A Grammar of Agolle Kusaal
Revised Version

David Eddyshaw

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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 very handy 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 underlies 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.

This grammar began as an attempt on my part to understand Kusaal morphophonemics, an origin which the reader will find reflected in the relative fullness of the treatment. It grew into areas where I was even less sure-footed, and I am very conscious of its deficiencies. A more accurate name for the work would probably be "Some Aspects of Kusaal Morphophonemics with Brief Notes on Syntax." 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 I will be very happy, especially if they share the answers with me. Experts will soon notice that I have worked a small corpus very hard; many of my generalisations are greatly in need of testing against further data, especially in the treatment of syntax.

The customary disclaimer that the work is not written in accordance with the principles of any particular theoretical framework will rapidly be seen to be entirely superfluous. *J'ai pris mon bien là où je l'ai trouvé.*

Until recently, there were almost no linguistic works available on Kusaal. Happily, the situation is changing; in the References and Bibliography below I list, notably, numerous works by Urs Niggli on the Toende Kusaal of Burkina Faso, and more encouragingly still, an account of aspects of the language by Hasiyatu

Abubakari, a native speaker. Most of this recent work is on the Toende dialect, and describes a language different in a good many respects from the Agolle dialect treated here; this has made it less useful for my immediate purposes than I might have hoped, but opens up fascinating avenues for future investigation.

Among the various helpful accounts of Western Oti-Volta languages that I have been able to consult I have found Knut Olawsky's careful study of Dagbani particularly useful, both because of its intrinsic merits and because the language is one of those most closely related to Kusaal.

My very brief account of the Kusaasi people themselves in my Introduction is merely a short list of points I found especially interesting, and is in no way even the beginning of an adequate account of a deep and intricate culture. I am even less of an anthropologist than a professional linguist; it is much to be hoped that Kusaasi culture finds worthy students and investigators, ideally Kusaasi themselves, who can portray it as it deserves. Until then I would recommend Ernst Haaf's work "Die Kusase" (see Bibliography.) 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, for consulting the original translators of the Kusaal New Testament versions and granting permission for me to cite verses from those versions, which are copyright to Bible League International along with the Ghana Institute of Linguistics, Literacy and Bible Translation. My debt to these works and their creators is discussed further in the following pages.

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.

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Swansea, December 2016
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Preface to the Revised Version

Citius emergit veritas ex errore quam ex confusione.
Truth will sooner come out from error than from confusion.
Francis Bacon, Novum Organum, Book II, Aphorism XX

Since December 2016 I have made a number of substantial revisions to this grammar.

The orthography now conforms more closely to that of the 1996 Kusaal New Testament; the price of a slight increase in complexity of spelling rules is worth paying for the benefit of Ghanaian readers who have previously encountered Kusaal written materials. Through the assistance of Tony Naden, I have learnt more of the recent orthographic reforms, and I have adopted several of the features of the new system in a way that I hope will lead to overall improvements in clarity.

Interlinear glosses now appear throughout.

I have tried to clarify the presentation of numerous points, and corrected a good many errors, some minor, others involving more systematic problems. I have abandoned the strategy of rigorous separation of description from comparative material and internal reconstruction, which too often led to explanatory material being unhelpfully separated from the description it was intended to illuminate.

The unsatisfactory term "Tight Clitic" has been dropped; instead, the familiar name "Liaison" has been pressed into service in an appropriate technical sense.

I have somewhat simplified the account of the Kusaal tonal system, at the cost of accepting that in some cases tonal features are the only phonological mark of word division 6.2.1 . Previously, the tonal nomenclature and notation reflected the close structural parallels with the tone systems of other Western Oti-Volta languages, but from a strictly language-internal standpoint it is much more natural to posit high, mid and low tonemes. Altering the tone marking to reflect this, I have also made the notation much less abstract: the domain of tone marking is now the word rather than the punctuation group, and low tonemes are marked explicitly.

David Eddyshaw
Swansea, January 2018

Introduction to the Grammar

Fully understanding any single part of a grammatical system may depend on also understanding the whole; descriptions which rigorously proceed from smaller to larger units, or the reverse, can accordingly be difficult to follow. I have tried to mitigate this problem by starting with a fairly extensive précis of the language in the Introduction before presenting a standard bottom-up account.

I have included a vocabulary intended to list all words used in the grammar, along with as many others as possible for which I could adequately determine vowel contrasts and tones. This may be of some independent value in view of the unavailability of David Spratt's more extensive short dictionary of Agolle Kusaal; for the Toende dialect of Burkina Faso there is, however, the much more copious "Dictionnaire kusaal-français-anglais" of Urs Niggli, which is readily available online. Tony Naden is also working on a full-scale dictionary of Agolle Kusaal.

I have gleaned many helpful ideas from the Cambridge Grammar of the English Language (Huddlestone and Pullum 2002.) Though Kusaal grammar naturally cannot be constrained to fit the system of a very dissimilar language, I have found this monumental work a valuable guide to the kinds of question it is helpful to ask about the syntax of any language.

Kusaal lends itself readily to internal reconstruction. Apparent irregularities are often explicable by morphophonemic processes which lie just beneath the surface. Illuminating comparative work is also feasible, given that there are quite extensive materials in and about several closely related languages. I have incorporated material of this kind where it seemed likely to be helpful or interesting.

A particular challenge to description is posed by **Apocope**, the deletion of underlying word-final vowels in most but not *all* contexts $\boxed{3.2}$. Apocope creates phonological complications by removing the conditioning factors for alternations which would otherwise have been non-contrastive. It affects morphology, rendering ambiguous the word forms which would result from the usual morphononemic rules. The operation of these rules is often disrupted to avoid this $\boxed{7.2.1.3}$, sometimes so systematically that regular subpatterns have been created $\boxed{11.1}$. Apocope greatly complicates questions of phrase-level segmental and tone sandhi $\boxed{9.1}$ $\boxed{9.3}$. It even causes a number of short clitics to have no segmental representation at all in most contexts, so that their presence can be recognised only by segmental and/or tonal effects on neighbouring words $\boxed{3.3.3}$. Readers who are not Africanists may find Kusaal interesting particularly because of these wide-ranging effects of Apocope. There is a formidable amount of prior work on related theoretical questions, which I have barely addressed; suggestions from experts will be welcomed.

My working orthography keeps close to the traditional system of the 1976 and 1996 New Testament versions, even though this necessitates some non-trivial

spelling rules ⟨2⟩ ⟨3.3⟩. As an aid to clarity I have adopted three additional vowel symbols from the revised orthography of the 2016 Bible version, adding also the missing *ι* for [ɪ]; this is unlikely to confuse readers familiar with the older system.

This grammar is the outcome of circumstances very different from the systematic fieldwork of a trained linguist. The morphology and such parts of the phonology as are original (essentially all the treatment of tone) derive from elicitation work with informants, for whose extraordinary patience in supplying and endlessly repeating forms I am very grateful. In syntax, my treatment of phrase-level phenomena is largely based on work with these informants in elicitation and in exploring puzzling forms and constructions I had encountered while attempting to communicate at work. All, especially WK, were alert to nuances and quick to see where I was going with enquiries; they readily came up with analogous or contrasting forms to help me. All four of my regular informants were first-language speakers of Agolle Kusaal, and had also essentially first-language level competence in English. All were male, and around forty years old. I noted examples of conversation from many speakers, but recorded few examples of the usage of younger speakers specifically, though I noticed a few comments about the incorrect grammar of the young from my informants (surely a cultural universal.) I did not find any 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 ⟨21.8.1.3⟩ are sparsely represented my data, and this has probably led to underestimation of their importance in the language as a whole.

Neither I nor my informants had the time to investigate syntactic issues at clausal or higher level adequately together, and I had in any case little understanding of the issues involved at that point. I compensated as far as I could by private study of written materials, storing up problems to discuss later with my teachers. It will be seen below that in these matters I have relied very heavily on the NT versions. I have also drawn on the collection of stories and proverbs *Kusaal Solima ne Siilima*, and to a lesser 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 written materials would not exist.

The New Testament version is regarded by Kusaal speakers as being in good and idiomatic (if sometimes difficult) Kusaal. As a translation, it nevertheless cannot be fully representative of the language. The NT versions and other written sources are cited in their original orthography, with an accompanying transliteration into the

orthography used in this grammar. The tone marking of written examples was generally supplied by me and not checked in detail with informants, and so cannot be used as primary evidence for the language.

The data on which this account is based are now twenty years old. The New Testament version available then was that of 1976; the 1996 revision adapts most foreign names to accord more closely with ordinary Kusaal spelling, but otherwise makes no systematic orthographic changes. A decision was evidently made to replace all instances of the previously common indirect speech construction 31.4.2 with direct speech, and many other changes have been made to improve the accuracy and clarity of the translation. No significant changes have been made to several written features of the language of the 1976 version which are also found in older literacy materials but have no counterpart in my informants' speech. There is evidence for actual language change in one case 9.3.2, but the other differences are probably simply orthographic 9.1.3.

The 1996 Kusaal New Testament is available as audio and as searchable text via *http://www.bible.is*, provided by the organisation "Faith Comes By Hearing." The format is naturally intended for evangelism and Bible study rather than linguistic research; the audio includes distracting background music, and the readers vary noticeably in the naturalness and fluency of their delivery. Nevertheless, this allows interested readers outside Ghana some access to spoken materials which can be used to criticise and improve on my work. The spoken forms consistently agree with my informants' usage against the orthography when differences arise.

A new Kusaal version of the entire Bible was dedicated in 2016, but I have not been able to obtain a copy to date.

There is no standard or prestige form of Agolle Kusaal 1.2.2, and as a natural consequence the language is not entirely uniform in either New Testament version.

Other Studies of Kusaal

The pioneers of Kusaal grammatical study were **David** and **Nancy Spratt**. In the phonology part of my analysis I owe a great deal to their work in identifying the segmental phonemes of the language and creating a practical orthography. This standard orthography is not adequate for the needs of foreign learners or for scientific description, but its deficiencies are largely remedied with diacritics in David Spratt's "Introduction to Learning Kusaal." I found this work much the most useful previous account of Kusaal, despite its brevity (forty-two pages.) It was especially helpful in getting me started with the tonal system; although the description does not claim to be more than a preliminary sketch, it was invaluable in pointing me in the right direction, particularly as I had no previous experience with tone languages; at the time I first obtained a copy of Spratt's work I had got little farther than determining that tone was lexically contrastive in Kusaal. David Spratt's

work has also been helpful in matters of lexicon. His Kusaal vocabulary uses the 1976 New Testament orthography, with its underdifferentiation of vowels, and does not mark tones, but it provided useful data for morphological study, especially of gerund formation.

Aside from this, virtually all of the analysis behind this grammar is original, almost exclusively so in the case of the morphology and syntax, and in all but the most basic aspects of the tonal system. As far as I know, there have been no other attempts to describe the morphology of Agolle Kusaal to the extent attempted here. Previous studies of Kusaal syntax are either very brief or concerned with limited subsystems treated from a theory-intensive standpoint. Almost all of these studies describe the Toende dialect, and there are significant differences from Agolle Kusaal. Here too, my analyses are thus essentially all original. They are far from profound or definitive, and to a great extent are simply derived from study of the New Testament versions, but I hope will at least be useful as a basis for the work of more expert investigators in future.

More recently, numerous wide-ranging grammatical and lexical studies of the Toende Kusaal of Burkina Faso have been produced by **Urs Niggli**, who has also done considerable work with Kassem and Farefare. I have found his Kusaal materials of great comparative interest, but the language itself differs significantly from the Agolle dialect described here, and I have not borrowed from his grammatical analyses. Niggli's account also suggests that the tonal system of Toende Kusaal is surprisingly dissimilar to that of Agolle, especially in matters of tone sandhi. Niggli's "Dictionnaire" has been an excellent resource for Toende comparative material; it marks all vowel contrasts, and the most recent update also marks tone in many headwords. However, the tones are sometimes at variance with those given in Niggli's other works; comparison with Agolle Kusaal and with other Western Oti-Volta languages suggests that this may be because the effects of external tone sandhi have not always been allowed for.

Tony Naden is currently working on a dictionary of Agolle Kusaal, which will be much the most extensive lexicographic work on the language so far when it is complete. The work is based on written sources and accordingly will not mark distinctions (such as tone) which are not reflected in the standard orthography.

There have been several publications on aspects of Kusaal grammar by **Hasiyatu Abubakari**, a mother-tongue 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. Her work seems likely to advance the understanding of the structure of the language significantly: Kusaal may well come to take a place as one of the best described of all Gur languages.

Abbreviations

(See also Interlinear Glossing Conventions below.)

AdvP	Adverbial Phrase
ATR	Advanced Tongue Root
BNY	*Bunkonbid ne Niis ne ba yɛla* (see Sources)
C	Consonant
cb	combining form (of nominal)
DK	Informant (see Sources)
ger	gerund
H	High toneme
hu	human gender
ILK	"An Introduction to Learning Kusaal" (David Spratt)
ipfv	imperfective
irr	irregular
KED	"A Short Kusaal-English Dictionary" (David Spratt)
KKY	*Kusaas Kuob nɛ Yir yela Gbauŋ* (see Sources)
KSS	*Kusaal Solima ne Siilima* (see Sources)
KT	Informant (see Sources)
L	Low toneme
LF	Long Form (of word capable of standing clause-finally)
M	Mid toneme
nh	non-human gender
NP	Noun Phrase
NT	Kusaal New Testament (see Sources)
pfv	perfective
pl	plural
rem	Modal Remoteness marker particle
SB	Informant (see Sources)
SF	Short Form (of word capable of standing clause-finally)
sg	singular
V	Vowel
VP	Verb Phrase (not "Verbal Predicator" 24)
WK	Informant (see Sources)
2pl	Second Person Plural
2sg	Second Person Singular

I have abbreviated the names of New Testament books in citing verses; the abbreviations are fairly standard and should occasion no difficulty. Citations are from the 1996 version unless specifically stated otherwise.

Interlinear Glossing

Abbreviations used in Interlinear Glosses:

ABSTR	Abstract	11.1.1
ADV	Adverbial	22.4
CNTR	Contrastive (of Personal Pronouns)	34.5
COMP	Complementiser (underlyingly *ǹ*)	9.3.2.1.1 33
COP	Copula *àe̱ň*ya	26.2
CQ	Content Question Prosodic Clitic	3.2.1 9.2
DEM	(Short) Demonstrative Pronoun	17.2
DEML	Long Demonstrative Pronoun	17.2
EXIST	Existence/Location Verb *bɛ̀*+	26.1
FOC	Focus Particle *nɛ̄*+/	34.1.1 24.2
GER	Gerund	14.1.1
IMP	Imperative Verb Form	13.1
INDEP	Independency/Perfective Marker *yā*+	24.6.2.1
INDF	Indefinite Pronoun	17.3
IPFV	Imperfective Verb Form	13.1
LOC	Locative Postposition (*nι*+ ~ *n*e)	22.3
NEG	(alone) Negative Prosodic Clitic	3.2.1 9.2
NEG.BE	Negative Verb to and **COP** and **EXIST**	35.1.1
NEG.HAVE	(Another use of the same verb)	35.1.1
NEG.KNOW	Negative Verb *zī*ˀ+	35.1.1
NEG.IMP	Negative Imperative Marker	24.4
NEG.IND	Negative Indicative Marker	24.4
NEG.UNR	Negative Unrealised Marker	24.4
NUM	Number Prefix *à- bà- ǹ- bʋ̀-*	18.2.1
REM	Modal Remoteness Marker	24.4.2
SER	Serialiser (underlyingly *n*)	9.3.2.1.2 28.1
SG	Singular	21.2.1
PERS	Personifier Clitic *à-*	21.10
PFV	Perfective Verb Form	13.1
PL	Plural	21.2.1
PQ	Polar Question Prosodic Clitic	3.2.1 9.2
TNS	Tense Marker	24.3.1
UNR	(alone) Positive Unrealised Mood Marker	24.4
VOC	Vocative Prosodic Clitic	3.2.1 9.2

1SG 1PL	1st sg/pl Pronouns		17.1
2SG 2PL	2nd sg/pl Pronouns		17.1
2PLS	Liaison Word postposed 2nd pl Subject		30.2.3
3HU 3NH	3rd sg Human/Non-Human Gender		17.1 21.2.2
3PL	3rd Person Plural Pronoun		17.1
1SGO 1PLO	**1SG 1PL**	as Liaison Word objects	9.3.1
2SGO 2PLO	**2SG 2PL**	as Liaison Word objects	
3HUO 3NHO	**3HU 3NH**	as Liaison Word objects	
3PLO	**3PL**	as Liaison Word object	

The linker particles *kà* and *yɛ̄* are conventionally glossed "and" and "that" respectively throughout, though this very often does not reflect the true meaning in context 29.1.2 .; similarly *yà'* is 32.1 is glossed "if" in all cases. The empty particle *nɛ̄* which follows objects of comparison which lack the article 23.1 is glossed "like."

Mass nouns 21.2.1 are not specified as **SG** or **PL** in the glossing; similarly, Invariable Verbs 13.2 are not labelled as **PFV** or **IPFV**.

The symbol *ø* in the glossing represents words with no surface segmental representation at all, which are detectable only from tonal and segmental effects on preceding words 3.3.3 . Prosodic Clitics 9.2 are represented by ⁺*ø*, and Liaison 3.3.2 is marked by ‿.

For the purposes of interlinear glossing, I have adopted the concept of wordhood reflected in the traditional orthography. Nominal combining forms and the Personifier Prefix, which are in fact clitics rather than word fragments, are accordingly hyphenated to their hosts in both the orthography and the glossing, rather than joined with = signs as the Leipzig Glossing Rules would demand. The clitics *n*ᵉ **LOC** *n*ᵉ **REM** ʸᵃ **2PLS** along with the LF of ᵒ **3HUO** are written in the orthography solid with their hosts, and in glossing they are treated like flexional and derivational morphemes, which are throughout joined with colons rather than hyphens (Rule 4C of the Leipzig Glossing Rules.) All other clitics are written in both orthography and glossing as separate words. For word division see further 3.3 .

Transcription Conventions

For the orthography used for Agolle Kusaal in this grammar see $\boxed{2}$.

Phonetic transcriptions are written in square brackets; they are quite broad, and ignore a good deal of allophony, as explained in $\boxed{4}$ $\boxed{5.1}$. The orthography itself represents the phonemic level, except for some details in the writing of fronting diphthongs $\boxed{5.2.3}$, and the use of i̯a u̯a iə uɵ to write sequences which, though realised phonetically as written, are structurally monophthongs $\boxed{5.1.1}$.

Starred forms representing the input of various morphophonemic rules do not represent a single underlying form of the language but are given ad hoc to illustrate the particular rule in question.

Urs Niggli's works on Toende Kusaal and Farefare use an orthography conforming to the *Alphabet National* of the *Commission Nationale des Langues Burkinabé*, which uses the symbols *ι υ* for IPA ɪ ʊ (as does this grammar of Agolle Kusaal.) Zongo 2010 (Mooré) and Lébikaza 1999 (Kabiyè) use similar systems. Toende Kusaal and Farefare words will be cited as in Niggli's work. Niggli's dictionaries note tones in headwords; I have transcribed these using acute for H, grave for L, and macron for mid tone. Absent marks represent lack of tonal information.

Mooré words will be cited in Zongo's orthography. Words taken from the Mooré Bible accordingly substitute *ι υ ε ɔ* for *ì ù è ò* and mark nasalisation with a tilde instead of a circumflex. I have not marked tones; there is considerable disagreement regarding tones between Balima et al and Canu 1976, not only in the tone patterns of individual words but with regard to the entire system[1]. These sources all reflect Ouagadougou Mooré, which differs somewhat from the dialect with which Kusaal has been in contact.

Dagbani words will be cited in the orthography used in Olawsky 1999 and the the Dagbani New Testament translation. I have marked tones in the few words where I have the information to do so, using Olawsky's acute for H, grave for L, and ↓ for his ! marking emic downstep. Absent marks again signify an absence of tone information.

Buli words from Kröger's excellent 1992 dictionary are cited in his orthography but with the tones written as e.g. *á ā à* for high, mid, and low respectively.

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1) Canu seems to have interpreted a two-tone system with emic downsteps as a three-tone system, while frequently taking utterance-initial high or low tones for mid. His account would give Mooré many more distinct tone patterns than other Western Oti-Volta languages; this is unlikely in view of the close agreement among those other languages, with clear parallels also in Buli. The Mooré forms cited in Akanlig-Pare and Kenstowicz are much more consistent with the rest of Western Oti-Volta.

Hausa words will be cited in the orthography of Caron 1991 and Wolff 1992, which differs from the system used in Anglophone works like Jaggar 2001 and from everyday Nigerian practice in writing long vowels with double letters. This is more compatible with the orthography used here for other African languages, and results in a less cluttered typography than using macrons. High tones are unmarked, low tones are marked with grave accents and falling tones are marked with a circumflex. Rising tone within a long vowel or diphthong is impossible in Hausa, so the grave mark is written on only the first letter in cases like *tèeku* "sea", tones: LLH. Initial glottal stops are written explicitly as *ʔ*, again contrary to the usual practice in Anglophone works and in Nigeria. Standard (Kano) forms are given, although the actual source of the loanwords in Kusaal is the *Gaanancii* lingua franca. Dialect variation in Hausa is surprisingly small, however, considering the wide area over which the language is spoken and its extensive use as a second language.

Arabic transcriptions use IPA symbols, except that *y* is used for *j*; classical forms are given, with brackets around the segments omitted in pause.

Words from other languages are cited in the orthography of the source from which I have drawn them; see References/Bibliography.

This colour is used for words cited in foreign languages, including Agolle Kusaal in the original orthography of written sources; *this* colour is reserved for complete Agolle Kusaal words written in the orthography adopted in this Grammar.

Sources

Informants

   With great reluctance I have omitted the names of my four principal informants, 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 of the four would like to see his name included in its rightful place of honour, I would be delighted to comply.

   These abbreviations are not the initials of the informants' names.

WK	(from Koka)	KT	(from Tempane)
DK	(from Kukpariga)	SB	(from Bawku)

Texts

From the Ghana Institute of Linguistics, Literacy and Bible Translation, Tamale:

Bunkonbid ne Niis ne ba yɛla   "Animals and birds and their affairs"
(*Būn-kɔ́ňbìd nē Níis nɛ́ bà yēlá*)   Matthew M. Abokiba

Kusaal Solima ne Siilima   "Kusaal Stories and Proverbs"
(*Kūsáàl Sɔ́lιmà nē Síilímà*)   Samuel Akon, Joe Anabah

Kusaas Kuob nɛ Yir yela Gbauŋ   "A book on Kusaasi farming and housing"
(*Kūsáàs Kúὸb nē Yīr yɛ́là Gbàṵŋ*)   William A. Sandow, Joseph A.H.Anaba

Bible Translations:

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1 Introduction to Kusaal and the Kusaasi

Upper East Region of Ghana (Public Domain, created by "Rarelibra" https://commons.wikimedia.org/wiki/File:Upper_East_Ghana_districts.png)
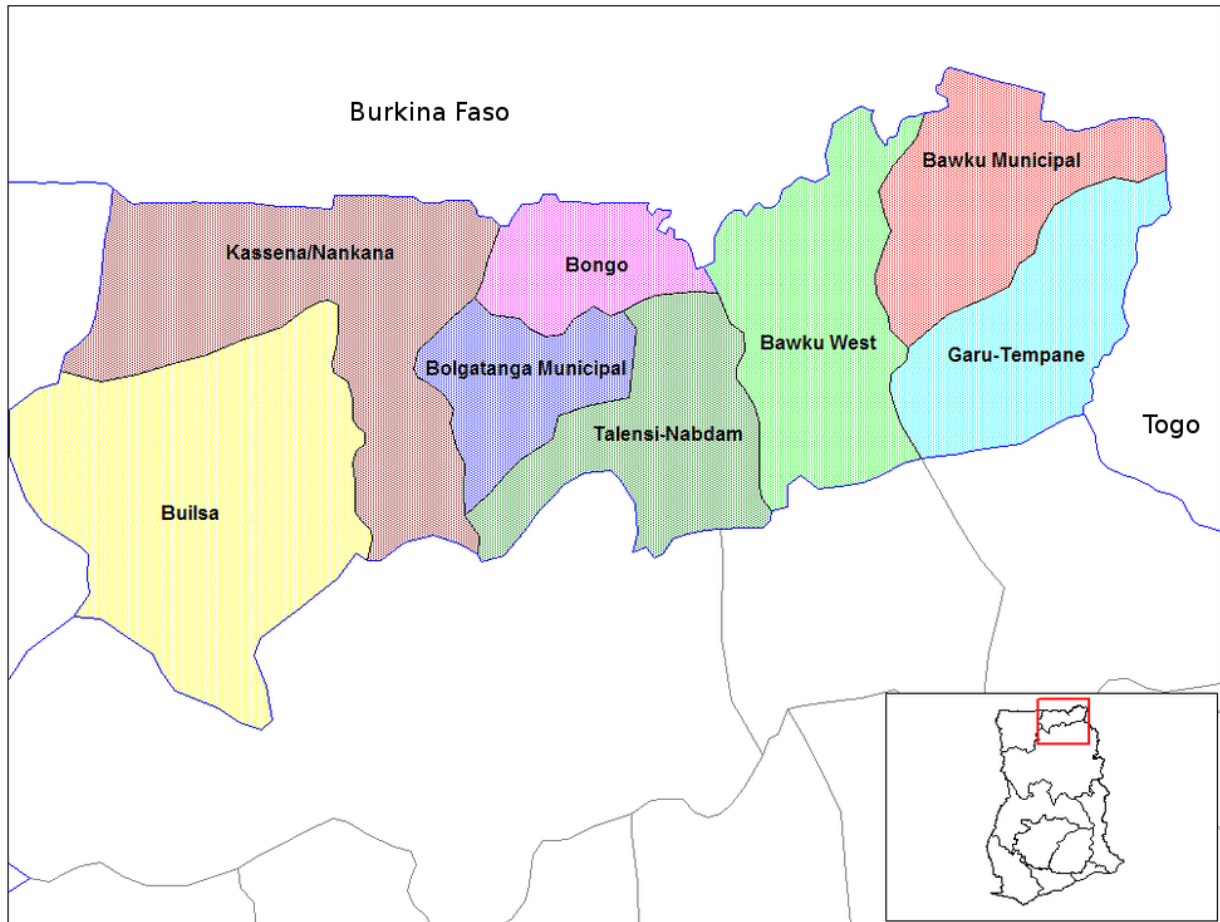
Kusaal is the language of the Kusaasi, the majority ethnic group of the Bawku Municipal, Bawku West and Garu-Tempane Districts of the Upper East Region in the far northeast of Ghana, extending from the Red Volta river and the Gambaga Escarpment to the national borders with Burkina Faso and Togo. The smaller area west of the White Volta river, coinciding largely with Bawku West District, is called **Toende** in Ghanaian English (less often spelt "Tonde", and in French contexts "Tondé"), Toende Kusaal *Tɔɔ́n* "in front, West", Agolle Kusaal[2] *Tùən*[ne]. The larger eastern part is **Agolle** (less accurately spelt "Agole"), Kusaal *Àgɔ̀l*[le] "Upper." The Ghanaian districts comprise most of *Kūsáὺg*[o] "Kusaasiland", but there are also a good number of Kusaasi settlements in the neighbouring part of Burkina Faso, west of the White Volta and south of Zabré, and a few over the border in Togo.

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2) Superscript letters represent the parts of Kusaal words deleted in most contexts by Apocope 3.2 . They play no part in the pronunciation of citation forms, and may be ignored in this section, along with the [/] tone mark which follows some superscripts.

1.1 The Kusaasi People

The name *Kūsáàl*^e "Kusaal" and the name of the people *Kūsáàs*^e "Kusaasi" are not transparent within the language itself. Some Kusaasi speculate about a derivation from Hausa *kusa* "near" but there seems to be no evidence for this beyond a chance similarity of sound. It is in fact the norm for local ethnic groups to have endonyms which have no known etymology; often, as in this case, these names have complex stems unlike most of the common vocabulary in structure.

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 one the domain of a single family head with his wives, sons, daughters-in-law and grandchildren. Cattle-raising is common but is mostly the preserve of Fulɓe and Mossi. There is one rainy season, lasting unpredictably from May to October. The main crop is millet of various kinds, along with rice to a lesser extent. Millet is used to make the Kusaasi staple millet porridge *sā'ab*^o, called "TZ" in local English (from Hausa *tuwon zaafii*, literally "hot porridge"), and the traditional millet beer, *dāam*^{m/}, called "pito" (Hausa *fîtoo*) in English.

The Kusaasi are divided into numerous patrilineal exogamous clans (*dɔ̀ɔg*^o, "house") 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 *pɔ̄ɔr*^{e/} "slogan", part of its traditional lineage, but unlike the Mossi, the Kusaasi do not use clan names as surnames. Clans have taboos associated with them (for example, against eating particular animals) and have their own cults, but no administrative function; the Kusaasi originally had no chiefs. In religious matters the leading man of the area is the *tɛ̀ŋ-dāan*^a or earth-priest, who is supposed to be the descendant and heir of the original oikist or 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 Gur- and Mande-speaking peoples, who nevertheless continued to provide the *tɛ̀ŋ-dàan-nàm*^a. The founder of these kingdoms was Na Gbewa, whose seat was at Pusiga (Kusaal *Pūsɪg*^{a/}) 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 military-aristocratic 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 have much in common culturally with their neighbours, especially the Mossi and Mamprussi. Traditional Kusaasi dress resembles that of the Mamprussi, Dagomba and Mossi, including the characteristic long-sleeved baggy smock *bānāa*[=], called a "fugu shirt" in English (cf Kusaal *fūug*[o/] "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 southern Ghana; similarly, of the roughly 5% Muslims, most belonged to other ethnic groups.

Traditional belief includes a creator God, *Wīn*[ne/], invoked in proverbs and greetings but remote from everyday life and not to be approached in prayer or worship. A characteristic proverb enjoins gratitude to the Creator, saying:

> *Dìm   nɛ̄   Wīn,   dā   tʊ́ʔàs   nɛ̄   Wīnné* [+]ø.
> Eat:**IMP** with God:**SG**, **NEG.IMP** talk:**PFV** with God:**SG** **NEG.**
> "Eat with God, don't talk with God."

Another warns against evildoing, but in these terms:

> *Wīn   ňyɛ́   kà   sīn.*
> God:**SG** see:**PFV** and be.silent.
> "God sees and is silent."

Everyday religious practice is concerned rather with local non-anthropomorphic spirits, also called *wīn*[ne/]. A *wīn*[ne/] resides in an object such as a stone or horn, which is a *būgʊr*[e], often called a "fetish" in old ethnographic accounts; the implications of this term are however very misleading, as it is the *wīn*[ne/] that is significant, not its place of attachment.

An important rôle is played by the diviner, *bāʔa*[=], who can seek guidance for a client (*būgʊd*[a]) on all matters by casting lots. This rôle is distinct from that of the traditional healer; such healers themselves show considerable variation in approach from essentially herbalist to frankly occult.

A human being is understood as having four components: *nìn-gbīŋ*[o/] "body"; *ňyɔ̀-vūr*[e/] "life" as opposed to death, possessed by all living animals; *wīn*[ne/] (in this sense) "*genius*, spirit, a person's own spiritual self or double"; and *kìkīrɪs*[e/], protective

spirits (called "fairies" in local English.) Men have three *kìkīrɪs*[e/], women a fourth, because of the dangers of childbirth. (Throughout the cultural zone, three is the man's number, and four is the woman's.) There are thought to be wild *kìkīrɪs*[e/] in the bush which are hostile and try to lead travellers astray. The term *sīʊg*[a] "life force", used to render "spirit" in Christian materials, is in traditional belief intimately associated with the individual's tutelary *kìkīrɪs*[e/].

The key term *wīn*[ne/] has yet further senses, overlapping with the European concepts of fate or destiny: *wīn-tɔ́ɔ̀g*[o], literally "bitterness of *wīn*[ne/]" is "misfortune." This kind of *wīn*[ne/] as "pattern of one's life" may be hereditary, as part of a complex of ideas reminiscent partly of reincarnation, partly of what modern European culture might attribute to family resemblance or genetics. (The word *būgʊr*[e] may also mean "a *wīn*[ne/] inherited from one's mother.")

Sɔ̄ɔɲb[a] "witches" exist in the traditional world view; though they cause harm, their condition can be involuntary. As in European tradition, those accused of witchcraft are often marginalised or older women. The Mamprussi king, whose rôle 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.

1.2 The Kusaal Language

1.2.1 Language Status

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

Although there is an established orthography for the language, written materials are few and not widely available, apart from the Bible translation, which is far and away the most extensive written work in Kusaal. Few Kusaal speakers were proficient in reading or writing the language in the 1990's. On several occasions when I was learning to communicate with patients in Kusaal, my colleagues would interrupt me with the information that the patient was "literate", meaning that he or she knew English.

Despite the fact that Kusaal is thus currently excluded from domains involving Western-style education and technical activity, it shows no sign of ceding ground as the language not only of the home but of all everyday interaction. The language is the normal medium of communication among Kusaasi of all ages, most of whom are monolingual, and is also used by other local ethnic groups, notably the Bisa, as an areal lingua franca. It is not currently endangered.

1.2.2 Dialects

There is no standard dialect of Kusaal; every district has local peculiarities and my informants themselves show numerous small differences in speech. Bawku itself 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 independent spirit of traditional Kusaasi society also militates against the acceptance of any one standard form.

The major dialect division in Kusaal is between Agolle and Toende. The differences are striking, considering the size of the Kusaasi area. The occurrence of Agolle Vowel Breaking 5.1.1 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, all first-language speakers of Agolle Kusaal, reported no difficulty communicating with Toende speakers, though they are all sophisticated multilinguals who may not be altogether typical. Berthelette 2001 studied the degree to which Burkina Faso Toende speakers understand Agolle Kusaal, with somewhat equivocal results. Of thirteen respondents, ten self-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." Casad-style Recorded Text Tests administered to Burkina Faso Toende speakers showed scores of 93% for comprehension of Ghanaian Toende compared with 80.5% for Agolle, but Ghanaian Toende speakers achieved 94.5% with Agolle, presumably reflecting their greater exposure to the dialect. There is some suggestion in the paper that the situation is asymmetrical, with Agolle speakers finding Toende easier than vice versa, but this was not looked into in detail, as the focus of the paper is on the question of whether Agolle Bible translations and literacy materials would suffice for Toende speakers. The conclusion was that Toende materials would be valuable, though perhaps not on strictly linguistic grounds but because of speaker attitudes; though fewer in number, Toende speakers apparently feel their own dialect is "purer." This may affect attitudes to comprehensibility.

The same paper reports a rate of apparent lexical cognates between Toende and Agolle of 84%. Judging by the extensive vocabulary of Toende Kusaal given in Niggli 2014, which shows great resemblance to Agolle Kusaal aside from the regular phonological differences, this figure seems surprisingly low; the explanation is perhaps that the divergence is most marked among the commonest words.

Agolle and Toende Kusaasi themselves agree that they constitute a single ethnic group, and that they speak dialects of a single language; this is perhaps

reinforced by a strong local folk-linguistic tendency to equate language and ethnicity (note the language names formed from ethnonyms in 37.4 .) Nevertheless, the differences are great enough to justify separate grammatical treatment for the two major dialects.

This account is of Agolle Kusaal, the language of the majority of Kusaasi, including those of the vicinity of Bawku. It is the basis of most written materials, including the Bible versions. By "Kusaal" I will mean "Agolle Kusaal" by default below; this is a matter of convenience and does not imply any claim that Agolle speech is "standard."

1.2.3 Related Languages

The Gur Languages (Public Domain, created by "Davius" https://en.wikipedia.org/wiki/Gur_languages#/media/File:Gur_languages.png)
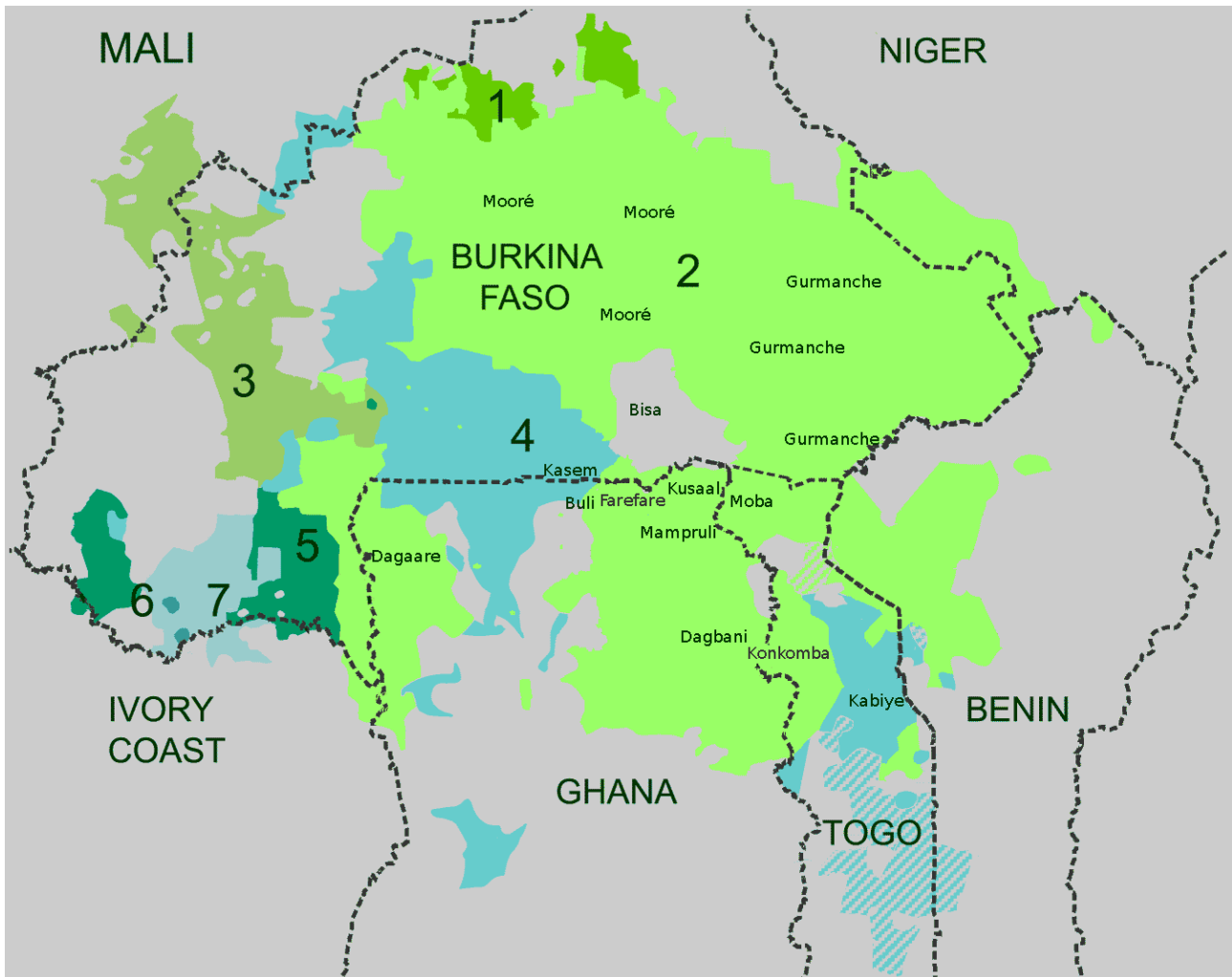
1 Koromfé	2 Oti–Volta languages	3 Bwamu	4 Gurunsi
5 Kirma–Lobi	6 Dogoso–Khe	7 Doghose–Gan	

Kusaal belongs to the **Gur** or **Voltaic** language family within the huge and varied **Niger-Congo** phylum which comprises most of the languages of Africa south of the Sahara.
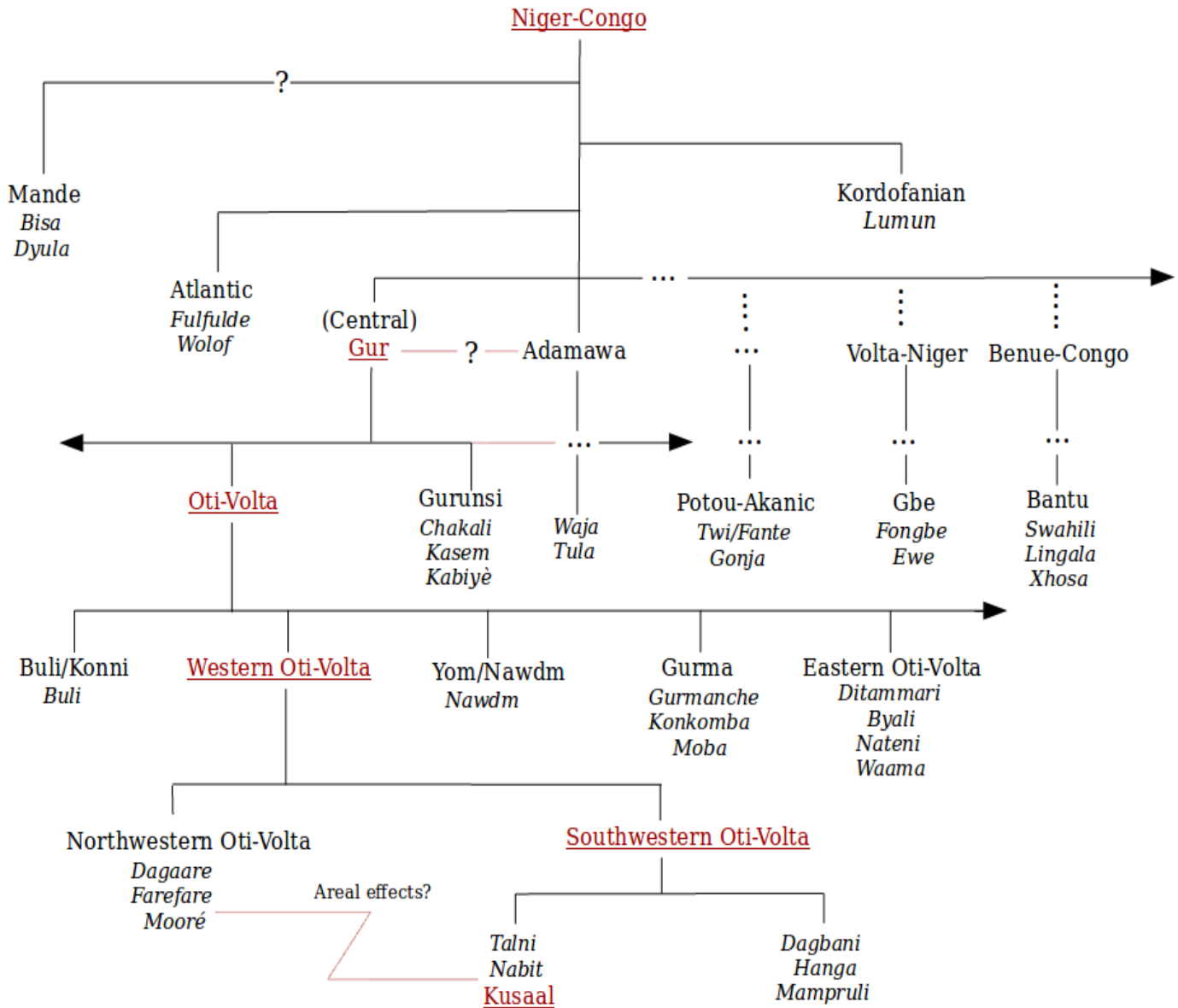
This chart shows approximate relationships between some of the Niger-Congo languages mentioned in this account, omitting all but a few branches and individual languages. Precise subclassifications are often uncertain. For example, the Mande languages are the most divergent group, and may well not belong to the Niger-Congo phylum at all; neither "Atlantic" nor "Kordofanian" seem likely to prove to be a real unity; Twi has been said to belong to a "Kwa" branch of Niger-Congo, but the evidence that this is a valid node is weak; the relationship between Gur and Adamawa is unclear; Eastern Oti-Volta shows much more internal diversity than Western Oti-Volta, and its validity is harder to establish. Much existing work on the phylum is vulnerable to the methodological criticisms expressed in e.g. Campbell

2013. The inclusion in Niger-Congo of groups like Mande and the Kordofanian languages is (so far, at least) a long-range hypothesis, rather than a well-established linguistic grouping like Indo-European or Uto-Aztecan. Some individual Niger-Congo branches show comparable internal diversity to Indo-European; moreover, West Africa has probably always been characterised by widespread multilingualism and borrowing between languages, not only of lexicon but also of morphology and syntax.

Nevertheless, there is firm evidence that the core of Niger-Congo is a true genetic grouping. Basic lexical items recur frequently, such as the roots seen in Kusaal *bīig*[a] "child", *dì*[+] "eat", *nū*[+] "drink", *kpì*[+] "die", *tìig*[a] "tree", *àtáň*[ʔ+] "three", *tòbʋr*[e] "ear", corresponding respectively to (for example) Fongbe *ví*, *ɖù*, *nù*, *kú*, *átín*, *àtɔ̀n*, *tó* (Lefebvre 2002.) Guthrie's Proto-Bantu reconstructions parallel all of these except "child": *-dé-* "eat", *-nú-* "drink", *kú-* "die", *-té* "tree", *-tátò* "three", *-tó* "ear"; his Proto-Bantu *-tóm-* "send" corresponds to Kusaal *tòm*[m] (the *e o* in these forms represent *ɪ ʋ*.) The Potou-Akanic language group, which includes Twi/Fante and Gonja, here shows a regular sound correspondence *t ~ s*: Twi *ɛsã* "three", *asõ* "ear", *soma* "send", Gonja *à-sá* "three", *kò-sówé* "ear."

In morphology, the most salient feature of Niger-Congo is the widespread presence of noun class systems, with frequent congruences in both form and meaning between the various core branches. The Kusaal human-plural noun suffix *-b*[a], for example, seen in *nīdɪb*[a/] "people", plural of *nīd*[a/], matches the Gonja human-plural prefix in *bá-sà* "people", plural of *é-sà* (Painter 1970), and the *-ba-* of Lingala *bato* "people", plural of *moto*, and of Xhosa *abantu* "people", plural of *umntu*.

Particular singular/plural pairings of noun class affixes, like the suffixes *r*[e]|*a*[+] seen in Kusaal *tòbʋr*[e] "ear", *tòba*[+] "ears", recur not only throughout Gur but much more widely; cognates of this particular pair appear as prefixes in Bantu, labelled 5/6 in the Bleek-Meinhof system (Nurse and Phillippson 2003.) Lingala has the cognate of Kusaal *tòbʋr*[e] in this very class: *litói* "ear", plural *matói*. In Swahili, the verbal subject prefixes for the corresponding class are singular *li* and plural *ya*; as in Kusaal, names of fruits (for example) usually belong to this class.

This particular correspondence of form and meaning is (so to speak) "cherry-picked"; although certain semantic categories are characteristically found in particular noun classes across Niger-Congo, the classes do not always correspond formally. Tree names in Kusaal nearly all belong to the particular class exemplified in the word for "tree" itself: sg *tìɪg*[a] pl *tìɪs*[e], but this does not correspond to the Bantu **mu/*mi* class 3/4 which typically contains tree names: Swahili *mti* "tree", plural *miti*. However, Kusaal, like its close relatives in the Western Oti-Volta subgroup (see below), has lost a class characteristically containing tree names, which is still preserved in other Oti-Volta branches, with the singular suffix **bʋ*: Buli *tìib*, Gurmanche *tībū* "tree"; this class probably is related to Bantu 3/4. The Eastern Oti-Volta language Ditammari has *mu-* for the affixes of this class (*mūtiē* "tree"), and

although its close relative Nateni has -*bu* (*tēēbu* "tree"), the corresponding pronoun is *mu* (Sambiéni p219.)

Among unpaired Kusaal flexional suffixes, the -*m*ᵐ characteristically seen with mass and abstract nouns like *kùˀəm*ᵐ "water" is probably cognate with the Bantu Class 6 prefix **ma*- when used for mass terms and liquids, e.g. Swahili *maji* "water", (Gurmanche *ñíma*) and the -*l*ᵉ of language names like *Kūsáàl*ᵉ matches Bantu Class 11 **lo*- in the same meaning; cf *Luganda*, the language of the *Baganda* people.

Similarities may also be seen in verbal derivation by suffixes, in this context usually called "verbal extensions", after the term used in the study of Bantu languages, in which such processes are typically highly productive. However, at the level of Niger-Congo, there can be problems with correlating the form and function of these suffixes, and some processes may even be areal phenomena, found even in Afro-Asiatic and Nilo-Saharan (see Hyman 2007.[3])

Mande shows no trace of noun class affixes or Niger-Congo-type verbal extensions, nor much in the way of vocabulary unequivocally cognate to core Niger-Congo. Some Kordofanian languages (e.g. Lumun, well described in Smits 2017) bear a striking typological similarity to core Niger-Congo, with robust noun class systems marked by often-paired prefixes and extensive agreement, and with a similar system of verbal extensions, but there is little correspondence in form, and once again, little lexical correspondence. Even with the Atlantic languages, typological resemblances tend to be the most apparent. On the other hand, the Potou-Akanic family to which Twi/Fante and Gonja belong is a well-established part of core Niger-Congo, preserving not only cognate vocabulary, as noted above, but clear traces of the core noun class system.

Many proposals for Niger-Congo subclassification rely heavily on lexicostatistics, a technique which is the more problematic as so many of the relevant languages are poorly documented; only detailed comparative work can provide a basis for accurate subclassification. In the case of some lower-level groupings much has been achieved already, very notably with Bantu; among languages closer to Kusaal, there is the work of Sambiéni 2005 on Eastern Oti-Volta. At a higher level, comparative work is generally at an early stage; see, however, numerous publications by Gabriel Manessy on Gur, and especially the publications of John Stewart on Potou-Akanic and its relationships with Bantu and Atlantic.

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3) For Gur, Hyman cites only Canu 1976 (pp180ff). Some of Canu's extensions involve segmentation of *CVC* roots as *CV+C*, where the *CV*- component is not attested as a root; others involve *CV:~CVC* alternations of the type described in 7.1.1.3 , where *CV:* allomorphs probably arose by lenition of the final consonant. However, Canu's *second*-position suffixes are true verb-deriving suffixes, with numerous cognates in other Western Oti-Volta languages; Kusaal is representative of the group 15.2 .

At the lowest level Kusaal belongs to a clear-cut language family called **Western Oti-Volta** by Manessy, for which Adams Bodomo has suggested "Mabia" (cf Kusaal *mà-bīig*[a] "sibling") as an alternative name. (This term, though attractive, is not a "shibboleth" word delineating the Western Oti-Volta group: cf Buli *mà-bìīk* id.) Many lexical items *are* specifically Western Oti-Volta, such as that exemplified by Kusaal *kù'ɵm*[m] "water"; other Oti-Volta languages show forms cognate to e.g. Gurmanche *ñíma* Buli *nyíam* (cf the Kusaal verb *nì*[+] "rain.") Morphologically, the Western Oti-Volta languages all share a strikingly simple and regular system of verbal inflection, with almost all inflecting verbs using the bare stem for the perfective aspect and adding a suffix *-da* for the imperfective.

A **Northwestern** subgroup of Western Oti-Volta includes Mooré (much the largest of all Gur languages with millions of speakers), Safaliba, the dialect continuum Dagaare/Waale/Birifor, and Farefare/Gurenne/Ninkare. I will gloss over some complex issues regarding the naming of the latter two languages and their speakers, referring to them simply as Dagaare and Farefare below.

Kusaal belongs to a **Southwestern** group which includes Nabit and Talni along with Mampruli, Dagbani, Hanga, Kamara and some similar smaller languages.

One feature distinguishing these languages from the Northwestern group is the presence of a specific verbal inflection *-ma* for positive imperatives. Various isoglosses cut across the Northwestern/Southwestern division, but most involve shared retentions, such as the preservation of noun-class based grammatical gender in Talni, Mampruli and Farefare but not Kusaal, Dagbani and Mooré 12 , the retention of contrastive vowel glottalisation in Kusaal, Nabit, Talni and Farefare only 5.2.2 , and the preservation of the contrast between non-initial /r/ and /d/ in Mooré, Agolle Kusaal (but not Toende), Talni and Nabit. The form of the singular pronoun "you" also cuts across the division, Kusaal going with the Northwestern languages:

Dagbani	*a*	Mampruli	*i*
Nabit	*i*	Talni	*i*
Kusaal	*fʋ̀*	Mooré	*fo*
Farefare	*fʋ*	Dagaare	*fʋ*

Judging by Buli *fi* the Kusaal and Northwestern forms seem conservative; Nawdm too has sg *bé* pl *né*. However, Gurmanche has 2nd singular *à*, plural *ì*, Konkomba has singular *i*, plural *nι*, and Moba has singular *ā*, plural *ī* for the non-contrastive pronouns but *fī*, *yīm* for contrastive. (In these plural forms, the *y-*/ø and the *n-* both derive from *ʼn-* 9.3.1.2 .) The Moba pronouns suggest that other languages may have independently levelled and remodelled an original system with distinct contrastive and non-contrastive forms.

Many other points of likeness between Kusaal, Nabit and Talni and the Northwestern group are probably due to extensive contact; there is evidence for this particularly with Farefare and Nabit and with Mooré and Kusaal.

A subdivision of Southwestern Oti-Volta itself seems justifiable. Mampruli, Dagbani and Hanga share a considerable simplification of the inherited vowel system, with loss of glottalisation, contrastive nasalisation and the high vowel distinctions *i*/*ɩ* *u*/*ʊ*, along with a lowering of original short *e* in closed syllables to *a*, resulting in the development of a series of contrastively palatalised velars. On the other hand, Nabit and Talni are probably the closest relatives of Kusaal. Material on Nabit and Talni is collected in the dictionaries on Tony Naden's website (see sources); the Nabit data show a particularly close resemblance to Toende Kusaal. Giffen 2015 is an account of the creation of a Nabit orthography; her interesting discussion of the social and cultural setting suggests that Nabit has been swept up into the cultural and political orbit of the more distantly related Farefare. She mentions Talni in passing, and implies that Talni speakers understand Nabit to some extent. Nabit and Talni resemble Kusaal in having lost inherited final short vowels in citation forms. This is of course very common cross-linguistically (and seen also in Moba, the neighbouring Gurma language), but there are example sentences in the dictionaries on Tony Naden's website which suggest that Nabit and Talni may retain the final vowel at the end of negated clauses and of questions, just as with Kusaal Apocope 3.2 :

Nabit	*La bi'imɛ.*	"It is ripe"
Toende	*La bɩ'ɩ me.*	
Agolle	*Lì bì'ig nɛ̄.*	
	3NH ripen**:PFV FOC**	

Nabit	*La na bu biigɛ.*	"It is not yet ripe."
Toende	*La nan bʊ bɩ'ɩge.*	
Agolle	*Lì nàm pʊ̄ bí'igē ⁺ø.*	
	3NH still **NEG.IND** ripen**:PFV NEG**.	

Talni	*Bunpɔk dɔɣam pu bɔkəra, buraa dɔɣam m bɔkət.*	
	"A woman's kindred is not divided, a man's kindred is divided."	
Toende	*Bʊpɔk dɔgɩm bʊ bɔkɩra, bʊraa dɔgɩm bɔkɩt.*	
Agolle	[*Pʊ̠'ā*] *dʊ́'àm pʊ̄ bʊ̠ákìdā ⁺ø,* [*dāʊ̠*] *dʊ́'amì‿ ø bʊ̠ákìd.*	
	Woman**:SG** kindred **NEG.IND** split**:IPFV NEG**, man**:SG** kindred **SER** split**:IPFV**.	

(The Toende forms are from Niggli's dictionary, with the inflected forms *bɔkɩra* and *bɩ'ɩge* constructed on the basis of his grammatical works.)

There are few examples, and the Talni data in particular seem equivocal, but if this unusual behaviour is indeed common to all three languages it would be

compelling evidence for a Kusaal-Nabit-Talni subgroup. There may be lexical isoglosses: for example, the common Kusaal verb *nɔ̄k*[e/] "pick up" (Toende *nɔ̀k*) has a cognate in Nabit *nok* but not, as far as I have been able to discover, in any other Western Oti-Volta language. However, as with the loss of vowel distinctions in Mampruli-Dagbani-Hanga, the family tree model may misrepresent a historical reality where similarities may often be due to intensive contact between distinct languages in a milieu in which many people are multilingual.

   All the Western Oti-Volta languages are in any case closely related (as is evident to the speakers themselves), to roughly the same degree as the various Romance languages. Claims of mutual comprehension between the languages are frequently overstated or outright wrong, however; misunderstanding probably arises from underappreciation of the prevalence of multilingualism. A Kusaal speaker cannot, for example, follow a conversation in Mampruli unless he or she has learnt the language, close relation to Kusaal though it is. (I had abundant opportunity to observe degrees of mutual intelligibility in our highly polyglot outpatient clinics.)

   Less close, but still evidently related, are other groups within the broader Oti-Volta family, such as the Gurma languages (including Gurmanche, Konkonba and Moba) and Buli. Several classifications show Buli as comparatively remote from Western Oti-Volta, but the detailed materials in Kröger 1992 suggest it is much closer to Western Oti-Volta than Gurma is; there are numerous cognates in vocabulary and many parallels in morphology.

   Both Buli and Gurmanche have three-tone systems, and the three underlyingly distinct Western Oti-Volta Tone Patterns 8.1 can be systematically matched with these, particularly with Buli 8.2.4 . However, although Western Oti-Volta Tone Pattern H corresponds to *high* tone in Buli, it corresponds to *low* in the Gurma languages:

Kusaal		Gurmanche	Buli
sāan[a/]	"stranger"	*càanō*	*(ní)cháanoā*
wáaf[o]	"snake"	*wà*	*wáab*
nīf[o/]	"eye"	*nùnbū*	*núm*

Western Oti-Volta Pattern O matches Gurmanche high and Buli mid, while Pattern L corresponds to Gurmanche mid and Buli low:

mɔ̄ɔg[o]	"grass"	*múagū*	*mūub* ("blade of grass")
pʋ̰ʔā[a]	"woman"	*púa*	*(ní)pōk*
tìɪg[a]	"tree"	*tībū*	*tìib*
dɔ̀ɔg[o]	"room"	*dīelī*	*dòk*
(*dèegò*	Farefare *id*)		

Exceptions occur; tonal mismatches are bolded in

*sāˀab*ᵒ	"TZ"	***sāābū***	*sāāb*
*bīig*ᵃ	"child"	*bígā*	***bíik***
*tʋ̀bʋr*ᵉ	"ear"	*tūbīlī*	***tūrī***
***ňwāaŋ*ᵃ**	"monkey"	*ŋmāāmō*	*wàaung*

Evidence from outside Oti-Volta suggests that it is languages with H tone corresponding to Pattern H (like Buli, Nawdm, and Western Oti-Volta) which have innovated: cf Chakali (Gurunsi) *tʃùòmó* "hare" = Kusaal *súˀɵŋ*ᵃ (Pattern H), *váà* "dog" = Kusaal *bāa*⁼ (Pattern O); Proto-Bantu *-nùà* "mouth" = Kusaal *nɔɔr*ᵉ/ (Pattern H), *-tó* "ear" = Kusaal *tʋ̀bʋr*ᵉ (Pattern L). If other innovations could be shown to correlate with this tonal inversion, it might form the basis of subgrouping within Oti-Volta, but a single phonological change, even as striking as this, seems insufficient. Moreover, it is not clear how the threefold tone pattern distinctions characteristic of Oti-Volta arose from a presumed Niger-Congo binary H/L opposition (for speculations see 8.7 .)

Like Gurma, the Eastern Oti-Volta languages are distinctly different from Western Oti-Volta in both morphology and lexicon. Sambiéni 2005 provides considerable detail on the language group, which shows much greater internal diversity than Western Oti-Volta. His work assumes that Manessy's Eastern Oti-Volta is a valid subgroup and attempts to reconstruct a protolanguage on that basis; it is not meant to establish the validity of the subgrouping itself, which is apparently based on the shared initial-consonant developments *g → k, *gb → kp and *ɟ → y along with *v → f, also seen in Gurma. Eastern Oti-Volta languages in fact lack *v gb ɟ* altogether, while *g* occurs only word-internally as an allophone of /k/; accordingly, this could be an areal phenomenon. Manessy has *gb → kw for the neighbouring language Bulba/Nõõtre, which he classifies with *Western* Oti-Volta.

Of the four Eastern Oti-Volta languages Byali, Ditammari, Nateni and Waama, Ditammari resembles Gurmanche and Konkomba in that nouns usually appear with noun class prefixes and suffixes together. Ditammari and Nateni show L tone corresponding to Kusaal Pattern H, like Gurma, whereas Waama shows H tone; Byali seems to show mid tones for the most part. Apart from the double affixing of Ditammari, all four Eastern languages have noun class systems which seem conservative rather than marked by common innovations. In verb flexion, Ditammari and Nateni resemble each other closely, in some verbs opposing a perfective ending *-a* to an imperfective ending which is *-i* after alveolar consonants but *-u* otherwise, in others changing the stem tones, or dropping a derivational suffix from the perfective to make the imperfective; many individual verbs behave alike in both languages. Byali has a much simpler system, opposing a perfective ending *-sə* to imperfective *-u* (including after alveolars.) In Waama, apart from smaller group of verbs which oppose final *-i* for perfective to *-u* for imperfective (once again), imperfectives add a

suffix of the form *-ri -di* or *-ti* to the perfective form. This is reminiscent of Western Oti-Volta; however, even the Gurma languages, among a great variety of ways of inflecting verbs for aspect, have imperfective suffixes of a similar form, e.g. Konkomba *-dɛ*. There are some lexical isoglosses uniting Waama with Western Oti-Volta and Buli over against the other Eastern languages and Gurma, e.g. Waama *wōmmā* "*entendre*" (= Kusaal *wʋ̀m*ᵐ, Buli *wom*) as against Byali *cèsì* or *yō*, Ditammari *kèè* or *yō*, Nateni *yēkà*, Gurmanche *céngì* "*écouter*", and Waama *cáárō* "*forgeron*" (= Kusaal *sāe̯ň*⁺, Buli *chòa-bíik* [*chùōk* "forge"]), versus Byali *má-máárāū*, Ditammari *ōmáátà*, Nateni *málō*, Gurmanche *mááno*.

There is much less similarity between Oti-Volta as a whole and the other main group of Central Gur languages, the Gurunsi languages like Chakali, Kasem and Kabiyè. The division between Gur in a broader sense and the Adamawa languages has been called into question, with suggestions that Oti-Volta and Gurunsi may even be essentially coordinate members of a continuum of families including at least some "Adamawa" subgroups: see e.g. Kleinewillinghöfer 1996, which references studies suggesting that the Adamawa languages Waja and Tula are closer to the Gurunsi languages than to other parts of "Central Gur." This supposed Gur-Adamawa group is sometimes called "Savannas"; most accounts still retain Central Gur as a node, comprising at least Oti-Volta and Gurunsi. Further progress on this issue will probably only come about after more descriptive work on Adamawa languages.

A few languages are usually classified as belonging to Central Gur, but not included in either Oti-Volta or Gurunsi. For the most part they are poorly documented; an exception is the Koromfe language of Burkina Faso (Rennison 1997), which is usually said to be closer to Oti-Volta as a whole than to Gurunsi, though Manessy's work often shows lexical correspondences between Koromfe and Gurunsi rather than Koromfe and Oti-Volta; he himself makes it a coordinate branch of Central Gur alongside Oti-Volta and Gurunsi.

Various other languages have been previously taken as Gur on the basis of relatively nonspecific typological criteria, especially the use of noun class suffixes rather than prefixes. This is notably the case with the Senoufo languages, which are now often held to constitute a relatively early and divergent branch of Niger-Congo.

1.2.4 External Influences

In general, the languages of neighbouring regions have not obviously influenced Kusaal. Moba, for example, the neighbouring eastern language, has had no evident effect on Kusaal. The northern neighbours of the Kusaasi are the Bisa; indeed the Kusaal word for "north" is literally "Bisa Country" 37.3 . Bisa territory is largely in Burkina Faso but extends just over the Ghanaian border, and many Bisa people have also settled in the villages among the Kusaasi, and in Bawku. However, Bisa people in Ghana use Kusaal as the areal lingua franca, and few others can communicate in their Mande language, which is at most remotely related to its Gur neighbours; once again, there seems to be no evidence of influence on Kusaal. In the west, Nabit and Talni resemble Kusaal closely enough that it is difficult to distinguish borrowing from common inheritance, but there is reason to suspect **Farefare** influence on Nabit and perhaps on Toende Kusaal too 1.2.3 . With the neighbouring southern language, **Mampruli**, the issue is further complicated by the political history of the area 1.1 , and by the fact that many local Mamprussi speak Kusaal rather than Mampruli, but some likely loanwords are identifiable. However, most loanwords in Kusaal 20.1 come from the two other languages most widely spoken within the Kusaasi area itself: Mooré and Hausa.

Mooré is the language of the Mossi, the largest single ethnic group of Burkina Faso. Many Mossi 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. Early Christian missionary work among the Kusaasi used Mooré materials, leading to some borrowing and calquing. Examples include *Wínàʾam*[m] "God" and *fāaǎgíd*[a] "saviour", where the forms may be borrowed via Toende Kusaal rather than from Mooré directly. A number of West African *Wanderwörter* have probably also reached Kusaal via Mooré.

Most identifiable loanwords in Kusaal come from **Hausa**. The major centres of Hausa are in northern Nigeria and in Niger; it is the largest African language after Arabic by number of first-language speakers and is used by millions more as a lingua franca in the savanna zone of West Africa. In northern Ghana it has strong associations with Islam and with trade; it is usually a good guess to use Hausa to greet a stranger wearing Muslim dress. Hausa is an Afro-Asiatic language of the Chadic family, and is thus remotely related to Arabic and Hebrew but completely unrelated genetically to Kusaal; nevertheless, in matters of idiom, semantic range and even the kinds of distinctions encoded in its syntax and morphology, it shows numerous resemblances to its Niger-Congo neighbours. There are many ethnic *Hàusàawaa* in the Kusaasi area, especially in Bawku, but the language which has influenced Kusaal is the vehicular *Gaanancii* of northern Ghana. Though mutually intelligible with Standard (Kano) Hausa, *Gaanancii* among other differences lacks

grammatical gender, uses [z] for [d͡ʒ], monophthongises diphthongs, and drops the distinction between the glottalic consonants and their plain counterparts. Thus Standard Hausa *Kin jì kôo?* "Do you understand?" (addressing a woman) becomes *Kaa zì kôo?* Such features are largely the result of simplification by second-language speakers, rather than characteristic of Western Hausa dialects.[4] Kusaal has far fewer Hausa loans than Dagbani or Mampruli, probably due to a much slighter exposure to Islam. (The Dagomba royal clan has been Muslim for centuries, though most Dagomba people are still, like the Kusaasi, adherents of traditional African beliefs and customs.) The use of Mooré alongside Hausa as an interethnic language in the far north of Ghana is probably also a factor.

The other major lingua francas of Ghana, Twi/Fante ("Akan") and English, have contributed comparatively little to Kusaal to date. In the mid 1990's few people outside Bawku were very proficient in either language unless they had been to school or lived in the south of the country, and very few native speakers of those languages can speak Kusaal. 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 rather than mother tongues.[5]

As throughout the West African savanna, there are nomadic Fulɓe in the Kusaasi area, chiefly engaged in cattle-raising. Traditional cataract surgery ("couching") is a Fulɓe speciality in this region; the payment asked for is often a cow. There seems to be no evidence of borrowing from Fulfulde; *nagge,* plural *na'i* "cow" strikingly resembles Kusaal *náaf⁰* (← **náagfʋ*) plural *nīigí⁺*, but this cannot be a loan into Kusaal itself, because the word and its distinctive flexion can be reconstructed to a stage prior to the Western Oti-Volta protolanguage (cf Buli *nááb* pl *níígā*.)

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4) The far-western dialect of Ader in Niger (Caron 1991) has grammatical gender, though this is lacking in the eastern Hausa of Zaria and Bauchi, which nevertheless still use feminine pronouns for female persons (Caron 2013). Even in Nigeria, Hausa as an interethnic language lacks grammatical gender: I was once actually corrected by a Hausa mother-tongue speaker for using grammatical gender, on the grounds that it sounded unnatural in the speech of a foreigner.

5) I once communicated (after a fashion) with a patient via three intermediaries, the last of whom, a colleague, translated between Mooré and English for me. None of my colleagues could even identify the patient's language. The "middle" language was Dyula, a Mande language which is itself an important West African lingua franca; it is part of a dialect continuum which also includes Bambara, Maninka and Mandinka.

1.3 Outline of Kusaal Grammar

Orthographic symbols represent IPA values except as follows:

Long vowels are written with double symbols. ˀ and ñ represent glottalisation and nasalisation of adjacent vowel symbols.

ɪ ʋ represent [ɪ] [ʋ]. As non-initial elements of diphthongs they appear only in *aʋ* [aʋ] and its glottalised and nasalised counterparts.

e o also represent [ɪ] [ʋ] everywhere except immediately after consonant symbols, where they represent [e] [o], found exclusively as a result of the lowering effect of Prosodic Clitics on underlying word-final *ɪ ʋ* 9.2 . After the raised dot symbol · the realisation is always [ʋ] 5.1 9.3.1.1 .

u̯ represents [w] and *i̯ e̯* both represent [j] as components of diphthongs.

kp and *gb* represent the labiovelar stops [k͡p] [g͡b]; *y* represents [j].

k t p ŋ always represent clusters /kk/ /tt/ /pp/ /ŋŋ/ when word-internal between vowels, but they are realised single except in very slow speech.

Acute, macron and grave signs mark tone 6.1 .

Superscripts (e.g. *bīig*ᵃ "child") represent part of a word which only surfaces before a Prosodic Clitic, and in modified form before Liaison 3.2.1 .

When interlinear glosses are used, the symbols *ø* and *⁺ø* represent elements with no segmental realisation of their own, and ‿ marks Liaison.

Kusaal is in most respects a typical Western Oti-Volta language. It is chiefly distinctive within Western Oti-Volta in having lost word-final short vowels even in citation forms (**Apocope** 3.2), 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 *biiga* "child", the cognate Kusaal word *bīig*ᵃ normally appears in the **Short Form** (SF) *bīig*. However, this change is not a simple historical matter, like the loss of the earlier word-final vowel in French *bien* ← Latin *bene*; the Kusaal final vowel is still present in certain contexts. For example, it reappears clause-finally when the clause contains a negation or ends a question, with the final word appearing as a **Long Form** (LF):

Ò	*à*	*nɛ̄*	*bīig.*	"He/she's a child."
3HU	**COP**	**FOC**	child**:SG**.	

Ò	*kā̄ˀ*	*bīiga*	*⁺ø.*	"He/she is not a child."
3HU	**NEG.BE**	child**:SG**	**NEG**.	

Ò	*à*	*nɛ̄*	*bíigàa*	*⁺ø?*	"Is he/she a child?"
3HU	**COP**	**FOC**	child**:SG**	**PQ**?	

So too at the end of vocative phrases:

M̀   *bīiga*   ⁺*ø!*   "My child!"
1SG child:**SG VOC**!

Word-final consonant clusters resulting from Apocope are reduced to the first consonant:

Lì *kā*ʔ   *gbīgımne* ⁺*ø.*   "It's not a lion."
3NH NEG.BE lion:**SG**   **NEG**.

Lì *à*   *nɛ̄ gbīgım.*   "It's a lion."
3HU COP FOC lion:**SG**.

This appearance of surface untruncated forms rather than truncated is regarded as being triggered by following **Prosodic Clitics** 9.2 ,which have no segmental form of their own but show their presence by this effect on the preceding word form. There are three different Prosodic Clitics, Negative **NEG**, Vocative **VOC** and Interrogative (**PQ/CQ**), with different effects on preceding vowel length and tone. In citing word forms, superscripts 3.2.1 will be used to write the parts of words which are dropped everywhere except before Prosodic Clitics and Liaison: *bīig*ᵃ "child", *gbīgım*ⁿᵉ "lion", *kūk*ᵃ "chair", *dūk*ᵒ/ "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 two series of diphthongs, along with emic contrasts among epenthetic vowels. Thus

vīidé   "owls"

usually appears with Apocope as the Short Form *vīid* with the same long vowel as *bīis* "children", shortened from *bīise*, while the singular Long Form

vīugó   "owl"

has *iu* for *ii* because of the rounding effect of final vowel, to which the velar *-g-* is transparent; after Apocope this becomes the Short Form

vīug   "owl"

After the deletion of the final -*o*, the diphthong itself now contrasts with the vowel of *bīig* "child", shortened from *bīiga* as seen above. Similarly

>   *āaňdɩga*   "black plum tree"

has the default epenthetic vowel *ɩ* before the flexion, and appears as *āaňdɩg* after Apocope, whereas

>   *gàadʋgo*   "passing" (gerund)

has rounding of the vowel to *ʋ* before the flexion **-go**, and after the loss of the final vowel this rounding itself becomes contrastive in the usual Short Form *gàadʋg*.

Certain **Liaison** Words 9.3.1 cause a preceding word to appear, not as the usual clause-medial Short Form, but as a Long Form modified by the loss of all original vowel quality contrasts in the final mora. All non-contrastive personal pronouns fall into this category, for example:

>   *M̀   pū   bɔ́ɔdā* ⁺*ø.*   "I don't want to."
>   **1SG NEG.IND** want   **NEG**.   Long Form *bɔ̀ɔdā* preceding Negative Clitic.
>
>   *M̀   bɔ́ɔdī‿ bá.*   "I love them."
>   **1SG** want   **3PLO**.   Modified Long Form *bɔ̀ɔdī* before Liaison.
>
>   *M̀   pū   zábē   ⁺ø.*   "I haven't fought."
>   **1SG NEG.IND** fight:**PFV NEG**.   Long Form *zàbē* preceding Negative Clitic.
>
>   *M̀   zábī‿   bá.*   "I've fought them."
>   **1SG** fight:**PFV 3PLO**.   Modified Long Form *zàbī* before Liaison.

Apocope reduces several Liaison Words of the underlying form *CV* to a single consonant. Thus with *bɔ̀ɔd*ᵃ "wants, loves" and *f*ᵒ "you (sg)":

>   *M̀   pū   bɔ́ɔdī‿ fó   ⁺ø.*   "I don't love you."
>   **1SG NEG.IND** want   **2SGO NEG**.   Long Form *fo* of the pronoun "you (sg)"
>
>   *M̀   bɔ́ɔdī‿ f.*   "I love you."
>   **1SG** want   **2SGO**.   Short Form *f* of the pronoun "you (sg)"

The locative postposition *n*ᵉ is another such word. It is conventionally written solid with the preceding host word:

Lì   kā^ʔ   kūka   ⁺ø.   "It's not a chair."
3NH NEG.BE chair**:SG NEG**.

Lì   kā^ʔ   kūkɪné   ⁺ø.   "It's not in a chair."
3NH NEG.BE chair**:SG:LOC NEG**.

kūkɪn   "in a chair"
chair**:SG:LOC**

Lì   kā^ʔ   dūkó ⁺ø.   "It's not a pot."
3NH NEG.BE pot**:SG NEG**.

Lì   kā^ʔ   dūkínē   ⁺ø.   "It's not in a pot."
3NH NEG.BE pot**:SG:LOC NEG**.

dūkín   "in a pot"
pot**:SG:LOC**

The third person singular human gender object pronoun ⁰ "him/her" has the Long Form *o* [ʊ] which is deleted entirely by Apocope, producing a Short Form which is segmentally *zero*. Its presence is still shown by the rounding of the preceding host-word-final vowel mora from [ɪ] to [ʊ], which is always written (with a preceding raised point) as ·*o*.

Compare the forms with *f*⁰ "you (sg)"

M̀   pū   bɔ́ɔdī‿ fó   ⁺ø.   "I don't love you."
1SG NEG.IND want   **2SGO   NEG**.

M̀   bɔ́ɔdī‿ f.   "I love you"
1SG want   **2SGO**.

with the forms with ⁰ "him/her":

M̀   pū   bɔ́ɔd·óo   ⁺ø.   "I don't love him/her."   [m̩pʰʊbɔːdʊː]
1SG NEG.IND want**:3HUO   NEG**.   Long Form *o* of the pronoun "him/her"

M̀   bɔ́ɔd·ō‿ ø.   "I love him/her."   [m̩bɔːdʊ]
1SG want   **3HUO**.   Short Form ø of the pronoun "him/her"

A Liaison Word form ^ya of the 2pl *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 deleted 3.2 :

> *Gɔ̀sɪm!*   "Look!"
> Look:**IMP**!

> *Gɔ̀sɪmī‿ ø!*   "Look ye!" by Apocope from *gɔ̀sɪmīyá*
> Look:**IMP 2PLS**!

Liaison words are not all enclitic. Personal pronouns used as subjects or as proclitic determiners of a following noun or postposition also cause this inhibition of Apocope in the *preceding* word, as does one proclitic particle of the form *à* and all words beginning with certain derivational prefixes 9.3.2 .

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   zūgʊ́‿   ø   zàbɪd   lā   zúg*
> **1SG** head:**SG COMP** fight:**IPFV ART** upon
> "because my head hurts" (Complementiser *ǹ*)

> *M̀   zūgʊ‿   ø   zábìd.*   "My head hurts." (Serialiser *n*)
> **1SG** head:**SG SER** fight:**IPFV**.

These various "disappearing" Liaison Words have unsurprisingly resulted in considerable confusion in word division in the traditional orthography, and are largely responsible for the many cases where clause-medial words acquire a mysterious short-vowel "ending." Sometimes such words are mistaken for clause-final type Long Forms and written accordingly.

Apocope has not only complicated Kusaal phonology, but has also affected morphology, as various strategies are adopted to avoid ambiguities that would otherwise result from final vowel loss and consonant cluster reduction. Expected flexions may be replaced by others of the same meaning but originally from different paradigms, or regular consonant assimilation processes may be blocked. In other cases, new untruncated forms have been created as the shortened form of one flexion has been reinterpreted as the homophonous shortened form of a different flexion.

Kusaal differs from most local languages in showing contrastive **glottalisation** of vowels; however, this feature is shared among Western-Oti Volta languages with neighbouring Nabit, Talni and Farefare 5.2.2 .

Agolle Kusaal shows a systematic mismatch between phonetics and phonemics in the vowel system, because of **Agolle Vowel Breaking** 5.1.1 of earlier short and long *ɛ ɔ* vowels, still preserved as phonetic monophthongs in the Toende Dialect. This has produced four monophthongal phonemes *i̯a y̯a iə ʊθ* which are realised phonetically as diphthongs; as in the traditional orthography they are written in accordance with the realisation, but the orthography is to be regarded for phonemic purposes as using *digraphs* to write monophongs. On top of these complications, Kusaal has developed an elaborate and asymmetrical system of phonemic diphthongs from fusion of vowels following deletion of intervocalic **g* and from the final fronting and rounding effects already mentioned; these processes all remain active in the morphophonemics.

Kusaal is **tonal**, like its relatives and neighbours, and indeed the vast majority of African languages south of the Sahara. The tone system is structurally very like that of Dagbani (a typical terracing system with H and L tones and emic downsteps) but is rather different in realisation because original H before L or downstep has become a new toneme, higher than original H. Thus, original H has become M (Mid), and the new toneme takes the place of H.

There is a frequent **tone overlay** 24.6.1.1 affecting Verbal Predicators in main clauses, and pervasive **tone sandhi** 10 phenomena, one only affecting nominals and adverbs in certain Noun Phrase or postpositional constructions, and one which occurs regardless of syntax after most unbound words.

Acute, macron and grave mark H, M and L respectively. The macron and grave apply not only to the mora on which they are placed, but to all following morae within the same word up to another tone mark. An unmarked mora after an acute mark is, however, toneless, and the preceding H toneme is realised over both morae 6.2.1.

Full word stems are built around a root consisting of a stressed short or long vowel, usually preceded by (at most) one consonant, and followed by consonants separated by unstressed epenthetic high vowels, or forming very limited sets of two-member clusters.

dīʔəsídìb	"receivers"
bāŋɪdɪb	"wise men"
gbīgɪmne	"lion" (longer form, as above)
áñsìb	"mother's brother"

The only consonant clusters possible within stems following the root are *kk tt pp ŋŋ nn mm ll mn*, of which *kk tt pp ŋŋ* are written and usually realised as single. Consonant clusters cannot occur word-initially or finally, except for final geminate *-mm* in Long Forms 9.2 (including "Apocope-Blocked" 7.4 forms like the quantifier *pāmm* "a lot") where there has been loss of syllabicity in an originally syllabic final *m*. (On *kp gb ñ ʔ* see the note on orthography above.)

Many nominal words have a **nominal prefix** beginning a stem which in other respects has just the same structure as an unprefixed stem. Nominal prefixes take the forms *CV-* or *CVn-*, less often *CVlɩn-* or *CVsɩn-*. Nominals with prefixes can thus contain *-nC-* clusters at the junction between the prefix and the rest of the stem:

> *pīpīrɩg*   "desert"
>
> *dìndɛ̄og*   "chameleon"

Other word-internal clusters are confined to loanwords, though two-member consonant clusters occur freely within compounds, reflecting the fact that these are formed of component words with Apocope after each one.

Flexional **suffixes** have only a three-way vowel contrast *a/ɩ/ʋ*; this is also true of prefixes. Flexional suffix vowels are lost by Apocope in the surface Short Forms; when they are retained before Prosodic Clitics, *ɩ ʋ* appear as *e o* [e] [o]. Many different two-member consonant clusters may occur across word division because of the deletion of word-final short vowels by Apocope:

> *Gbīgɩm lā dāa kʋ̄ʋd   bún   lā.*
>
> Lion:**SG ART TNS** kill:**IPFV** donkey:**SG ART**.
>
> "The lion (*gbīgɩm*[ne]) was killing (*kʋ̄ʋd*[a/]) the donkey (*bʋ̀ŋ*[a]) ."

Most common **particles** are short clitics, like the postposed article *lā* and the preverbal tense marker *dāa* in this example.

Flexion is entirely by suffixing. Productive stem derivation is also effectively all suffixal. Nominal stem prefixes do not usually have identifiable meanings and are not involved in regular derivational processes, but derivational prefixes derived from older flexions do occur in some quantifiers and adverbs 18.2.1 19.

Kusaal flexional morphology is underlyingly fairly straightforward, but there are numerous surface complications due to word-internal consonant deletions, cluster simplifications, and to the pervasive effects of final vowel deletion. These words, given in the usual Short Forms, all belong to the same *g*[a]|*s*[e] Noun Class:

bīig	"child"	*bīis*	"children"
bʋ̄ʋg	"goat"	*bʋ̄ʋs*	"goats"
sàbùa	"lover"	*sàbùɵs*	"lovers"
nūa	"hen"	*nɔ̄ɔs*	"hens"
kʋ̄k	"chair"	*kʋ̄gʋs*	"chairs"
zàk	"compound"	*zàˀas*	"compounds"
dàˀa	"market"	*dàˀas*	"markets"
bʋ̀ŋ	"donkey"	*bʋ̀mɩs*	"donkeys"
tɛ̄ŋ	"land"	*tɛ̄ɛňs*	"lands"

Nominal flexion is typically Gur, with noun stems inflected for 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 many such systems, the classes show a partial but very far from complete correlation with meaning. The bare stem is itself an important part of the paradigm, because (as is typical for Oti-Volta 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 **post-determining pronoun**:

būʋg[a] "goat"	+ *pìəlɪg*[a] "white"	→ *bʋ̀-pìəlɪg*[a]	"white goat"
būʋg[a] "goat"	+ *sīʔa*[+] "another"	→ *bʋ̀-sīʔa*[+]	"another goat"
kūk[a] "chair"	+ *pìəlɪg*[a] "white"	→ *kʋ̀g-pìəlɪg*[a]	"white chair"
kūk[a] "chair"	+ *kàŋā*[+/] "this"	→ *kʋ̀g-kàŋā*[+/]	"this chair"

In this grammar compounds are hyphenated, as above.

In most Gur languages the noun classes form a grammatical gender system, with pronoun and adjective agreement. Kusaal, like most other Western Oti-Volta languages, has abandoned grammatical gender in favour of a simple natural gender opposition of persons (people, supernatural beings) to non-persons. Noun classes remain central to nominal 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 "Variable Verbs", using the bare stem for the **perfective** aspects and marking the **imperfective** aspects with a single suffix -*d*[a]. There are few real irregularities, though unobvious consonant changes and vowel deletions again complicate the surface picture:

kū[+]	perfective	"kill" ([+] means that the vowel is long in the LF)
kūʋd[a/]	imperfective	
ňyɛ̄[+]	perfective	"see"
ňyɛ̄t[a/]	imperfective	
vūl[e]	perfective	"swallow"
vūn[na/]	imperfective	

Variable Verbs also have an imperative flexion -*m*[a], appearing only in positive polarity when the verb carries the tone overlay of Independency Marking (see below.)

"Invariable Verbs" typically express body positions, relationships, or predicative adjectival senses. They have only a single finite form, which generally behaves like the imperfective of a Variable Verb:

Ò dìgɪ nɛ̄.		"She's lying down."
3HU be.lying.down **FOC**.		

Ò mɔ̀r bʊ́ŋ.		"She has a donkey."
3HU have donkey:**SG**.		

Ò gìm.		"She's short."
3HU be.short.		

There are two **verbs "to be"**: *bɛ̀* "exist, be in a place" and *àe̯ñ* "be something/somehow." The latter verb is usually followed by the focus particle *nɛ̄* (in this case focussing the complement) whenever this is syntactically permitted, and then loses both the final e̯ and the nasalisation:

Ò à nɛ̄ bīig.		"He's a child."
3HU 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' bīiga ⁺ø.		"He's not a child."
3HU 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:

kʊ̄ʊb[o/]	"killing"
kʊ̄ʊd[a/]	"killer"
kʊ̄ʊdíŋ[a]	"killing implement"

Compound formation, besides being the regular way of adding adjectives to nouns, is common in Noun Phrase formation generally; there are many set expressions, but compounds of all kinds can be created freely:

gbìgɪm-kʊ̄ʊd[a/]	"lion-killer"

Syntactically, Kusaal is quite representative of Gur in general. It is strictly
SVO, with indirect objects preceding direct objects:

> *M̀ tís du̯ʔátà búŋ lā.*
> **1SG** give:**PFV** 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**, *nɛ̄* "with" and *wōʋ* "like" (*nɛ̄* also links NPs and
some AdvPs in the sense "and", but *kà* is "and" when linking VPs and clauses.)
However, in other respects Kusaal prefers head-final structures, with **possessors**, for
example, always preceding their heads:

> *m̀ bīig*   "my child"
> *dāu̯ lā bîig*   "the man's child"

Adverbs often appear preceded by NP determiners as **postpositions**:

> *tɛ́ɛbʋ̀l lā zúg*   "onto the table" (*zūg* "head")

The Liaison Word *n*ᵉ mentioned above is a very general locative postposition. It
is written solid with the preceding word, and in its Short Form is reduced to *n*:

> *mʋ̀ʔarīn*   "in a lake" (*mʋ̀ʔare* "lake", Long Form)
> lake:**SG:LOC**

The verb is preceded by proclitic particles expressing tense, mood and polarity.
There is no agreement with any Noun Phrase, whether for person or number [see
30.2.3 for a marginal exception for some speakers]:

> *Gbīgɩm lā dāa kʋ̄ búŋ lā.*
> Lion:**SG ART TNS** kill:**PFV** donkey:**SG ART**.
> "The lion killed the donkey."

> *Gbīgɩm lā dāa pʋ̄ kʋ̄ búŋ láa ⁺ø.*
> Lion:**SG ART TNS NEG.IND** kill:**PFV** donkey:**SG ART NEG**.
> "The lion didn't kill the donkey."

> *Gbīgɩma lā dāa kʋ̄ búŋ lā.*
> Lion:**PL ART TNS** kill:**PFV** donkey:**SG ART**.
> "The lions killed the donkey."

Gbīgɪm lā sá kʋ̀   búŋ   lā.
Lion:**SG ART TNS** kill:**PFV** donkey:**SG ART**.
"The lion killed the donkey yesterday."

M̀   dāa ňyɛ̄   gbīgɪm lā.   "I saw the lion."
1SG TNS see:**PFV** lion:**SG   ART**.

Bà dāa ňyɛ̄   gbīgɪm lā.   "They saw the lion."
3PL TNS see:**PFV** lion:**SG   ART**.

The **focus** particle *nɛ̄* appears frequently after a verb to focus *aspect*; this, for example, distinguishes Bounded from Unbounded Imperfective:

Nīdɪb   kpîîd.   "People die."
Person:**PL** die:**IPFV**.

Nīdɪb   kpîîd   nɛ̄.   "People are dying."
Person:**PL** die:**IPFV FOC**.

The particle generally has this meaning when the verb allows it and no unbound words intervene between verb and particle, but with verbs which by default express an abiding state, like *àẹ̌ň* "be something/somehow" above, the aspect-focus sense is usually not possible, and the particle must be interpreted as focussing a verb phrase constituent.

As with many West African languages, many clauses join more than one verb phrase to form **serial constructions**. Kusaal uses the linker particle *n* **SER** to introduce an additional verb phrase; in this example *tìs* "give" is used, as very often, simply as means of adding an indirect object:

M̀   dāa kúès   bʋ̀ŋʋ‿   ∅ tís   dʋ̟ˀátà.
1SG TNS sell:**PFV** donkey:**SG SER** give:**PFV** doctor:**SG**.
"I sold a donkey to Doctor."

Kusaal is interesting in that the Verbal Predicate is specifically marked not for subordination but for its absence. Main clauses and Content Clauses have **Independency Marking** 24.6 of the first Verbal Predicator, marked by a **tone overlay** affecting the first word of the Predicator, by the tonal behaviour of subject pronouns, a special imperative flexion and a particle *yā* which follows clause-final perfectives. The tone overlay marker is absent in negative polarity or Unrealised Mood and with various preverbal particles. Independency Marking itself is

completely absent after the clause linker particle *kà* even in *coordinating* function in narrative:

> *Ò   zàb   dʉʔátà.*   "He's fought the doctor."
> **3HU** fight:**PFV** doctor:**SG**.

> *Ò   gɔ̀s   dʉʔátà.*   "He's looked at the doctor."
> **3HU** look.at:**PFV** doctor:**SG**.

with the verbs *zàb gɔ̀s* showing identical tones because of the overlay; contrast the different tones on the verbs in

> *Kà   ò   záb   dʉʔátà.*   "And he's fought the doctor."
> And **3HU** fight:**PFV** doctor:**SG**.

> *Kà   ò   gɔ̄s   dʉʔátà.*   "And he's looked at the doctor."
> And **3HU** look.at:**PFV** doctor:**SG**.

If tone overlay is present, it may be accompanied by segmental effects; for example, imperatives of inflecting verbs then take a special flexional ending *-m*ᵃ:

> *Dā   gɔ̄s   dʉʔátāa* ⁺*ø!*
> **NEG.IMP** look.at:**PFV** doctor:**SG NEG**!
> "Don't look at the doctor!" (Overlay absent with the negative)

but   *Gɔ̀sɪm   dʉʔátà!*   "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 *yàʔ* "if" after their own subject, appear before the main clause subject:

> *Fʊ̀ yáʔ bɔ̀ɔd, m̀ ná tīsɪ‿   f   bʊ́ŋ.*
> **2SG** if   want, **1SG UNR** give:**PFV 2SGO** donkey:**SG**.
> "If you want, I'll give you a donkey."

Manner or place adjuncts can only be placed before the subject by preposing them with *kà* via an elliptical clefting construction (see below.)

Clauses are often downranked by insertion of the complementiser particle *ǹ* (realised often as segmental *ø*) after the subject. So with relative clauses:

> *Gbīgɩm lá␣ø   dāa kʊ̄   búŋ-sīˀa   lā␣ø ňwá.*
> Lion:**SG ART COMP TNS** kill:**PFV** donkey-**INDF.NH ART SER** this.
> "This is the donkey that the lion killed."

Relative clauses show a number of interesting features. They may be internally-headed:

> [*Paul ǹ   sɔ̄b   gbáṳŋ-sīˀa   n   tís   Efesus dím   lā*]␣ø ňwá.
> Paul **COMP** write:**PFV** letter-**INDF.NH SER** give:**PFV** Ephesus one.**PL ART SER** this.
> "This is [the letter Paul wrote to the Ephesians]." (NT heading)

where *gbàṳŋ-sīˀa* is *gbàṳŋ* "book" compounded with the post-determining pronoun *sīˀa* which functions as a relative, and the entire sequence *Paul ... lā* is the relative clause. The "complementiser" is not the pronoun itself but the particle *ǹ* (tonally distinct from Serialiser *n*) which follows the subject, so that the functions of a relative pronoun are here formally divided into two separate parts. Kusaal has, however, also developed constructions where the complementiser directly follows a pronoun which is a possessor or an object within the relative clause:

> *dàṳ-kànɩ␣ø   pṳˀā   kpí   lā*
> man-**DEM.SG COMP** wife:**SG** die:**PFV ART**
> "the man whose wife has died"

Subordinate clauses may also be introduced by linker particles. The clause linker *kà*, which often means "and", is also frequently formally subordinating. The sense is often that of a non-restrictive relative clause:

> *Lì à nē̄ gbīgɩm lá kà   m̀ ňyɛ̄t.*
> **3NH COP FOC** lion:**SG ART** and **1SG** see:**IPFV**.
> "It's the lion I see."

Even when *kà* is coordinating, it has effects on clause structure which resemble those seen in subordination, with Independency Marking absent.
　　Kusaal **narrative** links clause after clause with *kà* in a way somewhat reminiscent of Biblical Hebrew, regularly omitting tense marking so long as the action is preceding in sequence, but including it when there are descriptive passages or "flashbacks." In this passage the past-tense marker *dà* occurs only in the first clause. The second *kà* is preposing the time expression *dāar yīnní*, part of a elliptical clefting construction (see below), while the first and third are carrying on the narrative:

*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-Pū̃-zɔ́t-yɛ̄l   dá   à   nɛ́   ò   sàam   bîig   mà̰ʔaa.
PERS-NEG.IND-fear:**IPFV**-thing:**SG TNS COP FOC 3HU** father:**SG** child:**SG** only.

Kà   dāar   yīnní kà   bīig   lā nɛ́   ò   sàam   zíñ̃ʔi‿ø sɔ̃̌ŋsɪd.
And day:**SG** one   and child:**SG ART** with **3HU** father:**SG** sit   **SER** converse:**IPFV**.

