ka o vob bu la ne o dansaar. Ka Zugsob ke ka bu la ya'ae o nכวri pian' Balaam ye, "Bכ kimm ka m maalif ka li ke ka fu bu'um nככr atan' sa?" Balaam da lebis o ye, "Fu morim ne maan galim! M ya'a morin su'vgo m nu'ugin m naan kuvnif nannanna." Bu la da Iebis Balaam ye, "Man ka'ane fu men מט one ka fu ban'ad saŋa wosa ti paae zinaa? Fu nam mi' nye ka m maal anwa tisi fo?" Ka o lebis ye, "Ayei!"

Ka Zugsob yכ'כg Balaam nini ka o nye maliak la zi'e suor la tensok ka fuoe su'vgu zanl. Ka o igin ka vanbin tenin. Zugsכb maliak la da bu'os o ye, "Bכ ka fu bv' bupla noכr atan' sa? M kena ye m gipif bozugo ken la ka' su'um m nini nii. Noכr atan' ka bupla nyém ka yuk. Bu la ya'a po yukine, anwaa m kovnif ka basin bu la." Balaam da İbisi yel Zugsכb maliak la ye, "M tum taal, m pa'a pu bah ye fu zi'ene suorin la ye fu geni ma. Nannanna li ya'a pu malisi fo m na lebi kul." Ka maliak la Iebisi yعl Balaam ye, "Dכl nidib la ken, amaa yعlim ne man ye fo yعl si'el ma'aa." Ka Balaam dol Balak na'ayikpem la ken.

Balaam dá dùe bēogv-n_ ø lóد_ò bùno_ ø d̄̄l Moab
Balaam tns rise morning-LOC CAT tie 3AN donkey:Sg CAT accompany Moab ná'-yī-kpém lā_ø kén.
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 \(\bar{\eta}\) lā, kà Zūg-sób máliāk But God heart:sg tns rise with 3An:Nz go ART, and Head-null.an angel:sg kīdıgı_ø zî’ən sūөr lā zúg yé ò gīŋoó_ 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 bùn, kà ò yàmmıs àyí' dכ̄Iló_ 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 ňyè Zūg-sób máliāk lá kà ò zí'e sūer lā zúg
Donkey:Sg Art tns see Head-null.an angel:Sg Art and zan be.standing road:Sg ART upon kà fúe sò'vgט_ø zán̆l ò nú'ugī-n, kà ò búnì ø kpèn̆' and draw knife:sG CAT have.in.hand 3AN hand:SG-LOC, and 3AN cut.across CAT enter mj̄əgı 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 pīn̆'ilıø bū'vd bún lā yर́ 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 máliāk lā dá t̀̀lısı_ø zî'ən lòmbう̀'כd àyí' bánì kà bà mé Head-null.An angel:Sg art tns do.next cat stand orchard:PL num:two rel.pL and 3pL build zàngùөma àyí_ \(\varnothing\) bēŋ, kà sưā-báan̆lìg bév_lì tèn-sūk lā. 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."

Bùn lá ǹ dà ňy \(\bar{\varepsilon}\) Zūg-sób máliāk lā, ò dà mie_ \(\varnothing\) làbın Donkey:Sg art nz tns see Head-null.an angel:sg art, 3an tns squeeze cat hide.behind zàngùөm lā_ø ūrıg Balaam nóbìr. Kà ò lém bú'O_ø yâ'as. wall:sg art cat scrape Balaam leg:sg. And zan again beat zan.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-sj́b máliāk lā dá lèm vūrıgı ø tכ̄lıs ø zî'ən tù̀өn zín̆'-kànı 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_ø dà lèm n̆yē Zūg-sób máliāk lā, ò dà dìgın nē Balaam Donkey:SG ART NZ tns again see Head-null.an angel:SG ART, 3AN tns lie.down with Balaam wūsa tēŋı-n, kà Balaam sún̆f dūe hālí kà ò vōb bún lā né all ground:sG-LOC, and Balaam heart:sG rise so.far and 3AN strike donkey:SG ART with ò dànsàar.

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 bùn lā yá'e ò nכ̄orı ø pīān̆' Balaam y \(\bar{\varepsilon}\), And Head-null.an let and donkey:sg art open 3an mouth:sg cat speak Balaam that Bj̄ kímm kà m̀ máalì \(f\) kà lì kદ́ kà fù bú'ט_m nכ̄כr átán̆' sá \({ }^{+} \varnothing\) ? what IDEO and 15G make 25G and 3IN let and 2SG beat 1SG time:Sg num:three hence cQ? "Then the Lord caused the mouth of the donkey to open 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'vgù m̀ nú'ugī-n, m̀ 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 now.'"

Bùn lā dá lèbıs Balaam ȳ̄, Mān kā' néfù mēŋ bún ónì kà fù Donkey:Sg Art tns reply Balaam that, 1SG.CNTR neg.be foc 2 SG self donkey:SG rel.an and 2SG bān̆'ad sāpá wūsa_ø tí pāe zīnáa \({ }^{+} \varnothing{ }^{+} \varnothing\) ? Fò nám mī_ \(\varnothing\) n̆ý kà m̀ ride:IPFV time all CAT after reach today NEG PQ? 2SG already know CAT see and 1SG mâal àn̆wá_ø tísì_fj \({ }^{+} \varnothing\) ? Kà ò lébìs ȳ̄, Áyìu! make thus CAT give 25 GCQ ? 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?' He replied, 'No.'"

Kà Zūg-sób yô'วg Balaam nínì kà ò ňȳ máliāk lā_ø zí'e sūөr
And Head-null.an open Balaam eye:pl and 3an see angel:sg art cat be.standing road:sg lā tén-sōk, kà fúe sò'vgo - ø zān̆l.
ART centre:sg and draw knife:sG CAT have.in.hand.
"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."

Kà ò ígìn kà vábìn tz̄ŋı-n.
And zan kneel and lie.prone ground:sG-Loc.
"And he knelt down and lay face down."
 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 and yūk. Bùn lā yá' pū yūkı-ní_àn̆wáa_m̀ kōv-ní_f kà básī-n deviate. Donkey:SG ART if NEG.IND deviate-DP thus 1 SG kill-DP 2 SG and release-DP bún lā.
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 yél Zūg-sób máliāk lā ȳ, ì tóm tâal, m̀ pá' Balaam tns reply cat say Head-null.an angel:Sg art that, 1sG work fault:sG, 1SG TNS \(p u ̄ \quad\) bán yé fù zí'e \(n \bar{\varepsilon}\) sūөrí-n lā yर́ fù gīŋí_ mā \({ }^{+} \varnothing\). NEG.IND realise that 2 SG be.standing FOC road:SG-LOC ART that 2 SG obstruct 1SG NEG.

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.'"

Kà màlīāk lā lébısì_ø yह̀l Balaam yē, Dj̀l nīdıb lā_ø kēŋ,
And angel:sg ART reply CAT say Balaam that, Accompany person:PL ART CAT go,
àmáa yદ̀lım n̄̄ mán yદ́ fù yél sīəəl 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 d̄̄l Balak ná'-yī-kpém lā—ø kéy.
And Balaam accompany Balak chief-house-elder:PL ART CAT go.
"So Balaam went with Balak's courtiers."

\subsection*{30.2 The 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.

\section*{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.

Nīn-kúvdìbá àtán̆'. "The three murderers."
Person-kill:AGT:PL num:three.

Dāpá_àtáň' \(n\) dá bè. Bà dà à n̄̄ dáp-kān̆da súpā.
Man:PL num:three CAT TNS ExIST. 3PLTNS COP FOC man-tough:PL well.
"There were once three men. They were really tough men."

Kà dāar yīnní kà bà lá'asì_ \(\varnothing\) zín̆'inì ø gbān̆'e yé bà dûөm_ø
And day:sg one and 3PL gather CAT sit CAT grab that 3PL rise:IMP CAT
īā búdàalım lâ'ad \(n\) gīnnı \(\varnothing\) kū nīdıb má'àa
seek manliness goods:PL CAT wander:IPFV CAT kill person:PL only
kà dā lém tòm sỉəla \({ }^{+} \varnothing\).
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_ø īā sô'us n̄ zán̆'anà \(n \bar{\varepsilon}\) tí-dāad n̄ pīmá n \(\bar{\varepsilon}\) 3PL truly rise CAT seek knife:PL with bludgeon:PL with bow:PL with arrow:PL with lô'ad, nē kpāna nē málì súnān pin̆'ill_ø gīnnı_ ø ìəd nīdıb quiver:PL with spear:PL with gun:PL well CAT begin CAT wander:IPFV CAT seek:IPFV person:PL yé bà yá' n̆y \(\bar{\varepsilon} \bar{s}^{\prime}\) bān \(k \bar{u}\).
that 3PL if find INDF.AN 3PL.CNTR kill.
"So indeed they went and found lots of swords and bludgeons and bows and arrows and quivers and spears and guns and started out looking for people so if they found someone they would kill him."

Bà gìlıgí_ àlá n \(\bar{\varepsilon}\) n̆wādısá_àtán̆' \(n \bar{\varepsilon}\) dábısà_àtán̆'. Bà pū ňy \(\bar{\varepsilon}\) 3PL go.round thus with month:PL NUM:three with day:PL nUM:three. 3PL NEG.IND find nīdı_ ø ná \(k \bar{u} v+\varnothing\). Kà kpélìm mōr k \(\bar{n} \quad n \bar{\varepsilon} \quad k \bar{\varepsilon} n \quad n \bar{\varepsilon} \quad k \bar{\varepsilon} n\). 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_ànū dâar bà ňy \(\bar{\varepsilon}\) n \(\bar{\varepsilon}\) lāllí sà kà sỉəl zí'e sābíllì_ \(\varnothing\)
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
 if already be.able and have foc item-INDF.IN all, 3PLIRR 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_ø n̆ý́ kà lì kā' nīdá \({ }^{+} \varnothing\), kà á n \(\bar{\varepsilon}\) bכ̄tú kà līgıdı 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 \(\bar{\varepsilon}\), Àṫ̀, kà nānná-nā n̆wá, tì yé tì níg līgıdı n̆wá wālá \({ }^{+} \varnothing\) ? 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 \(p \overline{0} d ı g\) n . Àmáa bà yé lì nár kà bà yīs līgıdı lā \(n\) And 3PL say, 3PLIRR share foc. But 3PL that 3IN must and 3PL extract money art Cat \(k \bar{\eta} \eta\) _ Ø dá' dāam_ Ø ná nū yīigá kà ňyāan pūdıg līgıdı 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 yīs līgıdı lā bīəlá yē bīig lā kém_ø dá' yōor 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."

Bīig lá_ø kēn lā, ò tèn̆'عsıd n̄̄ ón nà nī sỉəm_ø kū bánì kpèlım Child:SG ART NZ go:IPFV ART, 3AN think:IPFV FOC 3AN:NZ IRR do indF.ADV CAT kill rel.pl remain àní nā lā, kà váe līgıdı lā wūsa wūsa \(n\) sū'e, ò yèlí_ò mē 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-kūvdím \(n\) lós dāamí-n lā 3AN IRR buy foc beer, and seek medicine-killing CAT immerse beer-Loc ART \(n\) pāe_ ø tíl_bá kà bà nūu_ø kpí kà ò sū'e līgıdı lā wūsa. 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-kūvdím \(n\) 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."

ZT̉isíg \(\bar{\varepsilon}{ }^{+} \varnothing\), kà bà bàyí lá_ \(\varnothing\) kpèlım lā mé gbān̆'e n̄̄ yé bà kū neg.Know neg, and 3PL num:two ART nz remain ART also grab foc that 3pL kill bīig lá_ø kēŋ dāam lā dâ'ab lā, kà mé sū'e līgıdı 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."

Bīig lá \(n\) mōr dāam lā_ \(\varnothing\) pāa nā lā, kà j̀nā kiá \(k p \bar{\varepsilon}\), Child:Sg art nz have beer art cat reach hither art, and demst.an cut here, kà j̄n kiá \(k p \bar{\varepsilon}, ~ n ~ k i ́ o \_\varnothing \quad \varnothing\) kū, kà yō'un zán dāam lā_ø and 3AN.CNTR cut here, CAT cut 3AN.OB CAT kill, and then take beer art CAT nū wán wán, lì pū yúug \(\bar{\varepsilon}^{+} \varnothing\), kà bà wōsa wūsa mé kpélìm kpì drink IDEO IDEO, ZIN NEG.IND delay NEG and 3PL all all also immediately die zĭn̆-kàn lā nó kà bà sכ̄' sכ̄' pū n̆yāpı ø pâam lā'af lā place-dem.sg art exactly and 3PLINDF.AN indF.AN NEG.IND prevail cat receive cowry:Sg art báa yīnní_ø mōrı_ø kūlí_ bà yáan̄ \({ }^{+} \varnothing\). 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' t̄̄n̆' \(\varepsilon s\) bēe tóm \(b \bar{'} \varepsilon d\) ý́ fù tísì 3IN.CNTR and Kusaasi:PL that 2SG if think or act bad that 25 g give
fù tīrâan, fù mâanní fò mēp 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."

\subsection*{30.3 Proverbs}

These are a selection from Kusaal Solima ne Siilima pp38ff; others are cited above in the body of the grammar itself. I have added English proverbs with similar implications where possible; the art of deploying proverbs appropriately is hard, however, and I will be happy to accept corrections.

Benga nobid ka o sob la'adne.
Bēná nj̀bıd kà ò sכ̄b lâ'ad n̄̄.
Bean:PL grow:IPFV and 3AN nULL.AN laugh:IPFV Foc.
"Beans grow and their owner is laughing." (Make hay while the sun shines.)

Ku'om kaadi lebisne m geegun.
Kù'өm káadì_ø lébìs né m̀ gह̄ogv-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." (What's in it for me?)

Kuga la'asidne zuorin.
Kūgá là'asıd nē 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-wiāk s \(\bar{\varepsilon} o n ̆ g ~ z i ̄ ' ~ s i ́ n n e \bar{~} \quad{ }^{+} \varnothing\). PERS-hatch rainy.season NEG.KNOw hawk:PL NEG.
"The one hatched in the rainy season doesn't know about hawks."
(It's a fool's paradise.)

Po nye saa kuubo, ka nye saa niib.
\(P \bar{u} \quad \check{n} y \bar{\varepsilon}\) sāa kúvbj̄ \({ }^{+} \varnothing\), kà n̆y \(\bar{\varepsilon}\) sāa nîib.
NEG.IND see rain threaten:GER neg, and see rain rain:Ger.
"Didn't see the rain coming, but did see the rain." (Easy to be wise after the event.)
Ba pu nokid na'ambinni lobigid naafo.
Bà pū nכ̄kíd nā'-bínnì ø l̄̄bıgíd náafj̄ \({ }^{+} \varnothing\).
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."
(Don't carry coals to Newcastle.)

Zu'om ya'a ye o na lobug, bangim ka o none kugir.
Zū'өm yá' yé ò nà l̄̄bıg, bànım kà ò nう̀ 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."
(Be prepared!)

Nong daan fuug tigidne gum ka li po tigid ki'ibo.
Nכ̄-dâan fûug tìgıd n̄̄ góm, kà lì pū tīgıd kī'ıb́ \({ }^{+} \varnothing\).
Poverty-owner:SG shirt:SG sate:IPFV Foc cotton, and 3IN NEG.IND sate:IPFV soap NEG.
"The poor man's shirt has a lot of material but not a lot of soap."
(i.e. wastefulness leads to poverty.)

Balerigu zi' ye o a balerigu, ka tadim mi' ye o tadim.
Bālērugu_ø zī' yદ́ ò à bālērugó \({ }^{+} \varnothing\), kà tādım mỉ yé ò [à] tādım.
Ugly:Sg CAT NEG.KNow that 3an cop ugly:sG neg, and poor:sg know that zan cop poor:sg.
"The ugly man doesn't know he's ugly, but the poor man knows he's poor."
(Self-delusion about poverty is not possible.)

Fu ya'a bood tampiing siind, fu po lem zot lieng daug nyoogo.
Fù yá' bう̄כd támpìin̆g sîin̆d, fù pū lદ́m zว̀t líən dâvg n̆yว̄دgว \({ }^{+} \varnothing\). 2SG if want rock:SG honey, 2SG NEG.IND again run:IPFV axe:sg wood:sg sympathy neg. "If you're trying to get honey out of a stone, you shouldn't feel sorry for the shaft of the axe." (You can't make an omelette without breaking eggs.)

Moodi pilig ka yu'ada be.
Mj̄כdi_ ø pílig 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.
Bù-dìbıg kúnní ò bā' yír n̄̄ nכ̄b-kôدg 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-dī'e bōvd pū zín̆'i ná'-yīré \({ }^{+} \varnothing\).
PERS-receive innocence NEG.IND be.sitting chief-house:SG neg.
"He who has been declared innocent doesn't hang around the courthouse."
(Quit while you're ahead.)

Ba ye balerug ka fu ye zumauk.
Bà \(y \bar{\varepsilon}\) bāl̄̄rvg, kà fù y \(\bar{\varepsilon} \quad z u ̄ g-m a ́ u k\).
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.
Bùn-dāog pū kāasídí ò tīrâan ténī-né \({ }^{+} \varnothing\).
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.
Kpē \(n\) n̆m á \(n \bar{\varepsilon}\) tê' \(\varepsilon g\), 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 that wears the crown.)

A proverb related to me by KT:

Sāan-súy á n̄̄ yī-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.)

\section*{31 Vocabulary}

Words are ordered by Short Forms. Vowel glottalisation and the distinctions \(n / n\), \(\partial / e / e / \varepsilon, i / / / i, \theta / o / \partial\) and \(u / v / u\) are ignored in the ordering; \(\eta\) follows \(n\).

The abbreviations \(n a d j a d v\) 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 \(g^{a} \mid s^{\varepsilon}\) class form if extant; if not, \(g^{\supset} \mid d^{\varepsilon}\) or \(r^{\varepsilon} \mid a^{+}\). 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 29.229 .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.

\section*{A}
à- personifier particle (default allomorph) 15.6
āan̆dıg \(g^{\mathrm{a}} p l\) āan̆dıs \({ }^{\varepsilon} c b\) àan̆d- \(n\). black plum tree, Vitex doniana
āan̆dır \({ }^{\varepsilon} p l\) āan̆da+ \(n\). black plum fruit
àan̆s \({ }^{\varepsilon} d v\). tear
àbùlá+ q. adv. how many-fold?
àbùyí' \({ }^{+}\)àbùtáń'+ àbùnāasí+ q. adv. twice, three times etc
à-dàalún \({ }^{\top} p l\) à-dàalís \({ }^{\varepsilon}\) à-dàalímìs \({ }^{\varepsilon} c b\) à-dàalún- \(n\). stork 15.6
àen̆ \({ }^{\mathrm{a}}\) ger àan̆lím \({ }^{\mathrm{m}} s v\). be something/somehow 19.11.2 7.3
àen̆ \({ }^{+} d v\). get torn; resultative adj àan̆lún \({ }^{\supset}\) torn
à-gâvn̆g \({ }^{\top} \mathrm{pl}\) à-gâaňd \({ }^{\varepsilon} c b\) à- \(g a ̄ n ̆-n\). pied crow 15.6