Kà   bīig   lā tí   yɛ̀l   ò   sàam   yɛ̄ ...
And child:**SG ART** afterwards say:**PFV 3HU** 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

Kusaal **Content Clauses** are formally identical to main clauses, including
Independency Marking, but they contain personal pronouns altered as in indirect
speech. Content Clauses are used not only for reporting speech but very generally
with verbs expressing communication or thought. Most often they are introduced by
yɛ̄ "that." There are special **logophoric** uses of the contrastive free personal
pronouns within Content Clauses.

Ò   yɛ̀l   yɛ̄ **ɔ̄n**   ñyɛ́   gbīgɪm.
3HU say:**PFV** that **3HU.CNTR** see:**PFV** lion:**SG**.
"He said that he (himself) saw a lion."

Ò   yɛ̀l   yɛ́ **ò**   ñyɛ̀   gbīgɪm.
3HU say:**PFV** that **3HU** see:**PFV** lion:**SG**.
"He said that he (someone else) saw a lion."

*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.

Dāu̯   dá bɛ̀‿ ø mɔ̄rí‿ò pu̯ʔà-yīmmír, kà pu̯ʔā lā yɛ́
Man:**SG TNS EXIST SER** have   **3HU** wife-single:**SG** and wife:**SG ART** say:**PFV**

ɔ̄n   pū   lɛ́m bɔ̀ɔd yɛ́ ò sīd   lā dí   pu̯ʔā yá̰ʔasē ⁺ø.
3HU.CNTR NEG.IND again want that **3HU** husband:**SG ART** take:**PFV** 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 common; they have given rise to ellipted structures
using *n* for focussing subjects and *kà* for foregrounding other elements:

Gbīgɪmɪ‿ø kūʊd búŋ   lā.
Lion:**SG**   **SER** kill:**IPFV** donkey:**SG ART**.
"A *lion* is killing the donkey."

* M̀   zūgʋ‿ø   zábìd.*   "My head is hurting."
1SG head   **SER** fight:**IPFV**.   (Reply to "Where is the pain?")

Gbīgím   kà   m̀   dāa   ǐyɛ̄.   "It was a lion that I saw."
Lion:**SG**   and **1SG**   **TNS** see:**PFV**.

These patterns derive by ellipsis of *Lì à nɛ̄* "It is ..." before a serial-verb construction or before a Supplement Clause respectively.

  Although there is no syntactic movement rule for **interrogative** words, they are frequently preposed in this way, and focussing with *n* is compulsory for *ànɔ́ʔɔ̀n* "who?" as subject even though it remains in situ before the verb.

Fʋ̀   bɔ́ɔ̀d   bɔ́   ⁺ø?   "What do you want?"
2SG want what **CQ**?

Bɔ́   kà   fʋ̀   ǐyɛ̄tá   ⁺ø?   "What can you see?"
What and **2SG** see:**IPFV CQ**?

Gbīgɪma‿   álá   kà   fʋ̀   ǐyɛ̄tá   ⁺ø?
Lion:**PL**   **NUM**:how.many and **2SG** see:**IPVF CQ**?
"How many lions can you see?"

Ànɔ́ʔɔnì‿ø   kū   búŋ   lā   ⁺ø?
Who   **SER** kill:**PFV** donkey:**SG ART CQ**?
"Who has killed the donkey?"

Place and manner adjuncts can only precede the subject by preposing with *kà*:

Mām   bɛ́   nɛ̄   mɔ̄ɔgʋn.   "I'm in the bush." BNY p8
1SG.CNTR EXIST FOC grass:**SG:LOC**.

or   *Mɔ̄ɔgʋ́n   kà   mām   bɛ́.*   "I'm in the bush." BNY p10
Grass:**SG:LOC** and **1SG.CNTR EXIST**.

not   **Mɔ̄ɔgʋ́n mām bɛ́.*   "I'm in the bush."

The particle *nɛ̄* seen in several of the above examples interacts with verb Aspect, but may also focus either VP constituents or the entire VP 34.1.1 . The rules determining its rôle in each case admit some ambiguity, but the aspectual meaning is normally preferred whenever it is syntactically and semantically possible 24.2 .

Morphophonemics

2 Orthography

The orthography used in this grammar is largely based on the orthography of the 1976 and 1996 New Testament versions, along with other written materials of a similar age, which for the most part follow the same conventions. I have, however, adopted the symbols *ɛ ɔ ʋ* from the revised orthography of the 2016 complete Bible translation, also adding *ɩ* for [ɪ].

Written materials are cited in their original orthography, which in all cases predates the recent revision. The orthography of these materials is discussed in 2.1 .

Tone is not marked in traditional orthography; for the conventions used here see 6.1 . For word division conventions see 3.3 .

Long vowels are written by doubling the vowel symbol.

bāa	"dog"	[baː]

Glottalisation of vowels and diphthongs is marked by the symbol ˀ following the first (or only) vowel symbol other than the non-moraic *i̯* (but *including* non-moraic *u̯*):

dàˀ	"buy"	[dà̰]
dàˀa	"market"	[dà̰ː]
kùˀ ə m	"water"	[kʰṷ ə̰ m]
pṵ̀ˀā	"woman"	[pʰʊ̯̰ ā̰]
di̯āˀ	"get dirty"	[dɪ̯ā̰]

Nasalisation of vowels and diphthongs is marked by *ň* following the entire vowel or diphthong unless it is also glottalised, in which case the *ň* precedes the ˀ mark.

tɛ̄ɛňs	"lands"	[tʰɛ̃ː s]
áňsìb	"mother's brother"	[ã́sɪb]
gɛ̄ň	"get tired"	[gɛ̃]
gɛ̄ňˀ	"get angry"	[gɛ̰̃]
gɛ̄ňˀɛd	id (ipfv)	[gɛ̰̃ː d]

After initial *y* or *w* nasalisation is instead marked with *ň* before the *y* or *w*:

ňwām	"calabash"	[w̃ãm]

The vowel symbols *a ɛ ɔ i u* have IPA values, while *ɩ ʋ* represent [ɪ] [ʊ] respectively. The allophony [ɪ]~[i] and [ʊ]~[u] seen in non-root syllables 5.3 is ignored, only *ɩ ʋ* being used.

Unlike Toende Kusaal, Agolle Kusaal has no contrast of [ɛ] [ɔ] with [e] [o] in any given context, and in principle no other vowel symbols are necessary. However, the symbols *e o* are used in the orthography of this grammar in order to conform to the tradition as far as possible without ambiguity. They are used in three cases only:

(a) to write [ɪ] [ʊ] as non-initial components of diphthongs

(b) for [ʊ] as a realisation of the clitic 3rd sg human-gender pronoun, or of the rounded vowel mora which precedes it in Liaison.

(c) for the *close* [e] [o] found exclusively as a result of lowering of LF-final short *ɩ ʋ* respectively before Prosodic Clitics 9.2

In the second and third morae of diphthongs *e* is written for [ɪ], and similarly *o* for [ʊ] *except* after *a*:

dīʔe	"receive"	[diɪ̯]
pāe	"reach"	[pʰaɪ]
bɛ̄og	"tomorrow"	[bɛʊg]
kpīʔoŋ	"strong"	[k͡piʊ̯ŋ]
dāʋg	"male"	[daʊg]

The Liaison Word 3rd person singular human-gender pronoun, which is realised [ʊ], is always written *o*:

ò bīig	"her child"	[ʊbi:g]

The rounded word-final vowel mora which precedes the object form of this pronoun (itself segmentally deleted by Apocope) is also always realised [ʊ]. This mora is always written ·o with a preceding raised dot, with the convention applying even after the vowel *a*:

zū·ó	"steal him"	[zuʊ]

dāʋg	"male"	[daʊg]
but *dàʔ·ò*	"bought for him"	[da̰ʊ̯]

The nasalisation marker *ñ* is written before the raised dot:

àñ·ō.	"be him/her"	[ãʊ̃]

Before Prosodic Clitics 9.2 , underlying final *ι ʊ* of Long Forms are lowered to [e] [o] respectively, and written *e o*:

Lì	*kā²*	*nɔ́bɪrē* ⁺*ø.*		"It's not a leg."	[nɔ̃bɪre]
3NH	**NEG.BE**	leg:**SG**	**NEG**.		

Lì	*kā²*	*dūkó* ⁺*ø.*		"It's not a pot."	[dʊko]
3NH	**NEG.BE**	pot:**SG**	**NEG**.		

In principle, this use of *e o* would also be redundant if all three Prosodic Clitics were represented in some way in the usual orthography.

The sequences [iə] [uɵ], along with their nasalised and glottalised counterparts, arise from **Agolle Vowel Breaking**. The spellings *iə uɵ* are digraphs for phonemic *monophthongs*, realised phonetically as diphthongs 5.1.1 .

pìəlɪg	"white"	[pʰiəlɪg]
bū²ɵs	"ask"	[bu̯ɵ̯s]

Non-moraic [j] and [w], not forming syllable boundaries, are written with vowel symbols. The symbols *e̯ i̯* both represent [ɪ̯]; the difference is a graphic concession to the traditional system, with *e̯* used after any vowel other than *u*, and *i̯* everywhere else. Only the symbol *u̯* is used for [ʊ̯].

1-mora diphthongs:

gbàu̯ŋ	"book"	[g͡baʊ̯ŋ]
sɔ̄e̯ň	"witch"	[sɔ̃ɪ̯]
mùi̯	"rice"	[mũi̯]

The sequences *i̯a u̯a* represent *monophthongs*; they are the short vowels corresponding to long *iə uɵ*.

	ti̯àk	(short monophthong)	"change"	[tʰɪ̯ak]
	pu̯āk	(short monophthong)	"female"	[pʰʊ̯ak]
	kpi̯à²	(short monophthong)	"shape wood"	[k͡pɪ̯a̯]
but	*kpì²a*	(diphthong)	"neighbour"	[k͡piə̯]
	ki̯à	(short monophthong)	"cut"	[kʰɪ̯a]
but	*sīa*	(diphthong)	"waist"	[sia]

Note the contrast

	i̯ā	"seek"	[ɪ̯a]
cf	*yā*	"houses"	[ja]

Word-internally before a consonant [ʊ̯a̰] usually appears instead of [ʊ̯a̰ː]; this is then written *ʋˀa* in place of *u̯ˀaa*:

pʊ̄ˀab	"women"	[pʰʊ̯a̰b]

Before *-y-* the short fronting diphthongs *ae̯ ɔe̯ ʋe̯ ui̯* do not contrast with the respective short vowels *a ɔ ʋ u* and are realised as short vowels 5.2.3. They are written as short vowels in *rᵉ|a⁺* Class plural forms but as diphthongs in Long Forms where the corresponding Short Form loses the *y* by Apocope. This happens in Invariable Verbs, and in two irregular *ᵃ|bᵃ* Class noun singulars:

	zʊ̄ya	"tails"	[zʊja]
	nɔ̄yá	"mouths"	[nɔ̃ja]
but	*vʊ̄e̯yá* LF	"be alive"	[vʊja]
	tɔ̄e̯yá LF	"be difficult"	[tɔja]
	sāe̯ňya LF	"blacksmith"	[sãja]
	sɔ̄e̯ňya LF	"witch"	[sɔ̃ja]

The symbol *y* represents [j]; *kp gb* represent the labiovelar double-closure stops [k͡p] [ɡ͡b].

Between vowels within a word *k t p ŋ* are realised as geminate [kː] [tː] [pː] [ŋː] in very deliberate speech:

	si̯ākɪd	"believer"	[sɪ̯akːɪd]
	bāŋɪd	"wise man"	[baŋːɪd]

Historically, intervocalic *k t p ŋ* always represent intervocalic *kk tt pp ŋŋ*. From a purely segmental point of view, the gemination might be regarded as allophonic, but despite their usual realisation as single consonants, intervocalic *k t p ŋ* consistently pattern as consonant clusters for tonal purposes 6.2.1, and will therefore be regarded as as such throughout, though written single in line with the traditional orthography.

2.1 Orthography of Written Materials

The revised 2016 orthography is apparently intended to provide a common orthography for Toende and Agolle Kusaal. From the standpoint of Agolle Kusaal the changes are relatively minor. Pre-2016 forms are given by default below. Other older written materials use essentially the same orthography as the 1976 and 1996 New Testament versions, but KSS has *ng* throughout for *ŋ*, and some sources use *ɛ ɔ* for [ɛ] [ɔ] as in the 2016 Bible, though less consistently.

2.1.1 Vowels and Consonants

Written materials use the same conventions for vowel length and glottalisation as the orthography of this grammar, with ' for ʔ: *ku'om* for *kùʔɵm* "water."

To mark nasalisation, plain *n* is used for the *ň* of this grammar:

teens	*tɛ̄ɛňs*	"lands"	[tʰɛ̃:s]
gen'	*gɛ̄ňʔ*	"get angry"	[gɛ̃]
gen'ed	*gɛ̄ňʔɛd*	id (ipfv)	[gɛ̃:d]
nwam	*ňwām*	"calabash"	[w̃ãm]

Constraints on word-internal consonant clusters usually prevent this leading to ambiguity, except when the *n* would be word-final without even a following glottalisation mark. In that event *n* marking nasalisation is written double:

genn	*gɛ̄ň*	"get tired"	[gɛ̃]

The orthography does mislead with prefixes 16 ending in nasal consonants:

dunduug	*dùndùug*	"cobra"	[dundu:g]

The 2016 reform has abandoned the doubling of word-final -*n*, introducing new ambiguities: cf *kɛn*: perfective *kɛ̄ň* [kʰɛ̃] "come", gerund *kɛ̄n* [kʰɛn].

Older orthography writes *e o* for *ɛ ɔ*, *i* for both [i] and [ɪ], *u* for both [u] and [ʊ]. The 2016 orthography introduces *ɛ ɔ ʋ* with the same usage as in this grammar: *bʋʋg = būʋg*ᵃ "goat", *gɛl = gɛ́l*ˡᵉ "egg", *bɔk = bɔ̀k*ᵒ "hole", for older *buug*, *gel*, *bok*. It still fails to distinguish [i]~[ɪ]: *tiig = tìɪg*ᵃ "tree." The diphthong [aɪ] is usually written *aaɛ*, and *e* is sometimes used for short [ɪ] in root syllables.

As in this grammar, *e o* are used non-initially in diphthongs for [ɪ] [ʊ]:

di'e	*dīʔe*	"receive"	[diʔɪ̯]
paae	*pāe*	"reach"	[pʰaɪ]

beog/*bɛog*	*bɛ̄og*	"tomorrow"	[bɛʊg]
daug/*daʊg*	*dāʊg*	"male"	[daʊg]
1976: *kpi'oŋ*	*kpĩˀoŋ*	"strong"	[k͡pi̯ʊ̯ŋ]
1996: *kpi'euŋ*			
2016: *kpi'ʊŋ*			

The phonemic monophthongs *iə uɵ* are written respectively as *ie uo*:

pielig	*pìəlɪg*	"white"	[pʰiəlɪg]
bu'os	*bū̯ˀɵs*	"ask"	[bu̯ɵ̯s]

ie uo are also used to write the phonemic *diphthongs ie uo*, but ambiguity is only marginal, because [iɪ] [uʊ] only appear word-finally and in [iɪj], while *iə uɵ* only appear word-internally before consonants (and in external sandhi 9.1.3):

di'e	*dĩˀe*	"receive"	[di̯ɪ]
zu o	*zū·ó*	"steal him"	[zuʊ]

The 2016 orthography writes word-final -*ue* [uɪ] as -*uoe* (and similarly for the nasalised and glottalised equivalents): *duoe* = *dūe*⁺/ "raise, rise."

Traditional orthography does not mark length in diphthongs consistently, but this is largely predictable 5.2.3, and the writing of *aae* for unglottalised [aɪ] versus *ae* for [aɪ̯] resolves most ambiguity:

paae	*pāe*	"reach"	[pʰaɪ]

Word-medially, there is ambiguity only with *au̯ŋ ~ aʊŋ*:

gbauŋ	*gbāu̯ŋ*	"skin"	[g͡baʊ̯ŋ]
mangauŋ	*màngāʊ́ŋ*	"crab"	[maŋgaʊŋ]

i̯a u̯a, the short monophthongs corresponding to long *iə uɵ*, are written *ia ua* traditionally, identically to the long diphthongs *ia ua*. Long *ia ua* cannot occur medially, but ambiguity is possible word-finally:

kia	*ki̯à*	"cut"	[kʰi̯a]
sia	*sīa*	"waist"	[sia]
kua	*ku̯ā*	"hoe"	[kʰu̯a]
sabua	*sàbùa*	"lover"	[sabua]

These are, however, the only examples in my data of unglottalised final *i̯a u̯a*: [i̯a] and [ɪ̯a̱] are distinguished as *i'a ia'*, and short [u̯a̱] is usually written *o'a*:

kpi'a	*kpì'a*⁺	"neighbour"	[k͡pi̯a̱]
kpia'	*kpi̯à'*⁺	"shape wood"	[k͡pɪ̯a̱]
po'a	*pu̯'ā*ᵃ	"woman"	[pʰu̯a̱]

Traditional orthography for *ae̱ ɔe̱ ʋe̱ ui̱* versus the short vowels *a ɔ ʋ u* before -*y*- is as in the orthography of this grammar 7.3.2 ; the NT writes *būn-vúyà* "living things" as *bunvoeya*, however.

After the low root vowels *a* and *o*, epenthetic *ι* is quite often written *e*:

sarega	*sārɩgá*	"prison"	[sarɪga]

Consonantal orthography is generally as in this grammar. However, *ll mm nn* are very often written single; this is almost invariable before epenthetic vowels 7.2.1.3.1 and frequent before downranked vowels preceding Liaison 9.3.1 . The 1996 NT marks gemination more reliably, especially before LF-final vowels. So for Mk 6:34 "sheep which do not have a shepherd":

1976: *pe'is bane ka'a kobkema*   *pɛ̃'ɛs bánì kā kɔ́ňb-kīmma*
1996: *pe'es bane ka'a pe'ekemma*   *pɛ̃'ɛs bánì kā' pɛ̃'-kímmā*

2.1.2 Other Issues

Some NT spellings must reflect actual **variant forms**:

New Testament	WK's forms	Toende Kusaal	
Wina'am	*Wínnà'am*	*Wínā'am*	"God"
faangid	*fāaňd*	*fãagɩt*	"saviour"
faangir	*fáaňr*	*fãagɩt*	"salvation"
malek	*màli̯āk*	*màlɛ́k*	"angel"
aaruŋ	*àňrʋŋ*	*ãarʋ̀ŋ*	"boat"
nyain	*ňyāe*	*yã̱ɩí*	"brightly"

Apart from *nyain*, and perhaps *aaruŋ*, the NT forms are loans 20.1 .

Wínà'am fāaňgíd fāaňgír màlɛ́k àňrʋŋ ňyāe are used when transliterating NT passages. The audio version of the NT seems always to have *àňrʋŋ ňyāe,* and usually *màli̯āk*; but *fāaňgíd fāaňgír* have become independent words in NT usage, avoiding the homophony with *fāaňd* "robber" and *fáaňr* "robbery."

Traditional **word division** differs somewhat from that adopted in this
grammar. Beside the issues discussed in $\boxed{3.3}$, Focus-*nɛ̄*$^{+/}$ is always written solid after
à from *àẹ̄ñ*^{ya} "be", and aspectual *nɛ̄*$^{+/}$ is usually written solid with a preceding verb:

> *O ane biig.*   "He/she's a child."
> *Ò   à   nɛ̄   bīig.*
> **3HU COP FOC** child:**SG**.

> *Bipuŋ la pu kpii, o gbisidne.*
> *Bī-púŋ   lā pū   kpíi   ⁺ø, ò   gbìsɪd   nɛ̄.*
> Child-girl:**SG ART NEG.IND** die:**PFV NEG**, **3HU** sleep:**IPFV FOC**.
> "The girl is not dead, she is sleeping." (Mt 9:24)

Nɛ̄ "with" is written solid after *wɛ̄n*$^{na/}$ "resemble":

> *Ka o nindaa wenne nintaŋ ne.*
> *Kà   ò   nīn-dáa   wɛ̄n   nɛ̄   nīntāŋ nɛ̄.*
> And **3HU** eye-face:**SG** resemble with sun:**SG** like.
> "His face is like the sun." (Rev 10:1)

Texts sometimes mistake the stressed $\boxed{3.4}$ final syllable of a Long Form for a
segmentally homophonous particle:

> *O ku nyaŋe liebi m nya'andol la.*
> *Ò   kù   ñyāŋɪ‿   ø   líəbì‿   m̀ ñyà'an-dòllā   ⁺ø.*
> **3HU NEG.UNR** prevail:**PFV SER** become:**PFV 1SG** after-follower:**SG NEG**.
> "He cannot become my disciple." (Lk 14:26)

> *Arazana ne dunia gaadug pu toe yaa*
> *Àrazánà nɛ̄   dūnɪya gáadùg pū   tɔ̄ẹyá   ⁺ø.*
> Heaven with world   passing **NEG.IND** be.difficult **NEG**.
> "The passing of heaven and earth is not difficult" (Lk 16:17)

Foreign proper names in the New Testament are adapted to ordinary Kusaal
spelling conventions to a variable degree, with familiar names being most prone to
alteration; such adaptation is much commoner in the 1996 than in the 1976 version.
There is no systematic relationship between the English pronunciation and the Kusaal
renderings, and the audio NT varies in how far the spellings are read with English
rather than Kusaal conventions. In transliterating verses I have simply reproduced
the orthography of the originals.

3 Words, Morae and Syllables

3.1 Word Classes

The major word classes are **Nominals**, **Quantifiers**, **Adverbs** and **Verbs**. Of these, Nominals and Verbs are open classes. Nominals comprise **Nouns** and **Adjectives**. There are closed classes of **Pronouns**, **Proquantifiers** and **Proadverbs**. Demonstrative, Indefinite and Interrogative pronouns can be used as post-determiners in NPs, and then share with adjectives the characteristic property of following a head noun which appears as a Combining Form, forming a compound in which the last element inflects to show the number of the head 21.6.

All other words are **Particles**. Most particles are bound words; exceptions include *ɛ̄ɛň* "yes" and *áyìι* "no." Particles include the article *lā*$^{+/}$ and the deictic *ňwà*$^{+}$ "this", the locative marker *nι*$^{+}$~*n*^{e}, the various markers of tense, aspect and mood in Verbal Predicators 24, the focus particle *nɛ̄*$^{+/}$, the clause linkers *kà* and *yɛ̄*, the serial-VP linker *n*, Complementiser *ǹ*, the VP-final particles *nā*$^{+/}$ ""hither" and *sà*$^{+}$ "hence", and a number of clause-level words.

3.2 Apocope

Every Kusaal word which can potentially stand clause finally has two surface forms, which differ in nearly all cases, the **Long Form** (LF) and the **Short Form** (SF.)

For example, "child" appears as the Short Form *bīig* 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" 9.3:

Ò	*à*	*nɛ̄*	*bīig.*	"She's a child."
3HU	**COP**	**FOC**	child:**SG**.	

Ò	*dāa*	*ňyɛ̄*	*bīig.*	"She saw a child."
3HU	**TNS**	see:**PFV**	child:**SG**.	

bīig	*lā*	*nú^{ʔ}ùg*	"the child's hand"
child:**SG**	**ART**	hand:**SG**	

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

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

Ò   kā̰ˀ   bīiga   ⁺ø.   "He/she is not a child."
3HU NEG.BE child:**SG NEG**.

Ò   dāa pʋ̄   ňyɛ̄   bīiga   ⁺ø.
3HU TNS   NEG.IND see:**PFV** child:**SG NEG**.
"He/she did not see a child."

Ànɔ́ˀɔnì‿ø   dāa ňyɛ̄   bíigà   ⁺ø?
Who   **SER TNS**   see:**PFV** child:**SG CQ**?
"Who saw a child?"

M̀   bīiga   ⁺ø!   "My child!"
1SG child:**SG VOC**!

The Long Form also appears as a **derivational** feature in the *citation* form of some words 7.4. In proverbs and other archaic materials, a LF may be found ending a *yà̰ˀ*-clause 32. Direct commands sometimes end in a LF 30.2.3.

The LF is not predictable in general from the shape of the SF alone (but see 3.2.2); however, the SF is always deducible from the LF by **Apocope**. The term will be used throughout this grammar to refer exclusively to this specific process.

A final long vowel is shortened and a final short vowel is deleted.
Final diphthongs shorten by one mora.

Further changes then occur to the resulting Short Form:
Word-final consonant clusters drop the second consonant.
(*kk tt pp ŋŋ* become *k t p ŋ* but are *written* single in any case 2.)
Word-final *y* is dropped.

Shortening of final diphthongs under Apocope. Changes apply
 identically to nasalised and/or glottalised diphthongs.

ia   → i̯a   ua → u̯a   i̯aˀa → aˀ   u̯ˀaa → u̯ˀa
ae → ae̯   aʋ → au̯   ui   → ui̯
Vaa → Va   Vee → Ve   Vʋʋ → Vʋ

Apocope is treated in this grammar as a single process, but historically the matter was certainly more complex. Comparison with other Western Oti-Volta languages and internal evidence both suggest that loss of final vowel quality contrasts preceded complete vowel deletion clause-internally. Clause-internal total deletion (seen also in Mooré) was probably itself a stress-related process distinct from the clause-final Apocope characteristic of Kusaal, Nabit and Talni. Examples:

Lì   à   nɛ̄ kʊ̄k.   "It's a chair."
3NH COP FOC chair**:SG**.

Kʊ̄k   lā   bɔ́dìg   yā.   "The chair has got lost."
Chair**:SG ART** get.lost**:PFV INDEP**.

Lì kā́ʔ   kʊ̄ka.   ⁺ø.   "It's not a chair."
3NH NEG.BE chair**:SG NEG**.

Lì   à   nɛ̄ kʊ́kàa   ⁺ø?   "Is it a chair?"
3NH COP FOC chair**:SG PQ**?

Ànɔ́ʔɔnì‿ø   ñyɛ̄   kʊ́kà   ⁺ø?
Who   **SER** see**:PFV** chair**:SG CQ**?
"Who saw a chair?"

Similarly, with the same frames (with *ò* **3HU** "he/she" for *lì* **3NH** "it" as appropriate):

Lì à nɛ̄ dʊ̄k.   "It's a cooking pot."
Dʊ̄k lā bɔ́dìg yā.   "The pot's got lost."
Lì kā́ʔ dʊ̄kó.   "It's not a pot."   /kk/
Lì à nɛ̄ dʊ̄kóo?   "Is it a pot?"
Ànɔ́ʔɔnì ñyɛ̄ dʊ̄kó?   "Who saw a pot?"

Lì à nɛ̄ gbīgɩm.   "It's a lion."
Lì kā́ʔ gbīgɩmne.   "It's not a lion."
Lì à nɛ̄ gbígìmnee?   "Is it a lion?"
Ànɔ́ʔɔnì ñyɛ̄ gbígìmne?   "Who saw a lion?"

Lì à nē yáarìm.	"It's salt."
Lì kā^ʔ yáarīmm.	"It's not salt."
Lì à nē yáarìmm?	"Is it salt?"
Ànɔ́ʔɔnì ňyɛ̄ yáarìmm?	"Who saw salt?"

Bà à nē gbīgɪma.	"They're lions."
Bà kā^ʔ gbīgɪmaa.	"They're not lions."
Bà à nē gbígɪmàa?	"Are they lions?"
Ànɔ́ʔɔnì ňyɛ̄ gbígɪmà?	"Who saw lions?"

Ò à nē dāṵ.	"He's a man."
Ò kā^ʔ dāʋ.	"He's not a man."
Ò à nē dáʋ̀ʋ?	"Is he a man?"
Ànɔ́ʔɔnì ňyɛ̄ dáʋ?	"Who saw a man?"

Ò à nē sāḛ̌ň.	"He's a blacksmith."
Ò kā^ʔ sāeň.	"He's not a blacksmith."
Ò à nē sáèeň?	"Is he a blacksmith?"
Ànɔ́ʔɔnì ňyɛ̄ sáeň?	"Who saw a blacksmith?"

Lì à nē múi̱.	"It's rice."
Lì kā^ʔ múī.	"It's not rice."
Lì à nē múìi?	"Is it rice?"
Ànɔ́ʔɔnì ňyɛ̄ múi?	"Who saw rice?"

With verbal forms:

Kà ò si̱ák.	"And he agreed."
And **3HU** agree:**PFV**.	

Ò pū si̱ákē ⁺ø.	"He didn't agree."
3HU NEG.IND agree:**PFV NEG**.	

Kà ò dīgɪ.	"And she's lying down."
And **3HU** be.lying.	

Ò pū dīgɪyá ⁺ø.	"She isn't lying down."
3HU NEG.IND be.lying **NEG**.	

Kà ò vṳ̄ẹ̄.	"And she's alive."
Ò pṳ̄ vṳ̄ẹyá.	"She's not alive."
Kà ò kṳā.	"And he farmed."
Ò pṳ̄ kūa.	"He hasn't farmed."
Kà ò kḭá.	"And she cut (it)."
Ò pṳ̄ kía.	"She hasn't cut (it)."
Kà ò pāe.	"And he reached (it)."
Ò pṳ̄ pāée.	"He hasn't reached (it)."

The derivational type of Long Form appears in many adverbs and quantifiers:
Adjective *bèdʊg* "big":

Lì à nē̄ būn-bɛ́dʊ̀g.	"It's a big thing."
3NH COP FOC thing-big:**SG**.	
Lì kā̄ʔ būn-bɛ́dʊgō ⁺ø.	"It's not a big thing."
3NH NEG.BE thing-big:**SG NEG**.	

Adverb *bèdʊgṳ̄* "a lot":

M̀ pʊ́ʔʊ̀s yā̄ bɛ́dʊgṳ̄.	"Thank you very much."
1SG greet:**PFV INDEP** much.	

3.2.1 Superscript Notation

As the examples above show, the exact shape of a surface Long Form differs in different contexts. Final vowel length distinctions are neutralised in questions; final tones differ at the end of questions from those at the end of negative clauses; the clause-final LF types show lowering of final short *ɩ ʊ* to [e] [o], written *e o*, whereas the LFs found as derived forms preserve the *ɩ ʊ* as such.

These differences will be regarded as changes produced in the form of the Long Form by following particles. The clause-final LF types will be regarded as induced by one of three following **Prosodic Clitics** 9.2 . Prosodic Clitics have no segmental form of their own but cause the preceding word to appear as a LF rather than the default SF. They produce segmental and tonal changes in the preceding LF. The derivational forms are regarded as showing **Apocope Blocking** 7.4 .

The Long Form is thus a convenient 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 type of clitic.

Words in isolation will be cited in **Superscript Notation**, writing the portion of the LF which does not appear in the SF as a following superscript:

bīig[a]	"child"	*kūk*[a]	"chair"
dūk[o/]	"pot"	*sḭàk*[e]	"agree"
gbīgɩm[ne]	"lion"	*yàarɩm*[m]	"salt"
dīgɩ[ya/]	"be lying down"	*zìˀe*[ya]	"be standing"

When the LF ends in a long vowel or diphthong, Superscript Notation writes the SF followed by the mark [+][6]:

gbīgɩma[+]	"lions"	SF *gbīgɩma*	LF *gbīgɩmaa*
kūgá[+]	"stones"	SF *kūgá*	LF *kūgáa*
mɔ̀lɩ[+]	"gazelles"	SF *mɔ̀lɩ*	LF *mɔ̀lɩɩ*
gɔ̀ň[+]	"hunt"	SF *gɔ̀ň*	LF *gɔ̀ɔň*
tìeň[+]	"inform"	SF *tìeň*	LF *tìeeň*
kḭà[+]	"cut"	SF *kḭà*	LF *kìa*
ku̯ā[+]	"hoe"	SF *ku̯ā*	LF *kūa*
dāu̯[+]	"man"	SF *dāu̯*	LF *dāʋ*
sāe̯ň[+]	"blacksmith"	SF *sāe̯ň*	LF *sāeň*

However, words ending in LF *ḭaˀa u̯ˀaa* are written with superscript [a] rather than [+] to distinguish them from words ending in LF *iˀa uˀa*:

	kpḭà[ˀ+]	"shape wood"	SF *kpḭàˀ*	LF *kpìˀa*
but	*dḭā*[ˀa]	"get dirty"	SF *dḭāˀ*	LF *dḭāˀa*

	ku̯ā[+]	"hoe"	SF *ku̯ā*	LF *kūa*
but	*pu̯ˀā*[a]	"woman"	SF *pu̯ˀā*	LF *pu̯ˀāa*

This is the only case in which [a] does not follow a consonant symbol.

Words with SFs ending in *e̯* which are written with a following superscript [ya] follow the normal rule, but see 5.2.3 for the realisation of the LF:

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6) This use of [+] exploits the extent to which LFs can be predicted synchronically from SFs 3.2.2. More radical simplifications could be made: [+] [e] [m] [=] are in complementary distribution, as are [a] [ya]. Separate symbols are used for clarity.

vū̜e̜^{ya/}   "be alive"   LF *vū̜e̜yá*   [vʊja]

Words with segmentally identical SF and LF and are written with ᵓ:

dà̜ʔa⁼   "market"

In the few cases where Superscript Notation is impractical, the forms will be written out separately, e.g. *pāmm* SF *pāmné* LF "a lot."

Superscript Notation writes forms as they appear before Prosodic Clitics 9.2, but without the specific tonal or length-neutralising changes induced by any particular clitic. The forms thus show the change of underlying LF-final short *ɪ ʋ* to *e o* [e] [o] (not seen in words with Apocope Blocking), and also show the change of final **mʋ* and **mɪ* to *-mm* (not seen in the modified LFs which precede Liaison 9.3.1.)

Acute tone marks / following a word in Superscript Notation are to be placed on the last vocalic mora of the LF permitted to carry a toneme (i.e. not non-vocalic *m* nor the final mora of a vowel sequence 9.2):

fūug^{o/}	"shirt, clothes"	SF *fūug*	LF *fūugó*
pāe^{+/}	"reach"	SF *pāe*	LF *pāée*
nūa^{+/}	"hen"	SF *nūa*	LF *nūáa*
yā^{+/}	"houses"	SF *yā*	LF *yáa*
lā^{+/}	article 21.3	SF *lā*	LF *láa*
bè̜dʋgū̜^{+/}	"a lot"	SF *bè̜dʋgū̜*	LF *bè̜dʋgʊ́ʋ*
gāaň^{=/}	"Nigerian ebony"	SF *gāaň*	LF *gáaň*
dāam^{m/}	"millet beer"	SF *dāam*	LF *dáamm*
tā̜ʋ̜ň^{+/}	"opposite-sex sib"	SF *tā̜ʋ̜ň*	LF *táʋň*

Words like *náaf*^o and *nú̜ʔùg*^o coincide tonally in the surface LF because of H Spreading 6.2.1; they are written in Superscript Notation with the SF tonemes.

Lì	à	nē̜	nú̜ʔùg.	"It's a hand."
3NH	**COP**	**FOC**	hand:**SG**.	

Lì	à	nē̜	náaf.	"It's a cow."
3NH	**COP**	**FOC**	cow:**SG**.	

Lì	kā̜ʔ	nú̜ʔugō̜	⁺ø.	"It's not a hand."
3NH	**NEG.BE**	hand:**SG**	**NEG**.	

Lì	kā̜ʔ	náafō̜	⁺ø.	"It's not a cow."
3NH	**NEG.BE**	cow:**SG**	**NEG**.	

3.2.2 Predictability of Long Forms

The Long Form can usually be predicted from the Short Form given the natural gender (for a nominal) or the aspect (for a verb), and historically expected forms may be replaced by such predicted forms, either as variants or in all cases. This raises questions about the psychological reality of LFs as underlying word forms. For simplicity, the LF is treated as synchronically primary (as it certainly is historically), but the matter merits discussion.

Synchronic primacy of the LF seems assured by the fact that Apocope entails the loss of the contrast between Tone Patterns H and O in sg/pl forms of nominals with stems of one or two morae. Cases where LFs lack contrasts present in SFs can be explained straightforwardly as due to a late tone realisation rule 6.2.1 . However, Tone Patterns are best described synchronically as suprasegmental stem features 8.1 , so this does not clinch the matter.

Apocope frequently does *not* lead to loss of segmental contrasts despite deleting segments which condition preceding sound changes; instead, the changes remain in place and themselves become contrastive. Words completely deleted by Apocope remain recognisable from their effects on preceding words 3.3.3 . Word-internal rounding and fronting induced by segments lost to Apocope create two series of diphthongs 7.3.2 and a rounded/unrounded contrast in epenthetic vowels 5.3 , and working in reverse, such features can predict LFs from SFs.

Nevertheless, the mere form of a SF ending in a consonant does not in general suffice to predict the LF. The LF may show any of three distinct affix vowels; if the SF final consonant is *m n* or *l* it may or may not be geminated; SF-final *-m* may become the cluster *-mn-* instead of *-mm-*. However, if a SF is identified as a nominal and its natural gender is given, it can usually be correctly ascribed to a noun class with the appropriate LF 11.1 , and there are also clear instances where the LF historically expected for one flexion has been replaced by the LF of a different flexion with the same SF: see on the nominal Subclasses *r*e|*b*ª 11.3.1.1 and *g*º|*s*e 11.3.2.1 . With verbs, if the aspect is specified, the matter is simple: perfectives end in *-mm* if the the SF ends in *-m* and in *-e* in all other cases; imperfectives invariably end in **-a** with gemination of preceding *n l* and with final *m* becoming *-mma* or *-mna*. My informants have *-mma* in all finite verb forms, with *-mn-* confined to sg nominal forms with LF-final *-mne*; some have *-mm* in this case too: *-mme*. The NT has one or two instances of **-mna** in Variable Verb imperfectives:

> *...kà pū túmnā.*   "...and does not work." (2 Thess 3:11, 1996,
>   written *ka pu tum na* 2.1.2 ; 1976 *ka pu tuma*.)

The default LF ending corresponding to SFs ending in a consonant is -*e*. Thus with loans like *tīlás*[e] "necessity", cf Hausa *tiilàs* id, and in e.g.

> *Li pu nar ye fu di fu ba'abiig po'a Herodiase.*
> *Lì   pū   nār   yɛ́   fù   dí   fù   bā̠ʾ-bîg   pṵʾá   Herodiase* [+]*ø.*
> **3NH 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)

LFs corresponding to SFs ending in a vowel are highly predictable.

Almost all such words **except Invariable Verbs** have LFs which can be obtained segmentally by lengthening the final vowel or diphthong:

sīa[+]	"waist"	*sàbùa*[+]	"girlfriend"
bāa[=]	"dog" 9.2	*pāe*[+/]	"reach"
nìe[+]	"appear"	*dūe*[+/]	"raise/rise"
kūgá[+]	"stones"	*wìdɩ*[+]	"horses"
kū̠[+]	"kill"	*mà*[+]	"mother"

This applies also in cases where a LF long vowel is historically unexpected:

di̠ā̠ʾ[a]	"get dirty"	← **di̠agɩ* 7.1.1.1	Farefare	*dẽgɛ̀*
pi̠ā̠ň[a]	"speak, praise"	← **pi̠ãgɩ*	Farefare	*pẽgɛ́*
dṵʾà[a]	"bear, beget"	← **dṵagɩ*	Farefare	*dɔ̀gɛ̀*
zɔ̀[+]	"run"	7.1.1.1	Farefare	*zòè*

contrasting with the Invariable Verb *kā̠ʾe̠*[+] ← **kagɩ* "not be." However, it is not possible to determine which long vowel should be chosen for the LF in the case of words ending in *i̠aʾ* like *di̠ā̠ʾ*[a] "get dirty" versus *kpi̠à*[ʾ+] "shape wood." (The gerund *kpī̠ʾəb*[o] confirms the 2-mora stem; Toende *dàkpɛ́'ɛ́t* "carpenter" = *dà-kpī̠ʾəd*[a] confirms the glottalisation.) Either the neutralisation of final *iʾa* and *i̠aʾa* by Apocope or the deletion of **g* after short vowels may be late rules 3.5 .

Two [a]|*b*[a] Class nouns show alternate forms for different speakers:

sā̠e̠ň	"blacksmith"	LF *sā̠eň*	WK
		LF *sā̠e̠ňya*	DK
sɔ̠̄e̠ň	"witch"	LF *sɔ̠̄eň*	WK
		LF *sɔ̠̄e̠ňya*	DK

The LF forms *sā̠eň sɔ̠̄eň* are likely to be new formations created by prolonging the diphthongs of the singulars under the general rule, while in

dāu̯+	"man"	LF *dāʋ*
tāu̯ñ+/	"opposite-sex sib"	LF *tāʋ́ñ*

an earlier **dawa *taňwa* have been altogether supplanted; compare Mooré *raoa* "man", pl *raopa*. See further 7.1.1.1 on roots of the shape **CVY *CVW*.

The form taken before Prosodic Clitics by words with Apocope Blocking is similarly formed by prolonging the final SF vowel 7.4.

There is one regular class of exceptions to the general rule for vowel-final SFs: **Invariable Verbs** 13.2, apart from four bare-root verbs, invariably have LFs ending in **-a** before Prosodic Clitics:

*dīgι*ya/	"be lying down"
*wàʔe*ya	"be en route for"
*vʋ̄e̜*ya/	"be alive"
*sʋ̄ʔe*ya/	"own"

Before Liaison, the forms follow the analogy of Variable Verbs, first prolonging any final short diphthong and then applying phrase-medial loss of fronting 9.1.3:

*sʋ̄ʔe*ya/	"own"	+ *lι*+	"it"	→	*sʋ̄ʔʋ́ lī*+/
*vʋ̄e̜*ya/	"live"	+ *n*e	rem	→	*vʋ̄ʋn*e/

If the suffix *-ya* of Invariable Verbs reflects historical **ɲa* or **ʎa* 13.2.1, the forms before Liaison might have been expected to end in *-nι* or *-lι*, and the actual forms would necessarily have to be attributed to analogy; but even if the suffix is simply taken as *-ya*, an explanation from analogy is more straightforward than setting up a phonological rule *V(:)yι → V:* for this sole case.

The NT here shows *so'e li* (Acts 4:32) and *voen* (Gal 3:21), but this is probably due to graphic convention 9.1.3.

The exceptions thus form a highly distinctive group semantically and syntactically. Evidence that this the determining factor is provided by the word

*làbι*ya	"be crouching, hiding behind something"

compared with Hausa *laɓèe* "crouch behind something to eavesdrop", where the coincidence of form with such a highly specific meaning seems to guarantee that the Kusaal word is a loan (though not necessarily from Hausa itself: see 20.1.) In that case, it must have acquired its LF in **-ya** by analogy with other Invariable Verbs.

With Long Forms before Liaison 9.3.1 9.3.2 the quality of the affix vowels is neutralised, and the question of predictability arises all the more acutely. However,

the same problems arise with respect to to the vowel in verbs like *dḭā̀ʔa* "get dirty"
versus *kpḭà̀ʔ+* "shape wood with an axe", and with gemination of *ll mm nn*:

> **Dɔ̀llīní‿   m!**
> Follow:**2PLS 1SGO**!
> "Follow ye me!"

> *ba wusa **kalli** a si'em*
> *bà wūsa kāllí‿   ø   à   sīʔəm*
> **3PL** all   number:**SG COMP COP INDF.ADV**
> "how much all their number is" (Lk 12:7)

> *Li ya'a aane m meŋ gaŋir ka m **tummin** tuum kaŋa*
> *Lì   yáʔ àāní‿   m̀   mēŋ gáŋìr   kà   m̀ túmmīn   túʊ̀m-kàŋā*
> **3NH** if   **COP:REM 1SG** self   choice and **1SG** work:**IPFV:REM** work-**DEML.SG**,
> "If it were my own choice that I was doing this work, I would be getting pay."
> (1 Cor 9:17, 1976)

As with *-mna* before Prosodic Clitics, *-mn-* is not found in finite verb forms with
my informants, but there are examples in the NT:

> *ka ban ka kikirbe'ednam **daamne** ba daa nye laafiya*
> *kà   bàn   kà   kìkīr-bɛ́ʔɛ̀d-nàm dáàmnī‿   bá   dāa   ŋ̌yɛ̄   láafîya*
> and **DEM.PL** and fairy-bad-**PL**   trouble:**IPFV 3PLO TNS** see:**PFV** health
> "And people who were afflicted by evil spirits became well." (Lk 6:18, 1976)

The *daamne ba* of the text must represent *daamni ba*, because *dàam* "trouble"
takes a direct object, not a phrase with *nɛ̄* "with", and the focus particle *nɛ̄+/* is not
permissible within an *ǹ*-Clause 34.1.1.2 .

For my informants all cases can be accounted for by the generalisation that SF-
final *m n l* are geminated in the LF in all imperfective verb forms, before Liaison just
as before Prosodic Clitics.

Further evidence that forms preceding Liaison represent LFs, not adapted SFs,
is provided by the particles *kà* and *yɛ̄*. These are intrinsically *CV*, and not reduced
from *CV:* by Apocope; they do not prolong their vowels before Liaison Words 9.3.2 ,
showing that long vowels before liaison cannot be attributed to an automatic rule of
prolongation.

3.3 Word Division

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 analyzed into parts that may (all of them) be uttered alone (with meaning.)" This definition excludes words like the English *the* and the Kusaal article *lā*$^{+/}$. In this grammar the term **clitic word** includes every minimal bound form other than a flexion that is *meaningful at a level higher than the derivational*. This grants clitic status to the article, to the bound pronouns and particles seen in the VP, NP, AdvP and clause, and also to the *open* class of nominal combining forms, but denies it to prefixes. The distinction between clitics and flexions is made along the lines suggested in Zwicky and Pullum 1983.

The orthography follows traditional word-division conventions in a number of areas where this does not correspond to the grammatical analysis. Problematic areas relate to compound Noun Phrases and to Liaison Enclitics.

3.3.1 Compound Noun Phrases

Kusaal is typical of the Oti-Volta languages in constantly using compounds within NP structure, often where most languages would employ independent nominals 21.6 . The first element is a nominal "Combining Form" (cb 11.1), part of the regular paradigm of the open class of nominals, and typically a bare stem which has undergone word-final Apocope. Such Combining Forms occur freely and productively as pre-modifiers of following nouns, producing compounds of a type familiar in Indoeuropean languages, such as

zīm-gbáň � à d	"fisherman"	(*zíiŋ* "fish")
wāb-kú ̀bd	"elephant-killer"	(*wābʋg* "elephant")
bì-fūug	"children's shirt"	(*bīig* "child")
	(i.e. suitable for children, child-sized)	

Specialised meanings are common:

pu̯ � à-sā � am   "adulterer", literally "wife-spoiler"

Besides this, Kusaal forms with complete freedom compounds where the preceding combining form is the head, and the following nominal is a dependent. This is the normal construction for both adjectives and post-determining pronouns:

būʋg   "goat"
bù-pìəlɪg   "white goat"

bʋ̀-kàŋā	"this goat"
bʋ̀-pìəl-kàŋā	"this white goat"
wāb-píəlìg	"white elephant"
wāb-títāˀar	"big elephant"

There is no phonological difference between head-initial and modifier-initial compounds (the tonal sandhi rules, for example, are identical 10.3.1 10.1).

Compounds are hyphenated in this grammar; traditionally, they are written solid, whether the first element is dependent or head, unless the cb is segmentally identical with the singular, when it is written as a separate word:

zimgban'ad	*zīm-gbáñˀàd*	"fisherman"
bukaŋa	*bʋ̀-kàŋā*	"this goat"
yamug bipuŋ	*yàmmʋg-bī-púŋ*	"slave girl"
		(Acts 16:16, 1976) 11.2.2

Combining forms are, however, not word fragments but clitic words, and compounds are not single words but a particular type of noun *phrase*. This accords with the structure of the language, in which compounding occurs continually where other languages would use uncompounded phrases. Compounds may even incorporate uncompounded elements 21.6.1:

[*ānzúrɪfà láˀ-*]*māan*	"silversmith" ("[silver goods]-maker")

Nominals with prefixes, loanwords, and unanalysable stems are written solid:

kpʋ̀kpàrɪg	"palm tree"
tītāˀar	"big"
wāb-títāˀar	"big elephant"
Ňwāmpūrɪl	"Mampruli"
bʋ̀rkìn	"honest person"

Distinguishing between a combining form and a prefix is not always straightforward, and the decision whether to spell with a hyphen can turn on no more than etymological ingenuity in some cases 16.4.

3.3.2 Liaison

A number of Kusaal words, including all the non-contrastive personal pronouns, share the common phonological peculiarity that whether they are themselves bound or free, they prevent Apocope from applying to the *preceding* word, which appears as a Long Form but with loss of all original vowel quality distinctions in the final vowel mora, like a word-internal epenthetic vowel 9.3.

When such words have a SF which has a vowel of its own, they are written as separate words both in the traditional orthography and in this grammar:

*Fu boodi **ti**.*	"You love us."	[fʊbɔːdɪtʰɪ]
Fʊ̀ bɔ́ɔdī‿ tí.		
2SG want **1PLO**		

*Ò yɛ̀lɩ‿ **àmɛ̄ŋá**.*	"She spoke truly."
3HU say**:PFV ADV:**self**:ADV**.	

*tì **bàtáň**ˀ*	"we three"
1PL NUM:three	

*bīīsá‿ **àyí***	"two children"
child**:PL NUM:**two	

So are all proclitic pronouns:

***Bà** gɔ̀sí‿ **bà** bīis.*	"They looked at their children."
3PL look.at**:PFV 3PL** child**:PL**.	

The Personifier Clitic *à*, which is traditionally written solid with the following word, will here be hyphenated, as it is a particle capable of being attached to entire phrases, like English possessive *'s* 21.10.

Awin	"Awini" (personal name)
À-Wīn	
PERS-personal.spirit**:SG**	

The Serial VP linker *n* 9.3.2.1.2 and the complementiser *ǹ* 9.3.2.1.1 are in some texts usually written with a *n*, which may or may not be preceded by a modified Long Form. For my informants, and in most texts, they are not realised at all segmentally, and a preceding modified Long Form is the only sign of their presence

apart from tone. In such cases the particles are represented by ø in the second line of
the interlinear glosses.

tīnámì‿ ø   zàb   nà'ab lā
1PL   COMP fight:**PFV** chief:**SG ART**
"our having fought the chief" (*ǹ*-Clause)

Tīnámì‿ ø   záb   nà'ab lā.
1PL   SER fight:**PFV** chief:**SG ART**
"*We* fought the chief." (*n*-focus)

m̀ zūgú‿   ø   zàbɪd   lā zúg
1SG head:**SG COMP** fight:**IPFV ART** upon
"because my head hurts"

M̀ zūgʊ‿ ø   zábìd.
1SG head:**SG SER** fight:**IPFV**.
"My head hurts."

Two clitic object pronouns are reduced by Apocope to forms without any vowel.
The LF of the 2sg pronoun is written as a separate word:

M pu boodi fo.   "I don't love you."
M̀ pū   bɔ́ɔdī‿ fó   ⁺ø.
1SG NEG.IND want   **2SGO NEG**.

I maintain this separation with the SF, but the orthography of 2016 writes the
pronoun solid with the preceding verb, and the traditional orthography previously
separated the final mora of the verb and joined it to the pronoun, creating spurious
pronouns *if uf*.

2016 *M boodif.*   "I love you."   [m̩bɔ:dɪf]
1996 *M bood if.*
     M̀ bɔ́ɔdī‿ f.
     1SG want   **2SGO**.

     M nye uf.   "I've seen you."   [m̩̃ɲ̃ɛ̃ʊ̃f]
     M̀ ɲ̌ɛ́ō‿ f.
     1SG see:**PFV 2SGO**.

M gban'e uf.   "I've grabbed you."   [m̩ɡ͡bã̰ɣ̃f]
M̀   gbáñˀū‿ f.   (See 9.1.3 for the -*e*)
1SG seize:**PFV 2SGO**.

The 3rd person singular human gender pronoun ᵒ [ʊ] "him/her" loses its entire
segmental form when subject to Apocope 3.2, *after* causing the host final vowel mora
to become [ʊ]; this rounded final mora remains to signal the silent presence of the
pronoun. This LF-final vowel has traditionally been mistaken for the pronoun itself
and written as a separate word. As a concession to tradition, the final vowel mora will
be separated from the rest of the host by a raised point ·*o*. This always represents [ʊ]
in the Short Form; in the Long Form the rounded LF-final mora unites with the [ʊ] of
the pronoun to form long [ʊ:]. The LF will be written as ending in ·*oo*.

bɔ̀ɔda   "wants"   + ᵒ "him" →   *bɔ̀ɔd·óo*   (SF *bɔ̀ɔd·ō*)
kìa   "cut"   + ᵒ "him" →   *kì·òo*   (SF *kì·ò*)
ňyɛ̄ɛ   "see"   + ᵒ "him" →   *ňyɛ̄·óo*   (SF *ňyɛ̄·ó*)

Fu bood o.   "You love her."   [fʊbɔ:dʊ]
Fù bɔ́ɔd·ō‿ ø.
2SG want   **3HUO**.

Fu pu bood oo.   "You don't love her."   [fʊpʰʊbɔ:dʊ:]
Fù pū   bɔ́ɔd· óo   ⁺ø.
2SG NEG.IND want:**3HUO NEG**.

Fu nye o.   "You've seen her."   [fʊjɛ̃ʊ̃]
Fù ňyɛ́·ō‿ ø.
2SG see:**PFV 3HUO**.

Fu pu nye oo.   "You've not seen her."   [fʊpʰʊjɛ̃ʊ̃:]
Fù pū   ňyɛ̄·óo   ⁺ø.
2SG NEG.IND see:**PFV:3HUO NEG**.

The Locative enclitic *n*ᵉ, the Modal Remoteness marker *n*ᵉ, and the enclitic 2pl
subject pronoun ʸᵃ after imperatives 9.3.1 are also reduced to vowellessness by
Apocope. They are traditionally written solid with the preceding word, as if they were
flexions, and this convention is also followed in this grammar. However, the
segmental and tonal changes involved with the these particles are of the same nature
as those seen with object pronouns, and they follow (allomorphs of) complete words.
The enclitic 2pl subject ʸᵃ is in complementary distribution with the proclitic subject
pronoun *yà* for my informants (though not for all speakers 30.2.3) and the Locative

Liaison Enclitic *n*[e] is in complementary distribution with the ordinary enclitic particle
nι 22.3 . Although the status of all Liaison Enclitics, including object pronouns, as
separate *phonological* words is equivocal, as the evidence is entirely tonal 6.2.1 ,
morphosyntactically all these enclitics are clearly words, not flexions.

SF	*pō̄υgυn*	"inside"
LF	*pō̄υgυné*	
	inside:**SG:LOC**	

	bɔ̀ɔdīn	"might wish"
	want:**REM**	

The pronoun *ya* loses its entire segmental form in the SF 3.2 , and its presence
is revealed only by the word-final *-ι* on the preceding LF:

	gɔ̀sιm[a]	"look!"	
SF	*gɔ̀sιmī͜* ø	"look ye!"	Traditional: *gosimi*
LF	*gɔ̀sιmī͜* *yá*	30.2.3	Traditional: *gosimiya*
	Look.at:**IMP 2PLS**		

3.3.3 Words with Zero Segmental Representation

Three groups of very common words lack all segmental realisation, with their
presence only detectable through segmental or tonal effects on preceding words.

Prosodic Clitics 9.2 3.2.1 cause the preceding word to appear as a LF instead
of the usual SF, with different effects on preceding vowel length and tone.

Particles of the form *(C)V* reduced to zero by Apocope 3.2 are the 3rd Person
Singular Human-gender object pronoun *o* 17.1 and the post-imperative 2nd Person
Plural *subject* pronoun *ya*. They induce tonal changes at the end of a preceding
modified LF 10.5 , and cause rounding and fronting of the final vowel mora
respectively 9.3.1.1 . These effects resemble the word-internal changes dealt with in
7.3.2 , but whereas those precede Apocope, the rules producing the allomorphs seen
before Liaison use the LF as their input synchronically. The rule sets also differ
slightly in their outcomes.

Complementiser *ǹ* and Serialiser *n* may be realised as [ŋ̩], but more often
appear as segmental zero preceded by a modified LF 9.3.2.1 .

All these words appear as *ø* in the first line when interlinear glosses are given.
Prosodic Clitics are written as *+ø*, while the others are written with an undertie
symbol ͜ at the end of the preceding word.

3.4 Morae and Syllables

All segments constitute **morae**, except for consonants immediately followed by vowels within the same word; other consonants represent **non-vocalic** morae:

ò	*bà*			1 mora
ɔ̄n	*bʊ̀ŋ*	*bāa*	*kūgá*	2 morae
bīig	*súˀɵŋ*	*kʊ̀lıŋ*	*gbīgım*	3 morae
kūgáa	*bīiga*			3 morae
gbīgımne				4 morae
súˀɵŋa	*kʊ̀lıŋa*			4 morae (*ŋ* is /ŋŋ/ 4.2)
dīˀəsídìb	*bāŋıdıb*			5 morae

A vocalic mora followed by a non-vocalic mora in the same word is **closed**; all others are vocalic **open morae**. Vocalic morae are the domain of **tone**, but not all vocalic morae bear a toneme 6.1.

Various morphophonemic processes delete underlying stem morae, while leaving the tone contour unaffected 8.2.1.1. Stems will in general be referred to as having two, three, or four morae according to the structure *prior* to these deletions.

Stress operates with **syllables**; all vocalic morae form syllables, except for the second morae of 2-mora vowels and diphthongs. Extra-long "diphthongs" are actually disyllabic, with syllable division following the first mora: LF *nū-aá* "hen."

Word stress falls on the root, except in LFs before a Prosodic Clitic, where it falls on the final affix vowel (unless this is has been deleted in the surface LF 9.2.) Prefixes and combining forms are not stressed.

Monosyllabic words with a short vowel do not have intrinsic stress. This applies not only to clitics, but even to monosyllabic verbal and nominal forms with a short vowel, like *mὲ* "build" (perfective) *bʊ̀ŋ* "donkey" *ɔ̄n* "he/she." Monosyllables with a long vowel, like *mὲɛd* "build" (imperfective) do have intrinsic stress.

Before pause, all intrinsically unstressed words acquire stress, including clitics like the article *lā⁺/*. Even Liaison Enclitics 9.3.1 acquire stress, independent of their host, which retains its own stress.

Stress is important in allotony; downstepping before H tonemes is dependent on syllable structure and stress. See 6.2.2 for examples.

In a few cases stress may have shifted from a root to an originally epenthetic vowel, with the root being reinterpreted as a prefix:

*dìtʊ́ŋ*ᵒ	['dɪt:ʊŋ]	"right hand", probably a derivative of *dì⁺* "eat"
*dàtìu̯ŋ*ᵒ	[da'tʰɪ̯ʊ̯ŋ]	"right hand"

	būtıŋ[a]	[ˈbʊt:ɪŋ]	"cup" (from *bʊ̀d*[e] "plant seeds" via the semantic development "planting implement" → "seed cup" → "cup in general")
pl	*būtııs*[e]	[bʊˈtʰɪːs]	with a wholly exceptional apparent lengthening of an epenthetic vowel 7.2.1 ; probably from reanalysis of the sg as nominal prefix *bʊ́* + stem *tıŋ*[a]

3.5 Ordering of Morphophonemic Rules

Agolle Vowel Breaking 5.1.1 and Primary Diphthongs 5.2.3 are part of the underlying word form prior to the application of any rules.

The order within each of the following sets of rules is unimportant, but each set as a whole precedes the next.

Set 1	Consonant Assimilation/Epenthetic Vowel Insertion 7.2.1
	Vowel Fusion 7.3.1
	2-Mora Vowel/Diphthong Reduction 7.3.3 (precedes loss of SF-final *y*)
	Fronting/Rounding of vowel morae 7.3.2

Set 2	**Apocope**
	Simplification of Impermissible Consonant Clusters 7.2.1.1

Set 3	External Sandhi 9 10 , including before Prosodic Clitics and Liaison.

Tone Patterns 8.1 are most straightfowardly described as allocating tonemes after Consonant Assimilation/Epenthetic Vowel Insertion and before Simplification of Impermissible Consonant Clusters 7.2.1.1 ; the latter rule is therefore placed in Set 2 with Apocope itself. (The reduction of SF-final consonant clusters resulting from Apocope 3.2 could itself be regarded as a simplification of impermissible clusters.)

Toneme allocation also precedes the deletion of **g* when there is no following affix vowel 7.3.1 , but this deletion does not need ordering with respect to any other segmental rules as it has purely tonal consequences 8.2.1.1 .

The tonal overlay of Independency Marking 24.6.1.1 creates a new set of intrinsic tones; this needs only to precede the application of external tone sandhi.

The tonal effects produced by Prosodic Clitics 9.2 and Liaison Enclitics 10.5 occur *prior* to L/M Raising and the effects of Fixed-L words, as is shown by the fact that the all-L tonemes resulting from the effect of the Interrogative Clitic on an all-M word are then subject to L Raising 10.4.2 .

Tone *realisation* rules follow all the above toneme-*altering* rules. H Spreading 6.2.1 must precede the insertion of downsteps before H tonemes 6.2.2 .

4 Consonants

4.1 Inventory and Symbols

The following consonant symbols are used:

k	*t*	*p*	*kp*
g	*d*	*b*	*gb*
ŋ	*n*	*m*	
s		*f*	*h*
z		*v*	
l			
r			
	w	*y*	

These symbols correspond to the consonant phonemes of the language, except that *kp gb* are digraphs for the labiovelar double-closure stops [k͡p] [ɡ͡b]. The symbols stand for values like the corresponding IPA symbols, except as discussed below.

t d n s z l r   represent alveolars in general, but *s z* are often dental, and even interdental for some speakers. Before *u*, *s* and *z* are sometimes heard as [ʃ] [ʒ]. The consonant *l* is never velarised. For other variants of *s r* see below.

k t p   represent [kʰ] [tʰ] [pʰ] word-initially and after prefixes and [k] [t] [p] elsewhere. Between vowels word-internally the symbols represent geminate /kk/ /tt/ /pp/. They are only *realised* double in very slow speech. The aspiration is comparable to that of English initial voiceless stops. Word-final *g d b* are often partly devoiced, but in Agolle Kusaal (unlike Toende) still contrast with the unaspirated word-final *k t p*.

k g ŋ   The symbol *ŋ* is realised [ŋ] word-finally and [ŋ:] elsewhere. Original *ŋ*, preserved in related languages, has disappeared in all positions, and existing Kusaal *ŋ* is always the result of the cluster assimilations **mg* **ng* → *ŋŋ* with simplification to *ŋ* word-finally.
As with *k t p*, *ŋŋ* is realised single except in very slow speech, and is written with single *ŋ*.
The velars show considerable **allophony**, which will be ignored even in narrow transcription elsewhere.
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:

tɔ́klàe[+]	"torch"	← English *torchlight*
sɔ́gi̯à[a]	"soldier"	(probably via Hausa *soojà*)

Before rounded vowels, the velars are labialised. Synchronically, there is never a contrast between labialised and unlabialised velars, but velars are transparent to vowel rounding processes 7.3.2 5.3.
Before [a] and [ɔ] velars are pronounced further back, with some speakers even as uvulars:

kɔ̀bɪgā[=]	"hundred"	[qʷʰɔbɪɢa]

Underlying **g* is deleted after *aa iə ue ãã ɛ̃ɛ̃ ɔ̃ɔ̃* and their glottalised counterparts unless it stands before a rounded vowel; diphthongs may result 7.3.1. The effect of this **g* is still apparent in stem tone patterns 8.2.1.1. Historically, **g* has also been deleted after short oral or nasal *a i̯a y̯a*, which then became glottalised 7.1.1.1.

f v   are labiodental fricatives, found only word initially, after prefixes, and in the noun class suffix *-fᵒ*:

fūfūm[me]	"envy"
náaf[o]	"cow"

z   is only found word initially and after prefixes.

s   is often realised as [h] word-internally. It sometimes represents *h* in loanwords:

Àláasìd (*dáar*[e])	"Sunday"	← Hausa *Lahàdì* (← Arabic)
Dàsmáanì[+]	عبد الرحمن	*ʕAbdu-r-Raħma:n(i)*

h   as a phoneme *h* itself is marginal, occurring only syllable-initially in loanwords; however these include the very common word *hālí*[+] "as far as." In the personal name *Dàhamáanì*[+] عبد الرحمن *ʕAbdu-r-Raħma:n(i)* there is alternation with *-s-* but particular individuals with the name seem to choose one alternant only.

d   as a word-initial is frequently realised as a flapped [ɾ] when the
            preceding word in a phrase ends in a vowel (including glottalised
            vowels); within compounds this is invariable:

        nɔ̄-dáʋ̀g[o]   "cock"   [nɔɾaʋg]

        nā̰ʔ-dáàd[e]   "oxen"   [na̰ɾa:d]

but   *wìd-dāʋg*[o]   "stallion"   [wɪd:aʋg]

            In rapid speech non-initial *d* may also resemble [ɾ], but there are
            minimal and near-minimal pairs following root and epenthetic vowels:

        ɛ̀n̆dɪg[e]   "unplug"

        ɛ̀n̆rɪg[e]   "shift along"

        mɔ̄d[e]   "swell"

        mɔ̄r[a/]   "have"

        yàad[e]   "graves"

        yāar[e/]   "scatter"

r   itself is the alveolar flap [ɾ], except after an epenthetic vowel (e.g. in the
            r[e]|*a*[+] Noun Class singular suffix) where it is realised as a retroflex
            lateral [ɭ]. It does not contrast with *d* as a root-initial consonant or in
            prefixes, and only [d] occurs after a consonant or pause. I write *d* always
            except in a few words following a prefix vowel where *r* is traditional:

        tīráàn[a]   "neighbour"

        àrazàk[a]   "riches"

        àrazánà[+]   "heaven, sky"

            The allophony of both *d* and *r* will be ignored even in narrow
            transcription elsewhere, where they will be written [d] [r].

m   is syllabic when standing alone as the proclitic 1st sg pronoun "I, my." It
            shows no tendency to assimilate its position of articulation to following
            consonants when it is syllabic. Following unstressed *ɩ*-vowels can be
            absorbed because of the potentially syllabic character of *m*:

        Gɔ̀sɪmī m!   "Look at me!"

        Gɔ̀sīm.   "Look at me!" contrasting with

        Gɔ̀sɪm!   "Look!"

        Gɔ̀sɪmí fʋ̀ núʔùg! "Look at your hand!"

        Gɔ̀sím fʋ̀ núʔùg!   id

m is unique in that it can form the word-final cluster *mm* [m:], which appears chiefly in LFs but also in some forms with derivational Apocope Blocking 7.4 . like the SF *pāmm* "a lot." The cluster patterns in many ways as if the second *m* were syllabic, but it is currently consonantal, and in particular cannot bear a toneme 9.2 .

n is syllabic when representing various proclitic particles, and as the number prefix. It *does* assimilate, even when syllabic, to the position of a following consonant. The VP Serialiser particle *n* and the clause Complementiser *ǹ* are syllabic [ṇ] for some speakers but my informants have consonantal, denasalised or zero reflexes instead.

kp gb are digraphs for the labiovelar double closures [k͡p] [g͡b].
Unlike word- and root-initial *k t p*, the voiceless *kp* is not aspirated.
kp gb occur only word-initially and after prefixes, and then only before unrounded vowels, except for some speakers who preserve them in reduplication-prefixes like *kpʊ̀kpàrɪɡ*[a] "palm tree" where other speakers have *kʊ̀kpàrɪɡ*[a] etc. Otherwise *kp gb* are replaced by velars before rounded vowels; they are thus in complementary distribution with labialised velars, which could be ascribed to these phonemes rather than to the velars.

kūm[m]	"death"	cf *kpì*[+]	"die"	
kɔ̄ba[+]	"bones"	cf Gurmanche	*kpábá*	id
kpàkūr[e/]	"tortoise"	cf Dagbani	*kpàkpílí*	id

In loanwords *kp gb* are used for the Hausa labialised velars *kw gw*:

bákpàe̯[+]	"week" ← Hausa *bakwài* "seven"
	(also "week" in *Gaanancii* Hausa)

y w are respectively voiced palatal and labiovelar approximants.
They are strongly nasalised before nasalised vowels, and are then written *ňy ňw* with no further nasalisation marking on the vowel:

ňyɛ̄[+]	"see"	[j̃ɛ̃]
ňwādɪɡ[a/]	"moon"	[w̃ãdɪɡ]
ňwɛ̀ˀ[+]	"beat"	[w̃ɛ̃̀]

Word-initial *y w* followed by contrastive nasalisation reflect earlier initial *ɲ ŋ͡m* respectively, and similarly word-initial contrastively nasalised vowels are historically derived from initial *ŋ*:

Dagbani		Kusaal	
ŋariŋ		*àn̆rʋŋ*ᵒ	"boat"
nyá	[ɲa]	*n̆yɛ̄*⁺	"see"
ŋme	[ŋ͡me]	*n̆wɛ̀ˀ*⁺	"beat"

Mooré shows the same developments as Kusaal. Niggli 2012 reports that some Toende speakers still have consonantal [ɲ] [ŋ͡m] phonetically in these cases, although he regards these as allophones of *y w* before nasalised vowels. Before *ɩ/i* original *ɲ* has often become *n*; see on the allomorphy of ʸᵃ 9.3.1.2 .

Y and *w* occur only syllable-initially. They are in complementary distribution with the the glides *i̯/e̯* and *u̯* respectively, which do not form syllable boundaries but appear only after vowel symbols to mark short diphthongs 5.2.3 and before vowel symbols as part of the digraphs *i̯a u̯a* (*i̯e u̯e* before *y*) which are realised as written but represent single vowels phonemically 5.1.1 .

Consonantal *w* occurs only root-initially, i.e. word-initially and after prefixes: *wìəf*ᵒ "horse", *dàwān*ⁿᵉ/ "pigeon", but consonantal *y* occurs not only root-initially (*yáaŋ*ᵃ "grandchild", *dàyūug*ᵒ/ "rat") but also word-medially, before the vowel *a*: *nɔ̄yá*⁺ "mouths."

Synchronically, it is possible to regard all non-root-initial *-y-* as epenthetic. Historically, *-y-* probably reflects an original root-final palatal in *r*ᵉ|*a*⁺ Class plurals and ᵃ|*b*ᵃ Class singulars 7.2.2 , *ɲ* or *ʎ* in the suffix *-ya* of Agentive Invariable Verbs 13.2.1 , and original *ɲ* in the initial of the postposed 2pl subject pronoun ʸᵃ 9.3.1.2 .

Traditional orthography omits word-internal *y* after *i*, except with Long Forms ending in **-ya**; thus *dūnɩya*⁺ "world" and *láafɪ̄ya*⁺ "health" are written *dunia* and *laafia* although they end in [ɩja], not in the diphthong *ia*.

4.2 Consonant Clusters

Consonant clusters consist of at most two consonants (except in the very marginal case of *-mm* followed by a consonant across word division.) No word may begin or end with a consonant cluster, except for Long Forms and forms with Apocope Blocking which show final *-mm*:

pāmm	"a lot"
dáamm	"millet beer", Long Form

Across word division, including within compounds, any combination of consonants may occur where the first is a possible word-final consonant.

ňwād-bíl[a]	"star"

Within phrases, there may be partial assimilation of the word-final consonant to the following word-initial consonant 9.1.1 .

Within words, the range of permitted clusters is very limited.

At the junction between a nominal prefix and the following stem, combinations of nasal and any possible word-initial consonant may occur, with assimilation of the position of articulation of the nasal to a following consonant other than *s* or *z*, before which the nasal is realised as [ŋ].

kùndùŋ[a]	"jackal"	
gūmpūzɛ̄r[e/]	"duck"	
dànkɔ̀ŋ[o]	"measles"	[daŋkʰɔŋ]
zùnzɔ̀ŋ[a]	"blind"	[zʊŋzɔŋ]

Loanwords may include clusters not found elsewhere.

bùrkìn[a]	"honourable/free/honest person"

Apart from this, the only word-internal clusters permitted are *kk tt pp ŋŋ nn mm ll mn*. Of these *kk tt pp ŋŋ* are only realised as geminates in very slow speech, and are written as single *k t p ŋ*; nevertheless intervocalic *k t p ŋ* always pattern as clusters not only structurally but in toneme allocation and realisation 6.2.1 8.2.1 8.3.1 .

Writing of *mm nn ll* as double is very inconsistent in written materials; the 1996 NT is more reliable in this than the 1976 version, although it tends to misdivide the forms by taking the final syllable as a separate particle 3.3 .

Gemination of *mm nn ll* before LF affix vowels is clearly audible, including cases where the LF-final vowel has been downranked before Liaison 9.3.1 ; the audio version of the 1996 NT for example provides numerous examples of *dɔ̄ll·ó* "follow him" (written *dol o*) clearly read as [dɔl:ʊ]. On the other hand, it is hard to hear length contrasts with *mm nn ll* preceding an epenthetic vowel. Written materials rarely mark gemination in such cases, though examples do occur e.g. *yimmir* for *yīmmír* in "*Kusaal Solima ne Siilima*" p26. The tones of Pattern H stems can reveal underlying clusters, but as with *k t p ŋ* this could reflect mora loss after toneme allocation. It may be that loss of gemination before epenthetic vowels is an ongoing sound change in Agolle Kusaal. Urs Niggli's Toende materials never show geminate consonants except before LF flexions preceding Prosodic Clitics.

The only remaining cluster which is not simply a geminate, *mn*, is unstable. Some speakers replace it entirely with *mm*. All my informants show *mm* in place of the anticipated *mn* in verb imperfectives:

kàrɪm^m   "read"   →   *kàrɪm*^ma   cf Dagbani *karimda*

There are a few examples of *mn* in the NT:

ka ba li' ba toba ka pu wum na [sic 2.1.2]
*kà bà lí   bà tùba kà pū   wúmnā *^+ø.
And **3PL** block:**PFV 3PL** ear:**PL** and **NEG.IND** hear:**IMPF NEG**.
"they have blocked their ears and do not hear" (Mt 13:15)

ka ban ka kikirbe'ednam daamne [sic 2.1.2] *ba daa nye laafiya*
kà bàn   kà kìkīr-bɛ́ˀɛ̀d-nàm dáàmnī‿   bá   dāa Ňyɛ̄   láafìya
and **DEM.PL** and fairy-bad-**PL**   trouble:**IPFV 3PLO TNS** see:**PFV** health
"And people who were afflicted by evil spirits became well." (Lk 6:18, 1976)

Informants differ with regard to the singular forms of *r*^e|*a*^+ Class *m*-stems:

gbīgɪm^ne   SB   *gbīgɪm*^me   WK   "lion"
dūm^ne   SB   *dūm*^me   WK   "knee"

Exceptionally with -*nn*- for -*mn*- and a plural remodelled on the singular:

ňwān^ne   SB   pl *ňwāna*^+ (Lk 11:39, 1976) "calabash"
ňwām^me   WK   pl *ňwāma*^+ SB WK

Cf 1976 NT *kobkennib* = *kɔ̀ňb-kīmmɪb*^a ← *kɔ̃b-kɪmdɪba* "herdsmen."

There is variation also with the agent nouns of *m*-stem verbs:

pe'es bane ka' konbkemma
pɛ̃ʔɛs   bánì˘ ø   kāʔ   kɔ́ňb-kīmma   ⁺ø
sheep:**PL DEM.PL COMP NEG.BE** animal-tender:**SG   NEG**
"sheep without a shepherd" (Mt 9:36)

m naan ku aan Kiristo tumtum na [sic 2.1.2].
m̀ nāan kʊ́   āan   Kiristo túm-tūmna   ⁺ø.
1SG then **NEG.UNR COP:REM** Christ work-worker:**SG   NEG**.
"I would not have been Christ's servant." (Gal 1:10)
The 1976 version has *tumtuma*

The plurals usually show *-mn-*:

O Tumtumnib piinayiŋa la yuda nwa.
Ò   tʊ̀m-tūmnɪb   pīi nā yíŋā   lā yúdà˘ ø   ňwà.
3HU work-worker:**PL** ten with two.exactly **ART** name:**PL SER** this.
"These are the names of his twelve servants." (Mt 10:2)

All examples of Imperfective Deverbal Adjectives from *m*-stem verbs in my data
show *-mm-* before epenthetic vowels:

*būn-túmmìr*ᵉ   "useful thing"; plural *tūmna*⁺ occurs with some speakers.
*bʊ̀-sā̃ʔammɪr*ᵉ   "goat for destruction, scapegoat" WK

It is notable that in the great majority of cases *-mn-* within words is followed by
one of the high front vowels *ɪ* or *e*; compare the focus particle *nɛ̃*⁺/, corresponding to
me in Toende Kusaal, Mooré etc 34.1.1 .
The consonants *r f s* between vowels are sometimes shown by Tone Pattern
allocation rules or by morphophonemics to reflect underlying clusters 8.2.1.1
7.2.1.1 , but unlike *k t p ŋ* they are never actually realised as geminates.

*tīntɔ̄ňríg*ᵃ   "mole" (animal)
*píɪňf*ᵒ ← *píɪnfʊ̀*   "genet"
*níis*ᵉ ← *níinsì*   "birds"

5 Vowels

5.1 Inventory and Symbols

The basic vowel symbols are *a ɛ ɔ ι ʋ i u*, representing [a] [ɛ] [ɔ] [ɪ] [ʊ] [i] [u] respectively by default.

The symbol *ň* represents emic nasalisation 5.2.1 , while *ʔ* represents glottalisation 5.2.2 .

Phonetically, *e̯ i̯ u̯* represent non-moraic glides; *e̯* and *i̯* are equivalent symbols for [ɪ̯], and *u̯* represents [ʊ̯].

A striking feature of the Agolle Kusaal vowel system is that there is a **systematic mismatch between phonetics and phonemics** in the vowel system.

The symbols *iə uө* are, phonemically, long *monophthongs* which are realised phonetically as [iə] [uө]; the letters *ə ө* are used only in these digraphs. Similarly, *i̯a u̯a* represent short *monophthongs*, realised [ɪ̯a] [ʊ̯a], which appear as *i̯e u̯e* [ɪ̯ɪ] [ʊ̯ɪ] before *y* word-internally. The orthography of this grammar follows the traditional system in representing these segments according to their phonetic realisation, but the symbols *iə uө i̯a u̯a i̯e u̯e* are to be regarded throughout as **digraphs** representing monophthongs 5.1.1 .

Following a vowel symbol, *e̯ i̯ u̯* represent the non-moraic glide components of short diphthongs 5.2.3 .

The symbols *ι ʋ*, which represent [ɪ] [ʊ] by default, may represent [i] [u] when they are epenthetic or affix vowels because of ATR harmony, which is ignored in the orthography as it is not contrastive.

The vowels [e] [o] do not contrast with [ɛ] [ɔ] in any single context.

The *symbols e o* represent [ɪ] [ʊ] whenever they are preceded by a vowel symbol. As the second or third component of a diphthong 5.2.3 , [ɪ] is written *e* rather than *ι*, and [ʊ] is written *o* rather than *ʋ* after all vowel symbols except *a*.

The 3rd sg human-gender pronoun, written *o*, is always realised [ʊ] 17.1 .

The sequence *·o* represents [ʊ]; this is always a vowel mora rounded before the enclitic pronoun *ᵒ* 9.3.1.1 , which itself is normally deleted by Apocope.

Following a consonant symbol, *e o* represent *close* [e] [o], which occur exclusively as the result of lowering of LF-final short *ι ʋ* before Prosodic Clitics 3.2.1 . If all three Prosodic Clitics were represented explicitly in some way in the usual orthography, this use of *e o* would in principle also be redundant 9.2 .

There are marked differences in the range of possible vowel contrasts which are possible in different positions within a full word. There is a correlation with stress 3.4 but it is not invariable, and the system is thus one of **positional prominence**.

The main distinction is between **Root Vowels**, which are found in the roots of non-clitic words, and all others. Root vowels show the full range of vowel contrasts, with contrastive length, nasalisation, glottalisation and a wide range of diphthongs.

In all other positions, the range of contrasts is much more limited.

Epenthetic Vowels show a contrast only of unrounded *ɩ* and rounded *ʋ*, and considering LFs alone even this would be predictable.

Affix Vowels have a three-way contrast in quality *a ɩ ʋ* and also distinguish short and long vowels. The effects of Prosodic Clitics produce a further contrast with short *e o* in certain contexts 3.2.1 .

5.1.1 Agolle Vowel Breaking

The sequences *iə uɵ*, realised with the corresponding IPA values, pattern throughout as long *monophthongs*, with *i̯a u̯a* as the corresponding short vowels. They may be nasalised or glottalised, and are subject to the fronting and rounding processes described below 7.3.2 just like other monophthongs. They will be described as monophthongs throughout this grammar.

Toende Kusaal preserves these vowels as *phonetic* monophthongs, more open than the Toende *close* vowels corresponding to Agolle vowels which have expanded into the phonetic space vacated by Breaking to become *open ɛ ɔ ɛɛ ɔɔ*:

	Toende	Agolle	
	<u>Toende</u>	<u>Agolle</u>	
	dɛ́ɛ́m	*dìəm*^{ma}	"man's parent-in-law"
	sɛ̄ɛ̄s	*sīəs*^e	"waists"
but	*té'ét*	*tɛ̀ʔɛd*^e	"baobab fruits"
	pē'ēs	*pɛ̄ʔɛs*^{e/}	"sheep" plural
	bɔ́'ɔs	*būʔəs*^{e/}	"ask"
	tɔ́ɔ̄n	*tùən*^{ne}	"before, in front"
	kɔ́'ɔ̄m	*kùʔəm*^m	"water"
	sábɔ́ɔ	*sàbùa*⁺	"lover, girlfriend"
but	*póók*	*pɔ̄ɔg*^{o/}	"farm, field"
	tōom	*tɔ̄ɔm*^{m/}	"depart, disappear"
	zò	*zɔ̀*⁺	"run" (Mooré *zoe*)

The original Common Kusaal system probably preserved older diphthongs, like Mooré. While the *ɔɔ/ua* sets usually correspond to Mooré *oo*, there is a different Toende/Agolle pairing when the Mooré cognates have *ao*:

	bɔ̀ɔ̀t	*bɔ̀ɔd*^a	"want, wish" (Mooré *baoda*)

There are gaps in the distribution of Agolle long oral *εε ɔɔ* probably connected with their diphthongal origins. Some occurrences of *εε ɔɔ* seem, however, to be due to levelling within paradigms which feature a suffix ending in *ʋ*. The short vowels *ε ɔ* do not contrast underlyingly with *i̯a u̯a*, as explained below.

iǝ uɵ only occur word-finally as the result of monophthongisation of word-final *ia ua ie ue* within a phrase before another closely connected word 9.1.3 ; this is not marked in writing in the case of *ia ua*:

pīǝ́ tī[+/]	"wash us"	(*pīe*[+/] "wash")
dūɵ́ tī[+/]	"raise us"	(*dūe*[+/]"raise")
sīa lā	"the waist"	[siǝla]
sàbùa lā	"the girlfriend"	[sabuɵla]

All other sequences beginning with written *i u* are *diphthongs* both phonetically and phonemically.

When left word-final in LFs, *iǝ uɵ* diphthongise to *ia ua*:

LF	*kìa*	"cut" pfv	[kʰia]	cf *kìǝd*[a]	ipfv
LF	*kūa*	"hoe" pfv	[kʰua]	cf *kūɵd*[a/]	ipfv

Nasalised *ĩǝ̃ ũɵ̃* occur only in the inflexion and gerund formation of Fusion Verbs 7.3.1 ; in all other contexts *ĩǝ̃ ũɵ̃* and *ε̃ε̃ ɔ̃ɔ̃* have fallen together. The vowels were distinct historically: compare *nɔ̄ɔr* "times" (Mooré *naore*) with *nɔ̄ɔr* "mouth" (Mooré *noore*) 18.2.5 .

The 1-mora vowels corresponding to 2-mora *iǝ uɵ* are *i̯a u̯a* [ɪa] [ʊa].

These, too, pattern as simple vowels throughout: *si̯àk*[e] "agree" and *bu̯àk*[e] "split" do not violate the constraint that full words begin with at most one consonant.

Apocope shortens final *iǝ uɵ* to *i̯a u̯a*:

ki̯à	"cut"	SF of *kìa*
ku̯ā	"hoe"	SF of *kūa*

Short *ε ɔ* appear instead of *i̯a u̯a* everywhere except before *k* (and historical underlying **g*, which has been deleted with lengthening and glottalisation of the preceding vowel 7.1.1.1 .)

Almost all short *ε ɔ* are either of this origin, or derive from Apocope of *εε ɔɔ*.

bɔ̀k[o] "pit" contrasting with *bu̯àk*[e] "split" is due to the rounding change **u̯akkʋ → ɔkkʋ*, see 7.3.2 , while *tε̄k*[e/] "pull", contrasting with *ti̯àk*[e] "change" is due to shortening of a long vowel before an original plosive cluster (**tεεkkι*), see 7.3.3 .

Presumably *nɔ̄k*^{e/} "pick up" is similarly derived by shortening of **nɔɔkkɩ*; Toende Kusaal has *nɔ̀k*, with a variant form *nɔˈk*.

i̯e u̯e [i̯ɪ] [u̯ɪ] appear in place of *i̯a u̯a* before *-y-*, which can occur only in the context of *r*^e|*a*⁺ Class plurals of nominals with stems in *iə* and *uɵ* 7.2.2 :

bīər^{e/}	"elder same-sex sib"	pl *bi̯ēyá*⁺
sūər^{e/}	"road"	pl *su̯ēyá*⁺

5.2 Root Vowels

In root syllables the symbols *a ɛ ɔ ɩ ʊ i u* have their default values of [a] [ɛ] [ɔ] [ɪ] [ʊ] [i] [u] respectively.

ɩ is more central after velars and labials, and *ʊ* is slightly more front after alveolars and *y*; *u* in turn is noticeably fronted after alveolar consonants, which themselves may be realised as palato-alveolars before *u*. This is particularly common with *z*: [ʒyg] for *zūg* "head" 4.1 .

Long Vowels contrast with short in length alone, with no difference in vowel quality. They are written with double symbols.

bāa⁼	"dog"	[ba:]
tɩ̀ɩm^m	"medicine"	[tʰɪ:m]

5.2.1 Nasalisation

Nasalisation is automatic (and unwritten) with vowels preceded by a nasal consonant, except for short vowels which are also immediately followed by a nasal consonant:

nīd^{a/}	"person"	[nĩd]
mɛ̀ɛd^a	"builds"	[mɛ̃:d]
nìŋ^e	"do"	[niŋ]
mēŋ^{a/}	"self"	[mɛŋ]

Contrastive nasalisation is confined to root vowels. It is written with the symbol *ň* following the entire vowel or diphthong, short or long, unless the vowel of diphthong is also glottalised, in which case the *ň* always immediately precedes the *ˀ* symbol.

tɛ̄ɛňs^e	"lands"	[tʰɛ̃:s]
vāʊňg^{o/}	"leaf"	[vãʊ̃g]
áňsìb^a	"mother's brother"	[ãsɪb]
gɛ̄ň⁺	"get tired"	[gɛ̃]

gɛ̄ň^{ʔ+}	"get angry"	[gɛ̃̆]
gɛ̄ň^ʔɛd^{a/}	(ipfv)	[gɛ̃̆:d]

The *ň* is also written before the raised point in the sequence *·o* which is used for [ʊ] when it represents a vowel mora rounded before the enclitic pronoun ^o 5.1:

Mānι áň·ō.	"I am he."	[manɪ ã̆ʊ̃]	(*Mane a o*. Jn 18:5, 1976)

Contrastive nasalisation after word-initial *w y* is written by writing the *ň* before the *w* or *y*, which are themselves strongly nasalised in this position:

ňwām^{me}	"calabash"	[w̃ã̆m]
ňyɛ̄⁺	"see"	[j̃ɛ̃̆]

In line with the traditional system, however, I write the *ň* after the vowel in cases where nasalisation is found only in part of a flexional paradigm, e.g.

	yáaňs^e	"grandchildren"	[j̃ã̆:s]
cf sg	*yáaŋ*^a	"grandchild"	[ja:ŋ]

The rationale for this is presumably that the nasalisation was taken as a feature of the initial consonant itself in other cases but not here. Historically it is indeed the case that older initial **ɲ → ňy* and **ŋ͡m → ňw* 4.1, but synchronically this is simply a spelling rule; the initial consonant of *yáaňs*^e does not differ phonetically from that of *ňyá^ʔas*^e "(animal) females."

Nasalisation is often lost on short vowels followed by nasal consonants. Historically this accounts for the oral vowels in

wīn^{ne/}	"god, spirit"	Dagaare *ŋmen*
wɛ̄n^{na/}	"resemble"	Dagbani *ŋmani*
ɔ̄n^e	"he/she" contrastive	Dagbani *ŋuna*

For examples in phrase level sandhi, see 9.1.2. There are exceptions: *ňyīn*^{ne/} "tooth" *ňwām*^{ne} "calabash."

Many cases of nasalisation which are not automatic are explicable either as representing originally automatic nasalisation following earlier *ɲ ŋ͡m*, or as the result of simplification of the clusters **ns *nf* 7.2.1.1.

There are **no tense-lax contrasts among short nasalised vowels**. (including vowels nasalised after nasal consonants.) The realisation is as *tense* in all root vowels, with the exception only of short *i/ι* after *y*, which is realised [ɪ]:

*ňyīn*ⁿᵉ/	"tooth"	[ĵ̃ĭn]
*ňyīríf*ᵒ	"egusi"	[ĵ̃ĭrɪf]

Epenthetic and affix vowels do not show ATR contrasts in any case, and the high vowels are always written *ɪ ʊ* whether nasal or oral. Note that the locative particle *nɪ* is realised [nĭ].

Long vowels *do* show the contrasts *ĩ̄/ɪ̃ĭ ũ̄/ʊ̃ʊ̃*, but solely as a consequence of the change of **nf *ns* to *f s* with nasalisation of the preceding vowel 7.2.1.1 :

	*níiŋ*ᵃ	"bird"		
but	*píɪňf*ᵒ	"genet"	cf plural	*pīɪní*⁺

	zùuňd ᵉ	"vultures"		
but	*zʊ́ʊňf*ᵒ	"dawadawa seed"	cf plural	*zʊ̄ʊní*⁺
	*tèŋ-zʊ̀ʊňs*ᵉ	"foreign lands"	cf singular	*tèŋ-zʊ̀ŋ*ᵒ

The vast majority of short nasalised vowels are *aň ɛň i̯aň ɔň u̯aň* (see below 5.1.1 on the alternations *ɛ/i̯a* and *ɔ/u̯a*.) Short *iň uň* arise only from automatic nasalisation after nasal consonants including original **ɲ → ňy* and **ŋ͡m → ňw*, and from shortening of long *iiň uuň*, usually as a result of Apocope, e.g. in combining forms:

*sīiňf*ᵒ/	"bee"	cb	*sīň-*
*zùuňg*ᵒ	"vulture"	cb	*zùň-*

High nasalised vowels left word-initial by the loss of historical initial *ŋ* have been lowered to *eň oň*: cf *ɔ̀ňb*ᵉ "chew" and Dagbani *ŋubi* id.

The only other case of a short nasalised high vowel in my materials is the word

*sūňf*ᵒ/	*sūňyá*⁺	*sūň-*	"heart"
*sūuňr*ᵉ/			

where the shortening in the plural is regular before *y*, and that in the singular may be and effect of a high vowel preceding *f*, possibly also seen in *nīf*ᵒ/ "eye" 7.3.3 .

Related to the absence of the lax/tense distinction among high vowels is the complementarity of nasalised *i̯əň u̯əň* and *ɛɛň ɔɔň* 5.1.1 7.3.1 .

5.2.2 Glottalisation

Glottalisation is confined to root vowels and one or two proclitic particles of the form *Caʔ* ← **Cag*. It does not affect vowel quality. It is represented with ʔ after the first (or only) vowel symbol other than *i̯*, but always follows the nasalisation mark ̌n.

*sʊ̀ʔʊg*ᵃ	"knife"	*bā̄ʔa*⁼	"traditional diviner"
bā̄ʔ⁺	"father"	*zìn̆ʔa*⁺	"red"
*pʊ̯ʔā̄*ᵃ	"woman"	*di̯ā̄ʔ*ᵃ	"get dirty"

Note the different treatment of *i̯* and *ʊ̯* with regard to the placement of ʔ; this conforms to the standard orthography, e.g. *pu'a* "woman" but *dia'* "get dirty."

This ʔ may be realised as a creaky-voiced glottal approximant [ʔ] after the first vocalic mora, or the creakiness may be more widely spread within the vowel; but in *either* case, the ʔ behaves as a vowel feature and not a consonant (cf *e̯/i̯ ʊ̯* vs *y w* below 5.2.3 .)

The flapping of initial *d* mentioned above 4.1 occurs after *Vʔ* as well as after *V*; and in general glottalised vowels pattern exactly like unglottalised vowels. The glottalisation which arises from deletion of **g* after *a i̯a ʊ̯a* 7.3.1 does not differ phonetically from other types.

There is nothing corresponding to Kusaal vowel glottalisation in Mooré, Dagaare, Mampruli, Hanga or Dagbani, but Farefare, Talni and Nabit share it:

	Farefare	*yʊ́'ʊ́rɛ́*	"name"	Kusaal	*yū̄ʔur*ᵉ/
	Farefare	*kó'óm*			
and	Talni	*kwoʔm*	"water"	Kusaal	*kʊ̀ʔɵm*ᵐ
	Nabit	*kpa'uŋ*	"guinea fowl"	Kusaal	*kpā̄ʔʊ́ŋ*ᵒ
	Nabit	*nɔnya'aŋ*	"hen"	Kusaal	*nɔ̄-n̆yá̄ʔàŋ*

Nawdm, too, has ʔ in a number of words with Kusaal cognates showing glottalised vowels, e.g. *mì-tâʔ* "three" (in counting) = Kusaal *ntán̆ʔ*; *nú̯ʔ* "arm, hand" = *nú̯ʔùg*ᵒ. Vowel glottalisation is not predictable in these languages. In Kusaal it has interesting segmental effects in root-stems before a flexion beginning with a vowel (see on Consonant Epenthesis 7.2.2 .) Manessy reconstructs implosive or glottalised consonants for the Oti-Volta protolanguage; vowel glottalisation might be a reflex of former glottalised consonants lenited after a root vowel.

Tonal considerations confirm that ˀ is not a consonant in Kusaal. Thus

    Lì kā̀ˀ mɔ́lɩfō.   "It's not a gazelle."

but   *Lì kā̀ˀ ↓nú ˀugō.*   "It's not a hand."

like *Lì kā̀ˀ ↓tíɩgā.*   "It's not a tree."

differ in whether the H toneme is realised with a preceding downstep, because the
sequence *-lɩ-* in *mɔ́lɩfō* is a separate unstressed syllable preceding the final stress on
-fō, whereas the ˀ in *nú ˀugō* is not a consonant and therefore does not begin a
separate syllable. (See Downstepping before H 6.2.2 .)

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

    Kà bà gɛ̄ň.   "and they got tired"   is homophonous with

    Kà bà gɛ̄ňˀ.   "and they got angry"

whereas

    Bà gɛ̀ň nɛ̄.   "they're tired"   differs in realisation from

    Bà gɛ̀ňˀ nɛ̄.   "they're angry"

    Glottalised short vowels are almost all the result of Apocope on glottalised long
vowels. Besides *kā̀ˀe̯+* "not be" (← **kagɩ*) the only other occurrences are before *m* or
ŋ in some words for some informants. Although tonal and structural considerations
confirm that the vowels are short, they are normally written long in the NT;
traditional orthography in general fails to mark length contrasts in glottalised vowels.

*kpɛ̀ˀŋ*e	"strengthen"(NT *kpe'eŋ*)	*lā̄ˀŋ*e/	"set alight"
*nā̄ˀmɩs*e/	"suffer"	*zɛ̄ˀmɩs*e/	"make equal"
*zà ˀmɩs*e	"learn, teach"	*nī̄ˀm*ne/	"meat"
*kɔ̄ˀm*m/	"hunger"	*yā̄ˀm*m/	"gall bladder; sense"
sʋ̀ˀŋā̄+	"well"	*sʋ̀ˀm*m	"goodness"

The adjective *sʋ̀ŋ*o (pl *sʋ̀ma+*) "good" itself never has ˀ in my materials.

5.2.3 Diphthongs

Kusaal has diphthongs of one or two morae, and also three-mora vowel sequences which, though realised as disyllabic with syllable division after the first mora 3.4 , are structurally extra-long diphthongs; they always have identical second and third mora vowel qualities.

1-Mora		2-Mora			3-Mora	
		ia	[ia]		*iaa*	[ia:]
		i̯aˀa	[ɪ̯a̰:]			
		ua	[ua]		*uaa*	[ua:]
		u̯ˀaa	[o̰a̰:]	word-finally		
	≡	*ʋˀa*	[o̰a̰]	before consonants		
ae̤	[aɪ̯]	*ae*	[aɪ]		*aee*	[aɪ:]
ɔe̤	[ɔɪ̯]					
ʋe̤	[ʋɪ̯]	*ʋe*	[ʋɪ]			
ui̯	[ui̯]	*ui*	[ui]		*uii*	[ui:]
		ie	[iɪ]		*iee*	[iɪ:]
		ue	[uɪ]		*uee*	[uɪ:]
au̯	[ao̯]	*aʋ*	[aʋ]		*aʋʋ*	[aʋ:]
		iu	[iu]			
ɩu̯	[ɪo̯]	*ɩo*	[ɪʋ]			
ɛu̯	[ɛo̯]	*ɛo*	[ɛʋ]			
i̯au̯	[ɪ̯ao̯]					
		io	[iʋ]			

[ɪ] is written *e* (not *ɩ*) after *a ɔ ʋ*, and [ʋ] is written *o* (not *ʋ*) after *i ɩ ɛ*.

All the diphthongs listed above may also occur with nasalisation. The two- and three-mora diphthongs may also occur with glottalisation. *i̯aˀa u̯aˀa ʋˀa* are always glottalised; Apocope shortens them to *i̯aˀ u̯aˀ*.

The symbols *i̯* and *e̤* are both realised [ɪ̯] except in *ui̯* and in the monophthong *ie*, where the realisation is [i̯]; [o̯] is always written *u̯*.

The diphthongs *ʋˀa ʋ̃ˀã* appear as *u̯ˀaa u̯ˀãã* respectively when LF-final.

The digraphs *i̯a u̯a* represent single segments phonemically, but are *realised* as rising. Written *iə* [iə] and *ue* [uɵ], and their nasalised/glottalised forms, are the corresponding phonemic monophthongal long vowels 5.1.1 , realised as falling diphthongs. All other sequences of dissimilar vowels are diphthongs both

phonemically and in realisation; three-mora sequences are rising, and the others all falling.

Apart from the Primary Diphthongs (*aʋ ã̃ʋ̃* along with the always-glottalised sequences *i̯aˀa i̯ã̃ˀã̃ ʋˀa ʋ̃ˀã̃* which have arisen historically from lenition of root-final **g* 7.1.1.1), the complex array of Agolle Kusaal diphthongs is the result of active morphophonemic processes: Fusion 7.3.1, and Fronting and Rounding both word-internally 7.3.2 and before Liaison Enclitics 9.3.1.1. Rounding diphthongs occur only word-finally and before velars; fronting diphthongs only word-finally and before *y*.

Additional diphthongs arise as the result of the attachment of Liaison Enclitics after a word ending in a LF-final long vowel 9.3.1. The enclitic ᵒ [ʋ] "him/her" always causes a preceding vowel mora to assimilate totally to [ʋ], with no ATR harmony; that rounded mora is always written ·*o* 5.1 9.3.1.1:

zū·óo	[zuʋ:]	"steal him"	LF
zū·ó	[zuʋ]	"steal him"	SF

There is raising of the second mora when the 2pl subject enclitic ʸᵃ is added to verb forms ending in -*e* like *bɛ̀*⁺ "be somewhere, exist", creating a diphthong *eι* [ɛι] found only in this context:

bɛ̀īyá	[bɛɪja]	"be ye!"	LF
bɛ̀ī	[bɛɪ]	"be ye!"	SF

i̯ u̯ contrast with the consonants *y w* in that they do not form syllable boundaries or behave as part of consonant clusters. After a vowel symbol they represent the glide components of short diphthongs:

dāu̯⁺	[dau̯]	"man"	CV
*gbàu̯ŋ*ᵒ	[ɡ͡bau̯ŋ]	"book"	CVC
sɔ̄ẹ̃ň	[sɔ̃ɪ̯]	"blacksmith" SF	CV
tɔ̄ẹ	[tʰɔɪ̯]	"be bitter" SF	CV
mùi̯⁺	[mũi̯]	"rice"	CVCV

Before a vowel symbol they are part of the digraphs *i̯a u̯a* representing single short vowel phonemes, but are again realised as glides:

*bi̯āu̯ňk*ᵒ	[bɪ̯ãu̯k]	"shoulder"	CVC
*bu̯àk*ᵉ	[bu̯ak]	"split"	CVC

Word-final *-Vi̯ -Vu̯* behave exactly like word-final short root vowels in being
followed by [ʔ] before pause in statements 5.2.2, confirming that *i̯ u̯* do not pattern as
consonants but as vowel features:

> *Ò à nɛ̄ dāu̯.*   [ʊanɛdau̯ʔ]   "He is a man"

Word-initial *ya* [ja] contrasts with *i̯a* [ɪ̯a] in the tenseness of the semivowel, and
probably in timing features:

> *i̯ā*⁺   [ɪ̯a]   "seek"
> *yā*⁺ᐟ   [ja]   "houses"

The contrast is not [ʔja] vs [ja]: stressed syllables with no initial consonant are
sometimes realised with an initial [ʔ], but this is a prosodic feature, not a consonant.

Chitoran 2002, discussing the Romanian contrast *ia*/*ea*, finds that a contrast
ua/*oa* has no phonetic basis in Romanian, and hypothesises that this is not merely a
language-specific matter but due to the cross-linguistic difficulty of maintaining a
contrast between two back rounded glides [w] and [o̯]. Kusaal, too, has no contrast of
initial *wa*/*u̯a*; historical initial *uɵ* has become *waa* in *wāad*ᵉᐟ "cold" = Toende Kusaal
ɔ̄ɔt, Farefare *ɔ́ɔrɔ́* and *wā*ʔ⁺ "dance" = Toende Kusaal *wɔ́*ꞌ, for which Agolle **wu̯*ʔ*ā*⁺
would be expected.

Before word-medial *y* [j] the short fronting diphthongs *ae̯ ɔe̯ ʋe̯ ui̯* do not
contrast with the corresponding short vowels *a ɔ ʋ u* and are realised [a] [ɔ] [ʋ] [u].
Simple vowel symbols are used, except in LFs where the corresponding SF deletes
the *y* through Apocope: here the same sounds are written with a redundant *e̯*:

> *zūya*   [zʊja]   "tails"
> but   *vūe̯yá* LF   [vʊja]   "be alive"   cf SF *vūe̯*   [vʊɪ̯]

> *nɔ̄yá*   [nɔ̃ja]   "mouths"
> but   *tɔ̄e̯yá* LF   [tʰɔja]   "be difficult"   cf SF *tɔ̄e̯*   [tʰɔɪ̯]

Length in diphthongs is predictable, except with word-final *ae*/*ae̯* and with
aʋ/*au̯* before *ŋ*. All SF-final *unglottalised closing* diphthongs are 1-mora except *ae*
(*àe̯ň* "be something", *pāe* "reach"); all glottalised and/or opening SF-final diphthongs
are 2-mora; LFs have one more mora than the SF, but no more than two before
Liaison. Word-internally, all glottalised diphthongs are 2-mora; non-glottalised
diphthongs are 1-mora before *y* or *k*, and 2-mora elsewhere, except that 1-mora
rounding diphthongs may occur before *ŋ*:

> *gbāu̯ŋ*   "skin"   *màngāʋ́ŋ*   "crab"

5.3 Epenthetic Vowels

As with the second morae of long vowels, the quality of epenthetic vowels would be predictable if it were not for Apocope deleting final rounded vowels. The language has thereby acquired a contrast between *ι* and *ʋ* in epenthetic vowels.

The default epenthetic vowel is *ι*.

Before LF *-gᵒ -ŋᵒ* the epenthetic vowel is *ʋ*, remaining as such in the LF.

	*āaňdιg*ᵃ	← *ã̃ãdιga	"black plum tree"
but	*gàadʋg*ᵒ	← *gaadιgʋ	"(sur)passing" (gerund)
pl	*mālιma*⁺	← *malιmaa	"sacrifices"
but	*mālʋŋ*ᵒ	← *malιŋŋʋ	"sacrifice"

Epenthetic vowels are also rounded to *ʋ* when *preceded* by a rounded root vowel with intervening *-g-* (but not *-ŋ- -k-*):

*gbīgιm*ⁿᵉ	[g͡bɪgɪm]	"lion"
*yūgʋ́m*ⁿᵉ	[jʊgʊm]	"camel"
*kūgʋr*ᵉ/	[kʰugur]	"stone" (ATR harmony, see below)
*wābιd*ᵉ/	[wabɪd]	"elephants"
*dūgʋd*ᵉ/	[dʊgʊd]	"cooking pots"
*dūgʋdíb*ᵃ	[dʊgʊdɪb]	"people who cook"
*pūʋgʋn*ᵉ/	[pʰʊ:gʊn]	"belly" (*pūʋg*ᵃ)+ *n*ᵉ locative

Some speakers do not limit rounding of epenthetic vowels after rounded root vowels to cases where the intervening consonant is *g*. Some have e.g. *nɔ́bʋ̀r*ᵉ "leg" for the *nɔ́bὶr*ᵉ of my informants. On the other hand, NT, ILK and KED have *poogin* for *pūʋgʋn*ᵉ/ "inside." The variation is not contrastive, and is significant only before word-final velars, where it can lead to reanalysis of the *g*ᵃ sg suffix as *g*ᵒ 11.3.2.1 .

WK has rounding before velars after short root rounded vowels with intervening *b m l*, and after *mm* even when the preceding vowel is not rounded:

	*kɔ̄lʋg*ᵃ	"river" WK
	*yàmmʋg*ᵃ	"slave" WK
or	*yàmmʋg*ᵒ	

Nasalisation is absent on epenthetic vowels where parallel morphological processes would have caused contrastive nasalisation of a root vowel:

	*tɛ̄ŋ*ᵃ	"land"	pl	*tɛ̄ɛňs*ᵉ	← *tɛnsι
but	*kʋ̀lιŋ*ᵃ	"door"	pl	*kʋ̀lιs*ᵉ	← *kʋlιnsι

ATR harmony appears between a short root vowel and a following epenthetic vowel; it is not contrastive and is ignored in the orthography:

	*tìsɪd*ᵃ	[tʰɪsɪd]	"gives"
but	*sīgɪd*ᵃ/	[sigid]	"lowers"
	*būgʊr*ᵉ	[bʊgʊr]	"spirit's dwelling"
but	*kūgʊr*ᵉ/	[kʰugur]	"stone"

*yūgʊdɪr*ᵉ	[jugudɪr]	"hedgehog"
*yūgʊ́m*ⁿᵉ	[jʊgʊm]	"camel"

5.4 Affix Vowels

Except for nominal combining forms, Particle-Verbs 24.7.2, Post-Subject Particles 29.1.3, and Focussing Modifiers 34.6, clitics have vowels showing the same set of vowel contrasts as the *flexions* of full words, as do prefixes 15.2.2; collectively, these are Affix Vowels.

There are three affix vowels *a ɪ ʊ*, which may also occur long: *aa ɪɪ ʊʊ*.

All the Prosodic Clitics cause short LF-final *ɪ ʊ* to be lowered to [e] [o], written *e o* 3.2.1; the only context in which underlying LF-final short *ɪ ʊ* appear as such is by Apocope Blocking 7.4.

When the long affix vowels *ɪɪ ʊʊ* are shortened by Apocope the resulting *ɪ ʊ* are realised exactly like epenthetic vowels. Both short and long affix *ɪ ʊ ɪɪ ʊʊ* are subject to ATR harmony under the same conditions as epenthetic vowels:

	mɔ̀lɪɪ	[mɔ̃lɪ:]	LF	"gazelles"
	mɔ̀lɪ	[mɔ̃lɪ]	SF	
	wìdɪɪ	[widi:]	LF	"horses"
	wìdɪ	[widi]	SF	

but	*nīigɪ́ɪ*	[nĩ:gɪ:]	LF	"cows"
	nīigɪ́	[nĩ:gɪ]	SF	(*long* root vowel)

Harmony also occurs with *ɪ ʊ* in prefixes, which are realised [i] [u] when the first mora of the root is *i* or *u*:

*tītā'ar*ᵉ		"big"
*kʊ̀kɔ̄r*ᵉ/		"voice"
*kìkīrɪg*ᵃ/	[kʰikʰirig]	"protective spirit"
*sìsì'əm*ᵐ	[sisʲəm]	"wind"

*dùndùug*ᵒ	[dundu:g]	"cobra"
*sīlɩnsíù̃g*ᵒ	[siliŋsĩũg]	"spider"
*vʋ̀lɩnvʋ̀uñl*ᵉ	[vuliɱvũ:l]	"mason wasp"

In *nìn-tāa*⁼ "co-wife" [nintʰa:] the tense vowel probably reflects ATR harmony not crossing word division with the "bleached" prefix/cb *nin* 16.4 .

ATR harmony is not contrastive (except in *iu*/*io* 7.3.2) and is ignored in the orthography, with *ɩ ʋ* used throughout.

The vowel *e* appears for expected *ɩ* in various particles realised *nɛ̄*, with *nɩ*⁺ found only as the non-Liaison Word allomorph of the locative marker. This may be due to phonetic nasalisation following *n*; nasalisation of affix vowels is never phonemic.

Glottalisation occurs in proclitic particles only in *pà*ˀ ← **pag* "earlier today."

Long affix *aa ɩɩ ʋʋ* may arise from secondary prolongation in the LF of forms with Apocope Blocking 7.4 . Otherwise, long LF-final *ʋʋ* is nearly always the result of Liaison before the enclitic pronoun ᵒ 9.3.1 ; all other cases are probably loanwords, like *sūgʋrʋ́*⁺ "forbearance."

LF-final long *aa ɩɩ* appear in the *r*ᵉ|*a*⁺ and *f*ᵒ|*ɩ*⁺ Class plural flexions. The final vowels *-a -ɩ* in these plural forms behave like Apocope-Blocked forms before Liaison, with no prolongation of the vowel, except in the case of the form *yáan*ᵉ, plural of *yín*ⁿᵉ "(at) home", the irregular locative of *yīr*ᵉ/ "house" 22.3 .

SF-final *a ɩ ʋ* correspond to LF-final *aa ɩɩ ʋʋ* everywhere except with the LF *-ya* of Invariable Verbs and (for some speakers) two irregular ᵃ|*b*ᵃ Class nouns 3.2.2 .

The affix vowels *ɩ* and *ʋ* contrast consistently only after velars and word-initially: *ɩ* is the default after alveolars, and *ʋ* after labials, labiodentals and labiovelars. Prefixes, however, show *ʋ* rather than *ɩ* before root *u*/*ʋ* (*dùndùug*ᵒ "cobra") and *ɩ* instead of *ʋ* before root *i*/*ɩ* (*kpɪ̄kpɪ̄n*ⁿᵃ/ "merchant.") In flexions *-mm* appears in place of **-mʋ*; *ɩ* appears after labial consonants only in perfectives like *zàb*ᵉ "fight" where it is probably analogical. Velars followed by affix-vowel *ʋ* could be internally reconstructed throughout as labiovelars (with 3sg *ò* ← **ŋmʋ̀* 17.1 fn), but comparative evidence is against a historical origin of the Class suffix *-g*ᵒ as **-gb*ᵒ. In any case, contrasts of rounded and unrounded affix vowels are found after alveolars outside Southwestern Oti-Volta. In Mooré and Farefare the plural suffix corresponding to singular *-go* is *-do*; *-u* appears as an imperfective verbal flexion after alveolars in Byali and Waama and so on. The proclitic 1pl pronoun *tì* "we" has the contrastive form *tʋn* in Toende Kusaal; with this, compare e.g. Swahili *tu-*.

6 Tones

The tone system of Kusaal is structurally very similar to the two-tone terracing systems with emic downsteps seen very frequently among the neighbouring and related languages. The realisation is complicated by the fact that historical H tone followed by either L or downstep has become a new H toneme, higher than the original H, which has become the M (mid) toneme in a three-toneme system.

Tonemes are borne only by vocalic morae and by *m n* when syllabic. There are great constraints on the total range of tone patterns for single words, with nominals showing only four distinct basic patterns, and verbs only two.

Word-final tones are affected by following Liaison and Prosodic Clitics; the Interrogative Clitic produces a wholesale replacement of final M tones by L.

Word intrinsic tone patterns are frequently changed by tone overlay 24.6.1.1 and tone sandhi 10 phenomena.

L is the unmarked toneme in the system, equivalent to the absence of any other toneme. On the question of toneless stems and Tone Pattern O see 8.7 .

M is the basic marked toneme. It corresponds in comparative terms to the H tone of other Western Oti-Volta languages; I will refer below to "floating M tones", as a shorthand for what would be floating H tones in a more abstract analysis.

H tonemes are of secondary origin. Structurally they represent ML on a single mora, and are equivalent to falling tones or to H! in more typical terracing tone systems, as in Dagbani. Kusaal H tonemes are frequently generated by external tone sandhi. Word-initial H tonemes arise by the change of initial L to H by L Raising 10.1 and by the change of initial M to H by M Raising 10.3 ; historically, this is the result of **rightward M spreading**. A word-final M toneme preceding a word beginning with a Fixed L Tone 10.2 with no intervening pause becomes H. Diachronically, this represents **leftward L spreading**, H being once again the outcome of ML on a single mora.

Comparative evidence shows that word-internal H tones have arisen in the same way as in external sandhi. **The sequence ML cannot occur word-internally, but must become either HL or MH.** However, for purposes of synchronic description it is simplest to specify the H tonemes directly, as is done in the account of word Tone Patterns below 8.2 8.3 ; a similar decision has been taken with external tone sandhi, directly specifying the conditions under which initial L or final M are changed to H, rather than invoking tone spreading and floating tones 10.1 .

6.1 Tonemes

There are three tonemes:

H	High, marked with an acute:	*gɛ́l*^le	"egg"
M	Mid, marked with a macron:	*bāŋ*^a	"ring"
L	Low, marked with a grave:	*bɔ̀k*^o	"pit"

> The final mora of a three-mora vowel sequence is always toneless; the final mora of a two-mora vowel sequence *must* carry a toneme if it precedes Liaison 9.3, and *may* (but need not) only if it falls in a closed syllable. Every other vocalic mora carries a toneme unless this has been delinked by H Spreading 6.2.1.

When syllabic, *m n* bear the L toneme, except for the Serialiser particle *n*, which is toneless.

Toneless morae are realised by extension of the toneme of the preceding mora to cover both morae.

Within a word, macrons (for M) and and graves (for L) apply not only to the mora they are written on, but to all following unmarked morae until the next tone mark or until the end of the word.

	Kà m̀ gɔ̄s bún lā bɛ̄ogʊn.	"And I looked at the donkey in the morning"
for	*Kà m̀ gɔ̄s bún lā bɛ̄ōgūn.*	
	And **1SG** look.at:**PFV** donkey:**SG ART** morning:**LOC**.	

	Lì à nɛ̄ púkɔ̀ɔ̌r lā.	"It's the widow."
for	*Lì à nɛ̄ púkɔ̀ɔ̀ǒr lā.*	
	3NH COP FOC widow:**SG ART**.	

After an acute mark, however, an unmarked mora is *toneless*, and the H tone extends over both morae 6.2.1:

*Lì kā*ˀ **mɔ́lɪfō** ⁺*ø.*	"It's not a gazelle."
3NH NEG.BE gazelle:**SG NEG**.	

Nominals with prefixes 16 are written with a tone mark on the root even if it is identical to that on the prefix: *zīnzāu̯ŋ* "bat", *kʊ̀kpàrɪg* "palm tree."

The H toneme is in certain circumstances realised with a preceding *phonetic* downstep, lowering it to M level 6.2.2, but this is entirely a question of surface realisation, and does not affect the relationship of the H to following tonemes.

The mid toneme M is always realised level; L and H are level except before pause, where they are realised as falling tones, beginning at their usual pitch.

H toneme when attached to both morae of a long vowel before pause shows the fall in pitch on the second mora, differing from the sequence HL on a long vowel, where the fall in pitch occurs from the first mora to the second:

	m̀ sáam	"my guests."
but	*m̀ gbɛ́ɛ̌m*	"my sleep"

There is no "automatic" downstepping after L tonemes. However, downstep after L, of both H and M tonemes, does occur after an immediately preceding sequence ML (*not* HL.) This is in practice fairly uncommon, because ML never occurs word-internally, and across word division the underlying sequence ML has normally become either HL (where the L is Fixed-L 10.2) or MH (by L Raising 10.1 .) The only scenario in which a ML sequence remains unaltered with no intervening pause is when a stressed syllable precedes a Fixed-L word; as Fixed-L words are almost all at least potentially Liaison words 9.3, this exception may have arisen relatively recently, with the widespread loss of Liaison before words which are not enclitic 9.3.2 .

In cases where the Complementiser *ǹ* is realised as segmental zero and is preceded by a M toneme, the downstep remains before a following M or H toneme. As, unlike regular downstepping before H 6.2.2 , this is not predictable, it is written explicitly with ↓ :

wuu saa naani iank ya nya'aŋ n ti paae ya tuona la.
wōʋ sāa‿ ↓ *nāanι i̱áňk yà ňyá'aŋ*
like rain:**SG COMP** then   jump:**PFV 2PL** behind
n tí pāé‿ yà tùɵna lā
SER afterwards reach:**PFV 2PL** before.**ADV ART**
"like when lightning leaps from East to West" (Mt 24:27)

The final mora of a word-final vowel sequence only carries a toneme if it precedes Liaison. There is an audible difference in tone contour between e.g.

M̀ pū bɔ́ɔdī‿ báa.   "I don't love them."   (*báa*: high falling to mid)
1SG NEG.IND want:**IPFV 3PLO**.

and   *M̀ bɔ́ɔdī‿ báa ⁺ø?.*   "Do I love them?"   (*báa*: high falling to low)
1SG want:**IPFV 3PLO PQ**?

but this is attributable to the Interrogative falling intonation 10.4.2 .

However, there is a contrast in the final tonemes between

Tì   ňwɛ́ʔ·ō‿ ø.   "We beat him."
1PL beat**:PFV 3HUO**.

Kà   tì   ňwɛ́ʔ·ò‿ ø.   "And we beat him."
And **1PL** beat**:PFV 3HUO**.

In closed syllables, the second mora of a long vowel or diphthong may have a toneme even if it does not precede Liaison. Because a rise in pitch within a syllable is not possible 6.2.3 8.2.1.1 , and ML cannot occur word-internally, the only case which is not due to the effects of Prosodic Clitics where the second mora toneme differs from the first is with the sequence HL:

Lì   à   nē   náaf.   "It's a cow."
3NH COP FOC cow**:SG**.

but   *Lì   à   nē   núʔùg.*   "It's a hand."
3NH COP FOC hand**:SG**.

Before the Negative Prosodic Clitic, the L of the sequence HL in a closed syllable is susceptible to replacement by M before the Negative Prosodic Clitic when it is the last L toneme in a LF 10.4.1 , so that in that one context HM also occurs.

When the 3sg human-gender pronoun ᵒ appears in its segmentally zero SF form 9.3.1 and the preceding verb form appears with final *-C·ō*, the corresponding LF is in *-C·óo* rather than *-C·ōó*:

M̀ bɔ́ɔd·ō.   "I love him/her."
M̀ pū bɔ́ɔd·óo.   "I don't love him/her."

6.2 Realisation Rules

These realisation rules apply after all toneme allocation by Tone Patterns 8.1 , the imposition of tone overlay by Insubordination Marking 24.6.1.1 , and all external tone sandhi 10 .

Among themselves, the only necessary ordering is that H Spreading must precede the insertion of downsteps before H tonemes.

6.2.1 H Spreading

If two successive open morae 3.4 carry the tonemes HL, and the L mora is either the second mora of a root vowel or an epenthetic vowel, the L is delinked, and the H is realised across both morae, *unless* the L mora precedes Liaison.

*Lì   kā˕   **mɔ́lɪ**fō   ⁺ø.*   "It's not a gazelle."
3NH NEG.BE gazelle:**SG   NEG**.

*Bà   kā˕   dī̃ˀə**sídɪ**bā ⁺ø.*   "They are not receivers."
3PL NEG.BE receiver:**PL NEG**.

The rule does not apply if either mora is closed:

*Lì   à   nɛ̄ **mɔ́lì**f.*   "It's a gazelle."
3NH COP FOC gazelle:**SG**.

*Bà   à   nɛ̄ dī̃ˀə**sídì**b.*   "They are receivers."
3PL COP FOC receiver:**PL**.

*Lì   kā˕   būn-**sábì**llē   ⁺ø.* "It's not a black thing."
3NH NEG.BE thing-black:**SG   NEG**.

Written intervocalic *k p t* represent the clusters *kk tt pp*; thus

Ka ya pu siakida.   "But you did not agree." (Lk 13:34)
*Kà   yà pō̄   **sḭ̀ákì**dā   ⁺ø.*
And **2PL NEG.IND** agree:**IPFV   NEG**.

Intervocalic *ŋ* is sometimes treated as single:

dine ka ba pu nar ye ba niŋida. "things they should not be doing" (Rom 1:28)
*lìnɪ‿   ø   kà bà pō̄   nār   yɛ́ bà **níŋì**dā ⁺ø*
or   *lìnɪ‿   ø   kà bà pō̄   nār   yɛ́ bà **níŋɪ**dā ⁺ø*
DEM.NH COMP and **3PL NEG.IND** must that **3PL** do:**IPFV NEG**

[Compare the anomalous Tone Patterns of *gīŋɪlím*ᵐ "shortness" 8.2.1 and *nɔ̀ŋɪlím*ᵐ "love" 8.2.3 .]

H Spreading does not occur if the L mora falls on a root vowel or an affix vowel; thus with the word *dàgɔ̀bɩg*ᵃ "left hand", where the *dà-* is a derivational prefix before the root *gɔ̀b-* 16 :

> *Lì   kā*ʔ   **dágɔ̀bɩgā**   ⁺ø.   "It's not a left hand."
> **3NH NEG.BE** left.hand:**SG NEG**.

With *dìga*⁺ "dwarfs", where the *-a* is an affix vowel:

> *Bà   à   nɛ̄   **dígà***.   "They are dwarfs."
> **3PL COP FOC** dwarf:**PL**.

H Spreading does not apply to a L mora preceding Liaison; thus

> *Kà   ɔ̄n   **zábì‿**   f.*   "And he fought you."
> And **3HU.CNTR** fight:**PFV 2SGO**.

shows the same final tones as

> *Lì   à   nɛ̄ **mɔ́lì** f.*   "It's a gazelle."
> **3NH COP FOC** gazelle:**SG**.

but   *Ò   pū   **zábì‿**   fō   ⁺ø.*   "He didn't fight you."
> **3HU NEG.IND** fight:**PFV 2SGO NEG**.

cf   *Lì   kā*ʔ   **mɔ́lɩ**fō   ⁺ø.*   "It's not a gazelle."
> **3NH NEG.BE** gazelle:**SG NEG**.

As a consequence of H Spreading, the LF tones of words like *nú*ʔùg*ᵒ "hand" coincide completely with those of words with H toneme over a long vowel because of 3-Mora Reduction 8.2.1.1 like *náaf*ᵒ "cow."

> *Lì   kā*ʔ   *nú*ʔ*ugō ⁺ø.*   "It's not a hand."
> **3NH NEG.BE** hand:**SG NEG**.

> *Lì   kā*ʔ   *náafō ⁺ø.*   "It's not a cow."
> **3NH NEG.BE** cow:**SG NEG**.

Superscript Notation 3.2.1 writes such words with the SF tones: *náaf*ᵒ *nú*ʔùg*ᵒ.
   The syllable-based nature of the rule for downstepping before H 6.2.2 means there is no downstep when the H and L do not fall in the same syllable:

Lì   kā̀ʔ   nɔ́bɪrē ⁺ø.   "It's not a leg."
3NH NEG.BE leg:**SG   NEG**.

The interaction of these rules produces a three-way contrast, with "leg" and "hand" matching tonally in the SF but "cow" and "hand" in the LF:

Lì à nē̄ nɔ́bɪ̀r.   "It's a leg."
Lì à nē̄ nú̄ʔùg.   "It's a hand."
Lì à nē̄ náaf.   "It's a cow."

Lì kā̀ʔ nɔ́bɪrē.   "It's not a leg."
Lì kā̀ʔ ↓nú̄ʔugō.   "It's not a hand."
Lì kā̀ʔ ↓náafō.   "It's not a cow."

The rule for H Spreading given above raises two theoretical problems.

To begin with, the consonant clusters *kk tt pp ŋŋ* are in fact realised as single consonants except in very slow speech. Nevertheless, they have the effect of closing the preceding syllable for the purposes of the rule. This could be encompassed by setting up a rule of degemination applying even later than H Spreading (itself a late realisation rule), or by adding the further condition to the rule that the HL morae should not be separated by an unvoiced consonant. The fluctuation in behaviour of *ŋ* may reflect that the rule is in fact changing in this way. In toneme allocation by Tone Pattern *kk tt pp ŋŋ* also behave as clusters $\boxed{8.2.1}$ $\boxed{8.3.1}$ but this can be explained in the same way as the tonal anomalies due to the simplification of impermissible consonant clusters $\boxed{8.2.1.1}$.

A more serious difficulty is that H Spreading is sensitive to word division even in cases where this involves Liaison:

*Ò   pū̄   **zábì**‿   fō   ⁺ø.*   "He didn't fight you."
3HU NEG.IND fight:**PFV 2SGO NEG**.

but   *Lì   kā̀ʔ   **mɔ́lɪ**fō   ⁺ø.*   "It's not a gazelle."
3NH NEG.BE gazelle:**SG NEG**.

This is problematic because there is no phonological marker of word division in such cases *apart* from tones; other phonological evidence, for example, being the fact that a M toneme never follows L or H word-internally unless it falls on a final vowel preceding a Prosodic Clitic or Liaison Enclitic, where it always reflects a tone change induced by the following clitic $\boxed{6.1}$. (The preservation in texts of word-final fronting diphthongs before Liaison is probably simply orthographic $\boxed{9.1.3}$.)

This could instead be analysed as a contrast between marked L tonemes, not subject to H Spreading, as against intrinsically toneless morae, but in the vast majority of cases this would require arbitrary choices on a purely theoretical basis as to whether surface L represented a marked toneme or not, involving absolute neutralisation on a large scale. It is preferable simply to accept that the tone system is sensitive to word divisions for which there is no segmental correlate. The division is in any case justifiable morphologically and syntactically 3.3.2.

Just as H Spreading involves delinking a L toneme after H, so too the same phonological rule might delink M after M and L after L, so that in e.g.

> *Lì kā*ʔ   *wābʊgó* ⁺*ø.*   "It's not an elephant."
> **3NH NEG.BE** elephant:**SG NEG**.

the word *wābʊgó* had just two tonemes, M and H. However, this would be a purely theoretical matter, as actual surface tone contours would never be affected.

6.2.2 Downstepping before H

Downstep insertion applies after H Spreading.

> Downstep is inserted before H after:
>   H: always
>   M: if the next following tone falls in a stressed syllable
>   *unless* the H is the last H in a question

The exception with questions is due to the interrogative intonation pattern 10.4.2.

Downstep lowers H to the level of an immediately preceding M. Thus, while the sequence MHM is realised with the last M tone is back at the pitch of the first, in M↓HM the final M tone is downstepped below the first.

As these downsteps before H tonemes are predictable, they are not marked in the normal orthography of this grammar, but in this section they are written ↓. (3.4 recap of stress: monosyllabic words with a short vowel - even full words - are only stressed before pause. Word stress falls on the first root mora, except with LFs before pause, which have stress on the affix instead.)

Examples: Downstep after M before H immediately preceding stress (bold type marks relevant stressed morae):
Downstep before *bʊ́ŋ* "donkey" preceding stressed prepausal *lā* in

Kà   m̀   gɔ̄s   ↓búŋ   lā.
And **1SG** look.at:**PFV** donkey:**SG ART**.
"And I looked at the donkey."

but not when there is no stress on the *lā,* as it does not precede pause:

Kà   m̀   gɔ̄s   búŋ   lā bɛ̄ogʊn.
And **1SG** look.at:**PFV** donkey:**SG ART** morning:**LOC**.
"And I looked at the donkey in the morning."

When the next mora after the H is not stressed there is no downstep.

Lì   à   nɛ̄   dɔ́ɔ̀g   lā.   "It's the hut."
3NH COP FOC hut:**SG ART**.

With this contrast

Lì   à   nɛ̄   ↓náaf   lā.   "It's the cow."
3NH COP FOC   cow:**SG ART**.

where the H toneme is realised over *both* morae of *náaf*, so the actual next following
mora is the stressed *lā*.
    Again, contrast H on unstressed *sá* preceding a stressed mora in

Bīig   lā   ↓sá   mɛ̀ɛd   yīr   lā.
Child:**SG ART   TNS** build:**IPFV** house:**SG ART**.
"The child was building the house yesterday."

with the case where it is followed by unstressed *mɛ̀*:

Bīig   lā   sá   mɛ̀   yīr   lā.
Child:**SG ART TNS** build:**PFV** house:**SG ART**.
"The child built the house yesterday."

Similarly, there is downstep before the cb *bʋ́-* "goat" in

Mān   ↓bʋ́-pìəl   kā̰ʔe ⁺ø.
1SG.CNTR   goat-white:**SG NEG.BE NEG**.
"My white goat isn't there."

but not when *bʊ́-* precedes the unstressed *sʊ̀ŋ*:

> *Mān   bʊ́-sʊ̀ŋ   kā̄ʔe ⁺ø.*
> **1SG.CNTR** goat-good:**SG NEG.BE NEG**.
> "My good goat isn't there."

Before stressed *kā̄ʔe* the second mora of *yʊ̄gʊ́m* is preceded by downstep in

> *Yʊ̄↓gʊ́m   **kā̄ʔe** ⁺ø.*   "There's no camel."
> Camel:**SG   NEG.BE NEG**.

but not before unstressed *lā*:

> *Yʊ̄gʊ́m   lā kā̄ʔe ⁺ø.*   "The camel's not there."
> Camel:**SG ART NEG.BE NEG**.

The *toneme* on the mora following the H toneme is not relevant:

> *Mān   kʊ́kɔ̀m kā̄ʔe   ⁺ø.*   "My leper isn't there."
> **1SG.CNTR** leper:**SG NEG.BE NEG**.

> *Mān   sʊ́sɔ̀m   kā̄ʔe   ⁺ø.*
> **1SG.CNTR** grasshopper:**SG NEG.BE NEG**.
> "My grasshopper isn't there."

> *Mān   kʊ́kɔ̄r kā̄ʔe   ⁺ø.*   "My voice isn't there." (WK tone)
> **1SG.CNTR** voice:**SG NEG.BE NEG**.

LFs before pause transfer stress from the root to the affix:

> *Lì   kā̄ʔ   Ňȳī↓rʊ́**fō** ⁺ø.*   "It's not an egusi seed."
> **3NH NEG.BE** egusi:**SG   NEG**.

Note the consequent contrast between the H tones on the prefix *pʊ́* in

> *Lì   à   nē̄ ↓pʊ́**kɔ̀**ɔ̌ňr lā.*   "It's the widow."
> **3NH COP FOC** widow:**SG ART**.

and *Lì   kā̄ʔ   pʊ́kɔ̀ɔ̌ň**rē̄** ⁺ø.*   "It's not a widow."
> **3NH NEG.BE** widow:**SG   NEG**.

Ànɔ́ʔɔnì‿ø ňyɛ̄   púkɔ̀ɔňre ⁺ø?
Who   **SER** see:**PFV** widow:**SG** **CQ**?
"Who saw a widow?"

However, the **interrogative intonation pattern** 10.4.2 prevents downstep preceding a H syllable even though the next syllable is stressed:

Ò   pū   yādɪↆgídā   ⁺ø.   "He isn't scattering."
3HU NEG.IND scatter:**IPFV** **NEG**.

but   *Ànɔ́ʔɔnì‿ø yādɪgídà   ⁺ø?*   "Who is scattering?"
Who   **SER** scatter:**IPFV** **CQ**?

Lì kā̄ʔ   bī-ↆpúŋā   ⁺ø.   "It's not a girl."
3NH NEG.BE child-girl:**SG** **NEG**.

but   *Lì kā̄ʔ   bī-púŋàa   ⁺ø?*   "Isn't it a girl?"
3NH NEG.BE child-girl:**SG** **PQ**?

Ò   pū   ňyɛ̄   ↆsʊ́ʔʋgā ⁺ø.
3HU NEG.IND see:**PFV** knife:**SG** **NEG**.
"She didn't find a knife."

but   *Ànɔ́ʔɔnì‿ø ňyɛ̄   sʊ́ʔʋgà   ⁺ø?*
Who   **SER** see:**PFV** knife:**SG** **CQ**.
"Who found a knife?"

and   *Ò   pū   dúgèe   ⁺ø ⁺ø?*   "Didn't she cook?"
3HU NEG.IND cook:**PFV** **NEG PQ**.

Examples: Downstep inserted between any two adjacent H tonemes:

Kà m̀ gōs   búŋ   lā bɛ̄ogʋn.
And **1SG** look.at:**PFV** donkey:**SG** **ART** morning:**LOC**.
"And I looked at the donkey in the morning."

but   *M̀ gɔ́s   ↆbúŋ   lā bɛ̄ogʋn.*
1SG look.at:**PFV** donkey:**SG** **ART** morning:**LOC**.
"I looked at the donkey in the morning."

Kà   m̀   gɔ̄s   gɛ́l   lā bɛ̄ogʋn.
And **1SG** look.at:**PFV** egg:**SG ART** morning:**LOC**.
"And I looked at the egg in the morning."

but   *M̀   gɔ́s   ↓gɛ́l   lā bɛ̄ogʋn.*
1SG look.at:**PFV** egg:**SG ART** morning:**LOC**.
"I looked at the egg in the morning."

Kà   m̀   gɔ̄s   náaf   lā bɛ̄ogʋn.
And **1SG** look.at:**PFV** donkey:**SG ART** morning:**LOC**.
"And I looked at the cow in the morning."

but   *M̀   gɔ́s   ↓náaf   lā bɛ̄ogʋn.*
1SG look.at:**PFV**   cow:**SG ART** morning:**LOC**.
"I looked at the cow in the morning."

6.2.3 LM Levelling

The sequence LM within a single syllable becomes MM.

Underlying LM on a single syllable can arise in two ways: by change of the toneme of the final mora of a long vowel before Liaison $\boxed{10.5}$, or as a result of the assignment of M toneme to the last L mora of a LF at the end of a statement or command $\boxed{10.4.1}$.

mɛ̄ɛn   *mɛ̀*+ "build" + *n*[e] rem   (← *mɛ̀ɛ̄n*)

*Lì ká*ʔ ò   tīιmm   *+ø.*   "It's not her medicine."   (← *tìīmm*)
3NH NEG.BE 3HU medicine **NEG**.

*Ò   pū   dá*ʔ   wìdīι *+ø.* "She didn't buy horses."   (← *wìdìī*)
3HU NEG.IND buy:**PFV** horse:**PL NEG**.

*Lì   ká*ʔ bà dā*ʔa   *+ø.*   "It's not their market."   (← *dà*ʔā*)
3NH NEG.BE 3PL market:**SG NEG**.

As a tone realisation rule, LM Levelling naturally applies later than external tone sandhi such as L Raising $\boxed{10.1}$:

Dāu̯   lā   mɛ́ɛ̄n   "The man built (earlier today.)"
Man:**SG ART** build:**PFV:REM**

Lì kā̄ʔ   tíīmm   ⁺ø.   "It's not medicine."
3NH NEG.BE medicine **NEG**.

Similarly, it applies later than the external sandhi change of M toneme to H before Fixed-L words 10.2 :

Bà gɔ̀sī‿   bâ.   "They looked at them."
3PL look.at:**PFV 3PLO**.

Bà gɔ̀sí‿   bà bīis.   "They looked at their children."
3PL look.at:**PFV 3PL** child:**PL**.

Tì gɔ́sī‿   bâ.   "We looked at them."
1PL look.at:**PFV 3PLO**.

Tì gɔ́sí‿   bà bīis.   "We looked at their children."
1PL look.at:**PFV 3PL** child:**PL**.

A rise in tone is permitted between the first and second morae of a three-mora vowel sequence because such sequences are disyllabic, dividing V+V: 3.4 ; thus three-mora vowel sequences ending in LM are realised as ending in M over both morae:

Ò   ká̄ʔ   m̀ sàbùāa   ⁺ø. "She's not my girlfriend."
3HU NEG.BE 1SG girlfriend:**SG NEG**.

7 Word Segmental Structure

7.1 Roots, Prefixes and Suffixes

Word structure is based on **roots**. Roots have the forms *(C)V(C)* or *(C)V:(C)*. Stressed syllables with no initial consonant may be realised with an initial glottal stop [ʔ] but this is synchronically not a consonant but simply a prosodic feature:

*sāan*ᵃ/	"stranger"	[sa:n]
*úun*ⁿᵉ	"dry season"	[ʔu:n], [u:n]

Root vowels may show the full range of possible Kusaal vowels, including contrastive length, nasalisation and glottalisation. The basic *underlying* root vowels are

a	i̯a/ɛ	u̯a/ɔ			i	u	ɩ	ʋ
aa	iə	uɵ	ɛɛ	ɔɔ	ii	uu	ɩɩ	ʋʋ

The digraphs represent *monophthongs*, short or long, affected by Agolle Vowel Breaking 5.1.1. At this underlying level, short *i̯a u̯a* are in complementary distribution with *ɛ ɔ* respectively 5.1.1, all long vowels have glottalised counterparts, and all vowels have contrastively nasalised counterparts except for *iə uɵ ɩ ʋ ɩɩ ʋʋ*. Short *i u* only occur nasalised after *m n* and *ňy ňw ← ɲ ŋ͡m*, however 5.2.1.

A few words contain the **Primary Diphthongs** *aʋ* and *ãʋ̃* 5.2.3. Additional primary diphthongs *i̯aˀa ʋˀa i̯ãˀã ʋ̃ˀã* have arisen by a historical lenition of root-final **g* 7.1.1.1.

The long vowels frequently undergo fronting or rounding of their second morae before fronted or rounded segments 7.3.2 9.3.1.1; deletion of final vowels by Apocope may then remove conditioning factors, with the result that contrastive diphthongs arise:

*vīid*ᵉ/	"owls"	but	sg	*vīug*ᵒ/	"owl"

Only *b d g l m n s r* occur as second consonants of roots.

Stems are derived from roots by adding from zero to two **derivational suffixes** 15 of the form *C* and in the case of nominals by adding optional **prefixes** 15.2.2.

Derivational suffixes comprise the consonants *g s n l d m*, with *r* in a few words which are probably loanwords. No word has more than two derivational suffixes; *g s n* cannot follow another suffix at all, and *l* only does so in a few nominals derived from other nominals. The suffix *d* occurs almost exclusively in nominal

derivatives from verb stems and frequently supplants a preceding derivational suffix or is itself omitted. *(C)V:C* roots do not occur with two suffixes, and must assume the allomorph *(C)VC* before a suffix of a type which cannot follow another 7.1.1.2 .

    Prefixes are of the forms *V CV CVn CVsn CVln*. They only occur in nominal stems. Their vowels are limited to the short **affix vowels** *a ɪ ʋ* and show no contrastive glottalisation or nasalisation. A few stems have two successive prefixes.

*tītāˀar*ᵉ	"big"	*bʋ̀mbàrɪg*ᵃ	"ant"
*sīlɪnsíùñg*ᵒ	"spider"	*tàsɪntàl*ˡᵉ	"palm of hand"

    A stem may constitute a word by itself, or may add a single **flexional suffix**. The flexional suffixes are *a ba ga sɪ fʋ ɪɪ rɪ lɪ aa gʋ dɪ mm bʋ da ma na la*. These draw their vowels from the set of **affix vowels** *a ɪ ʋ* which here may be short or long:

a	*ɪ*	*ʋ*
aa	*ɪɪ*	*ʋʋ*

Affix vowels show no contrastive nasalisation or glottalisation.

    Final *-mm* represents *-mʋ*; it is realised as geminate consonantal [m:] but still patterns in most respects as if the final *m* were syllabic.

    LF-final short *ɪ ʋ* normally appear as *e o* [e] [o].

Stem	*bíi-*	"child"	sg *bīig*ᵃ	pl *bīis*ᵉ
	dɔ̀ɔ-	"hut"	sg *dɔ̀ɔg*ᵒ	pl *dɔ̀ɔd*ᵉ
	kù̀ˀɵ-	"water"	sg *kù̀ˀɵm*ᵐ	

    The vowel-initial flexions introduce an epenthetic consonant after a root ending in a vowel. In productive forms this is always *y* or *d* 7.2.2 :

Stem	*nɔ́ɔ-*	"mouth"	sg *nɔ̄ɔr*ᵉ/	pl *nɔ̄yá*⁺
	yúˀu-	"name"	sg *yū̀ˀur*ᵉ/	pl *yūdá*⁺

    No consonant clusters may occur word-initially, and only *-mm* (derived from *-mʋ*, as noted above) word-finally.

    Clusters of homorganic nasal + C may occur where nominal prefixes attach to the root or to another nominal prefix.

*kʋ̀ndʋ̀ŋ*ᵃ	"jackal"
*gʋ̄mpʋ̄zɛ̄r*ᵉ/	"duck"

Consonant clusters following the root vowel may only be *kk tt pp ŋŋ nn mm ll* or *mn.* Other two-member consonant clusters only occur between words (including between the members of compounds) and word-internally in loanwords:

ňwād-bíl[a]	"star" (for the hyphen see above 3.3)
bùrkìn[a]	"honourable/free/honest person" (← Songhay)

All other pairs of consonants within words are separated by **epenthetic vowels**. Adjacent pairs of consonants either assimilate to a permitted cluster or a single consonant, or insert an epenthetic vowel, which is *ι* by default but may be rounded to *ʋ* by adjacent consonants or after a short rounded root vowel 5.3.

Stem	*ňwād-* "month"	+ sg *-ga*	→	*ňwādιgá*	LF	*ňwādιg*	SF
		+ pl *-sι*	→	*ňwādιsé*	LF	*ňwādιs*	SF
Stem	*kʋ̄g-* "chair"	+ sg *-ga*	→	*kʋ̄ka*	LF	*kʋ̄k*	SF
		+ pl *-sι*	→	*kʋ̄gʋse*	LF	*kʋ̄gʋs*	SF
Stem	*nɔ́b-* "leg"	+ sg *-rι*	→	*nɔ́bιrè*	LF	*nɔ́bìr*	SF
Stem	*dūm-* "knee"	+ pl *-aa*	→	*dūmaa*	LF	*dūma*	SF
Stem	*dūm-* "knee"	+ sg *-rι*	→	*dūmne*	LF	*dūm*	SF

Deletion of word-final *-o* after velars by Apocope may lead to a contrast between round and unrounded epenthetic vowels 7.3.2:

āaňdιg[a]	← *ããdιga	"black plum tree"
but *gàadʋg*[o]	← *gaadιgʋ	"(sur)passing" (gerund)

7.1.1 Root Alternations

7.1.1.1 *CV:~CV*

The majority of roots ending in a root vowel show a long vowel before all consonant-initial flexional and derivational suffixes: *kʊ̄*[+] "kill" imperfective *kʊ̄ʊd*[a/].

Some root-stems with short *CV-* throughout are probably single-mora roots:

yīr[e/]	"house"	*yā*[+/]	plural
zā[+/]	"millet"		
kī[+/]	"cereal, millet"		
mùi̯[+]	"rice"		
bīl[a]	"little"	*bībɩs*[e]	plural
zūg[o/]	"head"	*zūt*[e/]	plural

The cbs of such words may behave tonally like nominal prefixes 8.2.5 , probably because, unlike all other cbs, they have not undergone Apocope.

Various words showing short *CV-* stems throughout have most likely levelled the short vowel which has arisen by phonological rule in one form 11.2.1 .

Some roots ending in a root vowel show short vowels before some suffixes and long vowels before others. Such roots fall into two categories.

When the long-vowel variant is **glottalised**, the vowel is always one of the set *aʔa i̯aʔa ʊʔa* or nasalised *ã̃ʔã̃ i̯ã̃ʔã̃ ʊ̃ʔã̃*; *ʊʔa ʊ̃ʔã̃* appear as *u̯ʔaa u̯ʔã̃ã̃* word-finally 5.2.3 .

Before flexional and derivational suffixes beginning with *g, the vowel is shortened and loses its glottalisation, while the *g becomes *kk*:

zàk[a]	"compound"	*zàʔas*[e]	plural	(*g*[a]|*s*[e] Class)
lāu̯k[o]	"item of goods"	*lāʔad*[e]	plural	(*g*[o]|*d*[e] Class)
yàk[e]	"unhang"	*yàʔal*[e]	"hang up"	
pi̯àu̯ňk[o]	"word"	*pi̯àňʔad*[e]	plural	(*g*[o]|*d*[e] Class)
pu̯āk[a]	"female" (adj)	*pū̄ʔas*[e]	plural	(*g*[a]|*s*[e] Class)
pu̯ʔā[a]	"woman"	*pū̄ʔab*[a]	plural	([a]|*b*[a] Class)
bɔ̀k[o]	"pit"	*bʊ̀ʔad*[e]	plural	(*g*[o]|*d*[e] Class)

With roots in *i̯aʔa ʊʔa i̯ã̃ʔã̃ ʊ̃ʔã̃* this behaviour is invariable. These vowels contrast with long *iʔa uʔa*, though not with the corresponding short vowels created from *iʔa uʔa* by Apocope 3.2.2 . However, root-stems in *aʔa* or *ã̃ʔã̃* may either pattern like this or show the same behaviour as regular *aa ã̃ã̃* roots, as a lexical matter in each case:

dàʔa[=]	"market"	*dàʔas*[e]	plural	(*g*[a]|*s*[e] Class)

Comparative evidence shows that the glottalisation in these stems is secondary to the deletion of an underlying historical root-final *g, and the *kk* forms are the outcome of the regular consonant assimilation *gg* → *kk* 7.2.1 ; compare the deletion of *g after *aa iə uө ãã ɛ̃ɛ̃ ɔ̃ɔ̃* (and their glottalised counterparts) treated in 7.3.1 , where the process of deletion is regarded as a synchronic rule. The deletion of *g after short vowels is probably quite recent historically 3.5 .

The LFs of perfectives of verbs of this type end in a long vowel as usual:

*pi̯āň*ˀᵃ   "speak" pfv   *pi̯āňˀad*ᵃ⁄   imperfective

The sole verbal form which is not a Variable Verb shows a fronting diphthong:

kāˀe̯⁺   "not be"

Non-glottalised roots of this kind show the long vowel before suffixes beginning with *g and the short vowel elsewhere. The explanation is probably again to be sought in deletion of root-final consonants, but in this case the process has occurred much earlier in the history of the Western Oti-Volta family, and the forms have been subject to considerable analogical levelling within paradigms (see below).

Suffixes beginning with *d change this to *tt*, and *b changes to *pp*, but before suffixes beginning with *g the long vowel remains:

*fūug*ᵒ⁄	"clothing"		pl *fūt*ᵉ⁄		
*pɔ̄ɔg*ᵒ⁄	"field"		pl *pɔ̄t*ᵉ⁄		
*dɔ̀ɔg*ᵒ	"hut"		pl *dɔ̀t*ᵉ		
*dāʋg*ᵒ	"male"	cf	*dāp*ᵃ	"men"	
*tɔ̄ɔg*ᵒ	"bitter"	cf	*tɔ̄e̯*ʸᵃ⁄	"be bitter"	
gāaň⁼⁄	"ebony tree"	cf	*gāňr*ᵉ⁄	"ebony fruit"	
	(← *gã̄ãga)				

Idiosyncratic singular forms are seen in the two ᵃ⁄*b*ᵃ Class nouns 3.2.2

dāu̯⁺   "man"   pl *dāp*ᵃ
tāu̯ň⁺⁄   "opposite-sex sib"   pl *tāňp*ᵃ⁄

The long vowel before a nominal singular suffix -*g*ᵃ or -*g*ᵒ is usually generalised throughout the flexional paradigm. Thus the alternative plural forms occur

*fūug*ᵒ⁄   "clothing"   pl *fūud*ᵉ⁄
*pɔ̄ɔg*ᵒ⁄   "field"   pl *pɔ̄ɔd*ᵉ⁄
*dɔ̀ɔg*ᵒ   "hut"   pl *dɔ̀ɔd*ᵉ

and the plurals *always* show long vowels in

dāʋg[o]	"male"	pl *dāad*[e]
tɔ̄ɔg[o]	"bitter"	pl *tɔ̄ɔd*[e]
gāaň[=/]	"ebony tree"	pl *gāaňs*[e/]

Variable Verbs which show a short vowel before imperfective -*t*[a] invariably introduce it into the -*m*[a] imperative, with gemination of the *m*; from a historical point of view this too is due to analogical levelling:

ňyɛ̄[+]	"see"	ipfv *ňyɛ̄t*[a/]	imp *ňyɛ̀m*[a]
dʋ̄[+]	"rise"	ipfv *dʋ̄t*[a/]	imp *dʋ̀m*[a]
lù[+] or *lì*[+]	"fall"	ipfv *lùt*[a] or *lìt*[a]	imp *lùm*[a] or *lìm*[a]
zɔ̀[+]	"run"	ipfv *zɔ̀t*[a]	imp *zɔ̀m*[a]
dì[+]	"eat"	ipfv *dìt*[a]	imp *dìm*[a]
yī[+]	"emerge"	ipfv *yīt*[a/]	imp *yìm*[a]

The irregular verb

kɛ̄[+]	"allow"	ipfv *kɛ̄t*[a/]	imp *kɛ̀l*[a]

does not show gemination of the initial of the unique suffix -*l*[a].
Before *derivational* suffixes the vowel is usually long:

dììs[e]	"feed"	cf	*dì*[+]	"eat"
vʋ̄ʔʋg[e/]	"come alive"	cf	*vʋ̄r*[e/]	"alive"
			vʋ̄ę̄[ya/]	"be alive"
			vʋ̄m[m/]	"life"
dàalɩm[m]	"masculinity"	cf	*dāp*[a]	"men"

There are exceptions with -*s*-:

gɔ̄s[e]	"look"	ipfv *gɔ̄t*[a/]	imp *gɔ̀m*[ma]
		or *gɔ̄sɩd*[a/]	or *gɔ̀sɩm*[a]
tìs[e]	"give"	ipfv *tìt*[a]	
		or *tìsɩd*[a]	
yīs[e]	"make go/come out"	*yī*[+]	"emerge"

The causative *yīs*[e] has a by-form *yīis*[e/]; this is clearly shown to be analogical by its gerund *yīisíb*[o], the unique 3-mora stem in the *b*[o] Class.

Regularly formed *gerunds* show long vowels: *dīιb*[o] "food", *ŋyɛ̄ɛb*[o/] "seeing."

nɔ̄-lɔ́ɔ̀r[e]	"fasting" ("mouth-tying")
fū-yɛ́ɛ̀r[e]	"shirt-wearing" (WK, nonce-form)

There are two instances of a short vowel before *-r*[e] :

nāʔ-lɔ́r[e]	"place in the compound for tying up cows" WK
wìd-lɔ̄r[e/]	"place in the compound for tying up horses" WK

As with *glottalised* alternating *CV:~CV* types, the explanation of these phenomena probably lies in the deletion or assimilation of historical root-final consonants. However, any such root-final consonants have been lost in the related languages too, in most cases without trace. Nevertheless, comparison with Mooré suggests that such roots originally had the form **CVY* or **CVW*, where **Y *W* represent original palatals and labials (or labiovelars) of some kind:

<u>Mooré</u>	<u>Kusaal</u>	
zoe	*zɔ̀*[+]	"run"
koɛɛga	*kʊ̀kɔ̄r*[e/]	"voice"
lui	*lù*[+] or *lì*[+]	"fall"
raopa	*dāp*[a]	"men"
tãõ	*tɔ̀ŋ̆*[+]	"shoot"
tãpo ["bow"]	*tāŋ̆p*[o]	"war"

The allomorphs with short vowels and a following geminate consonant may thus have originated from consonant assimilation of root-final **Y* with following alveolars and root-final **W* with following labials. The *(C)V:* allomorphs seen before velars would result from insertion of an epenthetic vowel with subsequent lenition of the **W/*Y* and development of a long vowel by Fusion; this provides a phonologically natural explanation of the rule that non-glottalised *CV:~CV* root-stems show a long vowel before velar-initial suffixes. The monophthongal forms in verb perfectives can be accounted for by levelling: SFs ending in a vowel correspond to LFs with the vowel lengthened in all cases except Invariable Verbs 3.2.2 . As explained above, plural forms corresponding to singulars with suffixes beginning with velars have generally aquired long vowels by levelling from the singular, and Variable Verbs with a short vowel preceding *-t*[a] in the imperfective also show a short vowel in the *-m*[a] imperative (with gemination of the *m*) in accordance with the usual strongly marked tendency to levelling within verb paradigms.

Roots orginally ending in *W/*Y may explain the singulars of the ᵃ|bᵃ nouns

dāu̯⁺	"man" 3.2.2	pl *dāp*ᵃ	
tāu̯ň⁺/	"sib of opposite sex"	pl *tāňp*ᵃ/	
sāe̯ň⁺	"blacksmith"	pl *sāaňb*ᵃ	
or *sāe̯ň*ʸᵃ			
sɔ̄e̯ň⁺	"witch"	pl *sɔ̄ɔňb*ᵃ	
or *sɔ̄e̯ň*ʸᵃ			

The [w] of *dāu̯*⁺ and *tāu̯ň*⁺/ might be originally part of the class suffix (cf the "stranded cb" *dà-* 16.4), but *sāe̯ň*⁺ and *sɔ̄e̯ň*⁺ must have stems in *y (perhaps ← *ɲ.)

A similar development to the plurals *dāp*ᵃ *tāňp*ᵃ/ is seen in

tɔ̀ň⁺	"shoot"	*tāňp*ᵒ	"war"	
cf *tã̄õ*	"shoot" (Mooré)	*tap*	"bow"	(Nabit)

The -y- of the Adjectival Verbs *vʊ̄e̯*ʸᵃ/ "be alive" and *tɔ̄e̯*ʸᵃ/ "be bitter" would likewise reflect an original root-final consonant before a vowel-initial suffix 13.2.2 . The adjective *vʊ̄r*ᵉ/ "alive" would owe its short vowel to consonant assimilation, and the short vowel of *vʊ̄m*ᵐ/ "life" would be based on the analogy of the adjective.

See further on epenthetic consonants 7.2.2 .

7.1.1.2 *CV:C~CVC*

Roots of the form (*C*)*V:C* are confirmed by cases where they alternate with (*C*)*VC*. This happens in flexion with a few very common nouns:

*zíiŋ*ᵃ (← *zíimgà)	*zīmí*⁺	*zīm-*	"fish"
*náaf*ᵒ (← *náagfʊ̀)	*nīigí*⁺	*nā*ʔ*-* (← *nāg-)	"cow"
*wáaf*ᵒ (← *wáagfʊ̀)	*wīigí*⁺	*wā*ʔ*-* (← *wāg-)	"snake"
*pīim*ᵐ/	*pīmá*⁺		"arrow"
*yùum*ᵐᵉ	*yùma*⁺		"year"

In derivation the alternation appears too:

tʊ̄ʋma⁺	"work" noun	*tʊ̀m*ᵐ	"work" verb
yɛ̄óŋ	"one"	*yīu̯ŋ*ᵒ/	"single"
*kāal*ᵉ/	"count"	*kāl*ˡᵉ/	"number"
*màal*ᵉ	"sacrifice" verb	*mālʋŋ*ᵒ	"sacrifice" noun
*tʊ̄ʋlúg*ᵒ	"hot"	*tʊ̄l*ˡᵃ/	"be hot"

The alternation in *yīis*[e/]/*yīs*[e] "make go/come out" is of a different origin 7.1.1.1 .

There is no obvious rule governing this alternation in flexion or in zero-derivation. Before verb-deriving suffixes, however, the short allomorph always appears:

pìəlɩg[a]	"white"	*pὲlɩg*[e]	"whiten"
kpī^ʔoŋ[o]	"strong"	*kpὲʔŋ*[e]	"strengthen"
lìəb[e]	"become"	*lὲbɩg*[e]	"turn over"
tūʋlúg[o]	"hot"	*tūlɩg*[e/]	"heat"
yāar[e/]	"scatter"	*yādɩg*[e/]	"scatter"
dɛ̄ɛŋ[a]	"first"	*dὲŋ*[e]	"go first"
pìəb[e]	"blow" (flute)	*pὲbɩs*[e]	"blow" (wind)
yùul[e]	"swing" intrans	*yùlɩg*[e]	"swing" transitive
cf *ɛ̄ɛñb*[e]	"lay a foundation"		cf Mooré *yɛ̃bge* id

In nominal derivation the only suffix found after a (*C)V:C* allomorph is *-l-*, which is distinctive segmentally 15.1.2 and tonally 8.6 , and in this function is added to entire nominal stems rather than roots:

      sáannìm[m]   "strangerhood"   (**saanlɩmm*)

(*C)V:C* roots shorten the vowel if *k t* or *p* results from the combination of the final consonant and a following suffix, but this is a phonological constraint rather than a morphological rule 7.3.3 .

7.1.1.3 *CV:~CVC*

In sporadic cases a (*C)V:* root alternates with (*C)VC*. Most cases seem to represent historical alternations between *d* and *b* respectively and the lenited root-final palatal **Y* and labiovelar **W* mentioned in 7.1.1.1 .

wìid[a]	"draw water" ipfv	*wìk*[e]	id, pfv (← **wiggɩ*)
vī^ʔ[+]	"uproot"	*vīk*[e/]	"uproot" (← **viggɩ*)

**Y/d* type:

	lɔ̄[+]	"tie"		*lɔ̄dɩg*[e/]	"untie"	
cf	*lɔ*	"tie"	(Dagbani)	*lɔrgi*	"untie"	(Dagbani)
	loe	"tie"	(Mooré)	*loke* or *lodge*	"untie"	(Mooré)

pʊ̄⁺	"divide"		*pʊ̄dɩg*ᵉ/	"divide"	
cf *poi*	"divide" (Mooré)				

pɛ̄ˀ-sáˀa⁼	"ewe lamb"		*pṵ̄ˀà-sādɩr*ᵉ/	"young woman"
cf *pɔ'ɔ-sa'a*	"young woman"		(Toende)	
pl *pɔ'ɔ-sa'as*				
pug-sarga	"young woman"		(Farefare)	
pl *pug-sarsɩ*				
pʊgsada	"young woman"		(Mooré)	
pl *pʊgsadba*				

Toende Kusaal has, corresponding to Agolle *bɔ̀dɩg*ᵉ "lose, get lost":

bɔ̀ɩ	"perdre, disparaître"	*bóríg*	"fondre, disparaître"

*W/*b* type:

dāṵ⁺	"man"			*bì-dìbɩŋ*ᵃ	"boy"		
cf *biribla*	"boy"	(Mooré)	with	*dāṵ*⁺	"man"		
bipugla	"girl"	(Mooré)	with	*pṵ̄ˀā*	"woman"	(*pṵag-)	

nɔ̄⁺	"tread"		*nɔ́bìr*ᵉ	"foot"	7.2.2
cf *nao*	"tread" (Mooré)		*naore*	"foot"	(Mooré)

7.1.1.4 Glottalisation before Derivational Suffixes

Roots in oral *ɔɔ* become glottalised before derivational *g and *s:

kɔ̀⁺	"break" intrans	*kɔ̀ˀɔg*ᵉ	"break"
			transitive/intransitive
*kɔ̀ɔlʊ́ŋ*ᵒ	"broken"	*kɔ̀ˀɔs*ᵉ	"break several times"
*pɔ̀ɔd*ᵃ	"be few"	*pɔ̀ˀɔg*ᵉ	"diminish"

Glottalisation also occurs before derivational *g in

*vʊ̄ḛ*ʸᵃ/	"be alive"	*vʊ̄ˀʊg*ᵉ/	"make, come alive"

7.2 Consonant Changes

For deletion of underlying *g after *aa iə uə ãã ɛ̃ɛ̃ ɔ̃ɔ̃* see 7.3.1 ; for a historical process of deletion of *g after *a i̯a u̯a ã i̯ã u̯ã* see 7.1.1.1 .

7.2.1 Assimilation versus Insertion of Epenthetic Vowels

Adjacent consonants within a word must either assimilate to a one of the clusters *kk pp tt ŋŋ mm nn ll mn* or insert an **epenthetic vowel** (*ι* by default.) This process regarded as taking place in two steps, because of tonal considerations. At the stage where word stem Tone Patterns are assigned 8.2.1.1 , three clusters **nf *ns *rr* are present which are not permitted in surface forms and are subsequently simplified 7.2.1.1 . The clusters *kk pp tt ŋŋ* are written with single symbols: *k p t ŋ*.

Roots can end only in vowels or in *g d b m n r s l*; stems may also end in consonant clusters or *k t p ŋ*; flexional suffixes begin with vowels or *g d b m r s l f*.

Nasals usually take up the position of articulation of a following consonant, and then homorganic consonants mostly form clusters, with some exceptions among alveolars, where changes attested in derivation have apparently been levelled in flexion 7.2.1.2 .

The treatment of the possible pairs is as follows, with + representing the insertion of an epenthetic vowel. Suffixes beginning with *l f* do not occur in productive paradigms, so there are gaps in the table.

	g	d	b	m	r	s	l	f	←2nd consonant
g)	kk	+	+	+	+	+			
d)	+	tt	+	+	+	+			
b)	+	+	pp	[mm]	+	+			
m)	ŋŋ	mn	mm	mm	mn	[ns]	nn		
n)	ŋŋ	nn	mm	+	nn	ns	nn	nf	
r)	+	+	+	+	rr	+	tt	+	
s)	+	+	+	+	+	+			
l)	+	nn	+	+	ll	+	ll	+	

↑1st consonant

Epenthesis often occurs instead of assimilation after *m n* 7.2.1.3.1 .

Potential pairs with **y* as the second consonant are an issue only with Invariable Verbs 13.2 and effectively belong to derivation rather than flexion.

The unusual change *ld → nn* is carried out completely regularly; Dagbani and Mooré have similar assimilation rules.

The forms in square brackets occur only under certain phonological conditions:

bm → mm   only occurs after a short root vowel

ms → ns   never occurs after a short root vowel; elsewhere it is optional.
                Assimilation and epenthesis occur side by side in many words.

Derivation precedes flexion in cluster development. Stem-final consonant clusters never assimilate further to a a following suffix. Apparent cases are probably all attributable to levelling: for possible **llr → ll* see on the deverbal adjective forms of the Invariable Verb *dɛl*[la/] "lean" 13.2.1.
Examples:

*gg → kk	*gìgɩs*[e]	"dumb people"	sg	*gìk*[a]
cf	*kɔ̄lɩs*[e]	"river"	sg	*kɔ̄lɩg*[a]
*dd → tt	*bʊ̀d*[e]	"plant"	ipfv	*bʊ̀t*[a]
cf	*dūg*[e]	"cook"	ipfv	*dūgʊd*[a/]
*bb → pp	*sɔ̄b*[e]	"write"	ger	*sɔ̄p*[o/]
cf	*kpàr*[e]	"lock"	ger	*kpārɩb*[o]
*ld → nn	*kɔ̀lʊg*[o]	"bag"	pl	*kɔ̀n*[ne]
cf	*zūθbʊ́g*[o]	"hair"	pl	*zūθbíd*[e]
*mg → ŋŋ	*bʊ̀mɩs*[e]	"donkeys"	sg	*bʊ̀ŋ*[a]
cf	*ňwādɩs*[e/]	"months"	sg	*ňwādɩg*[a/]
*ng → ŋŋ	*gbàna*[+]	"books"	sg	*gbàu̯ŋ*[o]
cf	*wābɩd*[e/]	"elephants"	sg	*wābʊg*[o/]
*nr → nn	*tāna*[+]	"earths"	sg	*tān*[ne]
cf	*dìga*[+]	"dwarfs"	sg	*dìgɩr*[e]
*mr → mn	*dūma*[+]	"knees"	sg	*dūm*[ne]
cf	*nɔ̄bá*[+]	"legs"	sg	*nɔ́bìr*[e]
*lr → ll	*gēlá*[+]	"eggs"	sg	*gɛ́l*[le]
cf	*kūgá*[+]	"stones"	sg	*kūgʊr*[e/]
*nb → mm	*sāan*[a/]	"stranger"	pl	*sáam*[ma]
cf	*nīd*[a/]	"person"	pl	*nīdɩb*[a/]

*mb → mm *kìm*ᵐ   "tend flock"   ger *kīm*ᵐᵒ
       cf *kàd*ᵉ   "drive away"   ger *kādıb*ᵒ

Language names in *l*ᵉ:

*ll → ll   *Bùl*ˡᵉ   "Buli"   spoken by *Bùlıs*ᵉ   Bulsa
          *Àgɔ̀l*ˡᵉ   Kusaal   of the   *Àgɔ̀l*ˡᵉ   Agolle area

*rl → tt   *Bāt*ᵉ/   "Bisa"   spoken by *Bārıs*ᵉ/   Bisa
          *Yāt*ᵉ/   "Yarsi"   spoken by *Yārıs*ᵉ/   Yarsi

but there is also *Ňwāmpūrıl*ᵉ/ "Mampruli", spoken by the *Ňwāmpūrıs*ᵉ/ "Mamprussi."

*nl → nn and *ml → nn

          *Dàgbān*ⁿᵉ/ "Dagbani" spoken by *Dàgbām*ᵐᵃ/ Dagomba
          *Yàan*ⁿᵉ   "Yansi"   spoken by *Yàamıs*ᵉ   Yansi
          *Gūrín*ⁿᵉ   "Farefare" spoken by *Gūrís*ᵉ   Farefare

but there is also *Kàmbʊ̀nır*ᵉ "Twi", the language of the *Kàmbʊ̀mıs*ᵉ "Ashanti."

Many other examples of consonant assimilation can be seen in the Flexion sections 11 12 13.1 .

7.2.1.1 Cluster Simplification

The clusters *ns *nf *rr are present at the stage of stem toneme assignment by Tone Patterns but are impermissible in surface forms (except for *ns *nf between a nominal prefix and a root) and are simplified. Unlike *k t p ŋ*, the consonants *s f r* are never actually heard as geminates, however.

ns becomes *s* with nasalisation of a preceding root vowel, and lengthening of a preceding short root vowel:

*tɛ̄ŋ*ᵃ   "land"   pl *tɛ̄ɛ̌ns*ᵉ   ← *tɛnsı
*kʊ̀lıŋ*ᵃ   "door"   pl *kʊ̀lıs*ᵉ   ← *kʊlınsı

Exceptionally, an *epenthetic* vowel becomes long before *ns in

*b͠ūtɩŋ*ᵃ   "cup"   pl   *b͠ūtɩɩs*ᵉ

This probably reflects a reanalysis of the form as nominal prefix *b͠* + *tɩŋ*ᵃ ⎘3.4⎘.

***ss** not originating from *ns has probably been simplified to -*s*- in a number of words historically, but the evidence is quite indirect.

The sg agent nouns *sɔ̀s*ᵃ "beggar" and *tɩs*ᵃ "giver" drop the formant -*d*- and have Tone Pattern L like 3-mora stems ⎘11.3.1⎘; in the case of *tɩ̀s*ᵉ "give" there are independent reasons to suppose that the -*s*- has resulted from a root-final *y assimilated to a following derivational -*s*- ⎘7.1.1.1⎘.

The verb *gɔ̄s*ᵉ "look", which shares the same irregularity in the formation of the finite forms as *tɩ̀s*ᵉ, is also remarkable as being one of only three verbs in my materials which makes a Tone Pattern HL gerund, the others being *kɩ̄r*ᵉ "hurry", which may have -*r*- for *rr, and *sɔ̄ňs*ᵉ "converse" ⎘14.1.1.1.1⎘. However, there are no words of the pattern CVsVC showing the tonemes MH (contrast CVrVC below.)

***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:

*n͠īf*ᵒ/   "eye"   pl   *n͠īní*⁺
*píɩňf*ᵒ   "genet"   pl   *p͠īɩní*⁺

The short vowel in *n͠īf* may reflect a secondary development; cf *s͠ūňf* ⎘7.3.3⎘.

***rr** becomes single *r*

*k̀͠ùkpàr*ᵉ   "palm fruit" pl   *k̀͠ùkpàra*⁺

This is an active process in phrase-level sandhi also ⎘9.1.1⎘. Toneme patterns ofter reveal that surface -*r*- has been simplified from a cluster, e.g. *m͠ɔ̄rím*ᵐ, gerund of *m͠ɔ̄r*ᵃ/ "have"; see also ⎘8.2.1.1⎘. The only Pattern H 2-mora-stem verb in -*r*- in my materials, *k̄͠īr*ᵉ "hurry, tremble" makes a Pattern HL gerund *k̀͠ìkírɔ̀g*ᵒ ⎘14.1.1.1.1⎘. However, there are many cases where there is no evidence for an older cluster, and -*r*- also appears in the *r*ᵉ|*a*⁺ Class sg suffix.

Non-initial -*r*- contrasts with -*d*- in Agolle Kusaal, as in Mooré; this is not the case for most other Western Oti-Volta languages, including even Toende Kusaal.

7.2.1.2 Consonant Assimilation in Derivation

For the most part, the rules for consonant assimilation are the same in derivation as in flexion, but there are divergences involving alveolars, which are probably attributable to complete levelling of the changes in flexion.

In derivation *r* changes to *ʔ* before alveolars *s l d n* with a long glottalised vowel resulting.

Thus *gūr*ᵃ/ "guard" has the derivatives

*gūʔul*ᵉ/	"put on guard"
*gūʔus*ᵉ/	"take care,watch out"
*gūʔud*ᵃ/	agent noun

In derivation *r* changes to *d* before *g* before insertion of the epenthetic vowel:

*gɔ̄r*ᵃ/	DK	"have neck extended"
*gɔ̄dɪg*ᵉ/	DK	"look up, extend neck"
*yāar*ᵉ/		"scatter"
*yādɪg*ᵉ/		"scatter" (for the shortening see 7.1.1.2)

The change is blocked by nasalisation of the preceding vowel: *èn̆rɪg*ᵉ "shift along."

The sequence *rɪd* does occur within deverbal stems invoving the suffix *-d-* but there is vacillation in some cases, suggesting that the *rɪd* forms are analogical; these formations are the most regular and flexion-like among derivational processes involving derivational suffixes 15.1.1 , and hence the most exposed to analogy:

*kpārɪd*ᵃ	"lock-er"
*gūrɪd*ᵃ/	"guard"
*gūʔud*ᵃ/	"guard"

In derivation **dl* seems to result in *ungeminated l* in

*pìd*ᵉ	"put (hat etc) on"
*pìdɪg*ᵉ	"take (hat etc) off"
*pìl*ᵉ	"put (hat etc) on someone"
*pìlɪg*ᵉ	"take (hat etc) off someone"

evidently parallel to

yὲ[+]	"dress oneself"
yὲεg[e]	"undress oneself"
yὲεl[e]	"dress another"

No cases occur of *d* stem-internally before *s* or *n* and it seems probable that it has changed to *ʔ* in such environments:

gɔ̀ʔɔn[e]	WK	"begin to look up"
gɔ̄dɪg[e/]	DK	id

7.2.1.3 Unexpected Epenthetic Vowel Insertion

Ambiguity resulting from Apocope may be avoided by inserting an epenthetic vowel between consonants which might have been expected to assimilate. This is especially characteristic of Variable Verb imperfective formation, because there is only a single regular imperfective flexion for such verbs, so that the strategy of suffix suppletion used by nominals 11.1 cannot be adopted. Unexpected insertion of epenthetic vowels in *nominal* flexion is more usually attributable to stems ending in consonant clusters, which are not always readily recognisable.

Most cases involve stems ending in sonorants, particularly nasals.

7.2.1.3.1 After Nasals

In many cases in flexion the assimilation of nasals to a following consonant does not take place, and an epenthetic vowel is inserted instead.

Most cases of this phenomenon in nominals probably reflect the fact that the stem ends in a consonant cluster such as *-mm-* or *-nn-* derived from earlier *-*md-* *-*nd-*. Such clusters are difficult to distinguish from single consonants before epenthetic vowels 4.2 . In verbs, lack of assimilation is more likely to reflect levelling within the flexional paradigm.

Clearcut examples involving *-mm-* and *-nn-* clusters include Agent Noun 15.1.1.1 and Imperfective Deverbal Adjective forms 15.1.1.2.1 :

kìm[m]	"tend flock"	→	*kɔ̀ňb-kīm*[na]	"shepherd"
			kɔ̀ňb-kīmmɪb[a]	
			or *kɔ̀ňb-kīmnɪb*[a]	

sùn[e]	"bow head"	→	*sūn*[na]	"close observer"
			pl *sūnnɪb*[a]	

lèm[m]	"taste"	→	*lèm-lēm*[na]	"taster"
			or *lèm-lēm*[ne]	
			pl *lèm-lēmnιb*[a]	
			or *lèm-lēmma*[+]	

| *bùn*[e] | "reap" | → | *bōn-búnnìr*[e] | "thing for reaping" |

tòm[m]	"work"	→	*bōn-túmmìr*[e]	"useful thing"
			tūmmιr[e] DK WK	"useful"
			pl *tūmna*[+] DK	
			tūmma[+] WK	

Forms like

gīlιg[e/]	"go around"	→	*pụ̀ʔà-gīnníg*[a]	"prostitute"
kēŋ[e/]	"go"	→	*bùŋ-kēnnír*[e]	"moving donkey"
vūl[e]	"swallow"	→	*tì-vūnním*[m]	"oral medication"
tòm[m]	"work"	→	*tòmmím-tāa*[=]	"co-worker"

are shown to have *-mm-* or *-nn-* by the position of the Pattern's H toneme.

r[e]|*a*[+] plural forms showing *-mma*[+] *-nna*[+] clearly reveal stems ending in clusters, even if they are not synchronically analysable. Examples include

sɔ̄nnιr[e]	*sɔ̄nna*[+]	*sɔ̀n-*	"inner
			compound wall"
sāngʊ́nnìr[e]	*sāngʊ́nnà*[+]	*sāngʊ́n-*	"millipede"
sūmmιr[e]	*sūmma*[+]	*sùm-*	"groundnut"

The tones again confirm the geminate *-mm-* in the singular of

| *yīmmír*[e] | *yīmmá*[+] | *yīm-* | adj "solitary" |

Verbs with stems ending in *m n* frequently show forms with epenthesis rather than consonant assimilation in both the imperfective and in gerund formation. Four-mora *m*-stems always assimilate, but shorter stems show considerable variation, often with variants attested for a single verb.

3-mora stems in *n* always show epenthesis:

| *dìgιn*[e] | *dìgιnιd*[a] | *dìgιnιm*[a] | "lie down" |
| *dìgιnʊg*[o] | | | gerund |

gɔ̀ʔɔn^e   gɔ̀ʔɔnɩd^a   gɔ̀ʔɔnɩm^a   "extend neck"

The *-n-* in almost all 3-mora n-stems is the suffix which derives "assume-posture" Variable Verbs 15.2.1.1 , which may historically represent original *ɲ rather than *n 13.2.1 . However, it is difficult to attribute the consistent failure of consonant cluster formation to a historical phonological difference, and nasal *ɲ would have been expected to assimilate to a following plosive in any case.

2-mora stems in *n* mostly show assimilation in the imperfective, but not in the imperative or the gerund:

bùn^e   bùn^na   bùnɩm^a   "reap"
būnɩb^o   gerund

The verb sùn^e "bow the head" does not assimilate in the imperfective either:

sùn^e   sùnɩd^a   sùnɩm^a   "bow the head"
sùnɩr^e   gerund
or sùnʊg^o

The *-n-* in this verb probably in fact represents *-nn-*, from **-rn-*; cf sùr^a "have head bowed" and the assume-posture derivational suffix *-n-* 15.2.1.1 .

3-mora *m*-stems optionally show epenthesis:

tɔ̄ɔm^m/   tɔ́ɔm^ma   tɔ̀ɔm^ma   "depart"
                      or tɔ̄ɔmíd^a
tɔ́ɔŋ^o   gerund
or tɔ̄ɔmʊ́g^o
kàrɩm^m   kàrɩm^m   kàrɩm^ma   "read"
                      or kàrɩmɩd^a
kàrʊŋ^o   gerund
or kàrɩmʊg^o

In a clear demonstration of epenthesis motivated by the avoidance of ambiguity, WK and DK both use only the assimilated forms for clause-final LFs and before the focus particle nɛ̄^+/, but require unassimilated forms everywhere else:

M̀ pū kárìmmā.   "I'm not reading."
M̀ kárìm nɛ̄.   "I'm reading."
Kà bà kárɩmìd.   "And they were reading."
Kà bà kárìm.   only "And they read."

2-mora *m*-stems seem to divide into a group that assimilate in the imperfective and a group that do not 13.1.1 ; the groups differ in the height of the stem vowel, but it is difficult to see how this would explain the division:

*tʊ̀m*ᵐ	*tʊ̀m*ᵐᵃ	*tʊ̀m*ᵐᵃ	"work"
*wʊ̀m*ᵐ	*wʊ̀m*ᵐᵃ	*wʊ̀m*ᵐᵃ	"hear"
*kìm*ᵐ	*kìm*ᵐᵃ	*kìm*ᵐᵃ	"tend flock/herd"
*dùm*ᵐ	*dùm*ᵐᵃ	*dùm*ᵐᵃ	"bite"
*tàm*ᵐ	*tàmɪd*ᵃ	*tàm*ᵐᵃ	"forget"
*zàm*ᵐ	*zàmɪd*ᵃ	*zàm*ᵐᵃ	"cheat, betray"
*dàm*ᵐ	*dàmɪd*ᵃ	*dàm*ᵐᵃ	"shake"
*lɛ̀m*ᵐ	*lɛ̀mɪd*ᵃ	*lɛ̀m*ᵐᵃ	"sip, taste"

Even here, the NT has an unassimilated imperfective to avoid ambiguity in:

Lin wusa ka ya tumid, tumi li ...
Lìn   wūsa ká yà tʊ̀mɪd, tʊ̀mmī‿ø...
DEM.NH all   and **2PL** do:**IPFV**, do:**IMP**   **2PLS** ...
"Everything you do, do it..." (Col 3:23)

Ka nimbe'ed me tumid tuumbe'ed...
Kà   nīn-bɛ́ʔɛ̀d   mɛ́ tʊ́mìd tʊ́ʊ̀m-bɛ̄ʔɛd...
And person-bad:**PL** also do:**IPFV** deed-bad:**PL**...
"And evildoers do bad things..." (Lk 6:45)

The non-assimilating verbs have the gerunds *tàmʊg*ᵒ *zàmʊg*ᵒ *dàmʊg*ᵒ *lɛ̀mʊg*ᵒ which might suggest 3-mora stems; however *wʊ̀m*ᵐ has the gerund *wʊ̀mʊg*ᵒ alongside *wʊ̄m*ᵐᵒ, and the usual 2-mora stem gerund formation with the *b*ᵒ Class is avoided in other cases when it would result in unclear SFs, as here 14.1.1.1.1 . The agent noun derivatives of the *tàm*ᵐ types are simply those that would be expected from *CVm*- stems 15.1.1.1 , which supports the supposition that the imperfective forms are the result of levelling.

7.2.1.3.2 Between Alveolars

The rules for consonant assimilation after alveolars in derivation differ from those seen in flexion 7.2.1.2 . It is likely that this is historically due to levelling in flexional paradigms.

Unexpected epenthesis as a result of levelling is also seen in the language names 11.3.4.1

Ňwāmpūrıl$^{e/}$	"Mampruli"	cf	*Ňwāmpūrıg*$^{a/}$	"Mamprussi person"
Kàmbʊ̀nır^{e}	"Twi"	cf	*Kàmbʊ̀ŋ*^{a}	"Ashanti person"
		pl	*Kàmbʊ̀mıs*^{e}	

Contrast

Yāt$^{e/}$	"Yarsi"	cf	*Yārıs*$^{e/}$	"Yarsi"
Bāt$^{e/}$	"Bisa"	cf	*Bārıs*$^{e/}$	"Bisa"

Another likely case is

pūsıg$^{a/}$	*pūsıs*$^{e/}$	*pūs-*	"tamarind"

All other examples of $g^a|s^e$ plurals ending in *-sıs*^{e} in my materials are for **-sınsı*, from stems in **m*. The expected pl **pūs*$^{e/}$ would have appeared to show no ending in SF; nouns usually avoid such ambiguity by selecting a different flexion 11.1 , but there is a very strong association of tree names with the $g^a|s^e$ Class and of their fruits with the $r^e|a^+$ and $g^o|d^e$ Classes 37.5 ; *pūsá*$^+$ in fact means "tamarind fruits."

7.2.2 Epenthetic Consonants

Vowel-initial flexions cannot be added straightforwardly to stems ending in a root vowel. No cases occur with the C pl ending *-ı*$^+$; various strategies are adopted in the case of the A sg suffix *-*^{a}, and as the total number of nouns involved is small, it is simplest to list the forms that occur 11.3.1 . In the case of the $r^e|a^+$ Class plural suffix, however, there are clear rules for the attachment of the suffix to vowel stems.

Stems ending in an unglottalised root vowel introduce an epenthetic *-y-* before the plural ending *-a*$^+$, with shortening of long vowels by the general rule 7.3.3 :

kʊ̀kɔ̄r$^{e/}$	"voice"	pl	*kʊ̀kɔ̄yá*$^+$
gāňr$^{e/}$	"fruit of Nigerian ebony"	pl	*gāňyá*$^+$
bàlàar^{e}	"stick, club"	pl	*bàlàya*$^+$
nɔ̄ɔr$^{e/}$	"mouth"	pl	*nɔ̄yá*$^+$

*zū̆ʊr*ᵉ	"tail"	pl *zūya*⁺
*bīər*ᵉ/	"elder same-sex sibling"	pl *bi̩ēyá*⁺
*sūər*ᵉ/	"road"	pl *su̩ēyá*⁺
*zūər*ᵉ	"hill"	pl *zu̩ēya*⁺

Stems ending in a glottalised vowel shorten the vowel, drop the glottalisation, and introduce an epenthetic *-d*:

*yū̆ʔur*ᵉ/	"name"	pl *yūdá*⁺
*pɔ̀ň̆ʔɔr*ᵉ	"cripple"	pl *pɔ̀nda*⁺
*tītā̆ʔar*ᵉ	"big"	pl *tītāda*⁺
*yū̆ʔər*ᵉ	"penis"	pl *yu̩āda*⁺

Stems in historical underlying **-ag-* **-i̩ag-* **-u̩ag-*, which have deleted **g* with glottalisation 7.3.1 , may inflect as (*C*)*VC*- stems as expected, or show analogical forms with *-d*-:

*si̩à̆ʔar*ᵉ	"forest"	pl *si̩à̆ʔa*⁺
*bà̆ʔar*ᵉ	"idol"	pl *bà̆ʔa*⁺ or *bàda*⁺ **bagrı*; Farefare *bàgrɛ̀*
*bi̩āň̆ʔar*ᵉ/	"mud, riverbed"	pl *bi̩āň̆ʔá*⁺
*mʋ̀ʔar*ᵉ	"reservoir, dam"	pl *mu̩ʔàa*⁺ or *mʋ̀ʔada*⁺
*zànkʋ̀ʔar*ᵉ	"jackal"	pl *zànku̩ʔàa*⁺ or *zànkʋ̀ʔada*⁺

Epenthetic *-y-* appearing before plural *-a*⁺ can be explained historically as the preservation of an original root-final consonant 7.1.1.1 before the vowel-initial affix, with generalisation of a *-y-* originally proper only to root-stems ending in **Y* to all cases where the stem ends in a non-glottalised root vowel: *zū̆ʊr*ᵉ "tail", plural *zūya*⁺, perhaps for an older **zūwa*⁺.

In the case of epenthetic *-d-*, the question evidently cannot simply be answered in the same way. Epenthetic *-d-* appears regularly in the plural of *r*ᵉ|*a*⁺ Class stems ending in a glottalised vowel; so regularly, that it has been extended to cases where the glottalisation is secondary, due to deletion of **g* after a short vowel, alongside variants derived from earlier forms treating the **g* as a regular consonant 7.2.2 . In *derivation*, *-d-* is regularly deleted before alveolar suffixes, with glottalisation of the preceding root vowel 7.2.1.2 . An obvious hypothesis for "epenthetic *d*" is accordingly that it simply represents root-final *d*, with the change of **Vdr* to *VʔVr* in *flexion*, and remodelling of the cb on the basis of the sg.

| **yudrı* | | |
| → *yū̆ʔur*ᵉ/ | "name" | pl *yūdá*⁺ |

An immediate difficulty is that there are regular $r^e|a^+$ Class stems in *CVd-*:

*wādɪr*ᵉ/	"law"	pl *wādá*⁺
*kpɛ̄ňdɪr*ᵉ/	"cheek"	pl *kpɛ̄ndá*⁺
*pu̯ʔà-sādɪr*ᵉ/	"young woman"	pl *pu̯ʔà-sādá*⁺
*kpàňdɪr*ᵉ	"baboon"	pl *kpàňda*⁺

along with some adjective forms; these would need to be explained as analogical reformations. This is entirely plausible with adjectives because they typically appear with flexions of more than one Noun Class 12 . Of the nouns above, *wādɪr*ᵉ/ is certainly a back-formation from the plural *wādá*⁺, which is a loanword, ultimately from English *order*, and reformation of the singular of "cheek" on the basis of the plural is plausible. Remodelling of the sg on the basis of the pl seems less likely with "baboon" and very implausible with "young woman"; moreover *pɛ̄ʔ-sáʔa*⁼ "ewe lamb" and the Toende cognate *pɔ'ɔ-sa'a* "young woman" pl *pɔ'ɔ-sa'as* show glottalisation with this stem before *g*ᵃ|*s*ᵉ Class flexions too.

The comparative evidence also tells against this hypothesis. In languages without glottalised vowels the cognates of words like *yū̀ʔur*ᵉ/ are just like other vowel stems: Mooré sg *yʊʋre* pl *yʊɪya* versus Farefare sg *yʊ́'ʊ́rɛ́* pl *yʊ'ʋra*; Mooré pl *põeyã* = Kusaal *pɔ̀ňda*⁺ "cripples."

It seems therefore impossible to identify epenthetic *d* with "ordinary" *d*.

An alternative explanation is suggested by the pattern of $r^e|a^+$ Class plurals in Mooré. Mooré lacks vowel glottalisation and does not show epenthetic *-d-* or *-r-* in such cases. The usual pattern resembles that seen in Kusaal with unglottalised stems:

Mooré		Kusaal	
põeyã	"cripples"	*pɔ̀ňda*⁺	sg *pɔ̀ň ʔɔr*ᵉ
noeyã	"mouths"	*nɔ̄yá*⁺	sg *nɔ̄ɔr*ᵉ/

However, the plural of *naore* "leg" is *nawa*; Farefare shows a similar though not identical irregularity: *nã́'áré* "leg", pl *nãma*. The Mooré plural form can be explained straightforwardly as retention of a root-final labial or labiovelar before a vowel-initial suffix; in other words the explanation is parallel to that suggested above for unglottalised Kusaal $r^e|a^+$ Class plurals like *zūʋr*ᵉ "tail" pl *zūya*⁺, with the presumption that in Mooré the *-y-* of original roots ending in **Y* has not yet spread to *naore*.

The Kusaal word for "leg" shows forms which differ in Agolle and Toende:

*nɔ́bɪr*ᵉ	"leg"	pl *nɔ̄bá*⁺	(Agolle)
nɔ̄'ɔt		pl *nɔba*	(Toende)

The Agolle sg form is evidently remodelled from the plural. Comparing

*_nɔ́ʔɔ̀r_^e	"leg"		pl _nɔ̄bá_⁺
pɔ̀ñ̃ʔɔr^e	"cripple"		pl _pɔ̀ñda_⁺

the differing "epenthetic" consonants may thus again reflect different root-final consonants, with the palatal-type final again generalised to all cases, including those which historically lacked such a root final (with the exception of Toende Kusaal _nɔ̄'ɔ̄t_.)