Àg̀̀ \({ }^{\prime \prime} n\). Agolle district of Kusaasi territory; n. Agolle Kusaal dialect
à-kj̄ra-dîəm \({ }^{\text {ma }} p l\) à-kj̄ra-dîəm-nàma \({ }^{\text {a }} n\). praying mantis \(\underline{15.6}\)
àlá \({ }^{+} a d v\). thus
àlá \(q\). so many; how many?
àláafù \({ }^{+} n\). health; in greetings 28; cf láafíya \({ }^{+} \leftarrow\) Arabic Pal-乌a:fiya
Àláasìd dâar \({ }^{\varepsilon} n\). Sunday \(\leftarrow\) Arabic
Àlàmíisì dâar \({ }^{\varepsilon} n\). Thursday \(\leftarrow\) Arabic
Àlárıbà dâar \({ }^{\varepsilon} n\). Wednesday \(\leftarrow\) Arabic
àlá zùg \({ }^{\text {º }}\) therefore 20.2.1
àlópìr \({ }^{\varepsilon} p l\) àlópìya \({ }^{+} n\). aeroplane \(\leftarrow\) English
àmáa= but 20.2.1 \(\leftarrow\) Hausa \(\leftarrow\) Arabic
àm \(\bar{\varepsilon} \eta a^{+} a d v\). really, truly
àmí amen \(\leftarrow\) Arabic Pa：mi：n；in replies to greetings \(\underline{28}\)
à－mús \({ }^{\varepsilon} p l\) à－mús－nàm \({ }^{\text {a }} n\) ．cat 15．6；cf Hausa mussàa id
ànāasí＇\(q\) ．four
àní \({ }^{+} a d v\) ．there
ànií＝q．eight
àní \(n \bar{a}^{+/} a d v\) ．there
ànípà \({ }^{+} a d v\) ．promptly
ànô＇כn who？15．4．4
àňron \({ }^{\text {P }} p l\) àn̆rıma \({ }^{+}\)cb àn̆ron－n．boat（written aarun in the 1976／1996 NT）
ān̆s \({ }^{\varepsilon} d v\) ．pluck（leaves）
án̆sì \(b^{\mathrm{a}} p l\) ān̆s－nám \({ }^{\mathrm{a}} c b\) ān̆s－\(n\) ．mother＇s brother
\(\bar{a} n{ }^{\prime} s g^{\varepsilon /} d v\) ．break at an angle
ān̆sín \(\eta^{a} p l\) ān̆sís \({ }^{\varepsilon} c b\) ān̆sıク－n．（man＇s）sister＇s child
àntü＇\(a=p l\) àntù＇\(\theta s^{\varepsilon} c b\) àntư＇à－\(n\) ．lawsuit
àn \(\bar{u}^{+} q\) ．five
àn̆wá \(a d v\) ．like this
ānzúrıfà \({ }^{+} n\) ．silver \(\leftarrow\) Hausa azùrfaa
àrakón̆＇＋q．one
àrazàk \({ }^{\text {a }} p l\) àrazà＇\(a s^{\varepsilon} c b\) àrazà＇－generally pl：\(n\) ．wealth，riches \(\leftarrow\) Arabic Par－rizq
àrazánà＋\(n\) ．heaven \(\leftarrow\) Arabic Pal－fanna
Àrzúmà dâar \({ }^{\varepsilon} n\) ．Friday \(\leftarrow\) Arabic
àsćध except，unless \(18 \underline{20.2 .1} \leftarrow\) Hausa sai
Àsíbıtì dâar \({ }^{\varepsilon} n\) ．Saturday \(\leftarrow\) Arabic
àsīda \({ }^{+} a d v\) ．truly
àsùbá \({ }^{+} n\) ．dawn \(\leftarrow\) Arabic Pas\({ }^{〔}-s^{〔} a b a: \hbar\)
àtán̆＇＋q．three
Àtàláatà dâar \({ }^{\varepsilon} n\) ．Tuesday \(\leftarrow\) Arabic
àtánā＋／q．three exactly
Àtínì dâar \({ }^{\varepsilon} n\) ．Monday \(\leftarrow\) Arabic
àtìuk \({ }^{\top} n\) ．sea \(\leftarrow\) Hausa tèeku
àwánā＋／\(a d v\) ．like this
àwāe＋\(q\) ．nine
àyí＇\({ }^{\prime}\) q．two
áyìı no 21．4．4
àyínā＋／q．two exactly
àyópj̀e \({ }^{+}\)q．seven
àyú \(\theta b \grave{v}^{+}\)q．six

\section*{B}
bà they, their (right-bound); ba+ them (left-bound) 15.4.1
bā'+/ pl bā'-nám \({ }^{\text {a }}\) cb bā'- n. father 8.4
bāa \(=p l\) bāas \({ }^{\varepsilon} c b\) bà- \(n\). dog
báa ( \(\leftarrow\) Hausa bâa "not exist") in constituent negation \(\underline{26}\)
bā'a= pl bā'aba cb bà'- n. traditional diviner; bà'-kj̀lug \(p l\) bà'-kj̀nn \({ }^{\mathrm{n}}\) cb bà'-kj̀l- \(n\). diviner's bag
\(b a ̄ ' a=p l b \overline{1} ' a s^{\varepsilon} c b\) bà'- \(n\). peg to hang things on
\(b a ̀ ' a n^{\text {ne }} p l\) bà'ana+ \(c b\) bà'an- \(n\). stocks (punishment)
bàan̆lıg \({ }^{\text {a }} p l\) bàan̆lıs \({ }^{\varepsilon} a d j\). narrow, slender
bāan̆líga adj. quiet
\(b a ̄ a n ̆ l i ́ m ~ m ~ a d v . ~ q u i e t l y ~\)
bà'ar \(p l\) bàda+ bà'a+ cb bà'- n. idol
\(b a ̄ b a^{+}\)beside postposition 16.6; cf \(b \bar{a} b ı r^{\varepsilon /}\) sphere of activity
bàbıgā \({ }^{+/}\)q. many
bákpàe \({ }^{+} n\). week \(\leftarrow\) Hausa bakwài "seven"
bàlàar \({ }^{\varepsilon} p l\) bàlàya \({ }^{+} c b\) bàlà- \(n\). stick, staff, club
bàlànıré pl bàlàna+ cb bàlàn- \(n\). hat

bàmmā\({ }^{+/}\)these, those demonstrative 15.4.2
bàn \({ }^{\varepsilon}\) these, those demonstrative 15.4.2
bán they (subject of \(\grave{n}\)-clause); bān \({ }^{\varepsilon}\) they, them (contrastive) 15.4.1
bān̆'+ \(d v\). ride
bānāa= \(p l\) bānāas \({ }^{\varepsilon}\) cb bànà- (tone sic in my materials) n. traditional "fugu" smock
\(b a ̀ n{ }^{\prime} a^{a}{ }^{\text {a }} p l\) bàň'ad-nàm \({ }^{a} n\). ill person
\(b a ̄ n{ }^{\prime} a^{\varepsilon /} d v\). make to ride (horse, bicycle)
bān̄'as \(s^{\varepsilon} c b\) bàn̆'- n. pl as \(s g\) disease
bàn-dāug\(p l\) bàn-dāad\(c b ~ b a ̀ n-d a ̀-~ n . ~ c r o c o d i l e ~\)
bān-kús \(\varepsilon l^{l \varepsilon} p l\) bān-kúsz̄lá \({ }^{+}\)cb bān-kúsह̄l- \(n\). lizard
\(b a ̄ \eta^{a} p l\) bāan̆s \({ }^{\varepsilon} c b\) bàn- \(n\). ring, chain, fetter
bà \({ }^{\text {a }} n\). agama lizard
\(b a ̀ \eta^{\varepsilon} d v\). come to know
báp wallop!
\(B a \bar{r} ı g^{\mathrm{a} /} p l \mathrm{Ba} r ı s^{\varepsilon /} c b \mathrm{Bār}\) - \(n\). Bisa person (not only the Bareka, WK)
bárıkà \({ }^{+} n\). blessing; in greetings \(\underline{28} \leftarrow\) Arabic baraka
\(B \bar{r} r u g^{\supset /} n\). Bisa country; North 29.3
bàs \({ }^{\varepsilon} d v\). go away; abandon; throw out
\(B \bar{a} t^{\varepsilon /} n\). Bisa language
bàtán' \({ }^{+}\)q. three (after a personal pronoun)
bàunju \({ }^{+}\). found only as in Ò kpغ̀n̆' báunù. He was circumcised. \(\leftarrow\) Songhay "pool" bày \(\bar{\varepsilon} \circ g^{\text {J/ }}\) betrayer of secrets (cf y \(\bar{\varepsilon} \varepsilon s^{\varepsilon /}\) )
bàyí' \({ }^{1+}\). two (after a personal pronoun)
bàyópj̀e+ \(q\). seven (after a personal pronoun)
\(b \varepsilon^{+}\)ger bèlím \({ }^{m}\) (sic) sv. exist; be in a place 19.11.1
\(b \bar{\varepsilon} d ı g^{\varepsilon /} d v\). go rotten
bèdvg \({ }^{\top}\) bèdır \({ }^{\varepsilon}\) pl bèda \({ }^{+}\)cb bèd-adj. great
\(b \varepsilon ̀ d v g \bar{v}^{+/} q\). much, a lot
bह̄६ or 20.2.1 21.2

\(b \varepsilon ̇ l ı m^{\mathrm{m}} d v\). beg
\(b \varepsilon \grave{l} / s^{\varepsilon} d v\). comfort
\(b \varepsilon \bar{n}{ }^{n \varepsilon} p l\) bēna \({ }^{+}\)cb bèn- n. end
\(b \varepsilon ̇ \check{n}^{\prime}+\operatorname{ger} b \bar{n}{ }^{n} ' \varepsilon s^{\varepsilon} d v\). fall ill
\(b \varepsilon ̇ n ̆ s ı g^{\varepsilon} d v\). serve soup
\(b \varepsilon \eta^{\varepsilon} d v\). mark out a boundary
\(b \bar{\varepsilon} \boldsymbol{n i ́ d}^{\varepsilon} c b\) bēn- n. pl bean leaves, Vigna unguiculata (Haaf); b̄̄níd n \(\bar{\varepsilon} k \bar{l}^{+/} n\). beanleaf-and-millet, a traditional snack
bēnír \({ }^{\varepsilon}\) pl bēná \({ }^{+}\)cb bēn- n. brown bean
\(b \bar{\varepsilon} \circ g{ }^{\text {n }}\) n. tomorrow 20.2.1; Kà b̄̄\(o g\) níe kà ... The next day ...

\(b \bar{\varepsilon} o g v-n^{\varepsilon /} n\). morning
\(b \varepsilon ̀ r ı \eta^{\mathrm{a}} p l\) bèrıgıs \({ }^{\varepsilon}\) sic \(n\). a plant used for fibre (KED), Hibiscus cannabinus (Haaf)
\(b \bar{r} r ı g a^{+} c b\) bèrıg-pl leaves of bèrıŋ used for soup (KED)
\(b \bar{\varepsilon} s \cup g^{\supset} p l b \bar{\varepsilon} s \iota^{\varepsilon} c b\) bès-n. a kind of wide-mouthed pot
biān̆'ar \({ }^{\varepsilon /}\) pl bīān̆'adá \({ }^{+}\)bíán̆n'a+ cb biāăn'- n. wet mud, black mud; riverbed
biāūuň \({ }^{\top} p l\) biāñ'ad \({ }^{\varepsilon} c b\) biàn̆' \(-n\). shoulder
bīālє pl bīəlá+ adj. naked
bìəl \(^{\varepsilon} d v\). accompany
bỉəlá+ q. a little; bīəəl bỉəəl q. and adv. a very little; little by little
bìəm\({ }^{\mathrm{m}}\) pl bi'əm-nàm \({ }^{\text {a }}\) bìəтma LF cb bì'əm- n. enemy
bīən \({ }^{\text {ne }} p l\) bīəna+ \(c b\) bìən- \(n\). shin
bïər \(r^{\varepsilon /} p l\) biēyáa \({ }^{+} c b\) binā- \(n\). elder sibling of the same sex
bi'əs \({ }^{\varepsilon} d v\). doubt
bigis \({ }^{\varepsilon} d v\). show, teach
bïig \(^{\mathrm{a}} \mathrm{pl}\) bīis \({ }^{\varepsilon} c b\) bì- bī-n. child; bī-díbìn \({ }^{\mathrm{a}} n\). boy; bì-līa+ \(n\). baby; bì-nà'aba \(n\). prince; bì-pītal pl bì-pītíb \({ }^{\text {a }}\) cb bì-pīt- n. father's younger brother; bī-púna \(n\). girl
\(b_{i} i^{\varepsilon} d v\). ripen, become pregnant
bïlíf pl bïlí \({ }^{+}\)cb biill- \(n\). seed
biilím \({ }^{\mathrm{m}} n\). childhood
\(b i ̄ \iota m^{\mathrm{m} /} c b b \overline{-}-n\). soup, stew
bì'isím \({ }^{\mathrm{m}} n\). milk (human or animal)
bi'isır \({ }^{\varepsilon}\) pl bi'isa+ \(c b\) bì'is- \(n\). woman's breast
bīla \(^{\text {a }}\) l bībıs \(s^{\varepsilon}\) cb bìl－or bì－adj．little，small
bìlıg \(g^{\varepsilon} d v\) ．roll（transitive）
bìlım \({ }^{\mathrm{m}} d v\) ．roll（intransitive）
bìmbìm \({ }^{\text {m } \varepsilon}\) pl bìmbìma \({ }^{+}\)cb bìmbìm－\(n\) ．altar NT（KED：mound or pillar of earth）
Bìn \({ }^{\text {nع }} p l\) Bìm \({ }^{\text {ma }} c b\) Bìn－\(n\) ．Moba，Bimoba person（not only Bemba，WK）
\(B i ̀ n^{n \varepsilon} n\) ．Moba language
\(b i ̄ n^{n \varepsilon} n\) ．excrement
Bìun \({ }^{3}\) n．Moba country
\(b \jmath^{+} d v\) ．seek；bう̀ \(d^{\text {a }}\) ipfv used for：want，like，love（sexual，romantic）；ipfv ger bj̀دdım \({ }^{\mathrm{m}}\) will 12．2．1．4
\(b \bar{\jmath}^{+}\)cb bj̀－what？why？15．4．4；bj̀－būudı＋what sort of ．．？；bj̄－zúḡ̄ because 20．2．1， why？16．7；bう̀－wìn \({ }^{\text {ne }}\) what time of day？；bj kímm＂exactly what？＂
\(b j ̀ b ı g^{\varepsilon} d v\) ．wrap round，tie round
\(b う ̀ d ı g^{\varepsilon} d v\) ．lose，become lost
bう̀dう̀bう̀dう̀ \({ }^{+} n\) ．bread（？ultimately \(\leftarrow\) English）
bう̀ \({ }^{\top} p l\) bù＇ad \({ }^{\varepsilon}\) cb bư＇à－n．pit
\(b \bar{s} \iota^{\varepsilon} \mathrm{pl}\) bう̄sa＋\({ }^{+}\)b bう̀s－\(n\) ．puff adder
bう̄tu \({ }^{+}\)n．sack
\(b \bar{v}^{\prime+} d v\) ．beat
bùàk \({ }^{\varepsilon} d v\) ．split
bò＇ar \({ }^{\varepsilon}\) pl bu＇àa \({ }^{+}\)cb bú＇à－n．hole
bū＇arel pl bư＇áa＋cb bu＇ā－\(n\) ．skin bottle
\(b u ̀ d^{\varepsilon}\) ger \(b \overline{0} d ı g^{a} b u ̄ d u g{ }^{\top} d v\) ．plant seeds
bùdàalım \({ }^{\mathrm{m}} n\) ．manhood，courage
bùdım \({ }^{m} d v\) ．get confused
bùdımís \({ }^{\varepsilon} n\) ．confusion
\(b u ̀ ' e^{+} d v\) ．pour out
\(b^{\circ} g^{\varepsilon} d v\) ．get drunk；cf Hausa bùgu id
\(b \bar{u} g u d^{\mathrm{a}} n\) ．client of a \(b a \bar{\prime} a^{=}\)traditional diviner
bùgulım \({ }^{\mathrm{m}} d v\) ．cast lots
\(b u \overline{g u r} r^{\varepsilon} p l b \bar{g} g a^{+} c b\) bùg－n．dwelling－place of a \(w i ̄ n^{\mathrm{n} \varepsilon}\) localised spirit；also a \(w i \bar{n} n^{\mathrm{n} \varepsilon /}\) as a sīgır \({ }^{\varepsilon / 2} 29.2\) inherited from one＇s mother＇s family
bùgóm \({ }^{m}\) cb bùgōm－bùgóm－n．fire；Bùgúm－tכ̄כn̆r \({ }^{\varepsilon} n\) ．Fire Festival
\(b u ̄ g u s^{\text {a／}} s v\) ．be soft
būgusíga \({ }^{\text {a }}\) būgusír \({ }^{\varepsilon}\) pl būgusá＋cb būgus－adj．soft，weak
\(b u ̄ g u s i ́ g a ̄+/ a d v\) ．softly
būgusím \({ }^{\mathrm{m}} n\) ．softness，weakness
\(b u k^{\varepsilon /} d v\) ．weaken
\(b u ̀ k^{\varepsilon} d v\) ．cast lots
bùl \(\varepsilon^{\varepsilon} d v\) ．germinate，ooze
būlı \({ }^{\text {pl būla＋}}\) n．shoot，sprout
\(b \grave{l^{\varepsilon}} d v\). astonish
\(B u ̈ l^{\varepsilon} n\). Buli language
Bùlıga pl Bùlıs \({ }^{\varepsilon}\) cb Bùl-n. Bulsa person
bùlıg \({ }^{\text {a }} \mathrm{pl}\) bùlıs \(s^{\varepsilon} c b\) bùl- \(n\). well, pond
bùmbàrıga pl bùmbàrıs \({ }^{\varepsilon}\) cb bùmbàr- \(n\). ant
\(b u ̀ n^{\varepsilon} d v\). reap, harvest
\(b u ̄ n^{n \varepsilon /} p l\) būná+ būn-nám \({ }^{\text {a }} c b\) būn- \(n\). thing (concrete or abstract); būn-búvdiff \(n\).
 cb k̇̀n̆b- (sic) n. animal; būn-kúdùg \({ }^{\text {n }}\) n. old man
būn-dâar \({ }^{\varepsilon}\) which day? 16.7
bùna pl bùmıs \({ }^{\varepsilon}\) cb bùn- \(n\). donkey
\(b u ̀ \eta^{\varepsilon} d v\). take a short cut
bùe \(^{\varepsilon} d v\). call, summon; Ò yō'vr bûөn X. She is called X. 19.8.2
bùer \({ }^{\varepsilon} p l\) bùèya \({ }^{+} c b\) bưà- \(n\). grain store, silo
\(b u ̄ ' \theta s^{\varepsilon} d v\). ask; ger bū'өsúg \({ }^{\top} n\). question; bu'oskana this question (Jn 18:34)
bù-pïiga q. adv. ten times
\(b \bar{r} r a ́ a=n\). man, male adult (in ILK, but characteristically Toende Kusaal; see dāú \({ }^{+}\))
būrlyá \({ }^{+} n\). Christmas \(\leftarrow\) Twi/Fante bronya
bùrkìn \({ }^{\text {a }}\) pl bùrkìn-nàm \({ }^{\text {a }}\) cb bùrkìn- \(n\). free person; honourable person \(\leftarrow\) Songhay
Bùsâan̆ı \({ }^{\varepsilon} n\). Bisa language
Bùsán \({ }^{\text {a }}\) pl Bùsâan̆s \({ }^{\varepsilon}\) cb Bùsān-n. Bisa person
būtıク \({ }^{\text {a }}\) pl būtıs \({ }^{\varepsilon}\) 5.4; cb bòtın- n. cup (in general; originally "seed-planting [cup]")
\(b \overline{o ̄} d^{\varepsilon}\) n. pl as sg innocence
būudı \({ }^{+}\)cb bùud- \(n\). kind, sort, ethnic group
\(b u ̄ v g^{a} p l b \bar{v} u s^{\varepsilon} c b\) bù- n. goat; bù-dìbıg \({ }^{\text {a }} n\). male kid