The glottalisation of the vowels seems likely to reflect some feature of the consonants in question themselves, distinguishing them from the "plain" *_Y_ *_W_ already hypothesised.

Attribution of -_y_- to the root rather than the suffix accounts for the different effects on preceding vowels of the -_y_- of nominal _r_^e|_a_⁺ Class plurals and the -_y_- of Agentive Invariable Verbs, where the -_y_- is historically derived from the initial consonant *_ɲ_ or *_ʎ_ of a suffix 13.2.1 . Before that -_y_-, glottalised vowels remain and the -_y_- does not become _d_: _sũ̄ʔe_^{ya/} "own", cf _sũ̄ʔʋlím_^m "possession" 15.1.1.4 . However, the Adjectival Verbs _vũ̄e̯_^{ya/} "be alive" and _tɔ̄e̯_^{ya/} "be bitter", and possibly also the Agentive Invariable Verb _àe̯ñ_^{ya} "be something" show a -_y_- which is probably root-final rather than the initial of a suffix 13.2.2 .

In Farefare, the only other Western Oti-Volta language with glottalised vowels for which I have relevant data, with unglottalised stems the shortened stem vowel simply precedes the plural -_a_ with no "epenthetic" consonant at all: _yŏ́óŕɛ́_ sg _yõa_ pl, Kusaal _ŋ̃yɔ̄ɔr_^e sg _ŋ̃yɔ̄ya_⁺ pl "nose." With glottalised stems there is a regular formation which looks related to the Kusaal, but does not correspond exactly:

_yʊ́'ʊ́rɛ́_	"name"		pl _yʊ'ʊra_	Kusaal _yũ̄ʔur_^{e/} _yũdá_⁺
yò'òrè	"penis"		pl _yɔ'ɔra_	Kusaal _yũ̄ʔɵr_^e _yu̯āda_⁺

This resembles the analogical pattern seen in Kusaal where the glottalisation has arisen from deletion of *_g_ 7.2.2 :

mʋ̀ʔar^e	"reservoir, dam"		pl _mu̯ʔàa_⁺ or _mʋ̀ʔada_⁺

A different kind of epenthetic _d_ is seen in one of the strategies used to attach the ^a|_b_^a Class sg suffix after a stem ending in a root vowel 11.3.1 . It is interesting to speculate on whether this _d_ has arisen by a similar mechanism to the _d_ of _r_^e|_a_⁺ Class plurals, but it is difficult to take this further in the absence of an account of the origin of glottalised vowels in the Oti-Volta languages.

7.3 Vowel Changes

The vowel changes described in this section apply before Apocope. They are often conditioned by elements which are deleted by Apocope, resulting in contrasts which would not otherwise exist in the language.

7.3.1 Fusion

Kusaal makes no distinction between word-internal sequences of adjacent vowels and diphthongs, though three-mora diphthongs are realised as disyllabic 3.4 .

Some diphthongs probably arose historically by fusion of adjacent vowels following the loss of intervocalic *w *y, but such cases do not play any systematic rôle in the language. For deletion of historical *g after *a i̯a u̯a ã i̯ã u̯ã* see 7.1.1.1 .

With deletion of *g after *long* vowels, there are numerous parallels with forms which preserve *g*, and in these cases it is therefore reasonable to regard deletion as a synchronic process.

Underlying ***g is deleted after *aa iə uɵ ãã ɛ̃ɛ̃ ɔ̃ɔ̃***, along with their glottalised counterparts, whenever an *affix* vowel *a* or *ɩ* (not an epenthetic vowel or *ʋ*) follows the *g. Vowel Fusion then creates three-mora vowel sequences:

aaga	→ *aa* 9.2		*aagɩ*	→ *aee*	
iəga	→ *iaa*		*iəgɩ*	→ *iee*	
uɵga	→ *uaa*		*uɵgɩ*	→ *uee*	

and likewise with the corresponding glottalised vowels. (See below for the nasalised equivalents.)

The diphthongs *iaa uaa* arise from deletion of the *g in *g*ᵃ|*s*ᵉ Class singulars:

	*bʋ̄ʋg*ᵃ		"goat"	pl *bʋ̄ʋs*ᵉ	
but	*bāa*⁼	← *baaga*	"dog" 9.2	pl *bāas*ᵉ	
	sīa⁺	← *siəga*	"waist"	pl *sīəs*ᵉ	
	sàbùa⁺	← *sabuɵga*	"lover"	pl *sàbùɵs*ᵉ	

The diphthongs *aee iee uee* appear in Variable Verbs with stems in **Caag *Ciəg *Cuɵg* and their glottalised counterparts (see below on the nasalised equivalents); compare the forms with the suffix **-g-* "become, make" seen in

kpì\ʔe⁺	← **kpiʔəgɩ*	"approach"	
*kpì\ʔəs*ᵉ	← **kpiʔəsɩ*	"neighbours"	

cf   *tɛ̄bɪg*^{e/}   "get/make heavy"
       tɛ̄bɪsír^e   "heavy"

There are many such "Fusion Verbs", showing perfective forms ending in the diphthongs *-ae -ie -ue* 13.1.1.1 , e.g.

       pāe^{+/}   ← **paagɪ*   "reach"
       dūe^{+/}   ← **dueɡɪ*   "raise, rise"

The extra-long *aee iee ue* reduce to the two-mora diphthongs *ae ie ue* after Apocope. All such fronting diphthongs are unstable, monophthongising by losing the fronting of the second element except in pause or before *y* 9.1.3 9.3.1 .

Underlyingly, there are no nasalised vowels *ĩə ũɵ̃*; instead *ɛ̃ɛ̃ ɔ̃ɔ̃* appear 7.1 . However **g* is deleted after nasal *ɛ̃ɛ̃ ɔ̃ɔ̃* (unlike their oral equivalents *ɛɛ ɔɔ*) in the same contexts as after *iə ue* (i.e. before an affix vowel *a* or *ɪ*), and the resulting diphthongs coincide in vowel quality with those produced with *iə ue*:

ãã̃ga	→ *ãã̃* 9.2	*ãã̃ɡɪ*	→ *ãẽ̃ẽ̃*
ɛ̃ɛ̃ga	→ *ĩ ãã̃*	*ɛ̃ɛ̃ɡɪ*	→ *ĩẽ̃ẽ̃*
ɔ̃ɔ̃ga	→ *ũ ãã̃*	*ɔ̃ɔ̃ɡɪ*	→ *ũẽ̃ẽ̃*

and again, likewise with the corresponding glottalised vowels.

The rule gives rise to alternations in nominals from the *g*^a|*s*^e Class between SF-final *ĩã ũã* and word-internal *ɛ̃ɛ̃ ɔ̃ɔ̃* before a consonant:

       zìñˀa⁺   ← **zɛ̃ˀɛ̃ga*   "red" *g*^a|*s*^e Class sg
       zèñˀɛs^e   ← **zɛ̃ˀɛ̃sɪ*   "red" *g*^a|*s*^e Class pl
       zèñˀɛd^e   ← **zɛ̃ˀɛ̃dɪ*   "red" *g*^o|*d*^e Class pl

       dùañ⁺   ← **dɔ̃ɔ̃ga*   "dawadawa" sg
       dɔ̀ɔñs^e   ← **dɔ̃ɔ̃sɪ*   "dawadawa" pl

       nūa^{+/}   ← **nɔ̃ɔ̃ga*   "hen"
       nɔ̄ɔs^{e/}   ← **nɔ̃ɔ̃sɪ*   "hens"

       Mùa⁺   ← **Mɔ̃ɔ̃ga*   "Mossi person"
       Mɔ̀ɔs^e   ← **Mɔ̃ɔ̃sɪ*   "Mossi people"
       Mɔ̀ɔg^o   ← **Mɔ̃ɔ̃gʊ*   "Mossi country"
       Mɔ̀ɔl^e   ← **Mɔ̃ɔ̃lɪ*   "Mooré language"

In derivation the rule causes alternation between Fusion Verb forms from historical *-*gɩ*, ending in SF *ĩẽ ũẽ*, and cognate forms with *ɛ̃ɛ̃ ɔ̃ɔ̃*:

nìe[+]	← *nɛ̃ɛ̃gɩ*	"appear"	
nɛ̀ɛl[e]	← *nɛ̃ɛ̃lɩ*	"reveal"	
pūň'e[+/]	← *pɔ̃'ɔ̃gɩ*	"rot"	
pɔ̄ň'ɔl[e/]	← *pɔ̃'ɔ̃lɩ*	"cause to rot"	
ňyū'e[+/]	← *yɔ̃'ɔ̃gɩ*	"set alight"	
ňyɔ̄'ɔs[e/]	← *yɔ̃'ɔ̃sɩ*	"smoke" (noun)	
sūeň[+/]	← *sɔ̃ɔ̃gɩ*	"anoint"	
sɔ̄ň[+]	← *sɔ̃ɔ̃*	"rub"	
zìň'a[+]	← *zɛ̃'ɛ̃ga*	"red" *g*[a]|*s*[e] Class sg	
zɛ̀ň'og[o]	← *zɛ̃'ɛ̃gʋ* 7.3.2	"red" *g*[o]|*d*[e] Class sg	

The fronting effect of *-*gɩ* is reminiscent of the fronting caused by *-*y*- 7.3.2 , but differs in outcome:

sūň'e[+/]	← *sɔ̃'ɔ̃gɩ*	"become better than" WK	
sɔ̄ň'e[ya/]	← *sɔ̃'ɔ̃ya*	"be better than"	

> When *aa iə uɵ ã̃ã̃* precede a *g* which is *not* followed by an affix vowel, they remain unchanged. The only remaining sign of the former presence of *g* is the resulting disturbance of toneme allocation in Tone Pattern H words 8.2.1.1 .

náaf[o]	← *náagfʋ̀* "cow"		pl *nīigɩ́*[+]	cb *nā*ʔ-	
díʔər[e]	← *díʔəgrì* "receiving"		cf *dīʔe*[+/]	"get" ← *díʔəgí*	
vúɵr[e]	← *vúɵgrì*		pl *vūaá*[=]		
	fruit of the *vúɵŋ*[a] tree				

Surface *ĩə̃ ũẽ̃* appear in just one morphological context: Fusion Verbs with nasal vowels introduce *ĩə̃ ũẽ̃* into the imperfective and imperative forms, and also the gerund:

	nɛ̀ɛr[e]		"empty" (← "clear")
but	*nìər*[e]		gerund of *nìe*[+] "appear"

	pɔ̄ň̉ɔl[e/]	← **pɔ̃ʔɔ̃lɩ*		"cause to rot"
but	*púň̉ər*[e]			gerund of *pūň̉e*[+/] "rot"
	pūň̉əd[a/]			ipfv

This exception looks attributable to the analogy of verbs with oral vowels:

	pūň̉e[+/]	pfv	*pūň̉əd*[a/]	ipfv	*púň̉ər*[e]	gerund	"rot"
cf	*dūe*[+/]	pfv	*dūəd*[a/]	ipfv	*dúər*[e]	gerund	"raise"

There is abundant evidence for levelling in Variable Verb flexion and gerund formation, and the process of levelling can actually be documented historically with imperfective forms: the 1976 NT version shows the imperfective of this verb as *pon'od pɔ̄ň̉ɔd* whereas the 1996 version, like my informants, shows always *pun'od pūň̉əd*. However, the history of the *gerunds* was probably not analogical. The gerund of *pūň̉e*[+/] appears in the 1976 NT once, as *pun'ur*, probably miswritten for *pun'or púň̉ər*[e], but *nìər*[e] "appearing" always appears as *nier*, never *neer. It would be contrary to the pattern seen elsewhere in the language for gerunds to be subject to analogical levelling before imperfective forms (cf 8.7 on irregular gerunds and verbal Tone Patterns), and the tonal evidence suggests a different analysis.

Fusion verbs lack any tonal evidence of a lost mora in the imperfective 8.3.1:

pāe[+/]	*pāad*[a/]	not *páad[a]	"reach"
pūň̉e[+/]	*pūň̉əd*[a/]	not **púň̉əd*[a]	"rot"

Again, this might be the result of the levelling characteristic of verb flexion. However, the evidence of irregular Variable Verbs 13.1.2 and the hypothesis that the Western Oti-Volta imperfective flexion represents adoption of the stem seen in agent nouns into the finite verb paradigm 13.1 suggest that the dropping of a derivational suffix before the imperfective flexion was once regular. Fusion Verbs can be regarded as preserving this older pattern, so that the *g mora is *absent* in the imperfective by morphological rule, not deleted by phonological rule. This hypothesis is confirmed by the fact that verbs like *pūň̉e*[+/] did indeed formerly have the expected imperfective type *pɔ̄ň̉ɔd*[a/]. With the gerund forms, the unexpected vowels correlate with the fact that the tones show that the *g mora was present and has been deleted by *phonological* rule: *púň̉ər*[e] "rotting". Historically, *g deletion probably followed insertion of an epenthetic ə (say) between the *g and any following consonant; absorption of this vowel by the preceding long vowel ĩə̃ ũə̃ through Fusion may have resulted in sequences which, unlike other ĩə̃ ũə̃, did not merge subsequently with ɛ̃ɛ̃ ɔ̃ɔ̃ either because they were extra-long, or because they were already diphthongised even at a period when Agolle iə uə were elsewhere still *phonetically* as well as *phonologically* monophthongs.

This hypothesis also provides a plausible historical motivation for the tonal anomalies produced by *g-deletion; *nāagə́fʊ̀ "cow", for example, gives rise to náafᵒ "cow" via *nāaáfʊ̀, *nāáfʊ̀ by essentially the same process that causes the progressive leftward movement of the H toneme in LFs with final morae unable to bear tone, as with SF dāam LF dáamm "millet beer" 8.2.1 .

Toende Kusaal has identical rules for Consonant Assimilation 7.2.1 to Agolle Kusaal, but differs considerably with regard to Fusion, showing that historically the deletion of *g and Vowel Fusion occurred later than Consonant Assimilation.

Synchronically, there is no need to order these rules. Flexional suffixes beginning with *g are systematically avoided after *CV:g- roots 14.1.1.1 11.1 . When *CV:g- roots precede other suffixes, former *g is reflected only in the disturbance of toneme allocation in Tone Pattern H 8.2.1.1 . Consonant Assimilation must historically have preceded deletion of *g after *short* vowels, to account for cases like zàkᵃ ← *zagga "compound", zàʔasᵉ ← *zagsɩ "compounds." This is treated here as CV:~CV allomorphy 7.1.1.1 , but internal evidence shows the recent character of this lenition. Stems in aʔa i̯aʔa ʋʔa ã̃ʔã̃ i̯ã̃ʔã̃ ʋ̃ʔã̃ in the rᵉ|a⁺ Class may still behave as consonant-final stems 11.3.4 : bàʔarᵉ "idol" (Farefare bàgrɛ̀), plural bàʔa⁺ or bàda⁺; glottalisation, normally not found in affix vowels, occurs in the particle pàʔ ← *pag "earlier today" 5.4 ; and the only case in which a LF-final long vowel cannot be predicted from the SF is due to the falling together of the Apocope shortening of iʔa uʔa with that of the i̯aʔa ʋʔa resulting from historical *g loss 3.2.2 .

Historical evidence supports this: Haaf 1967 has baga for bāʔa "diviner" and winbagr for wīn-báʔàr "altar", alongside bab for the plural bāʔabᵃ "diviners."

7.3.2 Fronting and Rounding

In the LF, vowels are subject to fronting before *y* and to rounding before a following rounded vowel if a velar intervenes.

The second (and third, if any) morae of fronting and rounding diphthongs are always high [i] [ɪ] [u] or [ʊ] regardless of the height of the first mora.

There is agreement in ATR between the components of a long diphthong, except that the diphthongs resulting from fronting and rounding of iə uɵ have second (and third) morae which remain [-ATR].

Fronting: before *y* word-internally, all non-glottalised vowels are short 7.3.3 .

Short back vowels do not contrast with diphthongs before a word-medial *y*, and the sounds are actually realised as simple vowels. Structurally, however, the segments are diphthongs. This becomes apparent when the *y* is left word-final by Apocope and is deleted; the preceding segment then appears as a short fronting diphthong 3.2 . This occurs with several Invariable Verbs, which are written with fronting diphthongs in both SF and LF:

	tɔ̄e̱^(ya/)		"be bitter"
SF	*tɔ̄e̱*	[tʰɔɪ̯]	
LF	*tɔ̄e̱yá*	[tʰɔja]	

The same thing occurs with two irregular ^a|*b*^a Class nouns in the singular:

	sāe̱ň^ya		"blacksmith"
SF	*sāe̱ň*	[sã̄ɪ̯]	
LF	*sāe̱ňya*	[sãja]	

	sɔ̄e̱ň^ya		"witch"
SF	*sɔ̄e̱ň*	[sɔ̃ɪ̯]	
LF	*sɔ̄e̱ňya*	[sɔ̃ja]	

Short back vowels also occur before *y* in nominal *r*^e|*a*^+ Class plural forms. In this case the preceding segments are written both in the traditional orthography and in this grammar as simple vowels, but the difference is purely orthographic:

	nɔ̄yá	[nɔ̃ja]

Before *y* long vowels undergo fronting of a back second mora to *e* [ɪ]:

SF	*sʊ̄ˀe*	← **sʊˀɩy*	← **sʊˀʊy*	"own" *sʊ̄ˀe*^(ya/)
LF	*sʊ̄ˀeyá*	← **sʊˀɩya*	← **sʊˀʊya*	
cf	*sʊ̄ˀʊlím*^m			"property"

SF	*sɔ̄ňˀe*	← **sɔ̃ˀɩy*	← **sɔ̃ˀɔy*	"be better than" *sɔ̄ňˀe*^(ya/)
LF	*sɔ̄ňˀeyá*	← **sɔ̃ˀɩya*	← **sɔ̃ˀɔya*	"be better than"

Like the diphthongs arising from Apocope applying to *aee iee uee* these diphthongs are unstable and monophthongise except before pause or before *y* 9.1.3 .

Rounding: Short unrounded root vowels become diphthongs in *u̯* before LF **kkʊ *ŋŋʊ*:

	gbàu̯ŋ^o	← **gbaŋŋʊ*	"book"	pl *gbàna*^+
	lāu̯k^o	← **lakkʊ*	"goods item"	pl *lāˀad*^e
	yīu̯ŋ^(o/)	← **yɩŋŋʊ*	"single"	pl *yīná*^+
	sàbùa^+	← **sabuɵga*	"lover"	pl *sàbùɵs*^e

Tense *i* does not become a diphthong in the only case in my materials:

	nìn-gbīŋ[o/]		"body"	pl *nìn-gbīná*[+]

This may reflect the vowel of the alternative singular *nìn-gbīn*[e/], rather than being a phonological matter. The plural form often appears with singular meaning.

Short *i̯a* becomes the short diphthong *i̯au̯*:

	bi̯āu̯ňk[o]	← **bi̯ãkkʋ*	"shoulder"	pl *bi̯āň'ad*[e]

Short *u̯a* becomes *ɔ*: ***u̯akkʋ → ɔkkʋ**

	bɔ̀k[o]	← **bu̯akkʋ*	"pit"	pl *bʋ̀'ad*[e]

Long vowels undergo rounding of a back second mora before LF **gʋ *ŋŋʋ*. The second mora is always high.

	dàad[e]		"logs"
but	*dàʋg*[o]	← **daagʋ*	"log"
	fɛ̃ň'ɛd[e/]		"ulcers"
but	*fɛ̃ň'og*[o/]	← **fɛ̃'ɛ̃gʋ*	"ulcer"

The second mora of the long vowel *ii* becomes tense *u*, giving *iu*; this contrasts with the second mora of the long vowel *iə*, which becomes [ʋ], giving *io* [iʋ]:

	vīug[o/]	← **viigʋ*	"owl"	pl *vīid*[e/]
but	*dàbīog*[o]	← **dabiəgʋ*	"coward"	pl *dàbīəd*[e]
	kpī'oŋ[o]	← **kpi'əŋŋʋ*	"strong"	pl *kpī'əma*[+]

A parallel case with *uu/uʋ* does not occur, because of the rule ***uθgʋ → ɔɔgʋ**:

	Sà'dàbɔ̀ɔg[o]	← **Sa'dabuθgʋ*	"place of the Sarabose clan"
cf	*Sà'dàbùθs*[e]		"Sarabose clan members"
	lām-fɔ́ɔ̀g[o]	← **lam-fuθgʋ*	"toothless"
			(*lām*[me/] "gum" *fùe*+ "draw out")

The **epenthetic vowel** *ɪ* is rounded to *ʋ* before LF **-gʋ *-ŋʋ*:

	āaňdɪg[a]	← **ã̄ãdɪga*	"black plum tree"
but	*gàadʋg*[o]	← **gaadɪgʋ*	"(sur)passing" (gerund)
pl	*mālɪma*[+]	← **malɪmaa*	"sacrifices"
but	*mālʋŋ*[o]	← **malɪŋŋʋ*	"sacrifice"

This proliferation of diphthongs and ascription of quality distinctions to epenthetic vowels might be avoided by ascribing phonemic labialisation to following word-final velars and positing abstract word-final /w/ or /j/ segments. However, there is no phonetic basis for such a velar contrast, and as a *phonemic* opposition it would have no other function but to mark the rounding of preceding vowel morae. There is no phonetic basis for interpreting word-final [j] or [w] as consonantal either: words like *dāų* "man" are followed by [ʔ] before pause in statements, just like words ending in short vowels 5.2.2. It is therefore preferable simply to make word-internal fronting and rounding rules precede Apocope 3.5. (A similar issue arises with so-called "Canadian Raising" in those American dialects which also show neutralisation by flapping of *t* and *d* after the vowel, where *writer* contrasts with *rider* in the vowels but with no phonetic contrast in the consonants themselves: Vance 1987.)

7.3.3 Length Constraints

Two rules apply word-internally **prior to Apocope** to shorten 2-mora long vowels and diphthongs.

Before *k t p*:

*gàad*ᵉ	"pass"	*gàt*ᵃ	id, imperfective
*tɛ̄ɛg*ᵉ/	"drag" ILK	*tɛ̄k*ᵉ/	"pull" (*tɛɛkkɩ)

Two Hausa loanwords show that this is a surface phonological constraint rather than a morphological rule.

*àtìųk*ᵒ	"sea"	←	*tèeku*	"sea"	
kɔ́từ⁺	"court"	←	*kootừ*	"court" (← English)	

Before *y*, affecting non-glottalised vowels and diphthongs only:

*wà*ʔ*e*ʸᵃ	"be en route for"	*sṹ*ʔ*e*ʸᵃ/	"own"
*sɔ̄ň*ʔ*e*ʸᵃ/	"be better than"	*zì*ʔ*e*ʸᵃ	"be standing still"
*zìň*ʔ*i*ʸᵃ	"be sitting down"	*tī*ʔ*i*ʸᵃ/	"be leaning" (object)

but	*vṹẹ*ʸᵃ/	"be alive"	cf	*vṹ*ʔ*ʋg*ᵉ/	"make/come alive"
	*tɔ̄ẹ*ʸᵃ/	"be bitter"	cf	*tɔ́ɔg*ᵒ	"bitter"
	*àẹ̀ň*ʸᵃ	"be something"	cf	*àaňlím*ᵐ	gerund

So also in *r*ᵉ|*a*⁺ Class plurals of *(C)V:* stems, which introduce an epenthetic consonant *y* before the ending 7.2.2:

bàlàar[e]	"stick, club"	pl	*bàlàya*[+]
nɔ̄ɔr[e/]	"mouth"	pl	*nɔ̄yá*[+]
zūʋr[e]	"tail"	pl	*zūya*[+]

[See 5.2.3 for the differing spellings of the -*Vy*- sequences in Invariable Verbs and in nominal *r*[e]|*a*[+] Class plurals.]

Shortening of *iə uɵ* before this *y* is responsible for all cases in which *i̯a u̯a* can appear before *y* within a word. In this position they are realised [i̯ɪ] [u̯ɪ] and written *i̯e u̯e* in line with the traditional orthography:

bīər[e/]	"elder s/sex sib"	pl	*bi̯ēyá*[+]
sūər[e/]	"road"	pl	*su̯ēyá*[+]
zūər[e]	"hill"	pl	*zu̯ēya*[+]

The short vowel in *sūñf*[o/] "heart" is the sole case of contrastive short nasalised *uñ* other than those due to Apocope of *uuñ* and the shortening of vowels in *r*[e]|*a*[+] Class plurals before *y* 7.2.2. There may be a rule shortening the tense high vowels *ii uu* before the C sg suffix -*f*[o]; this would also account for the short vowel in *nīf*[o/] "eye", where the analogy of lengthening of short vowels before *ns*, as in *tɛ̄ɛňs* "lands" ← *tɛnsι* 7.2.1.1 would have suggested *nīif*. The long vowel of *sīiňf*[o/] "bee" could plausibly be analogical, from the plural *sīiňs*[e/] or the alternative singular *sīiňg*[a/], and Toende Kusaal actually has the form *sĩf* (Niggli, "Dictionnaire.")

Three-mora vowel sequences 5.2.3 3.4 arise either from Vowel Fusion 7.3.1 or by Liaison before the enclitic pronoun ᵒ 9.3.1. They are reduced by Apocope to 2-mora diphthongs in the SF in the usual way. Diphthongal three-mora sequences mostly occur word-finally in LFs, but they are possible in SFs:

vūáa[=]	← *vuɵgaa*	"fruits of the *vúɵŋ*[a] tree"

The only three-mora monophthong in my data is seen with Apocope Blocking in

mà'aa	"only"	7.4

In the LF the sequence is reduced to two morae: *mà'ane*.

Before Prosodic Clitics, 3-mora monophthongs reduce to two morae 9.2.

Before Liaison, word-final 3-mora diphthongs are reduced to two morae and then monophthongised before all consonants except *y* 9.3.1; for the tones see 10.5.

7.4 Apocope Blocking

Certain full words have citation forms without Apocope. The form is like a LF, without the lowering of postconsonantal final *ι υ* to *e o* seen before Prosodic Clitics.

This is a derivational feature seen in many adverbs and quantifiers (including number words), and as a downtoning measure with adjectives 21.8.1.2 :

bèdʊgū	"a lot"	*g*ᵒ|*d*ᵉ	Class sg
sʊ̀ŋā	"well"	*g*ᵃ|*s*ᵉ	Class sg
yīnní	"one"	*r*ᵉ|*a*⁺	Class sg
ànāasí	"four"	*g*ᵃ|*s*ᵉ	Class pl
pāmm	"a lot"	*m*ᵐ	Class

A number of nouns ending in *-ι*⁺ or *-υ*⁺ 11.6 also display Apocope Blocking.

Words of one underling mora also do not show Apocope, e.g *yā*⁺ᐟ "houses", (SF *yā* LF *yáa*) and numerous enclitic particles 7.5 .

Words with Apocope Blocking may display final extra-long simple vowels: *mà*ʔ*aa* "only." They change final *-mυ* to *-mm*: *pāmm* "a lot."

Apocope-blocked words make secondary LFs before Prosodic Clitics by prolonging a short final vowel. Compare:

	Lì à nē dɔ́ɔ̀g.	"It's a hut."	
	*Lì kā*ʔ *dɔ́ɔgō.*	"It's not a hut."	[dɔ:go] from *dɔ̀ɔg*ᵒ
with	*Lì à nē bɛ́dʊgū.*	"It's a lot."	
	*Lì kā*ʔ *bɛ́dʊgʊ́υ.*	"It's not a lot."	

Before Prosodic Clitics which neutralise preceding length distinctions, the finals of such LFs contrast in quality alone with final *e o* [e] [o] 9.2 :

Lì à nē dɔ́ɔgòo?	"Is it a hut?"	
Lì à nē bɛ́dʊgʊ́υ?	"Is it a lot?"	
Ànɔ́ʔɔnì ňyē dɔ́ɔgò?	"Who saw a hut?"	[dɔ:go]
Ànɔ́ʔɔnì ňyē bɛ́dʊgʊ́?	"Who saw a lot?"	[bɛdʊgʊ]

Apocope-blocked words which do not end in a short vowel in the SF add *-ne* instead before a Prosodic Clitic:

pāmm SF *pāmné* LF	"a lot"	
*mà*ʔ*aa* SF *mà*ʔ*ane* LF	"only"	34.6
*gʊ̀llιm*ⁿᵉ	"only"	34.6
*kɔ̀tàa*ⁿᵉ	"at all"	34.6

The NT audio version reads the LF of *ňyāe*^ne/ "brightly, clearly" ⸤22.4⸥ as *ňyāené* [jãĭnɛ̃], with the fronting diphthong preserved, suggesting that the final *-ne* might be a particle rather than a suffix.

Cf also *mὲ* DK KT SB NT *mὲn* WK; clause finally (all sources) *mὲn*^e "also, too."

Words with Apocope Blocking ending in SF M toneme have LF-final H ⸤8.4⸥.

7.5 Clitic Pronouns and Particles

The term "clitic" is used in this grammar to describe words which are necessarily bound *syntactically*.

Clitics show a number of different phonological shapes. Nominal combining forms ⸤11⸥, along with Focussing Modifiers ⸤34.6⸥, Conjunctions ⸤29.3⸥ and some particle-verbs ⸤24.7.2⸥ and Post-Subject Particles ⸤29.1.3⸥ have the same range of phonological shapes as free words.

All other function words have a simpler structure, including clause linker particles, Verbal Predicator particles, the article, prepositions, the locative marker, and the bound pronouns; they are short, resembling the affixes of full words and having the same much-reduced set of "affix vowel" contrasts. The bolded words in these examples are clitics of this type:

*Bīig **lā sá** bɔ̀dɩg **yā**.*	"The child got lost yesterday."
*Ò **pū** wúmmā.*	"She doesn't understand."
***Fù** nīf **lā** sáˀàm **nɛ̄**.*	"Your eye is spoilt."

A clitic may constitute an entire NP by itself, in the case of the bound personal pronouns. This mismatch between syntactic independence and inability to stand alone as an utterance is found only with the personal pronouns, and can be accommodated by regarding the free pronouns as allomorphs of the bound pronouns in all cases where the bound pronouns are not permissible ⸤34.5⸥.

Enclitic pronouns and particles capable of standing phrase-finally are subject to Apocope. In some cases this results in a SF consisting of a single consonant ⸤3.3.2⸥, or even a SF with no segmental form at all ⸤3.3.3⸥. When such words have SFs of the form *CV*, they behave segmentally and tonally as showing Apocope Blocking ⸤7.4⸥.

Proclitic pronouns and most proclitic particles seem not to have been subject to Apocope. However, some proclitic particles end in long vowels which cannot feature as word-final in SFs of nominals or verbs, like *lὲɛ* "but" ⸤24.7.1⸥ or *ňyɛ̄ɛ* "habitually" ⸤24.7.2⸥, and others resemble nominal combining forms, like *pà*ˀ "earlier today" for **pag-*; except before nasal clusters, glottalised short vowels occur elsewhere only from Apocope ⸤5.2.2⸥.

8 Word Tonal Structure

The distribution of tonemes word-internally is historically the result of tone spreading and relinking processes, several of which are still reflected in active external tone sandhi. Word-internal non-initial H tonemes are probably always the result of spreading from a preceding M toneme to a L $\boxed{8.7}$, a change which underlies the external process of L Raising, which was historically conditioned by the original final tonemes of preceding words $\boxed{10.1}$. Disturbances in the distribution of tonemes after word-internal segment deletions $\boxed{8.2.1.1}$ are of the same nature as the changes produced in LFs which end in a mora incapable of bearing tone before Prosodic Clitics $\boxed{8.2.1}$. External M Raising $\boxed{10.3}$ is probably a manifestation of the Obligatory Contour Principle related to the dissimilation of M flexions to H which is seen after stems ending in M. The fourfold division of nominal Tone Patterns may have arisen from earlier patterns which have been obscured by rightward L tone spreading.

However, from the point of view of synchronic description, little is gained by tracing the diachronic origins of word-internal toneme patterns, and except in $\boxed{8.7}$ the patterns will simply be described directly as they currently appear.

8.1 Tone Patterns

There are great constraints on the free occurrence of tonemes within words, to the extent that nominals show only four possible distinct basic overall patterns of tone (labelled H, HL, L and O), and verbs only two (H and O.) Compounds have more overall tonal possibilities, being *phrases* composed of words with partly independent tones $\boxed{10.3.1}$.

The distribution of tonemes on a word, prior to any effects of external tone sandhi or tone overlay, is specified by a **Tone Pattern**.

For the purposes of synchronic description it is best to regard Tone Patterns as suprasegmental features of word *stems*, which impose a template of tonemes mora-by-mora on the segmental structure of each complete word belonging to a flexional paradigm, with the precise instantiation changing as the segmental form changes.

This application of the Tone Pattern to a word form takes place *prior* to the operation of two segmental rules which can delete morae (the simplification of impermissible consonant clusters $\boxed{7.2.1.1}$ and the deletion of **g* $\boxed{7.3.1}$), resulting in disruption of the expected distribution of tonemes $\boxed{8.2.1.1}$. So for example, these two Pattern H nouns show different tonemes in the singular:

sīıňf[o/] sg	*sīıňs*[e/] pl	*sīň-* cb	"bee"
píıňf[o]	*pīıní*[+]	*pīın-*	"genet"

The difference is due to the fact that "bee" has a 2-mora *CV:* stem *sīiň-*, whereas "genet" has a 3-mora *CV:C* stem *pīın-*, and in the singular has lost a mora from simplification of the consonant cluster **nf* to *f*.

A single paradigm can only show more than one Tone Pattern if there is a change of the underlying segmental stem. Agent Nouns derived from 3-mora stem verbs in *-s-* contain the derivational suffix *-d-* only in the plural; as deverbal derivatives of Pattern O verbs are Pattern O if they contain *-d-* and L otherwise, this produces a tonal alternation in the paradigm:

*pʋ̀ˀʋs*ᵃ	*pʋ̄ˀʋsıdıb*ᵃ	*pʋ̀ˀʋs-*	"worshipper"

Regularities in derivation establish that roots themselves have identifiable tone patterns, which may be altered by derivational suffixes 8.6 8.6.1.

Diachronically, Tone Patterns can be explained in terms of the tonemes of individual stem segments, but this requires the invocation of word-internal tone sandhi rules which are otherwise unnecessary 8.7. If surface tonemes are simply described as they stand, certain tonal correspondences between different forms within one paradigm must simply be ascribed to the Pattern; so in particular with the falling together of Patterns H with HL and O with L in the combining form:

H	*fūug*ᵒ/	"shirt"	*fū-káŋā*⁺/	"this shirt"
HL	*núˀùg*ᵒ	"hand"	*nū̄ˀ-káŋā*⁺/	"this hand"
O	*būʋg*ᵃ	"goat"	*bʋ̀-kàŋā*⁺/	"this goat"
L	*dɔ̀ɔg*ᵒ	"hut, room"	*dɔ̀-kàŋā*⁺/	"this hut"

Only in the case of 2-mora Pattern H and O stems are the SF tonemes alone insufficient to predict LF-final tonemes:

O	*Lì à nē kūk.*	"It's a chair."
O	*Lì kā̄ˀ kūka.*	"It's not a chair."

H	*Lì à nē dūk.*	"It's a cooking pot."
H	*Lì kā̄ˀ dūkó.*	"It's not a cooking pot."

O	*kūk*ᵃ	"chair"	+ *n*ᵉ "in"	→	*kūkın*ᵉ/
H	*dūk*ᵒ/	"pot"	+ *n*ᵉ "in"	→	*dūkín*ᵉ

O	*nà zāb*ᵉ	"will fight"	+ *m*ᵃ "me"	→	*nà zābı m*ᵃ/
H	*nà dūg*ᵉ	"will cook"	+ *m*ᵃ "me"	→	*nà dūgí m*ᵃ

With SFs like *kōk* "chair" and *dōk* "pot" there are just too few segments for a difference between Patterns H and O to be expressed in the surface form, but the Patterns remain distinguishable in the LF. There are words which show tonal distinctions in the SF which are lost in the LF, like like *náaf*ᵒ "cow" versus *núʔùg*ᵒ "hand", but this can be accounted for by a late tone realisation rule 6.2.1 . The surface distributions of LF tones might therefore serve as a less abstract substitute for suprasegmental Tone Patterns, as far as sg/pl forms were concerned, but cb tones would still need to be simply ascribed to particular distributions of sg/pl tonemes. Furthermore, arbitrary choices would need to be made for the final LF tonemes in every case where the last stem toneme is not M: in all other cases the final toneme of a LF is assigned by by the following Prosodic Clitic 9.2 or Liaison Word 10.5 itself. There is no exact match of tonemes before any one Liaison Word and any one Prosodic Clitic; the nearest approach is with the clitic object pronouns and the Negative Prosodic Clitic, but even here there are systematic mismatches. Two-mora Pattern H verb perfectives have final M before the Negative Clitic but H before the object pronouns 8.3.1 :

> *Ò   pō   dōge   ⁺ø.*   "He didn't cook."
> **3HU NEG.IND** cook:**PFV NEG**.

> *Kà   ò   dōgí‿   lī.*   "And he cooked it."
> And **3HU** cook:**PFV 3NHO**.

Pattern O perfectives with L stem tonemes show M before the Negative Clitic but L before the object pronouns:

> *Ò   pō   bɔ́dɩgē   ⁺ø.*   "She didn't get lost."
> **3HU NEG.IND** lose:**PFV NEG**.

> *Kà   ò   bɔ́dɩgì‿   lī.*   "And she lost it."
> And **3HU** lose:**PFV 3NHO**.

For descriptive convenience LF-final intrinsic tonemes are given as

M   in nouns and verbs of Tone Pattern O whenever the stem is all-M
H   after M in all other cases
L   after H and L

8.2 Nominals

Prefixed nominals differ in tones only in that the cbs of nominals with M nominal prefixes always have H toneme; sg and pl are unchanged. L nominal prefixes do not affect the stem tone pattern at all 8.2.5 .

The tones of compounds are determined by external tone sandhi 10.3.2 10.1 .

Toneme allocation precedes Apocope.

Nouns and Adjectives show four possible basic tone patterns:

Pattern H	initial M followed by H, or initial H on a long vowel
Pattern HL	initial H on a short vowel or HL on a long vowel
Pattern L	initial L
Pattern O	M throughout in sg/pl but L throughout in the cb

Nominals have three flexional forms 11.1 . The combining form, which is the bare stem, is always affected by Apocope because it cannot be clause final.

Nominal examples will be given as sg, pl, cb.

Stem morae are counted without nominal prefixes unless specified otherwise.

8.2.1 Pattern H

Pattern H is the most complex descriptively, because of interaction between the underlying segmental structure and the surface toneme pattern. Tonemes are assigned by mora to LF forms prior to the loss of tonemes in the 3-mora vowel sequences created by deletion of *g 7.3.1 and simplification of impermissible consonant clusters 7.2.1.1 . Forms which lose a mora by these processes show aberrant tonal patterns 8.2.1.1 .

Pattern H allocates H to the first, second or third mora of the LF (disregarding any prefix.) All tonemes before the H are M, and all following the H are L. The H falls on a third mora if it exists and is vocalic. If not, it falls on the second, unless this is the second mora of a long vowel 6.1 , in which case the H appears written on the *first* mora, and the toneme covers both morae of the long vowel. (This is an instance of a general principle that a rise in pitch within a single syllable is not permitted; compare LM levelling 6.2.3 .)

Cbs have M tonemes up until any third toneme, which is H.

*vūr*e/	*vūyá*+	*vūr-*	"alive"
*yīr*e/	*yā*+/	*yī-*	"house"
*fūug*o/	*fūud*e/	*fū-*	"shirt, clothes"
*dūk*o/	*dūgʊd*e/	*dūg-*	"cooking pot"
*nīd*a/	*nīdɪb*a/	*nīn-*	"person"
*nīf*o/	*nīní*+	*nīn-* or *nīf-*	"eye"

kūgʋr^(e/)	*kūgá*^(+)	*kūg-*	"stone
gɔ̄t^(a/)	*gɔ̄tíb*^(a) /tt/	*gɔ̄t-*	"seer, prophet"
sābɪlíg^(a)	*sābɪlís*^(e)	*sābɪl-*	"black"
yūgúm^(me)	*yūgʋmá*^(+)	*yūgʋm-*	"camel
sābíl^(le)	*sābɪlá*^(+)	*sābɪl-*	"black"
sú²ɵŋ^(a) /ŋŋ/	*sū²ɵmís*^(e)	*sū²ɵŋ-*	"rabbit"
sāan^(a/)	*sáam*^(ma)	*sāan-*	"stranger, guest"
dī²əs^(a/)	*dī²əsídìb*^(a)	*dī²əs-*	"receiver"
sūgʋríd^(a)	*sūgʋrídìb*^(a)	*sūgʋríd-*	"forgiver, forbearer"
kū²alíŋ^(a)	*kū²alís*^(e)	*kū²alíŋ-*	traditional smock
sáannìm^(m)			"strangerhood"
gīīňlím^(m)			"shortness"

LFs ending in long vowels or diphthongs, or in *-mm* (where the second *m* was historically syllabic but is now consonantal) cannot carry a toneme on the final mora. The SF forms are regular, but if the LF final mora would have carried H toneme by the usual rules, the H is transferred to the next preceding mora which is *not* the last of a long vowel/diphthong, replacing the previous toneme, which is always M. (This is not a tonal change at all, historically: HH! became H! as the second mora became non-tone-bearing; Kusaal H toneme arose from H!, while H elsewhere became M [6].) Superscript Notation still writes the acute tone mark at the end [3.2.1]; in all cases such marks are interpreted as falling on the nearest preceding mora which is neither non-vocalic, nor the last in a long vowel/diphthong.

SF *nūa*	LF *nūáa*	"hen"	*nūa*^(+/)
SF *dāam*	LF *dáamm*	"millet beer"	*dāam*^(m/)
SF *vūm*	LF *vúmm*	"life"	*vūm*^(m/)
SF *tāu̯ň*	LF *táu̯ň*	"sibling of opposite sex"	*tāu̯ň*^(+/)

8.2.1.1 Forms with Deleted Morae

When an original cluster is reduced to a single consonant by simplification of impermissible consonant clusters [7.2.1.1], the original tonemes are unaffected, and the H toneme appears in the position that would be expected if the cluster were still present:

níiŋ^(a) /ŋŋ/	*níis*^(e) /ns/	*nīiŋ-*	"bird"
píɪňf^(o) /nf/	*pīɪní*^(+)	*pīɪn-*	"genet"
ňyīríf^(o) /rr/	*ňyīrí*^(+)		kind of edible seed

With a nominal prefix [8.2.5] *tín-*:

tīntɔ̌nríg[a] /rr/   *tīntɔ̌nrís*[e]   *tīntɔ́nr-*   "mole" (animal)

The consonant ŋ is treated as /ŋ/ not /ŋŋ/ in the variant form

gīŋɩlím[m]   "shortness"

Compare the similar anomalous treatment of ŋ in ⎡6.2.1⎤.

Forms which have undergone deletion of *g when no affix vowel follows the *g ⎡7.3.1⎤ behave for toneme allocation as if the *g mora were present but not vocalic:

náaf[o]	← *náagfʋ̀	(cf pl *nīigí*[+])	"cow"
wáaf[o]	← *wáagfʋ̀	(cf pl *wīigí*[+])	"snake"
yáab[a]	← *yáagbà		"grandparent"
vúɵr[e]	← *vúɵgrì		fruit of the *vúɵŋ*[a] tree

Here belong all regular gerunds in *-r*[e] formed from Pattern H Fusion Verbs ⎡13.1.1.1⎤ which have phonologically-deleted *g in the perfective:

	náar[e]	← *náagrì	"end"
from	*nāe*[+/]	← *nāagí	"finish"
	díʔər[e]	← *díʔəgrì	"receiving"
from	*dīʔe*[+/]	← *dīʔəgí	"get"
	púň̃ʔɵr[e]	← *pɔ̃ʔɔ̃grì ⎡7.3.1⎤	"rotting"
from	*pūň̃ʔe*[+/]	← *pɔ̃ʔɔ̃gí	"rot"

Fusion Verbs show evidence of *g only in perfective forms and in gerunds; in imperfectives and in derived agent nouns *g is absent:

nāad[a/]	"finish" ipfv
nāad[a/]	"finisher"

8.2.2 Pattern HL

Pattern HL comprises 2-mora stems intrinsically beginning with either HL on a long vowel or H on a short vowel. Few words belong here, but several are very common. Any stem toneme after the H is L. The realisation is straightforward: the H toneme changes to M in the cb and in *r*[e]|*a*[+] Class plurals, which have H on the suffix. (No *f*[o]|*ɩ*[+] Class plurals occur.) HL root-stems are found only in nominals, and derivatives from HL roots are simply regular Pattern H.

nú^ʔùg^o	*nú^ʔùs*^e	*nū^ʔ-*	"hand, arm"
à-gáʊ̀ŋg^o	*à-gáàŋd*^e	*à-gāŋ̌-*	"pied crow"
nɔ́bìr^e	*nɔ̄bá*⁺	*nɔ̄b-*	"foot, leg"
gɛ́l^{le}	*gɛ̄lá*⁺	*gɛ̄l-*	"egg"
gbɛ́ɛ̀ŋm^m	no pl	*gbɛ̄ŋ̌-*	"sleep"
kísʊ̀g^o	*kīsá*⁺	*kīs-*	"hateful, taboo" (adj)

Here belong the irregularly formed gerunds 14.1.1.1.1 :

sɔ́ŋ̌sìg^a	"conversing"
gɔ́sìg^a	"looking"
kìkírʊ̀g^o	"hurrying" (L prefix)

Pattern HL may historically be a H variant with anomalous tones from stem mora loss (see, for example, 7.2.1.1 on *ss*.) However, alternative analyses are possible 8.7. Olawsky has Dagbani *gállì* "egg" corresponding to *gɛ́l*^{le}, but while he divides nouns into four tone classes in a rather similar way to the analysis used here, he unifies the equivalents of Pattern HL and regular Pattern H while separating out the cognates of 2-mora Pattern H stems into a tone class of their own.

8.2.3 Pattern L

Pattern L comprises all nominals beginning with L intrinsically in sg/pl. All stem tonemes are L, except for the third mora of four-mora stems, which is H. All such Pattern L four-mora stems end in **m.*

sʊ̀^ʔʊg^a	*sʊ̀^ʔʊs*^e	*sʊ̀^ʔ-*	"knife"
zàk^a	*zà^ʔas*^e	*zà^ʔ-*	"dwelling-compound"
dìgɪr^e	*dìga*⁺	*dìg-*	"dwarf"
mɔ̀lɪf^o	*mɔ̀lɪ*⁺	*mɔ̀l-*	"gazelle"
kù^ʔɵm^m	no pl	*kʊ̯^ʔà-*	"water"
mà⁺	*mà nám*^a	*mà-*	"mother"
mɛ̀ɛŋ^a	*mɛ̀ɛmɪs*^e	*mɛ̀ɛŋ-*	"turtle"
sàal^a	*sàalɪb*^a	*sàal-*	"human"
bɔ̀ɔdɪm^m	no pl		"will"
dàalɪm^m	no pl		"maleness"
pʊ̀^ʔalɪm^m	no pl		"femininity"
pʊ̀gʊdɪb^a	*pʊ̀gʊd-nàm*^a	*pʊ̀gʊd-*	"father's sister"
sàam^{ma}	*sàam-nàm*^a	*sàam-*	"father"
dìəm^{ma}	*dìəm-nàm*^a	*dìəm-*	"man's parent-in-law"
àŋ̌rʊŋ^o	*àŋ̌rɪma*⁺	*àŋ̌rʊŋ-*	"boat"

kàrʊŋ[o]			gerund of
or *kàrɪmʊg*[o]			*kàrɪm*[m] "read"
zùlʊŋ[o]	*zùlɪma*[+]	*zùlʊŋ-*	"deep"
yàlʊŋ[o]	*yàlɪma*[+]	*yàlʊŋ-*	"wide"
nàrʊŋ[o]	*nàrɪma*[+]	*nàrʊŋ-*	"necessary"
zìlɪm[me]	*zìlɪma*[+]	*zìlɪm-*	"tongue"
sìilíŋ[a]	*sìilímìs*[e]		
	sìilís[e]		
	sìilímà[+]	*sìilíŋ-*	"proverb"
zàaňsʊ́ŋ[o]	*zàaňsímà*[+]	*zàaňsʊ́ŋ-*	"dream"

Note the *m*-stems

dàalím[m]	*dàalímìs*[e]	*dàalím-*	"male sex organs"
pʊ̀ʔalím[m]	*pʊ̀ʔalímìs*[e]	*pʊ̀ʔalím-*	"female sex organs"
bìʔisím[m]			"milk"

Contrast three-mora stems like *daal* + *m*[m] "maleness" above.
Tonally exceptional Pattern L words are:

bùgʊ́m[m]	no pl	*bùgʊ́m-* or *bùgōm-*	"fire"
no sg	*tàdɪmís*[e]		"weakness"
no sg	*bùdɪmís*[e]		"confusion"

The consonant *ŋ* is anomalously treated as /ŋ/ not /ŋŋ/ in

nɔ̀ŋɪlím[m]		"love"
nɔ̀ŋɪdím-tāa[=]	15.1.1.5	"fellow lover" WK
sʊ̀ŋɪdím-tāa[=]		"fellow-helper"

Cf *gīŋɪlím*[m] "shortness" 8.2.1 and the anomalous treatment of *ŋ* in 6.2.1 .

8.2.4   Pattern O

Pattern O consists of words with all tonemes M in sg/pl and all L in cb.
The final toneme of the LF is M, so in LF this pattern is distinctive, though in SF
2-mora stems have exactly the same MM pattern as 2-mora Pattern H stems. The LF
final toneme may appear as H instead of the expected M in some circumstances,
though only before Prosodic Clitics and never before Liaison 8.2.4.1 .

These all-M LFs become all-L at the end of questions 10.4.2 :

Lì kā^ʔ gbígìmmee?   "Isn't it a lion?"

Examples:

būʋg^a	*būʋs*^e	*bʋ̀-*	"goat"
tān^{ne}	*tāna*⁺	*tàn-*	"earth"
sīd^a	*sīdıb*^a	*sìd-*	"husband"
pʋ̯^ʔā^a	*pū̯^ʔab*^a	*pʋ̯^ʔà-*	"woman, wife"
sā^ʔab^o	no pl	*sà^ʔ-*	"millet porridge"
gbīgım^{ne}	*gbīgıma*⁺	*gbìgım-*	"lion"
ňwāaŋ^a	*ňwāamıs*^e	*ňwàaŋ-*	"monkey"
mɛ̄ɛd^a	*mɛ̄ɛdıb*^a	*mɛ̀ɛd-*	"builder"
si̯ākıd^a	*si̯ākıdıb*^a	*si̯àkıd-*	"believer"
būtıŋ^a	*būtııs*^e	*bʋ̀tıŋ-*	"cup"
mɛ̄ɛdıŋ^a	*mɛ̄ɛdıs*^e	*mɛ̀ɛdıŋ-*	"building tool"

Agent nouns of the types which have *-d-* only in the plural when derived from from L-initial verbs are tonally heteroclite, consistently showing Pattern L sg and Pattern O pl (the cb would have had L tonemes in either case) 8.6.1 :

pʋ̀^ʔʋs^a	*pū̯^ʔʋsıdıb*^a	*pʋ̀^ʔʋs-*	"worshipper"
kùθs^a	*kūθsıdıb*^a	*kùθs-*	"seller"

Pattern O nominals are all either root-stems or stems in *m n* or *d* (including stems where the *d* has been assimilated into a consonant cluster or *t*); however, all three suffixes are also seen in Pattern L words.

8.2.4.1 Anomalies before Prosodic Clitics

In certain Pattern O words, H appears instead of the expected LF-final M toneme before Prosodic Clitics, but not before Liaison Words.

This occurs in WK's speech whenever the LF has more than three morae and ends either in *-VCV* or *-mCV* (*C* representing a *single* consonant):

gbīgım^{me/}	*gbīgıma*⁺	*gbìgım-*	"lion"
zɔ̄ɔm^{me/}	*zɔ̄ɔma*⁺	*zɔ̀ɔm-*	"fugitive"
yūgʋdır^{e/}	*yūgʋda*⁺	*yùgʋd-*	"hedgehog"
ňwāaŋ^a	*ňwāamıs*^{e/}	*ňwàaŋ-*	"monkey"
bāŋıd^a	*bāŋıdıb*^{a/}	*bàŋıd-*	"wise man"
kpārıdıŋ^a	*kpārıdıs*^{e/}	*kpàrıdıŋ-*	"thing for locking"

It also occurs with LFs of more than two morae ending in *-mm*, which is derived historically from **-mmʋ*:

tādɩm^m/	*tādɩmɩs*^e/	*tàdɩm-*	"weak person"

Words of this type may also show the final H in questions, instead of undergoing the change to all-L as usual, though some other speakers keep the general rule:

Lì à nē gbīgɩmmée?	"Is it a lion?" WK only; rejected by DK
Lì à nē gbígɩmmee?	"Is it a lion?" both WK and DK

8.2.5 Forms with Nominal Prefixes

On nominal prefixes generally see [16]. Tonally they are either M or L. L nominal prefixes do not affect the rest of the tone pattern of the prefixed nominal:

H	*dàyūug*^o/	*dàyūud*^e/	*dàyū-*	"rat"
HL	*Bùsáŋ*^a	*Bùsáàňs*^e	*Bùsāŋ-*	"Bisa person"
L	*kùkpàrɩg*^a	*kùkpàrɩs*^e	*kùkpàr-*	"palm tree"
O	*dàkīig*^a	*dàkīis*^e	*dàkì-*	"sib-in-law via wife"

M toneme nominal prefixes do not affect the tone of the remaining stem in the sg or pl, but the cb always has a H toneme after the prefix:

H	*zīnzāu̯ŋ*^o/	*zīnzāná*^+	*zīnzáu̯ŋ-*	"bat"
H	*Ňwāmpūrɩg*^a/	*Ňwāmpūrɩs*^e/	*Ňwāmpúr-*	"Mamprussi person"
H	*gūmpūzēr*^e/	*gūmpūzēyá*^+	*gūmpūzér-*	"duck"
H	*tīntɔ̄ňríg*^a	*tīntɔ̄ňrís*^e	*tīntɔ́ňr-*	"mole" [7.2.1.1]
H	*pīpīrɩg*^a/	*pīpīrɩs*^e/	*pīpír-*	"desert"
H	*bālērʋg*^o/	*bālērɩd*^e/	*bālɛ́r-*	"ugly person"
H	*pūkpāad*^a/	*pūkpāadíb*^a	*pūkpá-*	"farmer" [16.4]
O	*fūfūm*^me	*fūfūma*^+	*fūfúm-*	"envy; stye in the eye"
L	*sāmán*^ne	*sāmánà*^+	*sāmán-*	"courtyard"

The examples labelled "H" might be O: the cb tonemes are as expected for Pattern O, and the LF-final H tonemes in the sg/pl forms might reflect a similar process to that discussed in [8.2.4.1]. There is perhaps a limit on how many successive M morae can be tolerated within one word. With *zīnzāná*^+ *gūmpūzēyá*^+ compare also WK's forms sg *wālɩg*^a, pl *wālɩs*^e beside *wālí*^+ "a kind of gazelle."

M Raising only follows forms which have undergone Apocope. One or two compounds behave tonally as if the first element were a prefix, with no neutralisation of stem tones in the sg/pl, but only in the cb. All cases involve cbs as pre-modifiers rather than heads, and the cb stems are all probably originally of one mora:

*zūg-kōgʋr*ᵉ/	*zūg-kōga*⁺	*zūg-kúg-*	"pillow" 11.2.2
*kā-wēnnɪr*ᵉ/	*kā-wēnna*⁺	*kā-wɛ́n-*	"corn"

8.3 Verbs

As is cross-linguistically common, Kusaal verbs show much less lexical tonal variety than nominals. Probably as the result of mergers of a previously distinct Pattern HL with regular H and Pattern L with O 8.7, there are just two tone patterns:

Pattern H	initial M or H
Pattern O	L throughout in the Indicative and Imperative Moods
	M throughout in the Unrealised Mood

The Tone Patterns of all regularly formed deverbal nominals are predictable 8.6.1; only the tones of finite verbal forms are discussed below.

Variable Verbs have three forms 13.1. The **-m**ᵃ imperative is found only (and always) with tone overlay 24.6.1.1 so it is unnecessary to treat it further here; perfective and imperfective forms will be cited in that order. **Invariable Verbs** have a single form 13.2, which is always imperfective.

All *imperfective* verb forms in both Patterns H and O, even the bare root *bɛ̀*⁺, are followed by L Raising, whether subject to tone overlay or not.

8.3.1 Pattern H

Pattern H in verbs resembles Pattern H in nominals. Again, it allocates H to one of the first three morae, with all preceding tonemes M and all following tonemes L. The H is placed on a third mora if it exists and is vocalic, and otherwise on the second, unless this is the second within a long vowel, when the H falls on the first mora.

Unlike the case with nominals, there are no anomalous patterns due to mora deletion (see on Fusion Verbs below).

However, the final vowel of the perfective of 2-mora-stem verbs only shows the expected H toneme before Liaison Words; before Prosodic Clitics it carries M:

dūgí lī	"cooked it"
Ò pū dūge.	"He didn't cook."

The form before the Interrogative Clitic confirms that the pattern there is intrinsically MM, because it becomes LL like all other all-M sequences in this context:

Ò pū gɔ̄se.	"She didn't look"
Ò pū gɔ́sèe?	"Didn't she look?"
Ò pū dūge.	"She didn't cook."
Ò pū dúgèe?	"Didn't she cook?"
Ò pū zábē.	"She didn't fight."
Ò pū zábèe?	"Didn't she fight?"

In Superscript Notation these LFs will be written as MM rather than MH. Examples for Pattern H:

ňyɛ̄[+]	*ňyɛ̄t*[a/]		"see"
kū[+]	*kūʋd*[a/]		"kill"
dūg[e]	*dūgʋd*[a/]		"cook"
pi̯āň̃ʔ[a]	*pi̯āň̃ʔad*[a/]		"speak" "praise"
kūl[e]	*kūn*[na/]		"go home"
yādɪg[e/]	*yādɪgíd*[a]		"scatter"
mɔ̄ɔl[e/]	*mɔ́ɔn*[na]		"proclaim"
dīgɪl[e/]	*dīgín*[na]		"lay down"
nɔ̄k[e/] /kk/	*nɔ̄kíd*[a] /kk/		"take"
lāŋím[m] /ŋŋ/	*lāŋím*[ma] /ŋŋ/		"wander searching"

As with nominals 8.2.1 , complications arise with LFs ending in morae which cannot be tone-bearing, either with LFs ending in long vowels or diphthongs, and with LFs ending in *-mm*. Again, the SF forms are regular, but H allocated to a LF final mora is transferred to the next preceding mora which is not the last in a long vowel or diphthong, replacing its previous M toneme.

tɔ̄ɔm[m/]	*tɔ́ɔm*[ma] or *tɔ̄ɔmíd*[a]	"disappear"
**tɔ̄ɔmí* pfv		
→ SF *tɔ̄ɔm*		
→ LF *tɔ́ɔmm*		
pāe[+/]		"reach"
→ SF *pāe*		
→ LF *pāée*		

As always, Superscript Notation writes the acute mark at the end 3.2.1 .

Fusion Verbs show no sign of *g in the imperfective tonally:

pāe+/	*pāad*ª/	not *páad*ª	"reach"
dīˀe+/	*dīˀəd*ª/	not *díˀəd*ª	"get"
pūňˀe+/	*pūňˀəd*ª/	not *púňˀəd*ª	"rot" WK

Contrast the corresponding gerunds in *-r*ᵉ: *páar*ᵉ *díˀər*ᵉ *púňˀər*ᵉ.

Agentive Invariable Verbs:

	*dīgɩ*ʸᵃ/	"be lying down"
	*tīˀi*ʸᵃ/	"be leaning" (objects)
	*zāňl*ˡᵃ/	"be holding"
	*gɔ̄l*ˡᵃ/	"be looking up with
or	*gɔ̄r*ª/	neck extended"
or	*gɔ̄ˀe*ʸᵃ/	
	*mɔ̄r*ª/	"have"
	*sῡˀe*ʸᵃ/	"own"

Adjectival Verbs with stems in *-m-* all show gemination of the *-m-* in the LF, but have tonemes allocated as if the *-m-* were single:

*kpīˀəm*ᵐᵃ/	not	*kpíˀəm*ᵐᵃ	"be strong, hard"
*kpɛ̄ɛňm*ᵐᵃ/	not	*kpɛ́ɛňm*ᵐᵃ	"be older than"
*wāˀam*ᵐᵃ/	not	*wáˀam*ᵐᵃ	"be long, tall" KT

This is the result of historical reworking of Adjectival Verbs to conform to verbal tone patterns, and represents an earlier nominal-type Pattern O 13.2.2 .

8.3.2 Pattern O

Pattern O in verbs is simple descriptively: all stem tonemes are L in the Indicative and Imperative Moods, and all tonemes are M in the Unrealised Mood.

*bùd*ᵉ	*bùt*ª	"plant"
dì+	*dìt*ª	"eat"
mɛ̀+	*mɛ̀ɛd*ª	"build"
*zàb*ᵉ	*zàbɩd*ª	"fight, hurt"
*bùəl*ᵉ	*bùən*ⁿᵃ	"call"
*bɔ̀dɩg*ᵉ	*bɔ̀dɩgɩd*ª	"get lost, lose"

nìŋ[e]	*nìŋɩd*[a]	"do"
màal[e]	*màan*[na]	"sacrifice"
dìgɩn[e]	*dìgɩnɩd*[a]	"lie down"
wàŋɩm[m]	*wàŋɩm*[ma]	"waste away"
sìilɩm[m]	*sìilɩm*[ma]	"cite proverbs"
zàaňsɩm[m]	*zàaňsɩm*[ma]	"dream"
*zìň*ʔ*i*[ya]		"be sitting down"
tàbɩ[ya]		"be stuck to"
tèňr[a]		"remember"
bɛ̀[+]		"be in a place, exist"
àe̯ň[ya]		"be something"
vɛ̀n[na]		"be beautiful"
zùlɩm[ma]		"be deep"

In the Unrealised Mood, as with nominal Pattern O, the last toneme of the LF is also M, as is the final vowel mora before Liaison.

Ò nà bɔ̄dɩg.	"He'll get lost."
Ò nà vēn.	"She'll be beautiful."
Ò kʊ̀ zābe.	"She won't fight."
Ò kʊ̀ bɔ̄dɩge.	"He won't get lost."
Ò kʊ̀ bɔ̄dɩgɩda.	"She won't be getting lost."
Ò kʊ̀ būɵnna.	"She won't be calling."
Ò nà bɔ̄dɩgɩ m.	"He will lose me."
Ò kʊ̀ bɔ̄dɩgɩ má.	"He will not lose me."
Ò nà bɔ̄dɩgɩ bá.	"She will lose them."
Ò kʊ̀ bɔ̄dɩgɩ báa.	"She won't lose them."
Ò kʊ̀ bɔ̄dɩgɩdɩ má.	"He won't be losing me."
Ò kʊ̀ zābɩdɩ má.	"He won't be fighting me."
Ò kʊ̀ zābɩdɩné.	"He wouldn't have been fighting."
Ò kʊ̀ sīilɩmm.	"She won't cite proverbs" WK

but *Ò kʊ̀ lāŋímm.*   "She won't wander about searching (*lāŋím*[m])."

Such forms always cause L Raising:

*Ò nà zāb ná*ʔ*àb lā.*	"He'll fight the chief."
*Ò nà gɔ̄s ná*ʔ*àb lā.*	"He'll look at the chief."

The LF of the enclitic pronoun [o] can here show either M or H (all WK):

	Ò kʋ̀ zāb·óo.	"He won't fight him."
or	*Ò kʋ̀ zāb·oo.*	"He won't fight him."
	Ò kʋ̀ kād·óo.	"He won't drive him away."
or	*Ò kʋ̀ kād·oo.*	"He won't drive him away."

In questions, clause-final M...M become L...L just as with Pattern O nominals:

M̀ ná bɔ̀dɪgee?   "Will I get lost?"

8.4 Apocope Blocking

Words with Apocope Blocking 7.4 with SFs ending in M toneme change to final H in the LF:

SF *yā*	LF *yáa*	"houses"	*yā*⁺ᐟ
SF *bèdʋgō*	LF *bèdʋgúʋ*	"a lot"	*bèdʋgō*⁺ᐟ

Superscript Notation writes *yā*⁺ᐟ *bèdʋgō*⁺ᐟ by the usual convention 3.2.1.
Exceptional among free words is *kɔ̀bɪgā*⁼ "one hundred."

8.5 Clitic Pronouns and Particles

Nominal combining forms 11, Focussing Modifiers 34.6, Conjunctions 29.3, some particle-verbs 24.7.2 and Post-Subject Particles 29.1.3 have the same range of Tone Patterns as free words.

Proclitic Liaison Words all have a single mora with a Fixed L toneme 10.2:

all proclitic personal pronouns	*m̀ fʋ̀ ò lì tì yà bà*
personifier clitics	*à ǹ m̀*
complementiser	*ǹ* 9.3.2.1.1
linker particle "and"	*kà*

Serialiser *n* has no tone. The LF-final toneme preceding it is M after M and L otherwise. It is followed by L Raising if and only if the preceding word would be:

M̀   nɔ́k   sʋ́ʔʋgʋ̀‿ø   kɪ̤á   nīm   lā.
1SG pick.up:**PFV** knife:**SG SER** cut:**PFV** meat:**SG ART**.
"I cut the meat with a knife."

Liaison Enclitics bear H toneme after a host-final M toneme vowel and M otherwise; this M becomes H in the LF (i.e. the form is Pattern H, not O):

	M̀ zábī bá.	"I've fought them."
	Kà m̀ zábì bā.	"And I've fought them."
	M̀ pū bɔ́ɔdī báa.	"I don't love them."
cf	*M̀ pū bɔ́ɔdī fó.*	"I don't love you."
	Kà m̀ pū zábì báa.	"And I didn't fight them."
cf	*Kà m̀ pū zábì fō.*	"And I didn't fight you."
	Ànɔ́ʔɔnì kūú bá?	"Who has killed them?" SF *kūú bā*

Enclitic particles with the Short Form *(C)V* which are *not* Liaison Words have three possible Tone Patterns, corresponding to the H, L and O Patterns of free words.

The only Pattern L types are the deictic *ňwà* "this" 21.3 and the VP-final particle *sà* "hence, ago" 25.7, and the only Pattern O enclitic is the particle *yā⁺* found as a manifestation of Independency Marking 24.6.2.1.

As with 2-mora stem free words, Patterns H and O fall together in the SF, where both appear with a M toneme.

Pattern H enclitics change the M tone to H in the Long Form (compare the tonal behaviour of words with Apocope Blocking 8.4.) Before the Negative Prosodic Clitic 10.4.1 the Pattern H LFs thus end in H, while the Pattern O clitic ends in M; so with the article *lā⁺/* versus the Independent/pfv particle *yā⁺*:

Lì à nē dɔ́ɔ̀g lā.	"It's the hut."
Lì kāʔ dɔ́ɔ̀g láa.	"It's not the hut."

but	*Ka o ba' ne o ma daa pu baŋ ye o kpelim yaa.*
	Kà ò bāʔ nɛ́ ò mà dāa pū báŋ
	and **3HU** father:**SG** with **3HU** mother:**SG** **TNS** **NEG.IND** realise:**PFV**
	yɛ́ ò kpɛ̀lɪm yāa ⁺ø.
	that **3HU** remain **INDEP NEG**.
	"His father and mother did not realise that he had remained." (Lk 2:43)

Before the Interrogative Prosodic Clitic, as with free words 10.4.2, the Pattern O form changes to all-L; thus the Pattern H focus particle *nɛ̄⁺/* contrasts with Pattern O *yā⁺*:

Lì bɔ̀dɪg nɛ̄.	"It's lost."
Lì bɔ̀dɪg nɛ́ɛ?	"Is it lost?

but

Lì bɔ̀dɪg yā.	"It's got lost."
Lì bɔ̀dɪg yàa?	"Has it got lost?"

8.6 Tone in Derivation

Root tone patterns can be deduced from the tone patterns of words with stems lacking any derivational suffix, and from common patterns in stems with different derivational suffixes but the same root.

Roots which form Pattern HL nouns fall together with regular Pattern H in all other derived or cognate nominals or verbs:

áňsìb[a]	"maternal uncle"	*āňsíŋ*[a]	"sister's child"
kísùg[o]	"hateful"	*kīs*[a/]	"hate"
gɔ́sìg[a]	"looking"	*gɔ̄s*[e]	"look"

Derivatives of Pattern L or O roots can be L or O. The assignment is by rule in deverbal nominals 8.6.1 .

With other nominals, no stem with **g* **l* or **s* as a final derivational suffix 15.1 or as the final consonant of a *(C)V:C* root-stem 7.1.1.2 is Pattern O.

In general, it is unexpected for forms derived from H or HL roots to show L or O Patterns, or vice versa. However, this happens systematically with "assume-posture" verbs 15.2.1.1 and with Adjectival Verbs corresponding to Pattern O Adjectives 13.2.2 . Other instances are

là'as[e]	"gather together"	*lāk*[e/]	"open" (eye, book) 15.2.1.3
dù'un[e]	"make water"	*dū'uním*[m]	"urine"

In	*gīŋ*[a]	"short"	*gīiňlím*[m]	"shortness"
			or *gīŋɩlím*[m]	

both the unexpected tones and the aberrant treatment of as a single consonant rather than a cluster 8.2.1 in the form *gīŋɩlím*[m] perhaps reflect the addition of the suffix *-l-* to an entire word form rather than a stem; however, the treatment of *ŋ* as single rather than double in tone allocation is also seen in other contexts 6.2.1 8.2.3 .

A change of Tone Pattern may in some cases be a deliberate strategy to differentiate words which are otherwise homophonous:

gbāṵŋ[o/]	"skin", "book" DK	*gbàṵŋ*[o]	"book" WK

8.6.1 Tones of Deverbal Nominals

All segmentally regular gerunds have predictable Tone Patterns:

from Pattern H verbs	Pattern H
from Pattern O verbs	
2-mora stems	Pattern O
otherwise	Pattern L

dūg[e]	"cook"	→	*dūgʋb*[o/]
nɔ̄k[e/]	"take"	→	*nɔ̄kír*[e]
dīgɪl[e/]	"lay down"	→	*dīgɪlúg*[o]
mɛ̀[+]	"build"	→	*mɛ̄ɛb*[o]
sʋ̀ŋ[e]	"help"	→	*sʋ̀ŋɪr*[e]
dìgɪn[e]	"lie down"	→	*dìgɪnʋg*[o]
zàaňsɪm[m]	"dream"	→	*zàaňsʋ́ŋ*[o]

Most segmentally irregular gerunds formed from root verbs are tonally regular. Agent nouns and deverbal adjectives also have predictable Tone Patterns:

from Pattern H verbs	Pattern H
from Pattern O verbs	
containing derivational *-d-*	Pattern O
otherwise	Pattern L

A peculiarity of these forms is that the *d* is not always present, being omitted regularly in some derivatives after certain shapes of longer verb stems. It is also regularly dropped in the singular and the combining form, but not the plural, of agent nouns derived from 3-mora *s*-stem verbs. When these derivatives are made from Pattern O verbs the forms with retained *d* (even when it is assimilated into a cluster as *-mn-* or *-nn-*) are Pattern O whereas those without it are Pattern L. In the case of the agent nouns mentioned, this results in a regular change of tone Pattern within a single flexional paradigm:

pʋ̀ʔʋs[a]	*pʋ̄ʔʋsɪdɪb*[a]	*pʋ̀ʔʋs-*	"worshipper"

8.7 Tonal Internal Sandhi

It is descriptively convenient to assign a toneme to almost every vocalic mora 6.1 . However, the possible combinations of tonemes within words are very limited, and the question arises as to how far word-internal tonemes are actually in contrast.

The Agolle Kusaal M toneme is equivalent to H in other Western Oti-Volta languages, while the Agolle H toneme is the equivalent of H! or HL, and is most often the result of spreading of a preceding (original) H tone to L. In the discussion below I will refer to these tonemes as they appear in Kusaal; thus the HL → HH! change will appear as word-internal **rightward M toneme spreading**: ML → MH. Word-internal H after M is in fact always attributable to this process.

The all-M manifestation of Pattern O can be taken as a single M toneme linked to all the morae of the stem. The only other case of more than a single M toneme in a stem occurs at the beginning of Pattern H words, where two M morae may occur in succession; again, this can be taken as a single toneme attached to both morae.

Thus, the central question in accounting for the constraints on the possible tonemes of stems is the status of the L toneme. In this account, it is regarded as essentially unmarked, equivalent to the absence of M or H toneme.

A problem with regarding the L toneme as unmarked arises with Tone Pattern O. All Western Oti-Volta languages for which I have adequate tonal information have analogues of Patterns H, L and O; furthermore, the noun tone patterns in Buli correspond systematically to these, showing respectively H, L and mid tone stems:

nááb	"cow"	cf Kusaal *náaf*[o]	id
tììb	"tree"	cf Kusaal *tììɡ*[a]	id
būūk	"goat"	cf Kusaal *būʋɡ*[a]	id

In the other Western Oti-Volta languages, the Pattern O equivalent shows a regular alternation between all-H free forms and all-L Combining Forms; in Buli, between all-mid free forms and all-L combining forms, tonally identical to the combining forms of the Buli Pattern L equivalent.

Akanlig-Pare and Kenstowicz 2002 (for Mooré) regard Pattern O stems as intrisically tonally unmarked. Adapting their analysis, Pattern O stems would be realised as all-M when a M flexional suffix is attached but otherwise default to all-L. All noun class suffixes carry M toneme in the sg/pl except those following a stem-final M toneme, which are dissimilated to L, which subsequently becomes Kusaal H by tone spreading. In discussing Dagbani, Olawsky 1999 also supposes that the analogue of Pattern O involves stems which are intrinsically toneless, but he follows Anttila and Bodomo (on Dagaare) in supposing that the change to all-H (= Kusaal all-M) is the result of *stress*. For Kusaal, this is not workable with surface stress 3.4 , and

to ascribe different *underlying* stress patterns leads to circular arguments, so I will adopt the Akanlig-Pare and Kenstowicz tone-copying proposal.

   As it stands, this still requires marked L tonemes on the initial morae of Pattern L stems, to account for their failure to become all-M when a noun class suffix is added. This L-versus-toneless distinction is at a different analytical level from the possibility that toneme realisation rules might depend on whether individual morae were marked L or toneless 6.2.1 : intrinsically toneless stems would always be *realised* with L or M tonemes throughout. Nevertheless, it introduces an abstract *ad hoc* feature into the tonal system purely to account for this one phenomenon.

   An alternative is suggested by the difference between Pattern HL and Pattern H. Pattern H roots show underlying MM on the first two morae, and Pattern HL roots can be taken as having underlying ML. By analogy, Pattern O and Pattern L roots could be taken respectively as LL and LM. It then remains possible to regard L tones a unmarked: a stem with all tones L is liable to copy the tone of a M flexional suffix and become all-M, just as in the Akanlig-Pare/Kenstowicz scenario, but this copying does not occur in Pattern L because Pattern L stems contain a non-initial M toneme.

   The obvious objection to this analysis is that Pattern L two- and three-mora stems do not in fact show any non-initial M (or H) tonemes. This can be explained as the result of **rightward L toneme spreading**, and the H tonemes which do in fact occur on the third morae of Pattern L four-mora nominal stems 8.2.3 can be taken as intrinsic M morae followed by downstep. Various possible constraints on internal L tone spreading could explain this; the simplest would be that LM does not become LL if the M mora is closed in the LF form and is not the second mora in the stem. This would explain singular Pattern L toneme patterns like *zàañsʊ́ŋ*° "dream", though the plural and combining form tones *zàañsímà*⁺ and *zàañsʊ́ŋ-* would have to be explained as analogical, which is plausible for the combining forms at least 11.2.2 . Because Pattern L four-mora stems all end in *-*sɪm -*lɪm* or *-*dɪm* there are in fact several *ad hoc* ways to "explain" their exceptional tonal behaviour with no obvious way to choose between them.

   Comparative evidence from Toende Kusaal supports the existence of a historical internal L spreading rule in Agolle. Niggli's "La phonologie du Kusaal" pp 134ff has, for example

kɔ'ɔ́m	"*eau*"	Agolle SF	*kùˀɵm*
zìlím	"*langue*"	Agolle SF	*zìlɪm*
sʊ̀ḿ	"*bien*"	Agolle SF	*sʊ̀m*
bʊ̀ŋ́	"*âne*"	Agolle SF	*bʊ̀ŋ*

(cf LF *bʊ̀ŋá*)

   Niggli shows L-initial *verbs* as LL not LH: *sìbìg* "*punir*", which is consistent with the hypothesis about the Tone Patterns of Variable Verbs advanced below.

Despite difficulties with formulating its precise conditions, L tone spreading thus allows for a natural explanation of the distinction between Pattern O and Pattern L which does not require the assumption of marked L tonemes.

The postulation of underlying roots with (up to) two tonemes, each M or L, also neatly accounts for the fourfold set of H, HL, L and O types needed to account for all 2-mora stem nominals; the Patterns arise respectively from MM, ML, LM and LL.

Longer stems do not show more contrasts: all Patterns could be described just by attributing the Pattern to the root, with Pattern H variants explicable from internally reconstructable processes of mora deletion 8.2.1.1 . Pattern HL and H roots fall together in derivation: all regularly derived stems are Pattern H, with the sole exception of assume-posture verbs 15.2.1.1 . Thus, after HL and H roots, derivational suffixes do not create independent tonal distinctions. However, derivational suffixes do differ in their tonal behaviour is after O and L roots 8.6.1 . This could be accounted for by supposing that a derivational suffix can potentially be M or L, but that M is only permitted if the root has no M tonemes; word-internal H following M is always due to internal rightwards H tone spreading affecting an underling L. There are a good many difficulties in the details, however.

It is likely that much of the difficulty is due to extensive levelling and simplification of the tone patterns of Variable Verbs. Verbal Pattern H is likely to represent a conflation of previously separate Patterns H and HL, and verbal Pattern O of previously separate Patterns O and L.

The perfective is a bare stem, like a nominal cb. The tones of the cbs of Pattern H and Pattern HL always coincide, as do the tones of all forms longer than two morae in the LF, so the collapse of H and HL into one pattern in finite forms is expected. There are a few Pattern HL gerunds which probably reflect an earlier stage before extensive tonal levelling had taken place 14.1.1.1.1 ; an example of segmental and tonal levelling proceeding together is seen in the two gerunds of *kīr*[e] "hurry, tremble": *kìkírùg*[o] versus *kīrıb*[o/].

The tones of the cbs of nominal Pattern O and Pattern L regularly fall together in all but 4-mora stems, so originally separate O and L verbs would coincide tonally in the perfective except in 4-mora stems. The all-L Pattern of Pattern O 4-mora stem perfectives might represent levelling; but the assumption of a rightward L toneme spreading rule having affected Pattern L stem surface tonemes implies rather that it is the LLH tonemes of the cbs of 4-mora Pattern L nouns which are borrowed (like the segmental form) from the singular. (The plurals are more difficult to account for.)

Difficulty arises with Pattern O imperfective forms, where the stem tonemes are all-L but the mora before Liaison is M, and the forms are followed by the L Raising tone sandhi 10.1 . This suggests a M toneme flexion -*d*[a], and analogy with nominals would suggest that the stem should copy the M toneme and become all-M. However, attribution of the imperfective final M to the *flexion* is problematic, because the only Pattern O imperfective with no flexional ending, *bὲ*[+] "be somewhere", is *also*

followed by L Raising and has final M before Liaison, whether subject to tone overlay or not 13.2 . The LF-final M is thus probably an *overlay* marking verb forms as imperfective, while the flexion itself is intrinsically L. This overlay applies *later* than the copying of final M tonemes by O stems; it is analogous to the final M associated with the tone overlay of Independency Marking 24.6.1.1 which also applies to forms with or without a flexional ending, and also fails to trigger the realisation of O stems as all-M. (Unrealised Mood marking would, however, necessarily involve a change of final L to M *prior* to the copying of final tones by O stems.) The imperfectives of originally distinct Pattern O and Pattern L verbs would then also automatically fall together in at least 2- and 3-mora stems; for 4-mora stems see below on the derivational suffix *d*.

The great majority of non-deverbal *nominals* with stems of more than two morae which are not Pattern H are Pattern L, not O, including *all* those with stems ending in *g* *l* or *s*. Plausibly, therefore, most (even all) 3-mora stem Variable Verbs which are not Pattern H would have been originally Pattern L, and in fact *all* gerunds from 3-mora stem verbs which are not H are Pattern L. However, 2-mora stem nominals are fairly evenly distributed between Patterns O and L, so the uniform Pattern O of all regular gerunds would have to be due to levelling. There are some exceptional Pattern L gerunds, which may reflect an older, more complex situation, just as with the remaining Pattern HL gerunds mentioned above.

Most derivational suffixes added to a root which is either O or L thus result in a stem which is Pattern L in nominals, or O in verbs; accordingly, the suffix itself can be regarded as carrying M toneme unless there is already a M preceding it. (In either case the M is subsequently changed to L by the L spreading rule, except in 4-mora stem nominals, as noted above.)

The standing exception is the formant *d* of agent nouns, instrument nouns and imperfective deverbal adjectives 8.6.1 . Not only do forms derived with this suffix from Pattern O verbs consistently show Pattern O, but forms where the -*d*- is *absent* after stem-final -*s*- (as opposed to merely *assimilated* after nasals) are consistently L instead of O. This seems to imply that a toneme associated with *d* has *replaced* the M toneme of the preceding derivational *s*, which seems phonologically implausible if the *d* is to be taken as bearing the supposedly unmarked toneme L.

However, comparison of the stems of agent nouns with those of imperfective deverbal adjectives 15.1.1.1 15.1.1.2.1 suggests that the older pattern of attachment of the *d* suffix was for it either to delete any preceding derivational suffix or to be itself omitted; the tendency for -*d*- to coexist with a preceding derivational suffix increases as the formations become less "derivational" and more "flexional", culminating in the great regularity of the finite imperfective form, probably based on the same formant 13.1 . Forms with a derivational suffix restored before -*d*- can be thus taken as preserving their original tones despite analogical segmental remodelling, as seen elsewhere with remodelled cbs 11.2.2 .

A similar process would explain why the imperfective forms of three and four-mora stem Variable Verbs appear as Pattern O, not L; as suggested above, the flexion -*d*ᵃ is intrinsically L, like the derivational suffix -*d*-, and the tones of forms like *bɔ̀dɪɡɪd*ᵃ "get lost" ipvf would be modelled on patterns where the derivational suffix of the verb was deleted before the flexion, as still with some irregular verbs 13.1.2 .

Tone patterns are therefore not always explicable on the basis of toneme contrasts attributable to the individual derivational suffixes present in synchronic segmental forms. So in the "tonally heteroclite" agent noun type such as

*kùɵs*ᵃ   *kūɵsɪdɪb*ᵃ   *kùɵs*-   "seller"

the verb stem is perhaps historically a LL root with M suffix **s*; -*s*- is present in the plural because the segment has been restored before -*d*- by analogy, but its tone has not; in the singular the M of the suffix **s* has survived long enough to prevent the stem being treated as tonally unmarked, with copying the M of the vowel-initial ᵃ|*b*ᵃ Noun Class sg suffix to give **kūɵs*ᵃ, but it is difficult to produce a plausible *synchronic* rule order to achieve this, and it is more natural to suppose that the tones of the sg and the pl are independently directly assigned by the rule for the tones of deverbal nominals given in 8.6.1 .

The tone patterns of Adjectival Verbs 13.2.2 further demonstrate that analogical developments have made it impossible to describe synchronic tone patterns purely in terms of low-level tonal processes; in these verbs surface tonemes which straightforwardly match those of the corresponding adjectives have been reinterpreted in terms of the tone patterns of Variable and Agentive Invariable Verbs.

While the above analyses of stem tonemes in terms of internal tone sandhi seem historically plausible, their usefulness in synchronic description is not evident. Other Western Oti-Volta languages also lack surface non-initial H tones in their Pattern L analogues, so they too would need such a L spreading rule. As seen above, even the Buli nominal tone system is very similar. Thus, as a historical explanation either these internal sandhi processes need to be assigned to a very early period, or it is necessary to assume widespread independent parallel developments. As a synchronic explanation the analysis is quite abstract: it is more straightforward to describe tone patterns as they currently appear 8.1 , along with the simple tonal rules needed to describe the relationships seen in derivation 8.6 ; I have adopted a similar approach with external tone sandhi 10.1 .

9 Segmental External Sandhi

Kusaal shows a range of intricate external sandhi phenomena, comprising not only straightforward segmental contact phenomena 9.1, but also tone sandhi of two types, one which applies across phrase boundaries 10.1 and one limited to certain NP and AdvP constructions 10.3, and several processes related to Apocope, with its complete suppression before certain particles ("Prosodic Clitics"), which have zero segmental form themselves 9.2, and partial suppression before several other particles and pronouns ("Liaison Words") 9.3, some of which also have no segmental form of their own in most contexts 3.3.3.

There is some evidence of a closer juncture between proclitic words and following hosts than between word-forms capable of ending a phrase and following dependents, including enclitics *other* than Liaison Words; however, finite verb forms often behave in this regard as if they were proclitic.

Thus, in segmental sandhi, proclitics and finite verb forms ending in a fronting diphthong show monophthongisation phrase internally, whereas this change does not take place with noun singular forms before uncompounded modifiers, or even before the article *lā*[+/]:

sāe̯ň lā	"the blacksmith"	
sàň-kàŋā	"this blacksmith"	
Ò sʋ̀ˀʋ lɔ́r.	"She owns a lorry."	*sʋ̄ˀe*[ya/] "own"
Lì nàa nɛ̄.	"It is finished."	*nāe*[+/] "finish"

Tone sandhi in a number of respects suggests a similar distinction 10.1 10.3.1, but the tonal phenomena cannot be accounted for in purely phonological terms and probably reflect historical developments connected with Apocope rather than any synchronic differences in juncture.

9.1 Contact Phenomena

9.1.1 Consonant Assimilation

Both the initial consonant and the emic nasalisation of the deictic *ňwà*[+] "this" are lost when it appears as an enclitic after a word ending in a consonant:

bīis ňwá	"these children"	[biːsa]
zàam ňwá	"this evening"	[zaːma]
but *pṵˀā ňwá*	"this woman" (e.g. as vocative)	[pʰʊ̯a̰wã]

The initial *l* of the definite article *lā*[+/] assimilates totally to a preceding word final *-r*, and [rː] simplifies to [r]:

yīr lā	"the house"	[jira]
pʊ̀kɔ̀ɔ̌r lā	"the widow"	[pʰʊkʰɔ̰̃ːra]

Toende Kusaal shows this assimilation after all final consonants (Niggli 2012). The 1976 New Testament translation (especially Mark) occasionally shows forms like *nidiba* for *nīdɩb lā* "the people."

Initial *n* of the focus particle *nɛ̄*[+/] often assimilates completely to a preceding word-final *d t n r l m* in normal rapid speech. Subsequently [rː] becomes [r] and [dː] becomes [d]:

Bà kpìid nɛ̄.	"They're dying."	[ba k͡piːdɛ]
M̀ zɔ́t nɛ̄.	"I'm afraid."	[m̩ zɔtːɛ]
M̀ mɔ́r nɛ̄ bīisá àyí.	"I have two children with me."	[m̩ mɔrɛ biːsaːji]
Lì pɛ̀ˀɛl nɛ̄.	"It's full."	[lɪ pʰɛ̰ːlːɛ]
Lì sà̰ˀam nɛ̄.	"It's spoilt."	[lɪ sa̰ːmːɛ]

Other accounts of Kusaal have taken this as a "progressive" flexion *-de*/*te*; in Toende Kusaal the assimilation of the equivalent particle *mɛ* is invariable after consonants (Niggli 2012), making this interpretation natural enough.

Final nasal consonants of proclitics, cbs and nominal prefixes assimilate to the place of articulation of a following stop:

dànkɔ̀ŋ	"measles"	[daŋkʰɔ̰ŋ]
nīn-bámmā	"these people"	[nimbamːa]

Before *s z* such word-final nasals are realised as [ŋ]:

būn-zíidìr	"thing for carrying on head"	[bʊŋziːdɪr]
nàm zīʔ	"still not know"	[naŋzi̥]

In the case of nominal prefixes, where no unassimilated forms are available for control, I follow the traditional orthography in writing these nasals as *n* everywhere except before *p b m*, where I write *m*.

9.1.2 Loss of Nasalisation

Word-final nasalised short vowels denasalise before a clitic with an initial nasal consonant (see on similar changes word-internally, 5.2.1):

	àňwá	"like this"
but	*àwá nā*	"like this here"
	kɛ̄ň⁺	"come"
but	*kɛ̄ nā*	"come hither"

Some unstressed *CVň-* elements lose nasalisation even when the following consonant is not a nasal. Thus with the compounds of *sūňfᵒ/* "heart":

sū-málɩsìmᵐ	"joy"
sūň-kpíʔòŋᵒ	"boldness"

the NT and other sources write *sukpi'oŋ* or *sukpi'euŋ* for the second word; similarly *supeen* "anger" for *sūň-péɛ̀n*ⁿᵉ. The loss of nasalisation here probably reflects the process of bleaching and phonological simplification which has created nominal prefixes from some original Combining Forms 16.4.

In the case of the verb *àe̯ňʸᵃ* "be something/somehow" there is loss of nasalisation before the focus particle *nɛ̄⁺/* (for the loss of the *e̯* in this verb see below 9.1.3):

	M̀ á nɛ̄ dāu̯.	"I'm a man."
but	*Lì àň súŋā.*	"It's fine."

Written materials almost invariably write *àň* when it occurs directly before a complement as *a* not *ann*:

Li a suŋa.

This probably reflects the unstressed 3.4 nature of the verb, with a similar process of phonological simplification to that affecting nominal prefixes causing actual loss of nasalisation in normal rapid speech. The few written materials which mark nasalisation with a circumflex or tilde do write *àň* with a nasalisation mark, and my informants nasalise the vowel when asked to repeat the relevant phrases slowly, but in both cases this is probably an artefact of unusually slow speech. Accordingly, I will write the verb form consistently as *à*.

9.1.3 Loss of Fronting

Fronting diphthongs arise from the fronting effect of **y* on the second mora of a short or long vowel 7.3.2, or from vowel fusion before underlying final **gι* 7.3.1.

Regardless of origin, fronting diphthongs occur only word-finally and before *y*.

Nominal combining forms, and verb forms which are not phrase final, may not end in fronting diphthongs unless the next word begins with *y*. Otherwise, the fronting diphthongs are replaced by the corresponding monophthongs 9.1.3:

ae̯	→ *a*		*ae*	→ *aa*	
oe̯	→ *o*				
ʋe̯	→ *ʋ*		*ʋe*	→ *ʋʋ*	
ui̯	→ *u*		*ui*	→ *uu*	
i̯e	→ *i̯a*		*ie*	→ *iə*	
u̯e	→ *u̯a*		*ue*	→ *uɵ*	

	sāe̯ň	"blacksmith"
	sāe̯ň lā	"the blacksmith"
but	*sàň-kàŋā*	"this blacksmith"

Ò sʋ̀ˀʋ lɔ́r.	"She owns a lorry."	*sū̄ˀe*ʸᵃ/	"own"
Lì à súŋā.	"It's good."	*àe̯ň*ʸᵃ	"be" 26.2

The verb *vūe̯*ʸᵃ/ "be alive" appears as *vū* before focus-*nɛ̄*⁺/ [written *vone*] in

Ti ya'a voe, ti vone ye ti tum Zugsob boodim.
Tì yáˀ vūe̯,   tì vú   nɛ̄ yɛ́ tì túm Zūg-sɔ́b   bɔ́ɔdìm.
1PL if   be.alive, **1PL** be.alive **FOC** that **1PL** do:**IPFV** head-one:**SG** will.
"If we live, we live to do the Lord's will." (Rom 14:8)

The SF of the negative verb *kāʔe̯*[+] "not be" loses the final e̯ before the particle *nɛ̄* or an object. Thus *kāʔe̯* only occurs phrase-finally before locative adjuncts 26.1 and before *kà* 24.5:

So' kae' na tun'e dol na'anam ayii.
*Sɔ̄ʔ   kāʔe̯ ø ná tūñʔe̯ ø dɔ̄l   náʔ-nàmá̯ àyíi   * [+]*ø.*
INDF.HU NEG.BE SER UNR be.able **SER** follow king-**PL**   **NUM:**two **NEG**.
"Nobody can serve two kings." (Mt 6:24, 1976)

Dāu̯   kāʔe̯ dɔ́ɔgūn   láa [+]*ø.*
Man:**SG NEG.BE** room:**SG:LOC ART NEG**.
"There's no man in the room."

*Ò   kāʔ   bīiga   * [+]*ø.*
3HU NEG.BE child:**SG NEG**.
"She is not a child."