\section*{D}
dà before two days ago, tense particle 19.3.1
dā not with imperative mood 19.5
dàa day after tomorrow, tense particle 19.3.1
dāa before yesterday, tense particle 19.3.1
dà' \(+d v\). buy
dà'a= \(p l\) dà'as \({ }^{\varepsilon} c b\) dà'- n. market
dà'abır \(n\). slave
dàalım \({ }^{\mathrm{m}} n\). masculinity
dàalím \({ }^{m} p l\) dàalímìs \(n\). male organs
dāam \({ }^{m /}\) cb dā- \(n\). millet beer, "pito"; dā-nûur \(n\). beer-drinking; dā-bín \({ }^{n \varepsilon} c b\) dā-bín- \(n\). beer residue; NT yeast (cf binn \({ }^{\text {ne }}\) )
dàam \({ }^{\mathrm{m}} d v\). disturb, trouble (cf Hausa dàamaa id)
dāanª pl dàan-nàm \({ }^{\text {a }}\) cb dàan- n. owner of ... 15.7.2
dāar \({ }^{\varepsilon} p l\) dābá \({ }^{+}\)cb dà- n. day (24-hour period); dà-pïiga+ \(n\). ten days
dāa-sí' \(\varepsilon r \overline{~ p e r h a p s ~ 20.2 .1 ~}\)
dàbīəm \({ }^{\mathrm{m}}\) tone sic \(n\). fear
dàbīog \({ }^{\top}\) pl dàbīəd \({ }^{\varepsilon}\) cb dàbià \(n\). coward
dàbısır \({ }^{\varepsilon}\) pl dàbısa+ cb dàbıs- n. day (as one of several)
dādók\(n\). a kind of large pot
\(d a ̄ ' e^{+/} d v\). push; blow (of wind)
Dàgâad \({ }^{\text {a }}\) pl Dàgáadìb \({ }^{\text {a }}\) Dàgâad-nàm \({ }^{\text {a }}\) cb Dàgâad- \(n\). Dagaaba person (L prefix sic)
Dàgbānn \({ }^{n \varepsilon /}\) pl Dàgbāmmal cb Dàgbān- n. Dagomba person
Dàgbānn \(n\) n. Dagbani language
Dàgbāung/n. Dagomba country, Dagbon
dàgj̀bıg \({ }^{\text {a }} n\). left-hand; ( \(y\) à) dàgj̀bıga South KB 29.3
dāká+ pl dāká-nàm \({ }^{\text {a }}\) cb dāká- \(n\). box \(\leftarrow\) Hausa àdakàa
dàkïig \({ }^{\text {a }}\) pl dàkiiis \({ }^{\varepsilon}\) cb dàkì- \(n\). wife's sibling; dàkì-dāu्र \({ }^{+} n\). wife's brother; dàkì-pūāka \(n\).
wife's sister; dàkì-tùa \({ }^{+} n\). wife's sister's husband
dà-kj̀כn̆r \({ }^{\varepsilon}\) pl dà-kj̀n̆ya \({ }^{+}\)cb dà-kj̀n̆-n. unmarried son \(\underline{29.1}\)
dàm \({ }^{\mathrm{m}}\) ipfv dàmmı \({ }^{\mathrm{a}} d v\). shake
dàmà'a= \(n\). liar cf mà'+
dàmà' \(a m^{m} n\). lie, untruth, lying
dàmà'ar \({ }^{\varepsilon} n\). lie, untruth
dāmpūsāar \({ }^{\varepsilon} n\). stick
dànkj̀ \(\eta^{3} n\). measles
dànsàar \({ }^{\varepsilon} n\). staff, club
dà-pāa/a/n. young man, son
dà-sā \(\eta^{\text {a }} p l\) dà-sāan̆s \(s^{\varepsilon}\) dà-sām \({ }^{\text {ma }} c b\) dà-sàn- \(n\). young man
dà-tāa \(=p l\) dà-tāas \({ }^{\varepsilon} c b\) dà-tà- \(n\). enemy
dàtìun \({ }^{\mathrm{J}} n\). right-hand; (yà) dàtìun \({ }^{\mathrm{J}}\) North KB 29.3
dāu\({ }^{+} p l\) dāp \({ }^{\text {a }} c b\) dàu- dàp- 8.2 n. man (as opposed to woman)
dàug \({ }^{\top} \mathrm{pl}\) dàad \({ }^{\varepsilon}\) cb dà- n. piece of wood, log; pl also: wood (material); dà-kīədan.
wood-cutter; dà-kpīə \(d^{a} n\). carpenter; dà-pūvdír \({ }^{\varepsilon} n\). cross-piece, pl dà- pūvdá+ \(n\). used as sg cross NT
dāvg \({ }^{\text {pl }}\) pl dāad\(c b ~ d a ̀-~ a d j . ~ m a l e ~\)
dàwàlıg \({ }^{\text {a }} n\). hot humid season before the rains
dàwān \({ }^{\text {nel }} p l\) dàwāná \({ }^{+}\)b dàwān- \(n\). pigeon
dàyáam \({ }^{\text {ma }} \mathrm{pl}\) dàyāam-nám \({ }^{\text {a }} \mathrm{cb}\) dàyāam- \(n\). husband's parent; dàyāam-dáu \({ }^{+} n\).
husband's father; dàyāam-púa \(k^{a} n\). husband's mother
dàyūug \({ }^{\text {J/ }} \mathrm{pl}\) dàyūud \({ }^{\varepsilon /}\) cb dàyū- n. rat
dèbır \({ }^{\varepsilon}\) pl dèba+ n. mat, pallet, bed
dè \(\varepsilon g^{\text {a }} p l d \varepsilon \varepsilon^{\varepsilon} s^{\varepsilon}\) n. warthog
d \(\bar{\varepsilon} \varepsilon \eta^{\mathrm{a}} \mathrm{pl} d \bar{\varepsilon} \varepsilon n \varsigma^{\varepsilon} d \bar{\varepsilon} \varepsilon m s^{\varepsilon} d \bar{\varepsilon} \varepsilon n a^{+}\)cb dè \(\eta-q\). first

\(d \varepsilon ̀ \iota m^{\mathrm{m}} d v\). begin to lean on something (of a person)
\(d \bar{\varepsilon} \eta^{\mathrm{a}} p l d \bar{\varepsilon} m ı s^{\varepsilon} c b\) dèŋ- \(n\). accidental bruise
\(d \varepsilon ̀ \eta^{\varepsilon} d v\). go, do first
dèทım beforehand, preverb 19.7.2
dì it, its (right-bound) 15.4.1 \(=\) ì
\(d i ̀{ }^{+} i p f v\) dit \(t^{a} \quad i m p d i ̀ m{ }^{a} d v\). eat, receive; ger dīıb\(n\). food; Ò dì pu'ā. He's married a wife. Ò dì n̆yán. She's ashamed.
\(d i a^{\prime}{ }^{\prime} d v\). get dirty
diā'ad \({ }^{\varepsilon /} n\). dirt
\(d i ' e^{+/} d v\). receive, get
dìəm \({ }^{\text {ma }} \mathrm{pl}\) dìəm-nàm \({ }^{\text {a }}\) Cb dìəm- \(n\). wife's parent; also in polite address to an unrelated person of opposite sex and similar or greater age than onself; dìəm-dāu \({ }^{+} n\). wife's father; dìəm-pūāka \(n\). wife's mother
\(d i ' \partial m^{\mathrm{m}} d v\). play, not be serious
di'əma+ \({ }^{+} n\). festival
\(d i \quad \partial s^{\varepsilon /} d v\). receive (many things)
dīgıya/ ger dīk \({ }^{\mathrm{a} /}\) KT dīgıré WK sv. be lying down
dīgısá+ n. pl lairs
\(d i ̄ g \iota^{\varepsilon /} d v\). lay down
\(d i g \not n^{\varepsilon} d v\). lie down
dìgır \({ }^{\varepsilon} p l\) dìga \({ }^{+}\)cb dìg- n. dwarf
\(d i ̀ s^{\varepsilon} d v\). feed; agt dìıs \({ }^{\text {a }} n\). glutton
dìısúp pl dìssímà \({ }^{+}\)dìısís \({ }^{\varepsilon}\) cb dìısún- \(n\). spoon
dìm \({ }^{\text {a }}\) dummy head pronoun, animate pl; dìn \({ }^{\text {ne }}\) inanimate sg 15.4.7
dín it (subject of ǹ-clause) 15.4.1
\(d \overline{\mathrm{i}} \mathrm{n}^{\varepsilon}\) it (contrastive) 15.4.1 \(=l_{\bar{i} n^{\varepsilon}}\)
dìnd \(\bar{\varepsilon} o g^{\text {/ }} \mathrm{pl}\) dìnd \(\bar{\varepsilon} \varepsilon d^{\varepsilon /} c b\) dìnd \(\bar{\varepsilon}-n\). chameleon
dìndìıs \({ }^{\mathrm{a}} n\). glutton
dìn zúg \({ }^{\top}\) therefore 16.7
ditún \({ }^{3} n\). right-hand (see dàtìun \({ }^{\text { }}\) )
dì-zכ̄rug \({ }^{\text {h }}\) pl dì-zכ̄rá+ cb dì-z̄̄r-n. crumb
dj̄ıla/ ger d戸̄llím \({ }^{\mathrm{m}} s v\). accompany in a subordinate role; Ànó'כnı̀ dj̄Ilı́ fj̀? Who has come with you? (to an elderly patient.) Bà d̀̀l n \(\bar{\varepsilon}\) tāaba. They went together.
\(d \bar{\jmath} / \lg ^{\varepsilon /} d v\). make accompany, send along with
\(d \bar{j} / s^{\varepsilon /} d v\). investigate, trace
\(d \bar{n} n / \stackrel{g^{\varepsilon /}}{ } d \nu\). stretch oneself
\(d う \breve{n}^{\prime} \partial s^{\varepsilon} d v\). water plants


\(d \bar{v}^{+}{ }_{i p f v} d \bar{u} t^{\mathrm{a} /}{ }^{i m p} d \stackrel{̀}{ } m^{\mathrm{a}} d v\). go up
\(d u^{\prime}\) àa \(^{\mathrm{a}} d v\). bear, give birth, beget; agt \(d \bar{u}^{\prime} a d^{\mathrm{a}} n\). elder relation
\(d\) v̀'al \(^{\varepsilon} d v\). make interest (of a loan)
dō'am \({ }^{m} n\). birth
dùan̆ \({ }^{+} p l\) dう̀כn̆s \({ }^{\varepsilon} c b\) dう̀n̆- \(n\). dawadawa Parkia clappertoniana [biglobosa] (Haaf)
du'átà̀ \({ }^{+} n\). doctor \(\leftarrow\) English
\(d u \overline{e^{+/}} d v\). raise, rise
\(d \bar{u} g^{\varepsilon} d v\). cook
\(d \bar{u} k^{J /} p l d \bar{u} g u d^{\varepsilon /} c b\) dūg-n. cooking pot; dūg-pé' \(\varepsilon /{ }^{\prime}{ }^{+} n\). full pots; dūgub dút cooking pots
dùm \({ }^{\mathrm{m}} d v\). bite
dūm \({ }^{\text {me }}\) dūm \({ }^{\text {ne }} p l\) dūma \({ }^{+} c b\) dùm- \(n\). knee
dòndùug \({ }^{3} \mathrm{pl}\) dùndùud \({ }^{\varepsilon} \mathrm{cb}\) dùndù- n. cobra
dūnıya \({ }^{+}\)cb dūnıyá- \(8.6 n\). world \(\leftarrow\) Arabic dunya:
dūnná+ \(a d v\). this year
dū \({ }^{\text {a }} \mathrm{pl}\) dūmıs \({ }^{\varepsilon} c b\) dùn- n. mosquito
\(d u ̄ ө r^{\varepsilon /} p l\) dưēyá \({ }^{+}\)cb dưā-n. stick
\(d u ̄ ' \theta s^{\varepsilon /} d v\). lift up, honour
dùra \(s v\). be many
\(d u ̄ ' u n^{\varepsilon /} d v\). pass water ( \(g e r\) recorded as dū'unúg \({ }^{\text { }}\) )
dū'uním \({ }^{\mathrm{m}} c b\) dū'un- \(n\). urine
dūusá \({ }^{+}\)n. pl. steps

\section*{E}
\(\bar{\varepsilon} \varepsilon \check{~ y e s ~ 21.4 .4 ~}\)
\(\bar{\varepsilon} \varepsilon n ̆ ~ o r ~ \bar{\varepsilon} \varepsilon \check{~ t i ́ ~ s e e ~ n ̆ y} \bar{\varepsilon} \varepsilon\), n̆y \(\bar{\varepsilon} \varepsilon\) tí habitually auxiliary tense marker 19.3.2
\(\bar{\varepsilon} \varepsilon n h^{\varepsilon /} d v\). lay a foundation
\(\bar{\varepsilon} \varepsilon n ̆ \operatorname{bír}^{\varepsilon} n\). foundation 11.1.2
غ̀n̆bıs \({ }^{\varepsilon} d v\). scratch
غ̀n̆ \(d^{\varepsilon} d v\). block up, plug up
غ̀ñdıg \({ }^{\varepsilon} d v\). unblock, unplug
\(\bar{\varepsilon} n \check{r} r g^{\varepsilon /} d v\). shift along (e.g. a bench)

\section*{F}
\(f^{\text {º }}\) you sg (left-bound) 15.4.1
fāan̆= q. every
fāen̆ \({ }^{+/} d v\). save; agt fāan̆ \(d^{a / ~ f a ̄ a n ̆ g i ́ d ~}{ }^{\text {a }} n\). saviour 14.1
fāñ \({ }^{+} d v\). grab, rob
fáss ideo. for pìlı \(g^{\text {a }}\) white
\(f \varepsilon \bar{\varepsilon} \varepsilon g^{\varepsilon /} d v\). (of food) get old, cold
\(f \varepsilon \bar{n}{ }^{\prime} \iota^{\prime} g^{\varepsilon /} d v\). turn round (tone uncertain)

fiəb \({ }^{\varepsilon} d v\). beat
\(f_{i} i^{\varepsilon} d v\). cut off
fiin̄ \(=q\). a little (liquid)
fitlá \({ }^{+} n\). lamp \(\leftarrow\) Hausa fitilàa; in \(K B\) adapted to the \(r^{\varepsilon} \mid a^{+}\)class: sg fitir pl fita fว̄วs \({ }^{\varepsilon /} d v\). blow, puff (wind); ger fjコวsúg \({ }^{\supset} n\). hypocrisy NT
fò you, your sg (right-bound) 15.4.1
fùe \({ }^{+} d v\). draw out
fūfūm \({ }^{\text {me }} p l\) fūfūma+ \(c b\) fūfúm- \(n\). envy; stye (believed to result from envy)
fón you sg (as subject of ǹ-clause); fūn SF fúnغ̀ LF you sg (contrastive) 15.4.1
fūug \({ }^{\text {J/ }} p l\) fūud \({ }^{\varepsilon /} f_{u} t^{\varepsilon /} c b\) fū- \(n\). shirt, clothing; pl also: cloth

\section*{G}
gàad \({ }^{\varepsilon} d v\). pass, surpass \(\underline{22.2 .2}\)
gáafàra sorry formula \(\underline{28}\) (Hausa gaafaràa, ultimately \(\leftarrow\) Arabic)
gà'al \({ }^{\varepsilon} d v\). button up
gà'am \({ }^{m} d v\). grind teeth
gāan̆=/ pl gāan̆s \({ }^{\varepsilon /}\) cb gān̆- \(n\). Nigerian ebony Diospyros mespilliformis (Haaf)
gàas \({ }^{\varepsilon} d v\). pass by
gādv+ \(g a ̄ d v g^{د /} p l\) gādv-nám \({ }^{\text {a }}\) gāt \({ }^{\varepsilon /} c b\) gād- gādv- n. bed \(\leftarrow\) Hausa gadoo
gàlım \({ }^{\mathrm{m}} d v\). joke
\(g a ̀ l s^{\varepsilon} d v\). exceed, get to be too much
gān̆r \({ }^{\varepsilon /} p l\) gān̆yá \({ }^{+} c b\) gān̆r- n. fruit of Nigerian ebony
gà \(\eta^{\varepsilon} d v\). step over
gā \(\eta^{\varepsilon /} d v\). choose
\(g b a ̄ n ̄ ' e^{+/} d v\). catch
gbáňyà'a= \(n\). lazy person \(\underline{14}\)
gbán̆yà'am \({ }^{\mathrm{m}} n\). laziness; 1976 NT gonya'am
gbàun \({ }^{3}\) pl gbàna+ \({ }^{+}\)b gbàn- gbàung- n. book WK
gbāun \(\eta^{3 /}\) pl gbāná+ cb gbān- gbāung-n. animal skin WK; animal skin, book DK
\(g b \varepsilon ̂ \varepsilon n ̆ m^{\mathrm{m}} c b\) gbēn̆- \(n\). sleep

gbēr \({ }^{\varepsilon /}\) pl gbēyá+ cb gbēr-n. thigh
gbīgım \({ }^{\mathrm{n} \varepsilon}\) pl gbīgıma+ \(c b\) gbigım- \(n\). lion
gbìnn \({ }^{\text {ne }}\) gl gbina \({ }^{+}\)cb gbìn- \(n\). buttock; base (e.g. of a mountain); postposition 16.6
gbìn-vว̀วn̆r \(r^{\varepsilon} n\). anus
\(g b i s^{\varepsilon} d v\). sleep
\(\left.g \bar{\varepsilon} \varepsilon\right|^{\varepsilon /} d v\). place between one's legs (Pattern H)
\(g \varepsilon \bar{\varepsilon} \varepsilon m^{m /} d v\). go mad, madden
gēะn̆mís \({ }^{\varepsilon} n\). pl as sg madness
gé \(\varepsilon n ̆ \eta^{a} p l ~ g \bar{\varepsilon} \varepsilon n ̆ m i ́ s{ }^{\varepsilon} n\). madman

gēn̄ \({ }^{+} d v\). get tired; resultative adj gēะn̆lón \({ }^{\supset}\) tired
\(g \varepsilon \bar{n}{ }^{\prime+} d v\). get angry
\(g \bar{\varepsilon} o g^{3} n\) ．place between one＇s legs（Pattern A sic）
giīn̆lím \({ }^{\mathrm{m}} n\) ．shortness
gìk \({ }^{\mathrm{a}} \mathrm{pl}\) gìgıs \(s^{\varepsilon}\) cb gìg－\(n\) ．dumb person
gìgılım \({ }^{\mathrm{m}} d v\) ．become dumb
\(g i ̄ / g^{\varepsilon /} i p f v\) gīn \({ }^{\text {na／}} d v\) ．go around 10.1
gīm \({ }^{\mathrm{ma/}} \mathrm{sv}\) ．be short
gīna pl gīma \({ }^{+}\)cb gìn－adj．short
\(g i \eta^{\varepsilon} d v\) ．scrimp
\(g i \eta^{\varepsilon /} d v\) ．surround，intercept，obstruct
gīpa＋adv．shortly
gīılím \({ }^{m} n\) ．shortness
\(g \bar{d} d g^{\varepsilon /} g{ }^{\varepsilon /} \eta^{\varepsilon} d v\) ．look up

ġ̀n̆ \({ }^{+} d v\) ．hunt；ipfv gว̀כn̆d \({ }^{\mathrm{a}}\) wander，ger gว̀эn̆dım \({ }^{\mathrm{m}}\) wandering 12．2．1．4
\(G う g^{\mathrm{a}} \mathrm{pl}\) Gう̀วs\({ }^{\varepsilon}\) n．clan name
Gう̀วg \({ }^{\rho}\) n．place of the Gう̀ \(s^{\varepsilon}\) Goosi clan
\(g \grave{'} \operatorname{cn}^{\varepsilon} d v\) ．look up
\(g \bar{j} r^{\mathrm{a} /} s v\) ．be looking up
 prophet
\(g u \overline{'+} d v\) ．guard，protect
\(g u ̀{ }^{\varepsilon}{ }^{\varepsilon} i p f v\) gùn \({ }^{\text {na }} d v\) ．suspend
gùla \({ }^{\text {la }}\) ger \(g u ̄ / \iota b^{3} s v\) ．be suspended
gùllìmm SF gùllımne LF only；emphatic 27.6
gùm \({ }^{m \varepsilon} \mathrm{pl}\) gùma \({ }^{+} n\) ．kapok fruit；also thread WK
Gòm \({ }^{m \varepsilon} n\) ．place of the clan Gòm－dìm \({ }^{\text {a }}\)
\(g u ̄ m p \bar{z} z \bar{\varepsilon} r^{\varepsilon /} p l\) gūmpūzēyá \({ }^{+}\)cb gūmpūź́r－n．duck
gùn̆＇a＋pl gòn̆＇วseb gว̀n̆＇－n．thorn；Acacia；gòn̆＇－sābılíga Acacia hockii（Haaf）
gùngūm \({ }^{\mathrm{m} \varepsilon} n\) ．kapok material
gùn \({ }^{\text {a }} p l\) gùmıs \({ }^{\varepsilon}\) cb gùn－\(n\) ．kapok tree Ceiba pentandra（Haaf）
gūral ger gūrím \({ }^{\mathrm{m}} s v\) ．be on guard，watch for \(\underline{25.1}\)
Gōrín \({ }^{n \varepsilon} n\) ．Farefare language
\(G \bar{r} i \eta^{a} p l\) Gūrís \(^{\varepsilon} n\) ．Farefare person
\(g u^{\prime} u l^{\varepsilon /} d v\) ．put on guard
gò＇vlım \({ }^{\mathrm{m}} d v\) ．become half－ripe
gùur \({ }^{\varepsilon} p l\) gùya \({ }^{+}\)cb gù－\(n\) ．upland；bank of river
gūur \({ }^{\varepsilon} p l\) gūya＋\(c b\) gù－\(n\) ．ridge of back
\(g u \bar{'}^{\prime} u s^{\varepsilon /} d v\) ．take care，watch out
\(g v^{\prime} u s^{\varepsilon} n\) ．pl half－ripe fruit

\section*{H}
 hālí báa even

\section*{I}
\(j \bar{a}^{+} d v\). seek
īăn̆'as \({ }^{\varepsilon /} d v\). leap

igıyal ger īka/ KT ígır \({ }^{\varepsilon /}\) WK sv. be kneeling
\(\bar{i} g \iota^{\varepsilon /} d v\). make to kneel
igın \(n^{\varepsilon} d v\). kneel down
íı \({ }^{1 \varepsilon}\) pl īılá+ cb īıl-n. horn
īsır \(r^{\varepsilon}\) pl īsa \({ }^{+}\)cb ìs-n. scar
\(i s ı g^{\varepsilon} d v\). get up early

\section*{K}
kà and, that 20.2
\(k \bar{a}^{+} d v\). bail (water)
\(k a ̄ a b^{\varepsilon /} d v\). offer, invite
\(k a ̄ a l^{\varepsilon /} d v\). count
\(k a \bar{a} s^{\varepsilon /} d v\). cry out, weep; (cock) crow
kà'asıge LF only; sv. not exist 19.5
\(k a ̄ b ı g^{\varepsilon /} d v\). ladle out (liquid)
\(k a ̄ b r^{\varepsilon /}\) ger kābırí \({ }^{+} d v\). call out asking for admission \(\underline{28}\)
kà \(d^{\varepsilon} d v\). drive away; kàd sàríyà \(d v\). judge 19.8.1; agt sàríyà-kāta \(n\). judge NT
\(k a ̄ ' e^{+}\)ger kā'alím \({ }^{\mathrm{m}}\) sv. not exist, not be, not have \(19.5 \underline{7.3}\)
\(k a ̄ / \varepsilon \varepsilon\) pl kālá+ \(c b\) kāl- n. number
kàlıgā \({ }^{+/}\)q. few
kàmª \(q\). every
Kàmbùnır \({ }^{\varepsilon} n\). Twi language
Kàmbùn \({ }^{\text {a }}\) pl Kàmbùmıs \({ }^{\varepsilon}\) cb Kàmbùn- n. Ashanti person
kàn \({ }^{\varepsilon}\) this, that demonstrative 15.4.2
\(k a ̀ n b^{\varepsilon}\) ger kān̆bır \(r^{\varepsilon} d v\). scorch
\(k a ̄ n ̆ d v g^{\supset} a d j\). fat, tough (person)
kà \(y \bar{a}^{+/}\)this, that demonstrative 15.4.2
\(k a ̀ r^{a} s v\). be few
kàrım \({ }^{\mathrm{m}} d v\). read
kàs \(\bar{\varepsilon} \mathrm{t}^{\mathrm{a} /}\) n. witness; testimony (Mooré kàsétò "proof, testimony"; probably ultimately \(\leftarrow\) French cachet; pl kàsc̄tíb \({ }^{\text {a }}\) witnesses)
\(k \bar{\varepsilon}^{+}{ }_{i p f v} k \bar{\varepsilon} t^{\mathrm{a} /}{ }^{\operatorname{imp}} k \bar{\varepsilon} l^{\mathrm{a}} d v\). let, cause to \(\ldots 10.122 .3\)

\(k \varepsilon ̀ \varepsilon s^{\varepsilon} d v\). say farewell to
\(k \dot{l} / g^{\varepsilon}\) or \(k \dot{\varepsilon} / s^{\varepsilon} d v\). listen
\(k \bar{\varepsilon} \check{n}^{+}{ }_{i p f v} k \bar{\varepsilon} n^{\mathrm{a} / ~ i m p ~} k \varepsilon ̀ m^{\mathrm{a}}\) ger \(k \bar{\varepsilon} n^{\mathrm{n} \mathrm{\varepsilon /}} d v\). come 10.1; always with nā 19.10; \(k \bar{\varepsilon} n k \bar{\varepsilon} n\) welcome! 28
\(k \bar{\varepsilon} \eta^{\varepsilon /}\) ipfv \(k \bar{\varepsilon} n^{\text {na/ }}{ }_{i m p} k \varepsilon m^{\text {a }}\) (disambiguated with sà 19.10 ) dv. go; walk 10.1; agt \(k \varepsilon \bar{n} n^{\text {na/ }} n\). traveller
kérıfà or kárıfà \(\leftarrow\) Hausa Karfèe; in telling time, e.g. kérıfà àtán̆' three o'clock
\(k \bar{I}^{+/} c b\) kī- \(k \bar{a}-n\). cereal, millet; kì-dà'ar \({ }^{\varepsilon}\) pl kì-dà'ada \({ }^{+} n\). purchased millet; kā-

\(k i{ }^{+}{ }^{+} d v\). cut
\(k i ̄ d ı g^{\varepsilon /} d v\). cross over, meet; À-Kīdıgı Bū'өs n. the constellation Orion
\(k \bar{l}^{-1}, b^{\supset /} n\). soap; WK has instead the Mampruli loan kīibú+ cb kïib-
kíiñf pl kīiní+ \(n\). millet seed
\(k i ̀ s^{\varepsilon} d v\). listen
\(k i ̄ ' s^{\varepsilon /} d v\). deny
kìkàm \({ }^{\text {m } \varepsilon}\) pl kikàma \({ }^{+} n\). fig

\(k i ̀ k i ̄ r ı g^{a /} p l ~ k i ̀ k i ̄ r ı s^{\varepsilon /} c b k i ̀ k i ̄ r-n\). "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 \(k i k i \bar{r} r s^{\varepsilon /}\) hostile to man live in the bush: "Their feet are attached backwards to confuse trackers." WK; kìkīr-bê' \(\varepsilon d^{\varepsilon} n\). NT evil spirit, demon (KB just uses kikīrıga/)
\(k i l ı m^{\mathrm{m} /} d v\). become, change into
\(k i ̀ m{ }^{\mathrm{m}} d v\). tend flock, herd; agt kذ̀n̆b-kīm \({ }^{\text {na }} n\). herdsman, shepherd
\(k i ̄ r^{\varepsilon}\) ger kìkírùg \({ }^{د}\) kīrıb \({ }^{\top} d v\). hurry, tremble
\(k i \bar{s}{ }^{\mathrm{a} /}\) ger kísùg \({ }^{\mathrm{D}}\) agt \(k i \overline{s^{\mathrm{a}}}{ }^{\mathrm{a}}\) kīsıd \({ }^{\mathrm{a} /}\) sv. hate
kísùg \({ }^{\circ}\) adj. hateful, taboo

kj̀bıgā= \(q\). one hundred; kj̀bısí \({ }^{+}\)two hundred
\(k \bar{b} b r^{\varepsilon} p l\) kj̄ba \({ }^{+}\)cb kj̀b-n. bone
\(k \bar{\partial} d ı g^{\varepsilon /} d v\). slaughter (one animal) by cutting its throat
\(k \bar{\jmath} d v^{+} n\). banana \(\leftarrow\) Twi kwadu
\(k j l^{\varepsilon} d v\). put something around the neck
kうゝıbır \({ }^{\varepsilon}\) pl kj̀lıba n. bottle


\(k \bar{m} m^{\mathrm{m} /}\) cb \(k \bar{\jmath} m-n\). hunger
 or human body hair; cf zūөbúg ; kj̀n̆b-kīm \({ }^{\text {na }} p l\) kj̀n̆b-kīmmı \(b^{\text {a }} n\). shepherd, herdsman
\(k \bar{n} \check{n}^{\prime} \mathrm{J}_{\mathrm{k}}{ }^{+} a d v\). alone, by oneself
\(k j ̀ n s^{\varepsilon} d v\). cough
\(k j ̀ n ̆ s ı m m^{m} d v\). cough
\(k \grave{'} \partial g^{\varepsilon} d v\). break (transitive or intransitive)
\(k{ }^{\prime} ' כ s^{\varepsilon} d v\). break several times
\(k \bar{j} t^{\varepsilon /} d v\). slaughter (several animals) by cutting their throats
kj̀tàa \({ }^{\text {ne }}\) at all; emphatic 27.6
\(k\) j́tù \(^{+} n\). lawcourt \(\leftarrow\) English, probably via Hausa
kpà'a= pl kpà'a-nàma \(n\). rich person
\(k p a ̄ a d^{\mathrm{a} /}\) pl kpāadíba \(c b\) kpāad- n. farmer, cultivator
\(k p a ̀ ' a m^{\mathrm{m}} n\). riches
\(k p a ̄ a n ̆ m^{m /} c b\) kpān̆- n. grease, ointment; \(k p a ̄ n ̆-s \partial ́ n ̆ ' \partial d i ̀ m ~ m ~ n . ~ a n o i n t i n g ~ o i l ~\)
kpàkūr \({ }^{\varepsilon /}\) pl kpàkūyá \({ }^{+}\)cb kpàkūr-n. tortoise
kpānn \({ }^{\text {ne }}\) pl kpāna \({ }^{+}\)cb kpàn- n. spear
kpàn̆dır \({ }^{\varepsilon}\) pl kpàňda+ cb kpàn̆d- n. baboon
\(k p a ̀ r^{\varepsilon} d v\). lock
kpār-kêon̆g \({ }^{\top} p l\) kpār-kêzñd \({ }^{\varepsilon}\) cb kpār-kén̆- n. rag
kpá'vŋ’ pl kpīiní+ cb kpā'- n. guinea fowl
\(k p \bar{\varepsilon}^{+} a d v\). here
\(k p \varepsilon \overline{\varepsilon n ̆ m}{ }^{\mathrm{m}} \mathrm{pl} k p \varepsilon ̀ \varepsilon n ̆ m-n a ̀ m^{\mathrm{a}} \mathrm{cb}\) kpèをn̆m-n. elder
\(k p \bar{\varepsilon} \varepsilon n ̆ m^{\mathrm{mal}} s v\). be older than
\(k p \bar{l} l a ́+~ a d v\). here
kpغ̀lım still; immediately after, preverb 19.7.2
\(k p \varepsilon ̀ l ı m^{\mathrm{m}} d v\). remain
kpèn reduced form of the preverb kpèlım
\(k p \varepsilon ̀ n ̆ '+d v\). enter
kpēn̆dır \({ }^{\varepsilon /}\) pl kpēn̆dá+ cb kpē̆nd- n. cheek
\(k p \varepsilon \grave{n}^{\prime} \varepsilon s^{\varepsilon} d v\). make enter
\(k p \varepsilon^{\prime} \eta^{\varepsilon} d v\). strengthen
\(k p \bar{\varepsilon} \circ{ }^{\prime} \eta^{\supset} n\). seniority
\(k p i^{+} d v\). die; resultative adj kpìilón \({ }^{\text {º }}\) dead
kpi'a+ pl kpi'əs \({ }^{\varepsilon}\) cb kpià̀'- n. neighbour
\(k p i{ }^{2}{ }^{+}+d v\). shape wood with axe etc
\(k p i ' e^{+} d v\). approach
\(k p i ' \partial m^{\mathrm{ma/}} s v\). be strong, hard
kpìibıga pl kpìibıs \({ }^{\varepsilon}\) cb kpìib-n. orphan
\(k p i i^{\varepsilon} d v\). go out (fire)
\(k p i ̄ 1\) 'lím \({ }^{\mathrm{m}} d v\). finish, come to an end

\(k p i i^{\varepsilon} d v\). quench (fire)
kpīkpīnnal pl kpīkpīnníba cb kpīkpín-n. merchant
kpīoŋ pl kpīəma+ cb kpì'oŋ- adj. strong, hard
kpìsınkpill \({ }^{〔}\) pl kpìsınkpila+ cb kpisınkpil- n. fist
kpìsukpill \({ }^{\varepsilon} n\). fist
kpùkpàr \({ }^{\varepsilon}\) pl kpùkpàra+ n. palm tree fruit
kpùkpàrıg \({ }^{\text {a }}\) pl kpùkpàrıs \({ }^{\varepsilon}\) cb kpùkpàr- n. palm tree (Borassus akeassii/aethiopum)
kpùkpàun \({ }^{\text {º }}\) pl kpòkpàma \({ }^{+}\)cb kpùkpàun- n. arm, wing
kù not; negates irrealis mood 19.5
\(k \bar{v}^{+} d v\). kill (= Mooré \(k\) ú)
\(k \bar{u}^{+} d v\). gather, threaten (of rain): Sāa kú yā. It looks like rain (= Mooré kúı)
\(k u \bar{a}^{+} d v\). hoe, farm

\(k u ̀ d^{\varepsilon} d v\). work iron
\(k \dot{d} \iota^{\varepsilon} g^{\varepsilon} d v\). shrivel up, dry out, age
\(k \bar{u} d ı m^{m} n\). the olden days; also for kūlım qv
\(k \bar{u} d u g{ }^{3} k \bar{u} d ı r^{\varepsilon}\) pl \(k \bar{u} d a^{+} k \bar{u} t^{\varepsilon} c b\) kùd-adj. old
\(k u ̄ d v g{ }^{\top} p l\) kūt \({ }^{\varepsilon}\) (used as sg 15.2) cb kùt- n. iron, nail; sg only in names 29.2
kūgor \({ }^{\varepsilon /}\) pl kūgá+ cb kūg-n. stone
\(k u ̄ k^{a} p l k u ̄ g u s^{\varepsilon}\) cb kùg-n. chair
kùk \({ }^{\text {a }} n\). ghost
\(k \bar{u} k^{\mathrm{a} /}\) n. mahogany tree, Khaya senegalensis (Haaf); cf Hausa kuukàa
kùkj̀m \({ }^{m \varepsilon}\) pl kùkj̀ma \({ }^{+}\)cb kùkj̀m- \(n\). leper
kùk \(\check{r}^{\varepsilon /}\) pl kùkj̄yá+ cb kùk̄̄r-n. voice
kùkpàrıg \({ }^{\text {a }}\) see kpùkpàrıg \({ }^{\text {a }}\) 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 20.2.3
kùlıク \(\eta^{\text {a }}\) kùlımıs \({ }^{\varepsilon}\) kùlıs \({ }^{\varepsilon}\) cb kùlın-n. door
kùm \({ }^{\mathrm{m}} d v\). cry, weep
\(k u ̄ m^{\mathrm{m}} c b\) kùm- \(n\). death; kùm-vō'vgír \({ }^{\varepsilon} n\). resurrection NT
kùndò'ar \({ }^{\varepsilon}\) pl kùndù'ada+ cb kùndứ'à- \(n\). barren woman
kùndùn \({ }^{\text {a }}\) pl kùndùmıs \({ }^{\varepsilon}\) kùndùna \({ }^{+}\)n. jackal, hyena
 current in a river
\(k u ̀ \theta s^{\varepsilon} d v\). sell
kùrkūr \({ }^{\varepsilon /}\) pl kùrkūyá+ cb kùrkūr-n. pig
\(K u ̄ s a ́ a=p l K u ̄ s a ̂ a s^{\varepsilon} c b\) Kūsá- \(n\). Kusaasi person
Kūsâal \({ }^{\varepsilon} n\). Kusaal language
Kūsâug \({ }^{\top} n\). Kusaasi country
Kòtān \({ }^{\text {nع/ }}\) pl Kùtām \({ }^{\mathrm{ma/}}\) cb Kùtān- n. member of WK's clan
Kı̀tāun \({ }^{\text {J/ }}\) n. country of clan Kùtām \({ }^{\text {ma/ Kutamba }}\)
\(k \bar{v}\) or \(20.2 \underline{21.2} \leftarrow\) Hausa koo
kūug \({ }^{\text {a/ }}\) kūug \(^{\text {/ }}\) pl \(k u \overline{u s}{ }^{\varepsilon /}\) cb kū-n. mouse
\(k \dot{v} \|^{\varepsilon} d v\). get drunk

L
\(\mathrm{Ia}^{+/}\)definite article 15.8.5
là' \(+d v\). laugh
lā'af’ \(n\). cowrie; pl līgıdı+ \(n\). cowries, money; cb lìg- là'-; là'-bīəlíf \(n\). small coin láafìya \({ }^{+} n\). health \(\leftarrow\) Arabic Pal-โa:fiya; replaced by laafe láafí in 1996 NT and KB là'am together, preverb 19.7.2
là'am \({ }^{\mathrm{m}} d v\). associate with; together with \(\underline{22.2}\)
là'as \({ }^{\varepsilon} d v\). gather together (transitive); Bà là'as tāaba They gathered together.
làbāar \(\varepsilon\) cb làbà- \(n\). news \(\leftarrow\) Arabic Pal-Paxba:r
làbı \({ }^{\text {ya }} s v\). be crouching, hiding behind something (cf Hausa laбèe "crouch behind something to eavesdrop" 14.1)
làbı \(\|^{\varepsilon} d v\). make crouch behind something
\(l a ̀ b ı n^{\varepsilon} d v\). crouch behind something
làb \(s^{\varepsilon} d v\). walk stealthily
lābis \({ }^{a /} s v\). be wide
lābısíg \({ }^{\mathrm{a}}\) lābısír \(r^{\varepsilon} p l\) lābısá \({ }^{+}\)cb lābıs- \(a d j\). wide
lābısím \({ }^{\mathrm{m}} n\). width
\(l a ̄ k^{\varepsilon /} d v\). open (eye, book)
lāla/ \(s v\). be distant
\(l_{a} / \mathrm{lg}^{\varepsilon /} d v\). get to be far, make far
lālıí+ adv. far off
Iāllína pl lāllís \(\varepsilon\) cb lāllín- adj. distant
lāllúg pl lāllá \({ }^{+}\)cb lāl- \(a d j\). distant

làmpj̄-dî'əs \({ }^{\text {a }} n\). tax collector \(14 \leftarrow\) French l'impôt
lān \({ }^{n \varepsilon} p l\) lāna \({ }^{+}\)cb làn- \(n\). testicle
làngávク \({ }^{\supset} \mathrm{pl}\) làngáam \({ }^{\mathrm{m} \varepsilon}\) làngāamá+ \(c b\) làngāvn- \(n\). crab (cf màngávn \({ }^{\supset}\) id)
lànnıg \({ }^{\text {a }} \mathrm{pl}\) lànnıs \(^{\varepsilon}\) cb lànnıg- \(\underline{8.2}\) n. squirrel
lā' \(\eta^{\varepsilon /} d v\). set alight
lāním \({ }^{\mathrm{m}} d v\). wander around searching
lāuk \({ }^{\top}\) pl lā'ad\(c b\) là'- \(n\). item of goods \(p l\) goods
là'v \(u\) pl là'ama+ \(n\). fishing net
\(l \varepsilon b^{\varepsilon} \operatorname{ger} l \bar{\varepsilon} b ı g^{\mathrm{a}} d v\). 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)
lèを but, VP particle 19.7.1
lદ̀m again, preverb 19.7.2
\(l \varepsilon ̀ m^{\mathrm{m}}\) ipfv lèmmıd \({ }^{\mathrm{a}} d v\). sip, taste
\(l \bar{\varepsilon} r^{\varepsilon} d v\). get ugly
it it, its (right-bound); \(\iota^{+}\)it (left-bound) 15.4.1
li \(^{+}\)ipfv lit \({ }^{\text {a }}\) imp lìm \({ }^{\mathrm{a}}\) ger liig \({ }^{\mathrm{a}} d v\). fall
\(i^{+} d v\) ．block up
lìa where is ．．．？21．4．2
\(l i d ı g^{\varepsilon} d v\) ．turn a shirt WK
\(l i d ı g^{\varepsilon} d v\) ．astonish，be amazed
lìə \(b^{\varepsilon} d v\) ．become
li＇ə \(\ell^{\varepsilon} d v\) ．approach，come near
IÍəm \({ }^{\text {me }} p l\) ITəəmá \({ }^{+} n\) ．fruit of yellow plum tree
líəna pl līəmís \({ }^{\varepsilon}\) cb līəク－n．axe

\(l i g^{\varepsilon} d v\) ．patch
ligıı \(\ell^{\varepsilon} d v\) ．cover
\(l i ̀ g ı n^{\varepsilon} d v\) ．cover oneself
līıbır \({ }^{\varepsilon} p l\) līıba＋ cb lìıb－n．twin
līk \(^{\mathrm{a}} \mathrm{pl} \operatorname{līg}^{\mathrm{g}} \mathrm{s}^{\varepsilon}\) n．darkness
lilāalín \({ }^{a}\) pl lìlāalís \({ }^{\varepsilon}\) lìlāalímìs \({ }^{\varepsilon}\) cb lìlāalín－\(n\) ．swallow
lín it（subject of \(\grave{n}\)－clause）；līn \(n^{\varepsilon}\) it（contrastive）15．4．1
lì \({ }^{\varepsilon}\) that demonstrative 15．4．2
lìná \({ }^{+}\)that demonstrative 15．4．2
\(1 \bar{亏}^{+} d v\) ．tie

Г̄bıdíga pl \({ }^{\text {Ībıdís }}{ }^{\varepsilon} n\) ．water drawing vessel

し̄dıg \({ }^{\varepsilon /} d v\) ．untie
ljk \({ }^{\top} \mathrm{pl}\) lò＇ad \(d^{\varepsilon} c b l u{ }_{C}^{\prime}\) à－\(n\) ．quiver（for arrows）



lór \({ }^{\varepsilon}\) pl lóyà \({ }^{+}\)lóכm \({ }^{\text {ma }}\) cb lór－n．car，lorry \(\leftarrow\) English
\(l \partial s^{\varepsilon} d v\) ．dip，immerse in liquid
lù \({ }^{+}\)ipfv lùta imp lùm \({ }^{\mathrm{a}} d v\) ．fall
\(l u ̄ b^{\varepsilon} \operatorname{ger} \operatorname{lu} b \iota^{\varepsilon /} d v\) ．buck，kick，struggle，throw off rider
\(l u ̄ g^{\varepsilon} d v\) ．swim
\(l^{\prime} \log ^{\varepsilon} n\) ．organ，member