Fusion Verbs 13.1.1.1:

Èŋ́rɩgɪm̯   ø   pāa   du̯ʔátà.
Shift.along:**IMP SER** reach:**PFV** doctor:**SG**.
"Shift along up to the doctor." (*pāe*[+/] "reach")

but	*Lì nàa nɛ̄.*	"It is finished."	*nāe*[+/] "finish"
	Lì nàe yā.	"It has finished."	
	Dúɵ wɛ̄lá?	"[You] arose how? "	*dūe*[+/] "arise"
		(A morning greeting)	

Examples before Liaison 9.3.1:

pāe[+/] "reach"	+ *tɩ*[+] "us"	→	*pāá tī*[+/]
	+ *fᵒ* "you"	→	*pāá fᵒ*
	+ ʸᵃ "ye"	→	*pāe*ʸᵃ/

pīe[+/] "wash"	+ *tɩ*[+] "us"	→	*pīá tī*[+/]
	+ *fᵒ* "you"	→	*pīá fᵒ*
	+ ʸᵃ "ye"	→	*pīe*ʸᵃ/

dūe[+/] "raise"	+ *tɩ*[+] "us"	→	*dūé tī*[+/]
	+ *fᵒ* "you"	→	*dūé fᵒ*
	+ ʸᵃ "ye"	→	*dūe*ʸᵃ/

Word-final *ia ua* are also realised as [iə] [uɵ] within phrases $\boxed{5.1.1}$ though the orthography does not reflect this:

sīa lā	"the waist"	[siəla]
sàbùa lā	"the girlfriend"	[sabuɵla]

This process of fronting loss is carried through with great regularity in my informants' speech, but NT orthography very frequently writes forms with fronting diphthongs before Liaison, both with Fusion Verbs and Invariable Verbs $\boxed{3.2.2}$ $\boxed{9.3.1}$ $\boxed{9.3.2}$:

voen	for	*vōʋn*
		"would live"
Kiristo da faaenn ti	for	*Kiristo dá fàāň‿ tí*
		Christ **TNS** save:**PFV 1PLO**
		"Christ saved us." (Gal 5:1)

Similar forms appear in other older written sources; for example ILK has several instances of *m wa'e ne* "I'm going" for *m̀ wáˀa nɛ̄.* However, in such cases the audio version of the NT consistently agrees with my informants in showing monophthongisation. My informants consistently rejected the "spelling pronunciation" of such forms altogether rather than ascribing them to dialectal or stylistic variation. Even in NT orthography, the verb *àe̯ň*[ya] "be something" always appears as *aa* and not *aae* before Liaison Words; while this might be a real consequence of the typically unstressed nature of the verb (like the loss of nasalisation $\boxed{9.1.2}$) it is significant that the verb rarely occurs phrase-finally $\boxed{26.2}$, implying much less analogical pressure to introduce the spelling of the phrase-final form into phrase-medial contexts than with other verbs. Moreover, many of the examples of apparent preservation of word-final fronting diphthongs involve the verb *fāe̯ň*[+/] "save", which might be written *faaenn* specifically to distinguish the forms from those of *fāň*[+] "grab, rob"; notably, two instances occur in the 1996 NT of the spurious form *faaenm* for the imperative *faanm*. (Compare also the discussion of the words *faangid* "saviour" and *faangir* "salvation" at $\boxed{20.1}$.) Unequivocal orthographic errors in the 1996 version, like *Noŋilim pu naae da* for *Nɔ̀ŋɪlím pū nāadá* "Love does not come to an end." (1 Cor 13:8), where the 1976 version has *Noŋir pu naada*, (cf ILK *naad*) confirm that the orthographic tradition can encompass the writing of fronting diphthongs for undoubted monophthongs.

Thus, although it is possible that there had been an actual sound change in the period between 1976 and the 1990's, it seems likely that the preservation of word-final fronting diphthongs in texts is simply a consequence of writing words as they would appear before pause.

A fronting diphthong also appears written word-internally in the NT LF form *nyaine* "brightly, clearly", read *ňyāené* in the audio version. The SF, though written *nyain*, is consistently realised [ǰãĩ] *ňyāe* in the audio version 22.4 and by my informants, so the *-ne* of the LF is the same as that seen in other Apocope-blocked words not ending in a short vowel 7.4, and this is not a case of Liaison.

9.2 Prosodic Clitics

All three Prosodic Clitics[7] cause lowering of short LF-final *ι υ* to [e] [o], which are written *e o* respectively. The sounds [e] [o] only contrast with [ɛ] [ɔ] before a Prosodic Clitic, and only contrast with [ɪ] [ʊ] when the Prosodic clitic also neutralises vowel length distinctions. **If Prosodic clitics were always represented in the orthography, *e o* would simply be allographs of *ι υ*.**

Final *-mι* and *-mυ* become *-mm* whenever the *m* is not geminated. The final *m* was presumably once syllabic, but the current realisation of *-mm* is [m:].

tìιm^m	"medicine"	SF *tìιm*	LF *tìιmm*	← *tìιmυ*
dāam^m/	"millet beer"	SF *dāam*	LF *dáamm*	← *dāamύ*
vūm^m/	"life"	SF *vūm*	LF *vúmm*	← *vūm(m)ύ*

This change to *-mm* does not occur before Liaison 9.3.1 9.3.2.

Extra-long simple vowels, unlike diphthongs, are not permitted before Prosodic Clitics; they reduce to two morae. This results in a few words which have segmentally identical SF and LF, as for example:

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7) The concept of Prosodic Clitics is also useful in describing the syntax of negation 35.3 and in determining the structure of complex clauses 29.2. The Negative Clitic corresponds to an actual segmental clitic in Mooré, which uses *ka* as negative particle before the verb along with clause-final *ye*. Similarly, segmental vocative and interrogative clitics are common in West Africa.

The term "Prosodic Clitic" admittedly begs the question as to the origin of this behaviour. However, for clitic-like elements cross-linguistically which lack segmental form of their own see Spencer and Luís 2012: 5.5.1 on Tongan "definitive accent." A much-discussed somewhat analogous system is seen in Rotuman. The unusual Cameroonian Bantu language Nen (Nurse and Phillippson pp283ff) deletes word-final vowels unless the word has the underlying final tones LH, not only before vowel-initial words, but also before pause.

	sīa⁺	"waist"		SF *sīa*	LF *sīaa*	← *sīəga*
but	*dàˀa꞊*	"market"		SF *dàˀa*	LF *dàˀa*	← *dàˀaga*
	bāa꞊	"dog"		SF *bāa*	LF *bāa*	← *bāaga*
	kū·ó꞊	"kill him"	←	*kū⁺* "kill" + *ᵒ* "him/her"	[kʰʊ:]	

For the effects on Pattern H 2-mora stems tonemes see 8.2.1 .

Prosodic Clitics differ in the tonal perturbations they induce in the preceding LF 10.4 . Length distinctions are neutralised before the Vocative and Interrogative clitics.

The **Negative Prosodic Clitic** appears at the end of a clause containing a negated or negative verb 24.5 :

> *Lì   à   nɛ̄   nɔ́bìr.*   "It's a leg."
> **3NH COP FOC** leg:**SG**.

> *Lì   kā ̀ˀ   nɔ́bɩrē ⁺ø.*   "It's not a leg."
> **3NH NEG.BE** leg:**SG**   **NEG**.

> *Lì   à   nɛ̄   dūk.*   "It's a cooking pot."
> **3NH COP FOC** pot:**SG**.

> *Lì   kā ̀ˀ   dūkó ⁺ø.*   "It's not a pot."
> **3NH NEG.BE** pot:**SG NEG**.

Long final *ɩɩ ʋʋ* are not lowered:

> *Bà à   nɛ̄   mɔ́lì.*   "They are gazelles."
> **3PL COP FOC** gazelle:**PL**.

> *Bà kā ̀ˀ   mɔ́līɩ   ⁺ø.*   "They are not gazelles."
> **3PL NEG.BE** gazelle:**PL NEG**.

The **Vocative Prosodic Clitic** ends a NP used as a vocative. It has identical tonal and segmental effects to the Negative Clitic, except that it neutralises preceding LF-final vowel length as short (cf the Interrogative Clitic below.)

> *M̀   bīiga   ⁺ø!*   "My child!"
> **1SG** child:**SG VOC**!

> *M̀   bīise   ⁺ø!*   "My children!"
> **1SG** child:**PL VOC**!

Dauu, mam pu baŋ fun pian'ad si'el la gbin ne.[sic 2.1.2]

Dāʋ ⁺ø, *mām* *pū* *báŋ* *fún* *pi̯āň̉ad* *sī̉əl* *lā*

Man:**SG VOC 1SG.CNTR NEG.IND** understand:**PFV 2SG:COMP** speak:**IPFV INDF.NH ART**

gbínnē ⁺ø.

base:**SG NEG**.

"Man, I don't understand the meaning of what you're saying." (Lk 22:60)

This is not a vocative noun form, but a particle following the entire NP:

dau one a siakida

dāʋ̥ *ɔ́nì‿* *ø* *à* *si̯ākɪda* ⁺ø

man:**SG DEM.SG COMP COP** believer:**SG VOC**

"You man, who are a believer!" (1 Cor 7:16, 1976)

The **Interrogative Prosodic Clitic** ends questions. Final vowel length distinctions are neutralised, as short in content questions, long in polar questions:

Lì à nɛ̄ nɔ́bìr.   "It's a leg (*nɔ́bɪr*[e])."

3NH COP FOC leg:**SG**.

Ànɔ́ɔ̀nì‿ø ňyɛ̄ nɔ́bɪrè ⁺ø?

Who   **SER** see:**PFV** leg:**SG   CQ**?

"Who saw a leg?"

Lì à nɛ̄ nɔ́bɪrèe ⁺ø?   "Is it a leg?"

3NH COP FOC leg:**SG   PQ**?

Lì à nɛ̄ dūk.   "It's a cooking pot (*dūk*[o/])."
Ànɔ́ɔ̀nì ňyɛ̄ dūkó?   "Who saw a pot?"
Lì à nɛ̄ dūkóò?   "Is it a pot?"

Lì à nɛ̄ kūk.   "It's a chair (*kūk*[a])."
Ànɔ́ɔ̀nì ňyɛ̄ kúkà?   "Who saw a chair?"
Lì à nɛ̄ kúkàa?   "Is it a chair?"

Lì à nɛ̄ gbīgɪm.   "It's a lion (*gbīgɪm*[ne])."
Ànɔ́ɔ̀nì ňyɛ̄ gbígìmne?   "Who saw a lion?"
Lì à nɛ̄ gbígìmnee?   "Is it a lion?"

The length neutralisation results in the close [e] [o] resulting from lowered *ι υ* becoming contrastive with the realisation of LF-final *ιι υυ* in quality alone:

Lì à nɛ̄ yīr.	"It's a house (*yīr*[e/])."
Ànɔ́ˀɔnì n̆yɛ̄ yīré?	"Who saw a house?"
Lì à nɛ̄ yīréè?	"Is it a house?"
Bà à nɛ̄ mɔ́lì.	"They are gazelles (*mɔ̀lι*[+])."
Ànɔ́ˀɔnì n̆yɛ̄ mɔ́lì?	"Who saw gazelles?"
Bà à nɛ̄ mɔ́lìι?	"Are they gazelles?"

9.3 Liaison Words

Certain words cause a preceding word to appear, not in the usual clause-medial Short Form, but in the Long Form, modified by loss of vowel quality contrasts in the final mora. These **Liaison Words** may or may not be enclitic. Non-enclitic Liaison Words furthermore all share the distinctive tonal property of having an initial fixed L toneme not susceptible to change by tone sandhi 10.2 , with the exception of the Serialiser *n*, which is toneless.

9.3.1 Enclitic

Certain enclitics cause the preceding host word to appear as a modified LF instead of a SF. They comprise two sets:
Position 1:

Locative enclitic	*n*[e]	22.3
Modal Remoteness marker	*n*[e]	24.4.2
Postposed 2pl subject pronoun	[ya]	30.2.3

The Locative enclitic attaches directly to nominal words; the Modal Remoteness marker and the enclitic 2pl subject attach directly to verb words.
In this grammar, the Position 1 type words are written solid with the preceding host word.
Position 2 :

all bound personal pronoun objects	17.1

	Singular	Plural
1st	*m*[a]	*tι*[+]
2nd	*f*[o]	*ya*[+]
3rd hu	[o] [ʊ]	*ba*[+]
3rd nh	*lι*[+]	

The pronouns either attach directly to a verb word or after either of the Position 1 clitics, Modal Remoteness *n*ᵉ or enclitic 2pl subject ʸᵃ. They are written as separate words, except with the 3sg human-gender pronoun, which is altogether deleted by Apocope; the preceding host-final rounded vowel mora is written ·*o* 2.

These words prevent Apocope applying to the preceding word, which retains its final affix vowel in **downranked** form with loss of quality contrasts. (See further 3.2.2.)

The downranked vowel is not epenthetic and occurs where epenthesis does not:

	*dùm*ᵐ	"bite"			
		+ *ba*⁺ "them"	→	*dùmι bā*	"bite them"
but		+ suffix *-b*ᵒ	→	*dūm*ᵐᵒ	gerund "biting"

If the host word LF ends in a short vowel, this is downranked to *ι* by default, rounded to *ʋ* after *g* preceded by a rounded vowel unless the clitic begins with *y*, and always rounded to ·*o* [ʋ] before ᵒ "him/her" with which it fuses to create a long vowel ·*oo* [ʋ:] in the LF 9.3.1.1. There is no ATR harmony; the added vowel is always lax.

LFs ending in -*mm* behave as -*mV* before Liaison:

*tùm*ᵐ	"send"	+ *tι*⁺ "us"	→	*tùmι tī*⁺/	
		+ ᵒ "him/her"	→	*tùm·o*⁺	
*dāam*ᵐ/	"beer"	+ *n*ᵉ "at, in"	→	*dāamín*ᵉ	

If the host LF ends in a three-mora vowel sequence it is reduced to two, **and fronting diphthongs are simplified to monophthongs** just as in sandhi between closely connected words within a phrase 9.1.3.

A back second mora of a long vowel is fronted to *e* [ɪ] before Liaison Words beginning with *y*, and *any* second mora is rounded to ·*o* [ʋ] before the object pronoun ᵒ "him/her." In the LF, the 3sg human-gender pronoun *o* combines with this preceding *o* to create long ·*oo* [ʋ:] after a consonant and three-mora diphthongs *V*·*oo* [Vʋ:] after vowels 9.3.1.1.

Examples with host LFs ending in short vowels:

*kūk*ᵃ	"chair"	+ *n*ᵉ "at, in"	→	*kūkιn*ᵉ/	
*dūk*ᵒ/	"pot"	+ *n*ᵉ "at, in"	→	*dūkín*ᵉ	
*bɔ̀ɔd*ᵃ	"want"	+ *tι*⁺ "us"	→	*bɔ̀ɔdī tí*⁺	
		+ *f*ᵒ "you"	→	*bɔ̀ɔdī f*ᵒ/	
		+ ᵒ "him/her"	→	*bɔ̀ɔd·ō*⁺/	
*gɔ̀sιm*ᵃ	"look!"	+ ʸᵃ "ye"	→	*gɔ̀sιmī*ʸᵃ/	

pūʋg[a]	"inside"	+ *n*[e] "at"	→	*pūʋgʋn*[e/]
pɔ̄ɔg[o/]	"field"	+ *n*[e] "at"	→	*pɔ̄ɔgʊ́n*[e]
yàʋg[o]	"grave"	+ *n*[e] "at"	→	*yàʋgūn*[e/]
kùʔəm[m]	"water"	+ *n*[e] "in"	→	*kùʔəmīn*[e/]
tʋ̀m[m]	"send"	+ *lι*[+] "it"	→	*tʋ̀mι lī*[+/]
tʋ̀m[m]	"send"	+ [o] "him/her"	→	*tʋ̀m·o*[+]

Bà bɔ̀ɔdī m.	"They love me."
Bà pū̄ bɔ́ɔdī má.	"They don't love me."
Ǹ bɔ́ɔdī f.	"I love you."
Ǹ pū̄ bɔ́ɔdī fó.	"I don't love you."
Ǹ bɔ́ɔd·ō.	"I love him/her."	[m̩bɔ:dʊ]
Ǹ pū̄ bɔ́ɔd·óo.	"I don't love him/her."	[m̩pʰʊbɔ:dʊ:]
Bà bɔ̀ɔdī lí.	"They want it."
Bà pū̄ bɔ́ɔdī líι.	"They don't want it."
Bà bɔ̀ɔdī tí.	"They love us."
Bà pū̄ bɔ́ɔdī tíι.	"They don't love us."
Bà bɔ̀ɔdī yá.	"They love you."
Bà pū̄ bɔ́ɔdī yáa.	"They don't love you."
Bà bɔ̀ɔdī bá.	"They love them."
Bà pū̄ bɔ́ɔdī báa.	"They don't love them."

| *Gɔ̀sιm!* | "Look!" (to one person) |

| *Gɔ̀sιmī‿ ø!* | "Look!" (to several people) |

Look:**IMP 2PLS**.

Examples with host LFs ending in long vowels:
After *(C)V:* perfectives:

| *kʋ̄*[+] | "kill" |

Kà bà kʋ̄ʋ́ m.		"And they killed me."
Kà bà pū̄ kʋ̄ʋ́ mā.		"And they didn't kill me."
Kà bà kʋ̄ʋ́ f.		"And they killed you."
Kà bà pū̄ kʋ̄ʋ́ fō.		"And they didn't kill you."
Kà bà kʋ̄·ó.	[kʰʊ:]	"And they killed him."
Kà bà pū̄ kʋ̄·ó.	9.2	"And they didn't kill him."
Kà bà kʋ̄ʋ́ bā.		"And they killed them."
Kà bà pū̄ kʋ̄ʋ́ báa.		"And they didn't kill them."

kį̀à⁺		"cut"
Kà bà kíὲ m.		"And they cut me."
Kà bà pū kíǝ mā.		"And they didn't cut me."
Kà bà kíὲ f.		"And they cut you."
Kà bà pū kíǝ fō.		"And they didn't cut you."
Kà bà kíǝ lī.		"And they cut it."
Kà bà pū kíǝ líι.		"And they didn't cut it."
Kà bà kí·o.	[kʰiʊ]	"And they cut him."
Kà bà pū kí·oō.	[kʰiʊ:]	"And they didn't cut him."
Kà bà kíǝ tī.		"And they cut us."
Kà bà pū kíǝ tíι.		"And they didn't cut us."
ňyɛ̄⁺		"see"
Kà bà ňyɛ̄ɛ́ m.		"And they saw me."
Kà bà pū ňyɛ̄ɛ́ mā.		"And they didn't see me."
Kà bà ňyɛ̄ɛ́ f.		"And they saw you."
Kà bà pū ňyɛ̄ɛ́ fō.		"And they didn't see you."
Kà bà ňyɛ̄·ó.		"And they saw her."
Kà bà pū ňyɛ̄·óo.		"And they didn't see her."
Kà bà ňyɛ̄ɛ́ tī.		"And they saw us."
Kà bà pū ňyɛ̄ɛ́ tíι.		"And they didn't see us."
Kà bà ňyɛ̄ɛ́ bā.		"And they saw them."
Kà bà pū ňyɛ̄ɛ́ báa.		"And they didn't see them."

There is no ATR harmony when ᵒ "him/her" causes complete assimilation of the final mora of the preceding LF:

zū·ó		"steal him" SF	[zuʊ]
zū·óo		"steal him" LF	[zuʊ:]

Three-mora vowel sequences reduce to two before Liaison:

dà·ʔa⁼	"market"	+ *n*ᵉ	"at, in"	→	*dā·ʔan*ᵉ/	6.2.3

Fusion Verbs also monophthongise the LF final to a long vowel (showing the same loss of fronting as in phrase-level sandhi 9.1.3):

pāe⁺ᐟ	"reach"	+ *tι*⁺ "us"	→	*pāá tī*⁺ᐟ	
		+ *f*ᵒ "you"	→	*pāá f*ᵒ	
		+ ᵒ "him/her"	→	*pā·ó*⁺	
		+ ʸᵃ "ye"	→	*pāe*ʸᵃᐟ	
pīe⁺ᐟ	"wash"	+ *tι*⁺ "us"	→	*pīə́ tī*⁺ᐟ	
		+ *f*ᵒ "you"	→	*pīə́ f*ᵒ	
		+ ᵒ "him/her"	→	*pī·ó*⁺	
		+ ʸᵃ "ye"	→	*pīe*ʸᵃᐟ	
dūe⁺ᐟ	"raise"	+ *tι*⁺ "us"	→	*dūə́ tī*⁺ᐟ	
		+ *f*ᵒ "you"	→	*dūə́ f*ᵒ	
		+ ᵒ "him/her"	→	*dū·ó*⁺	
		+ ʸᵃ "ye"	→	*dūe*ʸᵃᐟ	

Invariable Verbs with LFs ending in *-ya* make forms analogous to those of Fusion Verb perfectives. They drop the *ya*, monophthongise diphthongs and prolong preceding short vowels (see further 3.2.2):

*sū̄ˀe*ʸᵃᐟ	"own"	+ *lι*⁺ "it"	→	*sū̄ˀú lī*⁺ᐟ
*vūe̯*ʸᵃᐟ	"live"	+ *n*ᵉ rem	→	*vūʋn*ᵉᐟ

Similarly, the form

*àe̯ň̃*ʸᵃ	"be"	+ ᵒ "him/her"	→	*àň·ō̄*ᵒ

occurs in

Mane a o.	"I am he." (Jn 18:5, 1976)
Mānι‿ ø áň·ō̄‿ ø.	
1SG.CNTR SER COP 3HUO.	

9.3.1.1 Fronting and Rounding before Liaison Enclitics

LF-final vowels before Liaison Enclitics are subject to fronting and rounding changes analogous to those which arise word-internally in Long Forms and are often left contrastive by Apocope 7.3.2 .

Despite the similarities, these changes arise from a different set of rules. The input is the synchronic LF resulting from the application of all the vowel changes which precede Apocope 7.3 . The outcome is also different; for example, ATR harmony never applies within the diphthongs which result from Liaison.

The default is for LFs ending in root vowels before Liaison to show the same segmental form as before the Negative Prosodic Clitic, and for all short affix vowels to become *ι*.

Fronting of the second mora of a LF-final long vowel occurs before the 2pl object pronoun *ya*⁺ and before the enclitic 2pl subject pronoun *ʸᵃ*.
The object pronoun induces exactly the same fronting changes as are seen word-internally before *y* 7.3.2 with any back second mora becoming *e* [ɪ] but no change with front second morae:

kū̄⁺		"kill"
Kà bà kū̄é yā.	[kʰʊɪja]	"And they killed you (pl)."
Kà bà pū̄ kū̄é yáa.		"And they didn't kill you (pl)."
ki̯à⁺		"cut"
Kà bà kíe yā.	[kʰiɪja]	"And they cut you (pl)."
Kà bà pū̄ kíe yáa.		"And they didn't cut you (pl)."
ňyɛ̄⁺		"see"
Kà bà ňyɛ̄ɛ́ yā.		"And they saw you (pl)."
Kà bà pū̄ ňyɛ̄ɛ́ yáa.		"And they didn't see you (pl)."
pāe⁺ᐟ		"reach"
Kà bà pāé yā.		"And they reached you (pl)."
Kà bà pū̄ pāé yáa.		"And they didn't reach you (pl)."

Fronting before the enclitic 2pl subject pronoun ʸᵃ is subject to a different rule: the preceding mora is invariably replaced by [ɪ], usually written *e* as normal. In most cases this has the same outcome as other fronting rules:

kū̱⁺	"kill"	+ ʸᵃ	"ye"	→	*kū̱e*ʸᵃ/	[kʰʊɪ]	
ki̯à⁺	"cut"	+ ʸᵃ	"ye"	→	*ki̯ē*ʸᵃ/	[kʰiɪ]	
pāe⁺/	"reach"	+ ʸᵃ	"ye"	→	*pāe*ʸᵃ/		

However, the replacement also affects front vowels:

bɛ̀⁺	"be"	+ ʸᵃ	"ye"	→	*bɛ̀ē*ʸᵃ/	[bɛɪ] written *bei*	

Rounding of the second mora of the second mora of a LF-final long vowel occurs before the 3rd sg human-gender object pronoun ᵒ [ʊ] him/her", before which the default LF-final short *ι* also becomes [ʊ], written *·o* 3.3.

The rule for second morae differs from the word-internal rounding rule operative in the LF before *kkʊ *ŋŋʊ 7.3.2: the second mora is invariably replaced by [ʊ], even if it was rounded and/or tense: there is no ATR harmony.

zū⁺	"steal"	+ ᵒ	"him/her"	→	*zū·ó*⁺	SF [zuʊ]	LF [zuʊ:]
ñyɛ̄⁺	"see"	+ ᵒ	"him/her"	→	*ñyɛ̄·ó*⁺	SF [j̃ɛ̃ʊ]	LF [j̃ɛ̃ʊ:]
dì⁺	"eat"	+ ᵒ	"him/her"	→	*dì·o*⁺	SF [dɪʊ]	LF [dɪʊ:]
ki̯à⁺	"cut"	+ ᵒ	"him/her"	→	*kì·o*⁺	SF [kʰiʊ]	LF [kʰiʊ:]
pāe⁺/	"reach"	+ ᵒ	"him/her"	→	*pā·ó*⁺		
pīe⁺/	"wash"	+ ᵒ	"him/her"	→	*pī·ó*⁺		
dūe⁺/	"raise"	+ ᵒ	"him/her"	→	*dū·ó*⁺		

After a consonant a LF-final short *ι* becomes [ʊ], also written *·o*, before ᵒ; when the pronoun itself appears in its LF the two [ʊ] vowels combine as long [ʊ:]:

*bɔ̀ɔd*ᵃ		"want"	
M̀ bɔ́ɔd·ō.		"I love him/her."	[m̩bɔ:dʊ]
M̀ pū̱ bɔ́ɔd·óo.		"I don't love him/her."	[m̩pʰʊbɔ:dʊ:]

Thus the SFs of both ʸᵃ and ᵒ, like Prosodic Clitics, have segmental effects on the form of the preceding word despite having zero as their own Short Forms 3.3.3.

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

Kà bà kíɘ̀ f.	"And they cut you (sg)."
or *Kà bà kíò̀ f.*	
Kà bà n̆yɛ̄ɛ́ f.	"And they saw you (sg)."
or *Kà bà n̆yɛ̄ó f.*	
Kà bà pāá f.	"And they reached you (sg)."
or *Kà bà pāʋ́ f.*	
M̀ gbáň'ā f.	"I've grabbed you (sg)."
or *M̀ gbáň'ʋ̄ f.*	

Rounded forms are invariable in the 1996 NT version, though this may simply reflect an orthographic decision to write *uf* rather than *if* consistently for the supposed object pronoun "you."

There is never rounding word-internally before the *f*ᵒ|*ι*⁺ Class singular suffix.

9.3.1.2 Allomorphy of the Subject Pronoun ʸᵃ

The enclitic 2nd Person Plural Subject pronoun ʸᵃ adopts the allomorph *-ní-* before Liaison, both before pronoun objects and before *àlá*⁺ "thus" 24.4.1. The pronoun was historically **ɲa*, which regularly became **yã* 4.1 with subsequent loss of emic nasalisation, as always with affix vowels 5.4. When the *-a* is deleted by Apocope, *y* is also deleted 3.2. When followed by a Liaison word, the vowel *a* was not deleted but became *ι*, before which *ɲ* became *n-*. (A similar development has occurred with the initial consonants of *nìŋ*ᵉ "do" = Toende Kusaal *ɛ̃ŋ*, the locative enclitic *n*ᵉ ~ *nι*⁺ = Toende *-ι*, and *nìe*⁺ "appear" = Toende *yɛ̃e*.)

Dā dɔ̄llι‿ yá ⁺ø!	"Follow ye not!"
NEG.IMP follow **2PLS NEG**	
Dì'ɘmī‿ ø!	"Receive ye!"
receive:**IMP 2PLS**	
Dì'ɘmīní‿ bā!	"Receive ye them!"
receive:**IMP:2PLS 3PLO**	

Dìʔəmīn·ó‿   *ø!*   "Receive ye her!"
receive:**IMP:2PLS** **3HUO**

Sīdɪba   ⁺*ø,* *nɔ̀ŋɪmīní‿ yà pū̄ʔab.*
Husband:**PL VOC**, love:**IMP:2PLS 2PL** wife:**PL**.
"Husbands, love your wives!" (Eph 5:25)

Bīise   ⁺*ø,* *si̯àkɪmīní‿* *yà dū̄ʔadɪb nɔ́yà.*
Child:**PL VOC**, agree:**IMP:2PLS 2PL** parent:**PL** mouth:**PL**.
"Children, obey your parents." (Eph 6:1.)

Dìgīní‿   *àlá!*   "Keep ye on lying down!"
Be.lying:**2PLS ADV**:thus!

Dìʔəmīní‿   *àlá!*   "keep ye on receiving!"
receive:**IMP:2PLS ADV**:thus!

See 9.3.2 on contracted forms like

Dìʔəmīní lá /dìʔəmīn álá!   "keep ye on receiving!"

9.3.2   Non-Enclitic

Non-enclitic Liaison Words comprise

proclitic personal pronouns	*m̀ fʊ̀ ò lì tì yà bà*	17.1
personifier clitics	*à ǹ m̀*	21.10
*ànɔ́ʔɔ̀n*ᵉ "who?"		17.4

along with all words beginning with

number prefixes	*à bà bʊ̀*	18.2.1
manner-adverb prefix	*à*	22.4

All these words have an initial Fixed L Toneme 10.2.
Two other particles of the underlying form *n* are also Liaison Words:

Complementiser	*ǹ*	33
Serialiser	*n*	28.1

Clause Complementiser *ǹ* is Fixed-L, but VP Serialiser *n* has no toneme. The Complementiser is bound to the left as well as right, but Serialiser *n* may follow a pause, though even so it cannot be utterance-initial.

Even when proclitic, these words are like Liaison Enclitics in that the *preceding* word may appear as a modified LF with loss of quality distinctions in the **downranked** final affix vowel. Evidence for this is found in the allomorphy shown by the postposed 2pl pronoun ʸᵃ equally before all Liaison Words 9.3.1.2, and in the *lack* of vowel lengthening before non-enclitic Liaison Words of words which have not undergone Apocope, such as *kà*, *yɛ̄* and the proclitic pronouns; this demonstrates that the phenomenon is due to inhibition of Apocope.

After a consonant, the quality of the downranked vowel preceding Liaison is determined by the Liaison Word, but is generally *ι*, rounding to *ʋ* when the word ends in a velar preceded by a rounded vowel mora. (Many cases where in traditional orthography a word has seemingly gained a mysterious final *-i* or *-u* are due to this.)

Non-clitic words ending in a short *root* vowel prolong the vowel before Liaison.

Except with the clause Complementiser *ǹ* and with the VP Serialiser *n* (see below), this phenomenon is very limited in my informants' speech. It is only invariable in the case of a personal pronoun immediately preceded by a verb within the same verb phrase:

> *Tì gɔ̀sí͜*   *bà bīis.*   "We looked at their children."
> **1PL** look.at:**PFV 3PL** child:**PL**.   (Liason before *bà* "their")

Older written sources show the phenomenon more widely, though always within a phrase:

> *bane na yel Zugsobi ba tuuma a si'em la*
> *bànι͜ ø   nà yɛ̄l   Zūg-sɔ́b   bà tūʋma͜ ø   à   sῖʾəm lā*
> **DEM.PL COMP UNR** say:**PFV** head-one:**SG 3PL** deed:**PL   COMP COP INDF.ADV ART**
> "Those who will tell the Lord how their deeds are." (Heb 13:17)
> (as read by WK, with a SF before *bà tūʋma*.)
> The *http://www.bible.is* audio version has ...*Zūg-sɔ́bí bà*...

Words which do not have Apocope Blocking and which end in short root vowels prolong them before Liaison:

> *... [n] loo Abaa zuur*
> *... n lɔ́ɔ́͜   À-Bāa   zúʋ̀r*
> ...**SER** tie:**PFV PERS**-dog:**SG** tail:**SG**
> "... tying Dog's tail" 21.10 KSS p20

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 *ànɔ́ʔɔ̀n*ᵉ "who?" $\boxed{17.4}$, the Manner-Adverb prefix and the Personifier Proclitic the LF-final vowel is *ι* (*ʊ* after a velar preceded by a rounded vowel):

Ò nìŋí‿ àlá.	"She did thus."
3HU do:**PFV** **ADV:**thus	(contrast *àlá* "how many?" below)

yeli Abaa	"said to Dog" KSS p20
yɛ̀lι‿ À-Bāa	
say:**PFV** **PERS**-dog:**SG**	

Fusion Verbs $\boxed{13.1.1.1}$ show forms in final *e* [ɪ] in these two cases, instead of the monophthongs *aa iə uɵ* usual before another word in the VP $\boxed{9.1.3}$:

ka ba gban'e Adayuug
kà   bà gbāñʔé‿ À-Dàyūug
and **3PL** seize:**PFV** **PERS**-rat:**SG**
"and they seized Rat" KSS p20

However, the verb *àe̯ñ*ʸᵃ "be something" always appears as *àañ*, not *àeñ*.

Fu aa ano'one?	"Who are you?" (Jn 1:19)
Fù áá ànɔ́ʔɔnè ⁺*ø?*	
2SG **COP** who **CQ**?	

Before the Number Prefix *a-* the pre-Liaison vowel is instead *-a*:

M̀ mɔ́r nɛ̄ bīisá‿ àtáñʔ.	"I have three children."
1SG have **FOC** child:**PL** **NUM:**three.	

Pὲεdá‿ àlá ⁺*ø?*	"How many baskets?"
basket:**PL** **NUM:**how.many **CQ**?	(contrast *àlá* "thus" above)

These rules are consistent in written materials. However my informants contract *-a à-* to *a-* with the number prefix (effectively just treating it as having an ordinary L toneme susceptible to L Raising):

Nū̄ʔ-bíbὶs   álá   kà fù ñyɛ̄tá ⁺ø?
hand-small:**PL** **NUM:**how.many and **2SG** see:**IPFV** **CQ**?
"How many fingers do you see?"

With other words beginning with *a-* my informants generally do not show Liaison at all, except with *àlá* after Imperatives, where the *-í à-* is contracted to either *-á-* or *-í-* depending on the speaker.

> *gɔ̀sɩmí lá* or *gɔ̀sɩm álá*   "Keep on looking!"

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

> *Bà gɔ̀sʊ́‿   ò   bīig.*   "They've looked at her child."
> **3PL** look:at:**PFV 3HU** child:**SG**.

All my written sources, the NT, literacy materials and ILK, consistently show *-i* (i.e. *-ɩ* [ɪ]), which is presumably the original older form.

This distinctive sandhi behaviour before the Number Prefix *a-* as opposed to all other vowel-initial Liaison Words (even *ò*) can be explained historically. The number prefix originated as **ŋa*, the old *r*^e|*a*^+ Class agreement 18.2.1 . Original word-internal **ŋ* has disappeared completely throughout Western Oti-Volta (synchronic non-initial *ŋ* resulting always from **mg* or **ng → ŋŋ*), whereas word-medial *y w* survive in many contexts. Initial **ŋ* preceding unstressed vowels might be expected likewise to have disappeared early historically; and indeed in Dagbani, the number prefix is *a-* even though root-initial *ŋ* is preserved in full words (*ŋariŋ* "boat", Kusaal *àŋ̆rʊŋ*°.) Sandhi effects may outlive complete phonetic disappearance of a consonant, as with the French "*H aspiré*." The data could be thus accounted for by supposing that **ŋa* lost its initial consonant earlier than the Personifier Clitic or the manner-adverb prefix, representing (as it were) the "*H muet*" corresponding to the "*H aspiré*" left by later deletion of initials such as *y* or *w*. However, putting this in synchronic phonological terms would be methodologically suspect in view of the absolute neutralisation (Kiparsky 1982) that has taken place, and would add nothing descriptively.

9.3.2.1 Particles of the Form *n*

There are two extremely common particles with the underlying form *n* which are always bound to the right: the Complementiser within *ǹ*-Clauses 33 , and the VP Serialiser particle 28.1 . Both particles are Liaison Words, but appear in the form *n* preceded by a modified long form only in a minority of written materials, and even then, not consistently. My informants drop the *n* itself, so that the form of the preceding word alone signals the presence of these particles, except in the very common special case where they follow proclitic personal pronouns, where special fused forms result. This is also the commonest pattern in texts, but some materials show *n*, with or without a preceding LF-final reduced affix vowel. Segmentally, the

two particles behave in a very similar way in Agolle Kusaal, but they differ tonally, and Toende Kusaal has segmentally different forms, using *ne* for the Complementiser and zero for the Serialiser.

Even texts which use *n* frequently nearly always show *e* or *i* after preceding nasal consonants, presumably by dissimilation. This may indicate that the varying spellings of the particles after consonants originally all represented high nasalised vowels, with syllabic nasals as allophones, but the vowels are not now nasalised in my informants' speech.

Complementiser *ǹ* is bound to the left as well as right, but Serialiser *n* can follow a pause, so that it is not always preceded by a modified Long Form. In such cases it always appears as a syllabic nasal assimilated to the position of articulation of the following consonant, and is written *n*.

I will follow my informants' usage and the texts throughout; the position of the particles is marked ø with in the second line of the interlinear glosses in cases where they lack any surface segmental realisation.

Written materials confirm that these particles are Liaison Words, as preceding forms preserve LF geminate consonants before the affix vowel, e.g.

> *ba wusa **kalli** a si'em*
> *bà wūsa kāllí‿   ø   à   sīˀəm*
> **3PL** all   number:**SG COMP COP INDF.ADV**
> "how much all their number is" (Lk 12:7)

> *tuum kan ka m **tumme** tisid Wina'am la.*
> *tʊ̀ʊm-kàn   kà   m̀ túmmī‿   ø   tísìd   Wínàˀam lā*
> work-**DEM.SG** and **1SG** work:**IPFV SER** give:**IPFV** God   **ART**
> "The work which I do for God" (Rom 15:17)

9.3.2.1.1 Complementiser *ǹ*

The post-subject complementiser *ǹ* always has a L toneme not subject to L Raising 8.5 , causing a preceding M toneme to become H even when the particle has no segmental realisation itself. The marker combines with a preceding pronoun subject to produce a special set of pronouns 17.1 .

Note the contrasts in

> *mán   zàb   nàˀab   lā*
> **1SG:COMP** fight:**PFV** chief:**SG ART**
> "I having fought the chief." (*ǹ*-Clause)

> *Mānι‿* ø *záb*   *nàˀab* *lā.*
> **1SG.CNTR SER** fight:**PFV** chief:**SG ART**
> "*I* have fought the chief." (*n*-focus)

> *tīnámì‿* ø   *zàb*   *nàˀab*   *lā*
> **1PL**   **COMP** fight:**PFV** chief:**SG ART**
> "we having fought the chief" (*ǹ*-Clause)

> *Tīnámì‿* ø *záb*   *nàˀab*   *lā.*
> **1PL**   **SER** fight:**PFV** chief:**SG ART**
> "*We* have fought the chief." (*n*-focus)

After words with Apocope Blocking, dropping of the /n/ segment leaves the tonal change of preceding M to H as the only sign of the presence of the particle:

> *Dāų̄*   *lā* *záb*   *náˀàb* *lā.*
> man:**SG ART** fight:**PFV** chief:**SG ART**
> "The man has fought the chief."

> *Dāų̄*   *lā* *gɔ́s*   *náˀàb* *lā.*
> man:**SG ART** look.at:**PFV** chief:**SG ART**
> "The man has looked at the chief."

but   *dāų̄*   *lá‿* ø   *zàb*   *nàˀab* *lā*
> man:**SG ART COMP** fight:**PFV** chief:**SG ART**
> "the man having fought the chief"

> *dāų̄*   *lá‿* ø   *gɔ̄s*   *náˀàb* *lā*
> man:**SG ART COMP** look.at:**PFV** chief:**SG ART**
> "the man having looked at the chief"

9.3.2.1.2 Serialiser *n*

After pause WK realises this particle as a syllabic nasal assimilated to the position of the following consonant. Elsewhere, he has preceding LFs with the loss of final vowel contrast, while the particle itself has no segmental realisation:

> *Kà* *ò* *zɔ́ɔ‿*   ø *kɛ̄ŋ*   *nā.*
> And **3HU** run:**PFV SER** come:**PFV** hither.
> "And he came running"

After a final short vowel which is not a non-clitic word root vowel, WK has has a consonantal nasal, assimilated to the position of the following consonant.

This pattern is the commonest in texts also, but forms also appear with the *n* preserved after the modified LF, and with *n* after a SF.

Zero also occurs as a realisation of this particle (as always in Toende Kusaal), particularly after verbs often used as "auxiliaries"; probably some or all "particle-verbs" originated in this way. In other cases, the zero realisation is significantly more frequent in the NT text after words ending in *-m -n -l*, perhaps reflecting complete assimilation to the preceding consonant, and also after words ending in vowels other than non-clitic short root vowels, i.e. after words ending in long vowels or with Apocope Blocking.

The *n* particle of Non-verbal Predicators 27 is identical to the VP Serialiser *n* phonologically, and will be regarded as a specialised use of the same particle:

> *Bɔ̄ɔ⌣* *ø* *lá* ⁺*ø?*   "What's that?"
> What **SER** that **CQ**?

This particle *n* has no toneme itself; the LF-final toneme before it is M after a M toneme and L otherwise.

9.3.2.2 Presubject Long Forms

There is often a pause after any element which precedes a clitic subject pronoun. Nevertheless, examples occur of Liaison before subject pronouns:

> *Fʋ̀* *ná* *kūl* *bɛ̄og.*   "You'll go home tomorrow."
> **2SG UNR** go.home:**PFV** tomorrow.

but *Bɛ̄ogʋ́⌣* *fʋ̀* *ná* *kūl.*   "You're going home tomorrow." SB
> Tomorrow **2SG UNR** go.home:**PFV**.

Several conjunctions 29.3 have forms ending in LFs, and it is possible that this is the result of a generalisation of forms originating in Liaison before clitic subject pronouns. Again, all the examples in my materials of a LF ending a *yà'*-clause 32.1 are potentially explicable as Liaison before a subject pronoun:

> *Buŋ ya'a kpi **be'ede**, ba siido ne be'ed.*
> *Bʋ̀ŋ* *yá'* *kpì* *bɛ̄'ɛde* [?*bɛ̄'ɛdɪ*], *bà* *sìɪd·ō⌣* *ø* *nɛ̄ bɛ̄'ɛd.*
> Donkey:**SG** if die:**PFV** bad:**PL**,   3PL flay:**IPFV** 3HUO FOC bad:**PL**.
> "When a donkey dies wrongly, they skin it wrongly." KSS p42

10 Tonal External Sandhi

10.1 L Raising

Most words other than bound-to-right words ending in L or H tonemes cause an initial L toneme in a following word to change to H toneme. The change cannot take place if the L toneme is Fixed-L $\boxed{10.2}$; in that case any preceding M toneme necessarily becomes H instead $\boxed{6.2.2}$.

L Raising follows all words ending in M toneme.
L Raising never follows a word-final affix vowel with H toneme.
Otherwise, L Raising follows

> All free nominal forms (with exceptions due to M Raising $\boxed{10.3.3}$)
> All adverbs and quantifiers
> All *imperfective* verb forms
> All words with Independency Marking tone overlay $\boxed{24.6.1.1}$
> Bound subject pronouns $\boxed{24.6.1.2}$
>> *ò lì bà*   *unless* preceding Independency Marking
>> *m̀ fʋ̀ tì yà*   *unless* preceding Independency Marking
>>   *and also* immediately preceded by *yɛ̄*

Raising *remains* after all ellipted subject pronouns $\boxed{29.1.4.2}$
The Serialiser *n* is transparent to L Raising $\boxed{10.5}$.

The only non-clitic words which are thus *not* followed by L Raising are Perfective verb forms ending in H or L that have not been subject to the Independency Marking tone overlay, along with words which have been subjected to M Raising by a preceding free word and have only one or two tonemes.

The Number and the Manner-adverb prefixes *à-* $\boxed{18.2.1}$ $\boxed{19}$ are followed by L Raising of the stem, probably reflecting an origin in noun class agreement flexions with M toneme, like the bound subject pronouns.

L Raising crosses phrase boundaries if there is no intervening pause, but it does not occur after conjunctions $\boxed{29.3}$ or pre-subject adjuncts $\boxed{30.1.1}$.

> *Bà tìs   náʔàb   lā   búŋ.*
> **3PL** give:**PFV** chief:**SG ART** donkey:**SG**.
> "They gave the chief a donkey (*bʋ̀ŋ*[a])."

Bà ňwὲˀ   náˀàb   lā   súŋā.
3PL beat:**PFV** chief:**SG ART** good:**ADV**.
"They beat the chief well (*sὸŋā*^{+/})."

Raising is absent after words ending in a vowel mora with H toneme:

M̀   dìga   lú   yā.   "My dwarfs have fallen down."
1SG dwarf:**PL** fall:**PFV INDEP**.

but   *M̀   yūgʋmá lù   yā.*   "My camels have fallen down."
      1SG camel:**PL** fall:**PFV INDEP**.

L Raising examples, with *zàb*^e "fight" *gɔ̄s*^e "look at" *nàˀab*^a "chief":
Kà-clause, so no Independency Marking and no tone overlay; all the subject pronouns
are followed by raising; the perfective *gɔ̄s*^e is followed by raising, but *zàb*^e, with its
intrinsic all-L tonemes, is not:

Kà m̀ záb nàˀab lā.   "And I've fought the chief."
Kà ò záb nàˀab lā.   "And he's fought the chief."
Kà m̀ gɔ̄s náˀàb lā.   "And I've looked at the chief."
Kà ò gɔ̄s náˀàb lā.   "And he's looked at the chief."

Main Clause without *kà*, showing Independency Marking: verb tones subjected
to tone overlay, so *zàb*^e is now followed by raising too. Furthermore, the 3rd person
pronouns are not now followed by L Raising.

M̀ záb náˀàb lā.   "I've fought the chief."
Ò zàb náˀàb lā.   "He's fought the chief."
M̀ gɔ́s náˀàb lā.   "I've looked at the chief."
Ò gɔ̀s náˀàb lā.   "He's looked at the chief."

A tonal minimal pair with a contrast between the object enclitic *ba* "them", which is
followed by L Raising, and the proclitic *bà* "they, their", which is not:

Ò gɔ̀sī bá bédʋgū.   "She looked at them a lot."   (*ba* object)
Ò gɔ̀sí bà bèdʋgū.   "She looked at a lot of them."   (*bà* possessive)

L Raising has arisen historically from rightward M tone spreading, the Kusaal
H toneme having originated from ML on a single mora 6.1 .
        Proclitic pronouns always carry L toneme for my informants, but they are
written with M in ILK and in Urs Niggli's Toende materials when followed by L

Raising, conforming to the general rule for raising after proclitics. Ellipsis of bound pronouns does not cause loss of Raising on the following word. These pronouns could accordingly be regarded as followed by a **floating M toneme**.

Free words which are followed by L Raising despite ending in H or L could be described analogously as followed by a floating M reflecting an original LF-final M delinked by Apocope. (SF-final plurals in L-toneme *-à* or *-ì* might be better explained as having an original final M toneme which has been subsequently subjected to rightward L toneme spreading; indeed on this ordering assumption almost all cases of L Raising after L-final SFs could be explained, though floating M tones would still be needed for cases where L Raising follows a consonant-final SF with a final H tone.)

LF-final M and L tonemes always fall together before Prosodic clitics and almost always before Liaison, and no one Liaison Word and Prosodic Clitic are preceded by exactly the same tonal sandhi, so there is no clear basis for specifying particular LF-final tones as underlying L or M. There is one significant correlation, however: Pattern O verb perfectives without any tone overlay are not followed by L Raising, and are also the sole word type which ever shows L toneme before Liaison (before object pronouns.) Given that raising after proclitics, and the absence of raising after SFs ending in H-toneme *-á* or *-í* are evidently phonologically determined, this supports the hypothesis that L Raising arose as M tone spreading historically.

However, synchronically, conditions for L Raising after full words are determined by grammatical category, with surface phonology only coming into play as a secondary matter[8]. Flexionless singular forms ending in L, including 1-mora L-toneme words like *mà* "mother" *zu̧à* "friend" and loanwords like *du̧ʔátà* "doctor", distinguish a singular followed by L Raising from a combining form which is not
$\boxed{11.7}$. The same tone sandhi contrast is seen when combining forms are remodelled on the basis of an L-final singular, as with *lànnɩg-* "squirrel" $\boxed{11.2.2}$. Verb perfectives resemble combining forms segmentally, and (when not subject to tone overlay) they show the same behaviour with respect to L Raising. The only Pattern O imperfective with no flexional suffix, *bɛ̀* "be somewhere, exist", is followed by raising like all other imperfectives. The preverbal particle *lɛ̀ɛ* "but" is followed by raising when affected by Independency-Marking tone overlay $\boxed{24.6.1.1}$ although it is not even a verb and there is no reason to suppose that it has undergone Apocope.

Accordingly, it is much more straightforward to specify the conditions for external sandhi directly rather than to invoke otherwise superfluous floating M tonemes as an intermediary.

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8) This is analogous to the word-initial "Consonant Mutations" of the Insular Celtic languages, where loss of word-final segments has caused what were once sandhi phenomena to become purely morphosyntactic processes. A similar though phonologically simpler segmental development has occurred in West Africa with the South-Western Mande languages (Babaev 2010, pp39ff.)

10.2 Fixed L Tonemes

Certain words carry an initial (or sole) toneme which is invariably L, and is never subject to L Raising. By the fundamental "tone sandhi" principle expressed in $\boxed{6}$, any M toneme immediately preceding such a fixed L toneme without any intervening pause is replaced by a H toneme.

The Fixed-L words comprise all Liaison Words which are not enclitic $\boxed{9.3.2}$ except for Serialiser *n* $\boxed{9.3.2.1.2}$, which is toneless, and also the linker particle *kà* "and." They thus comprise

proclitic personal pronouns	*m̀ fʊ̀ ò lì tì yà bà*
personifier clitics	*à- ǹ- m̀-*
*ànɔ́ʔɔ̀n*e "who?"	
Complementiser	*ǹ* $\boxed{9.3.2.1.1}$
all words with the	
number prefixes	*à- bà- bʊ̀-*
manner-adverb prefix	*à-*
linker particle	*kà*

Initial *à-* in loanwords is often, though not invariably, treated as Fixed-L by analogy $\boxed{20.1}$.

In Liaison before Fixed-L words, a word-final M toneme always changes to H:

Bà kʊ̀ʊdī‿ bá.	"They kill them."
3PL kill:**IPFV 3PLO**.	

with	*Bà kʊ̀ʊdí‿ bà bʊ̄ʊs.*	"They kill their goats."
	3PL kill:**IPFV 3PL** goat:**PL**.	

Unstressed words with M toneme likewise change this to H; thus *nɛ̄* becomes *nɛ́* in

Lì à nɛ́ à-dàalʊ́ŋ.	"It's a stork"
3NH COP FOC PERS-stork:**SG**.	

With *stressed* SFs before Fixed-L words, there is no change to a preceding M toneme. The sequence ML that results is followed by downstep of a following M or H toneme $\boxed{6.1}$; this is the only context where "automatic" downstep occurs after L.

Thus in

> *ba diib n yit na'ateŋ la na zug*
> *bà dīɪb ǹ yīt ná'-tɛ̄ŋ lā nā zúg*
> **3PL** food **COMP** emerge:**IPFV** king-land:**SG ART** hither upon
> "because their food came from the king's land" (Acts 12:20)

there is downstep after the particle *ǹ*.

If the Fixed-L complementiser *ǹ* is realised as segmental zero, as is usual for my informants after all subjects other than pronouns, there remains a downstep in its place between a word-final preceding M toneme and a following word-initial M or H toneme (see 6.1):

> *wuu saa naani iank ya nya'aŋ n ti paae ya tuona la.*
> *wōʋ sāa‿ ↓ nāanɪ i̯áňk yà ňyá'aŋ*
> like rain:**SG COMP** then jump:**PFV 2PL** behind
> *n tí pāé‿ yà tùɵna lā*
> **SER** afterwards reach:**PFV 2PL** before.**ADV ART**
> "like when lightning leaps from East to West" (Mt 24:27)

As such downsteps are not predictable features of the realisation of H tonemes 6.2.2 , they are written explicitly with ↓, as above.

10.3 M Raising

M Raising takes place exclusively within NPs and AdvPs. It occurs wherever L Raising would, with two exceptions: it does not follow contrastive pronouns (like *mān* "my") and it only follows free forms when they are dependents preceding the head.

Words beginning with M toneme are changed to a H-initial pattern, with any subsequent tonemes L throughout[9]. Uncompounded words changed by M Raising are not themselves followed by L Raising or M Raising unless they have more than two tonemes 10.3.3 .

Words beginning with L or HL tonemes are not changed at all (except that L undergoes L Raising); words beginning with H on a long vowel fluctuate.

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9) Unfortunately I did not think to check how words with M nominal prefixes behave with M Raising. e.g *dāʊ̯ lā tíntɔ̀ňríg* (?*tíntɔ̀ňrɪg*) "the man's mole (*tīntɔ̄ňríg*[a])."

Nothing like M Raising seems to be described in other Western Oti-Volta languages. Historically, it perhaps arose from dissimilation in overlong strings of H (Kusaal M) tones, like Meeussen's Rule in Bantu; the initial H of affected words would result from L Raising of original L. As with L Raising 10.1 , Apocope has complicated the picture; M Raising *only* occurs after forms which have undergone Apocope 8.2.5 .

10.3.1 After Combining Forms

M Raising applies after a combining form ending in M toneme, regardless of whether the cb is pre-modifier or head.

After a cb as head:

bʊ̀-pìəlɪg^a	"white goat"	*bʊ̀-pāalíg*^a	"new goat"
bī-púŋ-pìəlɪg^a	"white girl"	*bī-púŋ-pāalíg*^a	"new girl"
nɔ̄-píəlìg^a	"white hen"	*nɔ̄-páalìg*^a	"new hen"

After a cb pre-modifier (*nɔ̄ɔr*^{e/} "mouth, command" cb *nɔ̄-*, and *dīʔəs*^{a/} "transmitter" plural *dīʔəsídìb*^a):

	nɔ̄-díʔə̀s^a	"chief's interpreter"
pl	*nɔ̄-díʔəsìdɪb*^a	

After a head, M Raising *only* follows combining forms 18.2.2 :

kūg-yínnì⁺	"one stone" with *yínnì* after a cb
kūgʊr yīnní⁺	"one stone" with *yīnní* after a sg

10.3.2 After Dependent Free Forms

M Raising applies to a single word (which may be a cb) preceded by any dependent free form, other than a personal pronoun, which would be followed by L Raising.

Examples:

No M Raising after personal pronouns:

m̀ bīig	"my child" (*bīig*^a)
m̀ tìɪg	"my tree" (*tìɪg*^a)
māa̰n bīig	"my child"
māa̰n tíìg	"my tree"
m̀ gbīgɪm	"my lion" (*gbīgɪm*^{ne})
m̀ yūgʊ́m	"my camel" (*yūgʊ́m*^{ne})

No M Raising after words which are not followed by L Raising:

m̀ bi̠ēyá bīis	"my elder same-sex siblings' children (*bīis*^e)"
m̀ bi̠ēyá fūud	"my elder same-sex siblings' clothes (*fūud*^{e/})"

M Raising after all other dependent free Nominal Phrases:

dāu̯ bîig	"a man's child" (vs *dàu̯-bīig*ᵃ "male child")
dāu̯ tíìg	"a man's tree"
nàˀab bîig	"a chief's child"
dāu̯ lā gbígìm	"the man's lion"
dāu̯ lā yúgừm	"the man's camel"

Unlike L Raising, M Raising occurs only *within* NPs and AdvPs; there is thus a tonal minimal pair between

Bà tìs   náˀàb   lā   bîig.   "They've given (it) to the chief's child."
3PL give:**PFV** chief:**SG ART** child:**SG**. (M raising applied to *bīig*ᵃ "child")

Bà tìs   náˀàb   lā   bīig.   "They've given the chief a child."
3PL give:**PFV** chief:**SG ART** child:**SG**. (No M raising applied to *bīig*ᵃ)

It occurs regardless of the meaning or rôle of the preceding dependent:

mɔ̄ɔgʋn wábừg lā	"the wild (in-the-bush) elephant (*wābʋg*ᵒ/)"

M Raising does not affect *dependents* following a *free* head, and does not affect the article *lā*⁺/:

	kūg-yínnì	"one stone" with *yínnì* as adjective $\boxed{18.2.2}$
but	*kūgʋr yīnní*	"one stone"
	wābʋg lā	"the elephant"
	wābɪs pīiga	"ten elephants"
	wābɪs pīiga lā	"the ten elephants"

The final vowel mora before the Locative Enclitic *n*ᵉ obeys the general rule $\boxed{10.5}$ and always has M toneme, even when there is no Initial L Raising after the corresponding SF (see below):

	dāu̯ lā pɔ́ɔgū̄n	"in the man's field (*pɔ̄ɔg*ᵒ/)"
	dāu̯ lā púʋgū̄n	"inside the man" (*pūʋg*ᵃ "inside")
like	*dāu̯ lā dɔ́ɔgū̄n*	"in the man's hut (*dɔ̀ɔg*ᵒ)"

There is thus no correlation between the final tone of the LF before the Locative Liaison Enclitic and whether the SF is followed by L Raising. (Contrast verb-final tones before object pronouns and L raising after verbs, which do correlate.)

10.3.3 Tone Raising after Words with M Raising

Regardless of whether it has been subject to M Raising, the final element of a compound induces following L and M raising in accordance with the general rule 10.1 , i.e. after all singular or plural forms (except those ending in *ᶠᵒ|ι⁺* Class pl -*í* or *ʳᵉ|a⁺* Class pl -*á* with final H toneme) and after all cbs ending in M toneme.

	nɔ̄-wɔ́k díìb	"a tall hen's food" (*dīιbᵒ* "food")
like	*bʋ̀-wɔ̄k díìb*	"a tall goat's food"

An uncompounded word affected by M Raising is not followed by L or M Raising unless it has three tonemes or more.[10]

There is therefore a difference in the tone sandhi following such words from that which follows all other words with the tonemes H or HL (viz. Pattern HL words and Pattern L words which have been changed to HL by L Raising.)

Examples, using the frames "the man's (*dāʋ̰ lā*) X has got lost (*bɔ̀dιg yā*)" and "my elder same-sex siblings' (*m̀ bi̤ēyá*) X has got lost":

Pattern L and Pattern HL Nominals, not subject to M Raising at all:

*bʋ̀ŋ*ᵃ	"donkey"	*Dāʋ̰ lā búŋ bɔ́dìg yā.*
*àňrʋŋ*ᵒ	"boat"	*Dāʋ̰ lā áňrʋ̀ŋ bɔ́dìg yā.*
*dɔ̀ɔg*ᵒ	"house"	*Dāʋ̰ lā dɔ́ɔg bɔ́dìg yā.*
*à-gáʋ̀ŋg*ᵒ	"pied crow"	*Dāʋ̰ lā gáʋ̀ŋg bɔ́dìg yā.*

Pattern H and O Nominals which have not undergone M Raising:

*wābʋg*ᵒ/	"elephant"	*M̀ bi̤ēyá wābʋg bɔ́dìg yā.*
*bāŋ*ᵃ	"ring"	*M̀ bi̤ēyá bāŋ bɔ́dìg yā.*
*yūgʋdιr*ᵉ	"hedgehog"	*M̀ bi̤ēyá yūgʋdιr bɔ́dìg yā.*

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10) If L raising after nominal sg/pl SFs is attributed to a following floating H tone (= Kusaal M tone) 10.1 this very odd rule could be restated by saying that it changes the following three tonemes, including floating tonemes, from MMM to HLL; 3- and 4-mora stem nominals would then retain the following floating tone. The rule would apply prior to the imposition of final M tone on the final LF mora by the locative Liaison Enclitic 10.3.2 . This analysis makes the prediction that (say) *yūgúm*ⁿᵉ "camel" would be followed by L Raising even after it had itself been affected by M raising, but unfortunately I do not have the data to answer this question.

Pattern H and O Nominals which have undergone M Raising:
With two tonemes:

wābʊɡ^{o/}	"elephant"	*Dāʊ̯ lā wábʊ̀ɡ bɔ̀dɩɡ yā.*
pɔ̄ɔɡ^{o/}	"field"	*Dāʊ̯ lā pɔ́ɔ̀ɡ bɔ̀dɩɡ yā.*
bāŋ^a	"ring"	*Dāʊ̯ lā báŋ bɔ̀dɩɡ yā.*
pūʊɡ^a	"inside"	*Dāʊ̯ lā pʊ́ʊ̀ɡ bɔ̀dɩɡ yā.*

With more than two tonemes:

yūɡʊdɩr^e	"hedgehog"	*Dāʊ̯ lā yúɡʊdɩ̀r bɔ́dìɡ yā.*

Words of the contracted Pattern H type like *náaf*^o "cow" fluctuate, probably by analogy with Pattern HL words like *à-gáʊ̀ňɡ*^o, which are not subject to M Raising:

náaf^o	"cow"	*Dāʊ̯ lā náàf bɔ́dìɡ yā.*
		Dāʊ̯ lā náàf bɔ̀dɩɡ yā.

10.3.4 Sequential M Raising

M Raising applies sequentially, reflecting the substructure of NPs and AdvPs.

If a head + adjective compound becomes a cb before another adjective or a post-determining pronoun, M Raising applies after the first adjective on the basis of whether the preceding cb now ends in M, regardless of its intrinsic tonemes:

bʊ̀-wɔ̄k	"tall goat"
nɔ̄-wɔ́k	"tall hen"
bʊ̀-wɔ̄k-píəlìɡ	"tall white goat"
bʊ̀-wɔ̄k-páalìɡ	"tall new goat"
nɔ̄-wɔ́k-pìəlɩɡ	"tall white hen"
nɔ̄-wɔ́k-pāalíɡ	"tall new hen"

When M Raising applies to a the first component of an existing compound, the second component retains its existing M-Raising-induced pattern of initial H toneme followed by L tonemes 10.3.1 even though the first element no longer ends in M toneme:

bʊ̀-pìəlɩɡ	"white goat"
bʊ̀-pāalíɡ	"new goat"

nɔ̄-píəlìɡ	"white hen"
nɔ̄-páalìɡ	"new hen"
dāṵ lā bú-pìəlɩɡ	"the man's white goat"
dāṵ lā bú-pāalíɡ	"the man's new goat"
dāṵ lā nɔ́-píəlìɡ	"the man's white hen"
dāṵ lā nɔ́-páalìɡ	"the man's new hen"

Contrast

dūɡ-káŋā	"this pot" (*dūk*^{o/} cb *dūɡ-* "pot")
[*sālɩma dúɡ-*]*kàŋā*	"this [golden pot]"

The order of successive applications of M Raising may also be revealed by the fact that uncompounded words with less than three tonemes affected by M Raising are not themselves followed by L or M Raising 10.3.3 . Thus

[*fūuɡ dɔ́ɔ̀ɡ*]	"tent" (*fūuɡ*^{o/} "cloth", *dɔ̀ɔɡ*^o "house")
pʋ̀ˀʋsʋɡ [*fúùɡ dɔ́ɔ̀ɡ*]	(not *[*pʋ̀ˀʋsʋɡ fúùɡ*] *dɔ̀ɔɡ*)
	"tabernacle" (*pʋ̀ˀʋsʋɡ*^o "worship")

In   *Lì kā̄ˀ* [[[*dāṵ lā bîiɡ*] *bīər*] *náàf*] *zūʋre.*
        "It's not the man's child's elder-same-sex-sibling's cow's tail." WK
        (*bīiɡ*^a "child" *bīər*^{e/} "elder sib of same sex" *náaf*^o "cow" *zūʋr*^e "tail")

the nesting results in alternating absence of M Raising; the two-toneme words *bîiɡ náàf*, having been themselves affected by M Raising, are not *followed* by it.

10.4 Tones Preceding Prosodic Clitics

10.4.1 Negative and Vocative

The Negative and Vocative Prosodic Clitics causes a final L toneme in the LF to become M:

Ò ká̄ˀ ò bīiɡa.	"He's not her child (*bīiɡ*^a)."
Lì ká̄ˀ ò fūuɡó.	"It's not his shirt (*fūuɡ*^{o/})."
Lì pū bɔ́dɩɡē.	"It's not got lost (*bɔ̀dɩɡ*^e)."
Lì ká̄ˀ ò sʋ̀ˀʋɡā.	"It's not her knife (*sʋ̀ˀʋɡ*^a)."
Lì ká̄ˀ ò ɡɛ́llē.	"It's not his egg (*ɡɛ́l*^{le})."
Ò pū kābɩrídā.	"She's not asking admission (*kābɩríd*^a)."
Bì-nɔ̀ŋɩrē!	"Beloved child (*bì-nɔ̀ŋɩr*^e)!"

Words which have lost the final vowel mora of the LF due to changes later than Apocope change the last L capable of carrying a toneme in the word to M:

Lì kā̀ˀ yáarīmm.	"It's not salt (*yàarım*ᵐ)."	
Lì kā̀ˀ tíīmm.	"It's not medicine (*tì̀ım*ᵐ)."	
Lì ká̀ˀ ò tīımm.	"It's not her medicine."	6.2.3
Lì ká̀ˀ bà dā̀ˀa.	"It's not their market."	6.2.3
but *Lì kā̀ˀ dá̀ˀa.*	"It's not a market (*dà̀ˀa*⁼)."	6.1

Some cases of the Vocative Clitic in the audio NT version suggest tonal behaviour like the *Interrogative* Clitic; compare the change of final H tone to falling in vocative expressions found with some speakers of Hausa (Jaggar p18.)

10.4.2 Interrogative

Kusaal is cross-linguistically unusual[11] in signalling questions with a final *falling intonation*. All questions, polar or content, end with a L or H toneme.

Whenever the LF has all M tonemes, they are all changed to L. This is an actual change of tonemes, not just a matter of intonation; the new L tonemes are subject to L Raising 10.1 . In Kusaal (unlike Dagbani) this lowering only affects the final word, not a sequence of several all-M words.

As part of the falling intonation, **the last H tone syllable in the question is not preceded by downstep after a preceding M toneme even if the next syllable is stressed** 6.2.2 .

Ànɔ́ˀɔnì‿ø   ňyɛ́   bà bìiga   ⁺ø?
Who   **SER** see**:PFV 3PL** child**:SG CQ**?
"Who saw their child (*bīig*ᵃ)?"

Ànɔ́ˀɔnì ňyɛ̄ bíigà?	"Who saw a child?" tonally identical to
Ànɔ́ˀɔnì ňyɛ̄ sʋ́ˀʋgà?	"Who saw a knife (*sʋ̀ˀʋg*ᵃ)?"
Fʋ̀ bɔ́ɔ̀d bɔ́?	"What (*bɔ̄*⁺) do you want?"
Ànɔ́ˀɔnì ňyɛ̄ zu̧éyà?	"Who saw hills (*zu̧ēya*⁺)?"

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11) This is, however, not uncommon in West Africa. The phenomenon is found in Hausa, for example: Jaggar pp513, 525. Hausa also shows raising of the pitch of the last H tone preceding the fall in polar questions.

Similarly with Pattern O verbs in the Unrealised Mood:

M̀ ná bɔ̄dɪg.	"I will get lost."
M̀ ná bɔ̀dɪgee?	"Will I get lost?"

With 2-mora stem Pattern H verb perfectives:

Ò pū gɔ̄se.	"She didn't look"
Ò pū gɔ́sèe?	"Didn't she look?"
Ò pū dūge.	"She didn't cook."
Ò pū dúgèe?	"Didn't she cook?"

Note the contrasting tonal behaviour of the article *lā*$^{+/}$ and the focus particle *nɛ̄*$^{+/}$ on the one hand and the Independent/pfv clitic *yā*$^{+}$ on the other 8.5 7.4:

Lì à nɛ̄ dɔ́ɔ̀g lā.	"It's the hut."
Lì à nɛ̄ dɔ́ɔ̀g láa?	"Is it the hut?"
Lì bɔ̀dɪg nɛ̄.	"It's lost."
Lì bɔ̀dɪg nɛ́ɛ?	"Is it lost?

but	*Lì bɔ̀dɪg yā.*	"It's got lost."
	Lì bɔ̀dɪg yàa?	"Has it got lost?"

10.5 Tones Preceding Liaison

The tonal changes induced in the final mora of the preceding LF all apply after any reduction of length of three-mora vowel sequences.

A sequence of MMH tonemes on three morae becomes MH when the sequence is reduced to two morae before Liaison 9.3.1 (in practice this simply means that Pattern H Fusion verbs behave both segmentally and tonally exactly like *CV:*-stem verbs before Liaison Enclitics, as these also adopt the tonemes MH before Liaison words 8.3.1):

pāe$^{+/}$	"reach"	+ *tɪ*$^{+}$ "us"	→ *pāá tī*$^{+/}$
pīe$^{+/}$	"wash"	+ *fᵒ* "you"	→ *pīə́ fᵒ*

Liaison Enclitics themselves carry a H toneme after a host final M toneme and a M toneme after L or H.

The Locative Enclitic *n*ᵉ is preceded by the same toneme as appears before the Negative Prosodic Clitic 10.4.1, i.e. a final L toneme is changed to M:

*pūʋɡ*ᵃ	"inside"	+ *n*ᵉ	"at"	→ *pūʋɡʋn*ᵉ/	(Pattern O)	
*bīiɡ*ᵃ	"child"	+ *n*ᵉ	"at"	→ *bīiɡɪn*ᵉ/	WK	
*mʋ̀ʔar*ᵉ	"dam, lake"	+ *n*ᵉ	"at"	→ *mʋ̀ʔarīn*ᵉ/		
*pɔ̄ɔɡ*ᵒ/	"field"	+ *n*ᵉ	"at"	→ *pɔ̄ɔɡʋ́n*ᵉ		
*yàad*ᵉ	"graves"	+ *n*ᵉ	"at"	→ *yàadīn*ᵉ/	WK	
*kūʋdíb*ᵃ	"killers"	+ *n*ᵉ	"at"	→ *kūʋdíbīn*ᵉ/WK		
dà̠ʔa⁼	"market"	+ *n*ᵉ	"at"	→ *dā̠ʔan*ᵉ/ 6.2.3		

*dūk lā pʋ́ʋɡūn*ᵉ   "inside the pot"
*pūʋɡ*ᵃ becomes HLL by M Raising, and the LF-final L becomes M as usual.

The Modal Remoteness Enclitic *n*ᵉ and the Postposed 2pl ʸᵃ both always impose M tone on the preceding LF-final mora, regardless of the intrinsic tone pattern of the word:

	mɛ̀⁺	"build"	+ *n*ᵉ	rem	→ *mɛ̀ɛ̄n*ᵉ/
	*dūɡ*ᵉ	"cook"	+ *n*ᵉ	rem	→ *dūɡʋn*ᵉ/
	*bɔ̀dɪɡ*ᵉ	"lose"	+ *n*ᵉ	rem	→ *bɔ̀dɪɡīn*ᵉ/
	*yādɪɡ*ᵉ/	"scatter"	+ *n*ᵉ	rem	→ *yādɪɡɪn*ᵉ/
ipfv	*kūʋd*ᵃ/	"kill"	+ *n*ᵉ	rem	→ *kūʋdɪn*ᵉ/
ipfv	*yādɪɡíd*ᵃ	"scatter"	+ *n*ᵉ	rem	→ *yādɪɡídīn*ᵉ/

Dā dɔ̀llɪyá!   "Follow ye not!"

Enclitic object pronouns change LF-final L to M in all imperfective forms and in all forms affected by the tone overlay of Independency Marking 24.6.1.1.

Pattern H LFs of two morae change final M to H. (This may be a generalisation of the tones originally proper to Fusion Verbs, or may reflect the conflation of older Patterns H and HL in the current verbal Pattern H.)

Verb perfectives without tone overlay:

*bɔ̀dɪɡ*ᵉ	"lose"	+ *m*ᵃ	"me"	→ *bɔ̀dɪɡɪ m*ᵃ
*yādɪɡ*ᵉ/	"scatter"	+ *m*ᵃ	"me"	→ *yādɪɡí m*ᵃ
*dūɡ*ᵉ	"cook"	+ *lɪ*⁺	"it"	→ *dūɡí lī*⁺/
dì⁺	"eat"	+ *lɪ*⁺	"it"	→ *dìɪ lī*⁺/
*ɡɔ̄s*ᵉ	"look"	+ ᵒ	"him/her"	→ *ɡɔ̄s·ó*⁺
kū⁺	"kill"	+ *m*ᵃ	"me"	→ *kūʋ́ m*ᵃ
pāe⁺/	"reach"	+ *m*ᵃ	"me"	→ *pāá m*ᵃ
dīʔe⁺/	"get"	+ *ba*⁺	"them"	→ *dīʔə́ bā*⁺/

Imperfective verb forms of Variable and Invariable verbs:

zàbɪd[a]	"fights"	+ *m*[a]	"me"	→	*zàbɪdī m*[a/]
dìt[a]	"eats"	+ *lɪ*[+]	"it"	→	*dìtī lí*[+]
yādɪgíd[a]	"scatters"	+ *ba*[+]	"them"	→	*yādɪgídī bá*[+]
kūʋd[a/]	"kills"	+ *m*[a]	"me"	→	*kūʋdí m*[a]
sū̃ʔe[ya/]	"own"	+ *lɪ*[+]	"it"	→	*sū̃ʔʊ́ lī*[+/]

Unrealised Mood forms of Pattern O Verbs:

Ò nà bɔ̄dɪgɪ m.	"He will lose me."
Ò kʊ̀ bɔ̄dɪgɪ má.	"He will not lose me."
Ò nà bɔ̄dɪgɪ bá.	"She will lose them."
Ò kʊ̀ bɔ̄dɪgɪ báa.	"She won't lose them."
Ò kʊ̀ bɔ̄dɪgɪdɪ má.	"He won't be losing me."
Ò kʊ̀ zābɪdɪ má.	"He won't be fighting me."
Ò kʊ̀ zāb·óo.	"He won't fight him."
or *Ò kʊ̀ zāb·oo.*	"He won't fight him."
Ò kʊ̀ kād·óo.	"He won't drive him away."
or *Ò kʊ̀ kād·oo.*	"He won't drive him away."

Unrealised Mood Pattern O and Pattern H contrast in 2-mora stems:

zābe + *m*[a]	→	*zābɪ m*[a/]	"...will fight me"
dūge + *m*[a]	→	*dūgí m*[a]	"...cook for me"

All non-enclitic Liaison Words begin with a Fixed-L toneme 10.2 except for Serialiser *n*, which has no toneme.

Verbs before the Fixed-L Clitics show the same final tonemes as with Liaison Enclitics, except that M tonemes necessarily change to H 6.2.2 .

Perfectives without tone overlay:

Kà   tì   díι͜   bà   dīιb.   "And we ate their food."
And **1PL** eat:**PFV 3PL** food.

Kà   ò   bɔ́dɪgì͜ bà   bʊ̀mɪs.   "And he lost their donkeys."
And **3HU** lose:**PFV 3PL** donkey:**PL**.

Kà   ò   dūgí͜   bà   dīιb.   "And he cooked their food."
And **3HU** cook:**PFV 3PL** food.

Imperfective without tone overlay:

Kà   tì   dítí‿   bà   dīıb.   "And we were eating their food."
And **1PL** eat:**IPFV 3PL** food.

Nominal forms before the initial Fixed-L Liaison Words other than the complementiser *ǹ* were preceded by a H toneme when I could elicit such forms from my informants at all:

Pὲɛdá‿   àlá   ⁺ø?   "How many baskets?"
Basket:**PL NUM:**how.many   **CQ**?

Before the Fixed-L complementiser *ǹ* a final M tone becomes H:

Dāu̯   lā   dāa záb   ná'àb   lā.
man:**SG ART   TNS**   fight:**PFV** chief:**SG ART**
"The man fought the chief."

dāu̯   lá‿ ø   dāa záb   nà'ab   lā
man:**SG ART COMP TNS**   fight:**PFV** chief:**SG ART**
"the man's having fought the chief"

Before Serialiser *n* the final toneme of a modified LF is M after a M toneme and L otherwise. The particle is tonally "transparent", being followed by L Raising if and only if the *preceding* word is followed by L Raising 10.1 .

Ǹ   nɔ́k   sʊ́'ʊgʊ̀‿ ø   ki̯á   nīm   lā.
1SG pick.up:**PFV** knife:**SG SER** cut:**PFV** meat:**SG ART**.
"I cut the meat with a knife."

amaa o kena ye o tum tisi ba
àmáa ò   kē   nā   yέ   ò   túm‿   ø   tìsɪ‿   bā
but   **3HU** come:**PFV** hither that **3HU** work:**PFV SER** give:**PFV 3PLO**
"but he came to serve them" (Mt 20:28)

Morphology

11 Noun Flexion

11.1 Noun Classes

Nouns inflect for singular and plural by adding Noun Class Suffixes to the stem; the bare stem itself 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. The combining form is always subject to Apocope, as it can never appear clause-finally or before Liaison. Consonant-final combining forms probably ended in an epenthetic vowel previously, as in archaisms like the place name *Wìdɩ-ňyá'aŋ*[a] "Woriyanga" (cf *wìd-ňyá'aŋ*[a] "mare"), and occasional expressions in the NT like *nwadibil* (Mt 2:2) for *ňwād-bíl*[a] "star", but my informants never produced such forms.

In the paradigms below, noun forms will be cited as Singular, Plural and Combining Form in order.

Each noun class suffix has a basic singular, plural or non-count meaning. Count nouns pair a singular suffix with a plural suffix. Five regular pairings account for the great majority of count nouns. These will be labelled using Superscript Notation forms of the suffixes, as the $^a|b^a$, $g^a|s^e$, $g^o|d^e$, $r^e|a^+$ and $f^o|\iota^+$ **Noun Classes** respectively. Mass nouns may appear with one of the two non-count suffixes $-b^o$ or $-m^m$, forming two more Noun Classes. (Mass nouns can also appear with any of the other suffixes apart from ^{a} b^a f^o or ι^+.)

The flexional form that would be expected from straightforward application of phonological rules may be ambiguous, coinciding with another form from the same paradigm or from another word, or resembling it closely enough that confusion would be likely. This ambiguity is very often the result of the deletion of final vowels by Apocope. Ambiguity in nominal flexion can be avoided by **substitution** of a different flexional suffix for that expected for the Class[12]. Suffix substitution is not possible in Variable Verb flexion, where ambiguities may instead be avoided by unexpected insertion of epenthetic vowels 7.2.1.3 . Adjectives, which are not in any case confined to membership of a single noun class 12.1 , may simply never occur with a particular suffix which is incompatible with the stem final.

This substitution of suffixes to avoid ambiguity has become *regular* in the case of Class $g^o|d^e$ stems ending in *m n* following a short vowel, which always use the plural suffix a^+ instead of d^e, thus creating a $g^o|a^+$ **Subclass**:

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12) Compare Polish locatives, where the allomorph *-u* appears instead of the usual *-e* in exactly those cases where *-e* would cause the contrast of underlying plain and palatal root-final coronal consonants to be lost (Inkelas, 3.1 "Suppletive Allomorphy")

zīnzāu̯ŋ[o/]	*zīnzāná*[+]	*zīnzáu̯ŋ-*	"bat"
àňrʋŋ[o]	*àňrɪma*[+]	*àňrʋŋ-*	"boat"

Gerunds of three-mora stem verbs with the singular suffix *g*[o] also use the suffix -*a*[+] if they form plurals at all 11.3.3.1 .

Two further Subclasses have arisen by **reinterpretation** of SFs of one flexional suffix as the homophonous SF of a different suffix, with subsequent remodelling of the LF to match 3.2.2 .

The *r*[e]|*b*[a] Subclass of the [a]|*b*[a] Class has reinterpreted SFs ending in *m n r l* as *m*[me] *n*[ne] *r*[e] *l*[le] instead of *m*[a] *n*[a] *r*[a] *l*[a] 11.3.1.1 :

Bìn[ne]	*Bìm*[ma]	*Bìn-*	"Moba person"

where the singular SF of an expected *Bìn[a] has been reanalysed as *Bìn*[ne].

Agent nouns may further develop plurals in -*a*[+] by analogy with the *r*[e]|*a*[+]Class:

lὲm-lɛ̄m[na]	*lὲm-lɛ̄mnɪb*[a]	*lὲm-lὲm-*	"taster"
or *lὲm-lɛ̄m*[ne]	*lὲm-lɛ̄mma*[+]		

The *g*[o]|*s*[e] Subclass of the *g*[a]|*s*[e] Class 11.3.2.1 has reinterpreted SFs ending in *g* after a rounded vowel mora as *g*[o] instead of *g*[a]:

*nú*ˀ*ùg*[o]	*nú*ˀ*ùs*[e]	*nū*ˀ*-*	"hand"

beside e.g. Mampruli *nuuwa* pl *nuusi* "hand." Some words of this type have developed plurals in **-***d*[e] by analogy with the *g*[o]|*d*[e] Class:

zùuňg[o]	*zùuňs*[e]	*zùň-*	"vulture"
	or *zùuňd*[e]		

Cf Mampruli *zuuwa* pl *zuusi* "vulture."

Two further systematic deviations are **semantically** motivated: a Subclass of the [a]|*b*[a] Class referring to older/important people uses *b*[a] as the *singular* suffix 11.3.1.2 , and names of languages belong to a Subclass of the *r*[e]|*a*[+] Class with the slightly different singular suffix *l*[e] 11.3.4.1 .

In a previous stage of the language the Noun Classes were agreement classes, with separate 3rd person pronouns evidently related to the class suffixes, and agreement of adjectives and numerals. Contemporary Kusaal, like Dagbani and Mooré, has abandoned grammatical gender and has simply a natural system opposing persons and non-persons, with pronouns based respectively on the original [a]|*b*[a] and

r^e|*a*⁺ Classes 21.2.2 . The system remains central to the morphology, and there are a few isolated remnants of the agreement system which will be pointed out as they occur.

Examples of the regular pairings of suffixes and the non-count suffixes, arranged by Class and Subclass:

ᵃ|*b*ᵃ	*sīd*ᵃ	*sīdɪb*ᵃ	*sìd-*	"husband"
*r*ᵉ|*b*ᵃ	*Bìn*ⁿᵉ	*Bìm*ᵐᵃ	*Bìn-*	"Moba person"
*b*ᵃ (sg)	*nà*ˀ*ab*ᵃ	*nà*ˀ*-nàm*ᵃ	*nà*ˀ*-*	"chief"
***g*ᵃ|*s*ᵉ**	*būʋg*ᵃ	*būʋs*ᵉ	*bʋ̀-*	"goat"
*g*ᵒ|*s*ᵉ	*nú*ˀ*ùg*ᵒ	*nú*ˀ*ùs*ᵉ	*nū*ˀ*-*	"hand"
***g*ᵒ|*d*ᵉ**	*dɔ̀ɔg*ᵒ	*dɔ̀ɔd*ᵉ	*dɔ̀-*	"hut"
*g*ᵒ|*a*⁺	*gbàu̯ŋ*ᵒ	*gbàna*⁺	*gbàn-*	"book"
***r*ᵉ|*a*⁺**	*nɔ̄ɔr*ᵉ/	*nɔ̄yá*⁺	*nɔ̄-*	"mouth"
*l*ᵉ	*Kūsáàl*ᵉ			"Kusaal"
***f*ᵒ|*ɩ*⁺**	*mɔ̀lɪf*ᵒ	*mɔ̀lɪ*⁺	*mɔ̀l-*	"gazelle"
***b*ᵒ**	*sā*ˀ*ab*ᵒ		*sà*ˀ*-*	"porridge"
***m*ᵐ**	*tìɩm*ᵐ		*tì-*	"medicine"

M-stems with *long* root vowels in the ᵃ|*b*ᵃ Class generally avoid ambiguity by forming plurals with other suffixes than *b*ᵃ 11.3.1 . Some *g*ᵃ|*s*ᵉ Class nouns with human reference have alternative plurals with *b*ᵃ 11.3.2 . The few countable nouns in the *m*ᵐ Class form plurals with *-a*⁺ or *-s*ᵉ, or using *nàm*ᵃ 11.4 11.3.7 . The *f*ᵒ|*ɩ*⁺ Class has few members and a number of nouns occur with these suffixes in only one number 11.3.5 .

The diminutive sg suffix *-l*ᵃ is found in Kusaal only in the adjective *bīl*ᵃ "little", (plural *bībɩs*ᵉ.) It is more widespread in other Western Oti-Volta languages.

There are few other cases of irregular sg/pl pairing with nouns; examples are

*pɛ̄*ˀ*og*ᵒ/	*pɛ̄*ˀ*ɛs*ᵉ/		*pɛ̄*ˀ*-*	"sheep"
*gbɛ̀*ˀ*og*ᵒ	*gbɛ̀*ˀ*ɛd*ᵉ		*gbɛ̀*ˀ*-*	"forehead"
	gbɛ̀da⁺			
*bi̯āu̯ňk*ᵒ	*bi̯āň*ˀ*ad*ᵉ	WK	*bi̯àň*ˀ*-*	"shoulder"
	*bi̯āň*ˀ*ada*⁺	SB		

Adjectives differ from nouns in that *most* are extant with suffixes from more than one Noun Class, as a legacy of an older Class agreement system 12.1.

Despite Apocope, the form of the singular suffix remains sufficiently clear in most SFs to identify the Noun Class correctly from this form alone, if also given the (natural) gender, human/non-human 21.2.2. Where this is not so, there is often vacillation between classes, suggesting that speakers do in fact use these criteria to determine class membership; compare the assignment of Noun Class membership to loanwords 11.7, and the analogical remodelling resulting in $r^e|b^a$ and $g^o|s^e$ Subclasses described above.

Human-gender words with singular SFs ending in long vowels, *g* or *k* belong to the $g^a|s^e$ Class. Significantly, the $^a|b^a$ Class exception *nàyīig*^{a} "thief", has an analogical $g^a|s^e$ plural *nàyīis*^{e}. The only $^a|b^a$ Class word ending in a long vowel in the sg SF in my materials is *bā'a*$^=$ "traditional diviner."

Other human-gender nouns default to $^a|b^a$ or its phonologically motivated $r^e|b^a$ Subclass, except for stems ending in a long vowel, which have been transferred to the $r^e|a^+$ Class in Agolle Kusaal 11.3.1, and a group of words in the $g^o|d^e$ Class which seem to be pejorative. There is vacillation between the $^a|b^a$ and $g^a|s^e$ Classes in the case of human-reference words with SFs ending in *ŋ*.

Zɔɔm^{ne} "fugitive" is $r^e|a^+$, probably because of a pejorative sense, though it may also be significant that the usual human-gender $^a|b^a$ flexions would have led to identical singular and plural SFs.

The b^a-singular Subclass of $^a|b^a$ is responsible for all human-gender nouns ending in -*b* in the sg SF, and also for *sàam*^{ma} "father", *dìəm*^{ma} "man's parent-in-law", *dàyáam*^{ma} "woman's parent-in-law."

Mass nouns ending in SF *m* or *b/p* belong to the m^m and b^o Classes respectively; 2-mora stem gerunds in -*m* also belong to b^o. Names of languages all belong to the l^e Subclass of $r^e|a^+$.

Non-human count nouns with sg SF ending in a long vowel, or in an unrounded vowel mora followed by a velar, belong to the $g^a|s^e$ Class; all nouns ending in SF -*f* belong to the $f^o|\iota^+$ Class; all nouns ending in a rounding diphthong followed by a velar belong to either the $g^o|d^e$ Class or its phonologically motivated $g^o|a^+$ Subclass. Non-human gender nouns ending in *l n r m* belong to the $r^e|a^+$ Class, except for a few exceptional count nouns in the m^m Class, notably *pīim*$^{m/}$ "arrow", which has the expected $r^e|a^+$ type plural *pīmá*$^+$. Most countable nouns in the m^m Class probably originated in the use of original abstract or mass nouns in related derived meanings: *yām*$^{m/}$ "gall; common sense" and also "gall bladder"; *pūum*$^{m/}$ "flower(s), flora"; *dàalím*^{m} "male sex organs"; *pù'alím*^{m} "female sex organs."

Non-human gender count nouns ending in a rounded monophthong or epenthetic vowel before a velar usually belong to the $g^o|d^e$ Class or its $g^o|a^+$ Subclass; a few belong to the $g^o|s^e$ Subclass of the $g^a|s^e$ Class 11.3.2.1, frequently with vacillation between speakers.

11.1.1 Noun Class and Meaning

As usual with noun class systems, there are correlations between class membership and meaning; exceptions are frequent, however. The phonologically motivated Subclasses have the same correlations with meaning as their main Classes.

The ª|bª 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 bª as singular $\boxed{11.3.1.2}$.

The gª|sᵉ Class has general membership but notably includes the great majority of tree names $\boxed{37.5}$, many larger animals, and tools. Almost all ethnic group names belong to the Classes ª|bª or gª|sᵉ (*Zàngbèog*ᵒ "Hausa" and *Nàsāara*⁺ "European" are the only exceptions in my materials); the place inhabited by the group has sg -gᵒ $\boxed{37.4}$.

The gᵒ|dᵉ and rᵉ|a⁺ Classes are the default non-human countable classes. They include all names of fruits $\boxed{37.5}$, and most names of body parts $\boxed{37.6}$. Human-reference nouns in the gᵒ|dᵉ Class seem to be mostly pejorative (*bālērʋg*ᵒ/ "ugly person", *dàbīog*ᵒ "coward", *zɔ̄lʋg*ᵒ/ "fool") but this is not so with the rᵉ|a⁺ Class (cf *bīər*ᵉ/ "elder same-sex sibling.") This is at least in part because some nouns which historically belonged to the ª|bª Class have been reallocated to rᵉ|a⁺ for phonological reasons, a process which is less complete in Toende Kusaal $\boxed{11.3.1}$.

A Subclass in -lᵉ includes all names of languages $\boxed{11.3.4.1}$.

The fᵒ|ι⁺ Class is a small class with two groups of meanings: animals, and small round things. It contains all names of seeds. No fᵒ|ι⁺ Class nouns refer to people.

The bᵒ Class has only two members in my own materials that are not gerunds: *sāʔab*ᵒ "millet porridge, TZ" and *tāňp*ᵒ "war." There is also a word *ki'ib*ᵒ "soap" in written materials; WK has instead *kīibʋ́*⁺ with cb *kīib-* which is probably a loan from the cognate Mampruli word $\boxed{20.1}$. Niggli's "Dictionnaire" has Toende *kíʔιp*.

The mᵐ Class includes names of liquids and substances and abstract nouns. There are very few count nouns, and none referring to people or animals. Names of liquids are all either mᵐ or bᵒ Class or formally plural.

Deverbal nouns have predictable class membership: agent nouns belong to ª|bª, instrument nouns to gª|sᵉ, and gerunds are allocated to the suffixes gᵒ rᵉ bᵒ or mᵐ by rule $\boxed{14.1.1.1}$.

The association of Noun Class and meaning can be exploited to change the significance of a stem $\boxed{14.2}$.

11.2 Stem Levelling

11.2.1 Singulars and Plurals

Sometimes a morphophonemic rule is triggered only by the singular or plural noun suffix in a paradigm. In such cases the resulting stem allomorphism is often levelled in favour of the form shown in the more frequently used number.

Thus the vowel length changes seen in *CV-* root-stems 7.1.1.1 are levelled in favour of the singular in e.g.

fūug[o/]	"clothing"	pl *fūt*[e/] or *fūud*[e/]	

and a short vowel regularly resulting from the effect of a following *-y-* 7.3.3 in the plural of the *r*[e]|*a*[+] Class has probably been carried over into the singular in e.g.

gbɛ̄r[e/]	"thigh"	*gbɛ̄yá*[+]	"thighs"
gāňr[e/]	"ebony fruit"	*gāňyá*[+]	"ebony fruits"
cf *gāaňs*[e/]	"ebony trees"		

Another source of *r*[e]|*a*[+] Class vowel stems in *CV-* may be original *r*-stems where the singular has been reanalysed as a vowel stem because of the simplification **rr → r* 7.2.1.1 , and a new plural created on that basis:

kpàkūr[e/]	"tortoise"	pl *kpàkūyá*[+]	(Agolle Kusaal)
kpãkút	"tortoise"	pl *kpãkutnam*	(Toende Kusaal)
kakute	"tortoise"	pl *kakura*	(Farefare)

Niggli's Farefare grammar supplies the rule **rr → t*, explaining the sg form. The only *r*[e]|*a*[+] Class stem in *CVr-* in my materials is the adjective in

yī-pɔ́ňrà[+]	"nearby houses"

where reanalysis as a vowel stem would be unlikely because of the transparent relationship to the more commonly used Adjectival Verb *pɔ̀ňr*[a] "be near."

Quality changes between singular and plural stem forms occur in the Class as a result of the merger of *ĩə̃ ũə̃* with *ɛ̃ɛ̃ ɔ̃ɔ̃* 7.3.1 :

nūa[+/]	"hen"	*nɔ̄ɔs*[e/]	"hens"

Such alternations are never levelled. However, the distribution of *oral iə uə* versus *ɛɛ ɔɔ* is strikingly different between the *g*[a]|*s*[e] and the *g*[o]|*d*[e] Classes. There are

only a few stems with the root vowel *iə* (and none with *uɵ*) before singular *g*[o], such as *dàbīog*[o] "coward" (pl *dàbīəd*[e]) and *kpī́ʔoŋ*[o] "strong" (pl *kpī́ʔəma*[+]), and only a few with root-final oral *εε* or *ɔɔ* before the singular *g*[a]: *Gɔ̀ɔg*[a] sg of *Gɔ̀ɔs*[e] "Goosi clan" along with *tὲʔεg*[a] "baobab". Moreover, there is an actual alternation in stems between *g*[a]|*s*[e] and *g*[o]|*d*[e] Classes with the adjective

bī́ʔa[+]	*bī́ʔəs*[e]	*bi̯à*ʔ-	"bad"
bὲ́ʔog[o]	*bὲ́ʔεd*[e]	*bὲʔ-*	

This suggests that the sequences **εεga* and **ɔɔga* might be subject to **g-*deletion and vowel Fusion like **iəga *uɵga *ε̃ε̃ga *ɔ̃ɔ̃ga* [7.3.1], but if so, the vowels of *Gɔ̀ɔg*[a] and *tὲʔεg*[a] would have to be due to levelling on the basis of the plural. This is very plausible with "member of the Goosi Clan", though less so with "baobab."

Another possible instance might be *sàbùa*[+] "lover, girlfriend" (pl *sàbùɵs*[e]) if this is connected with *bɔ̀ɔd*[a] "want, love", and here levelling of the plural on the basis of the singular would be natural enough.

An alternative proposal would be a rule *iəCʋ → εεCʋ* (cf **uɵgʋ → ɔɔgʋ* [7.3.2]) which might not only apply before the flexion *g*[o] but also account for the odd by-form of *pìəlıg*[a] "white" seen in *zū-pέεlὺg*[o] "bald", literally "white-headed." In this case, it would be *dàbīog*[o] "coward" which would have to be explained as exceptional.

Levelling may account for the lack of any clear pattern in the *CV:C~CVC* root alternation in flexion [7.1.1.2]; when length alternations do occur, it is plurals and cbs that have short-vowel allomorphs, and this may have been the original rule.

11.2.2 Combining Forms

Nominal Combining Forms, which not only lack a flexional suffix but always undergo Apocope [11.1], would be often reduced by the usual rules to ambiguous forms. In many cases the expected cb has been replaced by a form which is segmentally (though not tonally) that of the singular. Again, this is regular with certain stem types.

nī́f[o/]	*nīní*[+]	*nī́n-* or *nī́f-*	"eye"	
zìñ́ʔa[+]	*zὲñ́ʔεs*[e]	*zi̯àñ́ʔ-* or *zὲñ́ʔ-*	"red" (adjective)	
wɔ̄k[o/]	*wā́ʔad*[e/]	*wā́ʔ-* or *wɔ̄k-*	"long, tall" (adjective)	
tāñ̆p[o]		*tàñ̆p-*	"war" [7.2.2]	
zūg[o/]	*zūt*[e/]	*zū-* or *zūg-*	"head"	

Mooré and Toende both show *zu-* consistently in cases where Agolle has *zūg-*:

Mooré	Toende	Agolle	
zusoaba	*zùsóp*	*zūg-sɔ́b*[a]	"boss"
zukʋka	*zùkʋ́k*	*zūg-kūgʋr*[e]	"pillow"

Zūg-sɔ́b[a] "Lord" is also very frequently read *Zū-sɔ́b*[a] in the audio version of the NT. The cb of *zūg* behaves tonally like a nominal prefix and the original form *zū-* is probably a one-mora form that has not undergone Apocope 8.2.5 .

The "regular" cb of *nīf*[o/] "eye" is *nīn-*, but as a head it appears as *nīf-*: (the form *nīn-* is homophonous with the cb of *nīd*[a/] "person"):

   nĭf-káŋā   "this eye"

The form *nīn-* still predominates as a pre-modifier:

nīn-dáa[=]	"face"
nīn-tám[m]	"tears"
nīn-gɔ́tìs[e]	"spectacles"

Similarly with *gbàṵŋ*[o] "letter, book", while the form *gbàṵŋ-* is common before adjectives and modifier pronouns, the "regular" cb *gbàn-* still occurs as a generic argument to a deverbal noun, e.g. *gbàn-mĭʔid* "scribe" ("book-knower.")

With most stems in *m* and *n* the remodelled forms have supplanted the expected cb type altogether, making this the *regular* cb formation for *m n* stems:

zīnzāṵŋ[o/]	*zīnzāná*[+]	*zīnzáṵŋ-*	"bat"
àňrʋŋ[o]	*àňrɪma*[+]	*àňrʋŋ-*	"boat"
mālʋŋ[o]	*mālɪma*[+]	*màlʋŋ-*	"sacrifice"

So too very frequently with nouns whose expected cb form would just be *(C)V*; and regularly with *(C)V*-stems in the *r*[e]|*a*[+] and *m*[m] Classes; it is often impossible to tell if *m*[m] Class stems were originally *(C)V-* or *(C)Vm-*:

gbēr[e/]	*gbēyá*[+]	*gbēr-*	"thigh"
kùkɔ̄r[e/]	*kùkɔ̄yá*[+]	*kùkɔ̄r-*	"voice"
	(but always *kùkɔ̄-títāʔar*		"loud voice" NT)

vūm[m/]		*vūm-*	"life"
kūm[m]		*kùm-*	"death"
zɔ̄m[m/]		*zɔ̄m-*	"flour"
yām[m/]		*yām-*	"gall; gall bladder"

The cb may be remodelled after the *plural* in a word with no sg extant:

| no sg | *kī*⁺/ | *kī-* or *kā-* | "cereal, millet" |

Remodelling after the plural may reflect the fact that although a sg exists, the plural form has a distinct specialised meaning:

| *lā'af*ᵒ | *līgɪdɪ*⁺ | *là'-* or *lìg-* | "cowrie" pl "money" |

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

| *dāʊ̯*⁺ | *dāp*ᵃ | *dàʊ̯-* sg *dàp-* pl | "man, male person" |
| *tāʊ̯ň*⁺/ | *tāňp*ᵃ/ | *tāʊ̯ň-* sg *tāp-* pl | "sib of opposite sex" |

Disambiguation is clearly involved with some longer remodelled cbs:

| *kɔ̀lʊg*ᵒ | *kɔ̀n*ⁿᵉ | *kɔ̀lʊg-* | "bag" |
| *lànnɪg*ᵃ | *lànnɪs*ᵉ | *lànnɪg-* | "squirrel" |

| *kɔ̀lʊg-kàŋā* | "this bag" | cf cb *kɔ̀l-* from | *kɔ̄lɪg*ᵃ "river" |
| *lànnɪg-pìəlɪg* | "white squirrel" | cf cb *làn-* from | *lān*ⁿᵉ "testicle" |

This remodelling never affects tones, which are consistently those that would be expected for the cb from the Tone Pattern: there is no suggestion of the obsolescence of the cb as a distinct flexional form.

The tones reveal that cases which appear to involve a pl or sg preceding an adjective or modifier pronoun in fact show cbs:

| *dàʊ̯-sʊ̀ŋ* | "good man" | |
| *dàp-sʊ̀ma* | "good men" | cf *dāʊ̯* "man", *dāp* "men" |

The NT writes remodelled cbs as separate words, like singulars; as the orthography does not mark tone, this can lead to ambiguous forms:

	yamug bipuŋ	"slave girl" (Acts 16:16, 1976) 21.8.1.5
	yàmmʊg-bī-púŋ	"slave girl" (WK; he himself prefers *yàm-bī-púŋ*)
cf	*yàmmʊg bí-púŋ*	"slave's girl"
	bī-púŋ-yàmmʊg	"girl slave"
	bī-púŋ yámmʊ̀g	"girl's slave"

11.3 Noun Paradigms

For tones see 8.2 . Combining forms are frequently remodelled segmentally after the singular 11.2.2 , regularly so with stems in *m* and *n*.

The default for sg and pl is for Class Suffixes simply to attach after a stem-final epenthetic vowel or root vowel. Complications arise from rounding of stem-final vowels before the suffix g^o in singulars in -g^o -k^o -$ŋ^o$, from deletion of *g after *aa iə uɵ ãã ɛ̃ɛ̃ ɔ̃ɔ̃* with the $g^a|s^e$ Class sg, from consonant assimilation instead of epenthesis in all classes, and from the combination of root-vowel-final stems with the vowel-initial flexions $^a|b^a$ sg, $f^o|ι^+$ pl and $r^e|a^+$ pl; see Consonant Epenthesis 7.2.2 and 11.3.1 .

11.3.1 $^a|b^a$ Class

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

*sīd*ᵃ	*sīdɪb*ᵃ	*sìd-*	"husband"
*sàal*ᵃ	*sàalɪb*ᵃ	*sàal-*	"human being"
*kpīkpīn*ⁿᵃ/	*kpīkpīnníb*ᵃ	*kpīkpín-*	"merchant"
*sàam-pīt*ᵃ/	*sàam-pītíb*ᵃ	*sàam-pīt-*	"father's younger brother"
*bì-pīt*ᵃ/	*bì-pītíb*ᵃ	*bì-pīt-*	"younger child"
*wād-tís*ᵃ	*wād-tísìb*ᵃ	*wād-tís-*	"lawgiver" NT
*zà'-nɔ̄-gúr*ᵃ	*zà'-nɔ̄-gúrìb*ᵃ	*zà'-nɔ̄-gúr-*	"gatekeeper" NT

An irregular cb appears in

*nīd*ᵃ/	*nīdɪb*ᵃ/	*nīn-*	"person"

Most deverbal agent nouns are completely regular:

*kūʋd*ᵃ/	*kūʋdíb*ᵃ	*kūʋd-*	"killer"

Agent nouns from 3-mora stems in *s* regularly drop the *d* formant in sg and cb; they show a regular shift between Tone Pattern L in the sg and Pattern O in the plural for agent nouns from Pattern O verbs 8.2.4 . Many also have *nàm*ᵃ plurals 11.4 .

*kùɵs*ᵃ	*kūɵsɪdɪb*ᵃ	*kùɵs-*	"seller"
*pʋ̀'ʋs*ᵃ	*pʋ̄'ʋsɪdɪb*ᵃ	*pʋ̀'ʋs-*	"worshipper"
*dì'əs*ᵃ	*dī'əsɪdɪb*ᵃ	*dì'əs-*	"receiver"
*tʋ̀'as-tʋ̀'as*ᵃ	*tʋ̀'as-tʋ̄'asɪdɪb*ᵃ	*tʋ̀'as-tʋ̀'as-*	"talker"

*sīgɩs*ᵃ/	*sīgɩsídìb*ᵃ	*sīgɩs-*		"lowerer"
*dìɩs*ᵃ	*dìɩs-nàm*ᵃ	*dìɩs-*		"glutton"

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

*sɔ̀s*ᵃ	*sɔ̄sɩdɩb*ᵃ	*sɔ̀s-*		"beggar"
*tìs*ᵃ	*tīsɩdɩb*ᵃ	*tìs-*		"giver" WK
*kīs*ᵃ/ or *kīsɩd*ᵃ/	*kīsɩdíb*ᵃ	*kīsɩd-* (only)		"hater"

which may be original 3-mora stem verbs with *ss → s*. There are also

*zàb-zàb*ᵃ	*zàb-zàb-nàm*ᵃ	*zàb-zàb-*	"warrior"
	*zàb-zābɩdɩb*ᵃ		
*gbān-záb*ᵃ	*gbān-záb-nàm*ᵃ	*gbān-záb-*	"leatherbeater"
*ňwī-tɛ́k*ᵃ	*ňwī-tɛ́kìdɩb*ᵃ		"rope-puller"

Exceptionally, consonant assimilation of *md* does not appear in the plural in

*pṵ̀ʔà-sā̄ʔam*ᵐᵃ	*pṵ̀ʔà-sā̄ʔamɩdɩb*ᵃ	*pṵ̀ʔà-sà̀ʔam-*	"adulterer"

but contrast the expected pattern seen in

*yūum-yúùm*ⁿᵃ	*yūum-yúùmnɩb*ᵃ	*yūum-yúùm-*	"singer"

Stems ending in vowels in this Class are problematic because of the vowel-initial sg suffix. Unlike the case with the *-a*⁺ pl ending, there is no single systematic rule for the outcome.

Four highly irregular nouns end in diphthongs in the sg 3.2.2 :

dāṵ⁺		*dāp*ᵃ	*dàṵ-, dàp-*	7.2.2	"man" (*vir*)
tāṵň⁺/		*tāňp*ᵃ/	*tāṵň-, tāňp-*	7.2.2	"sib of opposite sex"
sāḛň⁺	WK	*sāaňb*ᵃ	*sàň-*		"blacksmith"
*sāḛň*ʸᵃ	DK				
sɔ̄ḛň⁺	WK	*sɔ̄ɔňb*ᵃ	*sɔ̀ň-*		"witch"
*sɔ̄ḛň*ʸᵃ	DK				

There are also the two original *g* stems

*pṵ̀ʔā̄*ᵃ ← *pṵaga*	*pṵ̄ʔab*ᵃ	*pṵ̀ʔà-*	"woman, wife"
bā̄ʔa⁼ ← *baʔaga*	*bā̄ʔab*ᵃ	*bà̀ʔa-*	"traditional diviner"

Two nouns with *(C)V:* stems introduce *-d-* before the sg suffix, with cbs remodelled on the sg:

*wìɪd*ᵃ	*wìɪb*ᵃ	*wìɪd-*	"hunter"
*sɔ̄ň²ɔd*ᵃ/	*sɔ̄ň²ɔb*ᵃ/	*sɔ̄ň²ɔd-*	agent noun of *sɔ̄ň²e*⁺/
			"be better than"

In

*pūkpāad*ᵃ/	*pūkpāadíb*ᵃ	*pūkpá-*	"farmer"

the plural also has *-d-* but the cb lacks it (*kpāad*ᵃ/ "farmer" is regular ᵃ|bᵃ Class.) Compare *Nàbɪd*ᵃ "Nabdema person" beside *Nàbɪr*ᵉ "Nabit language", *Dàgáàd*ᵃ "Dagaaba person" beside the Dagaare equivalent *Dagao*, and the Mooré plural *neba* beside Kusaal *nīdɪb*ᵃ/ "people."

The word

pītʋ́⁺	*pītíb*ᵃ	*pīt-*	"younger sibling
			of same sex"

drops the final *ʋ* of the sg elsewhere in the paradigm. *Sàam-pīt*ᵃ/ "father's younger brother" and *bì-pīt*ᵃ/ "younger child" are regular.

Historically, a solution to the problem of adding sg ᵃ to stems ending in a long vowel was to use the suffix *r*ᵉ in place of ᵃ; related languages, including Toende Kusaal, still keep the *-b*ᵃ plural forms, but in Agolle Kusaal such words have acquired *-a*⁺ plurals and thus passed over entirely into the *r*ᵉ|*a*⁺ Class:

Agolle	*pùkɔ̀ɔ̌r*ᵉ	*pùkɔ̀ňya*⁺	*r*ᵉ|*a*⁺	"widow"
Toende	*pɔ́kɔ̌ɔ́t*	*pɔkõp*	*r*ᵉ|*b*ᵃ	
Farefare	*pɔkõorɛ*	*pɔkõpa*	*r*ᵉ|*b*ᵃ	
Mooré	*pʋgkõore*	*pʋgkõapa*	*r*ᵉ|*b*ᵃ	
Agolle	*dà-kɔ̀ɔ̌r*ᵉ	*dà-kɔ̀ňya*⁺	*r*ᵉ|*a*⁺	"bachelor"
Toende	*dákɔ̌ot*	*dakõp*	*r*ᵉ|*b*ᵃ	
Farefare	*dàkõorɛ̀*	*dakõpa*	*r*ᵉ|*b*ᵃ	

Such transfers may account for several human-reference nouns found unexpectedly in the *r*ᵉ|*a*⁺ Class, e.g. *bīər*ᵉ/ "elder sibling of the same sex", *pɔ̀ň²ɔr*ᵉ "cripple", *ňyɛ̌²ɛr*ᵉ/ "next-younger sibling" (but Toende sg *yɛ̃'et* pl *yɛ̃ra* id) and maybe even *pʋ̯²à-sādɪr*ᵉ/ "young woman", where the sg *d* might be introduced from the plural *pʋ̯²à-sādá*⁺, where it would be due to the process described in 7.2.2 (cf *pɛ̄²-sá²a*⁼ "ewe lamb.") However, cognate forms suggest that levelling has taken place in different directions in the different languages with this word:

Toende	*pɔ'ɔ-sa'a*	*pɔ'ɔ-sa'as*	*g*ᵃ|*s*ᵉ	"young woman"
Farefare	*pug-sarga*	*pug-sarsɪ*	*g*ᵃ|*s*ᵉ	
Mooré	*pʊgsada*	*pʊgsadba*	ᵃ|*b*ᵃ	

Stems in a short root vowel followed by single *m n l* regularly adopt a sg form resembling that of the the *r*ᵉ\|*a*⁺ Class 11.3.1.1.

All other stems in *-m* have sg *-m*ᵐ instead of *-m*ᵃ.

Stems in *n* undergo consonant assimilation in the pl: **nb → mm*:

*sāan*ᵃ/	*sáam*ᵐᵃ	*sāan-*	"guest, stranger"

With *m*-stems the assimilation **mb → mm* would cause SF sg and pl to coincide segmentally, and also tonally except with Pattern H words. The homophony is avoided by using the plural suffix *s*ᵉ instead of *b*ᵃ or by pluralising with the word *nàm*ᵃ 11.4:

*kpī̃ʔim*ᵐ/	*kpī̃ʔimɪ́s*ᵉ	*kpī̃ʔim-*	"dead person, corpse"
*zū̃ʔɵm*ᵐ/	*zū̃ʔamɪ́s*ᵉ	*zū̃ʔɵm-*	"blind person"
*tādɪm*ᵐ/	*tādɪmɪs*ᵉ	*tàdɪm-*	"weak person"
	*tàdɪm-nàm*ᵃ		

With the two words

*kpɛ̄ɛ̃ňm*ᵐ	*kpɛ̄ɛ̃ňmma* LF-only WK		
	*kpɛ̀ɛ̃ňm-nàm*ᵃ	*kpɛ̀ɛ̃ňm-*	"elder"
*bī̃ʔɵm*ᵐ	*bī̃ʔɵmma* LF-only WK		
	*bì̃ʔɵm-nàm*ᵃ	*bì̃ʔɵm-*	"enemy"

WK freely accepted the ᵃ\|*b*ᵃ pl forms in contexts where they appear as LFs but would not accept the SFs, clearly demonstrating avoidance of ambiguity as the driver of the variations.

Alternatively, ambiguity may instead by avoided by replacing the sg suffix ᵃ with *g*ᵃ; such words may go on to develop *g*ᵃ\|*s*ᵉ Class plurals as well:

*dàsāŋ*ᵃ	*dàsām*ᵐᵃ	*dàsàŋ-*	"young man"
	or *dàsāaňs*ᵉ		
*Yàaŋ*ᵃ	*Yàam*ᵐᵃ	*Yàaŋ-*	"Yanga, Yansi person"
	or *Yàamɪs*ᵉ		
	or *Yàaňs*ᵉ		

11.3.1.1 *r*e|*b*a Subclass

Stems in *l n m r* following a *short* root vowel show forms in LF *-e* with the consonant doubled before it. This is the expected reflex of the *r*e|*a*+ Class sg and is probably remodelled from the SF 3.2.2. In all such cases the regular SF with sg -a and sg -*r*e would be identical, and seem to show the bare stem alone. In all cases where the SF could *not* be the regular phonological result of the attachment of a sg -*r*e suffix, ethnonyms with *b*a plurals always show sg -a, unlike the three below. Similarly, deverbal agent nouns are invariably a|*b*a Class, with the exception *only* of those where a sg -*r*e ending would lead to the same sg SF.

With *n*-stems, the assimilation **nb → mm* takes place in the plural:

*Dàgbān*ne/	*Dàgbām*ma/	*Dàgbān-*	"Dagomba person"
*Bìn*ne	*Bìm*ma	*Bìn-*	"Moba person"
*Kùtān*ne/	*Kùtām*ma/	*Kùtān-*	member of EW's clan

There are no stems in single *m* in this Subclass, as their singular and plural SFs would coincide.

An *r*-stem with an irregular stem change in the plural is seen in

*Mɔ̄r*e/	*Mɔ́ɔm*ma	*Mɔ̄r-*	"Muslim"

Other words in this Subclass are Agent Nouns with stems in *mn* derived from Variable Verbs with stems in *-m* and Agent nouns from Invariable Verbs with stems in *ll r(r)*[13]. Not only do they show *-r*e sg forms but also *-a*+ plurals with Agent Noun meanings. With other stem types this is not possible: *r*e|*a*+ sg or pl forms of such stems have to be interpreted as adjectives instead. The development is therefore presumably based on the analogy of the sg forms.

	*lὲm-lɛ̄m*na	*lὲm-lɛ̄mnιb*a	*lὲm-lὲm-*	"taster"
or	*lὲm-lɛ̄m*ne	*lὲm-lɛ̄mma*+		
	*ňyà'an-dɔ̀l*la	*ňyà'an-dɔ̀llιb*a	*ňyà'an-dɔ̀l-* NT	"disciple" tones: WK
	*ňyā'an-dɔ́l*le	*ňyā'an-dɔ́llà*+	*ňyā'an-dɔ́l-*	WK's own forms

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13) In agent nouns, the gemination is part of the stem; however, if word-final *-mm -nn -ll -rr* were historically preserved after Apocope, they would be strongly associated with the *r*e|*a*+ Class, which would drive the transfer of the agent nouns to that Class. After later final degemination, this pattern could be generalised to *all* original a|*b*a Class singulars with SFs ending in a short vowel followed by *-m -n -l -r*.

	gbàn-zāñl[la/]	*gbàn-zāñllíb*[a]	*gbàn-zāñl-*		"one with a book in hand" KT WK
	bʋ̀-zāñl[la/]	*bʋ̀-zāñllíb*[a]	*bʋ̀-zāñl-*		"goat-carrier"
or	*bʋ̀-zāñl*[le/]	*bʋ̀-zāñllá*[+]			
	gbàn-mɔ̄r[a/]	*gbàn-mɔ̄ríb*[a]	*gbàn-mɔ̄r-*	DK	"one who has a book"
	gbàn-tār[a/]	*gbàn-tāríb*[a]	*gbàn-tār-*	DK	id
	bʋ̀-mɔ̄r[a/]	*bʋ̀-mɔ̄ríb*[a]	*bʋ̀-mɔ̄r-*		"goat-owner"
or	*bʋ̀-mɔ̄r*[e/]	*bʋ̀-mɔ̄rá*[+]			

The word

zɔ̄ɔm[ne]	*zɔ̄ɔma*[+]	*zɔ̀ɔm-*	"refugee, fugitive"

may have originated as [a]|*b*[a] Class, acquired a new singular in -*r*[e] by reanalysis of the SF in the way suggested above for *m n* stems in a short root vowel, and subsequently passed over entirely into the *r*[e]|*a*[+] Class because of the homophony of the plural SF with the singular that would have resulted from the use of plural -*b*[a].

11.3.1.2 *b*[a] as Singular

A subclass of nouns referring to older/important people has -*b*[a] in the sg, and makes the plural with *nàm*[a] 11.4:

nà'ab[a]	*nà'-nàm*[a]	*nà'-*	"chief"
yáab[a]	*yāa-nám*[a]	*yāa-*	"grandparent, ancestor" (*yáagba*)
pʋ̀gʋdɪb[a]	*pʋ̀gʋd-nàm*[a]	*pʋ̀gʋd-*	"father's sister"
áñsìb[a]	*āñs-nám*[a]	*āñs-*	"mother's brother"

With the consonant assimilation **mb* → *mm*:

sàam[ma]	*sàam-nàm*[a]	*sàam-*	"father"
dìəm[ma]	*dìəm-nàm*[a]	*dìəm-*	"man's parent-in-law"
dàyáam[ma]	*dàyāam-nám*[a]	*dàyāam-*	"woman's parent-in-law" (*yáamba*)

11.3.2 *g*ᵃ|*s*ᵉ Class

Straightforward examples include:

*būʋg*ᵃ	*būʋs*ᵉ	*bʋ̀-*	"goat"
*tɛ̀ˀɛg*ᵃ	*tɛ̀ˀɛs*ᵉ	*tɛ̀ˀ-*	"baobab"
*tìɩg*ᵃ	*tìɩs*ᵉ	*tì-*	"tree"
*ňwādɪg*ᵃ/	*ňwādɪs*ᵉ/	*ňwād-*	"moon, month"
*lɔ̄dɪg*ᵃ/	*lɔ̄dɪs*ᵉ/	*lɔ̄d-*	"corner"
*āaňdɪg*ᵃ	*āaňdɪs*ᵉ	*àaňd-*	"black plum, Vitex doniana"
*bʋ̀-dìbɪg*ᵃ	*bʋ̀-dìbɪs*ᵉ	*bʋ̀-dìb-*	"male kid"
*kpìibɪg*ᵃ	*kpìibɪs*ᵉ	*kpìib-*	"orphan"
*yàmmɪg*ᵃ	*yàmmɪs*ᵉ	*yàm-*	"slave"
*kɔ̄lɪg*ᵃ	*kɔ̄lɪs*ᵉ	*kɔ̀l-*	"river"
*kpʋ̀kpàrɪg*ᵃ	*kpʋ̀kpàrɪs*ᵉ	*kpʋ̀kpàr-*	"palm tree"
*pūsɪg*ᵃ/	*pūsɪs*ᵉ/	*pūs-*	"tamarind"

and the irregularly derived gerunds 14.1.1.1.1 :

*zɔ̄ɔg*ᵃ	*zɔ̄ɔs*ᵉ	"run, race"
*būdɪg*ᵃ		"planting"

Root-stems in *Caa Ciǝ Cuɵ* delete the **g* of the sg suffix *-g*ᵃ 7.3.1 :

bāa= 9.2	*bāas*ᵉ	*bà-*	"dog"
dà̀ˀa= 9.2	*dà̀ˀas*ᵉ	*dà̀ˀ-*	"market"
sīa⁺	*sīǝs*ᵉ	*si̯à-*	"waist"
sàbùa⁺	*sàbùɵs*ᵉ	*sàbu̯à-*	"lover, girlfriend"

with nasal *ĩã ũã* alternating with *ɛ̃ɛ̃ ɔ̃ɔ̃* 7.3.1

zìň ˀa⁺	*zɛ̀ň ˀɛs*ᵉ	*zi̯àň ˀ-* or *zɛ̀ň ˀ-*	"red" (adjective)
nū ˀ-íň ˀa⁺	*nū ˀ-έň ˀɛs*ᵉ	*nū ˀ-έň ˀ-*	"fingernail"
Mùa⁺	*Mɔ̀ɔs*ᵉ	*Mɔ̀-*	"Mossi person"
nūa⁺/	*nɔ̄ɔs*ᵉ/	*nɔ̄-*	"hen"

Historical **(C)ag- *(C)i̯ag- *(C)u̯ag-* stems 7.1.1.1 show singulars with *-k*ᵃ:

*zàk*ᵃ	*zà'as*ᵉ	*zà'-*	"compound"
*pu̯āk*ᵃ	*pū'as*ᵉ	*pu̯'à-*	"female" (adjective)

Stems in *(C)Vg-* display consonant assimilation in the sg via *gg → kk*

*gìk*ᵃ	*gìgɩs*ᵉ	*gìg-*	"dumb person"
*kūk*ᵃ	*kūgʊs*ᵉ	*kʊ̀g-*	"chair"

Stems in *-m-* and *-n-* show *-ŋ-* in the sg, via *mg → ŋŋ* and *ng → ŋŋ*, and the cbs adopt the sg form; in the pl *ns → ṽss* 7.2.1.1 whereas -*ms-* remains with 2-mora-stems, but is frequently assimilated in longer stems. There are, however, no unequivocal three- of four-mora *n*-stems in this Class in any case.

*bāŋ*ᵃ	*bāaňs*ᵉ	*bàŋ-*	"ring, chain, fetter"
*tɛ̄ŋ*ᵃ	*tɛ̄ɛňs*ᵉ	*tɛ̀ŋ-*	"land"
*pàŋ*ᵃ	*pàaňs*ᵉ	*pàŋ-*	"power"
*bʊ̀ŋ*ᵃ	*bʊ̀mɩs*ᵉ	*bʊ̀ŋ-*	"donkey"
*nāŋ*ᵃ	*nāmɩs*ᵉ	*nàŋ-*	"scorpion"
*sú'ɵŋ*ᵃ	*sū'ɵmís*ᵉ	*sū'ɵŋ-*	"rabbit"
*ňwāaŋ*ᵃ	*ňwāamɩs*ᵉ	*ňwàaŋ-*	"monkey"
*níiŋ*ᵃ	*níis*ᵉ	*nīiŋ-*	"bird"
	*nīimís*ᵉ		
*kʊ̀lɩŋ*ᵃ	*kʊ̀lɩs*ᵉ	*kʊ̀lɩŋ-*	"door"
	*kʊ̀lɩmɩs*ᵉ		
*kʊ̄'alíŋ*ᵃ	*kʊ̄'alís*ᵉ	*kʊ̄'alíŋ-*	sleeveless traditional
	*kʊ̄'alímìs*ᵉ		smock

So too with all deverbal instrument nouns:

*mɛ̄ɛdɩŋ*ᵃ	*mɛ̄ɛdɩs*ᵉ	*mɛ̀ɛdɩŋ-*	"building tool"
	*mɛ̄ɛdɩmɩs*ᵉ		
*pīəsíŋ*ᵃ	*pīəsís*ᵉ	*pīəsíŋ-*	"sponge"
	*pīəsímìs*ᵉ		← *pīe*⁺ᐟ "wash (self)"

Various irregular stem alternations are seen in

*bīig*ᵃ	*bīis*ᵉ	*bī-*	"child"
		or *bì-*	
*bèrɩŋ*ᵃ	*bèrɩgɩs*ᵉ		a plant used for fibre

tàmpūa[+]	*tàmpɔ́ɔs*[e]	*tàmpɔ̀-*	"housefly" DK (*oral* vowel)
būtɪŋ[a]	*būtɪɪs*[e]	*bʊ̀tɪŋ-*	"cup" 3.4

Very irregular in both flexion and phonology, though apparently *g*[a]|*s*[e] Class, is

sāŋá[+]	*sānsá*[+]	*sān-*	"time"

which has perhaps incorporated a following deictic; note the unparalleled stem-internal cluster in the plural [saŋsa].

These human-reference nouns have alternative plurals with the suffix -*b*[a]:

dàsāŋ[a]	*dàsām*[ma] *dàsāaňs*[e]	*dàsàŋ-*	"young man"
Yàaŋ[a]	*Yàam*[ma] *Yàamɪs*[e] *Yàaňs*[e]	*Yàaŋ-*	"Yanga, Yansi person"
*Sà*ʔ*dàbùa*[+]	*Sà*ʔ*dàbùɵb*[a] *Sà*ʔ*dàbùɵs*[e]		clan name 37.4

11.3.2.1 *g*[o]|*s*[e] Subclass

Several *s*[e]-plural stems with rounded vowels have sg *g*[o]. This probably originated in reinterpretation of *g*[a]|*s*[e] Class sg as *g*[o] in cases where the SF forms regularly coincide 3.2.2 11.1. WK avoids the change to -*g*[o] with human-reference nouns. No regular deverbal instrument noun takes -*g*[o].

Some *g*[o]|*s*[e] words have also acquired *g*[o]|*d*[e] plurals by analogy, and some words originally of this type have probably passed entirely into the *g*[o]|*d*[e] Class.

kūug[a/] or *kūug*[o/]	*kūus*[e/]	*kū-*	"mouse"
*sʊ̀*ʔ*ʊg*[a] or *sʊ̀*ʔ*ʊg*[o]	*sʊ̀*ʔ*ʊs*[e]	*sʊ̀*ʔ-	"knife"
*nú*ʔ*ùg*[o]	*nú*ʔ*ùs*[e]	*nū*ʔ-	"hand"
zʊ̀nzɔ̀ŋ[a] or *zʊ̀nzɔ̀ŋ*[o]	*zʊ̀nzɔ̀ɔňs*[e]	*zʊ̀nzɔ̀ŋ-*	"blind" (adjective)
tɛ̀ŋ-zʊ̀ŋ[o]	*tɛ̀ŋ-zʊ̀ʊňs*[e]		"foreign land"
but	*pɪ̠̀àň*ʔ-*zʊ̀na*[+]		"foreign language"
*yú*ʔ*uŋ*[o]	*yū*ʔ*umɪ́s*[e]	*yū*ʔ*uŋ-*	"night"

*zùuŋg*ᵒ	*zùuŋs*ᵉ	*zùŋ-*	"vulture"
or *zùuŋd*ᵉ			

Compare Mampruli *nuuwa* pl *nuusi* "hand", *suuwa* pl *suusi* "knife", *kuuwa* pl *kuusi* "mouse", *zuuwa* pl *zuusi* "vulture" (but *yuŋŋu* pl *yunsi* "night.")

Some stems in *m* belong to this type despite not having rounded root vowels:

*yàmmʊg*ᵃ WK	*yàmmɩs*ᵉ	*yàm-*	"slave"
or *yàmmʊg*ᵒ			

Here the epenthetic vowel has been rounded by the preceding *m* and the resulting SF reinterpreted as ending in *g*ᵒ.

In some cases such words probably have an *original* sg suffix *g*ᵒ, and this may be a variant of the strategy for avoiding the *g*ᵒ|*d*ᵉ Class plural *-d*ᵉ which elsewhere leads *g*ᵒ|*d*ᵉ Class stems in *m* and *n* to be transferred to the *g*ᵒ|*a*⁺ Subclass 11.3.3.1.

*à-dàalúŋ*ᵒ	*à-dàalís*ᵉ WK	*à-dàalúŋ-*	"stork"
	*à-dàalímìs*ᵉ		
*sīʔúŋ*ᵒ	*sīʔimís*ᵉ	*sīʔuŋ-*	a kind of big dish

The word

*dìɩsúŋ*ᵒ	*dìɩsís*ᵉ	*dìɩsúŋ-*	"spoon"
	dìɩsímà⁺		

despite resembing a deverbal Instrument Noun segmentally, has Tone Pattern L instead of O, like *dìtúŋ*ᵒ "right hand" (← "feeder".)

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

*wīlɩsúŋ*ᵒ	*wīlɩmís*ᵉ	*wīlɩsúŋ-*	a kind of snail
*yālɩsúŋ*ᵒ	*yālɩmís*ᵉ	*yālɩsúŋ-*	"quail"

11.3.3 *g*ᵒ|*d*ᵉ Class

Before the sg *-g*ᵒ *-k*ᵒ *-ŋ*ᵒ stem-final vowels are rounded, changing epenthetic vowels to *ʋ* and creating rounding diphthongs from root vowels 7.3.2 5.3.

All stems in *m n* following a short vowel belong to the *g*ᵒ|*a*⁺ Subclass instead, along with all stems which include a derivational suffix 11.3.3.1.

*dàʋg*ᵒ	*dàad*ᵉ	*dà-*	"piece of wood"
*fɛ̄ň*ʔ*og*ᵒ⁄	*fɛ̄ň*ʔ*ɛd*ᵉ⁄	*fɛ̄ň*ʔ*-*	"ulcer"
*vīug*ᵒ⁄	*vīid*ᵉ⁄	*vī-*	"owl"
*vāʋňg*ᵒ⁄	*vāaňd*ᵉ⁄	*vāň-*	"leaf"
*mɔ̄ɔg*ᵒ	*mɔ̄ɔd*ᵉ	*mɔ̀-*	"grass, bush"
*dʋ̀ndùug*ᵒ	*dʋ̀ndùud*ᵉ	*dʋ̀ndù-*	"cobra"
*dàbīog*ᵒ	*dàbīəd*ᵉ	*dàbi̯à-*	"coward"
	*zùəd*ᵉ		"friendship"
*wābʋg*ᵒ⁄	*wābɪd*ᵉ⁄	*wāb-*	"elephant"
*zūəbúg*ᵒ	*zūəbíd*ᵉ	*zūəb-*	"(human head) hair"
*bālɛ̄rʋg*ᵒ⁄	*bālɛ̄rɪd*ᵉ⁄	*bālɛ́r-*	"ugly person"
	or *bālɛ̄rɪs*ᵉ⁄		
*bɛ̄sʋg*ᵒ	*bɛ̄sɪd*ᵉ	*bɛ̀s-*	kind of pot
*Dɛ̀nʋg*ᵒ			Denugu (place name)

Some stems ending in a root vowel show the allomorph *(C)V* in *g*ᵒ|*d*ᵉ pl, with *-t-* for *-d-* 7.1.1.1:

*dɔ̀ɔg*ᵒ	*dɔ̀ɔd*ᵉ or *dɔ̀t*ᵉ	*dɔ̀-*	"hut, room; clan"

So too *pɔ̄ɔg*ᵒ⁄ "farm, field", *fūug*ᵒ⁄ "clothing, shirt"; exceptionally, the sg also shows a short vowel in the following word, which probably has a true 1-mora stem:

*zūg*ᵒ⁄	*zūt*ᵉ⁄	*zū-* or *zūg-*	"head"

Historical **(C)ag-* **(C)i̯ag-* **(C)u̯ag-* stems 7.1.1.1 show singular *-k*ᵒ, and *u̯a* becomes *o* before *-k*ᵒ:

*bɔ̀k*ᵒ	*bʋ̀*ʔ*ad*ᵉ		*bu̯*ʔ*à-*	"hole, pit"
*lɔ̀k*ᵒ	*lʋ̀*ʔ*ad*ᵉ		*lu̯*ʔ*à-*	"quiver (for arrows)"
*lāu̯k*ᵒ	*lā*ʔ*ad*ᵉ		*là*ʔ*-*	"(item of) goods"
*bi̯āu̯ňk*ᵒ	*bi̯āň*ʔ*ad*ᵉ	WK	*bi̯àň*ʔ*-*	"shoulder"
	*bi̯āň*ʔ*ada*⁺	SB		

Stems in *(C)Vd* show *-t-* in the pl $\boxed{7.2.1}$ via **dd → tt*:

ùdʊg[o]	*ùt*[e]	*ùd-*	"(piece of) chaff"
gādʊg[o/]	*gāt*[e/]	*gād-*	"bed" (Hausa *gadoo*)

Stems in *(C)Vg* develop *kk* in the singular via **gg → kk*:

dūk[o/]	*dūgʊd*[e/]	*dūg-*	"cooking pot"
	dūgʊb dʊ́t[e]		"cooking pots" SB

Stems in *l* develop the cluster *nn* in the pl **ld → nn*

yɔ̄lʊg[o/]	*yɔ̄n*[ne/]	*yɔ̄l-*	"sack; £100; ¢200 [cedis]"
zɔ̄lʊg[o/]	*zɔ̄n*[ne/]	*zɔ̄l-*	"fool"
sìlʊg[o]	*sìn*[ne] or *sìlɪs*[e]	*sìl-*	"hawk"

The only *m n* stems in this Class making plurals with *-d*[e] are

làngāʊ́ŋ[o]	*làngāamá*[+]	*làngāʊŋ-*	"crab"
	or *làngáam*[me]		

and the synonymous *màngāʊ́ŋ*[o], to which may possibly be added the plural-only forms *sūn̆-pɛ́ɛ̀n*[ne] "anger" and the placename *Tɛmpáan*[ne] "Tempane" if this is truly to be analysed as "New Villages." Like *zūəbʊ́g*[o] "human head hair" above, all these stems have *CV:C* roots $\boxed{7.1.1.2}$: the stem-final consonant is not a derivational suffix.

11.3.3.1 *g*[o]|*a*[+] Subclass

All stems in *n m* following a short vowel use the plural suffix *a*[+] instead of *d*[e].

They show *-ŋ-* in the sg, via **ng → ŋŋ* and **mg → ŋŋ*, and usually use the sg segmental (but not tonal) form as cb $\boxed{11.2.2}$.

gbàu̯ŋ[o]	*gbàna*[+]	*gbàn-* or *gbàu̯ŋ-*	"letter, book"
zīnzāu̯ŋ[o/]	*zīnzāná*[+]	*zīnzáu̯ŋ-*	"bat"
àn̆rʊŋ[o]	*àn̆rɪma*[+]	*àn̆rʊŋ-*	"boat"
mālʊŋ[o]	*mālɪma*[+]	*màlʊŋ-*	"sacrifice"

The expected *y̯*-glide is absent in the sg and cb of

nìn-gbīŋ[o/]	*nìn-gbīná*[+]	*nìn-gbīŋ-*	"body"

This may represent the influence ot the alternate sg form *nìn-gbīn*[ne/]. The formal plural *nìn-gbīná*[+] is often used for singular "body."

All regular gerunds of 3-mora and 4-mora stem Variable Verbs belong to the *g*[o]|*a*[+] Subclass except for those with stems in velars and Fusion Verbs $\boxed{13.1.1.1}$, which have the singular suffix *r*[e] $\boxed{14.1.1.1}$.

gàadʋg[o]	←	*gàad*[e]	"(sur)pass"
lìəbʋg[o]	←	*lìəb*[e]	"become"
dīgɩlʋ́g[o]	←	*dīgɩl*[e/]	"lay down"
yāarʋ́g[o]	←	*yāar*[e/]	"scatter"
sīgɩsʋ́g[o]	←	*sīgɩs*[e/]	"lower"

Only stems in *-s-* and *-sɩm-* have plurals, always with *-a*[+]:

bū'əsʋ́g[o]	*bū'əsá*[+]	*bū'əs-*	"question"
zàaǎsʋ́ŋ[o]	*zàaǎsímà*[+]	*zàaǎsʋ́ŋ-*	"dream"

Gerunds of 3-mora *n*-stem verbs, uniquely, never assimilate **ng* → *ŋŋ* (just as they are also remarkable in not assimilating *-nd-* in their imperfectives, see $\boxed{13.1.1}$):

dìgɩnʋg[o]	←	*dìgɩn*[e]	"lie down"
zìň'inʋg[o]	←	*zìň'in*[e]	"sit down"

Gerunds of 3-mora *m*-stems may optionally not assimilate **mg* → *ŋŋ*:

tɔ́ɔŋ[o] or *tɔ̄ɔmʋ́g*[o]	←	*tɔ̄ɔm*[m/]	"depart, disappear"
sà'ʋŋ[o] or *sà'amʋg*[o]	←	*sà'am*[m]	"destroy"
kàrʋŋ[o] or *kàrɩmʋg*[o]	←	*kàrɩm*[m]	"read"

Gerunds of 4-mora *m*-stems always assimilate:

zàaǎsʋ́ŋ[o]	←	*zàaǎsɩm*[m]	"dream"

11.3.4 *r*^e|*a*⁺ Class

Straightforward examples include:

kūgʊr^{e/}	*kūgá*⁺	*kūg-*	"stone"
dìgɩr^e	*dìga*⁺	*dìg-*	"dwarf"
būgʊr^e	*būga*⁺	*bʊ̀g-*	"abode of a *wīn*^{ne} (spirit, god)"
bàlàŋɩr^e	*bàlàŋa*⁺	*bàlàŋ-*	"hat"
yūgʊdɩr^e	*yūgʊda*⁺	*yùgʊd-*	"hedgehog"
pṵʔà-sādɩr^{e/}	*pṵʔà-sādá*⁺	*pṵʔà-sād-*	"young woman"
nɔ́bìr^e	*nɔ̄bá*⁺	*nɔ̄b-*	"leg"
līɩbɩr^e	*līɩba*⁺	*lìɩb-*	"twin"
sɔ̄nnɩr^e	*sɔ̄nna*⁺	*sɔ̀n-*	"inner compound wall"
sāngʊ́nnìr^e	*sāngʊ́nnà*⁺	*sāngʊ́n-*	"millipede"
bìʔisɩr^e	*bìʔisa*⁺	*bìʔis-*	"woman's breast"
sūmmɩr^e	*sūmma*⁺	*sùm-*	"groundnut"
yīmmír^e	*yīmmá*⁺	*yīm-*	"solitary" (adjective)

along with all gerunds of 3-mora stem verbs in *-k*^e *-ŋ*^e and undeleted *-g*^e like:

yùugʊr^e	"delay"
nɔ̄kír^e	"taking"
nìŋɩr^e	"doing"

For the allomorphism in *(C)V:* root-stems before the plural *-a*⁺ see 7.2.2 .

Unglottalised vowel stems:

zūʊr^e	*zūya*⁺	*zʊ̀-*	"tail"
bīər^{e/}	*bḭ̄ēyá*⁺	*bḭ̄ā-*	"elder same-sex sib"
zūər^e	*zṵ̄ēya*⁺	*zṵ̀à-*	"hill"
nɔ̄ɔr^{e/}	*nɔ̄yá*⁺	*nɔ̄-*	"mouth"
yɔ̀ɔr^e	*yɔ̀ya*⁺	*yɔ̀-*	"soldier ant"

Glottalised vowel stems:

yṵ̄ʔur^{e/}	*yūdá*⁺	*yṵ̄ʔ-*	"name"
tītā̰ʔar^e	*tītāda*⁺	*tītá̰ʔ-*	"big" (adjective)
pɔ̀ňʔɔr^e	*pɔ̀ňda*⁺	*pɔ̀ň̰ʔ-*	"cripple"

*ňyɛ̄ˀɛr*ᵉ/	*ňyɛ̄dá*⁺	*ňyɛ̄ˀ-*	"next-younger sibling"
*pʋ̀-tɛ̀ňˀɛr*ᵉ	*pʋ̀-tɛ̀ňda*⁺	*pʋ̀-tɛ̀ňˀ-*	"mind"
*yū̠ˀɵr*ᵉ	*yu̠ādá*⁺	*yù̠ˀɵr-* 11.2.2	"penis"

Stems in historical **g* deleted after a short vowel which then becomes glottalised 7.1.1.1 may have forms made by analogy with these original glottalised-vowel stems:

*bà̠ˀar*ᵉ	*bà̠ˀa*⁺ or *bàda*⁺	*bà̠ˀ-*	"idol" (Farefare *bàgrɛ̀*)
*si̠à̠ˀar*ᵉ	*si̠à̠ˀa*⁺	*si̠à̠ˀ-*	"forest"
*bi̠ā̠ňˀar*ᵉ/	*bi̠ā̠ňˀá*⁺	*bi̠ā̠ňˀ-*	"wet mud, riverbed"
*mʋ̀ˀar*ᵉ	*mu̠ˀàa*⁺	*mu̠ˀà-*	"reservoir, dam"
	or *mʋ̀ˀada*⁺		
*zànkʋ̀ˀar*ᵉ	*zànku̠ˀàa*⁺	*zànku̠ˀà-*	"jackal"
	or *zànkʋ̀ˀada*⁺		

similarly *kʋ̀ndʋ̀ˀar*ᵉ "barren woman".

*ňyā̠ˀar*ᵉ	*ňyā̠ˀa*⁺	*ňyà̠ˀ-*	"root" (← **yɛ̃g-*)

Likewise

*kì-dà̠ˀar*ᵉ	*kì-dà̠ˀada*⁺ WK	"bought-in millet"

which is from *dà̠ˀ*⁺ "buy", where the *ˀ* is not derived from **g* historically.

Stems in deleted **g* after a long vowel include

*vúɵr*ᵉ	*vū̠aá*⁼	*vū̠ɵ-*	"fruit of *vúɵŋ* tree"

and all the regular gerunds of Fusion Verbs 13.1.1.1 like

*gbáňˀar*ᵉ	←	*gbā̠ňˀe*⁺/	"grab"
*díˀər*ᵉ	←	*dī̠ˀe*⁺/	"get"
*dúɵr*ᵉ	←	*dū̠e*⁺/	"rise"

Some root-stems show *(C)V* with a short vowel before the *r*ᵉ|*a*⁺ sg 7.2.2. These words regularly use the segmental form of the sg for cb.

*gbɛ̄r*ᵉ/	*gbɛ̄yá*⁺	*gbɛ̄r-*	"thigh"
*kʋ̀kɔ̄r*ᵉ/	*kʋ̀kɔ̄yá*⁺	*kʋ̀kɔ̄r-*	"voice"

Similarly *kpàkūr*^e/ "tortoise" *gāňr*^e/ "ebony fruit" *gūmpūzɛ̄r*^e/ "duck" *ňyɔ̀-vūr*^e/ "life".

2-mora stem verbs make gerunds in *-r*^e instead of *-b*^o after a noun cb:

nɔ̄-lɔ́ɔ̀r^e	"fasting" ("mouth-tying")
fū-yɛ́ɛ̀r^e	"shirt-wearing"

These set expressions show shortening of the vowel:

nā²-lɔ́r^e	"place in the compound for tying up cows"
wìd-lɔ̄r^e/	"place in the compound for tying up horses"

but this is not a productive pattern.

Stems in *m n l r* undergo consonant assimilation in the sg:

*rr → r   *lr → ll   *nr→ nn   *mr → mn; on the instability of the cluster *mn* see 4.2 .

kùkpàr^e	*kùkpàra*^+	*kùkpàr-*	"palm fruit"
ňwād-dár^e			"Venus"
tān^ne	*tāna*^+	*tàn-*	"earth"
kpān^ne	*kpāna*^+	*kpàn-*	"spear"
má²an^ne	*mā²aná*^+	*mā²an-*	"okra"
pībιn^ne	*pībιna*^+	*pìbιn-*	"covering"
dūm^ne	*dūma*^+	*dùm-*	"knee"
zɔ̄ɔm^ne	*zɔ̄ɔma*^+	*zɔ̀ɔm-*	"fugitive"
gbīgιm^ne	*gbīgιma*^+	*gbìgιm-*	"lion"
yūgúm^ne	*yūgʋmá*^+	*yūgʋm-*	"camel"
gɛ́l^le	*gɛ̄lá*^+	*gɛ̄l-*	"egg"
íιl^le	*īιlá*^+	*īιl-*	"horn"

With change in root vowel length 7.1.1.2

yùum^ne	*yùma*^+	*yùum-*	"year"

With unusual sandhi in the sg, and presumably analogical levelling

ňwān^ne SB	*ňwāna*^+ NT	*ňwàn-*	"calabash"
ňwām^me WK	*ňwāma*^+	*ňwàm-*	
	SB WK NT		

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

dāar^e	*dābá*^+	*dà-*	"day"

These two *r*e|*a*+ Class words probably have 1-mora stems:

[Mampruli *zari*]	*zā*+/	*zā-*	"millet"
*yīr*e/	*yā*+/	*yī-*	"house"

*Yīr*e/ also has the irregular locative forms sg *yín*ne pl *yáan*e 22.3 .

11.3.4.1 *l*e Subclass

Language names 37.4 all belong to a *r*e|*a*+ Subclass partly formed with the suffix -*l*e. The suffix is always -*l*e after stems ending in a root vowel:

Language		Speakers	
*Kūsáàl*e	Kusaal	*Kūsáàs*e	Kusaasi
*Bùsáàňl*e	Bisa	*Bùsáàňs*e	Bisa
*Mɔ̀ɔl*e	Mooré	*Mɔ̀ɔs*e	Mossi
*Sìmīil*e	Fulfulde	*Sìmīis*e	Fulɓe
*Zàngbɛ̀ɛl*e	Hausa	*Zàngbɛ̀ɛd*e	Hausa
*Nàsāal*e	English/French	*Nàsàa-nàm*a	Europeans

After stems ending in a consonant other than -*r*- the suffix is either -*r*e, or assimilates to the final stem consonant in a way which is indistinguishable from -*r*e:

*Nàbʋr*e	Nabit	*Nàbʋdʋb*a	Nabdema
*Dàgbān*ne/	Dagbani	*Dàgbām*ma/	Dagomba
*Bìn*ne	Moba	*Bìm*ma	Moba
*Yàan*ne	Yansi	*Yàaňs*e	Yansi
*Gūrín*ne	Farefare	*Gūrís*e	Farefare
*Tàlʋn*ne	Talni	*Tàlʋs*e	Tallensi
*Bùl*le	Buli	*Bùlʋs*e	Bulsa
*Àgɔ̀l*le	Agolle Kusaal	*Àgɔ̀l*le	Agolle area

However, stems in -*r*- show the distinctive assimilation *rl* → *tt* 7.2.1 :

*Yāt*e/	Yarsi	*Yārʋs*e/	Yarsi
*Bāt*e/	Bisa	*Bārʋs*e/	Bisa

Unexpected epenthesis 7.2.1.3.2 occurs in:

*Kàmbʋ̀nɪr*ᵉ	Twi	*Kàmbʋ̀mɪs*ᵉ	Ashanti
*Tùənɪr*ᵉ	Toende Kusaal	*Tùən*ⁿᵉ	Toende area
*Ň̄wāmpūrɪl*ᵉ/	Mampruli	*Ň̄wāmpūrɪs*ᵉ/	Mamprussi

11.3.5 *f*ᵒ|*ɩ*⁺ Class

The plural -*ɩ*⁺ causes the stem vowels *aa iə ɛɛ* to undergo "umlaut" to *ii*. Straightforward examples for the *f*ᵒ|*ɩ*⁺ Class are

*mɔ̀lɪf*ᵒ	*mɔ̀lɪ*⁺	*mɔ̀l-*	"gazelle"
*bīilíf*ᵒ	*bīilí*⁺	*bīil-*	"seed"
*ňyīríf*ᵒ	*ňyīrí*⁺	*ňyīr-*	"egusi"
*zūríf*ᵒ	*zūrí*⁺	*zūr-*	"dawadawa seed"
*būn-búʋdìf*ᵒ			"plant"

Two 1-mora stem *f*ᵒ|*ɩ*⁺ nouns are

no sg	*kī*⁺/	*kī-* or *kā-*	"cereal, millet"
cf Mampruli sg *kaafu* pl *kyi* id.			

no sg	*mùi̯*⁺	*mùi̯-*	"rice"
cf Mooré sg *mwifu* pl *mwi* id.			

Two words have stems in **Caag-* with deletion of **g* 7.3.1 and also show root vowel length allomorphy 7.1.1.2 :

*náaf*ᵒ	*nīigí*⁺	*nāʔ-*	"cow"
*wáaf*ᵒ	*wīigí*⁺	*wāʔ-*	"snake"

Stems in -*n*- show consonant assimilation in the sg **nf* → *ṽf* 7.2.1 :

*nīf*ᵒ/	*nīní*⁺	*nīn-* or *nīf-*	"eye"
*píɩňf*ᵒ	*pīɩní*⁺	*pīɩn-*	"genet"
*kíiňf*ᵒ	*kīiní*⁺		"millet seed"
*zúʋňf*ᵒ	*zūʋní*⁺		"dawadawa seed"

In the word

*míif*ᵒ	*mīiní*⁺		"okra seed"

the singular is probably remodelled after an umlauted pl: cf *máʔan*^ne "okra."

In two words stem *-d-* is lost in the sg:

wìəf^o	*wìdɩ*^+	*wìd-*	"horse"
lāʔaf^o	*līgɩdɩ*^+	*làʔ-* or *lìg-*	"cowrie" pl "money"

Some words only have *f*^o|*ɩ*^+ Class suffixes in one number. This may reflect the obsolescence of the class as a whole (which has few members and many stem irregularities), but some cases may be relics of an older, more complex class system.

zíiŋ^a	*zīmí*^+	*zīm-*	"fish"
wālɩg^a	*wālɩs*^e	*wàl-*	a kind of gazelle
	or *wālí*^+ tones *sic* WK		
sībɩg^a/	*sībí*^+	*sīb-*	a kind of termite
sīiňf^o/	*sīiňs*^e/	*sīň-*	"bee"
or *sīiňg*^a/			
sūňf^o/	*sūňyá*^+	*sūň-*	"heart"
or *sūuňr*^e/			

One such word also irregularly deletes the final stem consonant of the cb:

kpāʔʊ́ŋ^o	*kpīʔiní*^+	*kpāʔ-*	"guinea fowl"

11.3.6 *bᵒ* **Class**

In my materials there are only two *bᵒ* Class nouns which are not gerunds:

sāˀabᵒ	*sàˀ-*	"millet porridge, TZ"
tāňpᵒ	*tàňp-*	"war" 7.2.2

Written sources also have *ki'ibᵒ*, probably *kīˀɩbᵒ/* "soap", cf Toende *kí'ɩp* in Niggli's "Dictionnaire." WK has instead *kīibʋ́⁺*, most likely a Mampruli loan 20.1.

However, all regular gerund forms of 2-mora stem Variable Verbs belong here:

kūʋbᵒ/	←	*kū⁺*	"kill"
dūgʋbᵒ/	←	*dūgᵉ*	"cook"
dṵ̄ˀabᵒ	←	*dṵˀàᵃ*	"bear, beget"
kādɩbᵒ	←	*kàdᵉ*	"drive away"
pīlɩbᵒ	←	*pìlᵉ*	"cover"
kpārɩbᵒ	←	*kpàrᵉ*	"lock"
bāsɩbᵒ	←	*bàsᵉ*	"abandon, go away"

Stems in *(C)Vb* show *-p-* via **bb → pp*

sɔ̄pᵒ/	←	*sɔ̄bᵉ*	"write"
lɔ̄pᵒ/	←	*lɔ̄bᵉ*	"throw stones at"

Stems in *(C)Vm* show the consonant assimilation **mb → mm*

kīmᵐᵒ	←	*kìmᵐ*	"tend a flock/herd"
wūmᵐᵒ	←	*wòmᵐ*	"hear"

Stems in *n* do not assimilate, however (cf 3-mora *n*-stem gerunds 11.3.3.1)

būnɩbᵒ	←	*bùnᵉ*	"reap"

The verb *yīsᵉ* "make go/come out" has the expected gerund *yīsɩbᵒ/*; exceptionally the alternate form *yīisᵉ/* also makes its gerund in the *bᵒ* Class: *yīisíbᵒ*, probably the only noun in the *bᵒ* Class which does not have a 2-mora stem.

11.3.7 *m*^m Class

Countable nouns in *m*^m Class form plurals with *-a*⁺ or *-s*ᵉ, or use *nàm*ᵃ 11.4 .
Straightforward forms include:

*dāam*ᵐ/	*dā-*	"millet beer, pito"
*zīɩm*ᵐ/	*zī-*	"blood"
*kù^ʔɵm*ᵐ	*ku̯^ʔà-*	"water"
*mèlɩgɩm*ᵐ		"dew"
*kῡdɩm*ᵐ		"olden days"
*dū^ʔuním*ᵐ	*dū^ʔun-*	"urine"
*zàam*ᵐ	*zà-*	"evening"
*dàalɩm*ᵐ		"masculinity"
*pʋ̀^ʔalɩm*ᵐ		"femininity"
*bìilɩm*ᵐ		"childhood"
*yàarɩm*ᵐ	*yàar-*	"salt"
*zāaǎsím*ᵐ	*zāaǎs-*	"soup"

There is apparently consonant assimilation in the case of a few words with short stem vowels; all use the segmental form of the sg for the cb.

*vῡm*ᵐ/	*vῡm-*	"life"
*kῡm*ᵐ	*kʋ̀m-*	"death"
*zɔ̄m*ᵐ/	*zɔ̄m-*	"flour"
*yām*ᵐ/	*yām-*	"gall; gall bladder"

m^m Class stems in *-m-* can be securely identified when the cb ends in *m* after at least two stem morae, or when there is a plural form with another class suffix, or when there is a Pattern L four-mora stem toneme allocation 8.2.3 .

*bùgúm*ᵐ		*bùgúm-* or *bùgῡm-* "fire"
*pūum*ᵐ/		*pūum-* "flowers, flora"
*bìilím*ᵐ		"childhood"
*bì^ʔisím*ᵐ		"milk"
*dàalím*ᵐ	*dàalímìs*ᵉ	*dàalím-* "male sex organs"
*pʋ̀^ʔalím*ᵐ	*pʋ̀^ʔalímìs*ᵉ	*pʋ̀^ʔalím-* "female sex organs"
*pīim*ᵐ/	*pīmá*⁺	*pīm-* "arrow" 7.1.1.2

*Pīim*ᵐ/ "arrow" probably represents a remnant of an old ᵒ/ᵉ Class, preserved in e.g. the Gurma languages and Nawdm: cf Nawdm *fí:mú* "arrow", plural *fí:mí*.

11.4 *nàm*ᵃ Plurals

There is an alternative way of making plural nouns, with the word *nàm*ᵃ, used to pluralise any word which does not make a plural through the class system.

The word is not a suffix. It is construed as the NP head with the preceding noun as a pre-modifier; the modifier appears as cb if it is a count noun and as a formal sg/pl if it is a mass noun ⟨21.2.1⟩ ⟨21.7⟩. Plurals with *nàm*ᵃ are made for:

(a) a few human-reference nouns which have a sg consisting of a bare stem alone:

mà⁺	*mà nám*ᵃ	*mà-*	"mother"
	(tone *sic*, behaving as uncompounded)		
bāʔ⁺/	*bāʔ-nám*ᵃ	*bāʔ-*	"father"
zu̯à⁺	*zu̯à-nàm*ᵃ	*zu̯à-*	"friend"

(b) Nouns which use the suffix *-b*ᵃ as singular, and those where the usual plural stem differs from the sg or where the regular plural would be ambiguous ⟨11.3.1⟩.

(c) loanwords, unless they have been fitted into the Class system by analogy

*tìp*ᵃ	*tìp-nàm*ᵃ	*tìp-*	"healer"
*bùrkìn*ᵃ	*bùrkìn-nàm*ᵃ	*bùrkìn-*	"honourable person"

(d) several pronouns

ànɔ́ʔɔ̀n	"who" asking for a plural answer "what people?"
nɛ̄ʔ	non-human gender pronoun "this" in the New Testament ; but my informants use "human" pl *bàn* rather than *nɛ̄ʔ-nám*.

*dāan*ᵃ	*dàan-nàm*ᵃ	*dàan-*	"owner of ..." ⟨21.9.3⟩
*tīráàn*ᵃ	*tīráàn-nàm*ᵃ	*tīráàn-*	"neighbour, peer"

(e) quantifiers used as Noun Phrase heads, e.g.

*pīiga nám*ᵃ	"tens"

Àyí   námá‿àyí   á   nɛ̄   nāasí.
NUM:two **PL**   **NUM:**two **COP FOC** four.
"Two two's are four."

(f) plural forms with singular meaning:

*dà-pūʋdá nàm*ᵃ	"crosses"
*kūt nám*ᵃ	"nails"; sg also "iron"
*bɛ̃ʔɛd nám*ᵃ	"evils"

(g) mass nouns used with count meanings:

*bùgúm nám*ᵃ	"fires, lights"
*sā̃ʔab nám*ᵃ	"portions of millet porridge"
*dāam nám*ᵃ	"beers"

(h) forms with the Personifier particle *À-* 21.10 :

À-zī̃ʔ‿   ø *kpí*   *nàm kpîd*   *nɛ́*   *kà*   *téñbìd.*
PERS-NEG.KNOW SER die:**PFV 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.")

11.5 Plurals used as Singulars

A number of words referring to uncountables or abstracts are plural in form:

*bāñ̃ʔas*ᵉ	*bàñ̃ʔ-*	"disease"
*ñyɔ̄̃ʔɔs*ᵉ/	*ñyɔ̄̃ʔ-*	"smoke"
*tàdɪmís*ᵉ		"weakness"
*zɔ̄lɪmís*ᵉ		"foolishness"
*mɛ̄t*ᵉ/	*mɛ̄t-* 11.2.2	"pus"
*kūt*ᵉ	*kùt-* 11.2.2	"iron"
*zùθd*ᵉ		"friendship"
*sīiñd*ᵉ/		"honey"
*nīn-púʋ̀d*ᵉ		"pus"
*wāad*ᵉ/		"cold weather"
*sūñ-pɛ́ɛ̀n*ⁿᵉ		"anger"
*ku̠ʔà-nūud*ᵉ/		"thirst"
sālɪma⁺	*sàlɪm-*	"gold"
sīda⁺	*sìd-*	"truth"

Kūt^e is used not only as "iron" but also for "nail"; the original singular *kūdʋg*^o appears in the personal name *À-Kūdʋg*^o 37.2 .

So too with a number of irregularly formed abstract nouns from verbs:

gɛ̄ɛňmís^e	"madness"	← *gɛ̄ɛňm*^{m/}		"madden, go mad"
bùdɩmís^e	"confusion"	← *bùdɩm*^m		"confuse"
tìtūmɩs^e	"sending"	← *tùm*^m		"send"
zīid^{e/}	"carrying on head"	← *zī*⁺		"carry on head"
vūud^{e/}	"noise"	← *vū*⁺		"make a noise"
kɛ̄n^{ne/}	"arrival"	← *kɛ̄ň*⁺		"come"
pi̯àň'ad^e	"word, speech"	← *pi̯āň'*^a		"speak" (irr tones)

[sg *pi̯àu̯ňk*^o exists, but the pl is generally used for "speech"]

tɛ̄ň'ɛsá⁺	"thought"	cf *tɛ̄ň'ɛsá yīnní*	"one thought" (Acts 4:32)
dì'əma⁺	"festival"	← *dì'əm*^m	"play, not be serious"
tūʋma⁺	"work"	← *tùm*^m	"work"

[sg *tūʋm*^{me}   "deed"]

For *nà'asɩ*⁺ "honour", *kābɩrí*⁺, "permission to enter" and *sūgʋrʋ́*⁺ "forbearance" see 11.6 .

A single object may be referred to by the name of its parts:

	dà-pūʋdá⁺	"cross"
pl	*dà-pūʋdá nàm*^a	
cf	*dà-pūʋdír*^e	"cross-piece"

A Kusaal plural may just happen to correspond to an English mass noun:

	lāu̯k^o	"piece of goods"
pl	*lā'ad*^e	"goods"

A piece of West African history underlies

	līgɩdɩ⁺	"money"
sg	*lā'af*^o	"cowrie"

See also on the ^a|*b*^a Subclass with *-b*^a as a sg suffix 11.3.1.2 .

11.6 Nouns with Apocope Blocking

A number of nouns ending in -*ɩ*⁺ or -*ʋ*⁺ seem to display Apocope Blocking 7.4 :

būudɩ⁺	*bùud-*	"tribe"
pīinɩ⁺	*pìin-*	"gift"

along with the (apparently) deverbal abstract nouns:

nàʔasɩ⁺	"honour"	←	*nàʔas*ᵉ	"honour"
kābɩrí⁺	"entry permission"	←	*kābɩr*ᵉ/	"ask to enter"
sūgʋrʋ́⁺	"forbearance"	←	*sūgʋr*ᵉ/	"show forbearance"

This final -*ɩ*⁺ is unlikely to represent the *fᵒ|ɩ*⁺ Class plural: no singular *fᵒ|ɩ*⁺ Class word has an abstract meaning. Cognates of *būudɩ*⁺ in related languages suggest that the *dɩ* component represents the equivalent of the *gᵒ|dᵉ* Class plural: Farefare (Niggli's dictionary):

búúrí	"*race, sort,* *espèce, clan*"
bu-zã̃ŋka	"*race étrangère*"

Mooré (Zongo):

	buudu	"*famille*"
sg	*buugu*	"*modèle*"
pl	*buudu*	

Balima et al have one word *buudu* with both meanings. *Nàʔasɩ*⁺ may similarly represent a *gᵃ|sᵉ* Class pl with Apocope Blocking.

Other words in final -*ɩ*⁺ or -*ʋ*⁺ are probably loanwords from related languages where citation forms do not undergo Apocope, e.g. WK's *kīibʋ́*⁺ "soap" 20.1 . Both *kābɩrí*⁺ and *sūgʋrʋ́*⁺ are also unusual in having an apparent -*r*- derivational suffix, which is probably to be accounted for by their being loans 15.2.1.4 .

11.7 Loanwords

Some loans have been fitted into the noun class system by analogy (see on predictability of class membership 11.1) e.g.

*àrazàk*ᵃ	*àrazà^ˀas*ᵉ	*àrazà^ˀ-*	"riches"
			Hausa *ˀarzìkii*
*màli̯āk*ᵃ/	*màli̯ā^ˀas*ᵉ/	*màli̯ā^ˀ-*	"angel" DK
			Arabic 20.1

The last word is consistently written *malek* in NT, with a *nàm*ᵃ plural, but my informants have *màli̯āk*ᵃ with the usual reflex of the *i̯a/e* vowel before *k* 5.1.1

*gādʋg*ᵒ/	*gāt*ᵉ/	*gād-*	"bed" DK
			Hausa *gadoo*
*lɔ̀mbɔ̀^ˀɔg*ᵒ	*lɔ̀mbɔ̀^ˀɔd*ᵉ	*lɔ̀mbɔ̀^ˀ-*	"garden"
			Hausa *làmbuu*

*lɔ́r*ᵉ	*lɔ́yà*⁺ tones *sic*	*lɔ́r-*	"car, lorry"
	or *lɔ́ɔm*ᵐᵃ		cf *Mɔ̄r*ᵉ
			"Muslim" 11.3.1.1
*àlɔ́pìr*ᵉ	*àlɔ́pìya*⁺		"aeroplane" SB
*wādır*ᵉ/	*wādá*⁺	*wād-*	pl "customs, law"

(from English *order* via Hausa, with analogical sg cb)

Otherwise, they make *nàm*ᵃ plurals 11.4:

gādʋ⁺	*gādʋ-nám*ᵃ	*gādʋ-*	"bed" WK
kɛ̀ɛkɛ̀⁺	*kɛ̀ɛkɛ̀-nàm*ᵃ	*kɛ̀ɛkɛ̀-*	"bicycle" Hausa *kèekè*
dāká⁺	*dāká-nàm*ᵃ	*dāká-*	"box" Hausa *ˀàdakàa*
*tɛ́ɛbʋ̀l*ᵉ	*tɛ́ɛbʋ̀l-nàm*ᵃ	*tɛ́ɛbʋ̀l-*	"table"

Loanwords ending in a L or H toneme distinguish sg from cb by the fact that L Raising only follows the sg, conforming to the usual rule 10.1:

dṵ^ˀátà ná^ˀàb	"a doctor's chief"
dṵ^ˀátà-nà^ˀab	"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 nominal prefixes 8.2.5:

dūnɩya⁺   "world" (Arabic دنيا *dunya:*)
dūnɩyá-kàŋā   "this world"

Note the word

Nàsāara⁺   *Nàsàar-nàm*ᵃ   *Nàsàar-*   "white person,
                or *Nàsàa-nàm*ᵃ   *Nàsàa-*   European"

which is ultimately from the Arabic نصارى *Nasˤa:ra:* "Christians"; cf Hausa *Nàsaara*.
There is a corresponding language name, formed by analogy:

*Nàsāal*ᵉ   "English/
                                                       French language"

12 Adjective Flexion

12.1 Primary

Kusaal adjectives differ from nouns in having a marked tendency to occur with suffixes from more than one noun class. This reflects the prehistory of the language, in which the noun classes triggered agreement and adjectives took the suffix of the head noun, which preceded as a combining form (effectively, the adjective stem was infixed between the noun stem and its suffix.) Kusaal, like most of its close relations, has lost the agreement system, but adjectives commonly remain extant with suffixes from more than one class, now usually in free variation:

From *būʋg*[a] "goat"

bʋ̀-pìəlɪg[a]	*bʋ̀-pìəlɪs*[e]	*bʋ̀-pìəl-* (g^a|s^e)	"white goat"
bʋ̀-pìəl[le]	*bʋ̀-pìəla*[+]	*bʋ̀-pìəl-* (r^e|a^+)	id

WK claims a meaning difference in intensity in gradable adjectives with suffixes of different classes, consistently ranking the singular suffixes g^a r^e g^o in decreasing order, so that for example *fū-píəlìg* "white shirt" is whiter than *fū-píəl* id. However, DK specifically denied any difference of meaning.

A few traces of the agreement system remain $\boxed{21.8.1.1}$. Some speakers still require the m^m suffix for agreement with mass or abstract nouns. This is probably driven by the strong association of the m^m Class with meaning; there is similarly a notable preference for plural s^e over a^+ for human reference:

nīn-sábɪlìs[e]	"Africans"
nīn-sábɪlà[+]	accepted by informants but much less common
Zṳà-wìis[e]	"Red Zoose Clan"
	though *wìug*[o] "red" is usually r^e|a^+~ g^o|d^e type

The ^{a}\|b^a and f^o\|$ι^+$ suffixes are found only in set expressions and b^o never occurs. Most often, r^e\|a^+ Class suffixes occur along with either g^a\|s^e or g^o\|d^e but not both. Historically, this may reflect an intermediate stage in the collapse of the old agreement system where g^a\|s^e and g^o\|d^e had fallen together. Some Mampruli dialects show a four-class agreement system, human (= ^{a}\|b^a), mass (= m^m) and two others.

There are constraints on the occurrence of particular suffixes with particular stem finals, explicable by the tendency to avoid forms which would give rise to unclear or ambiguous SFs; compare Noun Flexion $\boxed{11.1}$. Just as with nouns, plural d^e is not used with *m n* stems or with stems over two morae long; in addition, neither *s*-stems nor 2-mora *m n* stems use the plural suffix s^e, and deverbal adjective stems in *g k ŋ* do not use the sg suffixes g^a g^o $\boxed{12.2}$.

Examples of adjectives with suffixes from more than one Noun Class:

zìň²a[+]	*zèň²ɛs*[e]	*zèň²-*	"red"
zèň²og[o]	*zèň²ɛd*[e]		
	zèňda[+]		

bī²a[+]	*bī²əs*[e]	*bi̯à²-*	"bad"
bɛ̄²og[o]	*bɛ̄²ɛd*[e]	*bɛ̀²-*	

bɛ̄²ɛd[e] is often used as sg, with a *nàm*[a] plural

Other primary adjectives use either *g*[a]|*s*[e] or *g*[o]|*d*[e] suffixes but not both:

wàbɪg[a]	*wàbɪs*[e]	*wàb-*	"lame"
wàbɪr[e]	*wàba*[+]		

vèňllɪg[a]	*vèňllɪs*[e]		"beautiful"
	vèňlla[+]		

vènnɪg[a]	*vènnɪs*[e]	*vèn-*	"beautiful"
vènnɪr[e] rare	*vènna*[+]		

and similarly *wɛ̄nnɪr*[e] "resembling."

sābɪlíg[a]	*sābɪlís*[e]	*sābɪl-*	"black"
sābíl[le]	*sābɪlá*[+]		

and similarly *pāalíg*[a] "new" *záal*[le] "empty" *bàaňlɪg*[a] "slim" *pìəlɪg*[a] "white"

tītā²ʋg[o] rare	*tītāda*[+]	*tītá²-*	"big"
tītā²ar[e]			

nèog[o]	*nèɛd*[e]	*nè-*	"empty"
nèɛr[e]	*nèya*[+]		

wìug[o]	*wìid*[e]	*wì-*	"red"
wìir[e]	*wìya*[+]		

wɔ̄k[o/]	*wā²ad*[e/]	*wā²-* or *wɔ̄k-*	"long, tall"
wā²ar[e/] rare	*wā²á*[+]		

| *bèdʋg*[o] | | *bèd-* | "great" |
| *bèdɪr*[e] rare | *bèda*[+] | | |

| *kūdʋg*[o] | *kūt*[e] rare | *kʋ̀d-* | "old" |
| *kūdɪr*[e] | *kūda*[+] | | |

S-stems do not use pl *s*[e]:

| *būgʋsíg*[a] | | *būgʋs-* | "soft" |
| *būgʋsír*[e] | *būgʋsá*[+] | | |

Similarly *māʔasír*[e] "cold, wet" *mālɪsír*[e] "sweet" *tēbɪsír*[e] "heavy" *lābɪsír*[e] "wide", and also

| *pɔ̀ɔdɪg*[a] | | *pɔ̀ɔd-* | "few, small" |
| *pɔ̀ɔdɪr*[e] | *pɔ̀ɔda*[+] | | |

Stems in *m n* do not use sg *r*[e], except for

| *sʋ̀ŋ*[o] | | *sʋ̀ŋ-* | "good" |
| *sʋ̀m*[me] | *sʋ̀ma*[+] | | |

As usual with adjectives, the singular may show either *g*[a] or *g*[o] but not both.

| *gīŋ*[a] | *gīma*[+] | *gìŋ-* | "short" |

dɛ̄ɛŋ[a]	*dɛ̄ɛňs*[e]		"first"
	dɛ̄ɛmɪs[e]	*dɛ̀ɛŋ-*	
	dɛ̄ɛna[+]		

As with nouns, stems in *m n*, and all 3-mora stems, use pl *-a*[+] instead of *-d*[e]. A number of adjectives with such stems can be regarded as simply belonging to the single *g*[o]|*a*[+] Subclass (compare 11.3.3.1):

dà-zɛ̄mmúg[o]	*dà-zɛ̄mmá*[+]	*dà-zɛ̄m-*	"equal piece of wood"
tūʋlúg[o]	*tūʋlá*[+]	*tūʋl-*	"hot"
lāllúg[o]	*lāllá*[+]	*lāl-*	"distant"
mìʔisʋg[o]	*mìʔisa*[+]	*mìʔis-*	"sour"
wàu̯ŋ[o]	*wàna*[+]	*wàu̯ŋ-*	"wasted, thin"
kpīʔoŋ[o]	*kpīʔəma*[+]	*kpìʔoŋ-*	"hard, strong"
zùlʋŋ[o]	*zùlɪma*[+]	*zùlʋŋ-*	"deep"

and so also *yàlʊŋ*ᵒ "wide" *ňyālʊ́ŋ*ᵒ "wonderful" *yɛ̄l-nárʊ̀ŋ*ᵒ "necessary thing", along with the probably originally 3-mora stems (via **rr → r*, **ss → s* 7.2.1):

*yī-pɔ́ňrʊ̀g*ᵒ	*yī-pɔ́ňrà*⁺		"nearby house"
*kísʊ̀g*ᵒ	*kīsá*⁺	*kīs-*	"hateful, taboo"

Other single-class adjectives are:

*pu̪āk*ᵃ	*pʊ̄ʔas*ᵉ	*pu̪ʔà-*	"female" (human)
*ňyá'aŋ*ᵃ	*ňyá'as*ᵉ	*ňyā'aŋ-*	"female" (animal)
	or *ňyā'amís*ᵉ		
*ňyɛ̀ɛsíŋ*ᵃ	*ňyɛ̀ɛnsís*ᵉ	*ňyɛ̀ɛsíŋ-*	"self-confident"
*vʊ̄r*ᵉ/	*vʊ̄yá*⁺	*vʊ̄r-*	"alive"
*dāʊg*ᵒ	*dāad*ᵉ	*dà-*	"male"
*tɔ̄ɔg*ᵒ	*tɔ̄ɔd*ᵉ	*tɔ̀-*	"bitter"

and other derivatives in *-m-*: *vèňllíŋ*ᵃ "beautiful" *mālɪsíŋ*ᵃ "pleasant" *lāllíŋ*ᵃ "distant."
    Extremely **irregular** is

*bīl*ᵃ	*bībɪs*ᵉ	*bìl-* or *bì-*	"little"

The sg flexion *-la* is found more widely in other Western Oti-Volta languages, where it seems often to have a diminutive sense: thus Farefare (Niggli) *níílá* "chick", *pì`ìlà* "lamb", *bùdíblá* "boy", *púglá* "girl", *kíílá* "young guinea fowl"; Mooré *biribla* "boy", *bipugla* "girl." The plural stem *bib-* is presumably reduplicated.

12.2 Deverbal

Imperfective Deverbal Adjectives are derived with *d*, the same formant as found in agent nouns (though the stems occasionally differ.) However the *d* in these forms may be assimilated or dropped by morphophonemic rule 15.1.1.2.1 , so that not all Imperfective Deverbal Adjectives are current *d*-stems.
    Imperfective Deverbal Adjectives take *r*ᵉ|*a*⁺ Class sg and pl. In addition, they may take another sg suffix; this is *g*ᵃ for WK, but *g*ᵒ for KT:

*kʊ̄ʊdír*ᵉ	*kʊ̄ʊdá*⁺	*kʊ̄ʊd-*	"murderous;
*kʊ̄ʊdíg*ᵃ WK			liable to be killed"
*kʊ̄ʊdʊ́g*ᵒ KT			

tŭmmɩr[e]	*tŭmma*[+] WK	*tùm-*	"working, helpful"
	tŭmna[+] KT		

Invariable verbs:

sīnnír[e] rare	*sīnná*[+]	*sīn-*	"silent"
sīnníg[a]			
dɛ̄l[le/]	*dɛ̄llá*[+]	*dɛ̄l-*	"leaning"
mɔ̄r[e/]	*mɔ̄rá*[+]	*mɔ̄r-*	"having"

Stems in *g k ŋ* do not use the sg suffixes *g*[a] *g*[o]:

būn-túlɩgìr[e]	*būn-túlɩgà*[+]		"heating thing"
ňwī-tɛ́kìr[e]	*ňwī-tɛ́kà*[+]	*ňwī-tɛ́k-*	"pulling-rope"
būn-súŋìr[e]	*būn-súŋà*[+]		"helpful thing"
bì-nɔ̀ŋɩr[e]	*bì-nɔ̀ŋa*[+]		"beloved child"

Adjectives derived from 4-mora stem verbs in *-m* in KT's speech take *g*[a] or *g*[o] sg and *-a*[+] pl; they may drop the *-m-* in the plural:

nīn-pʊ́ʔalìŋ[a]	*nīn-pʊ́ʔalìma*[+]		"harmful person"
nīn-záaňsʊ̀ŋ[o]	*nīn-záaňsà*[+]		"dreamy person"

Perfective Deverbal Adjectives are derived with **-lɩm-* and have a Result Perfective meaning. They inflect regularly as *g*[o]|*a*[+] Subclass *m*-stems. KT (not WK) also has forms without *-m-* in both sg and pl:

kpìilʊ́ŋ[o]	*kpìilímà*[+]	*kpìilʊ́ŋ-*	"dead"	WK
nīn-kpíilʊ̀g[o]	*nīn-kpíilìma*[+]		"dead person"	KT
gɛ̄ɛňlʊ́ŋ[o]	*gɛ̄ɛňlímà*[+]	*gɛ̄ɛňlʊ́ŋ-*	"tired"	WK
nīn-gɛ́ɛňlʊ̀g[o]	*nīn-gɛ́ɛňlìma*[+]		"tired person"	KT
pɛ̀ʔɛlʊ́ŋ[o]	*pɛ̀ʔɛlímà*[+]	*pɛ̀ʔɛlʊ́ŋ-*	"full"	WK KT
	dūg-pɛ́ʔɛlà[+]		"full pots"	KT

13 Verb Flexion

On the Modal Remoteness marker n^e see 24.4.2 ; for the enclitic subject pronoun ^{ya} see 24.7.3 . Both words have been taken as flexions in other accounts, and are written solid with the preceding verb despite being regarded here as clitics.

13.1 Variable Verbs

About 90% of verbs in my materials fall into the category of prototypical verbs having inflection for aspect: Variable Verbs. Almost all describe processes or events, but some Variable Verb imperfectives have become stative Verbs, effectively as separate lexical items 13.2.1 .

Like the other Western Oti-Volta languages, Kusaal shows a striking simplification of inflection for aspect in the verb compared with more distantly related Gur languages. The bare stem is used for the perfective aspects, and the imperfective aspects are made with a flexional suffix *-d*^{a}; there is only a single "conjugation", and finite forms show very few irregularities. Variable Verbs also take a suffix *-m*^{a} to mark Imperative Mood when and only when the verb word itself has tone overlay due to Independency Marking 24.6.2.2 .

The *d-* of the imperfective suffix is probably of the same origin as the derivational *-d* which forms Agent Nouns and Imperfective Deverbal Adjectives 15.1.1.1 15.1.1.2.1 . Segmentally, the imperfective and the agent noun are identical in most verbs, and the simple aspect flexion of the Western Oti-Volta languages may have arisen by adoption of an originally nominal derivative into the verb system. There is much less irregularity in the formation of verb imperfectives than in derivation, however, perhaps reflecting a good deal of levelling and analogy; there is much evidence of this as an ongoing process within Kusaal.

Examples cite perfective, imperfective and *-m*^{a} imperative in order. The *-m*^{a} imperative always shows tone overlay due to Independency Marking. 24.6.1.1 .

13.1.1 Regular

Straightforward examples of verb inflexion:

kʊ̄⁺	*kʊ̄ʊd*ᵃ/	*kʊ̀ʊm*ᵃ	"kill"
kpɛ̀ǹʔ⁺	*kpɛ̀ǹʔɛd*ᵃ	*kpɛ̀ǹʔɛm*ᵃ	"enter"
ki̯à⁺	*kìəd*ᵃ	*kìəm*ᵃ	"cut"
ku̯ā⁺	*kūəd*ᵃ/	*kùəm*ᵃ	"hoe"
gɔ̀ǹ⁺	*gɔ̀ɔňd*ᵃ	*gɔ̀ɔňm*ᵃ	"hunt"
*dūg*ᵉ	*dūgʊd*ᵃ/	*dùgʊm*ᵃ	"cook"
*yùug*ᵉ	*yùugɪd*ᵃ	*yùugɪm*ᵃ	"delay, get late"
*yādɪg*ᵉ/	*yādɪgíd*ᵃ	*yàdɪgɪm*ᵃ	"scatter"

pi̯āň̆ˀa	*pi̯āň̆ˀad*ᵃ⁄	*pi̯àň̆ˀam*ᵃ	"speak; praise"
du̯ˀàa	*dʊ̀ˀad*ᵃ	*dʊ̀ˀam*ᵃ	"bear, beget"
*nɔ̄k*ᵉ⁄	*nɔ̄kíd*ᵃ	*nɔ̀kɩm*ᵃ	"take"
*si̯àk*ᵉ	*si̯àkɩd*ᵃ	*si̯àkɩm*ᵃ	"believe, agree"
*gāŋ*ᵉ⁄	*gāŋíd*ᵃ	*gàŋɩm*ᵃ	"choose"
*kpɛ̀ˀŋ*ᵉ	*kpɛ̀ˀŋɩd*ᵃ	*kpɛ̀ˀŋɩm*ᵃ	"strengthen"
*kpàr*ᵉ	*kpàrɩd*ᵃ	*kpàrɩm*ᵃ	"lock"
*sūgʊr*ᵉ⁄	*sūgʊríd*ᵃ	*sùgʊrɩm*ᵃ	"forgive"
*bàs*ᵉ	*bàsɩd*ᵃ	*bàsɩm*ᵃ	"go/send away"
*sīgɩs*ᵉ⁄	*sīgɩsíd*ᵃ	*sìgɩsɩm*ᵃ	"lower"
*nā̄ˀmɩs*ᵉ⁄	*nā̄ˀmɩsíd*ᵃ	*nà̄ˀmɩsɩm*ᵃ	"(make) suffer"

Some root-stems in *(C)V:-* show a *(C)V* allomorph in both imperfective and imperative, with *-t-* for *-d-* and *-mm-* for *-m-*. See on root allomorphy 7.1.1.1 .

dì⁺	*dìt*ᵃ	*dìm*ᵐᵃ	"eat"
ňyɛ̄⁺	*ňyɛ̄t*ᵃ⁄	*ňyɛ̀m*ᵐᵃ	"see"

and so also *lì*⁺, *lù*⁺ "fall" *dō*⁺ "go up" *yī*⁺ "go/come out" *zɔ̀*⁺ "run, fear."
   Stems in *-d-* show *-t-* in the imperfective via **dd → tt*

*bʊ̀d*ᵉ	*bʊ̀t*ᵃ	*bʊ̀dɩm*ᵃ	"plant"
*gàad*ᵉ	*gàt*ᵃ 7.3.3	*gàadɩm*ᵃ	"pass, surpass"

Stems in *l* generate a cluster in the imperfective **ld → nn* 7.2.1 :

*vūl*ᵉ	*vūn*ⁿᵃ⁄	*vʊ̀lɩm*ᵃ	"swallow"
*màal*ᵉ	*màan*ⁿᵃ	*màalɩm*ᵃ	"make; sacrifice"
*dīgɩl*ᵉ⁄	*dīgín*ⁿᵃ	*dìgɩlɩm*ᵃ	"lay down"

Only 2-mora stems assimilate **bm → mm*

*lɛ̀b*ᵉ	*lɛ̀bɩd*ᵃ	*lɛ̀m*ᵐᵃ	"return"
*sɔ̄b*ᵉ	*sɔ̄bɩd*ᵃ⁄	*sɔ̀m*ᵐᵃ	"write"
*lìəb*ᵉ	*lìəbɩd*ᵃ	*lìəbɩm*ᵃ	"become"
*ɛ̄ɛň̆b*ᵉ⁄	*ɛ̄ɛň̆bíd*ᵃ	*ɛ̀ɛň̆bɩm*ᵃ	"lay a foundation"

Only 2-mora *n*-stems show **nd → nn*; only *kɛ̄ŋ*ᵉ⁄ (below) shows **nm → mm*.

*bùn*ᵉ	*bùn*ⁿᵃ	*bùnɩm*ᵃ	"reap"
*mɔ̄n*ᵉ	*mɔ̄n*ⁿᵃ⁄	*mɔ̀nɩm*ᵃ	"make porridge"

gɔ̀ʔɔn^e	*gɔ̀ʔɔnɪd*^a	*gɔ̀ʔɔnɪm*^a	"extend neck"
dìgɪn^e	*dìgɪnɪd*^a	*dìgɪnɪm*^a	"lie down"

Like other assume-posture verbs, *sun*^e does not assimilate at all:

sùn^e	*sùnɪd*^a	*sùnɪm*^a	"bow head" 7.2.1.3.1

4-mora *m*-stems always assimilate *md* → *mn, mm*

sìilɪm^m	*sìilɪm*^{ma}	*sìilɪm*^{ma}	"quote proverbs"
lāŋím^m	*lāŋím*^{ma}	*làŋɪm*^{ma}	"wander searching"

3-mora stems assimilate optionally 7.2.1.3.1 :

kàrɪm^m	*kàrɪm*^m	*kàrɪm*^{ma}	"read"
	or *kàrɪmɪd*^a		
tɔ̄ɔm^{m/}	*tɔ́ɔm*^{ma}	*tɔ̀ɔm*^{ma}	"depart"
	or *tɔ̄ɔmíd*^a		

2-mora stems seem to fall into two groups:

tùm^m	*tùm*^{ma}	*tùm*^{ma}	"work"
wùm^m	*wùm*^{ma}	*wùm*^{ma}	"hear"
kìm^m	*kìm*^{ma}	*kìm*^{ma}	"tend flock/herd"
dùm^m	*dùm*^{ma}	*dùm*^{ma}	"bite"
tàm^m	*tàmɪd*^a	*tàm*^{ma}	"forget"
zàm^m	*zàmɪd*^a	*zàm*^{ma}	"cheat, betray"
dàm^m	*dàmɪd*^a	*dàm*^{ma}	"shake"
lɛ̀m^m	*lɛ̀mɪd*^a	*lɛ̀m*^{ma}	"sip, taste"

but the NT has an unassimilated imperfective to avoid ambiguity 7.2.1.3.1 in:

Lin wusa ka ya tumid, tumi li ...
Lìn   wūsa ká   yà tùmɪd, tùmmī‿ ø...
DEM.NH all   and **2PL** do:**IPFV**, do:**IMP**   **2PLS** ...
"Everything you do, do it..." (Col 3:23)

13.1.1.1 Fusion Verbs

There are many 3-mora stems with deleted *g* after *aa iǝ uɵ ãã ɛ̃ɛ̃ ɔ̃ɔ̃* 7.3.1 ; these will be called Fusion Verbs.

It is characteristic of these verbs that they show the stem with *g* only in the perfective and gerund, with all other forms dropping the *g* by *morphological* rule. The perfective forms before Liaison likewise drop the *g*.

fāeň[+/]	*fāaňd*[a/]	*fàaňm*[a]	"save"
dīˀe[+/]	*dīˀǝd*[a/]	*dìˀǝm*[a]	"get, receive"
dūe[+/]	*dūɵd*[a/]	*dùɵm*[a]	"rise, raise"
pūňˀe[+/]	*pūňˀɵd*[a/]	*pùňˀɵm*[a]	"rot" WK

Gerunds: *fáaňr*[e] *díˀǝr*[e] *dúˀɵr*[e] *púňˀɵr*[e].

WK's imperfective forms for "rot" show remodelling on the analogy of forms with oral vowels. In the absence of a following deleted *g* the long nasalised vowel *ɔ̃ɔ̃* would be expected to appear unaltered: *pɔ̃ňˀɔd*[a/] 7.3.1 .

Forms before Liaison Words 9.3.1 :

pāe[+/] "reach"	+ *tɩ*[+] "us"	→	*pāá tī*[+/]
	+ *f*[o] "you"	→	*pāá f*[o]
	+ [o] "him/her"	→	*pā·ó*[+]
	+ [ya] "ye"	→	*pāe*[ya/]
pīe[+/] "wash"	+ *tɩ*[+] "us"	→	*pīǝ́ tī*[+/]
	+ *f*[o] "you"	→	*pīǝ́ f*[o]
	+ [o] "him/her"	→	*pī·ó*[+]
	+ [ya] "ye"	→	*pīe*[ya/]
dūe[+/] "raise"	+ *tɩ*[+] "us"	→	*dūɵ́ tī*[+/]
	+ *f*[o] "you"	→	*dūɵ́ f*[o]
	+ [o] "him/her"	→	*dū·ó*[+]
	+ [ya] "ye"	→	*dūe*[ya/]

13.1.1.2 Assume-Posture Verbs

A regular series of Variable Verbs are derived with the suffix *-n-* from Postural Verb roots ‎15.2.1.1‎, with the meaning "assume the posture described by the postural root."

For WK these verbs have forms which drop the formant *-n-* in the imperfective, along with any associated Tone Pattern shift to Pattern O (for the dropping of a tonal effect when a correlated segment is deleted, compare the behaviour of agent nouns from stems in *-s-* ‎8.6.1‎.)

> *dìgɪn*ᵉ   *dìgɪnɪd*ᵃ   *dìgɪnɪm*ᵃ   "lie down"
>   or *dīgɪd*ᵃ/

The resulting imperfectives are used to express negative Unbounded Imperfective aspect:

> *Ò dìgɪ nɛ̄.*   "She's lying down."
> *Ò pū dīgɪdá.*   "She doesn't lie down"
>
> *Ò zìñˀi nɛ̄.*   "She's sitting down."
> *Ò pū zíñˀidā.*   "She doesn't sit down"
>
> *Lì zìˀə nɛ̄.*   "It's standing up."
> *Lì pū zíˀɪdā.*   "It (a defective tripod) doesn't stand up."
>
> *Lì tìˀi nɛ̄.*   "It's leaning against something."
> *Lì tìˀid.*   "It can be leant against something."
> *Lì pū tīˀiyá.*   "It's not leaning against something."
> *Lì pū tīˀidá.*   "It's not for leaning against something."

Similarly with e.g.

> *vābɪ*ʸᵃ/   *vābɪd*ᵃ/   "be lying prone"

KT uses the regular forms with the *-n-* retained:

> *Ò pū zíñˀinìdā.*   "She doesn't sit down."

13.1.2 Irregular

Most irregularities involve the stem showing a derivational suffix in the perfective which is dropped in the imperfective. A preceding derivational suffix is often dropped before derivational *d*, so this may represent an older pattern which has been levelled out elsewhere. In some cases two distinct verbs may be involved, each associated by its precise meaning with particular aspects.

Kusaal has few irregular verbs; I list all that I have encountered below.

*gɔ̄s*ᵉ	*gɔ̄sɪd*ᵃ/	*gɔ̀sɪm*ᵃ	"look"
	or *gɔ̄t*ᵃ/	*gɔ̀m*ᵐᵃ	
*tìs*ᵉ	*tìsɪd*ᵃ	*tìsɪm*ᵃ	"give"
	or *tìt*ᵃ		

Before Liaison Word objects the perfective may also be *tì-*, e.g. *tì f* "give you."

*yɛ̀l*ᵉ	*yɛ̀t*ᵃ	*yɛ̀lɪm*ᵃ	"say"
*wìk*ᵉ	*wìid*ᵃ	*wìkɪm*ᵃ	"fetch water"
(see 7.1.1.3 on the root allomorphism)			
*i̯āňk*ᵉ/	*i̯āň'ad*ᵃ/	*i̯àňkɪm*ᵃ	"leap, fly"
*gīlɪg*ᵉ/	*gīn*ⁿᵃ/	*gìlɪgɪm*ᵃ	"go around"
*kɛ̄ŋ*ᵉ/	*kɛ̄n*ⁿᵃ/	*kɛ̀m*ᵐᵃ	"go"

The verb

*dɛ̀lɪm*ᵐ	[*dɛ̄l*ˡᵃ/]	*dɛ̀lɪm*ᵐᵃ

is used as inchoative to *dɛ̄l*ˡᵃ/ "be leaning (of a person);" compare *gʋ̀l*ᵉ ipfv *gʋ̀n*ⁿᵃ "suspend" beside the Postural Verb *gʋ̀l*ˡᵃ "be hanging."