\section*{M}
m I，my（right－bound）；\(m^{\text {a }}\) me（left－bound）15．4．1
mà \({ }^{+}\)cb mà－\(n\) ．mother；pl mà nám \({ }^{\text {a }}\)（tone sic）mother＇s sisters／co－wives；mà－biig \({ }^{\text {a }} n\) ．
sibling with same mother；mà－bïla \(n\) ．mother＇s younger sister or junior co－wife； \(m a ̀-k p \bar{\varepsilon} \varepsilon n \check{m} m^{\mathrm{m}} n\) ．mother＇s elder sister or senior co－wife；mà－pitalal n．mother＇s younger sister
\(m a ̀ '+d v\) ．lie，deceive
mà'aa SF mà'ane LF only; emphatic 27.6
\(m a ̀ a l^{\varepsilon} d v\). prepare, sacrifice; agt màal-māan \({ }^{\text {na }} n\). sacrificer; priest NT; traditionally just a worker who conducts the actual slaying for the tèn-dāan \({ }^{\text {a }}\) earth-priest
\(\left.m a ̄ ' a\right|^{\varepsilon /} d v\). make cool, wet
māan \({ }^{\text {nع }}\) pl māana \({ }^{+}\)cb màan- \(n\). sacrifice 11.1.2
má'an \({ }^{\text {ne }}\) pl mā'aná+ \(c b\) 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
\(m a ̄ d ı g^{\varepsilon /} d v\). overflow, abound
\(m a ̄ ' e^{+/} d v\). cool down
màk \({ }^{\varepsilon} d v\). crumple up
\(m a \overline{k^{\varepsilon /}} d v\). measure, judge
màliāk \({ }^{a /}\) pl màliā'as \({ }^{\varepsilon /}\) màlíāk-nám \({ }^{\text {a }}\) cb màliā̄'- n. angel \(\leftarrow\) Arabic malRak;
written malek in NT versions before 2016
màlıf \({ }^{\top} \mathrm{pl}\) màl \(\iota^{+} n\). gun, rifle (ultimately \(\leftarrow\) Arabic)
màlıgım again; preverb 19.7.2
mālssal sv. be sweet, pleasant
mālısíg \({ }^{\mathrm{a}}\) mālısír \({ }^{\varepsilon}\) pl mālısá+ cb mālıs-adj. sweet, pleasant
mālısím \({ }^{\mathrm{m}} n\). sweetness
mālısín \({ }^{a}\) pl mālısís cb mālısín- adj. sweet, pleasant
mālon \({ }^{3}\) pl mālıma \({ }^{+}\)cb màlon- n. sacrifice
mām I, me 15.4.1
mán I (as subject of ǹ-clause); mān SF mánè LF I, me (contrastive) 15.4.1

màuk \({ }^{\top}\) pl mà'ad \(d^{\varepsilon} a d j\). crumpled up
\(m \grave{\varepsilon}^{+} d v\). build
mè mèn \({ }^{\varepsilon}\) too, also; emphatic 27.6; mè-kàma -soever 15.4.3
\(m \bar{\varepsilon} d^{\varepsilon} d v\). mash up
\(m \varepsilon ̀ \varepsilon \eta^{a}\) pl mèzmıs \({ }^{\varepsilon}\) cb mè \(\eta\) - \(n\). turtle
\(m \varepsilon ̀ l ı g ı m{ }^{\mathrm{m}} n\). dew
\(m \bar{\varepsilon} \eta^{a /}\) self 15.4.6
mēnír \({ }^{\varepsilon} a d j\). genuine
\(m \bar{\varepsilon} t^{\varepsilon /}\) cb mét- n. pl as sg pus
\(m i{ }^{+}\)ger mĩilím \({ }^{\mathrm{m}} s v\). know; agt gbàn-mīid \({ }^{\mathrm{a} /} n\). scribe ("book-knower") NT
mie \({ }^{+} d v\). squeeze(?) 30.1; uncertain meaning and tones
míif pl mïiní \({ }^{+} n\). okra seed
mi'ig \(^{\varepsilon} d v\). become sour
mi'is \({ }^{\text {a }} s v\). be sour
mì'isug \({ }^{\text {ºn }}\) pl mìisa+ cb mìis- adj. sour
mïlıg \(g^{\varepsilon /} d v\) ．get dirty
mı̀mīilím \({ }^{\mathrm{m}}\) mìmīilúg \({ }^{\mathrm{J}} n\) ．sweetness
mit see that it doesn＇t happen that．．．19．5；always mid in \(K B\)
\(m \bar{\nu}^{+} d v\) ．strive，struggle
\(m \overline{\sigma^{\varepsilon}} d v\) ．swell
\(m \bar{\partial} d ı g^{\varepsilon /} d v\) ．be patient，endure
mう̀lfo pl mう̀ı＋cb mうl－n．gazelle
\(m \overline{n^{\varepsilon}} d v\) ．grind millet to make sā＇ab porridge
\(m \overline{\nu^{\varepsilon /}} d v\) ．refuse to lend


\(m \bar{\partial} \omega^{\varepsilon /} d v\) ．proclaim；agt mכ̄כl－mə̂כn \({ }^{\text {na }} n\) ．proclaimer
Mว̀ว \({ }^{〔} n\) ．Mooré language
M̄̄r \({ }^{\varepsilon /}\) pl Móวm \({ }^{\text {ma }}\) cb Mכ̄r－n．Muslim
\(m \overline{r^{a l}}\) ger mōrím \({ }^{\mathrm{m}}\) sv．have，possess；mう̄r nā bring 19.10
Mùa \({ }^{+} p l\) Mj̀ \(s^{\varepsilon}\) cb Mj̀－\(n\) ．Mossi person
\(m u{ }^{\prime}{ }^{\text {à }} d v\) ．suck（of a baby）
mưàk \({ }^{\mathrm{a}} \mathrm{pl}\) mò＇as \({ }^{\varepsilon} c b\) mu＇à－\(n\) ．maggot
mù＇ar \({ }^{\varepsilon}\) pl mư＇àa＋mù＇ada＋\(c b\) mú＇à－\(n\) ．dam；reservoir
\(m u ̀ ' a s^{\varepsilon} d v\) ．give（to baby）to suck
\(m u ̀ ' e^{+} d v\) ．redden；catch fire／ignite；become intense，severe
mù̀ \({ }^{+}\)cb mùi－n．pl as sg rice
\(m u ̀ l^{\varepsilon} d v\) ．itch
\(m u ̀ m^{\mathrm{m}} d v\) ．bury

\section*{N}
ǹ clause nominaliser particle 24
\(n\) clause catenator particle 22.1
\(\grave{n}\)－personifier particle（allomorph used before an adjective） 15.6
\(n^{\varepsilon}\) discontinuous－past marker 23．1．1
\(n^{\varepsilon} n \bar{\imath}^{+/}\)locative particle 16.3
nà positive irrealis mood marker 19.4
\(n \bar{a}^{+/}\)hither；VP－final particle \(\underline{19.10}\)
\(n \bar{a}^{+} d v\) ．join
náa reply to greetings invoking blessings \(\underline{28}\)
nà＇aba pl nà＇－nàm \({ }^{a} c b\) nà＇－\(n\) ．chief，king；nà＇－bïiga \(n\) ．prince／princess；nà＇－yīrén．\(n\) ． palace；nà＇－ȳ̄－kpém \({ }^{\text {ma }} n\) ．pl king／chief＇s retainers
náaf pl nïigí \({ }^{+}\)cb nā＇－n．cow；nā＇－lór \({ }^{\varepsilon} n\) ．place in compound for tying up cows；
nā＇－dâvg \({ }^{\supset} \mathrm{pl}\) nā＇－dâad \({ }^{\varepsilon}\) cb nā＇－dá－n．ox；nā＇－dá－kūөdír \(n\) ．ox for ploughing
nàam \({ }^{m} d v\) ．happen
nā＇am \({ }^{m} c b\) nà＇am－\(n\) ．chieftaincy，kingdom
nāan next, afterwards = n̆yāan
nāan or nāanı then, in that case, being thus/there 23.1.2
nà'anā+/ \(a d v\). easily
nà'as \({ }^{\varepsilon} d v\). honour; ger nà'ası \({ }^{+} n\). honour
Nàbıd \({ }^{\text {a }}\) pl Nàbıdıb \({ }^{\text {a }}\) cb Nàbıd-n. Nabdema person
Nàbıdvg \({ }^{\text {n }} n\). Nabdema country
Nàbır \(n\). Nabit language
Nà'dàm \({ }^{\text {ma }} n\). clan name
Nà'dàu \(\eta^{3} n\). place of clan Nadamba
nà'-dàwānnel \(n\). pigeon KED (= dàwānn \({ }^{n \varepsilon /}\) )
\(n a ̄ e^{+/} d v\). finish
nàm still, yet; auxiliary tense particle 19.3.1
nàm \({ }^{\mathrm{a}}\) pluraliser 8.4
\(n a ̄ m ı s^{\varepsilon /} d v\). persecute, suffer
\(n a ̄ n^{\varepsilon} d v\). love, respect, appreciate
nà'-nह̄sınn \(\bar{\varepsilon} \circ g^{\supset /} n\). centipede WK
nānná+ adv. now
nānná-nā\({ }^{+/} a d v\). now
nānzū'us \({ }^{\varepsilon /} n\). pepper tones uncertain
nā \({ }^{a}\) pl nāmıs \({ }^{\varepsilon}\) cb nàn- \(n\). scorpion
nār \({ }^{\mathrm{al}}\) ger nārím \({ }^{\mathrm{m}}\) sv. be obliged to; impersonal: to be necessary; with following purpose clause 25.1; negated: be obliged not to
nàron \({ }^{\text {º }} \mathrm{pl}\) nàrıma \({ }^{+}\)cb nàron- adj. necessary
Nàsāal \({ }^{\varepsilon} n\). English/French language
Nàsāara \({ }^{+}\)pl Nàsàa-nàmª Nàsàar-nàm\({ }^{a}\) cb Nàsàa- Nàsàar- n. European person \(\leftarrow\) Arabic Nas\({ }^{〔}\) :ra: "Christians"; Nàsàa-bïiga n. European child
nàyïig \({ }^{\mathrm{a}} \mathrm{pl}\) nàyìig-nàm \({ }^{\mathrm{a}}\) nàyìis \({ }^{\varepsilon} n\). thief
nàyïigım \({ }^{\mathrm{m}} n\). thievery
nà'-zว̀m \({ }^{m \varepsilon} n\). locust
\(n \bar{\varepsilon}\) preposition: with 18; linking NPs and AdvPs: and 15.1
\(n \bar{\varepsilon}\) uncommon variant of y \(\bar{\varepsilon}\) that 25.2 (cf Mampruli ni id)
\(n \bar{\varepsilon}^{+/}\)focus particle 27.1.2; aspectual marker 19.2.1
\(n \bar{\varepsilon}^{+/}\)meaningless particle after objects of wōv and w \(\bar{\varepsilon} n^{\text {na/ }} \underline{18}\)
\(n \bar{\varepsilon}^{1+/}\) this (pronoun) 15.4.2
\(n \varepsilon \varepsilon^{\varepsilon} d v\). 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
\(n \varepsilon ̀ \varepsilon s^{\varepsilon} d \nu\). reveal
nèzsım \({ }^{m} n\). light
\(n \bar{\varepsilon} m-n \hat{\varepsilon} \varepsilon r^{\varepsilon} p l ~ n \bar{\varepsilon} m-n \varepsilon ́ y a ̀{ }^{+} n\). someone who grinds
\(n \bar{\varepsilon} n^{\mathrm{na/}}\) ger nēnním \({ }^{\mathrm{m}} s v\) ．envy
nē＇クá＋this（pronoun）15．4．2
nèog \({ }^{\top}\) nè \(\varepsilon r^{\varepsilon} p l\) nè \(d^{\varepsilon}\) nèya \({ }^{+}\)cb nغ̀－adj．empty

ǹfá！Well done！21．4．4
\(n{ }^{+}+/\)locative particle 16.3 see \(n^{\varepsilon}\)
\(n i^{+} d v\) ．rain
nīd \({ }^{\mathrm{a} /} \mathrm{pl}\) nīdı \(b^{\mathrm{a} /}\) cb nīn－\(n\) ．person；nīn－sâal \({ }^{\mathrm{a}}\) pl nīn－sáalì \({ }^{\mathrm{a}}\) cb nīn－sâal－\(n\) ．human being； nīnpūnān \({ }^{\text {nal }}\) pl nīnpōnānníb \({ }^{\text {a }}\) cb nīnpūnán－\(n\) ．disrespectful person；nīn－ sábılìs \({ }^{\varepsilon} n\) ．Africans
\(n i ̀{ }^{+} d v\) ．appear，reveal
\(n i ̄ f^{\rho}\) pl nīní＋cb nīn－nīf－n．eye；nīf－gbáun \({ }^{\supset}\) ．eyelid；nīf－sób \({ }^{a} n\) ．miser；nīf－n̆yáuk \(k^{\supset}\) adj． one－eyed 15．8．1．3；nīn－dáa＝pl nīn－dâas \({ }^{\varepsilon}\) cb nīn－dá－\(n\) ．face；nīn－gótìna \(n\) ． mirror pl nīn－gótìs \({ }^{\varepsilon} n\) ．spectacles，glasses；nīn－kúgudìga \({ }^{a}\) l nīn－kúgudìs \(n\) ． eyebrow；nīn－tâ＇am \({ }^{\mathrm{m}} n\) ．tear（s）；nīn－múa＋\(n\) ．concentration（＂eye－redness＂）； m̀ nīní mù＇e \(n \bar{\varepsilon}\) ．．．I＇m concentrating on ．．．（KB＂zealous for ．．．＂）
níi \({ }^{a}\) pl nï̀mís \({ }^{\varepsilon}\) níis \({ }^{\varepsilon}\) cb nïin－\(n\) ．bird
nīm \({ }^{\text {ne／}}\) nī＇\(m^{\text {ne／}}\) pl nīmá \({ }^{+}\)cb nīm－n．meat
nīn－báalìg \({ }^{a} n\) ．pity；nīn－bâal－zכ̄כr \(r^{\varepsilon} n\) ．pity；Ò ż̀t•ō nīn－báalìg．He has pity on him．
\(n i ̄{ }^{\mathrm{a}}\) pl nïis \({ }^{\varepsilon}\) cb nìn－nìn－n．body（uncommon）；nìn－tūllím \({ }^{\mathrm{m}} n\) ．fever；nìn－tāa \(=\) pl nìn－ tāas \({ }^{\varepsilon}\) cb nìn－tà－n．co－wife；husband＇s brother＇s wife（Ghanaian English：＂rival＂）； nìn－gbīŋว pl nìn－gbīná＋cb nìn－gbīŋ－\(n\) ．body（plural often used as singular）； nìn－gう̀วr \({ }^{\varepsilon} n\) ．neck
nīn－pûud \({ }^{\varepsilon} n\) ．pl as \(s g\) pus
nīntā \({ }^{\text {a／}} p l\) nīntāan̆s \({ }^{\varepsilon /}\) cb nīntán－\(n\) ．heat of the day，early afternoon
\(n i \eta^{\varepsilon} d v\) ．do
\(n\) lā that is ．．．21．4．1
ǹnāas \(q\) ．four，in counting
ǹníi q．eight，in counting
ǹnū \(q\) ．five，in counting
\(n\) n̆wà this is ．．．；n n̆wà nā this here is ．．．21．4．1
\(n \bar{j}^{+} d v\) ．tread
\(n \overline{b^{\varepsilon}} d v\) ．get fat
\(n \bar{j} b g^{\varepsilon /} d v\) ．grow（e．g．child，plant）
 15．8．1．3；nכ̄b－ín̆＇a＋\(n\) ．toenail；nכ̄b－pómpàù \(\eta^{ } n\) ．foot
\(n \bar{j} k^{\varepsilon /} d v\) ．pick up，take up
nう̀ \(\eta^{\varepsilon}\) agt nう̀nıda（irregularly Pattern L）sv．love（family，spiritual）；irregularly has the \(m^{\mathrm{a}}\)－imperative form nว̀クım \({ }^{\mathrm{a}} \underline{10.2}\)

nว̀ılím \({ }^{\mathrm{m}} n\) ．love
nכ̄כ＝exactly，just；emphatic 27.6
\(n \bar{\partial} r^{\varepsilon /}\) pl n亏̄yá＋cb n̄̄－n．mouth；command，message，opinion；n̄̄－dî＇əs \({ }^{\text {a }} n\) ．＂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 nó－ dî＇əs \({ }^{\text {a }}\)（＂God＇s linguist＂）prophet NT／KB；n亏̄－l̂̂כr \({ }^{\varepsilon} n\) ．fasting（＂mouth－tying＂，as
 \(n \bar{\jmath}-g b a ́ n a ̀{ }^{+} n\) ．lip
nว̄วr \({ }^{\varepsilon /}\) nว̄ərím \({ }^{m}\) times 15．5．2．4
ǹpj̀e \(q\) ．seven，in counting
ǹtán̆＇q．three，in counting
\(n \bar{u}^{+} d v\) ．drink
nū \(a^{+/} p l n \bar{כ} כ s^{\varepsilon /} c b n \bar{\jmath}-n\) ．hen；n亏̄－dâvg \({ }^{\supset} n\) ．cock；n亏̄－n̆yâ＇an \({ }^{\text {a }} n\) ．（specifically female） hen；Nj̄－n̆yâ＇aŋ－nć－ò－Bïis the Pleiades
\(n u ̄ / \iota g^{\varepsilon /} d v\) ．make drink
\(n u ̄ / s^{\varepsilon /} d v\) ．make drink
nû＇ug \({ }^{\rho}\) pl nû＇us \({ }^{\varepsilon}\) cb nū＇－n．hand，arm；nū＇－bíl \({ }^{a} p l\) nū＇－bíbìs \({ }^{\varepsilon} n\) ．finger；nū＇－dâvg \({ }^{\rho}\)
n．thumb；nū＇－yíunŋ \({ }^{\top} a d j\) ．one－armed 15．8．1．3；nū＇－ín̆＇a＋pl nū＇－ह̂n̆＇عs \({ }^{\varepsilon}\) cb nū＇－દ́n̆＇－n．fingernail；nū＇－wह̂n̆＇\(\varepsilon d^{\text {a }} n\) ．mediator
n̆wà \({ }^{+}\)this 15．8．5
n̆wā＇＋\(d v\) ．smash，break up
n̆wāan \({ }^{\text {a }} \mathrm{pl}\) n̆wāamıs \({ }^{\varepsilon}\) cb n̆wàan－n．monkey
n̆wādıga／pl ňwādıs \({ }^{\varepsilon /}\) cb n̆wād－n．moon，month；n̆wād－bíl \({ }^{\text {a }}\) pl n̆wād－bíbiss \(n\) ．star； Ňwād－dár \({ }^{\varepsilon} n\) ．Venus
n̆wà＇\({ }^{+} d v\) ．cut wood
n̆wā＇\({ }^{+/} d v\) ．strike，break
ǹwāe q．nine，in counting
n̆wām \({ }^{\mathrm{m} \varepsilon}\) n̆wānn pl n̆wāma \({ }^{+}\)n̆wāna \({ }^{+}\)cb n̆wàm－n̆wàn－n．calabash
Ňwāmpūrıg \({ }^{\text {a／}}\) pl Ňwāmpūrıs \({ }^{\varepsilon /}\) cb Ňwāmpúr－n．Mamprussi person
Ňwāmpūrı \(\iota^{\varepsilon /} n\) ．Mampruli language
Ňwāmpūrug \({ }^{\text {／}} n\) ．Mamprussi country
\(\check{n} w \varepsilon^{\prime}+d v\) ．beat；n̆wદ̇＇ X nû＇ug make an agreement with X ；n̆w \({ }^{\prime}\) n̆ȳ̄＇วg boast
n̆wiig \({ }^{\text {a／}} p l\) n̆wīis \({ }^{\varepsilon /} c b\) n̆wī－n．rope；n̆wī－ték \(k^{\mathrm{a}} p l\) n̆wī－tékidı \(b^{\mathrm{a}} c b\) n̆wī－ték－\(n\) ．rope－puller； n̆wī－tékì \(r^{\varepsilon} p l\) n̆wī－tékà \({ }^{+} n\) ．rope for pulling
\(\check{n} w i i g^{\varepsilon /} d v\) ．make a rope
n̆yā＇al \(\left.\right|^{\varepsilon /} d v\) ．leave behind
n̆yāan next，afterwards；post－subject particle 20．2．3
n̆yá＇an \(p l\) n̆yá＇as \({ }^{\varepsilon}\) ňyā＇amís \({ }^{\varepsilon}\) cb n̆yā＇aŋ－\(a d j\) ．female（animal）
n̆yá＇\(a \eta^{a}\) behind，postposition 16．6；East 29．3；n̆yà＇an－dうlla ňyà＇an－dj̀lغ pl ňyà＇an－ dう̀lla＋n̆yà＇an－dj̀llıba cb n̆yà＇an－dう̀l－n．disciple NT；tones unexpected，Pattern L n̆yā＇ar \({ }^{\varepsilon} p l\) n̆yā＇a＋\(c b\) n̆yà＇－n．root
ňyāenを／\(a d v\) ．in the light，brightly，clearly
n̆yālún pl n̆yālımá＋cb n̆yālon－adj．wonderful
n̆yàn \({ }^{n \varepsilon} n\) ．shame；Ò dì n̆yán．He＇s ashamed．
ňyā \(\eta^{\varepsilon /} d v\) ．overcome 22.2
n̆yàuk \({ }^{\top}\) pl ňyà＇ad \(d^{\varepsilon} a d j\) ．only（eye）15．8．1．3

\(\check{n y} \bar{\varepsilon} \varepsilon, \check{n y} \bar{\varepsilon} \varepsilon\) tí habitually，auxiliary tense marker 19．3．2
\(\check{n y} \bar{\varepsilon} ' \varepsilon r^{\varepsilon /} p l\) n̆y \(\bar{\varepsilon} d a^{+} c b\) n̆y \(\bar{\varepsilon}^{\prime}-n\) ．next－younger sibling
n̆y \(\varepsilon \varepsilon s^{\mathrm{a}} s v\) ．be self－confident
ňyદ̀ \(\varepsilon s ı m^{\mathrm{m}} n\) ．self－confidence
n̆y \(\varepsilon\) عsín \({ }^{a}\) pl n̆yèzsís \({ }^{\varepsilon}\) cb n̆yèzsín－adj．self－confident
n̆y \(\varepsilon\) عsínā \({ }^{+/} a d v\) ．self－confidently
ǹyí＇\(q\) ．two，in counting
ňyīn \({ }^{\mathrm{n} \mathrm{\varepsilon /}} \mathrm{pl}\) n̆yīná＋\(c b\) n̆yīn－n．tooth
n̆yīríf pl n̆yïrí \({ }^{+} n\) ．a kind of edible seed，egusi：Colocynthis citrullus（Haaf）
n̆yว̄วd \(d^{\varepsilon} n\) ．intestines
ก̆ \(у \bar{\jmath}{ }^{\prime} g^{\text {J／}} n\) ．chest
\(\check{n} y \bar{\partial} \partial g^{\top} n\) ．sympathy：Ò zว̀t•ō n̆ȳ̄כg．She sympathises with him．
 ňyう̀－vōr－pâal \({ }^{\varepsilon} n\) ．new life NT
n̆ȳ̄＇วs \({ }^{\varepsilon /} n\) ．smoke
ǹyûөb \(q\) ．six，in counting
ňyūur \({ }^{\varepsilon /}\) pl n̆yūyá＋\(c b\) ñyū－\(n\) ．yam

\section*{0}
ò［v］he，she，his，her（right－bound）；\({ }^{\circ}\) LF［ \(v\) ］him，her（left－bound）15．4．1
ón he，she（subject of \(\grave{n}\)－clause）；\(\overline{\mathrm{j}} \mathrm{n}^{\varepsilon}\) he，she（contrastive）15．4．1
\(\grave{j} n^{\varepsilon}\) this，that（animate sg demonstrative）15．4．2
うn̆ \({ }^{\varepsilon}\) ger 亏̈n̆bır \(^{\varepsilon} d v\) ．chew
خ̀nā＋／this，that（animate sg demonstrative）15．4．2
\(\bar{\jmath} \partial s^{\varepsilon /} d v\) ．warm oneself；Ò \(\partial \supset s ı d n \varepsilon \bar{\varepsilon}\) búgóm lā．She＇s warming herself at the fire．

\section*{P}
pà＇earlier today，tense particle 19．3．1
pà＇al \({ }^{\varepsilon} d v\) ．teach，inform；agt pā＇an \({ }^{\text {na }} p l\) pā＇annı \(b^{\text {a }} c b\) pà＇an－\(n\) ．teacher
pà＇al \(l^{\varepsilon} d v\) ．put on top of something
pāalígã páalı pl pāalís \({ }^{\varepsilon}\) pāalá＋cb pāal－adj．new
\(p a ̄ a l i ́ m{ }^{\mathrm{m}} a d v\) ．recently
pāalú＋adv．openly
pàan̆lún \({ }^{\top} p l\) pàan̆límis \({ }^{\varepsilon} n\) ．spider＇s web
\(p a ̀ a m^{\mathrm{m}} d v\) ．receive a gift
pàas \({ }^{\varepsilon} d v\). add up to, amount to
\(p a \overline{e^{+/}} d v\). reach
pà \(k^{\varepsilon} d v\). surprise
pà \({ }^{\varepsilon} d v\). take off from the top
\(p a \overline{m m}\) SF pāmnć LF \(q\). much, a lot
pàň'alım \({ }^{\mathrm{m}} d v\). dedicate
pàn̆sı \(g^{\varepsilon} d v\). lack
pàn \({ }^{\text {a }} p l\) pàan̆s \({ }^{\varepsilon}\) cb pàn- n. power
pà' tì perhaps; post-subject particle 20.2.3
\(p \varepsilon ̀ b c s^{\varepsilon} d v\). blow (of wind)
pغ̀bısım \({ }^{\mathrm{m}}\) pغ̀bısug \({ }^{3} n\). wind
\(p \varepsilon{ }^{\prime} \varepsilon \ell^{\varepsilon} d v\). fill; resultative adj pغ̀' \(\varepsilon\) ló \(\eta^{\supset}\) full

\(p \varepsilon{ }^{\prime} \varepsilon s^{\varepsilon} d v\). add up to, amount to
\(p \grave{k} / \iota g^{\varepsilon} d v\). whiten, go white
\(p \varepsilon ̀ / s^{\varepsilon} d v\). sharpen
\(p \varepsilon n^{n \varepsilon} n\). vagina
\(p \bar{\varepsilon}^{\prime} \eta^{\varepsilon /} d v\). borrow; knock over WK

\(p \bar{\varepsilon}^{\prime} o g^{J /} p l p \bar{\varepsilon}^{\prime} \varepsilon s^{\varepsilon /} c b p \bar{\varepsilon}^{\prime}-n\). sheep; \(p \bar{\varepsilon}^{\prime}\)-sá'a= \(n\). ewe lamb
\(p \bar{\varepsilon} s g^{\varepsilon /} d v\). sacrifice
\(p i \bar{a}^{+} d v\). dig up
 píàn̆'-zùna \({ }^{+} n\). foreign language
\(p^{\text {pibıg }}{ }^{\varepsilon} d v\). uncover
pibı \(I^{\varepsilon} d v\). cover up
pïbın \({ }^{\text {ne }}\) pl pībına \({ }^{+}\)cb pìbın-n. covering 11.1.2
\(p^{\text {pid }} d v\). 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
pidıg \({ }^{\varepsilon} d v\). take off (hat, shoes, rings)
\(p i e^{+/} d v\). wash (part of one's own body)
pìə \(b^{\varepsilon} d v\). blow (e.g. flute)
pìəlıga pìəlı pl pìəla+ pìəlıs \({ }^{\varepsilon}\) cb pìəl- adj. white
pìəlım \({ }^{\mathrm{m}} n\). whiteness
pìəs \({ }^{\varepsilon} d v\). fool someone
pīəs \({ }^{\varepsilon /} d v\). wash
pïga+ \(q\). ten
piïm \({ }^{\mathrm{m} /}\) pl pīmá+ cb pīm-n. arrow
píın̆f pl pīıní+ cb pīın-n. genet
pïnı \({ }^{+}\)cb pìin- \(p l\) as \(s g(?)\) n. gift
pil \({ }^{\varepsilon} d v\). cover
pilıg \({ }^{\varepsilon} d v\). uncover
pīn'ilíl \(d v\). begin
pīpīrıg \({ }^{\mathrm{a} /}\) pl pīpīrıs \({ }^{\varepsilon /}\) cb pīpír- n. desert
pīsí \({ }^{+}\)q. twenty
pītú \({ }^{+}\)pl pītíl \({ }^{\text {a }}\) cb pīt- \(n\). younger sibling of the same sex
\(p \bar{\jmath}^{+} d v\). swear
\(p \grave{n} \mathrm{n}^{\varepsilon} d v\). crouch down
\(p \bar{n}{ }^{\prime}{ }^{\prime} \boldsymbol{I}^{\varepsilon /} d v\). cause to rot
pว̀n̆'دוım \({ }^{\mathrm{m}} d v\). cripple, get crippled
pj̀n̆'วr \({ }^{\varepsilon}\) pl pذ̀n̆da+ cb pذ̀n̆'- n. cripple
pว̀n̆ra ger pว̄n̆rub \({ }^{\text {a }}\) sv. be near
pう̀ว \({ }^{\mathrm{a}}\) sv. be few, small

pう̀วdım \({ }^{\mathrm{m}} n\). fewness
\(p \bar{\partial} \partial g^{\partial /} p l p \bar{\partial} \partial d^{\varepsilon /} p \overline{t^{\varepsilon /}}\) cb p \(\bar{\jmath}-n\). field, farm
\(p \grave{'} \partial g^{\varepsilon} d v\). diminish, belittle
\(p \bar{\jmath} r^{\varepsilon /} n\). "slogan" of a clan, part of its traditional genealogy WK; \(\leftarrow p \bar{j}^{+}\)swear (cf Farefare pots, pore "nom de famille, nom par lequel on jure", also "oath")
\(p \bar{u}\) not: negates indicative mood 19.5
\(p \bar{v}^{+} d v\). divide


 young woman; pứ'à-sān̄'am \({ }^{\text {na }} n\). adulterer; púd'à-yùa+ \(n\). daughter
\(p u \bar{a} k^{a} p l p \bar{v}^{\prime} a s^{\varepsilon} a d j\). female (human only)
pù'alım \({ }^{\mathrm{m}} d v\). cook
pò'alım \({ }^{\mathrm{m}} d v\). harm, damage; resultative adj pù'alón \({ }^{\text {ºn }}\) damaged
pò'alım \({ }^{\mathrm{m}} n\). femininity
pò'alím \({ }^{m} p l\) pò'alímis \({ }^{\varepsilon}\) cb pò'alím- \(n\). female sex organs
pùd \({ }^{\varepsilon} d v\). name
\(p \bar{v} d \iota g^{\varepsilon /} d v\). divide, share out
pùgudıba pl pùgud-nàm \({ }^{\text {a }} c b\) pùgud- \(n\). father's sister
pùkj̀วn̆r \({ }^{\varepsilon}\) pl pùkj̀n̆ya \({ }^{+}\)cb pùkj̀n̆- \(n\). widow
pūkpāad \({ }^{\mathrm{a} /}\) pl pūkpāadíba cb irreg pūkpá- n. farmer
pùlıma \({ }^{+} n\). a species of grass, Imperata cylindrica (Haaf)
pùmpj̄כg \({ }^{\text {² }} n\). housefly
pòn previously, already; preverb 19.7.2
pūn̆' \(e^{+/} d v\). rot
pūsıg \({ }^{\mathrm{a} /}\) pl pūsıs \({ }^{\varepsilon /}\) cb pūs- n. tamarind
\(p u \bar{s} r^{\varepsilon /} p l p u \overline{s a ́}{ }^{+} n\). tamarind fruit
\(p \overline{\text {-súka }}\) pl pū-súgùs \({ }^{\varepsilon}\) n. half 15.5.2.1
\(p \bar{t} t^{\varepsilon /} n\). pl as \(s g\) contents of stomach WK
pūum \({ }^{\mathrm{m} /}\) cb pūum- \(n\). flowers
\(p \bar{v} g^{a} c b\) pù- \(n\). inside, belly; Pư'ā lā mór pōvg The woman is pregnant; pūטgu-n \(n^{\varepsilon /}\) inside 16.6; pò-pìəlım \({ }^{m} n\). holiness; pò-tèn̆' \(\varepsilon r^{\varepsilon}\) pl pò-tèn̆ \({ }^{\text {da }}{ }^{+}\)cb pù-tદ̀n̆'- \(n\). mind
pōvrel n. stomach
\(p \dot{\prime} \cdot v s^{\varepsilon} d v\). greet, worship, thank; ger pù'vsım \({ }^{m} n\). worship; ger pù'usug \({ }^{\top} n\). thanks; pù'usug d今̂วg \({ }^{\text {ºn }}\) NT temple

\section*{S}
sà yesterday, tense particle 19.3.1
sà hence, ago, VP-final particle 19.10
\(s \bar{a}^{\prime+} d v\). be in distress
sàa tomorrow, tense particle 19.3.1
 rainbow ("rain chameleon"); sāa zúg\({ }^{\top} n\). sky 16.6
sā'ab \({ }^{\text {º }}\) cb sà' \(-n\). millet porridge, "TZ", the staple food of the Kusaasi
sāafı \({ }^{+}\)(?tones) n. lock, key \(\leftarrow\) Twi safẽ
sàal \({ }^{\text {a }}\) pl sàalıb \({ }^{\text {a }}\) cb sàal- \(n\). human (perhaps \(\leftarrow\) "hairless" cf būn-kóňbùg \({ }^{\text {² }}\) ); sàal-bïig \({ }^{\text {a }}\) \(p l\) sàal-biïs \({ }^{\varepsilon} n\). human being
sàalínā+/ \(a d v\). smoothly
sàam \({ }^{\text {ma }} p l\) sàam-nàm \({ }^{\text {a }} c b\) sàam- n. father; sàam-kp \(\overline{\varepsilon n ̆ m^{m}} n\). father's elder brother; sàam-pīt \({ }^{\text {a/ }}\) pl sàam-pïtíb \({ }^{\mathrm{a}} c b\) sàam-pīt- \(n\). father's younger brother
sāam \({ }^{m / d v}\). mash, crumble
sā'an \({ }^{\varepsilon /}\) in the presence of, in the opinion of; postposition 16.6
sāan \({ }^{\mathrm{a} /}\) pl sáam \({ }^{\text {ma }}\) cb sāan- \(n\). guest, stranger
sáannìm \({ }^{\mathrm{m}} n\). strangerhood
sàb \(\bar{\varepsilon} o g{ }^{\top} p l\) sàb \(\bar{\varepsilon} \varepsilon d^{\varepsilon} c b\) sàbè- \(n\). wind, storm
sābılíg\({ }^{\text {a }}\) sābíll \(p l\) sābılís \({ }^{\varepsilon}\) sābılá \({ }^{+}\)cb sābıl- adj. black
sàbùa \({ }^{+} p l\) sàbùes \({ }^{\varepsilon} C b\) sàbưà- \(n\). lover, girlfriend
Sà'dàbう̀วg \({ }^{3} n\). place of the clan Sarabose
Sà'dàbùa+ pl Sà'dàbùes \({ }^{\varepsilon}{\text { Sà'dàbù } \theta b^{a}}^{a}\). clan name
sādıgím since, because \(\underline{24.2}\)

sākárùg \({ }^{\top} p l ~ s a ̄ k a ́ r i ̀ d^{\varepsilon} c b\) sākár- n. fox
sàlıbır \({ }^{\varepsilon} n\). bridle
sālıma \({ }^{+}\)cb sàlım-n. pl as sg gold; sàlım-kùes \({ }^{\text {a }} n\). gold merchant
sām \({ }^{\text {ne/ }} \mathrm{pl}\) sāmá+ \(c b\) sām- n. debt; sām-kpâ'as \({ }^{\text {a }} n\). household servant
sāmán \({ }^{\mathrm{n} \mathrm{\varepsilon}} p l\) sāmánà \({ }^{+} c b\) sāmán- \(n\). open space in front of a zàk \({ }^{\text {a }}\) compound;
Sāmán-píər \({ }^{\varepsilon} n\). traditional New Year ceremony
sàň'am \({ }^{\mathrm{m}} d v\). spoil, get spoiled, get broken; destroy
sāngúnnìr \({ }^{\varepsilon} p l\) sāngúnnà \({ }^{+} c b\) sāngún- \(n\). millipede
sāクá+ pl sānsá+ cb sān- n. time 29.7 8.3.2; sān-kán \({ }^{\varepsilon} a d v\). then; when? sān-sî'ə-n lā \(a d v\). at one time, once ... 20.2.1
sàn-gbàun \({ }^{3} n\). sky, heaven; cf sāa=
sāpálı \(n\). Harmattan part of the dry season óvn \({ }^{\text {ne }}\)
sāpı \({ }^{+}\)ideo. straight
sārıgá+ \(n\). prison \(\leftarrow\) Hausa sarkàa "chain"
sàríyà \({ }^{+}\)or sc̀ríyà \({ }^{+} n\). law \(\leftarrow\) Arabic fari:Sa; sàríyà-kāta \(n\). judge NT
sāug \({ }^{\text {pl }}\) pl sāad \({ }^{\varepsilon /}\) cb sā-n. broom, brush
sàok\(p l\) sà'ad \({ }^{\varepsilon} n\). mote of dust
sávク \({ }^{\supset} n\). hospitality
sغ̀ \({ }^{\text {ipfiv }}\) sè \(\varepsilon d^{\mathrm{a}} d v\). transplant
\(s \bar{\varepsilon} o n ̆ g^{J} n\). rainy season
\(s i{ }^{+} d v\). skin, flay
si \(a^{+}\)some, any ( \(s g\) ) 15.4.3
 \(n\). kidney
\(\sin ^{\prime}{ }^{\prime} a^{\varepsilon /} d v\). get to be enough
sià' \(a r^{\varepsilon} p l\) sià'a+ \(c b\) sià'- \(n\). forest (WK), wilderness
\(\operatorname{siààk}^{\varepsilon} d v\). agree (cf Mooré sàke, Buli siagi id)
siāa \(k^{\varepsilon /} d v\). suffice (cf Mooré sékè, Buli chagi id)
sībıg \({ }^{\text {a/ }}\) pl sībí \({ }^{+}\)cb sīb- \(n\). a kind of termite
sid truly, post-subject particle 20.2.3
sida+ \({ }^{+}\)l sid- n. pl as sg truth
\(s^{\prime} d^{\mathrm{a}} \mathrm{pl}\) sīdı\(b^{\mathrm{a}} \mathrm{cb}\) sìd- \(n\). husband; sìd-bīla \(n\). husband's younger brother;
sìd-kpह̄عn̆m \({ }^{\mathrm{m}} n\). husband's elder brother; sìd-pūāka \(n\). husband's sister
\(s i \bar{e}{ }^{+/} d v\). descend, be humbled
sīəba+ some(ones), any (ones) 15.4.3
siə \({ }^{1 \mathrm{a}}\) something, anything 15.4.3
\(s \upharpoonright ə m^{\mathrm{m}}\) somehow, anyhow 15.4.3 16.7
\(s i ̄^{\varepsilon} d v\). descend
\(s i g \nmid r^{\varepsilon /} n\). guardian spirit, typically but not invariably the \(w \bar{\iota} n^{n \varepsilon /}\) of an ancestor \(\underline{29.2}\)
\(\operatorname{sïg}_{\mathrm{g}} \mathrm{s}^{\varepsilon /} d v\). lower
sīgısír \({ }^{\varepsilon}\) pl sīgısá+ \(n\). stopping-place
 traditional belief rather Lebenskraft (Haaf) "vital energy", closely associated with a person's tutelary kikīrıs \({ }^{\varepsilon /}\) (qv); Sì-sùn³ n. Holy Spirit NT; cf Buli chík sīıgápl sīıs \({ }^{\varepsilon} n\). African birch, Anogeissus leiocarpa; cf Buli sïik
siilım \({ }^{\mathrm{m}} d v\). cite proverbs
siilín \({ }^{\text {a }}\) siilún \({ }^{\top}\) pl siilís \({ }^{\varepsilon}\) siilímis \({ }^{\varepsilon}\) siilímà \({ }^{+}\)cb siilín-n. proverb
siiiñ \(d^{\varepsilon /} n\). honey

\(s i l^{-1}\left(s^{\varepsilon /} d v\right.\). touch
sīlınsîug \({ }^{\top}\) pl sīlınsîis \({ }^{\varepsilon} n\). ghost
sīlınsîun̆ \(g^{\rho}\) pl sīlınsiilin̆ \({ }^{\varepsilon} n\). spider
sìlug \({ }^{\top} p l \operatorname{sìn}^{n \varepsilon} \operatorname{sillıs~}^{\varepsilon} c b\) sìl- n. hawk
\(s_{i} m^{\mathrm{m}} d v\). sink in a liquid
Sìmīig \({ }^{\text {a }}\) pl Sìmiiis \({ }^{\varepsilon}\) cb Sìmì- n. Fulbe person, Fulani
Sìmīi \(\varepsilon^{\varepsilon} n\). Fulfulde language
Simiug \({ }^{\text {P }} n\). place of the Fulbe
\(\sin ^{\text {na/ }}\) ger sīnním \({ }^{m} s v\). be silent
sīnsáan̆ \(=n\). a kind of tiny ant
\(s i ̄ \eta^{a} p l \operatorname{sī} \iota n^{\varepsilon} c b \sin -n\). a kind of very big pot
\(s^{\top} \eta^{\varepsilon /} d v\). begin
sīsíbìg \({ }^{\text {a }} \mathrm{pl}\) sīsíbìs \(^{\varepsilon}\) cb sīsíb- \(n\). neem tree Azadirachta indica (Haaf)
sīsíbìr \(^{\varepsilon} p l\) sissíbà \({ }^{+} n\). fruit of neem tree
sisì' \(\partial m^{m} n\). wind, storm
sìsùvgū-n \({ }^{\varepsilon /}\) between, postposition 16.6 KB suvgun

sj̄'+ some(one), any(one), animate sg 15.4.3
sj̄ba dummy head pronoun, animate sg 15.4.7
\(s_{\bar{\jmath}}{ }^{\varepsilon} d v\). go/make dark; usually write; \(s \bar{\jmath} b r^{\varepsilon /} n\). piece of writing
\(s \bar{b} b g^{\varepsilon /} d v\). blacken

sógìàa \(n\). soldier \(\leftarrow\) English
sว̄lun pl sj̄lımá+ n. story
\(s \bar{n}^{+} d v\). rub

sכ̄nnıř pl sכ̄nna+ cb sj̀n- n. courtyard dividing wall
sว̄n̆s \({ }^{\varepsilon}\) ger sóňsì \({ }^{\text {a }} d v\). converse, talk with
sว̄כn̆g \({ }^{\text {n }} n\). witchcraft
sว̄כn̆r \({ }^{\varepsilon}\) pl sכ̄n̆ya \({ }^{+}\)cb sj̀n̆- \(n\). liver
sj̀s \({ }^{\varepsilon}\) ger \(\operatorname{sj} s ı g^{\mathrm{a}} d v\). ask; agt sj̀s \({ }^{\mathrm{a}} n\). beggar
\(s \grave{v}^{+} d v\). take a bath
\(s u{ }^{\prime} \bar{a}^{\mathrm{a}} d v\). do secretly, hide
sūāk \({ }^{\mathrm{a} /} n\). hiding place
\(s u ̄ e n ̆{ }^{+/} d v\). anoint
\(s u^{\prime} e^{\mathrm{ya} /} s v\). own; ger sū'vlím \({ }^{\mathrm{m}} n\). property, country, realm
\(s u ̄ g u r^{\varepsilon /} d v\). show forbearance, be patient with; sūgvró \({ }^{+} n\). forbearance
sòm \({ }^{m} n\). goodness; well
sùm \({ }^{\text {ma }} s v\). be good
sùmbūgusím \({ }^{\mathrm{m}} n\). peace
sūmmır \({ }^{\varepsilon}\) pl sūmma+ \(c b\) sùm- \(n\). groundnuts; sūm-dógvdà \({ }^{+} n\). cooked groundnuts sùn \(^{\text {ne }}\) ger sùnnır \({ }^{\varepsilon}\) or sùnnvg \({ }^{\top} d v\). bow one's head; agt sūn \({ }^{\text {na }} n\). ("someone who goes about with bowed head") deep thinker, close observer WK
\(s u ̄ n ̆ ' \mathrm{e}^{+/} d v\). become better than
sūn̆ff/ sūun̆rr pl sūn̆yá+ cb sūn̆- \(n\). heart; sūn̆-kpî'on \({ }^{\text {ºn }} n\). boldness 15.7.1;
sūn̆-má'asìm \({ }^{\mathrm{m}} n\). joy (M̀ sūn̆f má'e yā. "My heart has cooled"= I'm joyful);

heart is whitened" = I'm angry); sūn̆-sân̆'ט \(ט{ }^{\supset} n\). sorrow (M̀ sūn̆f sân̆'am n \(\bar{\varepsilon}\).
"My heart is spoilt" = I'm sad)
sùn \({ }^{\varepsilon} d v\). help
sùn \({ }^{\supset}\) sùm \({ }^{\text {m } \varepsilon}\) pl sùma \({ }^{+}\)cb sùn- \(a d j\). good
sùnā \({ }^{+/} a d v\). well, much