Only two Variable Verbs are irregular in the actual flexional suffixes taken:

kɛ̄⁺	*kɛ̄t*ᵃ/	*kɛ̀l*ᵃ	"let, allow"

has *-l*ᵃ not *-m*ᵃ, for the Imperative form with Independency Marking.

kɛ̄ň⁺	*kɛ̄n*ᵃ/	*kɛ̀m*ᵃ	"come"

has ipfv *-n*ᵃ for *-d*ᵃ; this verb is also remarkable in always being immediately followed by *nā* "hither" 25.7 which disambiguates the forms which are homophonous with those of *kɛ̄ŋ*ᵉ/ "go" above:

Kɛ̀m nā!   "Come!"
Kɛ̀m sá!   "Go!"

The verb

nɔ̀ŋ[e]   *nɔ̀ŋɩm*[a]   "love"

is morphologically regular, but is remarkable in using its perfective form with a
stative meaning 13.2.1.

M̀ nɔ́ŋī f.   "I love you."   (Family, spiritual.)
M̀ bɔ́ɔdī f.   "I love you."   (Romantic, sexual.)

In WK's speech, the verb also aligns with imperfective forms in not being
followed by the particle *yā*[+] when it is phrase-final and has undergone tone overlay
due to Independency Marking 24.6.2.1.

M̀ nɔ́ŋ.   "I like it." WK
                                               (e.g. In reply to a question)

WK specifically stated that **M̀ nɔ́ŋ yā* was an impossible form.
    The agent noun *nɔ̀ŋɩd*[a] is tonally aberrant, with Pattern L instead of O.

 *Ò nɔ̀ŋɩd kā*ʔ*e.*   "Nobody loves him." WK
                                               ("His lover does not exist.")

13.2 Invariable Verbs

About 10% of the verbs in my materials have only a single, imperfective, finite form. These Invariable Verbs are not a single coherent group in their semantics, syntax or derivational relationships, but can almost all be construed as basically **Stative**. I have not, however, adopted this as a label for the morphological group, as dynamic uses of Invariable Verbs and stative forms of Variable Verbs both occur. The major division among Invariable verbs is between **Agentive** and **Adjectival** verbs. Nearly all Variable Verbs are also agentive; like them, agentive Invariable Verbs can be used in direct commands (though without the distinctive *-m*^{a} flexion) and can form deverbal Agent Nouns 15.1.1.1 . Whereas English verbs are classified as "dynamic" or "stative" largely on the basis of whether they are used with the progressive aspect, the Kusaal aspect most nearly equivalent to the progressive, the Bounded Imperfective, is in principle freely permitted with *agentive* Invariable Verbs, although its use is limited by pragmatic considerations with some. "Agentive", in this description, is therefore not an antonym of "stative"; compare English verbs like "love", which are stative by the criterion of not normally appearing in the Progressive, but can nevertheless be used in commands and can form "agent" nouns with *-er*. Agency in itself may produce an implicature that the state described is potentially unstable over time, and it is this which is critical in determining the usage of the imperfective aspects in Kusaal 24.2.2.2 .

Four Invariable Verbs consist of bare roots with no suffix:

mī̀ʔ$^+$	"know"
zī̀ʔ$^+$	"not know"
bɛ̀$^+$	"be somewhere/exist"
kā̀ʔe̱$^+$ (← **kagι*)	"not be"

These bare *(C)V:* forms resemble perfectives of Variable Verbs, but are nevertheless formally *imperfective*; this is apparent in the absence of the particle *yā*$^+$ when such forms appear clause-finally with tone overlay due to Independency Marking 24.6.2.1 and in the fact that the Tone Pattern O word *bɛ̀*$^+$ "be somewhere, exist" is followed by L Raising even when it is *not* subject to tone overlay 10.1 . Compare also the irregular Variable Verb perfective *nɔ̀ŋ*^{e} "love", which behaves in all respects as a stative verb form 13.1.2 .

Other Invariable Verbs can all be regarded synchronically as formed with a suffix **-ya*, at least for my informant WK; historically, Adjectival Verbs were probably formed with **-a* added to the stem rather than **-ya*, and there is a distinctive subgroup of **Postural Verbs** among the Agentives which more closely resemble Variable Verbs in their derivational relationships.

If the SF ends in vowel, *-ya* is added to form the LF; stem-final root vowels have become fronting diphthongs before the *-y-* 7.3.2 with shortening of unglottalised vowels 7.3.3 :

*sū̃ʔe*ʸᵃ/		"own"	cf *sū̃ʔʋlím*ᵐ "possession"
*tɔ̄ẹ*ʸᵃ/		"be bitter"	cf *tɔ̄ɔg*ᵒ "bitter"

Invariable Verbs thus constitute the only systematic exception to the rule that words which end in vowels in the SF have LFs which can be found by prolonging the final vowel or diphthong 3.2.2 .

If the SF ends in *l m n r s*, *-a* is added to form the LF, with gemination of *l m n*; tonal evidence shows that *r* in Invariable Verbs was also geminated, though subsequently reduced to single *r* by the general rule 7.2.1.1 .

*dɔ̄l*ˡᵃ/	"be with someone in a subordinate rôle"	
*gīm*ᵐᵃ/	"be short"	
*nɛ̄n*ⁿᵃ/	"envy"	
*mɔ̄r*ᵃ/	"have"	cf gerund *mɔ̄rím*ᵐ showing **rr*
*kīs*ᵃ/	"hate"	

After stem-final *g b*, an epenthetic vowel is inserted before *-ya*:

*dīgɩ*ʸᵃ/	"be lying down"
*vābɩ*ʸᵃ/	"be lying prone"

No case occurs of stem-final *d*; there has probably been a historical change **Vdya → VʔVya*, cf

*gɔ̄ʔe*ʸᵃ/	WK	"have neck extended"
*gɔ̄dɩg*ᵉ/		"extend neck"

13.2.1 Agentive

Many Agentive Invariable Verbs are bodily **Postural Verbs**:

*īgɩ*ʸᵃ/	"be kneeling down"
*dīgɩ*ʸᵃ/	"be lying down"
*vābɩ*ʸᵃ/	"be lying prone"
*làbɩ*ʸᵃ	"crouch hidden behind something"
*tàbɩ*ʸᵃ	"be stuck to something"
*zìʔe*ʸᵃ	"be standing still"

zìñˀi^{ya}			"be sitting down"
tīˀi^{ya/}			"be leaning"
			(of an object; hence, strictly, not "agentive")
sùr^a			"have head bowed"
dɛ̄l^{la/}			"be leaning" (of a person)
gùl^{la}			"be hanging"
gɔ̄ˀe^{ya/}	WK	← **gɔdya*	"have neck extended" (**Vdya → VˀVya*)
gɔ̄r^{a/}	DK	← **gɔrya*	
gɔ̄l^{la/}	KT	← **gɔlya*	

These Postural Verbs form an evident unity. They describe states which are temporary by default. They do not take an object, but often have a locative complement. Besides having derived Agent Nouns 15.1.1.1 like other Agentive Invariable Verbs, they also form Deverbal Adjectives 15.1.1.2.1 and Instrument Nouns 15.1.1.3 like Variable Verbs, and have gerunds which are formed like those of Variable Verbs 14.1.1.2 and can be construed as expressing events, as in the immediate-future construction with *bɔ̀ɔd*^a "want" + gerund 24.3.2 :

dīk^{a/}	gerund
dīgɩd^{a/}	agent noun
bùŋ-dīgɩdír^e	"donkey that lies down all the time"
zīñˀidɩŋ^a	"thing for sitting on"

The distinctiveness of the Postural Verbs from a derivational standpoint probably resulted from a distinct historical origin in a stative *flexional* form of certain Variable Verbs. The *-(y)a* of the Postural Verbs perhaps originated from **ɲa*; evidence for this they participate in a regular set of derivations producing Variable Verbs in *-n* meaning "assume the posture" 15.2.1.1 , where *-n-* may be derived from a historical **ɲ* (cf the allomorphy of the Liaison Enclitic subject pronoun ^{ya}, which has the underlying form **ɲa* 9.3.1.2 .) My informant WK shows an interesting pattern where such verbs drop the formant *-n-* in the imperfective, and he uses such imperfectives to express the negative Unbounded Imperfective aspect 13.1.1.2 :

Ò zìñˀi nɛ̄.	"She's sitting down." WK, KT
Ò pū zíñˀidā.	"She doesn't sit down" WK

Other speakers use the expected impfv with *-n-*:

Ò pū zíñˀinìdā.	"She doesn't sit down." KT

The commonest irregularity in Variable Verbs is for the ipfv to drop a derivational suffix before the flexion 13.1.2 ; it is likely that this is a survival of an older regular pattern. It is therefore likely that the ipfv forms with *-n-* are due to levelling, and that the older pattern of inflection for Postural Verbs showed three finite indicative forms

*dīgɩ*ʸᵃ/	"lie"	Bounded ipfv
*dīgɩd*ᵃ/		Unbounded ipfv
*dìgɩn*ᵉ		pfv

Cross-linguistically, the stative sense of Postural Verbs is very often expressed by a Result Perfective; the finite forms of Postural Verbs may thus be survivals of a distinctive Result Perfective formed by adding *-a* directly to the verb stem.

The bound "companion gerund" forms from Postural Verbs used before *-tāa*⁼ "companion in ..." 15.1.1.5 show *-d-* or *-l-*;

zìň'ilím-tāa⁼	"fellow-sitter"
zìň'idím-tāa⁼	

The *-l-* is perhaps introduced by analogy from Agentive Invariable Verbs other than the Postural group; however, for *dīgɩ*ʸᵃ/ "be lying" WK has *-n-*:

dìgɩním-tāa⁼	"fellow-lier"

Besides the Postural Verbs, other Agentive Invariable Verbs which describe states which are *temporary* by default include

*wà'e*ʸᵃ	"be en route for"
*sīn*ⁿᵃ/	"be silent"
*dɔ̄l*ˡᵃ/	"be with someone in a subordinate rôle"
*zā̌ñl*ˡᵃ/	"have in one's hands"
*gūr*ᵃ/	"be on guard"

Thus, for example:

Ò sìn.	"She's silent."
Ò sìn nɛ̄.	"She's keeping silent."
Sìn!	"Be quiet!"

Ò zàñl nɛ̄ kɔ́lʋ̀g.	"He's holding a bag."
Ò zàñl kɔ́lʋ̀g.	"He holds a bag."

Ò pū zāñllá.   "He isn't holding/doesn't hold it."
Dɔ̀llī m.   "Follow me!"

Nearly all Agentive Invariable Verbs which describe *abiding* states by default are transitive; many express relationships of some kind:

*mɔ̄r*ᵃ/   "have"
*tār*ᵃ/   "have"
*sʊ̄ʔe*ʸᵃ/   "own"
*sɔ̄ñ̆ʔe*ʸᵃ/   "be better than"
mī̆ʔ⁺   "know"
zī̆ʔ⁺   "not know"
*tɛ̀ñr*ᵃ   "remember"
*nɛ̄n*ⁿᵃ/   "envy"
*kīs*ᵃ/   "hate"

The verb *bɔ̀ɔd*ᵃ "want, like" is formally the imperfective of the Variable Verb *bɔ̀*⁺ "seek", but is used as a stative:

M̀ bɔ́ɔdī f.   "I love you." (Romantic/sexual)

Similarly, *zɔ̀*⁺ "run" is used in the imperfective with a transitive stative meaning "fear", and also as "experience emotion" with a direct object expressing the emotion and an indirect object expressing the cause of the emotion [25.1.3]. In addition, the formally perfective Variable Verb form *nɔ̀ŋ*ᵉ "love" is used as a transitive stative [13.1.2]; like other stative forms it is *not* followed by the particle *yā*⁺ when it is phrase-final and has undergone tone overlay due to Independency Marking [24.6.2.1].

bɛ̀⁺   "be somewhere/exist"

is agentive in that it can be used in direct commands, but it does not have an Agent Noun; in the sense "exist" it is also remarkable as the only intransitive Invariable Verb which expresses an abiding state apart from the Adjectival Verbs.

The "be something/somehow" verbs

*àe̯ñ̆*ʸᵃ   "be something/somehow" [7.2.2]
kā̆ʔe̯⁺ (← **kagι*)   "not be" (negative to both *àe̯ñ̆*ʸᵃ and *bɛ̀*⁺)

though agentive, resemble Adjectival Verbs in aspectual behaviour [24.2.2.2] [26.2].

Agentive Invariable Verbs other than Postural Verbs do not have regular derived Variable Verbs which can be used to shed light on their structure. However,

they make *m*[m] Class gerunds on a similar pattern to the stative gerunds of some Variable Verbs 15.1.1.4 and those with SFs ending in vowels consistently form such gerunds with *-l-*, parallel to the *-d-* of Variable Verb formations:

sū̀ʔe[ya/]	"own"	→	*sū̀ʔʊlím*[m]
bɔ̀ɔd[a]	"like, want"	→	*bɔ̀ɔdɩm*[m]

The parallel *y:l* versus *d:d* suggests that the variation between the finite form and the gerund in Agentive Invariable Verbs of this kind might not be due to the addition of a derivational suffix in the gerund but to allomorphy of the *same* original consonant. On the analogy of **ɲ*, a possible historical candidate might be palatal **ʎ*, making the suffix of these Agentive Invariable Verbs **-ʎa*.

Proto-Oti-Volta uncontroversially had the palatals **c *ɟ *ɲ*, which appear in Kusaal as *s z ňy* respectively. Evidence that there was also a palatal **ʎ* is provided by the Gurma correspondences of Western Oti-Volta *y-*, which may be either *y-* or *l-*; thus with the Moba words

yommg	"slave"	Kusaal:	*yàmmɩg*[a]
yaalim	"salt"		*yàarɩm*[m]
nlwob	"six"		*nyúèb*
nle	"two"		*nyí*
lwot	"open"		*yɔ̀ʔɔg*[e]
lwo	"close"		*yɔ̀*[+]

Compare also the ancient loanword *yūgúm*[ne] "camel", ultimately from Berber **a-ləqəm* (Souag 2016); cf Koromfe *logomde* "camel." (Many local languages have borrowed the Berber etymon via the Hausa *ràakumii*: Dagbani *laakumi*, Buli *lāākómí*. Farefare has *yúgnɛ́* (pl *yʊgma*) and Mooré has *yʊgemde*, both matching Kusaal.)

If the primary adjective formant *-l-* represents this same **ʎ*, it would explain the absence of any Adjectival Verbs like **sābɩl*[a/], because **sabɩʎa* would result instead in **sābɩ*[ya/]; Manessy records a Dagbani form *sabla* "be black", but I cannot confirm this is any Dagbani vocabularies I have been able to consult.

It is not straightforward to separate any supposed suffixal **ʎ* or **ɲ* from the stem in the case of Agentive Invariable Verbs with stems ending in *l m n*, because the geminate *mm nn ll* nearly always appear in derived forms as well as the finite forms; stems in *-r-* show similar behaviour, with derivational *-d-* often absent.

Forms with single consonants do occur with derivatives of Postural Verbs. As gerunds in *-b*[o] must have 2-mora stems, the consonant is definitely single in the gerund *gūlɩb*[o] of *gùl*[la] "be hanging." Again *dɛ̄l*[la/] "be leaning (of a person)" has the assume-posture derived Variable Verb *dèlɩm*[m] "start to lean." However, the Deverbal Adjective from *dɛ̄l*[la/], as with other Invariable Verbs with stems in *-l-*, shows variation

in gemination. The forms with single *-l-* are shown to be original by the tones, and also by the flexion: elsewhere, stem-final consonant clusters, like *k t p ŋ*, are invariably followed by epenthesis before a consonant-initial suffix, so the assimilation with the *r*[e]|*a*[+] Class sg suffix shows that the stem final is single.

	kùg-dēl[le/]	"chair for leaning on"
not	**kùg-dέl*[le]	← **kùg-dέllrì*
pl	*kùg-dēllá*[+] beside *kùg-dēlá*[+]	

Agent nouns derived from Invariable Verbs with stems in *mm nn ll r* show a consistent irregularity: alongside the expected [a]|*b*[a] Class sg LF in *-a* they have forms in *-e*, taken as *r*[e]|*a*[+] Class singular; plurals in *-a*[+] also appear. This appearance of *e* for *a* might suggest the fronting effect of an assimilated *y* or *ɲ* from the verb suffix, but *-e* also appears in agent nouns of Variable Verbs with stems ending in *mm*, such as *lὲm*[m] "taste" and in various non-derived nouns with stems ending in a short vowel followed by *m n l r*, where there is no reason to suspect an assimilated *y* or *ɲ* has ever been present. For a preferable explanation see 11.3.1.1 .

13.2.2 Adjectival

Adjectival Verbs express predicative adjectival meanings. They cannot be used in direct commands, do not form Agent Nouns, and do not have gerunds.

vūe̯[ya/]	"be alive"	*vūr*[e/]	"alive"
tɔ̄e̯[ya/]	"be bitter"	*tɔ̄ɔg*[o]	"bitter"
mā²as[a/]	"be cool"	*mā²asír*[e]	"cool"
būgʊs[a/]	"be soft"	*būgʊsír*[e]	"soft"
tɛ̄bɪs[a/]	"be heavy"	*tɛ̄bɪsír*[e]	"heavy"
mālɪs[a/]	"be sweet"	*mālɪsír*[e]	"sweet"
lābɪs[a/]	"be wide"	*lābɪsír*[e]	"wide"
mì²is[a]	"be sour"	*mì²isʊg*[o]	"sour"
vὲn[na]	"be beautiful"	*vὲnnɪg*[a]	"beautiful"
vὲňl[la]	"be beautiful"	*vὲňllɪg*[a]	"beautiful"
lāl[la/]	"be far"	*lāllúg*[o]	"far"
pɔ̀ɔd[a]	"be few"	*pɔ̀ɔdɪg*[a]	"few"
sὺm[ma]	"be good"	*sὺŋ*[o]	"good"
kpī²əm[ma/]	"be strong"	*kpī²oŋ*[o]	"strong"
yàlɪm[ma]	"be wide"	*yàlʊŋ*[o]	"wide"
zùlɪm[ma]	"be deep"	*zùlʊŋ*[o]	"deep"
tàdɪm[ma]	"be weak"	*tādɪm*[m/]	"weak person"
gīm[ma/]	"be short"	*gīŋ*[a]	"short"

With stem changes:

tōl^{la/}	"be hot"	*tūʋlúg*^o	"hot"
ňyὲɛs^a	"be self-confident"	*ňyὲɛsíŋ*^a	"self-confident"
wāʔam^{ma/}	"be long"	*wɔk*^{o/}	"long"

There are some transitive Adjectival Verbs:

zɛ̄m^{ma/}	"be equal"	*zɛ̄mmʋ́g*^o	"equal"
kīs^{a/}	"hate"	*kísʋ̀g*^o	"hateful, taboo"
kpɛ̄ɛňm^{ma/}	"be older than"	*kpɛ̄ɛňm*^m	"elder"

Two Adjectival Verbs lack corresponding adjectives:

dùr^a	"be many"
kàr^a	"be few"

While

nār^{a/}	"be necessary"

has a related adjective *nàrʋŋ*^o "necessary" (tone uncertain), the verb is probably primary; it is at least much commoner than the adjective. The verb

pɔ̀ňr^a	"be near (to)"

has an adjectival form seen in WK's *yī-pɔ́ňrà*⁺ "nearby houses" but makes the Variable/Postural Invariable Verb type gerund *pɔ̄ňrɩb*^o. I am not sure from my data whether it requires a locative complement; its antonym, the Adjective Verb *lāl*^{la/} "be distant", does not. The verb

*tūň*ʔ*e*	"be able"

occurs almost exclusively as an auxiliary verb in the Serial VP construction 28.3.1 ; it has no extant Long Form in my materials. The verb

wɛ̄n^{na/}	"resemble"

takes a prepositional phrase with either *nɛ̄* "with" or *wōʋ* "like" as a complement

25.4 ; there is an adjective *wɛ̄nnɪr*[e] "resembling" (Tone Pattern O confirmed by WK) but the gerund is Pattern H: *wɛ̄nním*[m], and the verb is probably primary.

Comparison with the corresponding adjectives shows that Adjectival Verbs previously had *nominal* rather than verbal type Tone Patterns.

Nominal Pattern H or HL adjectives correspond to Pattern H verbs:

wā̰ʾam[ma/]	"be long,tall"	*wɔ̄k*[o/]	"long, tall"
būgʋs[a/]	"be soft"	*būgʋsír*[e]	"soft"
vṵ̄ḛ[ya/]	"be alive"	*vūr*[e/]	"live"
zɛ̄m[ma/]	"be equal"	*zɛ̄mmʋ́g*[o]	"equal"
kīs[a/]	"hate"	*kísʋ̀g*[o]	"hateful, taboo"

However, nominal Pattern L and O adjectives both show the same surface SF tones in the Adjectival Verb as in the sg/pl adjective form:

L	*vɛ̀n*[na]	"be beautiful"	*vɛ̀nnɪg*[a]	"beautiful"
	zùlɪm[ma]	"be deep"	*zùlʋŋ*[o]	"deep"
	pɔ̀ɔd[a]	"be few, small"	*pɔ̀ɔdɪg*[a]	"small
O	*tɔ̄ḛ*[ya/]	"be bitter"	*tɔ̄ɔg*[o]	"bitter"
	gīm[ma/]	"be short"	*gīŋ*[a]	"short"
	kpḭ̄ʾəm[ma/]	"be strong"	*kpḭ̄ʾoŋ*[o]	"strong"
	kpɛ̄ɛ̌m[ma/]	"be older than"	*kpɛ̄ɛ̌m*[m]	"elder"

The all-M tones of the verbs corresponding to Pattern O adjectives represent an original Pattern O. SFs with all-M tonemes have been reanalysed as the verbal Pattern H, with a LF-final H toneme. They never become all-L before the Interrogative Prosodic Clitic (specifically checked with both WK and DK.)

SFs with all-L tonemes have been reanalysed as verbal Pattern O, with the all-L pattern becoming all-M in the Unrealised Mood, just as with Variable Verbs:

Ò nà vɛ̄n.   "She'll be beautiful."

The consonant gemination before the Adjectival Verb ending *-a* is not parallel to that seen in Agentive Invariable Verbs. It belongs to the stem itself in most cases:

lāl[la/]	"be far"	*lāllʋ́g*[o]	"far"
vɛ̀n[na]	"be beautiful"	*vɛ̀nnɪg*[a]	"beautiful"

Apart from the verb *tʋ̄l*[la/] "be hot", alongside *tʋ̄ʋlʋ́g*[o] "hot", where there a change of stem between the adjective and the Adjectival Verb, the only case where

Adjectival Verbs show gemination lacking in the corresponding adjectives is with
stems in *-m-*. In WK's speech this gemination is consistent, but it was not heard with
other informants, and has not been identified in written materials. Even in WK's
speech, Tone Pattern H 3-mora stem verbs have the tonemes which would be
expected *without* gemination:

*kpī́ʔəm*ᵐᵃ/	not	**kpíʔəm*ᵐᵃ	"be strong, hard"
*wā́ʔam*ᵐᵃ/	not	**wáʔam*ᵐᵃ	"be long, tall" KT

Thus, in cases where gemination is seen only in the Adjectival Verb and not the
corresponding adjective, it is probably based on the analogy of Agentive Invariable
Verbs. Comparative evidence supports this: the Dagbani cognate of *kpī́ʔəm*ᵐᵃ/ "be
hard" is *kpema*; this confirms an original single *-m-* because Dagbani preserves
original long vowels if and only if the syllable was originally closed, cf

Dagbani		Kusaal	
maani	sg	*máʔan*ⁿᵉ	"okra"
mana	pl	*mā́ʔaná*⁺	
bòlì	pfv	*bùəl*ᵉ	"call"
boona	ipfv	*bùən*ⁿᵃ	
sáná	sg	*sāan*ᵃ/	"guest"
sáámbà	pl	*sáam*ᵐᵃ	

The only Adjective Verbs with a surface *-ya* in the LF, *vūe̞*ʸᵃ/ "be alive", and
*tɔ̄e̞*ʸᵃ/ "be bitter", are instances of the "epenthetic" *-y-* discussed in 7.2.2 7.1.1.1 and
do not contain a suffix **ya*.
    The original regular formation of Adjectival Verbs was thus simply to add the
ending *-a* to the adjective stem, with no change to its nominal Tone Pattern.
The abstract nouns associated with adjectives and the corresponding Adjectival Verbs
do not have the Tone Patterns of gerunds, and are derived from the adjectives
themselves, not from the Adjectival Verbs.
    The imperfective of *Variable* Verbs throughout Western Oti-Volta may have
originated in a similar attachment of a predicative-adjective flexion **-a** to the Agent
Noun/Imperfective Deverbal Adjective stem; flexion for aspect in this subgroup is
much simpler than in other Oti-Volta languages, and this may be the result of the
adoption of a deverbal nominal into the verb system.

14 Stem Conversion

Nominals may be formed by added Noun Class suffixes to a verb stem, or by using an existing noun stem in a different class.

14.1 Nominals from Verbs

14.1.1 Gerunds

Almost all Verbs other than Adjectival Verbs can form a **gerund**, a derived abstract noun which expresses the process, event or state described by the verb.

Gerunds play little rôle in the verb system itself, in contrast to languages like Hausa where they are an integral part of the formation of many tenses or aspects. Gerunds do make an immediate future construction with *bɔ̀ɔd*[a] "want" 24.3.2 :

> *Tìɩg   lā bɔ́ɔ̀d līig.*
> Tree:**SG ART** want fall:**GER**.
> "The tree is about to fall."

> *Yu'uŋ bood gaadug, ka beog bood nier.*
> *Yú'ʔuŋ bɔ́ɔ̀d gáadùg kà bēog   bɔ́ɔ̀d níɘ̀r.*
> Night want pass:**GER** and morning want appear:**GER**.
> "The night is about to pass and tomorrow is about to appear." (Rom 13:12)

This is only possible with gerunds that can have have event/process meanings, i.e. those derived from Variable Verbs and Postural Verbs. Non-Postural Agentive Invariable Verbs have derived abstract nouns which are nevertheless also classified as gerunds in this account because their Tone Patterns are characteristic of gerund formations and because analogous formations can be made from Variable Verbs 15.1.1.4 ; abstract nouns associated with Adjectival Verbs, on the other hand, are not regarded as gerunds although they do show some syntactic resemblances to gerunds 21.7.2.1 .

Although gerunds can be expanded with arguments 21.9.2 the resulting NPs cannot be used adverbially to express attendant circumstances, nor as complements of verbs in place of Content Clauses.

The Tone Patterns of all regularly formed gerunds are predictable 8.6.1 .

14.1.1.1 From Variable Verbs

Variable 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 obscure SFs, with the usual *-g*º replaced by *-r*ᵉ after stems ending in underlying **g*. Those irregular 2-mora stem verbs which avoid the regular *b*º Class suffix similarly include a significant proportion of stems in *-b* and *-m* 14.1.1.1.1 .

2-mora stems   *-b*º   but *-r*ᵉ as final element of a compound
3-mora stems in **g*
[surface *-g*ᵉ *-k*ᵉ *-ŋ*ᵉ *-ae*⁺ *-ie*⁺ *-ue*⁺]   *-r*ᵉ
all others   *-g*º

Gerunds differ in flexion from other substantives in frequently resisting the assimilations **mg → ŋŋ *ng → ŋŋ* 7.2.1 . They rarely shorten a *(C)V:* stem before *-r*ᵉ. 4-mora stems in **-sɪm *-lɪm* follow the rule and use *-g*º:

*sìilɪm*ᵐ	"cite proverbs"	→	*sìilúŋ*º
*zàaňsɪm*ᵐ	"dream"	→	*zàaňsúŋ*º

but stems in **-gɪm* drop the *-m-* and use *-r*ᵉ:

*wàŋɪm*ᵐ	"waste away"	→	*wàŋɪr*ᵉ
*lāŋím*ᵐ	"wander"	→	*lāŋír*ᵉ
*zàkɪm*ᵐ	"itch"	→	*zàkɪr*ᵉ

For examples of regular gerunds see 11.3 under Noun Flexion.
2-mora stems regularly use *-r*ᵉ not *-b*º in compounds; see 21.7.1 .

*pu̯ˀà-dīɪr*ᵉ	"marriage"
*nīn-kʊ́ʊ̀r*ᵉ	"murder"
*dā-núʊ̀r*ᵉ	"beer-drinking"
*mɔ̀-pīl*ˡᵉ	"grass roof"
*fū-yɛ́ɛ̀r*ᵉ	"shirt-wearing" WK

14.1.1.1.1 Irregular Formations

All of these have been verified as occurring in the *bɔ̀ɔd* "want" + gerund construction above.

Irregular 2-mora stem verbs 13.1.2 may have regular gerunds:

tìs[e]	"give"	→	*tīsɩb*[o]
kɛ̄[+]	"let"	→	*kɛ̄ɛb*[o/]
gʊ̀l[e]	"suspend"	→	*gūlɩb*[o]

However, with 2-mora stems almost 20% of the regular verbs in KED use suffixes other than *b*[o]. A smaller number of these are also tonally irregular. No segmentally regular gerund in *-b*[o] shows tonal irregularity. Forms with the suffix *-g*[o] are Pattern L from Pattern O verbs unless there are variant forms with *g*[a] or *s*[e] and the formation is thus shown to belong in fact to the *g*[o]|*s*[e] Subclass 11.3.2.1.

A high proportion of these verbs have stems in *m* or *b*; the regular formation with *-b*[o] has probably been avoided because it would create ambiguous SFs 11.1. Examples:

lì[+]	"fall"	→	*līig*[a]		
zī[+]	"carry on head"	→	*zīid*[e/]		
bɛ̀ň[ʔ+]	"fall ill"	→	*bɛ̄ň*[ʔ]*ɛs*[e]		
kɛ̄ň[+]	"come"	→	*kɛ̄n*[ne/]		
zɔ̀[+]	"run"	→	*zūa*[+]	also	*zɔ̄ɔg*[o]
vū[+]	"make noise"	→	*vūug*[o/]		
pi̯āň[ʔa]	"speak"	→	*pi̯àu̯ňk*[o]	(unexpected tone)	
bʊ̀d[e]	"plant"	→	*būdɩg*[a]	also	*būdʊg*[o]
yɛ̀l[e]	"say, tell"	→	*yɛ̀lʊg*[o]		
kūl[e]	"go home"	→	*kūlɩg*[a/]	also	*kūlʊg*[o/]
tàňs[e]	"shout"	→	*tàňsʊg*[o]		
sɔ̄ňs[e]	"converse"	→	*sɔ́ňsɩg*[a]		
gɔ̄s[e]	"look"	→	*gɔ́sɩg*[a]		
sɔ̀s[e]	"pray, beg"	→	*sɔ̄sɩg*[a]		
kīr[e]	"hurry"	→	*kìkírʊ̀g*[o]	or	*kīrɩb*[o/]
sùn[e]	"bow the head"	→	*sùnɩr*[e]	or	*sùnʊg*[o]
lɛ̀b[e]	"return"	→	*lɛ̄bɩg*[a]		
tɛ̀b[e]	"carry in both hands"				
		→	*tɛ̄bɩg*[a]		
kàňb[e]	"scorch"	→	*kāňbɩr*[e]		
ɔ̀ňb[e]	"chew"	→	*ɔ̄ňbɩr*[e]		

lūb^e	"buck"	→	*lūbɪr*^{e/}
zàb^e	"fight"	→	*zàbɪr*^e
tὲñb^e	"tremble"	→	*tὲñbʊg*^o
tὺm^m	"work"	→	*tūʊma*⁺
tὺm^m	"send"	→	*tìtūmɪs*^e
tàm^m	"forget"	→	*tàmʊg*^o
zàm^m	"cheat, betray"	→	*zàmʊg*^o
dàm^m	"shake"	→	*dàmʊg*^o
lὲm^m	"sip, taste"	→	*lὲmʊg*^o
wὺm^m	"hear"	→	*wūm*^{mo} or *wὺmʊg*^o

With 3-mora and 4-mora stem verbs there are very few irregularities in gerund formation. A few have plural-as-singular forms 11.5 . The verb *yīis*^{e/} "make go/come out" has *yīisíb*^o, like the alternate form *yīs*^e with regular *yīsɪb*^{o/}.

There are a number of abstract verbal nouns in the *m*^m Class formed from 3-mora verb stems in -*s*- which resemble gerunds in tone. They may owe their *m*^m Class membership to being imperfective forms: for the dropping of the imperfective -*d*- formant compare Agent Nouns and Deverbal Adjectives 15.1.1.1 15.1.1.2.1 :

pὺˀʊs^e	"greet, thank"	→	*pὺˀʊsɪm*^m	"worship"
			or *pὺˀʊsʊg*^o	
kū⁺	"kill"	→	*nīn-kúʊsìm*^m	"murderousness"
yɔ̄lɪs^{e/}	"untie"	→	*yɔ̄lɪsím*^m	"freedom"

14.1.1.2 From Agentive Invariable Verbs

Postural Verbs mostly make gerunds in a similar way to Variable Verbs, by adding class suffixes to the stem. They also follow the same tone pattern allocation rules 8.6.1 . They are idiosyncratic with regard to the class suffix selected, however.

zìñˀi^{ya}	"be sitting"	→	*zīñˀig*^a also "place", regular *g*^a|*s*^e Class		
zìˀe^{ya}	"be standing"	→	*zīˀa*⁺ KED	*zīˀəg*^a	DK KT
			(wholly exceptional undeleted *g* 7.3.1)		
dīgɪ^{ya/}	"be lying"	→	*dīk*^{a/} KT	*dīgɪr*^{e/}	WK
īgɪ^{ya/}	"be kneeling"	→	*īk*^{a/} KT	*īgɪr*^{e/}	WK
vābɪ^{ya/}	"be lying prone"	→	*vāp*^{o/} KT	*vābɪr*^{e/}	WK
tīˀi^{ya/}	"be leaning"	→	*tīˀib*^{o/}		
	(of an object)				
gὺl^{la}	"be hanging"	→	*gūlɪb*^o		

The Adjectival Verb *pɔ̀ňr*ᵃ also makes such a gerund:

*pɔ̀ňr*ᵃ	"be near"	→	*pɔ̄ňrɪb*ᵒ

Most Agentive Invariable Verbs with stems in *ll nn r(r)* have *m*ᵐ Class gerunds, parallel to stative gerunds formed from Variable Verbs 15.1.1.4:

*sīn*ⁿᵃ/	"be silent"	→	*sīnním*ᵐ
*dɔ̄l*ˡᵃ/	"accompany"	→	*dɔ̄llím*ᵐ
*zāňl*ˡᵃ/	"hold in the hand"	→	*zāňllím*ᵐ
*dɛ̄l*ˡᵃ/	"be leaning"	→	*dɛ̄llúg*ᵒ or *dɛ̄llím*ᵐ
	(of a person)		
*gūr*ᵃ/	"guard"	→	*gūrím*ᵐ
*tɛ̀ňr*ᵃ	"remember"	→	*tɛ̄ňrɪb*ᵒ or *tɛ̄ňrím*ᵐ [tone *sic*]

14.1.2 Concrete Nouns

Verb stems with noun class suffixes which deviate from the usual allocation rules are often not abstract gerunds but have **concrete** senses, such as the product of the action, the instrument used, or the place at which the action occurs.

*ɛ̄ɛñbír*ᵉ	"(physical) foundation"	*ɛ̄ɛñbúg*ᵒ	"laying a foundation"
*dūk*ᵒ/	"cooking pot"	*dūgʋb*ᵒ/	"cooking"
dà·a⁼	"market"	*dā·ab*ᵒ	"buying"
*kūk*ᵃ	"chair"	*kūgʋb*ᵒ	"resting on something"
*zūg-kūgʋr*ᵉ	"pillow"		
*sṵāk*ᵃ/	"hiding place"	*sṵ̄·ab*ᵒ/	"hiding"
*sɔ̄bɪr*ᵉ/	"piece of writing"	*sɔ̄p*ᵒ/	"writing, orthography"
*kūt*ᵉ	"iron, nail" 11.5	*kūdʋb*ᵒ	"working iron"
*kùəsɪm*ᵐ	"merchandise"	*kùəsʋg*ᵒ	"selling"
*pɛ̀bɪsɪm*ᵐ	"wind"	*pɛ̀bɪsʋg*ᵒ	"blowing of the wind; wind"

See also on *pʋ̀·alím*ᵐ *dàalím*ᵐ 15.1.3.

The forms *vābɪr*ᵉ/ *lābɪr*ᵉ/ *dīgɪr*ᵉ/ *īgɪr*ᵉ/ used by WK as gerunds of Postural Verbs 14.1.1.2 are used by KT as concrete nouns meaning "place for lying prone" etc, contrasting for him with gerunds *vāp*ᵒ/ etc.

Three concrete deverbal nouns, from *pìbɪl*ᵉ "cover", *zàňbɪl*ᵉ "tattoo", *màal*ᵉ "sacrifice" show single *-n-* in place of *-l-:*.

*pībɪn*ⁿᵉ	*pībɪna*⁺	*pìbɪn-*	"covering"
or *pībɪl*ˡᵉ			

zāňbɪn[ne]   zāňbɪna[+]   zàňbɪn-   "tattoo" (NT "sign")
  or zāňbɪl[le]

māan[ne]   māana[+]   màan-   "sacrifice"

It is exceptional for regularly formed gerunds to acquire concrete meaning, but a clearcut example is

dīɪb[o]   "food"

Gerund forms may however be abstract count nouns, with the meaning of particular instances of the activity of the verb. They may then have plurals:

zɔ̄ɔg[o]   zɔ̄ɔs[e]   "race"
bū'ʉsʋ́g[o]   bū'ʉsá[+]   bū'ʉs-   "question"
zààňsʋ́ŋ[o]   zààňsímà[+]   zààňsʋ́ŋ-   "dream"

The word may be formally plural but construed as singular $\boxed{11.5}$

                          dì'əma[+]   "festival"
                          pi̯àň'ad[e]   "word, language"
                          tɛ̄ň'ɛsá[+]   "thought"

Thus *tɛ̄ň'ɛsá yīnní* "one thought" (Acts 4:32).

14.2 Nominals from Nominals

The partial association of Noun Class and meaning $\boxed{11.1.1}$ can be exploited to change the meaning of a stem.

Examples are the regular relationship between names of ethnic groups, which belong to the $^a|b^a$ or $g^a|s^e$ Classes, their languages, which belong to the -l^e Subclass of $r^e|a^+$ $\boxed{11.3.4.1}$ and the associated place, which has the suffix -g^o:

Kūsáa= sg		*Kūsáàs*ᵉ pl	Kusaasi person
*Kūsáàl*ᵉ			Kusaal language
*Kūsáùg*ᵒ			Kusaasi territory

See many examples in $\boxed{37.4}$.

A futher example of sg -g^o deriving associated place names is:

*wὲɛd*ᵃ or *wìɩd*ᵃ	"hunter"
*wὲog*ᵒ	"deep bush"

The suffix -d^e is found with some names of liquids which are not m^m Class $\boxed{11.5}$; hence also

*sīiñf*ᵒ/	"bee"	*sīiñd*ᵉ/	"honey"

Names of trees are almost all $g^a|s^e$ Class, while their fruits belong to either the $r^e|a^+$ or the $g^o|d^e$ Class $\boxed{37.5}$.

The strong association of the m^m Class with abstracts may lead to conversion of adjective stems to abstract nouns when used with -m^m or, less commonly, the sg suffix -g^o. When there is an associated Adjectival Verb, these abstracts bear a somewhat analogous relationship to the verb as gerunds do to Variable and Postural Invariable Verbs, and can, for example, be preceded by Combining Forms in senses resembling generic arguments before gerunds $\boxed{21.7.1}$ $\boxed{21.7.2.1}$. However, such abstract nouns cannot be used in the immediate future construction with *bɔ̀ɔd*ᵃ "want" $\boxed{14.1.1}$, and unlike the "stative gerunds" derived from Agentive Invariable Verbs $\boxed{15.1.1.4}$, which show the expected Tone Patterns for gerunds, they show the **same tone pattern as the adjective**.

Examples of Adjectival Verbs with corresponding abstract nouns:

*vūe̯*ʸᵃ/	"be alive"	*vūm*ᵐ/	"life"
*sὺm*ᵐᵃ	"be good"	*sὺm*ᵐ	"goodness"
*pɔ̀ɔd*ᵃ	"be few"	*pɔ̀ɔdɩm*ᵐ	"scarcity"

vèn^{na}	"be beautiful"	*vènnɪm*^m	"beauty"
vèň^{la}	"be beautiful"	*vèňllɪm*^m	"beauty"
būgʊs^{a/}	"be soft"	*būgʊsím*^m	"softness"
tɛ̄bɪs^{a/}	"be heavy"	*tɛ̄bɪsím*^m	"weight"
māʔas^{a/}	"be cool, wet"	*māʔasím*^m	"coolness, damp"
mālɪs^{a/}	"be sweet"	*mālɪsím*^m	"sweetness"
lābɪs^{a/}	"be wide"	*lābɪsím*^m	"width"
ňyɛ̀ɛs^a	"be confident"	*ňyɛ̀ɛsɪm*^m	"self-confidence"
lāl^{la/}	"be far"	*lāllúg*^o	"distance"
kpīʔəm^{ma/}	"be strong, hard"	*kpīʔoŋ*^o	"hardness, strength"
yàlɪm^{ma}	"be wide"	*yàlʊŋ*^o	"width"
mìʔis^a	"be sour"	*mìʔisʊg*^o	"sourness"
tɔ̄e̯^{ya/}	"be bitter"	*tɔ̄ɔg*^o	"bitterness"
zùlɪm^{ma}	"be deep"	*zùlʊŋ*^o	"depth"
tūl^{la/}	"be hot"	*tūʊlúg*^o or *tūllím*^m	"heat"

Such abstract nouns are also derived from adjectives without corresponding Adjectival Verbs. They are often used adverbially. Examples include

pìəlɪg^a	"white"	→	*pìəlɪm*^m	"brightness"
tītāʔar^e	"big"	→	*tītāʔam*^m	"multitude"
pāalíg^a	"new"	→	*pāalím*^m	"recently"
bāaňlíg^a	"quiet"	→	*bāaňlím*^m	"quietly"
záal^{le}	"empty"	→	*zāalím*^m	"emptily"
kūdʊg^o	"old"	→	*kūdɪm*^m	"old times"
nɛ̀ɛr^e	"empty"	→	*nɛ̀ɛm*^m	"for free"
zɛ̄mmúg^o	"equal"	→	*zɛ̄mmúg*^o	"equality"

Nouns referring to people may also have derived abstract nouns. Those which reuse the same stem may use sg or pl *g*^o|*d*^e Class suffixes for the abstract:

sāan^{a/}	"guest"	→	*sāúŋ*^o	"hospitality"
kpɛ̄ɛňm^m	"elder"	→	*kpɛ̄oňŋ*^o	"eldership"
sɔ̄e̯ň^{ya}	"witch"	→	*sɔ̄ɔňg*^o	"witchcraft"
zu̯à⁺	"friend"	→	*zùəd*^e	"friendship"
gbáňyàʔa⁼	"lazy person"	→	*gbáňyàʔam*^m	"laziness"
dàmàʔa⁼	"liar"	→	*dàmàʔam*^m	"lying"

Human-reference nouns may also form abstract derivatives in the *m*^m Class using the derivational suffix -*l* 15.1.3.

15 Derivational Suffixes

The statement of underlying full word structure made in $\boxed{7}$ implies that roots are only of the shapes *(C)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 *(C)VC~(C)V:C* 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.

There are only six derivational suffixes: *-g -s -n -l -d -m*. A suffix *-r* occurs only in a few words, which are probably loans.

-g -s -n never follow another derivational suffix. *-g* and *-s* cause a preceding *(C)V:C* to become *(C)VC*, and a preceding oral ɔɔ to become glottalised.

-l is found as a formant of abstract nouns from nominal stems, but elsewhere does not follow another suffix.

-d is very productive in the formation of deverbal nominals; it often deletes a preceding suffix or is itself deleted. It does not derive verb stems.

No stem has more than two derivational suffixes, or more than four morae apart from prefixes. All four-mora verb stems have *-m* as the second suffix.

The rules for consonant assimilation differ slightly from the rules operative in flexion, probably because they are less subject to analogical remodelling $\boxed{7.2.1.2}$.

For Tone Patterns in derivation see $\boxed{8.6}$.

15.1 Nominals

15.1.1 From Verbs

The deverbal 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 nominal derivation 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 nominals are predictable $\boxed{8.6.1}$.

15.1.1.1 Agent Nouns

Agent nouns can be freely made from almost any verb whose semantics permit it. Informants readily supply isolated forms on demand, but in conversation and texts alike agent nouns usually occur as the second element of compounds. All belong to the *a|b*[a] Class (though Agent nouns derived from Variable Verbs with stems in *-m* and from Invariable Verbs with stems in *ll r(r)* may also have *r*[e]*|a*[+] Class forms 11.3.1.1 .) Despite the regularity of formation, it is not unusual for agent nouns to have specialised meanings, as will be seen in some of the examples. The name "Agent Noun" is not altogether felicitous, as the form is often made from verbs whose subject is not an "agent", including many transitive stative Verbs; it is more nearly analogous to English deverbal derivatives in *-er*. Whether the form is available for stative Verbs correlates closely with whether the verb can be used in direct commands 13.2 , and both cases probably represent a dynamic *use* of the verb in question.

The formant of Agent Nouns is the derivational suffix *-d*, found also in Imperfective Deverbal Adjectives and probably historically identical to the *d-* of the imperfective flexion *-d*[a]. There are, however, many differences in detail, with derivational *-d* showing much more variety in its mode of attachment, and some differences in this regard among the different types of derived word.

These differences arise from a tendency in derivation to limit stem length, which may result in either the *-d* itself or the suffix preceding it being deleted. The absence or presence of the suffix affects the Tone Pattern of the stem in forms derived from verbs of Pattern O, with words having *-d* being Pattern O and those without it being L 8.6.1 . Agent Nouns show more "regularisation" in this regard than Imperfective Deverbal Adjectives do.

Most **Variable Verbs** have an agent noun with a singular form segmentally identical with the verb imperfective. For tones see 8.6.1 . If there are alternate forms, the less "regular" form appears as the agent noun.

kṵ[+]	"kill"	→	*kṵʊd*[a/]	"killer"	
mὲ[+]	"build"	→	*mɛ̄ɛd*[a]	"builder"	
dì[+]	"eat"	→	*dīt*[a]	"eater"	
gɔ̄s[e]	"look"	→	*gɔ̄t*[a/]	"seer, prophet"	
dūg[e]	"cook"	→	*dūgʊd*[a/]	"cook"	
dṵʔà[a]	"bear, beget"	→	*dʊ̄ʔad*[a]	"elder relation"	
kàd[e]	"drive away"	→	*saríyà-kāt*[a]	"judge"	25.1.3
sɔ̄b[e]	"write"	→	*sɔ̄bɩd*[a/]	"writer"	
bùn[e]	"reap"	→	*būn*[na]	"reaper"	
tùm[m]	"work"	→	*tùm-tūm*[na]	"worker"	
kìm[m]	"tend flock"	→	*kɔ̀ňb-kīm*[na]	"herdsman, shepherd"	

kpàr[e]	"lock"	→	*kpārɩd*[a]	"lock-er"	
gbīs[e]	"sleep"	→	*gbīsɩd*[a/]	"sleeper"	
si̯àk[e]	"believe"	→	*si̯ākɩd*[a]	"believer"	
i̯āňk[e/]	"jump, fly"	→	*i̯āňˀad*[a/]	"flier"	13.1.2
sʋ̀ŋ[e]	"help"	→	*sʋ̄ŋɩd*[a]	"helper"	
bàŋ[e]	"understand"	→	*bāŋɩd*[a]	"wise man"	
kɛ̄ŋ[e/]	"go"	→	*kɛ̄n*[na/]	"traveller"	13.1.2
gàad[e]	"pass"	→	*tʋ̀ən-gāt*[a]	"leader"	
mɔ̄ɔl[e/]	"proclaim"	→	*mɔ̄ɔl-mɔ́ɔ̀n*[na]	"proclaimer"	
màal[e]	"sacrifice"	→	*màal-māan*[na]	"sacrificer"	
pà̰ˀal[e]	"teach"	→	*pā̰ˀan*[na]	"teacher"	
sūgʋr[e/]	"forbear"	→	*sūgʋríd*[a]	"forgiver"	
yūum[m/]	"sing"	→	*yūum-yúùm*[na]	"singer"	
			pl *yūum-yúùmnɩb*[a]		
sà̰ˀam[m]	"spoil"	→	*pṵˀà-sā̰ˀam*[na]	"adulterer"	
			pl *pṵˀà-sā̰ˀamɩdɩb*[a]		

Pattern H Fusion Verbs 13.1.1.1, which delete the H toneme of the stem in the imperfective, show the same form for the agent noun:

nāe[+/]	"finish"	→	*nāad*[a/]	"someone who doesn't give up easily" WK	
dḭ̄ˀe[+/]	"receive"	→	*dḭ̄ˀəd*[a]	"receiver"	
ňwà̰ˀe[+]	"cut wood"	→	*ňwā̰ˀad*[a]	"woodcutter"	
gbāň̰ˀe[+/]	"catch"	→	*zīm-gbáň̰ˀàd*[a]	"fisherman"	
pīe[+/]	"wash"	→	*pīəd*[a/]	"washer"	
fāeň[+/]	"save"	→	*fāaňd*[a/]	"saviour" WK	

The NT has *faangid* for "saviour"; see 20.
3-mora stems in -*s* consistently drop the -*d* in the sg and cb:

sīgɩs[e/]	"lower"	→	*sīgɩs*[a/]	"lowerer"	
			pl *sīgɩsídìb*[a]		
kʋ̀əs[e]	"sell"	→	*kʋ̀əs*[a]	"seller"	
			pl *kūəsɩdɩb*[a]		
pʋ̀ˀʋs[e]	"worship"	→	*pʋ̀ˀʋs*[a]	"worshipper"	
			pl *pṵ̄ˀʋsɩdɩb*[a]		
tʋ̀ˀas[e]	"talk"	→	*tʋ̀ˀas-tʋ̀ˀas*[a]	"talker"	
			pl *tʋ̀ˀas-tṵ̄ˀasɩdɩb*[a]		

dīˀəs[e/]	"transmit"	→	*nɔ̄-díˀə̀s*[a]	"chief's spokesman"
			pl *nɔ̄-díˀə̀sìdɪb*[a]	

Nɔ̄-díˀə̀s[a] represents the Ghanaian English "linguist." A chief does not directly address his people on formal occasions; the "linguist" speaks on his behalf. The custom is by no means confined to the region of the old Mossi-Dagomba states, where the chiefs were originally foreign invaders who may once have actually needed interpreters 1.1 , but is a well-known feature of Akan culture. In Ghana, "linguist" typically refers to an Akan chief's spokesman or herald, the *okyeame*. The NT uses *Wínà̀ˀam nɔ́-díˀə̀s*[a] "God's linguist" for "prophet."

Some 2-mora stems also irregularly drop the *-d* in the sg and cb:

zàb[e]	"fight"	→	*zàb-zàb*[a]	"warrior"
			gbān-záb[a]	"leather-beater, leather-worker"
tìs[e]	"give"	→	*tìs*[a]	"giver"
sɔ̀s[e]	"beg"	→	*sɔ̀s*[a]	"beggar"

All stems in *-m-* and *-n-* form agent nouns in *-mn-* *-nn-* respectively, including the types which have imperfectives in *-mɪd*[a] and *-nɪd*[a] 7.2.1.3.1 13.1.1 :

dàm[m]	"shake"	→	*dàm-dām*[na]	
			dàm-dām[ne]	"shaker" Contrast ipfv *dàmɪd*[a]
sùn[e]	"bow head"	→	*sūn*[na]	"someone who goes about with head bowed"
			pl *sūnnɪb*[a]	
			cb *sùn-*	"deep thinker, close observer" WK Contrast ipfv *sùnɪd*[a].

Agent nouns in *-mm-* or *-mn-* may use *r*[e]|*a*[+] Class suffixes instead of [a]|*b*[a] 11.3.1.1 .

It does not seem possible to form agent nouns from 3-mora verb stems in *-*g-* unless the consonant is either deleted or has united with the root final consonant as *-k-* or *-ŋ-*. All exceptions I have discovered show forms with irregularly deleted *-g-*:

yādɪg[e/]	"scatter"	→	*yāt*[a/]	technical term for a particular participant in a housebuilding ritual

Various irregular formations in my materials include:

*tɛ̄k*ᵉ/	"pull"	→	*ňwī-tɛ́k*ᵃ	"rope-puller"
			pl *ňwī-tɛ́kìdɩb*ᵃ	
*nɔ̀ŋ*ᵉ	"love"	→	*nɔ̀ŋɩd*ᵃ	"lover" Tones aberrant
*tì*ʔ*əb*ᵉ	"heal"	→	*tī*ʔ*əb*ᵃ	"healer"

Tones aberrant; the noun is probably primary, and is a loanword (cf Hausa *ɗibbù* "magic, sorcery"; ultimately from Arabic طب *t*ˤ*ibb(un)* "art of medicine")

For 4-mora stems: KT has no agent nouns; WK drops final *-m-* and proceeds as for 3-mora stems:

*sìilɩm*ᵐ	"cite proverbs"	→	*sīin*ⁿᵃ	"speaker of proverbs"
			pl *sīinnɩb*ᵃ	
*pʋ̀*ʔ*alɩm*ᵐ	"harm"	→	*pʋ̄*ʔ*an*ⁿᵃ	"harmer"
*zàaňsɩm*ᵐ	"dream"	→	*zàaňs*ᵃ	"dreamer"
			pl *zāaňsɩdɩb*ᵃ	

Invariable Verbs with stems ending in vowels or in the plosives *g b* add *-d-* to form the agent noun stem:

*zìň*ʔ*i*ʸᵃ	"be sitting down"	→	*zīň*ʔ*id*ᵃ	"sitter"
*zì*ʔ*e*ʸᵃ	"be standing still"	→	*zī*ʔ*əd*ᵃ	"stander"
*mī*ʔ⁺	"know"	→	*mī*ʔ*id*ᵃ/	"knower"
			*gbàn-mī*ʔ*id*ᵃ/	"scribe" NT ("book-knower")
*zī*ʔ⁺	"not know"	→	*zī*ʔ*ɩd*ᵃ/	"ignorant person"
*sʋ̄*ʔ*e*ʸᵃ/	"own"	→	*sʋ̄*ʔ*ʋd*ᵃ/	"owner"
*sɔ̄ň*ʔ*e*ʸᵃ/	"be better than"	→	*sɔ̄ň*ʔ*ɔd*ᵃ/ pl *sɔ̄ň*ʔ*ɔb*ᵃ/ 11.3.1	
*dīgɩ*ʸᵃ/	"be lying down"	→	*dīgɩd*ᵃ/	"lier-down"
*īgɩ*ʸᵃ/	"be kneeling"	→	*īgɩd*ᵃ/	"kneeler"
*vābɩ*ʸᵃ/	"be lying prone"	→	*vābɩd*ᵃ/	"lier prone"
*làbɩ*ʸᵃ	"be crouching"	→	*lābɩd*ᵃ	"croucher in hiding"

Those with stems in the continuants *n l r* use the same stem as the finite verb, with gemination as in the verb:

sīn[na/]	"be silent"	→	*nīn-sín*[na]	"silent person"	
nɛ̄n[na/]	"envy"	→	*nīn-nɛ́n*[na]	"envious person"	
dɔ̄l[la/]	"be with"	→	*ňyà'an-dɔ̀l*[la]	"disciple" irr tones	
			or *ňyà'an-dɔ̀l*[le]		
zāňl[la/]	"be holding"	→	*nɔ̄-záňl*[la]	"holder of hens"	
			or *nɔ̄-záňl*[le]		
			(*zāňl*[le/] pl *zāňllá*[+] cb *zāňl* "holder" WK)		
dɛ̄l[la/]	"be leaning"	→	*nīn-dɛ́l*[la]	"person prone to lean"	
mɔ̄r[a/]	"have"	→	*bʊ̀-mɔ̄r*[a/]	"owner of goats"	
			or *bʊ̀-mɔ̄r*[e/]		
tār[a/]	"have"	→	*bʊ̀-tār*[a/]	"owner of goats"	
			or *bʊ̀-tār*[e/]		

Agent nouns from stems in *l r* may use *r*[e]|*a*[+] Class suffixes, thus falling together with the forms of the Imperfective Deverbal Adjectives 11.3.1.1 .

There are variant formations with

kīs[a/]	"hate"	→	*kīs*[a/] or *kīsɪd*[a/]	"hater"
tɛ̀ňr[a]	"remember"	→	*tɛ̄ňrɪd*[a]	"rememberer"
gūr[a/]	"be on guard"	→	*gūrɪd*[a/]	"guard"
			gū'ud[a/]	"guard"
			zà'-nɔ̄-gúr[a]	"gatekeeper"

15.1.1.2 Deverbal Adjectives

15.1.1.2.1 Imperfective

In principle these adjectives have the same stem as the Agent Noun but with different class suffixes; however, Imperfective Deverbal Adjectives drop the *-d* formant more readily, probably because they are not made as freely as Agent Nouns and are correspondingly farther along the axis from flexional to derivational.

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 pre-modifier.

When used without a preceding noun cb, Imperfective Deverbal Adjective forms have the meaning of Agent Nouns:

    kʊ̄ʊdír[e] pl *kʊ̄ʊdá*[+]   "killer" = *kʊ̄ʊd*[a/] pl *kʊ̄ʊdíb*[a]

With a preceding cb the meanings differ:

    pʊ̰'à-kʊ̄ʊd[a/]   "woman-killer, killer of women"
    pʊ̰'à-kʊ̄ʊdír[e]   "woman killer, murderous woman"

It is thus not possible to elicit Deverbal Adjectives in isolation, but only in combination with a preceding modified noun combining form.

With **Variable Verbs**:

2-mora stems all retain the *d*.

gɔ̀ň⁺	"hunt"	→	*pṵʔà-gɔ̄ɔňdɪr*ᵉ	"prostitute" ("wandering woman")
*là*ʔ⁺	"laugh"	→	*pṵʔà-lāʔadɪr*ᵉ	"woman prone to laughter/ woman to be laughed at"
ňyɛ̄⁺	"see"	→	*bōn-ňyɛ́tìr*ᵉ	"visible object"
kṵā⁺	"hoe"	→	*nāʔ-dá-kūɵdír*ᵉ	"ox for ploughing"
yɛ̀⁺	"don clothes"			
		→	*fū-yɛ́ɛdìr*ᵉ	"shirt for wearing" WK
			*fū-yɛ́ɛdùg*ᵒ	KT
kū̄⁺	"kill"	→	*tì-kūʋdím*ᵐ	"poison" ("killing medicine")
*dṵ*ʔà*ᵃ	"bear/beget"	→	*tɛ̀ŋ-dū̄ʔadɪg*ᵃ	"native land"
*dūg*ᵉ	"cook"	→	*sūm-dúgʋdà*⁺	"cooked groundnuts" WK
*sīg*ᵉ	"descend"	→	*yī-sígɪdìr*ᵉ	"lodging-house"
*sṵʔā*ᵃ	"hide"	→	*yɛ̄l-sʊ́ʔadìr*ᵉ	"confidential matter"
*ɔ̀ňb*ᵉ	"chew"	→	*bōn-ɔ́ňbɪdà*⁺	"solid food"
*bùn*ᵉ	"reap"	→	*bōn-búnnìr*ᵉ	"thing for reaping"
*tòm*ᵐ	"work"	→	*bōn-túmmìr*ᵉ	"useful thing"
*vūl*ᵉ	"swallow"	→	*tì-vūnním*ᵐ	"oral medication"
*gbīs*ᵉ	"sleep"	→	*pṵʔà-gbīsɪdír*ᵉ	"woman who is always sleeping"

3-mora stems in **g* drop -*d* in all cases except where the **g* derivational suffix is deleted in the imperfective, whether by regular rule 7.3.1 or otherwise 13.1.2. The dropping of -*d* is thus much more consistent than in agent nouns.

*gīlɪg*ᵉ/	"go around"	→	*pṵʔà-gīnníg*ᵃ	"prostitute"
sūeň⁺/	"anoint"	→	*kpā-sɔ́ɔňdìm*ᵐ	"anointing oil"
*tūlɪg*ᵉ/	"heat up"	→	*bōn-túlɪgìr*ᵉ	"heater, thing for heating"
*pɛ̀lɪg*ᵉ	"whiten"	→	*bōn-pɛ́lɪgìr*ᵉ	"whitening thing, whitener"
*yādɪg*ᵉ/	"scatter"	→	*bōn-yátìr*ᵉ	"thing for scattering" cf agent noun *yāt*ᵃ/ (above)
*i̯āňk*ᵉ/	"fly, jump"	→	*bōn-i̯áňʔadìr*ᵉ	"flying creature"
*pàk*ᵉ	"surprise"	→	*yɛ̄l-pákìr*ᵉ	"disaster"
*tɛ̄k*ᵉ/	"pull"	→	*ňwī-tɛ́kìr*ᵉ	"rope for pulling with"
*kɛ̄ŋ*ᵉ/	"go"	→	*bùŋ-kɛ̄nnír*ᵉ	"donkey that doesn't sit still"

sʊ̀ŋ[e]	"help"	→	*bū̄n-súŋɩ̀r*[e]	"helpful thing"
nɔ̀ŋ[e]	"love"	→	*bì-nɔ̀ŋɩr*[e]	"beloved child"

3-mora stems in -*m* retain the -*d*, forming the consonant cluster -*mm*-:

sà'am[m]	"destroy"	→	*bʊ̀-sā̄'ammɩr*[e]	"goat for destruction, scapegoat" WK

3-mora stems in -*s*- all drop *d:

pɛ̀lɩs[e]	"sharpen"	→	*bū̄n-pɛ́lɩsìr*[e]	"sharpening thing"
kùɵs[e]	"sell"	→	*bū̄n-kúɵsìr*[e]	"item for sale"

4-mora stems (all examples KT) all drop *d (whereas agent nouns drop stem-final *m):

sìilɩm[m]	"cite proverbs"			
		→	*bū̄n-síilúŋ*[o]	"thing relating to proverbs"
pʊ̀'alɩm[m]	"harm"	→	*nīn-pʊ́'alìŋ*[a]	"harmful person"
			pṳ'à-pʊ̀'alíŋ[a]	"harmful woman"
zàaňsɩm[m]	"dream"	→	*nīn-záaňsʊ̀ŋ*[o]	"dreamy person"
			pṳ'à-zàaňsúŋ[o]	"dreamy woman"

  The adjectives associated with Adjectival Verbs are not deverbal; Imperfective Deverbal Adjectives from **Agentive Invariable Verbs** show the same stem as the Agent Noun 15.1.1.1 (but see the discussion of *kʊ̀g-dɛ̄llá*[+] in 13.2.1):

dīgɩ[ya/]	"be lying"	→	*bʊ̀ŋ-dīgɩdír*[e]	"donkey that lies down all the time"
vābɩ[ya/]	"be prone"	→	*bʊ̀ŋ-vābɩdír*[e]	"donkey that always lies prone"
zìň'i[ya]	"be sitting"	→	*kūg-zíň'idìr*[e]	"stone for sitting on" (i.e. not a *bū̄gʊr*[e] WK)
zāňl[la/]	"be holding"	→	*nɔ̄-záňl*[e]	"hen for holding"
			pl *nɔ̄-záňlla*[+]	
dɛ̄l[la/]	"be leaning"	→	*nīn-dɛ́l*[e]	"person you can lean on" WK
			nīn-dɛ́llà[+]	
		→	*kʊ̀g-dɛ̄l*[le/]	"chair for leaning on"
			pl *kʊ̀g-dɛ̄llá*[+]	
gʊ̀l[la]	"be hanging"			
		→	*bū̄n-gʊ́l*[le]	"thing for suspending"
			pl *bū̄n-gʊ́llà*[+]	

15.1.1.2.2 Perfective

Perfective Deverbal Adjectives are all derived from Variable Verbs which form a Result Perfective 24.2.1.2. All the verbs involved are also either intransitive or Patientive Ambitransitive 25.1.2, and the adjectives are thus not passive participles, but express resulting states.

Ò kpì nɛ̄.   "She's dead."   [*Ò kpì yā* = "She's died."]

There are no Perfective Deverbal Adjectives from Postural Verb roots meaning e.g. "seated", "standing" or from Variable Verbs used passively e.g. "eaten."

It is not clear how far the formation is productive. All my examples are from primary verbs, with no pairs like "whitened" beside "white."

The formant is *-lɪm-.* It either deletes a preceding derivational suffix or is a formation made from roots alone; all examples show *-lɪm* after a *(C)V:* root. For the flexion see 12.2.

kpì[+]	"die"	→	*kpìilʊ́ŋ*[o]	"dead"
gɛ̄ň[+]	"get tired"	→	*gɛ̄ɛňlʊ́ŋ*[o]	"tired"
pɛ̀ˀɛl[e]	"fill"	→	*pɛ̀ˀɛlʊ́ŋ*[o]	"full"
kɔ̀[+]	"break"	→	*kɔ̀ɔlʊ́ŋ*[o]	"broken"
yɛ̀[+]	"wear"	→	*yɛ̀ɛlʊ́ŋ*[o]	"worn" (of a shirt)
yɔ̀[+]	"close"	→	*yɔ̀ɔlʊ́ŋ*[o]	"closed"
pʊ̀ˀalɪm[m]	"harm"	→	*pʊ̀ˀalʊ́ŋ*[o]	"damaged"
àeň[+]	"tear"	→	*àaňlʊ́ŋ*[o]	"torn"

15.1.1.3 Instrument Nouns

Instrument Nouns can be created at will by my informants whenever semantically appropriate from Variable and Postural Verbs, so long as the Imperfective Deverbal Adjective stem ends in *d t* or *s*; a further *-m* is then added. All these *m*-stems then inflect in the *g*[a]|*s*[e] Class. In a few cases the meaning overlaps with agent nouns.

kū[+]	"kill"	→	*kūʊdíŋ*[a]	"thing for killing with"
lɔ̄[+]	"tie"	→	*sị̀à-lɔ̄ɔdíŋ*[a]	"belt" ("waist-tying thing")
dūg[e]	"cook"	→	*dūgʊdíŋ*[a]	"cooking utensil"
sɔ̄b[e]	"write"	→	*sɔ̄bɪdíŋ*[a]	"writing implement"
kpàr[e]	"lock"	→	*kpārɪdɪŋ*[a]	"thing for locking"
ňwà̀ˀe[+]	"cut wood"	→	*ňwā̀ˀadɪŋ*[a]	"axe"
pīe[+/]	"wash self"	→	*pīədíŋ*[a]	"thing for washing oneself"

sʋ̀[+]	"bathe"	→	*sʋ̄ʋdɪŋ*[a]		"sponge"
gɔ̄s[e]	"look"	→	*nīn-gɔ́tìŋ*[a]		"mirror"
			nīn-gɔ́tìs[e]		"spectacles" [*nīn-* "eye"]
bʋ̀d[e]	"plant"	→	*bʋ̄tɪŋ*[a]	3.4	"cup" (in general; originally just "seed cup")
pīəs[e/]	"clean"	→	*pīəsíŋ*[a]		"cleaning implement"
kùəs[e]	"sell"	→	*kūəsɪŋ*[a]		"professional salesperson"
dā̄ʔe[+/]	"push"	→	*dā̄ʔadíŋ*[a]		"pusher (person or thing)"
zìň̃ʔi[ya]	"be sitting"	→	*zīň̃ʔidɪŋ*[a]		"thing for sitting on"

15.1.1.4 Stative Gerunds

Non-Postural Agentive Invariable Verbs 13.2 make derived abstract nominals in the *m*[m] Class; **vowel-stems add a derivational -*l*-**, and it seems reasonable to suppose that the formation with stems ending in *m n r* is parallel to this:

sʋ̄ʔe[ya/]	"own"	→	*sʋ̄ʔʋlím*[m]	
mī̄ʔ[+]	"know"	→	*mī̄ʔilím*[m]	
zī̄ʔ[+]	"not know"	→	*zī̄ʔɩlím*[m]	
àę̆ň̃[ya]	"be something"	→	*àaň̃lím*[m]	
bɛ̀[+]	"be somewhere"	→	*bɛ̀lím*[m]	(short vowel; initial L tone)
kā̄ʔę̄[+]	"not be"	→	*kā̄ʔalím*[m]	
sɔ̄ň̃ʔe[ya/]	"be better than"		has no gerund	
mɔ̄r[a/]	"have"	→	*mɔ̄rím*[m]	
tār[a/]	"have"	→	*tārím*[m]	
nɛ̄n[na/]	"envy"	→	*nɛ̄nním*[m]	
nār[a/]	"be necessary"	→	*nārím*[m]	
wɛ̄n[na/]	"resemble"	→	*wɛ̄nním*[m]	
But *kīs*[a/]	"hate"	→	*kísʋ̀g*[o]	

These nouns probably cannot be used in the immediate future construction with *bɔ̀ɔd*[a] "want" 14.1.1 , so it is not clear that they are truly gerunds; however Variable Verbs may form similar "gerunds" based on the imperfective if this has acquired a lexically distinct stative 13.2.1 meaning, and although the form is segmentally that of the Imperfective Deverbal Adjective used with the *m*[m] Class suffix as an abstract noun, the forms obey the tonal rules for gerunds rather than Imperfective Deverbal Adjectives in having Pattern L, not Pattern O, when they derive from Pattern O verbs.

Thus, although there is a verb *bɔ̀*[+] "seek", with the regular gerund *bɔ̄ɔb*[o] "seeking", the imperfective *bɔ̀ɔd*[a] has become an independent lexeme "like, love." It makes the form

*bɔ̀ɔdɩm*ᵐ   "will"

(contrasting tonally with the Deverbal Adjective *bɔ̄ɔdɩr*ᵉ "desirable")

Similarly

*gɔ̀ɔňdɩm*ᵐ   "wandering" (*gɔ̀ň*⁺ "hunt")

*zɔ̀tɩm*ᵐ   "fear"   [*M̀ zɔ́t nɛ̄* "I'm afraid."]

                                      contrast *zɔ̄ɔg*ᵒ "running"

15.1.1.5 Companion Gerunds

A specialised gerund type occurs exclusively as a pre-modifier of the bound noun

-tāa⁼   *-tāas*ᵉ   *-tà-* or *-tā-*   "companion in ..."

The forms can be made at will from most verbs which are capable of creating agent nouns or being used in commands, whether Variable or Invariable.
The forms for Variable Verbs are based on stems like those of Agent Nouns or Imperfective Deverbal Adjectives, with an additional suffix *-m*; they vary in whether the *-d-* formant is preserved but follow the Deverbal Adjectives in general. Tonally they are gerunds, however: Pattern L, not O, when made from Pattern O verbs.

The forms are construed as combining forms, without following M Raising. This suggests that the *-m-* is a second derivational suffix, rather than the *m*ᵐ Class flexion. This could imply that the forms seen in e.g.

nɔ̀ŋɩlím-tāa⁼   "fellow liker"

nɔ̀ŋɩdím-tāa⁼   "fellow lover"

sʋ̀ŋɩdím-tāa⁼   "fellow-helper"

would have five-mora stems, but all such cases involve *-ŋ-*, which is anomalously treated as single /ŋ/ rather than /ŋŋ/ in several other contexts too 6.2.1 8.2.1 8.2.3 . Alternatively, this could be remodelling of the cb on the basis of the sg 11.2.2 .

Examples from Variable Verbs:

mɛ̀⁺	"build"	→	*mɛ̀ɛdím-tāa*⁼	"fellow-builder"
dì⁺	"eat"	→	*dìtím-tāa*⁼	"messmate"
pʋ̄⁺	"share"	→	*pʋ̄ʋdím-tāa*⁼	"fellow-sharer"
*kpɛ̀ň*ʔ⁺	"enter"	→	*kpɛ̀ňʔɛdím-tāa*⁼	"fellow-resident"

*zàb*ᵉ	"fight"	→	*zàbɪdím-tāa*⁼	"enemy"
*dūg*ᵉ	"cook"	→	*dūgʊdím-tāa*⁼	"fellow-cook"
fāň⁺	"snatch"	→	*fāaňdím-tāa*⁼	"fellow-robber"
*tòm*ᵐ	"work"	→	*tòmmím-tāa*⁼	"co-worker"
*pʊ̀ʔʊs*ᵉ	"worship"	→	*pʊ̀ʔʊsím-tāa*⁼	"fellow-worshipper"
*dìɩs*ᵉ	"feed"	→	*dìɩsím-tāa*⁼	"fellow-feeder"
*sòŋ*ᵉ	"help"	→	*sòŋím-tāa*⁼	"fellow-helper"
		or	*sòŋɪdím-tāa*⁼	
*si̯àk*ᵉ	"agree"	→	*si̯àkím-tāa*⁼	"fellow in agreement"

Invariable Verbs generally use *-lɪm*, but Postural Verbs in WK's speech may use either *-dɪm* or *-lɪm*. Again the tones are those for gerunds.

*īgɪ*ʸᵃ/	"be kneeling"				
		→	*īgɪlím-tāa*⁼	"fellow-kneeler"	
		or	*īgɪdím-tāa*⁼	"fellow-kneeler"	WK
*zìň*ʔi*ʸᵃ	"be sitting"	→	*zìň*ʔ*ilím-tāa*⁼	"fellow-sitter"	
		or	*zìň*ʔ*idím-tāa*⁼	"fellow-sitter"	WK
*vābɪ*ʸᵃ/	"lie prone"	→	*vābɪlím-tāa*⁼	"fellow lier-prone"	
		or	*vābɪdím-tāa*⁼	"fellow lier-prone"	WK
*làbɪ*ʸᵃ	"be crouched"				
		→	*làbɪlím-tāa*⁼	"fellow croucher in hiding"	
*zìʔe*ʸᵃ	"be stood"	→	*zìʔəlím-tāa*⁼	"fellow-stander"	
		or	*zìʔədím-tāa*⁼	"fellow-stander"	WK
*dɔ̄l*ˡᵃ/	"be with"	→	*dɔ̄llím-tāa*⁼	"fellow-companion"	
mɪ̄ʔ⁺	"know"	→	*mɪ̄ʔilím-tāa*⁼	"partner in knowledge"	
zɪ̄ʔ⁺	"not know"	→	*zɪ̄ʔɪlím-tāa*⁼	"partner in ignorance"	
bɛ̀⁺	"exist"	→	*bɛ̀lím-tāa*⁼	"partner in existence"	WK
				(cf gerund 15.1.1.4)	

The form

| *dīgɪ*ʸᵃ/ | "be lying" | → | *dīgɪlím-tāa*⁼ | "fellow-lier" | |
| | | or | *dìgɪním-tāa*⁼ | "fellow-lier" | WK |

suggests that like other derivatives from Postural Verb roots the forms might in fact belong to derived Variable Verbs with loss of stem suffixes or of the *-d-* formant itself.

From the irregular verb *nɔ̀ŋ*ᵉ WK has two forms with different nuances for him 13.1.2

| *nɔ̀ŋ*ᵉ | "love" | → | *nɔ̀ŋɪlím-tāa*⁼ | "fellow liker" | |
| | | or | *nɔ̀ŋɪdím-tāa*⁼ | "fellow lover" | |

15.1.1.6 Other Deverbal Formations

-s- appears in a few concrete nouns derived from verbs:

dīgısá[+]	"lairs"	←	*dīgı*[ya/]	"be lying down"
dʋ̄ʋsá[+]	"steps"	←	*dʋ̄*[+]	"go up"

-m- derives nouns from verbal roots in

zɔ̄ɔm[me]	"refugee"	cf	*zɔ̀*[+]	"run"
kpīʔim[m/]	"corpse"	cf	*kpɩ̀*[+]	"die"

-d- appears as an instrument noun formant rather than the usual *-dɩm-* in

tūθdɩr[e]	"mortar"	←	*tu̯à*[+]	"grind in a mortar"

-b- possibly derives nouns from verbal roots in

kpɩ̀ibɩg[a]	"orphan"	cf	*kpɩ̀*[+]	"die"
*dà*ʔ*abɩr*[e]	"slave"	cf	*dà*ʔ[+]	"buy"

This *-b* may historically be connected with the stem of *bīig*[a] "child"; cf Gurmanche *kpēbígā* "orphan" with *kpé* "die" and *bígā* "child". Kusaal has no synchronic process to turn a root into a suffix, and both *kpiib-* and *da'ab-* would be possible root shapes themselves. However, there may be relics of such processes in

bī-díbìŋ[a]	"boy"	cf	Mooré *biribla*	"boy"
			Kusaal *dāu̯*[+]	"man"
bī-pʋ́ŋ[a]	"girl"		Mooré *bipugla*	"girl"
			Kusaal *pu̯*ʔ*ā*[a]	"woman" (← *pu̯aga*)
bībɩs[e]	"small" plural		*bīl*[a]	"small" singular
À-Sāan-dʋ́[+]	personal name	cf	*sāan*[a/]	"stranger"
			dāu̯[+]	"man"

15.1.2 From Nominal Roots

-s- forms adjectives and cognate Adjectival Verbs.

māʔasír[e]	"cold, wet"	cf	*māʔe*[+/]	"cool down"
māʔas[a/]	"be cold, wet"			
būgʋsír[e]	"soft"	cf	*būk*[e/]	"weaken"
būgʋs[a/]	"be soft"			
tɛ̄bɪsír[e]	"heavy"	cf	*tɛ̄bɪg*[e/]	"get heavy"
tɛ̄bɪs[a/]	"be heavy"			
mìʔisʋg[o]	"sour"	cf	*mìʔig*[e]	"get sour"
mìʔis[a]	"be sour"			

-d- (apart from its use to form deverbal nominals) features in a number of words where it has no evident derivational meaning:

	yūgʋdɪr[e]		"hedgehog"
	lāʔaf[o]		"cowrie"
pl	*līgɪdɪ*[+]		"money" *lagɪd-*
	pùgʋdɪb[a]		"father's sister"

It appears in a number of [a]|*b*[a] Class words where it is not found throughout the paradigm; so regularly in agent nouns from 3-mora stems in *-s-* 15.1.1.1 , but irregularly also in some words 11.3.1 . In derivation compare

Nàbɪd[a]	"Nabdema"	but	*Nàbɪr*[e]		"Nabit language"
Dàgáàd[a]	"Dagaaba person"	cf	Dagaare	*Dagao*	id
nīdɪb[a/]	"people"	cf	Mooré	*neba*	id

-m- similarly appears with no clear meaning in the concrete nouns

bīʔəm[m]	"enemy"	cf	Mooré	*bɛɛga*	id
tādɪm[m/]	"weak person"	cf	*tàdɪg*[e]		"become weak"
ā̌nsíŋ[a]	"sister's child"	cf	*áňsìb*[a]		"mother's brother"
yáaŋ[a]	"grandchild"	cf	*yáab*[a]		"grandparent"
*yáamga			**yáagba*		

vúǝŋ[a]	"red kapok"	cf	*vúǝr*[e]		"red kapok fruit"
*vúǝmgà			*vúǝgrì		
yūgúm[ne]	"camel"		[ultimately ← Berber *a-lǝqǝm (Souag)]		
gbīgɩm[ne]	"lion"				
zìlɩm[me]	"tongue"				
àňrʋŋ[o]	"boat"				

It forms abstract nouns in

nāʔam[m]	"chiefship"	cf	*nàʔab*[a]		"chief"
cb *nàʔam-*					
zɔ̄lɩmís[e]	"foolishness"	cf	*zɔ̄lʋg*[o/]		"fool"

Abstract *-mís*[e] forms seem always to have H toneme; cf *bùdɩmís*[e] "confusion", where, however, the *-m-* is part of the verb stem *bùdɩm*[m] "get confused"; compare similarly

tàdɩmís[e]	"weakness"	cf	*tādɩm*[m/]		"weak person"

-m- is seen also in the adjectives

zùlʋŋ[o]	"deep"	*ňyālʋ́ŋ*[o]		"wonderful"
yàlʋŋ[o]	"wide"	*nàrʋŋ*[o]		"necessary"

15.1.3 From Nominal Stems

-l- derives abstract nouns from nominals. The suffix is perhaps the same as the *-l-* formant of Perfective Deverbal Adjectives 15.1.1.2.2 and some primary adjectives, and is possibly also seen in some Agentive Invariable Verbs 13.2.1 :

sābɩlíg[a]	"black"	cf	*sɔ̄b*[e]		"get dark"

The abstract nouns may thus represent adjective stems used in the *m*[m] Class 11.1.1 , but the stems do not appear elsewhere as adjectives.

The suffix *-l-* is added to complete noun stems. It shows unusual tonal behaviour 8.6 , and also constitutes the only exception to the rule that *(C)V:C* roots must appear as *(C)VC* allomorphs before a derivational suffix 7.1.1.2 .

dāŭ[+]	"man"	→	*dàalɩm*[m]		"masculinity"
pu̯ʔā[a]	"woman"	→	*pʋ̀ʔalɩm*[m]		"femininity"
bīig[a]	"child"	→	*bìilɩm*[m]		"childhood"
tītāʔal[le]	"proud person"	→	*tītāʔallɩm*[m]		"pride"

*gīŋ*ᵃ	"short"	→	*gīiňlím*ᵐ	"shortness"
*wɔ̄k*ᵒ/	"long, tall"	→	*wā*ʔ*alím*ᵐ	"tallness"
*sāan*ᵃ/	"guest, stranger"	→	*sáannìm*ᵐ	"strangerhood"
*tīráàn*ᵃ	"neighbour"	→	*tīráànnɩm*ᵐ	"neighbourliness"
*gīŋ*ᵃ	"short"	→	*gīŋɩlím*ᵐ	"shortness"

-**m**- occurs as a second suffix added to adjectival stems with no change of meaning:

*ňyɛ̀ɛsíŋ*ᵃ	"self-confident"	*ňyɛ̀ɛs*ᵃ	"be self-confident"
*vɛ̀ňllíŋ*ᵃ	"beautiful"	*vɛ̀ňllɩg*ᵃ	"beautiful"
*mālɩsíŋ*ᵃ	"pleasant"	*mālɩsíg*ᵃ	"pleasant"
*lāllíŋ*ᵃ	"distant"	*lāllúg*ᵒ	"distant"

In the following words, where the presence of -*m*- is revealed by tone 8.2.3 , it changes an abstract noun stem into a related concrete stem:

| *dàalím*ᵐ | "male sex organs" | *dàalɩm*ᵐ | "masculinity" |
| *pʋ̀*ʔ*alím*ᵐ | "female sex organs" | *pʋ̀*ʔ*alɩm*ᵐ | "femininity" |

The presence of the formant -*m*- is similarly revealed by the tones in

| *bʋ̀*ʔ*isím*ᵐ | "milk" | *bʋ̀*ʔ*isɩr*ᵉ | "breast" |

15.2 Verbs

Verbs have no derivational prefixes. 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 one-to-one 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 the shape *(C)V:Cm* only occurs as *(C)V:* root + *sɩm* or *lɩm,* never as *(C)V:C* root + *m*.

Agentive Invariable Verbs are all root-stems. Some Adjectival Verbs have stems including the nominal derivational suffix seen in the corresponding adjective.

15.2.1 From Verbs

15.2.1.1 From Postural Roots

Postural Verbs have derived Variable Verbs in -*n*ᵉ signifying "assume the posture" and in -*l*ᵉ "make assume the posture"; all the -*n*ᵉ verbs are Pattern O regardless, but the -*l*ᵉ verbs have the same pattern as the base Postural Verb.

	Postural Verb		Assume Posture	Make Assume Posture
	*dīgɩ*ʸᵃ/	be lying	*dìgɩn*ᵉ	*dīgɩl*ᵉ/
	*vābɩ*ʸᵃ/	be lying prone	*vàbɩn*ᵉ	*vābɩl*ᵉ/
	*īgɩ*ʸᵃ/	be kneeling	*ìgɩn*ᵉ	*īgɩl*ᵉ/
	*làbɩ*ʸᵃ	be crouching hidden	*làbɩn*ᵉ	*làbɩl*ᵉ
	*zìñʔi*ʸᵃ	be sitting	*zìñʔin*ᵉ	*zìñʔil*ᵉ
	*zìʔe*ʸᵃ	be standing	*zìʔən*ᵉ	*zìʔəl*ᵉ
	*tīʔi*ʸᵃ/	be leaning (of thing)	*tìʔin*ᵉ	*tīʔil*ᵉ/
WK	*gɔ̄ʔe*ʸᵃ/	be looking up	*gɔ̀ʔɔn*ᵉ	
	*sùr*ᵃ	have bowed head	*sùn*ᵉ	*sùn*ᵉ [sic]
	-	cover oneself	*lìgɩn*ᵉ	*lìgɩl*ᵉ
	-	perch (of bird)	*zùɵn*ᵉ	*zùɵl*ᵉ
	-	perch (of bird)	*yàʔan*ᵉ	*yàʔal*ᵉ

The Result Perfective 24.2.1.2 of *zùe+* is used for "be perching":

Níiŋ   lā   zúɵ   nɛ̄.   "The bird is perching." KT
Bird:**SG ART** perch:**PFV FOC**.

Two Postural sets have root-stem assume-posture verbs:

*gʋ̀l*ˡᵃ   be suspended   *gʋ̀l*ᵉ   *gʋ̀l*ᵉ
*tàbɩ*ʸᵃ   be stuck to   *tàb*ᵉ   *tàbɩl*ᵉ

Another Pattern H Postural Verb with a cognate Pattern O Variable Verb for "assume the posture" is

*dɛ̄l*ˡᵃ/   "be leaning" (person)   *dɛ̀lɩm*ᵐ   "lean"

In WK's speech, but not KT's, there are alternate imperfective forms of the **-n**ᵉ derivatives which drop the *-n-* formant and also lack the change of Pattern H forms to Pattern O seen in the perfective 13.1.1.2:

 *dìgɩn*ᵉ   *dìgɩnɩd*ᵃ   *dìgɩnɩm*ᵃ   "lie down"
             or   *dīgɩd*ᵃ/

from *dīgɩ*ʸᵃ/ "be lying down."

Segmentally, the *-n* series is also remarkable in that the *n* never participates in consonant assimilation, either in verb flexion or in the corresponding gerund.

Probably this is simply as a result of the language's tendency to resist changes which would result in ambiguous surface forms.

 Non-Postural Agentive Invariable Verbs like *sīn*[na/] "be silent", *dɔ̄l*[la/] "accompany", *tɛ̀ňr*[a] "remember" and *gūr*[a/] "guard" use the same form for the stative imperfective and the inchoative meaning:

  Sìn!   "Be quiet!"

  Kà bà sīn.   "And they fell silent."
  And **3PL** be.silent.

15.2.1.2 Causatives

 Several derivational suffixes are found with a causative sense.

 Patientive Ambitransitive verbs 25.1.2 frequently describe entry into a state. Such verbs frequently have no causative derivative.

-l- has been seen above as the causative suffix for Postural Verb roots; Verbs derived with *-g-* from nominal roots are usually Patientive Ambitransitives but may have separate causatives in *-l-* (see below 15.2.2 .) Other roots forming causative in *-l-* are

gūr[a/]	"guard"	*gū'ul*[e/]	"put someone on guard"
bāň'[+]	"ride"	*bāň'al*[e/]	"put someone on a horse/bicycle etc"
zàb[e]	"fight"	*zàbɩl*[e]	"cause to fight"
du̯'à[a]	"bear, beget"	*dʋ̀'al*[e]	"make interest (of a loan)"
yɛ̀[+]	"dress oneself"	*yɛ̀ɛl*[e]	"dress another person"
pìd[e]	"don hat/shoes/rings"	*pìl*[e]	"put hat/shoes/rings on another person"

-g- can be a causative or inchoative suffix with roots forming Invariable Verbs or intransitive Variable Verbs:

dɔ̄l[la/]	"accompany"	*dɔ̄lɩg*[e/]	"make accompany"
gɔ̄r[a/]	"look up" DK	*gɔ̄dɩg*[e/]	"make look up" DK
zāňl[la/]	"be holding"	*zàŋ*[e]	"pick up"
tɛ̀ňr[a]	"remember"	*tìeň*[+]	"bring to mind, remind"
yùul[e]	"swing" intransitive	*yùlɩg*[e]	"swing" transitive
kɔ̀[+]	"break" intransitive	*kɔ̀'ɔg*[e]	"break" Pat. Ambitransitive

-**s**- is the usual causative suffix for Variable Verbs

kpὲň[ʔ+]	"enter"	*kpὲň*[ʔ]*ɛs*[e]	"make enter"
yī[+]	"go/come out"	*yīis*[e/] or *yīs*[e]	"make go/come out"
dὶ[+]	"eat"	*dὶɩs*[e]	"feed"
nū[+]	"drink"	*nūlɩs*[e/]	"make drink"; also *nūlɩg*[e/]
sīg[e]	"go down"	*sīgɩs*[e/]	"lower"
lὲb[e]	"return"	*lὲbɩs*[e]	"make return; answer"
mṵ[ʔ]*à*[a]	"suck" (of a baby)	*mὺ*[ʔ]*as*[e]	"give to suck"
dī[ʔ]*e*[+/]	"receive"	*dī*[ʔ]*əs*[e/]	"transmit"
	[Mooré *ta* "arrive"]	*tā*[ʔ]*as*[e/]	"help to travel, walk"

Also | *zēm*[ma/] | "be equal" | *zɛ̄*[ʔ]*mɩs*[e/] | "make equal" |
| | *kpὶig*[e] | "go out (fire)" | *kpὶis*[e] | "quench" |

gūr[a/] "guard" has the causative *gū*[ʔ]*ul*[e/] (cf *gū*[ʔ]*ud*[a/], agent noun) but also has the derivative *gū*[ʔ]*us*[e/] "take care, watch out"

15.2.1.3 Reverse Action

-**g**- attached to verbal roots expressing activities implies reversal:

yὲ[+]	"dress oneself"	*yὲɛg*[e]	"undress oneself"
pὶd[e]	"put (hat etc) on"	*pὶdɩg*[e]	"take (hat etc) off"
pὶl[e]	"put (hat etc) on s'one"	*pὶlɩg*[e]	"take (hat etc) off someone"
lɔ̄[+]	"tie up"	*lɔ̄dɩg*[e/]	"untie"
yɔ̀[+]	"close"	*yɔ̀*[ʔ]*ɔg*[e]	"open"
ὲňd[e]	"block up"	*ὲňdɩg*[e]	"unblock"
yà[ʔ]*al*[e]	"hang up"	*yàk*[e]	"unhang"
pà[ʔ]*al*[e]	"put on top"	*pàk*[e]	"take off top"
pὶbɩ[e]	"cover up"	*pὶbɩg*[e]	"uncover"
(*zū-píbìg*[a]	"hat")		
tàbɩ[ya]	"be stuck to"	*tàbɩg*[e]	"unstick, get unstuck"
là[ʔ]*as*[e]	"gather together"	*lāk*[e/]	"open" (eye, book)
			(Kusaal tones misrecorded?)
		Mooré	*lake*	"un-stick together"
		Farefare	*làkὲ*	"enlever, ouvrir"

Reversive *g*- is apparently a peculiarity of the Western group within Oti-Volta; other Oti-Volta languages show alveolars in suffixes having this meaning: Konkomba *pὶ:*[n] "close" *pὶ:rì* "open", Moba *lwo* "close" *lwot* "open", Byali *byá* "close" *byērá* "open",

Nawdm *rów* "has closed" *rɔd* "open." Proto-Bantu probably had both *-ʊl-* and *-ʊk-*, perhaps respectively transitive and intransitive. If there were two such suffixes in Oti-Volta, it would be natural for the alveolar variant to be disfavoured in Western Oti-Volta because of the adoption in that subgroup of *-da* as the regular imperfective flexion for almost all verbs capable of aspect flexion.

15.2.1.4 Other Deverbal Formations

-s- may have a plural action sense:

kɔ̀⁺	"break"	*kɔ̀ʔɔs*ᵉ	"break several times"
tɔ̀ň⁺	"shoot"	*tɔ̀ňʔɔs*ᵉ	"hunt"
*pìəb*ᵉ	"blow (flute etc)"	*pɛ̀bɩs*ᵉ	"blow (wind)"
		*pɛ̀bɩsɩm*ᵐ	"wind"
*làbɩ*ʸᵃ	"crouch in hiding"	*làbɩs*ᵉ	"walk stealthily"
*vʊ̄e̯*ʸᵃ/	"be alive"	*vʊ̄ʔʊs*ᵉ/	"breathe, rest"
*i̯ãňk*ᵉ/	"fly, jump"	*i̯ãňʔas*ᵉ/	"leap, jump repeatedly"
yā̃ʔe⁺/	"open mouth"	*yā̃ʔas*ᵉ/	"open repeatedly" WK

-g- probably occurs with an ingressive meaning in the perfective forms of several irregular verbs 13.1.2, and also in

*sɔ̄ňʔe*ʸᵃ/	"be better than"	*sūňʔe*⁺/	"become better than" WK

-m- derives some Particle-Verbs 24.7.2:

lɛ̀m	"again"	cf	*lɛ̀b*ᵉ	"return"
là̯ʔam	"together"	cf	*là̯ʔas*ᵉ	"gather together"
		also	*là̯ʔam*ᵐ	"associate with", main verb
dɛ̀ŋɩm	"first"	cf	*dɛ̀ŋ*ᵉ	"go first"

-g- and *-m-* occur with no obvious meanings in

fā̃ň⁺	"rob, snatch"	*fāeň*⁺/	"save" (? "snatch back")
*lìəb*ᵉ	"become"	*lɛ̀bɩg*ᵉ	"turn over"
			Mooré *lebge* "become"
sɔ̄ň⁺	"rub"	*sūeň*⁺/	"anoint"
*nɔ̄b*ᵉ	"get fat"	*nɔ̄bɩg*ᵉ/	"grow" (child, plant)
nā⁺	"join"	*nāe*⁺/	"finish"
			Hausa *gamàa* "join, finish"
*kɔ̀ňs*ᵉ	"cough"	*kɔ̀ňsɩm*ᵐ	"cough"

-r- appears in

kābɪr[e/]	"ask for admission"
sūgʋr[e/]	"forbear, be patient with"

Kābɪr[e/] is probably connected with *kāab*[e/] "offer, invite", and Toende Kusaal has *kábɪs* "frapper à la porte, informer, signaler." There seems to be no root **sūg-.* Both words appear frequently in formulaic expressions ⌈36⌉ of a type which are often pan-regional and they may well be loanwords. The Agolle Kusaal verbs may be back-formations from the nouns *kābɪrí*[+] and *sūgʋrʋ́*[+], in which the *rɪ/rʋ* possibly originated in the equivalent of *r*[e]*|a*[+] Class singular flexions ⌈11.6⌉.