\(s u ̄ ̄^{\varepsilon}{ }^{\varepsilon /}\) pl sū̄̄yá \({ }^{+}\)cb sūā- \(n\). road; permission in sūөr bé, mכ̄r sūөr \(\underline{25.1}\)
sù' \(\theta s^{a} n\). yesterday
sù' \(\theta s^{\varepsilon} d v\). trick
sùr \({ }^{\text {a }} s v\). have one's head bowed
sùsj̀m \({ }^{\text {me }} n\). grasshopper
Sūtáanà \({ }^{+} n\). Satan
\(s \bar{u} u g^{\varepsilon /} d v\). wither (leaves) WK
sù' \(u g^{a}\) sù' \(^{\prime} g^{د} p l\) sù' \(u s^{\varepsilon} c b\) sù'- n. knife

\section*{T}
tāa= tāas \({ }^{\varepsilon}\) fellow- as second part of compound 12.2.1.4
tāaba \({ }^{+}\)tāab each other 15.4.5
tā'adır \({ }^{\varepsilon}\) pl tā'ada+ \(c b\) tà'ad- n. sandal
tàal \({ }^{l \varepsilon} p l\) tàala \({ }^{+}\)cb tàal- n. fault, \(\sin\)
tá'am \({ }^{\mathrm{m} \varepsilon} \mathrm{pl}\) tā'amá \({ }^{+} n\). shea tree fruit
tá'ana pl tā'amís \({ }^{\varepsilon}\) cb tā'an- \(n\). shea butter tree Butyrospermum parkii (Haaf)
tā'as \({ }^{\varepsilon /} d v\). help someone to walk; in greetings \(\underline{28}\)
tà \(b^{\varepsilon} d v\). get stuck to
tàbı \({ }^{y a} s v\). be stuck to
tàbıg \(g^{\varepsilon} d v\). get unstuck from
tàbı \(\|^{\varepsilon} d v\). stick to (transitive)
tàdıg \({ }^{\varepsilon} n\). become weak
tādım \({ }^{\mathrm{m} /} \mathrm{pl}\) tàdım-nàm \({ }^{\mathrm{a}} \mathrm{cb}\) tàdım- \(n\). weak person
tàdımís \({ }^{\varepsilon} n\). weakness
Tàlınn \(n\). Talni language
Tàlın \({ }^{\text {a }}\) pl Tàlıs \({ }^{\varepsilon}\) cb Tàlın-n. Tallensi person
tàm \({ }^{\mathrm{m}}\) ipfv tàmmı \(d^{\mathrm{a}} d v\). forget
tàmpìin̆g \({ }^{\text {a }} n\) ．rock
tàmpūa \({ }^{+} p l\) tàmpj̄כs \({ }^{\varepsilon}\) cb tàmpj̀－n．housefly \(\underline{8.3 .2}\)
tàmpūur \({ }^{\varepsilon} c b\) tàmpù \(n\) ．ashpit，rubbish tip
tān \({ }^{\text {ne }} p l\) tāna \({ }^{+} c b\) tàn－\(n\) ．earth；tàn－m \(\bar{\varepsilon} \varepsilon d^{\text {a }} n\) ．builder
tān̆ \({ }^{\circ} n\) ．war；tàn̆p－sj̄ba \(n\) ．warrior
tàňs \({ }^{\varepsilon}\) ger tàň̌sug \({ }^{\top} d v\) ．shout；Wìnnıg táňsid \(n \bar{\varepsilon}\) ．The sun is shining．
tār \({ }^{\mathrm{a} /}\) ger tārím \({ }^{\mathrm{m}}\) sv．have；more typical of Toende Kusaal；\(N T / K B\) always mう̄r \({ }^{\mathrm{a} /}\)
tàsıntà \({ }^{1 \varepsilon} n\) ．palm of hand
tàtà \(l^{\varepsilon} n\) ．palm of hand
tāun \({ }^{+/} p l\) tān̆ \(p^{\text {a／}}\) cb tāuñ̆－tān̆p－\(n\) ．sibling of opposite sex
tèb \({ }^{\varepsilon}\) ger tébıga \(d v\) ．carry in both hands
\(t \bar{\varepsilon} b ı g^{\varepsilon /} d v\) ．get heavy
\(t \varepsilon \bar{b} s^{\mathrm{a} /} s v\) ．be heavy
\(t \bar{\varepsilon} b ı s i g^{a} t \bar{\varepsilon} b ı s i ́ r^{\varepsilon} p l ~ t \bar{\varepsilon} b ı s a^{+}\)cb t̄̄bıs－adj．heavy
tēbısím \({ }^{\mathrm{m}} n\) ．heaviness

\(t \bar{\varepsilon} \varepsilon g^{\varepsilon /} d v\) ．drag，draw；t̄̄\(\varepsilon g\) X tùbur punish X
\(t \varepsilon^{\prime} \varepsilon g^{\text {a }} p l t \varepsilon^{\prime} \varepsilon s^{\varepsilon} c b t \varepsilon^{\prime}-n\) ．baobab Adansonia digitata（Haaf）
\(t \bar{\varepsilon} k^{\varepsilon /} d v\) ．pull
tèn̆ \(b^{\varepsilon}\) ger tèn̆nbog \({ }^{\top} d v\) ．tremble，struggle
tèn̆＇\(\varepsilon s^{\varepsilon} d v\) ．remind
\(t \bar{\varepsilon} n{ }^{\prime} ' \varepsilon s^{\varepsilon /} d v\) ．think；ger tēn̆＇\(\varepsilon s a^{+} n\) ．thought
tèn̆r \({ }^{\text {a }}\) ger t \(\mathrm{\varepsilon} n ̆ r ı b^{\top} s v\) ．remember

 tèn－pūטd \({ }^{\varepsilon /}\) cb tèn－pū－n．village，town；tèn－zùn \({ }^{\top} p l\) tèn－zùvn̆s \({ }^{\varepsilon} n\) ．foreign country； tદ̀ \(\eta-s u ̄ k^{a} n\) ．centre
tह̄ŋ८－n \(n^{\varepsilon /}\) or t̄̄クír \(r^{\varepsilon}\) downward；as postposition under 16.6
tèog \({ }^{\supset} p l\) tè \(\varepsilon d^{\varepsilon} n\) ．nest
tغ̇＇og \({ }^{\rho} p l\) tè＇\(\varepsilon d^{\varepsilon} n\) ．baobab fruit
tì we，our（right－bound）；\(\iota^{+}\)us（left－bound）15．4．1
tì preverb conveying completion or purpose 19．7．2
tià＇\(a l^{\varepsilon} d v\) ．come next
tià \({ }^{\varepsilon} d v\) ．change
ti＇ə \(b^{\varepsilon} d v\) ．prepare，get ready；heal in this sense perhaps influenced by Arabic t＇ibb＂medicinal art＂；ti \(\partial b^{\mathrm{a}} n\) ．healer
tien̆ \({ }^{+} d v\) ．inform WK（KED remember）
tìen̆ \({ }^{+} d v\) ．stretch out
tìəク \(\eta^{\text {a }} \mathrm{pl}\) tìəmıs \({ }^{\varepsilon}\) cb tìəク－\(n\) ．beard；tìəク－gūטr \(n\) ．chin
\(t i \overline{ } g^{\varepsilon} d v\) ．become sated，have too much／many；ger tīgır \(r^{\varepsilon /} n\) ．glut


\(t^{i} i^{\varepsilon /} d v\) ．lean something
tì \(\not m^{\mathrm{m}} c b\) tì－\(n\) ．medicine；tì－kūvdím \({ }^{\mathrm{m}} n\) ．poison（killing－medicine）；tì－sābılím \({ }^{\mathrm{m}} n\) ． ＂black medicine＂（a particular traditional remedy）；tì－vūnním \({ }^{\mathrm{m}} n\) ．oral medication
\(t i ̀ i^{\prime} n^{\varepsilon} d v\) ．begin to lean
tīlás \({ }^{\varepsilon} n\) ．necessity \(\leftarrow\) Hausa tiilàs \(\underline{25.1}\)
tìlıg \({ }^{\varepsilon} d v\) ．survive，be saved
tīnám \({ }^{\mathrm{a}}\) we，us（contrastive）；tīnámì we（subject of ǹ－clause）15．4．1
tīntכ̄n̆ríg \({ }^{a} p l\) tīntōn̆rís \({ }^{\varepsilon}\) cb tīntón̆r－n．mole（animal）
tìp \({ }^{\mathrm{a}} p l\) tìp－nàm \({ }^{\mathrm{a}}\) cb tìp－\(n\) ．healer（see ti’əba a ）
tīrâan \({ }^{\text {a }} p l\) tīrâan－nàm \({ }^{\text {a }} c b\) tīrâan－\(n\) ．neighbour，peer
tīrâannìm \({ }^{\mathrm{m}} n\) ．neighbourliness
tírıgà ideo．for gīna short
tìs \({ }^{\varepsilon}\) ipfv tìsıd \({ }^{\text {a }}\) tìt \({ }^{\text {a }}\) agt tìs \({ }^{\mathrm{a}} d v\) ．give；also tì before bound pronouns：tì \(f\) gave you
tītā＇al \({ }^{\varepsilon} n\) ．proud person
tītā＇alım \({ }^{m} n\) ．pride
tītā＇am \({ }^{\mathrm{m}} n\) ．multitude
tītā＇\(u g^{\top}\) tītā＇ar \({ }^{\varepsilon} p l\) tītāda＋\(c b\) tītá＇－\(a d j\) ．big，great
t̀̀ OK 21．4．4（＝Hausa tôo）
\(t \partial^{\varepsilon} d v\) ．give to the poor，share
\(t \bar{\jmath} e^{a /} s v\) ．be bitter，difficult
tóklà \(e^{+} n\) ．torch \(\leftarrow\) English＂torchlight＂
tólìb ideo．
\(t \bar{\jmath} / s^{\varepsilon /} d v\) ．do next，advance，carry on
tólıìlı ideo．for wj̄k \({ }^{\text {J／}}\) tall
tòn \({ }^{+} d v\) ．shoot
tう̀n̆＇\(\partial s^{\varepsilon} d v\) ．hunt

tう̄כ \(\mathrm{m}^{\mathrm{m} /} d v\) ．depart，disappear
tう＇Jtラ \({ }^{+/} a d v\) ．straight away
tưà \({ }^{+} d v\) ．grind in a mortar；tưà－bīla \(n\) ．pestle
\(t u{ }^{\prime} \dot{a}^{\mathrm{a}} d v\) ．speak，plead in court
tò＇al \({ }^{\varepsilon} d v\) ．condemn in court
tù＇as \({ }^{\varepsilon} d \nu\) ．talk
tùbur \({ }^{\varepsilon}\) pl tùba＋\(c b\) tùb－n．ear；tùb－kpìr \(n\) ．half of jaw；tùb－yīun \(\eta^{J / a d j . ~ o n e-e a r e d ~}\) 15．8．1．3
tūlal sv．be hot
tùlıg \({ }^{\varepsilon} d v\) ．invert
\(t \bar{u} / \lg ^{\varepsilon /} d v\) ．heat up
tòm \({ }^{\mathrm{m}} d v\). work; ger tōvm \({ }^{\mathrm{m} \varepsilon} n\). deed \(p l\) tūטma \({ }^{+} n\). deeds; work \(c b\) tòvm-; tòvm-b \(\bar{\varepsilon}^{1} \varepsilon d^{\varepsilon}\) \(n\). bad deeds; tòvm-b \(\bar{\varepsilon}^{1} \varepsilon d\)-dím \({ }^{\text {a }} n\). sinners NT; agt tòm-tōm \({ }^{\text {na }} n\). worker tòm \({ }^{\mathrm{m}}\) ger tìtūmıs \({ }^{\varepsilon} d v\). send; compare Hausa àikaa "send", aikàtaa "work" tūn̆'e sv. be able 22.2

tù̀n \({ }^{\text {nع }}\) in front; as postposition 16.6; West (KB yà tùөna) 29.3; tùөn-gāta \(n\). leader
Tù̀n \({ }^{n \varepsilon} n\). Toende, western part of Kusaasiland
Tùennır \({ }^{\varepsilon} n\). Toende dialect of Kusaal
tūsır \(r^{\varepsilon /} n\). thousand 15.5.2.1
tòtūlı \({ }^{\varepsilon} n\). upside-down thing, cf tùlıg \({ }^{\varepsilon}\)
tōvlígā+/ adv. hotly
tūolúg \({ }^{\supset}\) pl tōvlá+ cb tūvl- adj. hot
\(t \overline{u^{\prime}} u s^{\varepsilon /} d v\). meet

\section*{U}
\(u ̀ d v g{ }^{\text {pl }} \mathrm{pl} \mathrm{u}^{\varepsilon} c b\) ùd- \(n\). (piece of) chaff
\(\bar{u} g u s^{\varepsilon /} d v\). bring up a child
\(\dot{u} k^{\varepsilon} d v\). vomit
\(u ̄ k^{\varepsilon} d v\). bloat
ùm \({ }^{\mathrm{m}} d v\). close eyes
\(\bar{u} r \iota^{\varepsilon /} d v\). scrape
ט́vn \({ }^{\mathrm{n} \mathrm{\varepsilon}} n\). dry season

\section*{V}
vābıya/ ger vāp \({ }^{\text {/ }}\) KT vābır \({ }^{\varepsilon /}\) WK \(s v\). be lying prone
\(v a \bar{b} \iota^{\varepsilon /} d v\). make lie prone
\(v a ̀ b ı n^{\varepsilon} d v\). lie prone
và \(e^{+} d v\). gather up
vāun̆ \(g^{\partial / ~ p l ~ v a ̄ a n ̆ d ~}{ }^{\varepsilon /} c b\) vān̆- n. leaf
\(v \bar{\varepsilon}^{\prime+} d v\). lead
\(v \bar{\varepsilon}^{1} \varepsilon g^{\varepsilon /} d v\). drag
\(v \varepsilon ̀ n^{\text {na }}\) or \(v \varepsilon \grave{n} n^{l a} s v\). be beautiful

vèn̆llín \({ }^{\text {a }} p l\) vèn̆llís \({ }^{\varepsilon}\) cb vèn̆llín- adj. beautiful
vènnıg \({ }^{\text {a }}\) vènnır \({ }^{\varepsilon} p l\) vènnıs \({ }^{\varepsilon}\) vènna \({ }^{+}\)cb vèn- \(a d j\). beautiful
\(v \varepsilon ̀ n n ı m{ }^{\mathrm{m}} n\). beauty
\(v i^{+} d v\). uproot
\(v i ̄^{\varepsilon /} d v\). uproot
vīug/ pl vīid \({ }^{\varepsilon /}\) cb vī- n. owl
\(v \bar{\jmath} b^{\varepsilon /} d v\). thrash (tones uncertain)
\(v \bar{u}^{+}\)ger vūug \({ }^{\supset /} d v\). make a noise; \(v u \bar{u} d^{\varepsilon /} n\). noise
\(v \bar{u} e^{\mathrm{a} /} s v\). be alive
\(v \bar{u} I^{\varepsilon} d v\). swallow
vòlınvùun̆| \({ }^{\varepsilon} n\). mason wasp
\(v \bar{u} m^{\mathrm{m} /} c b\) vūm-n. life; vūm-pâal| \({ }^{\varepsilon} n\). new life
vúөn \({ }^{\text {a }}\) pl vūөmís \({ }^{\varepsilon} n\). red kapok Bombax buonopozense (Haaf)
vúer \({ }^{\varepsilon} p l v u ̄ a ́ a=c b\) vūө- \(n\). fruit of red kapok
vōr \({ }^{\varepsilon /}\) pl vōyáa cb vōr-adj. alive
\(v u ̄ r ı g^{\varepsilon /} d v\). shift along, move over (tones uncertain)
\(v \bar{u}^{\prime} v g^{\varepsilon /} d v\). come, make alive
\(v \bar{v}^{\prime} u s^{\varepsilon /} d v\). breathe, rest
\(v\) vo'vsím \(^{\mathrm{m}} n\). resting

\section*{W}
\(w^{\prime}{ }^{\prime+} d v\). dance
\(w a ̄ a d^{\varepsilon /} n\). cold weather
wáaf pl wïigí+ cb wā'- n. snake
\(\left.w a ̄ a\right|^{\varepsilon /} d v\). sow, scatter seed
wā'alím \({ }^{\mathrm{m}} n\). length
\(w^{\prime}{ }^{\prime} a m^{\mathrm{a} /} s v\). be long, tall
wàbıg \(^{\text {a }}\) wàbır \(^{\varepsilon}\) pl wàbıs \({ }^{\varepsilon}\) wàba+ \(c b\) wàb- \(n\). lame person
wàbı \(/ \iota m^{\mathrm{m}} d v\). make, go lame
wābug \({ }^{\text {/ }}\) pl wābıd \({ }^{\varepsilon /}\) cb wāb- n. elephant
\(w a ̄ d ı r^{\varepsilon /} p l\) wādá+ \(c b\) wād- \(n\). law ( \(\leftarrow\) English "order" via Hausa) plural as sg: law wād-tís \({ }^{\text {a }} n\). lawgiver NT
wà' \(e^{\text {ya }} s v\). be travelling
wālıg \({ }^{\text {a }} p l\) wālıs \({ }^{\varepsilon}\) wālí \({ }^{+}\)(tone sic) cb wàl- \(n\). a kind of gazelle
wàmım \({ }^{\mathrm{m}} d \nu\). waste away
wàsınwà \(l^{\varepsilon} n\). a parasitic gall on trees, called "mistletoe" in local English
wàun \({ }^{3}\) pl wàna+ \(c b\) wàun \(a d j\). wasted, thin
\(w \varepsilon ̀ \varepsilon d^{\mathrm{a}}\) see wìı \(d^{\mathrm{a}}\)
\(\left.w \bar{\varepsilon} \varepsilon\right|^{\varepsilon /} d v\). be left unsold (KED) but see w \(\bar{\varepsilon} o g^{ว /}\)
\(\left.w \bar{\varepsilon}\right|^{\varepsilon} d v\). bear fruit
\(\left.w \bar{\varepsilon}\right|^{\mid \varepsilon /} p l\) w \(\bar{\varepsilon} / a^{+} c b\) w \(\bar{\varepsilon} l-n\). fruit
wēlá+ or wālá+ how? 16.7; nìn wēlá n/kà how can ...? 22.2.1
\(w^{\prime} n^{\text {na/ }} s v\). resemble; in \(K B\) w \(n\) n \(\bar{\varepsilon}\) appears as nwene; ger wēnním \({ }^{m}\)
\(w \bar{\varepsilon} n n \iota r^{\varepsilon}\) adj. resembling (Pattern A, specifically confirmed with WK)
wદ̀og \({ }^{\text {n }}\) n. deep bush
\(w \bar{\varepsilon} o g^{\rho /} p l w \bar{\varepsilon} \varepsilon d^{\varepsilon /} n\). cheap thing sold in abundance WK
\(w i a \overline{k^{\varepsilon /}} d v\). hatch (from an egg)
\(w_{i d}{ }^{\prime} g^{\varepsilon} d v\). scatter
wìəf \(p l\) wìdı \({ }^{+} c b\) wìd- \(n\). horse; wìd-l亏\(r^{\varepsilon /} n\). place for tying up horses in a compound; wìd-dāvg \({ }^{\top} n\). stallion; wìd-n̆yá'a \(\eta^{a} n\). mare; wìd-z̄̄טr \(r^{\varepsilon} n\). horsetail
wìı \({ }^{\mathrm{a}}\) or \(w \varepsilon ̀ \varepsilon d^{\mathrm{a}} p l\) wìı \(^{\mathrm{a}}\) cb wìıd- \(n\). hunter
Wiid \({ }^{\text {a }} p l\) Wiid-nàm \({ }^{\text {a }}\) cb Wiid- \(n\). member of the clan Wiid
Wiidug \(^{3} n\). place of the clan Wiid
wïig \(^{\text {a/ }} n\). whistle
wı̀ım \({ }^{m} n\). sickness, disease ("worse than bān̆'as \({ }^{\varepsilon "} \mathrm{WK}\) )
wik \(^{\varepsilon}\) ipfv wiid \({ }^{\text {a }} d v\). fetch water 10.1
wil \(^{\varepsilon} \mathrm{pl}\) wila \({ }^{+} c b\) wìl- \(n\). branch
wīlısún pl wīlımís \({ }^{\varepsilon}\) cb wīlısún- \(n\). a kind of snail 8.3.2
wím ideo. for zin̆'n'a+ red
 n. misfortune

Wínà'am \({ }^{m} n\). God 14.1
wìnnıg \({ }^{\text {a }} c b\) wìn- \(n\). sun; talent; wìn-lïir \(n\). sunset; wìn-kj̀כňr \({ }^{\varepsilon} n\). sunset
wìug \(^{\top}\) wìir \(^{\varepsilon}\) pl wìya \({ }^{+}\)wìid \({ }^{\varepsilon}\) cb wì- adj. red
wōk/ wā'ar \(r^{\varepsilon /} p l\) wá'a+ wā'ad \({ }^{\varepsilon /}\) cb wj̄k- wā'- adj. long, tall
\(w o ̀ m{ }^{\mathrm{m}} d v\). hear; understand (a language); smell
\(w \bar{s} a^{+} q\). all
\(w \overline{0} v^{+} q\). all
wōv like, resembling 18
\(w^{\prime} \cdot g^{\varepsilon /} d v\). get wet
\(w \bar{u}^{\prime} v^{\varepsilon /} d v\). make wet

\section*{Y}
yà you, your pl (right-bound); ya+ you pl (left-bound) 15.4.1
ya you pl, left-bound subject after imperative 7.2.1 15.4.1 21.3
yā+ independent-perfective particle 19.6.2.1
yà' if, when \(\underline{23}\)
yáa adv. whither?
yáaba pl yāa-nám \({ }^{\text {a }}\) cb yāa- \(n\). grandparent, ancestor; yāa-dáú \({ }^{+} n\). grandfather; yāa-pú'áa n. grandmother
yà'ab \({ }^{\varepsilon} d v\). mould clay
yā'ad \({ }^{\varepsilon} c b\) yà'- \(n\). clay
yà'a \(\|^{\varepsilon} d v\). hang up; make perch (bird)
\(y\) à'an \({ }^{\varepsilon} d v\). perch (of a bird)
Yàan \({ }^{\text {ne }} n\). Yansi language (apparently Mooré now)
yáa ní+ adv. where?
yáan \({ }^{\text {a }}\) pl irr yáas \({ }^{\varepsilon}\) (consistently without nasalisation) cb yāaŋ- n. grandchild, descendant 29.1
Yàan \({ }^{\text {a }} p l\) Yàam \({ }^{\text {ma }}\) Yàamıs \(^{\varepsilon}\) Yàas \(^{\varepsilon} c b\) Yàan- \(n\). Yansi person
yāar \({ }^{\varepsilon /} d v\). scatter
yàarım \({ }^{m}\) cb yàar- n. salt
yà'asª yà'as \({ }^{\varepsilon}\) again \(\underline{22.2}\)
\(y a ̄ ' a s^{\varepsilon /} d v\). open repeatedly
yàddā or yàdā \(n\). faith, trust 19.8.1 \(\leftarrow\) Hausa yàrda; probably \(\leftarrow\) Arabic yard'a:;
yàddā-nípìr \({ }^{\varepsilon} n\). belief
\(y a ̄ d ı g^{\varepsilon /} d v\). scatter; agt yāta/ irreg. agt: participant in a housebuilding ritual
\(y a ̄ ' e^{+/} d v\). widen, open (mouth)
yà \(k^{\varepsilon} d v\). unhang, unhook
yàlım \({ }^{\text {ma }} s v\). be wide
yālım \({ }^{\mathrm{m} /} \mathrm{pl}\) yālım-nám \(n\). worthless person
yālısún pl yālımís \({ }^{\varepsilon}\) cb yālısún-n. quail 8.3.2
yàlvn³ pl yàlıma+ cb yàlun- adj. wide
yām \({ }^{m \varepsilon} p l\) yàma+ \(c b\) yàm- \(n\). hay WK
yā \(m^{\mathrm{m} /}\) cb yām- \(n\). gall; gall bladder; common sense. WK yā'am \({ }^{\mathrm{m} / ;}\); probably originally two distinct words 3.2.2
yàmmıg \({ }^{\text {a }}\) yàmmug \({ }^{\mathrm{a}}\) yàmmug pl yàmmıs \({ }^{\varepsilon}\) cb yàm- \(n\). slave
yānámª you pl (contrastive); yānámì you pl (subject of ǹ-clause) 15.4.1
Yārıg \({ }^{\mathrm{a} /} \mathrm{pl}\) Yārıs \({ }^{\varepsilon /} c b\) 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)
\(y^{\prime} \mathrm{ug}{ }^{\top} p l\) yàad \(^{\varepsilon} n\). grave, tomb
\(y \bar{\varepsilon}\) that 25; be about to ... 19.3.4
\(y \varepsilon^{+} d v\). dress oneself; resultative adj yદ̀ع/ún \({ }^{\text {n }}\) worn (e.g. of a shirt)
\(y \varepsilon ̀ \varepsilon g^{\varepsilon} d v\). undress oneself
\(\left.y \varepsilon ̀ \varepsilon\right|^{\varepsilon} d v\). dress someone
\(y \bar{\varepsilon} \varepsilon s^{\varepsilon /} d v\). betray a secret

\(\left.y \bar{\varepsilon}\right|^{\mid \varepsilon /} p l y \bar{\varepsilon} l a ́+\left(\right.\) as postposition: about 16.6) cb y \(\bar{\varepsilon} /-n\). matter, affair; y \(\bar{\varepsilon} /-m \varepsilon ́ n i ̀ r^{\varepsilon}\)
\(n\). truth; yह̄l-nárò̀ \({ }^{\supset}\) n. necessity; y \(\bar{\varepsilon} l\)-pákìr \({ }^{\varepsilon}\) n. disaster; y \(\bar{\varepsilon} l\)-sú'adì \(r^{\varepsilon}\)
\(n\). confidential matter; yह̄l-sóm \({ }^{\mathrm{m} \varepsilon} n\). blessing 15.8.1.1
\(y \bar{\varepsilon} \eta i ́ m{ }^{\mathrm{m}} d v\). oscillate (like waves)
\(y \varepsilon ̇ o g{ }^{\rho} p l y \varepsilon ̀ \varepsilon d^{\varepsilon} n\). bird's crop; person displaced from family (KED)
yع́oŋ \(q\). one, in counting
\(y \overline{1}^{+}\)ipfv \(y \overline{i t}^{\text {a/ }}\) imp yìm \({ }^{\text {a }} d v\). go, come out
\(y \grave{d} \mathrm{~g}^{\varepsilon} d v\). go astray
\(y \bar{d} d ı g^{\varepsilon /} d v\). untie
yìər \({ }^{\varepsilon}\) n. jaw
yīigá \({ }^{+}\)q. firstly; former 15.1; yïig-sว́b \({ }^{\text {a }} n\). first person 15.4.7
yïis \({ }^{\varepsilon /}\) ger yīisíl \(b^{3} d v\). make go/come out, extract
yı̄mmír \({ }^{\varepsilon}\) pl yı̄mmá+ cb yīm- adj. solitary, lone 15.5.2.3
yīmmú＋q．adv．straight away，at once
yīnní＋q．one
yì \({ }^{\text {a }} a d v\) ．outside
 householder；yī－dím \({ }^{\text {a }} n\) ．members of the household；yī－póňròg \({ }^{\text {º }}\) pl yī－póňrà \({ }^{+} n\) ． neighbouring house；yī－sígıdì \({ }^{\varepsilon} n\) ．lodging－house；yín \({ }^{\text {nع }}\) at home \(p l\) yáan \({ }^{\varepsilon}\) \(y \overline{i s}{ }^{\varepsilon} d v\) ．make go／come out，extract
yīun \({ }^{\text {／}}\) pl yīná＋adj．single－15．8．1．3
\(y \grave{j}{ }^{+} d v\) ．close；resultative adj yذ̀כlún \({ }^{3}\) closed
\(y \bar{j}^{+n} \nu v\) ．pay；ger y \(\bar{\jmath} \partial d^{\varepsilon /} n\) ．pay
\(y \bar{l} / s^{\varepsilon /} d v\) ．untie
yう̄lısím \({ }^{\mathrm{m}} n\) ．freedom
y亏̄lug’／pl yว̄n \({ }^{\text {nદ／}}\) cb ȳ̄l－n．sack，moneybag；（like Hausa jàkaa）£100，\(\$ 200\)（cedis）
\(y \grave{'} \log ^{\varepsilon} d v\) ．open
yว̀วr \({ }^{\varepsilon}\) pl yว̀ya \({ }^{+}\)cb yう̀－n．soldier ant
\(y u a^{+} d v\) ．bleed；also fornicate WK
yó＇adır \({ }^{\varepsilon}\) pl yó＇ada＋\(n\) ．rafter
yùbıgá pl yùbıs \({ }^{\varepsilon}\) cb yùb－\(n\) ．small bottle－like pot
yūgvdır \(p l\) yūgıda＋\(c b\) yùgvd－\(n\) ．hedgehog
yōgóm \({ }^{\mathrm{m} \varepsilon}\) yōgúm \({ }^{\mathrm{n} \varepsilon}\) pl yūgumá＋\(c b\) yūgom－\(n\) ．camel
yùlıg \(g^{\varepsilon} d \nu\) ．swing（transitive）
\(y u ̄ n ̄ ' e^{+/} d v\) ．set alight
yū＇өr \({ }^{\varepsilon} p l\) yưāda＋cb yù＇өr－n．penis
\(y_{u ̀ u g}{ }^{\varepsilon} d v\) ．get to be a long time，delay；Tì yûug n \(\bar{\varepsilon}\) tāaba．It＇s long since we met．
yùul \(\|^{\varepsilon} d v\) ．swing（intransitive）
\(y \bar{'}^{\prime} v m^{m /} d v\) ．sing；agt yōvm－yט̂＇vm \({ }^{\text {na }} p l\) yōvm－yט̂＇vmnì \(b^{\text {a }} n\) ．singer
yó＇um \({ }^{\text {ne }} p l\) yō＇umá＋\(c b\) yō＇um－or yōom－\(n\) ．song
yù̀m \({ }^{\mathrm{m} \varepsilon} \mathrm{pl}\) yòma＋\(c b\) yò̀um－\(n\) ．year；yùvm－pāalíg \({ }^{\mathrm{a}} n\) ．new year
\(y \overline{\text {＇}} \boldsymbol{v}\) then，next 20．2．3
yó＇ט \({ }^{\text {ºn }}\) pl yō＇טmís \({ }^{\varepsilon}\) cb yō＇ט－n．night
yū＇ur \({ }^{\varepsilon /} p l y \overline{o ̄} d a^{+} c b y \bar{U}^{\prime}-n\) ．name
yōor \({ }^{\varepsilon}\) pl yōya \({ }^{+}\)cb yò－n．water pot

\section*{Z}
\(z \bar{a}^{+/} c b\) zā－\(n\) ．millet
zāalíg \({ }^{\text {a }}\) záall \({ }^{\varepsilon} p l\) zāalís \({ }^{\varepsilon}\) zāalá＋\(c b\) zāal－adj．empty
zāalím \({ }^{\mathrm{m}} a d v\) ．emptily
zàam \({ }^{m} c b\) zà－\(n\) ．evening；zà－sìsj̄bır \(r^{\varepsilon /} n\) ．evening
zàn̆＇an \({ }^{\text {nع }} p l\) zàn̆＇ana＋\(n\) ．metal hammer，iron－tipped weapon，bludgeon
zàan̆sım \({ }^{m} d v\) ．dream
zāan̆sím \({ }^{\mathrm{m}}\) cb zāan̆s－n．soup；soup in general，not＂fish soup＂despite Mampruli zaasim＂fish＂；cf Toende zãasím＂meat soup＂（Niggli）
zàan̆sún \({ }^{\top} \mathrm{pl}\) zàan̆símà \({ }^{+}\)cb zàan̆sún－\(n\) ．dream
\(z^{2} b^{\varepsilon}\) ger zàbır \({ }^{\varepsilon} d v\) ．fight；hurt（of body part）；agt zàb－zà \({ }^{\text {a }} n\) ．warrior；
agt gbān－zába \(n\) ．leather－beater，leather－worker
zàbı \({ }^{\varepsilon} d v\) ．cause to fight
zàka \({ }^{\text {pl }}\) zà＇as \(s^{\varepsilon}\) cb zà＇－n．compound；zà＇－nכ̄כr \({ }^{\varepsilon /}\) n．gate；zà＇－n亏̄－gúra \(n\) ．gatekeeper zàkım \({ }^{\mathrm{m}} d v\) ．itch
zàlıク \({ }^{\text {a }} p l\) zàlımıs \({ }^{\varepsilon} c b\) zàlın－n．electric eel
zàm \({ }^{\mathrm{m}}\) ipfv zàmmıd \({ }^{\mathrm{a}} d v\) ．cheat；agt zàm－zām \({ }^{\text {na }} n\) ．cheat
zàmıs \({ }^{\varepsilon} d v\) ．learn，teach
zān̄＇a＝q．every
zàň＇as \(s^{\varepsilon} d v\) ．refuse
zàn̆bı \(\iota^{\varepsilon} d v\) ．tattoo，mark skin
zān̆bın \({ }^{\text {n } \varepsilon} p l\) zān̆bına \({ }^{+}\)cb zàn̆bın－n．tattoo；NT sign 11．1．2
Zàngbè \(\varepsilon^{\varepsilon} n\) ．Hausa language
Zàngbèog \({ }^{\top} \mathrm{pl}\) Zàngbè \(d^{\varepsilon} n\) ．Hausa person
zàngùem \({ }^{\mathrm{m} \mathrm{\varepsilon}} \mathrm{pl}\) zàngùөma \({ }^{+} \mathrm{cb}\) zàngùem－\(n\) ．wall
zànkù＇ar \({ }^{\varepsilon}\) pl zànku＇àa＋zànkù＇ada＋ cb zànkúdà－\(n\) ．jackal
zān̆la／ger zān̆llıím \({ }^{\mathrm{m}}\) sv．be holding，carrying in hands
zàn̆ \({ }^{\varepsilon}\) 凤．umbilicus
zà \(\eta^{\varepsilon} d v\) ．pick up，take up
\(z \bar{\varepsilon} m^{\mathrm{ma/}}\) ger \(z \bar{\varepsilon} m m o ́ g{ }^{\supset} s v\) ．be equal
\(z \bar{\varepsilon} m s^{\varepsilon /} d \nu\) ．make equal
zēmmúg pl zēmmá＋cb \(z \bar{\varepsilon} m-a d j\) ．equal
\(z i ̄^{+}\)ger zïid \({ }^{\varepsilon /} d v\) ．carry on one＇s head；agt zī－zîid \({ }^{a} n\) ．carrier on the head
\(z i^{-1+}\) ger zī＇lím \({ }^{\mathrm{m}}\) Sv．not know 19．5；agt zī＇ı \(d^{\mathrm{a} /} n\) ．ignorant person

\(z i ' \partial I^{\varepsilon} d \nu\) ．make to stand；zì＇əl nכ̄כr \({ }^{\varepsilon /}\) promise，command；with \(n\) tìs X：promise to X
zìə \(\partial n^{\varepsilon} d v\) ．stand still；Ò zì＇ən n \(\bar{\varepsilon}\) ．She＇s pregnant．
\(z \bar{\iota} \iota m^{\mathrm{m} /}\) cb zī－n．blood
zíi \({ }^{\mathrm{a}}\) pl zīmí＋ cb zīm－\(n\) ．fish；zīm－gbân̄＇ad \({ }^{\mathrm{a}} n\) ．fisherman
zìlım \({ }^{\text {me }} \mathrm{pl}\) zìlıma＋ cb zìlım－\(n\) ．tongue
zīlınzîogª adj．unknown
zím ideo．for sābılíga black
zīná＋today

zin̆＇ijy \(s v\) ．be sitting；ger zĭn̆＇iga pl zīn＇is \({ }^{\varepsilon}\) cb zìn̆－（also place）
zin̆＇ilí \(d v\) ．make sit，seat
zìn＇in \({ }^{\varepsilon} d v\) ．sit down
zīnzāun \({ }^{\text {J／}}\) pl zīnzāná \({ }^{+}\)cb zīnzáun－n．bat
zīrí＋n．lie，untruth
 ipfv ger ż̀tım \({ }^{\mathrm{m}}\) fear 12．2．1．4 Ò zう̀t•ō nīn－báalìg．He has pity on him
\(z \bar{\jmath}{ }^{\varepsilon} d v\) ．castrate
\(z ว ̄ 1 \iota m i ́ s^{\varepsilon} n\) ．foolishness

zว̄m \({ }^{\mathrm{m} /}\) cb zう̄m－\(n\) ．flour
zว̄כm \({ }^{\text {m }}\) zว̄כm \({ }^{\text {nॄ }} \mathrm{pl}\) zว̄כma＋ cb zว̀วm－\(n\) ．refugee，fugitive
zว̄rıg \({ }^{\text {a／}} n\) ．small child WK
zว̄rug² pl zכ̄rá＋n．piece
\(z \bar{u}^{+} d v\) ．steal
zưà \({ }^{+} p l\) zưà－nàm \({ }^{\text {a }} c b\) zưà－\(n\) ．friend
Zùa \({ }^{+} p l\) Zù̀s \(^{\varepsilon}\) n．member of clan Zoose；subclans pl Zùà－wìis \({ }^{\varepsilon} /-w i ̀ i b^{a}, p l\) Zunà－sābllís \({ }^{\varepsilon}\) \(z u ̈ ' e^{+} d v\) ．get higher，more
zùe \({ }^{+} d v\) ．perch，get on top（？variant of zù＇\(e^{+}\)）
zūg \({ }^{\partial /}\) pl zūt \(t^{\varepsilon /}\) cb zūg－zū－ 8.2 n．head；as postposition 16．6；zūgú－n \(n^{\varepsilon}\) is also used as a postposition；zūg－dâan \({ }^{\text {a }} n\) ．boss，master（replaces zūg－sób \({ }^{\mathrm{a}}\) in KB for meanings other than＂the Lord＂）；zūg－kūgvr \({ }^{\varepsilon} p l\) zūg－kūga＋cb zūg－kúg－n．pillow；zūg－ máuk \({ }^{\supset}\) pl zūg－mâ＇ad\(a d j\) ．crushed－headed 15．8．1．3；zūg－sób \({ }^{\mathrm{a}} n\) ．boss；NT Lord；zū－péعlùg̉ pl zū－pćعlà＋adj．bald 15．8．1．3；zū－píbìgả \(n\) ．hat
\(z u ̀ l ı g^{\varepsilon} d v\) ．deepen
zùlım \({ }^{\text {ma }} s v\) ．be deep
zùlvク pl zùlıma＋cb zùloŋ－adj．deep
zùlon \({ }^{3} n\) ．depth

zūөbóg \({ }^{\top} p l\) zūөbíd \({ }^{\varepsilon} c b\) zūөb－n．hair（of human head）；see \(k \bar{\jmath} n ̆ b v g{ }^{\top}\)
zùөd \({ }^{\varepsilon} n\) ．friendship
\(z u ̀ e^{\varepsilon} d v\) ．make to perch
\(z u ̄ ' ө m^{\mathrm{m} /} \mathrm{pl}\) zū＇өmís \({ }^{\varepsilon} c b\) zū＇өm－n．blind person
\(z u \bar{\prime} ө m^{\mathrm{m} /} d v\) ．go blind，make blind
\(z u ̀ \ominus n^{\varepsilon} d v\) ．begin to perch
zūөr \({ }^{\varepsilon}\) pl zūēya＋cb zưà－\(n\) ．hill
\(z u ̀ \theta s^{\varepsilon} d v\) ．befriend
zūríf pl zūrí＋cb zūr－n．dawadawa seed
zú＇טn̆f pl zū＇uní＋\(n\) ．dawadawa seed
zùun̆g \({ }^{\top} p l\) zùun̆s \({ }^{\varepsilon}\) zùun̆ \(d^{\varepsilon} c b\) zùn̆－\(n\) ．vulture
zūur \({ }^{\varepsilon}\) pl zūya \({ }^{+}\)cb zù－n．tail；zù－wj̄k \({ }^{J /} a d j\) ．long－tailed 15．8．1．3```