15.2.2 From Nominal Roots

-g- derives many verbs from nominal roots, with the meaning "make/become ..."

ňyɔ̄ˀɔs[e/]	"smoke"	*ňyū̃ˀe*[+/]	"set alight"
ňwīig[a/]	"rope"	*ňwīig*[e/]	"make a rope"
tādɪm[m/]	"weak person"	*tàdɪg*[e]	"become weak"
kpì ˀa[+]	"neighbour"	*kpì ˀe*[+]	"approach"
zūər[e]	"hill"	*zùe*[+]	"get higher, more"
À-Tūl[le]	"Breech-Delivered"	*tùlɪg*[e]	"invert"
mā̃ˀasír[e]	"cool, wet"	*mā̃ˀe*[+/]	"get cool, wet"
		(*mā̃ˀal*[e/]	"make cool, wet")
būgʋsír[e]	"soft"	*būk*[e/]	"soften"
tēbɪsír[e]	"heavy"	*tēbɪg*[e/]	"get/make heavy"
gīŋ[a]	"short"	*gìŋ*[e]	"scrimp"
kpī̃ˀoŋ[o]	"strong"	*kpɛ̀ˀŋ*[e]	"strengthen"
vʋ̄r[e/]	"alive"	*vū̃ˀʋg*[e/]	"make/come alive"
pɔ̀ɔdɪg[a]	"few"	*pɔ̀ˀɔg*[e]	"diminish; denigrate"
pìəlɪg[a]	"white"	*pɛ̀lɪg*[e]	"whiten"
sābɪlíg[a]	"black"	*sɔ̄bɪg*[e/]	"blacken"
nīn-múa[+]	"concentration"		
	("red eye")	*mu ˀe*[+]	"redden"
kūdʋg[o]	"old"	*kùdɪg*[e]	"shrivel up, dry out, age"
sòŋ[o]	"good"	*sòŋ*[e]	"help"
tʋ̄ʋlʋ́g[o]	"hot"	*tūlɪg*[e/]	"heat up"
mì ˀisʋg[o]	"sour"	*mì ˀig*[e]	"turn sour"
zùlʋŋ[o]	"deep"	*zùlɪg*[e]	"deepen"
lāllʋ́g[o]	"far"	*lālɪg*[e/]	"get to be far, make far"

*màṳk*ᵒ	"crumpled up"	*màk*ᵉ	"crumple up"
*dɛ̄ɛŋ*ᵃ	"first"	*dèŋ*ᵉ	"precede"
*nɛ̀ɛr*ᵉ	"clear, empty"	*nìe*⁺	"appear"

This meaning can perhaps be considered as simply a variant on the "ingressive" sense of the suffix *-g-* noted above in derivation from verbal roots 15.2.1.4 . With the addition of *-m* as a second derivational suffix:

*wàṳŋ*ᵒ	"wasted"	*wàŋɩm*ᵐ	"waste away"

-l- can make causatives from nominal roots, often corresponding to an intransitive or Patientive Ambitransitive derivative in *-g-*:

mā̃ʔe⁺ᐟ	"get cool"	*mā̃ʔal*ᵉᐟ	"make cool"
pūñ̃ʔe⁺ᐟ	"rot"	*pɔ̄ñ̃ʔɔl*ᵉᐟ	"cause to rot"
nìe⁺	"appear"	*nɛ̀ɛl*ᵉ	"reveal"
*wū̃ʔʋg*ᵉᐟ	"get wet"	*wū̃ʔʋl*ᵉᐟ	"make wet"
*ñyá̃ʔaŋ*ᵃ	"behind"	*ñyā̃ʔal*ᵉᐟ	"leave behind"
*gɛ̄og*ᵒ	"space between legs"	*gɛ̄ɛl*ᵉᐟ	"put between legs" Tones *sic*
*lī̃k*ᵃ	"darkness"	*lìgɩl*ᵉ	"cover up"

-lɩm- derives verbs from nominal roots, meaning "act as …" or "make/become …":

*pṳʔā̃*ᵃ	"woman"	*pʋ̀ʔalɩm*ᵐ	"cook"
*pɔ̀ñ̃ʔɔr*ᵉ	"cripple"	*pɔ̀ñ̃ʔɔlɩm*ᵐ	"cripple, get crippled"
*wàbɩr*ᵉ	"lame"	*wàbɩlɩm*ᵐ	"make, go lame"
*gū̃ʔʋs*ᵉ	"semi-ripe things"	*gʋ̀ʔʋlɩm*ᵐ	"become semi-ripe"
*bū̃gʋd*ᵃ	"client of diviner"	*bʋ̀gʋlɩm*ᵐ	"cast lots"
		cf *bʋ̀k*ᵉ	"cast lots"

-m- appears deriving a verb from a nominal root in

*nɛ̄ɛr*ᵉᐟ	"millstone"	*nɛ̄ɛm*ᵐᐟ	"grind with a millstone"

-s- has a factitive sense in

zṳà⁺	"friend"	*zùɵs*ᵉ	"befriend"

16 Derivational Prefixes

Kusaal freely forms **compounds**. In a compound, the non-final element is itself part of the paradigm of a nominal word, the "combining form." There is Apocope between the combining form and the following stem, so that many different two-member consonant clusters may occur across the junction. In this grammar combining forms are regarded as words rather than word fragments, and accordingly compounds are further treated under Syntax 21.6 .

There are also many noun and a few adjective stems which have an element preceding the root which does not form part of the paradigm of any nominal. Such elements will be called **nominal prefixes**. No finite verb form shows a prefix. Morphologically, nominal prefixes are simply part of a complex stem, and have no identifiable meaning of their own. Most fall into a relatively few phonological types, with limited possibilities for vowel distinctions and for tones. Thus

tītā'ar^e	"big"
tītā'am^m	"multitude"
bʋ̀-tītā'ar^e	"big goat"

Nominal prefixes have either M or L tonemes throughout. As a group, they differ in tonal behaviour from Combining Forms 8.2.5 . Segmentally they are mostly of the shape *CV(n)*, where *V* shows only the three-way *a ɪ ʋ* vowel distinction of affix vowels; *ɪ ʋ* become *i u* by ATR harmony before *i u* of an initial root mora. There is also a complex reduplicated type *CVsɪn* or *CVlɪn*. Stems with nominal prefixes are generally otherwise simple in structure, without derivational suffixes.

Nominal prefixes are derivational, in the sense that they are part of the stem, but even where parallel stems without prefixes or with different prefixes exist, there are no regular processes relating the various forms, unlike the cases of the manner-adverb deriving prefix *à-* 22.4 and the number prefixes 18.2.1 . Nominal prefixes are, however, notably common with words falling into particular semantic fields, such as words for small animals, reptiles and insects.

The line of demarcation between nominal prefixes and combining forms is not absolute, and a few prefixes evidently did originate as cbs 16.4 . Others are apparently related to verbal negative particles 16.3 . The decision as to whether to write a hyphen between the components of a complex word is not always straightforward, but nevertheless cbs and nominal prefixes are distinct in principle, with most cases also clearly distinguishable in practice. Thus, an element is a combining form if it is part of a nominal paradigm, if it ends in a consonant other than a nasal, if it has a vowel other than short *a ɪ ʋ* without glottalisation or contrastive nasalisation, or if it has M toneme and is followed by M Raising affecting

singular and plural forms. On the other hand, an element is a nominal prefix if it is formed by reduplication of the stem-initial consonant, or if it has M toneme and is not followed by M Raising affecting singular and plural forms.

Another piece of evidence for a basic distinction between combining forms and nominal prefixes is provided by cases like *pʊ̀kɔ̀ɔ̌r*ᵉ "widow", where the first element differs from the current combining form *pʊ̯ˀà-* "woman" in loss of glottalisation and replacement of the vowel by an allowable prefix vowel, but cognate Mooré and parallel Kusaal forms confirm that the resemblance of the prefix to the cb is not accidental 16.4 . It is only possible to describe a combining form *becoming* a prefix because the two categories are distinguishable in principle.

Further complicating the picture are a good many stems with elements of no discoverable meaning preceding the final root which do not fit into any common segmental phonological prefix patterns, although tonally they do behave as nominal prefixes. Many such words can be identified as **loanwords**, but not all: in particular, many names of ethnic groups and of Kusaasi clans are of this type 20 .

For the Personifier Clitic *à-* as part of some common nouns referring to living creatures see 21.10 ; it is not a prefix but a proclitic particle.

As prefix vowels *ι* and *ʊ* are subject to ATR harmony 5.4 , which is ignored in writing as it is non-contrastive.

16.1 Reduplication-Prefixes

The simplest type of nominal prefix copies the initial *C* of the root, followed by a vowel which is most often *ι*, but rounded to *ʊ* by neighbouring labial consonants. No cases occur with voiced stops or voiced fricatives.

*kʊ̀kɔ̄r*ᵉ/	"voice"
*kʊ̀kɔ̀m*ᵐᵉ	"leper"
*kìkàŋ*ᵃ	"fig tree"
*kìkīrιg*ᵃ/	"tutelary spirit"
*k[p]ʊ̀kpàrιg*ᵃ	"palm tree"
*kpīkpīn*ⁿᵃ/	"merchant"
*kpàkʊ̄r*ᵉ/	"tortoise"
*tītā́ˀar*ᵉ	"big"
*tìtʊ̄mιs*ᵉ	"sending" (*tʊ̀m*ᵐ "send")
*tàtàl*ˡᵉ	"palm of hand"
*pīpīrιg*ᵃ/	"desert"
*fʊ̄fʊ̄m*ᵐᵉ	"envy"; "stye" (believed to result from envy)
*sìsìˀəm*ᵐ	"wind"
*zà-sìsɔ̄bιr*ᵉ/	"evening"
	(*zà-* cb of *zàam*ᵐ "evening", *sɔ̄b*ᵉ "get dark")

lìlāalíŋ[a]	"swallow"
mìmīilím[m]	"sweetness"
mìmīilúg[o]	id

More complex is a similar type with a final nasal consonant; voiced stops and fricatives may occur with this type:

gùngūm[me]	"kapok material" (*gùm*[me] "kapok fruit")
dùndùug[o]	"cobra"
dìndēog[o/]	"chameleon"
bìmbìm[me]	"altar"
bùmbàrıg[a]	"ant"
zùnzɔ̀ŋ[a]	"blind" (*zū'əm*[m/] "go/make blind")
zīnzāu̯ŋ[o/]	"bat"
kìnkàŋ[a]	"fig"
tīntɔ̌ŋríg[a]	"mole"
pùmpɔ̄ɔg[o]	"housefly" (cf *tàmpūa*[+] id 11.3.2)
sīnsáaň[=]	a kind of tiny ant
nɔ̄b-púmpàu̯ŋ[o]	"foot"

An even more complex type follows the reduplicated *CV* with *-sın* or *-lın*:

kpìsınkpìl[le]	"fist"
tàsıntàl[le]	"palm of hand"
sīlınsíùŋg[o]	"spider" pl *sīlınsíìŋd*[e]
sīlınsíùg[o]	"ghost" pl *sīlınsíìs*[e]
zīlınzíòg[o]	"unknown" cf *zī'*[+] "not know"
vùlınvùuň[le]	"mason wasp"
wàsınwàl[le]	a parasitic gall on trees, called "mistletoe" in local English
nɛ̄sınnɛ̄og[o/]	"envious person" cf *nɛ̄n*[na/] "envy" WK others "centipede" = WK *nà'-nɛ̄sınnɛ̄og*[o/]

16.2 *Da(n) ba(n) sa(n)*

dàwàlıg[a]	"hot, humid period just before the rainy season"
dàyūug[o/]	"rat"
dàyáam[ma]	"woman's parent-in-law"
dàtāa[=]	"enemy" cf *nìn-tāa*[=] "co-wife", Ghanaian "rival"
dàmà'a[=]	"liar" cf *mà'*[+] "lie"
dàkīig[a]	"sibling-in-law via wife"

dàwān[ne/]	"pigeon"
dādʊ́k[o]	a kind of large pot, cf *dūk*[o/] "pot"
dàtìu̯ŋ[o]	"right hand"
dàgɔ̀bɪg[a]	"left hand"
bānāa[=]	traditional long-sleeved smock
bàlàŋɪr[e]	"hat"
bàlàar[e]	"stick, staff"
bālɛ̄rʊg[o/]	"ugly" cf *lɛ̄r*[e] "get ugly"
bàyɛ̄og[o/]	"betrayer of secrets"
	cf *yɛ̄ɛs*[e/] "betray a secret"
sākárʊ̀g[o]	"fox"
sàbùa[+]	"lover, girlfriend" ? *bɔ̀ɔd*[a] "want, love"
sāmán[ne]	clear space in front of a *zàk*[a] "compound"

Various forms show prefixes of the form *Can-*; those with initial consonants other than *d b s* are probably best classified with the unanalysable residue of complex stems which includes loanwords [20]:

dànkɔ̀ŋ[o]	"measles"
sāngʊ́nnìr[e]	"millipede"
zànkʊ̀ˀar[e]	"jackal"
Zàngbɛ̀og[o]	"Hausa person"
màngāʊ́ŋ[o]	"crab"
làngāʊ́ŋ[o]	"crab"
nànzʊ̀ˀus[e]	"pepper"

The interesting word

nàyīig[a]	"thief"

is written *na'ayiig* in NT as if it were a compound with the cb *nāˀ-* "cow", but it has a L toneme initially and the vowel is definitely not glottalised in WK's speech. Moreover, the sense is not confined to "cattle thief." The word is [a]|*b*[a] Class and the *-g-* belongs to the stem: pl *nàyìig-nàm*[a], though there is also an analogical *g*[a]|*s*[e] pl *nàyīis*[e]. There is a derived abstract noun *nàyīigɪm*[m] "thievery." Farefare has *nàyìgà*, pl *nayigba* or *nayigsi*; Dagbani has *nayiɣa* pl *nayiɣsi* and also *tayiɣa* id.

16.3 *Pū kù(n)*

In some words these prefixes have a negative meaning, and they are then presumably connected with the verb negative particles *pū kù*:

kùndʋ̀ˀar[e]	"barren woman"
	cf *dṵˀà*[a] "bear, beget"
nīn-pū-nān[na/]	"disrespectful person"
	cf *nān*[e] "love, respect"
tʋ̀b-pū-wúmnìb[a]	"deaf people" (Rom 11:7)
	cf *tʋ̀bʋr*[e] "ear", *wʋ̀m*[m] "hear."

However, most cases are not analysable in this way; they may be loanwords, or petrified forms whose origins are no longer transparent.

kùndʋ̀ŋ[a]	"jackal"
gūmpūzɛ̄r[e/]	"duck"
dāmpūsāar[e]	"stick"

The word

bān-kúsɛ́l[le]	*bān-kúsɛ̄lá*[+]	*bān-kúsɛ̄l-*	"lizard"	(Pattern HL)

has a first component which looks as if it is related to *bàŋ*[a] "agama lizard" though the tone is unexpected if so.

16.4 Stranded Combining Forms

Some original cbs have become partly bleached of their original meaning and/or simplified phonologically, and have consequently become detached from their regular paradigms after being ousted by new cbs based on analogy with sg forms 11.2.2 . Here I list a few instances where an obvious similarity to a noun cb can be identified; some other non-reduplicating nominal prefixes may have originated in a similar way historically.

nìn   "body"   is accepted by WK as cb of *nīŋ*[a] *nīis*[e] [= Mooré *ninga*] but the word is rare; as a nominal prefix cf

nìn-gbīŋ[o/]	"human skin; body"
nìn-tāa[=]	"co-wife"

dà   "man"   is replaced as regular cb by forms segmentally remodelled on sg and pl *dàu̯-*, *dàp-*, but the *dà-* form is seen in

> *dà-pāal*[a/]   "son, boy"   cf *pāalíg* "new"
> *dà-kɔ̀ɔñr*[e]   "son, bachelor"   cf *àdàkɔ́ñ* "one"
> compare *pùkɔ̀ɔñr*[e] below

pù   "woman"   cf *pu̯ʔā*[a] "woman" cb *pu̯ʔà-*. Identifiable in e.g.

> *pùkɔ̀ɔñr*[e]   "widow"
> cf   Mooré *pʋgkõore*   "widow"
> with   Mooré *pʋgsada*   "young woman"
>   = Kusaal *pu̯ʔà-sādɪr*[e/]

pū-   "farm"   cf *pɔ̄ɔg*[o/] "field, farm", regular cb *pɔ̄-*. Presumably present in

> *pūkpāad*[a/]   "farmer" (= *kpāad*[a/] id)

Tonally, too, this *pū-* is a M prefix, not a combining form 8.2.5 .

nàʔ   "chief"(?)   appears before a number of nouns signifying animals and insects, for reasons which perhaps relate to traditional folklore.

> *nàʔ-nɛ̄sɪnnɛ̄og*[o/]   "centipede" WK
> cf   *nɛ̄sɪnnɛ̄og*[o/]   "envious person" WK; others: "centipede"
>
> *nàʔ-zɔ̀m*[me]   "locust"
> *nàʔ-dàwān*[ne/]   "pigeon" = *dàwān*[ne/]

For the idea of a possible background in folklore cf

> *à-kɔ̄ra-díə̀m*[ma]   "praying mantis"
>   ("hyena's parent-in-law")

and in general the various animal and bird names which incorporate the Personifier Proclitic 21.10 like

> *à-dàalʋ́ŋ*[o]   "stork"
> *à-gáʋ̀ñg*[o]   "pied crow"
> *à-mús*[e]   "cat"

17 Pronouns

Pronouns occur as NP heads; in addition, Demonstrative, Indefinite and Interrogative pronouns may occur as post-determiners after a head, which is then reduced to a combining form, while the pronoun inflects to show the number of the head, as with adjectives.

17.1 Personal

		Proclitic	Enclitic	Free	Subject+*ǹ*
Sg	1st	*m̀*	*m*[a]	*mān* SF *máné* LF	*mán*
	2nd	*fʋ̀*	*f*[o]	*fʋ̄n* SF *fʋ́né* LF	*fʋ́n*
	3rd hu	*ò*[14] [ʋ]	[o] [ʋ]	*ɔ̄n*[e]	*ɔ́n*
	3rd nh	*lì* or *dì*	*lı*[+]	*līn*[e] or *dīn*[e]	*lín* or *dín*
Pl	1st	*tì*	*tı*[+]	*tīnám*[a] [15]	*tīnámì‿ø*
	2nd	*yà*	*ya*[+]	*yānám*[a]	*yānámì‿ø*
	3rd	*bà*	*ba*[+]	*bān*[e]	*bán*

"hu"= "human gender", "nh" = "non-human": on gender see 21.2.2 .

The clitic pronouns are all Liaison Words 9.3 8.5 . The proclitics are used as non-contrastive subjects and as pre-determiners in NPs and AdvPs, and the enclitics as non-contrastive verb objects. For the realisation of the 3rd sg hu [o] see 9.3.1.1 .

My informants all use *l-* forms throughout for 3rd sg nh; for bound objects, all speakers have only *l-* forms.

The "+*n*" forms are those used as subjects in *ǹ*-Clauses 33 .

The alternate form *mām* also occurs for 1st sg in any rôle.

The 2nd pl subject has an enclitic form [ya] used *after* imperatives addressing more than one person 30.2.3 ; this has the allomorph *-ní-* before another Liaison Word 9.3.1.2 .

Personal pronouns do not take modifiers and have no form parallel to the cb of a noun, but the free forms may be used as antecedents of relative clauses:

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14) Toende Kusaal has *ʋ̆*. The original form was probably *$\widehat{ŋm}$ʋ*, with later *$\widehat{ŋm}$ → *ŋ* before the rounded vowel. Cf also the Dagbani free pronoun *ŋuna* = Kusaal *ɔ̄n*[e].

15) Toende has 1pl *tʋn* 2pl *nam* for the free pronouns; the *nam* component of the Agolle forms is presumably the element seen in the pluraliser *nàm*[a] 11.4 .

Fun kane buol fu meŋ ...

Fūn kánì‿ ø   bùəl   fù mɛ̄ŋ ...

2SG DEM.SG COMP call:**PFV 2SG** self ...

"You who call yourself ... (Rom 2:17)

Number is sg/pl; Kusaal has no honorific usages of plural for singular like Mooré. For the interaction of number and gender see 21.2.2 .

17.2 Demonstrative

Some forms of Demonstrative pronouns are limited to usage either as NP heads or as post-determiners, while other forms may appear in both uses.

Head or Dependent:

	<u>Human sg</u>	<u>Non-human sg</u>		<u>Plural</u>
Long	*ɔ̀ŋā*+/	*lìnā*+/	far	*bàmmā*+/
Short	*ɔ̀n*e	*lìn*e	far	*bàn*e

Head only:

		<u>Non-human sg</u>		<u>Plural</u>
Long		*nɛ̄ʔŋá*+	near	
Short		*nɛ̄ʔ*+/	near	*nɛ̄ʔ-nám*ª NT

Post-determining only:

	<u>Human sg</u>	<u>Non-human sg</u>
Long	*kàŋā*+/	*kàŋā*+/
Short	*kàn*e	*kàn*e

Note the tone difference in the short series from the free 3rd person pronouns. The post-determining-only series is based on an obsolete *g*ª|*s*e Class pronoun *kà*, parallel to *lì*, originally *r*e|*a*+ Class. My informants use these forms for human reference as well as non-human, but NT prefers *ɔ̀ŋā*+/ *ɔ̀n*e.

Post-determining pronouns follow a noun cb. Some speakers allow sg and pl noun forms, but these probably have the tones of combining forms 21.5 . After forms lacking cbs, like quantifiers and free pronouns (used before relatives in *ǹ*-Clauses) the construction is formally appositional, cf 33.2.4   21.5 .

Examples after combining forms:

du̧ʔátà lā lɔ́r-kàŋā   "this car of the doctor's"
bù-kàŋā lā   "that goat"

After a quantifier:

bèdʊgū káŋā   "this multitude"

After a free pronoun:

fūn kánì bùəl ...   "you who call ..."

Post-determining pronouns follow any adjectives:

nɔ̄-píə̀l-kàŋā   "this white hen"

The "short" series are used for referents not in view, as relatives in
ǹ-Clauses 33.2, and as interrogatives in the sense "which?" The demonstratives do
not distinguish near and far except with sg non-human heads; in other cases the
sense "that" can be specified by following the demonstrative with *lā*⁺/ (in other
contexts the definite article) and "this" by following *ňwà*⁺. (Compare French *ça ci*.)
This this deictic use of *lā*⁺/ is enabled by the fact that the Demonstratives are the only
determiners which automatically make the NP definite 21.3.

dàṵ-kàŋā sáàm	"this/that man's father"
dàṵ-kàn sáàm	"that (not visible) man's father"
dàṵ-kàŋā lā sáàm	"that man's father"
dàṵ-kàŋā ňwá sáàm	"this man's father"
tɛ̀ŋ-kàn lā náʔàb	"the king of that country" (from a story)
sān-kán lā	"at that time"

17.3 Indefinite

	Human sg	Non-human sg	Plural
	sɔ̄ʔ⁺	*sīʔəl*ᵃ	*sīəba*⁺
Dependent-only	*sīʔa*⁺	*sīʔa*⁺	

Note that the vowel is not glottalised in the plural.

For NT WK, but not KT, the dependent-only non-human sg is much commoner
than *sīʔəl*ᵃ used as a dependent. WK feels that *sīʔa*⁺ is pejorative when used for
people; NT occasionally has *sɔ̄ʔ*⁺ for non-human: *tɛ̀ŋ-sɔ̄ʔ* "a certain land."

The sense is "some, someone, something", "a certain", indefinite but specific:

yà bì-sɔ̄ʔ   "a certain child of yours"
2PL child-**INDF.HU**

The meaning is often contrastive, "another, a different":

Amaa man ken sansi'a la na, ka so' pun deŋim sig sa.
Àmáa mán   kēn   sān-síʔa   lā   nā,
But   **1SG:COMP** come:**IPFV** time-**INDF.NH ART** hither,
kà   sɔ̄ʔ   pún   dèŋ ɪm sīg   sá.
and **INDF.HU** already before descend:**PFV** thither.
"But when I come, someone else goes down there first." (Jn 5:7, 1976)

Meeri one yi Magdala ne Meeri so'
Meeri ɔ́nì‿   ø   yī   Magdala nɛ̄   Meeri sɔ̄ʔ
Mary **DEM.HU COMP** emerge:**PFV** Magdala with Mary **INDF.HU**
"Mary who came from Magdala and another Mary" (Mt 28:1)

Winig mor o meŋ venlim, ka nwadig me mor venlim si'a.
Wìnnɪg mɔ́r ò   mēŋ véŋ̌llìm kà   ŋ̌wādɪg   mɛ́ mɔ̄r véŋ̌llìm-sīʔa.
Sun:**SG** have **3HU** self beauty and moon:**SG** also have beauty-**INDF.NH**.
"The sun has its own beauty and the moon, too, has another beauty."
(1 Cor 15:41)

M̀   ná tī‿   f   tí-sīʔa.
1SG UNR give:**PFV 2SGO** medicine-**INDF.NH**.
"I'll give you a different medicine." WK

The indefinite pronouns can be used to introduce new information:

Dàu̯-sɔ̄ʔ   dāa bɛ́ ...   "There was a certain man ..."
Man-**INDF.HU TNS   EXIST** …

but this is likely to mean "There was another man ..."; it is commoner just to use an indefinite NP 21.3 34.4 :

Dāu̯   dāa bɛ́ ...   "Once there was a man ..."
Man:**SG TNS   EXIST** …

Sɔ̄ʔ/sīʔəl mɛ́-kàma means "anyone, anything, everyone, everything":

O niŋid si'el mekama su'um.
Ò   nìŋɪd   sīʔəl   mɛ́-kàma   súm.
3HU do:**IPFV INDF.NH** also-whatever good:**ABSTR**.
"He does everything well." (Mk 7:37)

(The particle is surprisingly widespread in West Africa: compare Humburi Senni
-kámâ "each.")
In negative clauses the indefinites mean "(not) ... anything", "(not) ... anybody":

Ka so' kudin ku len nyee li ya'asa.
Kà   sɔ́ʔ   kūdɪm kú   lɛ̄m ňyɛ̄ɛ́‿ lī   yáʔasā ⁺ø.
And **INDF.HU** ever   **NEG.UNR** again see:**PFV 3NHO** again   **NEG**.
"Nobody will ever see it again." (Rev 18:21)

Sɔ̄ʔ   kāʔe ⁺ø.   "There's nobody there."
INDF.HU NEG.BE NEG.

M̀   pū   yɛ́l   sīʔəla ⁺ø.   "I didn't say anything."
1SG NEG.IND say:**PFV INDF.NH NEG**.

These forms appear as relative pronouns in *ǹ*-Clauses ⟨33.2⟩, along with the *m*ᵐ
Class form *sīʔəm*ᵐ used adverbially as "in a certain way" ⟨33.2.1.1⟩.

17.4 Interrogative

Human   Non-Human

*ànɔ́ʔɔ̀n*ᵉ   "who?"   *bɔ̄*⁺   "what?"

Both pronouns may pluralise with *nàm*ᵃ if a specifically plural answer is being
sought.
The initial *a-* of *ànɔ́ʔɔ̀n*ᵉ is Fixed-L and behaves like the Manner-Adverb prefix
with regard to Liaison ⟨9.3.2⟩:

Nidib ayi nwa, ya bood ye m basi ano'one?
Nīdɪb   áyí   ňwà, yà bɔ́ɔ̀d yɛ́   m̀ básì   ànɔ́ʔɔnè ⁺ø?
Person:**PL NUM**:two this, **2PL** want that **1SG** release:**PFV** who   **CQ**?
"Which of these two people do you want me to release?" (Mt 27:21)

17.5 Reciprocal

Tāaba[+] "one another" appears as *tāab* clause-medially for some speakers.

Sùŋɪmī‿∅ tāaba.	"Help one another."
Help:**IMP** **2PLS** each.other.	

Tì yúùg nɛ̄ tāaba.	"It's been a long time." KT
1PL delay:**PFV** with each.other.	

Bà dɔ̀l nɛ̄ tāaba.	"They went together." (*dɔ̄l*[la/] "accompany")
3PL follow with each.other.	

It occurs as an adjective in the meaning "fellow-"

ò tʋ̀m-tʋ̀m-tāaba	"His fellow-workers."

The stem also occurs as an always-bound *g*[a]|*s*[e] Class noun in the same sense, seen after "companion gerunds" 15.1.1.5 , and with nominal prefixes in *nìn-tāa*= "co-wife" and *dàtāa*= "enemy."

18 Quantifiers

18.1 Quantifiers: Overview

Formally, quantifiers resemble noun sg or pl forms, very frequently with Apocope Blocking $\boxed{7.4}$; Numbers $\boxed{18.2.1}$ are preceded by number prefixes.

Quantifiers can be classified as **count** or **mass**, but the distinction is only of significance when the quantified noun is mass type, in which case a count quantifier is ungrammatical; with count nouns there is no restriction and either type of quantifier is acceptable:

	nīdɪb bɛ́dʊgū	"a lot of people"
	nīdɪb bábɪgā	"many people"
	kùˀəm bɛ́dʊgū	"a lot of water"
not	**kùˀəm bábɪgā*	*"many water"

Mass quantifiers are

	bèdʊgū⁺ᐟ	"a lot"
	pāmm SF *pāmné* LF	"a lot" (on the LF see $\boxed{7.4}$)
	fīiň⁼	"a little (liquid)"
	bīˀəlá⁺	"a little"
	wūʊ⁼	"all"
	wūsa⁺	"all"

Count quantifiers include the **numbers**, and also

	bàbɪgā⁺ᐟ	"many"
	kàlɪgā⁺ᐟ	"few"
	fāaň⁼	"every"
	zāňˀa⁼	"every"
	*kàm*ᵃ	"every"

*Kàm*ᵃ "every" occurs by itself as a quantifier and also before others:

	sāŋá kám = sāŋá kám zāňˀa	"all the time"

Quantifiers lack combining forms; when they appear as heads before post-determining pronouns the usual free form is used.

18.2 Number Words

18.2.1 Numbers: Overview

Number words function as quantifiers, and also have forms used as adverbs; for "one", there are also post-determiners meaning "first."

Many number words show Apocope Blocking 7.4.

In all uses, the numbers 2 to 9 begin with an inseparable **number prefix**. Forms with number prefixes are all Liaison Words 9.3.2. Although unprefixed forms are not available for comparison, the number prefixes are probably followed by L Raising on the root of the number word.

The number prefixes represent **fossilised noun class agreement prefixes**. With the collapse of noun-class based grammatical gender 11.1 in favour of a system of natural human/non-human gender 21.2.2 the old ᵃ|bᵃ Class agreement pronouns *ò bà* have been generalised for human-gender while the old *rᵉ|a⁺* Class singular pronoun *lì* has been adopted for non-human gender. In Dagbani, where there has been a very similar change, the non-human singular pronouns are similarly based on the equivalent of the *rᵉ|a⁺* Class, with the old plural pronoun *ŋa* still extant in older materials for non-human plural (Olawsky 1999.) Number words originally agreed with the counted noun with a prefix similar in form to the corresponding plural pronoun, and the *à-* of the Kusaal numbers 2-9 used as quantifiers 18.2.2 represents original **ŋa-*.

Because of its origin from **ŋa-*, *t*he *à-* number prefix, unlike all other *a-* particles and prefixes, causes a preceding LF-final vowel following a consonant to appear as *-a* rather than *-ι* 9.3.2:

    bīisá‿ àtáň⁷   "three children"
    child:**PL NUM:**three

This same *à-* is also seen in *àlá⁺* "how many?" contrasting with *àlá⁺* "thus", which has the manner-adverb *à-*:

    Pὲɛdá‿ àlá   ⁺*ø?*   "How many baskets?"
    Basket:**PL NUM:**how.many **CQ**?

    nìŋι‿ àlá   "did thus"
    do:**PFV ADV:**thus

The expected corresponding human-agreement number prefix *bà-* is not now found after nouns with human gender, but is still preserved after personal pronouns:

tì bàtáň^ʔ	"we three"
yà bàyɔ́pɔ̀ę̣	"you seven"
bà bàyí	"they two"

The forms of the number words 2-9 used for counting 18.2.3 represent the old *m*^m Class agreement, in the "abstract" sense of the *m*^m Class 11.1.1:

ǹtáň^ʔ	"three"	(in counting)
ǹnāas	"four"	(in counting)
ǹnū	"five"	(in counting)

Compare Nawdm *mì-tâʔ* "three" *mì-ná:* "four" *mì-nûʔ* "five" etc in counting. When referring to a specific noun Nawdm numbers have a prefix agreeing with the noun class *nídbá bà-tâʔ* "three people"; *mi* marks the abstract/mass class cognate to the Kusaal *m*^m Class (Fiedler 2012.)

The number prefix *bʋ̀-* appears in various adverbial number words 18.2.5. It probably represents either an old *b*^o or *m*^m Class agreement.

àbʋ̀yí⁺	"twice"
àbʋ̀táň^{ʔ+}	"three times"
àbʋ̀nāasí⁺	"four times"
bʋ̀pīiga⁺	"ten times"
nɔ̄ɔrím bʋ̀táň^{ʔ+}	"three times"

Numbers without prefixes show that, like all quantifiers, numbers are not subject to M Raising:

būʋg yīnní	"one goat"
kūgʋr yīnní	"one stone"
būʋs pīiga	"ten goats"

The noun, as here, is plural (except of course with *yīnní⁺*) with the exception of units of measure which generally remain sg:

yɔ̄lʋgá àtáň^ʔ	"¢600 [cedis]"
	(*yɔ̄lʋg^{o/}* "sack" for £100/¢200; Hausa *jàkaa*.)

18.2.2 Quantifiers

The numbers in their core rôle as quantifiers take the forms

1	*yīnní*[+]	10	*pīiga*[+]	100	*kɔ̀bɪgā*[=]
2	*àyí*[+]	20	*pīsí*[+] [pʰisi]	200	*kɔ̀bɪsí*[+] [kʰɔbɪsi]
3	*àtáň*[?+]	30	*pīs táň*[?+]	300	*kɔ̀bɪs táň*[?+]
4	*ànāasí*[+]	40	*pīs nāasí*[+]	400	*kɔ̀bɪs nāasí*[+]
5	*ànū*[+]	50	*pīs nū*[+]	500	*kɔ̀bɪs nū*[+]
6	*àyúɵbʋ̀*[+]	60	*pīs yúɵbʋ̀*[+]	600	*kɔ̀bɪs yúɵbʋ̀*[+]
7	*àyɔ́pɔ̀ẹ*[+]	70	*pīs yɔ́pɔ̀ẹ*[+]	700	*kɔ̀bɪs yɔ́pɔ̀ẹ*[+]
8	*àníi*[=]	80	*pīs níi*[=]	800	*kɔ̀bɪs níi*[=]
9	*àwāẹ*[+]	90	*pīs wāẹ*[+]	900	*kɔ̀bɪs wāẹ*[+]

The forms for 1, 4, 6, 8, 10, and 100 show Apocope Blocking; the forms for 20 and 200 are not Apocope Blocked but are combinations with the stem of *àyí*[+].

kɔ̀bɪgā[=] has LF like the SF, not **kɔ̀bɪgáa*, contrary to the usual rule for forms with Apocope Blocking.

"Thousand" is a regular *r*[e]|*a*[+] Class noun, *tūsɪr*[e/]: *tūsá àtáň*[?] "3000."

"Half" is *pū-súk*[a] pl *pū-súgʋ̀s*[e].

Other numbers are formed with *nɛ̄* "with, and":

kɔ̀bɪs táň[?] *nɛ̄ pīs yúɵbʋ̀ nɛ̄ nū*   "three hundred and sixty-five"

11 to 19 have the special contracted forms

pīi nɛ̄ yīnní, pīi nɛ̄ yí, pīi nɛ̄ táň[?] ... *pīi nɛ̄ wāẹ*   or alternatively
pīi nā yīnní, pīi nā yí, pīi nā táň[?] ... *pīi nā wāẹ*

The clitic *à-* is omitted after *nɛ̄* "with", as here; sometimes it is omitted after the focus particle *nɛ̄*[+/] too:

Lì à nɛ̄ nāasí. / Lì à nɛ́ ànāasí.   "They're four."

The forms *àyíŋā*[+/] *àtáŋā*[+/] mean "two, three exactly." If I have four children

M̀ mɔ́r bīisá‿ àtáň[?].   "I have three children."
1SG have child:**PL NUM:**three.   is true, though misleading

but   *M̀ mɔ́r bīisá àtáŋā.*   "I have exactly three children." is false.

These forms can also be used after *nɛ̄*, as in *pīi nɛ̄ yíŋā* "twelve exactly."
Yīnní⁺ can also be construed with a preceding noun cb:

kūg-yínnì⁺	"one stone" (M Raising	10.3.1)
cf *kūgʊr yīnní⁺*	"one stone" (no M Raising	21.9.1)

In Dagbani both "one" and "ten" can be used after a combining form, but
Kusaal has only a few isolated forms like *dà-pīiga* "ten days".
After personal pronouns the number prefix is *bà-* instead of *à-* 18.2.1 :

*tì bàtáň*ʔ	"we three"
yà bàyɔ́pɔ̀ɛ̱	"you seven"
bà bàyí	"they two"

18.2.3 Counting Forms

1 to 9 have different forms used in counting, lacking Apocope Blocking and
using the number prefix *ǹ-* instead of *à-* 18.2.1 . The *ǹ* is syllabic, and assimilates its
position of articulation to the following consonant.

1	*yɛ̄óŋ* or *àdàkɔ́ň*ʔ	6	*ǹyúèb*
2	*ǹyí*	7	*ǹpɔ̀ɛ̱*
3	*ǹtáň*ʔ	8	*ǹníi*
4	*ǹnāas*	9	*ǹwāɛ̱*
5	*ǹnū*		continuing *pīiga*, *pīi nɛ̄ yí* as with quantifiers

*Àdàkɔ́ň*ʔ can also be used as a quantifier:

*náaf àdàkɔ́ň*ʔ	"one cow"
*būʋg àdàkɔ́ň*ʔ	"one goat"

*Lì ká*ʔ *àdàkɔ́ň*ʔ*ɔ̄ ⁺ø.*	"It's not one."
3NH NEG.BE NUM:one **NEG.**	

The form of "seven" is remarkable, as is its lack of L Raising after the prefix.
Referring to the numbers in the abstract, as in performing arithmetic, the
quantifier forms are used, not the counting forms:

Àyí   námá‿ àyí   á nɛ̄ nāasí.
NUM:two **PL**   **NUM:**two **COP FOC** four.
"Two two's are four."

18.2.4 Adjectives and Ordinal Constructions

   yīmmír[e]   *yīmmá*[+]   *yīm-*   "single, alone"

e.g. *bì-yīmmír*   "only child"
   wāb-yímmìr   "solitary elephant"

   There are two words meaning "one of a pair."
ňyàụk[o] pl *ňyàˀad*[e] is only used for eyes:

   nīf-ňyáụk   "one eye"
   bà-nīf-ňyáụk   "one-eyed dog"

yīụŋ[o/] pl *yīná*[+] is used for other normally paired body parts:

   tùb-yīụŋ   "one ear"
   bì-tùb-yīná   "one-eared children"

   The only single-word ordinal is

   dɛ̄ɛŋ[a]   *dɛ̄ɛňs*[e]   *dɛ̀ɛŋ-*   "first"
       or *dɛ̄ɛmɩs*[e]
       or *dɛ̄ɛna*[+]

as in *sɔ̄b-dɛ́ɛ̀ŋ* "first census" (Lk 2:2, 1976.)
   The concept "first" can also be expressed by using *yīigá*[+] "firstly" as a pre-determiner:

   yīigá kùm-vū̄ˀʋgír   "first resurrection" NT.

   For other ordinals two constructions occur.
One is to use a periphrasis with *pàas*[e] or *pɛ̀ˀɛs*[e] "add up to":

   dàụ-kànɩ‿ ø pɛ̀ˀɛsa‿ àyí   lā
   man-**DEM.SG COMP** add.up.to:**PFV NUM:**two **ART**
   "the second man" ("man who has added up to two")

   lìnɩ‿ ø pàasa‿ àtáňˀ lā
   DEM.NH COMP add.up.to:**PFV NUM:**three **ART**
   "the third one"

Another is to use numbers as pre-dependents before *dāan*ᵃ "owner of ..."; such phrases are then themselves used either as NP heads or as post-determiners:

àyí dāan lā	"the second one"
būʊgá àtáňˀ dāan lā	"the third goat"

Yīigá dāan may be used for "first."

In a story in "*Kusaal Solima ne Siilima*" ordinal forms used in counting "first, second, third ..." appear without Apocope Blocking:

kɔňˀ daan, ayi daan, ataňˀ daan, anaas daan, anu daan, ayuɵb daan, apɔe̯ daan, anii daan, awae̯ daan, piig daan

My informants use the ordinary quantifier forms here.

18.2.5 Adverbs

Multiplicatives (answering *àbʊ̀lá?* "how many-fold?") are expressed

yīmmʊ́⁺	"straight away, at once"
àbʊ̀yí⁺	"twice"
àbʊ̀táňˀ⁺	"three times"
àbʊ̀nāasí⁺	"four times"

and so on, with the same stems after the prefixes as for the quantifiers, up to

bʊ̀pīiga⁺	"ten times"

The *à-* of these forms is not the number prefix but the manner-adverb formant, and a LF-final vowel mora before it is *-ɩ* not *-a*; its attachment only to 2-9 is presumably therefore analogical.

Answers to *nɔ̄ɔrá àlá* "how many times?" have forms of the pattern

	nɔ̄ɔr yīnní⁺	"once"
	nɔ̄ɔrá àtáňˀ⁺	"three times"
or	*nɔ̄ɔrím bʊ̀táňˀ*⁺	"three times" NT

This *nɔ̄ɔr* is not "mouth" (= Mooré *noore*) but corresponds to Mooré *naore* "times", homophonous with Mooré *naore* "leg"; cf Toende Kusaal *nɔ̄ˀɔt* = Agolle *nɔ́bɩ̀r* "leg". Original open and closed *o:* fall together when nasalised 5.1.1 . For the semantics cf Hausa *sàu ʔukù* "three times" *sau* "foot(print)." Niggli's Dictionnaire

gives Toende *nɔ́ˈɔt* (tone *sic*) in the sense "*fois*" and even has *nɔba ayi* beside *nɔˈɔt ayi* "*deux fois*." Agolle *nɔ̄ɔr* "times" does not have a glottalised vowel, however.

Distributives ("two by two" etc) are reduplicated forms without Apocope Blocking; there is no M Raising of the second part except with 10, 100, 1000:

1	*yīn yīn*	10	*pīi pîg*	100	*kɔ̀bɪg kɔ́bìg*
2	*àyí yí*	20	*pīsí pīsí*	200	*kɔ̀bɪsí kɔ́bɪsí* or *kɔ̀bɪs yí yí*
3	*àtáñ⁷ táñ⁷*	30	*pīs táñ⁷ táñ⁷*	300	*kɔ̀bɪs táñ⁷ táñ⁷*
4	*ànāas nāas*	40	*pīs nāas nāas*		*etc*
5	*ànū nū*	50	*pīs nū nū*	1000	*tūsɪr túsìr*
6	*àyúèb yúèb*	60	*pīs yúèb yúèb*		
7	*àyɔ́pɔ̀ę pɔ́ę*	70	*pīs yɔ́pɔ̀ę pɔ́ę*		
8	*àníi níi*	80	*pīs níi níi*		
9	*àwāę wāę*	90	*pīs wāę wāę*		

Intermediate numbers are made by replacing the last part of the usual quantifier phrase with a distributive:

pīs nū nɛ̄ nāas nāas   "by fifty-fours"

The distributives can have a preceding NP as a determiner:

dābá àyɔ́pɔ̀ę pɔ́ę   "weekly" ("by sevens of days")

18.3 Proquantifiers

Quantifiers have corresponding proforms; the *à-* is the *number* prefix, and induces preceding LF-final *-a* not *-ι* [9.3.2]; contrast the Proadverbs [19.1].

Demonstrative		Indefinite	Interrogative	
àlá⁺	"so much /many"	*sīʔəm*ᵐ "some amount"	*àlá⁺*	"how much /many?"

19 Adverbs

Adverbs can be broadly categorised as adverbs of time, place or manner.

Many adverbs are formally identical to nouns, and the question may arise in such cases as to whether they should be regarded as simply adverbial uses of words which are in fact primarily nouns; the matter is rendered more complicated by the fact that AdvPs can be arguments of verbs in some circumstances 22.5 , and that adverbs other than proforms may also appear as modifiers and determiners within NPs 21.7.2.3 21.8.2.3 .

Unequivocal adverbs include the proadverbs listed in 19.1 , along with various types which do not conform to ordinary noun structure.

Among time adverbs, these include

zīná[+]	"today"
sù'es[a]	"yesterday"
dūnná[+]	"this year"

Various time words which resemble nouns in form nevertheless are distinguishable morphologically from nouns be the fact that they lack cb or pl forms, and syntactically in that they cannot be referred to by pronouns; these include

bɛ̄og[o]	"tomorrow"

The word

dāar[e]	"day after tomorrow/day before yesterday"

behaves similarly in this sense, but is homophonous with *dāar*[e] "day", which is a noun. Other words usable as time adverbs are also capable of being employed as full-fledged nouns 37.8 :

yú'uŋ[o]	"night"
nīntāŋ[a/]	"heat of the day, early afternoon"
úun[ne]	"dry season"

On the whole, such nouns are likely to appear with dependents of their own when used in time AdvPs, and words of this type can be treated as special instances of the general principle that any NP with reference to a time may be used as a time AdvP. Categorisation as true time adverbs can be restricted to those which (like manner adverbs) do not accept any dependents.

Locative adverbs comprise proforms along with Kusaasi place names; other locative AdvPs use the locative particle *nɩ*⁺~ *n*ᵉ 22.3 . It is not possible to use a noun other than a place name by itself as a place adverb, except for a limited set on nouns which are also used as postpositions 22.6 , most notably *zūg*ᵒ/ "head" in the sense "on, onto, owing to." Although the origin of such postpositions is transparent, synchronically the postpostions are separate lexical items from the homophonous nouns, and the process of zero-derivation that created them is no longer active.

Manner adverbs again include proforms; besides these there are several distinctive formations. Although various NP types can be used as manner AdvPs, as with time adverbs, true manner-adverbs cannot take any dependents.

Several adjective stems form manner-adverbs with an ending **-ga**⁺, i.e *g*ᵃ|*s*ᵉ Class sg along with Apocope Blocking 7.4 :

sʋ̀ŋā⁺/	"well; very much"
māʔasígā⁺/	"coolly"
tūʋlígā⁺/	"hotly"
gīŋa⁺	"shortly"
būgʋsígā⁺/	"softly"
sàalíŋā⁺/	"smoothly"
ňyὲεsíŋā⁺/	"self-confidently"

Cf also *yīigá*⁺ "firstly" see 18.2.4 .

Other manner-adverbs with Apocope Blocking include *pāalʋ́*⁺ "openly", and

*ňyāe*ⁿᵉ/	"brightly, clearly"

The NT always writes the SF of *ňyāe*ⁿᵉ/ as *nyain*. This is probably simply a now-traditional orthographic anomaly; if it represents an actual variant, it might be a form containing the locative particle: *ňyāen*ᵉ/, but not only my informants but also the audio version of the NT at *http://www.bible.is* always have [jãĩ]; cf Toende *yãʋ́ɩ́* id (though *ɩ* actually is the usual Toende equivalent of Agolle Locative *n*ᵉ.) The LF *ňyāené* is an instance of the addition of *-ne* to make secondary LFs, as in words with Apocope Blocking which do not end in short vowels 7.4 .

The word shows the characteristic distribution of a manner-adverb rather than a noun, appearing as complement of *àe̥ň*ʸᵃ "be something" and as an adjunct:

Wina'am a su'um nyain.
Wínàʔam á   sʋ́m   ňyāe.
God   **COP** good:**ABSTR** brightly.
"God is light." (1 Jn 1:5)

... ka ke ka ti lieb nyain.

... kɛ́   kà   tì   líə̀b   ňyāe.

... cause and **1PL** become:**PFV** brightly.

"... make us light." (1 Jn 1:7)

... na nye lini nie nyain pamm

... nà ňyɛ̄   línì ͜   ø   nìe   ňyāe   pāmm

... **UNR** see:**PFV** **DEM.NH** **COMP** appear:**PFV** brightly much

"...will see a great light" ["what appears very brightly"] (Mt 4:16, 1976)

The **manner-adverb prefix** *à-* appears before some nominal stems which are also followed by Apocope Blocking 22.4 :

àmɛ̄ŋá+	"truly"
àsīda+	"truly"
àníŋà+	"promptly"

The same prefix is also seen in a number of proadverbs and in the locative *àgɔ́l*le "upwards" 22.3 . Words with this prefix are all Liaison Words. The prefix is followed by L raising, like the number prefix, but differs from it in that it does not cause a preceding LF-final vowel mora to appear as *-a* 9.3.2 .

A number of manner-adverbs are formed by **reduplication of roots**.

nàˀanā+/	"easily"
tɔ̀ˀɔtɔ̄+/	"straight away" (Mooré *taotao* id)
kɔ̄ňˀɔkɔ̄+	"solely, by oneself"

Conversion of abstract non-count nouns can produce Manner adverbs; so particularly with *m*m Class abstracts. Some Adverbial Phrases of manner are formed by conversion of abstract nouns:

*pāalím*m	"recently" (*pāalíg*a "new")

When noun forms are used as manner-adverbs in this way, they are like basic manner-adverbs in not accepting dependents. It this seems reasonable to regard this process as word-level zero-derivation.

Even concrete count nouns employed in an abstract generic sense can be used adverbially 22.4 but this is a syntactic rather than morphological process.

19.1 Proadverbs

Adverbs have corresponding proforms.

	Demonstrative		Indefinite		Interrogative	
Place	*kpɛ̄*+	"here"	*zìň ʔ-sīʔa*+		*yáa nì*+	"where?"
	kpɛ̄lá+	"there"	"somewhere"		*yáa*	"whither
	àní+	"there"				/whence?"
	ànínā+/	"there"				
Time	*nānná*+	"now"	*sān-síʔa*+		*sān-kán*e	"when?"
	nānná-nā+/	"now"	"sometime"		*būn-dáàr*e	"which day?"
	*sān-kán*e	"then"			*bɔ̀-wìn*ne	"what time
						of day?"
Manner	*àňwá*+	"like this"	*sīʔəm*m		*wɛ̄lá*+	"how?"
	àwá nā+/	"like this"	"somehow"			
	àlá+	"like that"				

The indefinites are used as relative pronouns ⃞33.2⃞.

The *à-* of the Manner forms is the manner-adverb prefix and is preceded by the LF-final vowel *-ι*, while the *à-* of proquantifiers is the *number* prefix, and induces preceding LF-final *-a* not *-ι* ⃞9.3.2⃞ ⃞18.3⃞.

Proforms expressing reason are formed with the postposition *zūg*o/ ⃞22.6⃞:
*àlá zùg*o "because of that", *bɔ̄zúgò?* "why?" (cf *bɔ̄ zúgū* "because" ⃞29.3⃞.)

20 Unanalysable Complex Stems

There are numerous words in Kusaal (not least the very name of the language, *Kūsáàl*[e]) which are more complex structurally than simple unprefixed stem types but are simply en bloc unanalysable units. Tonally, they most often resemble forms with nominal prefixes, though examples occur with an initial H toneme. They are often aberrant segmentally, for example in containing unusual consonant clusters, or showing contrastive nasalisation in the "prefix." By no means all of these are identifiable loanwords; in particular, many names of ethnic groups and clans fall into this category.

Examples of such complex stems include

Kūsáàs[e]	"Kusaasi"
Ňwāmpūrıs[e/]	"Mamprussi"
Kùtām[ma/]	WK's clan
gbáňyà'a[=]	"lazy person" *gonya'am* "idleness" 1976 NT
	cf Dagbani *gbinyaɣli* "laziness"

20.1 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 11.7. Analogy may also cause the initial *a-* of loanwords like *àrazánà*[+] *àrazàk*[a] below to be treated tonally as Fixed-L 10.2.

Most loanwords were probably borrowed from **Hausa** in the first instance. Many such loans 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 distributions.

Among nouns borrowed from Hausa are

dāká[+]	"box"	← *'àdakàa*
gādʋ[+]	"bed"	← *gadoo*
kὲɛkὲ[+]	"bicycle"	← *kèekè*
bákpàe̯[+]	"week"	← *bakwài* (Hausa "seven")

Identifiable verb loanwords are much less common, but there are examples:

dàam[m]	"disturb, trouble"	← *dàamaa*
bùg[e]	"get drunk"	← *bùgu*
	Hausa idiom: literally "get thoroughly beaten"	

Quite a few function words are certainly loans, and probably from Hausa:

àsɛ́ɛ	"except"	← *sai*
kūʋ	"or"	← *koo*

With *báa*   "not a..." 35.4   ← *bâa*

bâa is part of the core Hausa system of negation, so Hausa is almost certainly the origin of the loan (though even here, compare Humburi Senni *bá:y-à:* "nothing.")

The existence of the same words in the Hausa even of Nigeria confirms that these are loanwords in Kusaal, but the actual immediate source of the borrowing is frequently not certain, because Hausa (like English) is not only a great lender of words to other languages but also a great borrower. Sometimes such words also occur in many other languages of the Sahel and Savanna: *hālí*⁺ "until", Hausa *har*, Kikara Songhay *hálì* id, possibly from Arabic حتى *ħatta:* (etymology suggested in Heath 2005); *lɔ̀mbɔ̀ʔɔg*ᵒ "garden", Hausa *làmbuu*, but also e.g. Humburi Senni *làmbò* "enclosed vegetable garden", where Heath speculates on a Songhay-internal connexion with *làmbà*, "lurk, hide (e.g. behind a wall or tree)", a word which in turn seems to be connected with the Kusaal Invariable Verb *làbɪ*ʸᵃ "be crouching, hiding behind something", Hausa *laɓèe* id; cf also Kikara Songhay *lá:bú* "hide behind or under something." In the case of Kusaal *làbɪ*ʸᵃ and Hausa *laɓèe* , the coincidence of highly specific meanings with very similar forms is striking. However, if the Kusaal word is a loan, it has been remarkably well integrated into the language, with an Invariable Verb type Long Form in *-ya* 3.2.2 and Variable Verb assume-posture and make-assume-posture derivatives 15.2.1.1 .

Hausa loans have travelled far in West Africa, with an entry point into Songhay via the Zarma and Kaado languages of Niger, e.g. Humburi *tílásò* "duty", Zarma, Kaado *tílàs* ← Hausa *tiilàs*. Accordingly, wide distribution does not in itself rule out Hausa origin or transmission.

Words of **Arabic** origin are frequent throughout the languages of the Sahel and Savanna; thus, among many others

Tàláatà⁺	"Tuesday"	Hausa	*Tàlaatàa*	
		Arabic	الثلاثاء *ʔaθ-θala:θa:ʔ(i)*	
láafɪ̀ya⁺	"health"	Hausa	*laafiyàa*	id
		Mooré	*laafi*	id
		Kikara Songhay	*ʔàlà:fíyà*	id
		Arabic	العافية *ʔal-ʕa:fiya(tu)*	
			"(the) wellness"	

àrazàk[a]	"riches"	Hausa	*ʔarzìkii*	id
		Mooré	*arzɛka*	id
		Kikara Songhay	*ʔárzúkù*	"good luck"
		Arabic	الرزق *ʔar-rizq(u)*	
			"(the) livelihood"	
		cf plural	ارزاق *ʔarza:q(un)*	

àrazánà[+]	"heaven, sky"			
		Hausa	*ʔàljannàa*	"heaven, paradise"
		Mooré	*arzãna*	id
		Kikara Songhay	*ʔàljánnà*	id
		Arabic	الجنة *ʔal-ɟanna(tu)*	
			"(the) garden, paradise"	

yàddā[+/]	"assent"	Hausa	*yàrda*	(verb) "consent"
yàdā WK		Gao Songhay	*yarda/yadda*	id
		Kikara Songhay	*yárrɛ̀*	id
		probably Arabic	يرضى *yardˤa:*	3sg m ipfv of
			رضى *radˤiy(a)*	"be satisfied"

Given the importance of *Gaanancii* as the lingua franca of northern Ghana, it is likely that such Arabic words have normally entered Kusaal via Hausa. In most cases this is impossible to prove or disprove, but occasionally there is a suggestive mismatch between the Hausa and the Kusaal forms, which more nearly resemble those of some other language. Mooré is a possible alternative intermediary for Arabic loanwords in Kusaal; Hausa influence in Mooré is, at least, certainly less than in Kusaal, and such words may have reached Mooré from other West African languages widely used by Muslims, such as Dyula or the various Songhay languages.

Thus *màlḭāk*[a] "angel" (always *malek* in the NT) is undoubtedly ultimately from the Arabic ملاك *malʔak(un)* (itself, of course, a loanword.) The vocalism suggests an origin in Mooré *malɛka*, perhaps via Toende *màlék*. The word is usually found in Christian materials, which would be consistent with an immediate source in Mooré and/or Toende Kusaal (see below.) None of these forms seems likely to be borrowed from the Hausa *màlaaʔikàa*, which is itself from the Arabic plural ملائكة *mala:ʔika(tu)*. A similar case in the realm of religion is *Sūtáanà*[+] "Satan", corresponding to Mooré *Sʊtãana* (cf Bambara *sitanɛ*) rather than Hausa *shàiɗân*, which is a learned form close to the Arabic شيطان *ʃaytˤa:n(u)*. Again, *dūnɩya*[+] "world" has the short *u* vowel of the Arabic دنيا *dunya:* rather than the long *uu* of Hausa *duuniyàa*; Balima et al have Mooré *dúnyà*. The all-M tonemes of *dūnɩyà*[+] are surprising in either case, but the limited possibilities for different word-internal tone contrasts in Kusaal prevent

straightforward copying of the tones of source languages and presumably result in analogy playing a great rôle in Tone Pattern assignment.

Loanwords from **Songhay** languages, probably borrowed via Mooré, include

bùrkìn[a]	"honest person"
	Dagbani *bilchina* "free, not slave"
	Mooré *burkina* "free, noble" (as in "Burkina Faso")
	even Yoruba *bòròkìnní* "gentleman"
	cf Kikara Songhay *bòrkĭn* "noble (caste)";
	the first component is probably *bòrò* "person."
bàu̯ŋʋ[+]	only as in e.g. *ò kpèň⁊ báu̯ŋʋ̀.* (*kpèň⁊*[+] "enter")
	"He was circumcised."
	cf Kikara Songhay *bàŋgù* "pool, spring" in the idiom
	à húró bàŋgù, literally "He entered the pool."
	(not "forest", as in some sources: Trimingham 1959)
	Mooré *kẽ bãongo* (*kẽ* "enter" = *kpèň⁊*[+])

Loans from other **Western Oti-Volta languages** are difficult to distinguish from cognates; the vast majority of similar words are due to common inheritance and not borrowing. It is notable, however, that Kusaal speakers themselves very often ascribe forms which are not part of their own usage to **Mooré** influence.

As an illustration of the difficulties, a word shown to be a loan by its phonology is *Wínnà⁊am*[m] or *Wínà⁊am*[m] "God" (realised with *-nn-* by WK, but consistently *Wina'am* in the NT and other written materials.) The word refers particularly to the Christian God; the Creator of traditional religion appears simply as *Wīn*[ne/] in proverbs etc. *Wínnà⁊am* looks analysable as a compound of *wīn*[ne/] "god" and the stem of *nà⁊ab*[a] "chief" or *nā⁊am*[m] "chieftaincy", but the tonal structure is unparalleled for an Agolle Kusaal compound (one would expect **Wīn-ná⁊àm*), and the prevalence of the form *Wínà⁊am* with single *-n-* also shows that the form is not a synchronic compound within Agolle Kusaal. The earliest Christian missionary work among the Kusaasi began in Haute Volta (now Burkina Faso), using Mooré materials, so one possible source might be the corresponding Mooré word *Wẽnaam* or *Wẽnnaam*, which appears as *Wẽnâm* (HL tones) in Balima et al. This would not account for the glottalised *-a⁊a-*; and while conceivably that might be due to the analogy of *nà⁊ab*[a], it probably rather shows that the immediate source of the loan is not Mooré but the **Toende Kusaal** of Burkina/Haute Volta. Niggli's Dictionnaire has *Wínā'am*, which shows a tonal fall like the Agolle *Wínà⁊am*. Furthermore, all instances of the word in Niggli's materials show single *-n-*; Niggli's account implies (though it does not explicitly state) that contrastive gemination in Toende Kusaal is preserved only before the affix vowels of Long Forms.

A similar case is the odd form *faangid* used for "saviour" in the New Testament versions. Informants read it as [fã:g̬ʲɪd]; the preservation of *g* in this position 7.3.1 is almost completely isolated within Agolle Kusaal (the sole other example I have found is the strange gerund form *zìˀəgᵃ* of *zìˀe*ʸᵃ "be standing" used by DK KT instead of KED *zīˀa⁺* 14.1.1.2 .) The expected agent noun from *fāeň⁺/* "save" is *fāaňd*ᵃ/, which was probably avoided for the meaning "saviour" as it is identical to the agent noun of *fāň⁺* "rob, snatch", itself found in the NT as *faand* "robber." WK uses the identical agent noun form *fāaňd*ᵃ/ for both verbs, specifically confirming both meanings.

As with *Wínàˀam*, the forms may be loans from Toende Kusaal, where the deletion of *g seems to be partial, with the details varying between speakers (Niggli, "La phonologie du kusaal.") Loss of *g* is consistent word-finally after *all* long vowels (*bíí* "child" = *bīig*ᵃ, *bʊ̄ʊ̄* "goat" = *bʊ̄ʊg*ᵃ), and optional or absent otherwise:

páa	"*arriver*" (Agolle *pāe⁺* "reach")
Õ bʊ paage.	"*Il n'est pas arrivé.*" (Agolle *Ò pʊ̄ pāée.)*

Niggli's "Dictionnaire" has both *fãagɪt* and *fãat* for "*sauveur*", with *fãat* also glossed as "*voleur, brigand*."

A more everyday example is WK's form *kīibʊ́⁺* cb *kīib-* "soap." Written sources have *ki'ib*, probably *kīˀɪb*ᵒ/ "soap", cf Toende *kíˀɪp* in Niggli's "Dictionnaire" (Farefare *kíˀíbɔ́*.) The final -*ʊ* of *kīibʊ́* suggests borrowing from a related language which does not delete final short vowels in citation forms. The tense stem vowel further suggests that the source was the **Mampruli** *kyiibu*, as loss of the tense/lax distinction in the high vowels is characteristic of the subgroup of languages which includes Mampruli, Hanga and Dagbani, and in particular is not seen in Mooré.

Other words with singulars ending in -*ɪ⁺* or -*ʊ⁺* 11.6 like *kābɪrí⁺* "permission for entry" and *sūgʊrʊ́⁺* "forbearance" may similarly have originated as loans from other Western Oti-Volta languages.

A few loans from **English** are found. English is in most respects even less like Kusaal in phonological structure than Hausa is, and those loanwords which are sufficiently naturalised that they are used even by speakers unfamiliar with English have often undergone considerable changes:

*àlɔ́pìr*ᵉ	"aeroplane"; perhaps a back-formation from [alɔpɪ[ɪn] taken as a locative *àlɔ́pìrīn*ᵉ/
du̯ˀátà⁺	"doctor" (cf Dagbani *dɔ́ɣtɛ́* id)
tɔ́klàe⁺	"torch" ← "torchlight"
*lɔ́r*ᵉ	"car, lorry"
	(often borrowed even in Francophone Africa: cf Kabiyè *lɔɔríyɛ*, Mooré *lore*)

The word *pootum* "complain about officially" found in the 1976 NT version 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: *lɔ́yà* "cars", not **lɔ̄yá* 11.7 .

Several loanwords of English origin have probably been transmitted via Hausa:

kɔ́tʋ̀[+]	"court"	Hausa *kootù*
sɔ́gi̯à[a]	"soldier"	Hausa *soojà*
tɛ́ɛbʋ̀l[e]	"table"	Hausa *teebùr*
wādá[+]	"law"	Hausa *ʔoodà* (← English *order*)
		sg *wādɪr*[e/]
		cb *wād-* by back-formation

The only **French** loan identified in my materials is *làmpɔ̄* (i.e. *l'impôt*) "tax", as in *làmpɔ̄-díʔə̀s*[a] "tax gatherer", which is perhaps a legacy of early Bible translation activity by workers coming from Haute Volta (though it is found also in Dagbani.) There are naturally many more French loans in Burkina Faso Toende (Niggli 2014.)

I have identified few loans from **Twi/Fante** ("Akan"), the major lingua franca of southern Ghana; in part, this probably reflects my own lack of knowledge of that language. However, as of 1995, knowledge of Twi was certainly less common among the Kusaasi than knowledge of Hausa or Mooré.

Loans include

kɔ̄dʋ́[+]	"banana"	← *kwadu*	
sāafɪ[+](?tones)	"lock, key"	← *safɛ̃*	"key"
būrɪyá[+]	"Christmas"	← *bronya*	
		(itself of unclear origin)	

Syntax

21 Noun Phrases

21.1 Noun Phrases: Overview

A Noun Phrase has a noun, pronoun or quantifier as head. If present, the **article** *lā*⁺ᐟ occurs last in a NP 21.3 . (For the sole exception, see 25.7 .)

Dependent Nominal Phrases may precede the head, possibly recursively, as **Pre-determiners**. The meaning depends on the nature of the head: some heads have specialised rôles 21.9.3 ; with Quantifiers or pronoun heads the sense is **partitive** 21.9.1 ; pre-determiners of gerunds and similar nouns are subjects 21.9.2 ; pre-determiners of all other heads are **possessors** 21.7.3 .

A Nominal Phrase may be a Relative Clause 33.2 . No dependents may occur with a Relative Clause apart from the article or a pre-determiner. Nominal Phrases may be formed by **Coordination** 21.4 or by **Apposition** 21.5 .

As is characteristic of Oti-Volta, **compounding** 21.6 is pervasive in NP formation, often where most languages use uncompounded constructions. Closeness of syntactic binding need not be reflected in whether the components are compounded or not 21.6.1 . Adjectives and post-determining pronouns regularly compound with the preceding head; accordingly the combining form is a regular part of the noun paradigm. Combining forms also function as **Pre-modifiers**, particularly before deverbal nouns in the rôle of arguments.

Uncombined NPs of various kinds also appear within NPs as pre-modifiers, and uncombined Quantifier and Adverbial Phrases may follow heads as post-determiners.

Personal pronouns accept only post-determining pronouns as dependents.

21.2 Noun Phrase Categories

21.2.1 Number

Number is a category only of nouns and pronouns, along with quantifiers when heading Quantifier Phrases. Agreement is confined to pronouns. Verbal Predicators show no agreement with any argument (on plural-subject imperatives see 30.2.3 .) However, in noun + adjective and noun + post-determining pronoun compounds, it is the dependent which inflects to show the number of the head noun cb 21.8.1 .

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; so, for example with gerund forms which can be interpreted as referring to particular instances of the action of the verb:

zɔ̄ɔg°	*zɔ̄ɔs*ᵉ		"race"
būˀəsʋ́g°	*būˀəsá*⁺	*būˀəs-*	"question"
zàaňsʋ́ŋ°	*zàaňsímà*⁺	*zàaňsʋ́ŋ-*	"dream"

Some abstract count nouns are formally plural but construed as singular ⟨11.5⟩

dìˀəma⁺	"festival"
*pi̯àňˀad*ᵉ	"word, language"
tɛ̄ňˀɛsá⁺	"thought"

Cf *tɛ̄ňˀɛsá yīnní* "one thought" (Acts 4:32).

Typical underived mass nouns belong to the *b*° and *m*ᵐ Noun Classes, which do not have paired sg/pl suffixes ⟨11.1⟩, but some are formally plural ⟨11.5⟩, and gerunds of 3-mora stem verbs regularly show sg *r*ᵉ or *g*° suffixes ⟨14.1.1.1⟩.

The count/mass distinction is significant in the choice of quantifiers ⟨18.1⟩ and when plurals are formed with *nàm*ᵃ ⟨11.4⟩, and it affects the meaning of constructions with preceding NPs as dependents ⟨21.7⟩.

Mass nouns can be used in count senses ⟨11.4⟩ (as in English):

dāam nám	"beers"

Count nouns can be used in mass senses, where number distinctions are irrelevant ⟨21.7.2.2⟩:

fūug dɔ́ɔ̀g	"tent" (cloth hut)
cf *fūug*	"item of clothing, shirt"
dàad bʋ́n-nám	"wooden things"
cf *dàad*	"pieces of wood"

Manner-adverbs resemble mass nouns syntactically. Mass nouns may occur as manner adverbs, as may count nouns used where number is irrelevant ⟨22.4⟩:

M̀   kɛ́ŋ   nɔ̄bá.
1SG go:**PFV** leg:**PL**.
"I went on foot." SB; WK corrected this to *M̀ kɛ́ŋ nɛ̄ nɔ̄bá*, using *nɛ̄* "with."

21.2.2 Gender

Gender is marked only in pronouns. It is natural, distinguishing **personal** from **non-personal**. Not only human beings, but also supernatural beings, "fairies" and the like have personal gender. Without a context, my informants all rejected

Ò à nɛ̄ náaf.
3HU COP FOC cow:**SG**.
attempted "It is a cow."

However, both the NT version and older written materials use the personal-gender pronouns for higher animals:

Bung ya'a bood ye o lubuf, fu po nyeti o tubaa.
Bʋ̀ŋ yá' bɔ̀ɔd yɛ́ ò lūbʋ́‿ f,
Donkey:**SG** if want that **3HU** throw.off:**PFV 2SGO**,
fʋ̀ pʋ̄ ňyɛ̄tí‿ ò tʋ̀bāa ⁺ø.
2SG NEG.IND see:**IPFV 3HU** ear:**PL NEG**.
"If a donkey wants to throw you off, you don't see his ears." KSS p44
(i.e. "If there's a will, there's a way.")

Wief ya'a sigin li ni, li zuluŋ na paaen o salabir.
Wìəf yá' sīgín lì nī, lì zùlʋŋ ná pāan‿ ò sàlɪbɪr.
Horse:**SG** if descend:**PFV:REM 3NH LOC**, **3NH** depth **UNR** reach:**PFV:REM 3HU** bridle:**SG**.
"If a horse went down in it, its depth would reach its bridle." (Rev 14:20, 1976)

In stories where animals speak, they are naturally assigned personal gender. Trees, which are animate in the traditional Kusaasi world view, may also have personal gender:

Tiig wela bigisid on a si'em.
Tìɪg wɛ́là bìgɪsɪd ɔ́n à sī'əm.
Tree:**SG** fruit:**PL** show:**IPFV 3HU:COMP** COP **INDF.ADV**.
"The fruit of a tree shows what ["how"] it is." (Mt 12:33, 1976)

In the 1996 version the gender has been changed to non-personal:

Tiig wela bigisid lin a tisi'a.
Tìɪg wɛ́là bìgɪsɪd lín à tí-sī'a.
Tree:**SG** fruit:**PL** show:**IMPF 3NH:COMP** COP tree-**INDF.NH**
"The fruit of the tree shows what tree it is." (Mt 12:33, 1996)

When body parts are metaphorically represented as having opinions in the New Testament they have personal gender in the passage:

> *Nobir ya'a yelin ye, on pu a nu'ug la zug, o ka' niŋgbiŋ nii, lin ku nyaŋin keen ka o ka' niŋgbiŋ nii.*
> *Nɔ́bìr yáʔ yèlīn   yɛ̄, ɔ́n   pʋ̄   á   núʔùg lā   zúg,*
> Leg:**SG** if   say:**PFV:REM** that **3HU:COMP NEG.IND COP** hand:**SG ART** upon,
> *ò   kāʔ   nín-gbīŋ   níɩ ⁺ø, līn   kú   ňyāŋɩn‿   ø*
> **3HU NEG.BE** body-skin:**SG LOC   NEG**, **DEM.NH NEG.UNR** accomplish:**PFV:REM SER**
> *kɛ̄ɛn   kà   ò   kāʔ   nín-gbīŋ   níɩ ⁺ø.*
> cause:**PFV:REM** and **3HU NEG.BE** body-skin:**SG LOC NEG**.
> "If the leg were to say, 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)
> (In the 1996 version the indirect speech is changed to direct, as throughout.)

Babies may be counted as personal or non-personal gender:

> *Ò/Lì   à   nɛ̄   bí-līa.*
> **3HU/3NH COP FOC** child-baby:**SG**.
> "He/she/it is a baby."

Thus, while there might have been a change in the gender system itself over the past years from animate/inanimate to personal/non-personal, it seems more likely that changes in usage regarding animals, trees etc simply reflect how the referents are conceptualised.

There *has* been a change, however, apparent to some extent already in the NT versions but virtually complete in the speech of my informants, in the **alignment of gender and number**. An earlier opposition of a personal gender which distinguished singular from plural over against a non-personal gender which used the same forms for both numbers (resembling that described for modern Dagbani by Olawsky) has been replaced by a system which distinguishes personal/non-personal in the singular but has no gender distinction in the plural.

In older sources, like the 1976 NT, non-human pronoun forms are used indifferently with singular or plural reference, occasionally using *nàm*ᵃ plurals to avoid ambiguity; my informants, however, consistently use "human" pl for non-human reference:

> *Bà à   nɛ̄ kūgá.*   "They are stones."
> **3PL COP FOC** stone:**PL**.

This continues a trend seen in NT, which uses "human" plural for non-human in the demonstratives already: NT uses the independent non-human gender demonstrative pronoun *nɛ̄ʔ⁺ᐟ* as sg and pl, with *nɛ̄ʔ-nám*ᵃ also as a plural form, but consistently uses the human-plural forms *bàmmā⁺ᐟ bàn*ᵉ of the dependent pronouns for non-human; my informants use human plural forms for non-human throughout.

In my informants' unselfconscious utterances there seem to be signs of gender distinctions breaking down altogether:

> *Nīf-káŋā,   ɔ̄n   sáʔàm   nɛ̄.*
> Eye-**DEML.SG**, **DEM.HU** spoil:**PFV FOC**.
> "This eye, it's spoilt." KT

> *M̀   pū   ň̆yɛ̄·óo   ⁺ø.*
> **1SG NEG.IND** see:**PFV:3HUO NEG**.
> "I can't find it [a stethoscope]" (Overheard)

> *sālıma láʔàd   nɛ́   ò   būtı ıs*
> gold   item:**PL** with **3HU** cup:**PL**
> "gold stuff and (gold) cups" WK

Speakers correct the gender to non-personal if their attention is drawn it. The dummy subject pronoun "it" is always *lì*, never *ò*.

To avoid confusion with the term "personal" as in "personal pronoun" the genders will be called, less accurately, **human** and **non-human** elsewhere.

21.2.3 Person

Person is a category confined to personal pronouns. The Verbal Predicator shows no agreement with any argument 24.1 (with a marginal exception for some speakers with plural commands 30.2.3.) Person is straightforward, with no inclusive/exclusive distinctions and no honorific uses. 2sg is used in proverbs for a generic "one":

> *Bung ya'a bood ye o lubuf, fu po nyeti o tubaa.*
> *Bùŋ   yáʔ bɔ̀ɔd yɛ́   ò   lūbú‿   f,*
> Donkey:**SG** if   want that **3HU** throw.off:**PFV 2SGO**,
> *fù   pū   ň̆yɛ̄tí‿   ò   tùbāa ⁺ø.*
> **2SG NEG.IND** see:**IPFV 3HU** ear:**PL** **NEG***.*
> "If a donkey wants to throw you off, you don't see his ears." KSS p44
> (i.e. "If there's a will, there's a way.")

The 3rd Person plural is used as a non-specific "they" for turning passive constructions actively, much as in English:

> *Bà yɔ̀ɔdī‿ f   súŋàa   ⁺ø?*
> **3PL** pay:**IPFV 2SGO** good:**ADV PQ**?
> "Are you well paid?" "Do they [never mentioned] pay you well?" SB

This construction has become grammaticalised so far that the the object can be construed as the grammatical subject in a Serial VP construction 28.1 , e.g.

> *Diib wusa nare ba di.*
> *Dīɩb wūsa nárì‿ø   bà dí.*
> Food all   must **SER 3PL** eat:**PFV**.
> "All foods may be eaten." (Rom 14:20)

There are formal means of distinguishing different third persons by the use of pronoun ellipsis 29.1.4.2 and logophoric use of the free pronouns 31.4.2 .

21.3 The Article *lā⁺/*

The two words *lā⁺/* and *ňwà⁺* presumably originated as corresponding deictics "that" and "this." Although *ňwà* retains this sense, *lā⁺/* in the great majority of its occurrences is a definite article. It retains a deictic sense, in opposition to *ňwà⁺*, in the Non-verbal Predicators *n lā*, *n ňwà* 27 and after demonstratives 17.2 .

Unlike *lā⁺/*, *ňwà⁺* can stand alone as a NP:

> *Ňwà á   nɛ̄   bīig.*   "This is a child." WK; tones *sic*.
> This **COP FOC** child:**SG**.

Both *lā⁺/* and *ňwà⁺* always stand finally in the NP (though this entire phrase may be a pre-determiner within another NP) except for the marginal case where a VP-final particle occurs in an *ǹ*-Clause, when it may follow the article attached to the clause 25.7 .

As the definite article, *lā⁺/* corresponds in many cases to English *the*, marking referents as specific and already established. However, unlike *the*, *lā⁺/* is not typically used for "familiar background", unless there was an explicit prior mention of the referent:

> *Wìnnɩg lí   yā.*   "The sun has set."
> Sun:**SG** fall:**PFV INDEP**.

It is not used with pronouns, or with proper names of people or places, which are inherently definite:

mān	"me"
À-Wīn	"Awini"
Bɔ̀k	"Bawku"

Nor is it used with abstract mass nouns, which do not distinguish definite from indefinite (compare the neutralisation of the referring/non-referring distinction implied in their construction when they appear as pre-modifiers 21.7.2.2):

Noŋir pu naada.
nɔ̀ŋɪr pʋ̄   nāadá   +ø.
Love **NEG.IND** finish:**IPFV NEG**.
"Love does not come to an end." (1 Cor 13:8, 1976)

Lā+/ is not used in vocatives:

Bīiga   +ø!   "Child!"
Child:**SG VOC**!

This contrasts with *ňwà+*, which is common in vocatives 30.2.4 :

Bīis ňwá!   "Children!"   [bi:sa]

There is no indefinite article: a NP with no *lā+/* is indefinite if it could have taken *lā+/* 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 *bīig* "child" in

M̀   bīig   kā'e   +ø.   "I've no child" WK
1SG child:**SG NEG.BE NEG**.

and with the complement of *àe̯ňya* "be something" when used ascriptively 26.2 :

Ò   à   nɛ̄   bīig.   "She is a child."
3HU COP FOC child:**SG**.

An indefinite NP is only likely to have a *specific* sense in the context of an explicit introductory presentational statement, such as the introduction of a new character in a story 34.4 :

Dau da be mori o biribing
Dāṳ   dá bɛ̀‿ ø   mɔ̄rí‿ò   bī-díbìŋ
Man:**SG TNS EXIST SER** have   **3HU** child-boy:**SG**
"Once there was a man who had a son ..." KSS p35

Anina ka o nye dau ka o yu'ur buon Aeneas.
Àníná   kà   ò   ňyɛ̄   dáṳ   kà   ò   yū²ur   búèn   Aeneas.
ADV:there and **3HU** see:**PFV** man:**SG** and **3HU** name:**SG** call:**IPFV** Aeneas.
"There he found a man whose name was Aeneas." (Acts 9:33)

Outside such contexts, a referential indefinite NP is usually *generic*; unlike English *the*, *lā*⁺/ is not used with generic reference:

Tumtum pu gaad o zugsoba.
Tùm-tūm   pū   gáàd   ò   zūg-sɔ́bā   ⁺ø.
Work-worker:**SG NEG.IND** pass:**PFV 3HU** head-one:**SG   NEG**.
"The servant does not surpass his master." (Jn 15:20)

Tiig wela bigisid on a si'em.
Tìɪg   wɛ́là   bìgɪsɪd   ɔ́n   à   sī²əm.
Tree:**SG** fruit:**PL** show:**IPFV 3HU:COMP COP INDF.ADV**.
"The fruit of a tree shows what ["how"] it is." (Mt 12:33, 1976)

Kusaas ye ...   "The Kusaasi say ..." KSS p16
                                              drawing the moral of a story.

Generic reference core arguments are incompatible with a Verbal Predicator with Bounded Imperfective aspect 34.1.1.3 .

A possessive pre-determining NP ending in *lā*⁺/ makes the following head definite, and the head does not itself take the article:

dṳ²átà lā bîîg   "the doctor's child"
  not **dṳ²átà lā bîîg lā*

Pronouns and personal names as possessive pre-determiners do *not* have this effect; only pre-determiners *with the article,* and demonstrative pronouns 17.2 , automatically make their NPs definite:

Wínà²am máli̯āk   "an angel of God"
Wínà²am máli̯āk lā   "the angel of God"

m̀ bīig   "my child" (at first mention)
m̀ bīig lā   "my child" (previously mentioned)

In the passage

*Ka po'a so' da be more **o bipuŋ** ka kikirig dol o. Ka o wum Yesu yela, ka keŋ*
*igini o tuon. Ka sos Yesu ye o kadim kikirig la yiisi **o biig la** ni.*
Kà   pṳ̀ʔà-sɔ́ʔ   dá bɛ̀‿ ø   mɔ̄rí‿ò   bī-púŋ   kà   kìkīrıg
And woman-**INDF.HU TNS EXIST SER** have   **3HU** child-girl:**SG** and fairy:**SG**
dɔ̄ll·ó‿ ø.   Kà   ò   wúm   Yesu yɛ́là, kà kɛ̄ŋ‿   ø   íɡınì‿
follow   **3HUO**. And **3HU** hear:**PFV** Jesus about, and go:**PFV SER** kneel.down:**PFV**
ò   tùən.   Kà   sɔ́s   Yesu yɛ́ ò   kàdım   kíkīrıg lā‿ ø   yīisí‿
3HU in.front. And beg:**PFV** Jesus that **3HU** drive.out:**IMP** fairy:**SG ART SER** expel:**PFV**
ò   bīig   lā ní.
3HU child:**SG ART LOC**.
"There was a woman whose daughter was oppressed by a devil. She heard
 about Jesus and came and knelt down before him. She asked Jesus to cast the
 devil out of her child." (Mk 7:25-26)

the article does not occur in *ò bī-púŋ* "her daughter" on first introduction, but does
occur in *ò bīig lā* "her child" after the reference is established, just as with nouns
without possessive pre-determiners.

    Compare

M̀   bīig   kāʔe   ⁺ø.   "I've no child" WK
1SG child:**SG NEG.BE NEG**.

M̀   bīig   lā kāʔe   ⁺ø.   "My child's not there" WK
1SG child:**SG ART NEG.BE NEG**.

    Note also the characteristic idiom at first introduction of a new possessed
referent seen in two of the examples above:

Ka po'a so' da be more o bipuŋ
Kà   pṳ̀ʔà-sɔ̄ʔ   dá bɛ̀‿ ø   mɔ̄rí‿ò   bī-púŋ
And woman-**INDF.HU TNS EXIST SER** have   **3HU** child-girl:**SG**
"There was a woman who had a [literally "her"] daughter..." (Mk 7:25)

Dau da be mori o biribing
Dāṵ   dá bὲ_ ø   mɔ̄rí_ò   bī-díbìŋ
Man:**SG TNS EXIST SER** have **3HU** child-boy:**SG**
"Once there was a man who had a son ..." KSS p35

further demonstrating that pronoun possessors do not automatically entail
definiteness of the head.

Compare the use of *yɛ̄lá⁺* "about" of as a pre-modifier in NPs even when it has
a definite pre-determiner itself 21.7.2.3 , and the fact that postpositions (including
the null allomorph of the locative marker 22.3) may function for focus purposes as
pragmatically non-recoverable despite following a definite pre-determiner 34.1.1.3 .

Certain words consistently lack the article after a pronoun possessor even if
they are specific old information, however; this may be a question of uniqueness
within the particular context, occurring for example with words like *bā⁷⁺ᐟ* or *sàam*ᵐᵃ
"father." (It is possibly a feature characteristic of kinship terms or words that rarely
appear without a possessor 37.1 .)

An opposition between forms with and without the article, rather than definite
versus indefinite, is seen in the distribution of the empty particle *nɛ̄* which follows
complements of comparisons 23.1 when they lack the article, even if they are proper
names or other NPs which do not normally appear with *lā⁺ᐟ*.

For an unambiguously indefinite specific meaning like "some, another" the
Indefinite pronouns are used 17.3 .

Nā⁷-síəbà   ɔ́ňbìd   nɛ̄ mɔ̄ɔd.
Cow **INDF.PL** chew:**IPFV FOC** grass:**PL**.
"Some cows are eating grass."

An Indefinite pronoun is necessary to make the head indefinite after a pre-
determiner with the article:

dṵ⁷átà   lā   bí-sɔ̄⁷   "a child of the doctor's"
doctor:**SG ART** child **INDF.HU**

The number *yīnní⁺* "one" is sometimes used to introduce a new referent:

Farisee dim nid yinni da be
Farīsee dím   nìd   yīnní dà bὲ ...
Pharisee individual.**PL** person:**SG** one **TNS EXIST** ...
"There was one man of the Pharisees ..." (Jn 3:1)

However, *yīnní* here is not bleached to the simple sense of an indefinite article; rather, the construction is parallel to e.g.

> *Dapa atan' n da be.*   "There were once three men." KSS p16
> *Dāpá‿ àtáň ʔ   n   dá bè.*
> Man:**PL NUM**:three **SER TNS EXIST**

21.4 Coordination

Coordination is characteristically seen with NPs, but occurs to some extent with all types of NP (and with AdvPs, except those headed by manner adverbs.)

The coordinating particles for "or" are *bɛ̄ɛ* or the Hausa loanword *kōʋ*. Here the two words are synonymous; the only place where they consistently have different senses is in the formation of polar questions 30.2.2 . 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   kōʋ dāu̜   lā   kōʋ bà wūsa*
> child:**SG ART** or   man:**SG ART** or   **3PL** all
> "The man, or the child, or both" WK

The particle for "and" for Nominal Phrases is *nɛ̄*. This *nɛ̄* is fundamentally the same word as the preposition "with" 23.1 ; the conjunctions *bɛ̄ɛ* and *kōʋ* can be used in a parallel way, but the categories of (true) Conjunction and Preposition should probably be conflated 29.3 . *Nɛ̄* links only nominal words and phrases, and never clauses unless they are first nominalised; it is not possible to further conflate the preposition/conjunction category with clause Linker Particles.

Consistent with this analysis of *nɛ̄* "and", it is not possible to omit coordinating particles in a series of three or more items

> *À-Wīn nɛ́ À-Būgʋr nɛ́ À-Nàʔab*   "Awini, Abugri and Anaba"

Nor can *nɛ̄* be used to join two words with the same referent: *du̜ʔátà nɛ̄ náʔàb* cannot be "someone who is a doctor and a chief."

Coordination of quantifiers occurs within numbers 18.2.2 :

> *kɔ̀bıs   táň ʔ nɛ̄   pīs   yúɵbʋ̀ nɛ̄   nū*
> hundred:**PL** three with ten:**PL** six   with five
> "three hundred and sixty-five"

ŋ̌wādɪs pīi nɛ̄ yí   "twelve months"
month:**PL** ten with two

There are many restrictions on coordination within complex NPs.
Coordination is not possible within NPs involving combining forms:

*[*bɛ̄ŋíd nɛ̄ kī*] *kúə̀s*   not possible for "seller of *bɛ̄ŋíd nɛ̄ kī*"
                                 (beanleaf-and-millet, a standard conceptual
                                 unity like "fish and chips", "lox and bagels")

Articles cannot be coordinated nor shared by a coordinated head; for example,
both articles are necessary in:

pʊ̯ʾā   lā nɛ̄ dāʊ̯   lā   "the woman and the man"
woman:**SG ART** with man:**SG ART**

NP pre-determiners cannot be shared by a coordinated head. Thus both
instances of *m̀* "my" are needed in

m zuanam ne m saamnama
m̀ zʊ̯à-nàm nɛ́   m̀ sàam-nàmā ⁺ø
1SG friend-**PL** with **1SG** father-**PL**   **VOC**
"my friends and [my] fathers!" (Acts 7:2)

The *quantifier yīigá*⁺ "firstly" as a pre-determiner 21.7.3 may be shared:

yiiga saŋgbauŋ ne teŋgbauŋ ne ateuk
yīigá sàŋ-gbàʊ̯ŋ   nɛ̄ tɛ́ŋ-gbàʊ̯ŋ   nɛ́ àtìʊ̯k
firstly heaven-skin:**SG** with earth-skin:**SG** with sea:**SG**
"the first heaven and earth and sea" (Rev 21:1)

Pre-*modifiers* can be shared:

Kūsáàl sɔ́lɪmà nɛ̄ síilímà   "Kusaasi stories and proverbs"
Kusaal story:**PL** with proverb:**PL**

Kūsáàs   kúə̀b nɛ̄ yīr   "Kusaasi agriculture and housing"
Kusaasi:**PL** hoeing with house:**SG**

sālɪma bútìɩs nɛ̄   díɩsímà   "gold cups and spoons" ("all of them gold", KT)
gold   cup:**PL** with spoon:**PL**

However, KT WK both agreed that

sālıma láʔàd nɛ̄ būtıɩs

must mean "gold goods and [not gold] cups", WK offering the correction

sālıma láʔàd   nɛ́   ò   būtıɩs   "gold goods and (gold) cups" WK
gold   item:**PL** with **3HU** cup:**PL**

where *ò* refers to *sālıma*. (See 21.2.2 on the unexpected gender of the pronoun.) The
difference from *sālıma bútìɩs nɛ̄ díɩsímà* (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 bútìɩs nɛ̄* [*sālıma*] *díɩsímà* "gold cups and
[gold] spoons" (I am grateful to Tony Naden for this suggestion.)
    Though a coordinated head may thus not share a single free dependent if that
is a NP as a pre-determiner, a coordinated NP structure may serve as a pre-
determiner or a pre-modifier of a single head:

du̯ʔátà   nɛ̄   náʔàb   lā   lɔ́yà   "Doctor's and the chief's cars"
doctor:**SG** with chief:**SG ART** car:**PL**

sālıma nɛ̄   ānzúrıfà   láʔàd   "gold and silver goods"
gold   with silver   item:**PL**

The latter two cases are ambiguous, as in English: this is because of an
alternative interpretation as ellipsis of the first of two repeated heads within a
coordination of two parallel dependent + head NPs (cf 29.1.4.1):

[*du̯ʔátà nɛ̄ náʔàb lā*] *lɔ́yà*   "the cars of [Doctor-and-the-chief]"
[*du̯ʔátà lɔ́yà*] *nɛ̄* [*náʔàb lā lɔ́yà*]   "[Doctor's cars] and [the chief's cars]"
[*sālıma nɛ̄ ānzúrıfà*] *láʔàd*   "[gold-and-silver] goods"
[*sālıma láʔàd*] *nɛ̄* [*ānzúrıfà láʔàd*]   "[gold goods] and [silver goods]"

Not all such cases involve ellipsis, however; apart from the possibility of two
distinct meanings in the examples above, one of which excludes ellipsis, this is also
clear from cases like

ānzúrıfà nɛ̄   sālıma láʔ-māan   "silver- and goldsmith"
silver   with gold   item-maker:**SG**

This cannot be a case of ellipsis, because it is not possible to coordinate combining forms, and *nɛ̄* cannot join two NPs with the same reference.

ānzúrɪfà láʔ- nɛ̄ sālɪma láʔ-māan
(impossible)
ānzúrɪfà láʔ-māan nɛ̄ sālɪma láʔ-māan
(necessarily two different people)

21.5 Apposition

Titles and other 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   yɛ́ fʊ̀ dí fʊ̀ bāʔ-bîig   pʊ̰ʔá Herodiase ⁺ø.
3NH 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)

... lebis ye, eenn, o zua Asibigi n kabirid.
... ø lɛ̀bɪs   yɛ̄, Ɛ̄ɛň, ò zʊ̰à   À-Sībɪgɪ‿   n kābɪríd.
...**SER** reply:**PFV** that, Yes, **3HU** friend:**SG PERS**-termite:**SG SER** ask.admission:**IPFV**.
"...replying that, Yes, it was his friend Termite asking for admission." KSS p12

All my examples are from written materials, so it is unclear whether the second element is subject to M Raising, as expected if the first element is formally dependent. However, the fact that the Personifier Proclitic *À-* is not omitted in these cases suggests that the relationship is not dependent-head 21.10.
Personal pronouns in apposition use free forms 34.5:

Man Paul pu'usidi ya.   "I, Paul, greet you." (2 Thess 3:17)
Mān Paul pʊ́ʔʊsìdī‿ yá.
1SG Paul greet:**IPFV** **2PLO**.

Apposition also occurs in compounds, invariably with stems having human reference; this is regarded as adjectival use of the second noun 21.8.1.5. Further examples, again with human reference, are appositional relative clauses 33.2.4.
Formally appositional constructions are also necessary, regardless of the nature of the head, before post-determining pronouns when the head has no combining form, as for example with quantifiers 17.2 33.2.4.

A number of compounds found in the 1976 NT version are systematically replaced by forms written with the initial component as a singular in the 1996 revision:

Nonaar Paal for *Nonapaal*	*Nɔ̄-ná-pāal*	"New Testament"
Siig Suŋ for *Sisuŋ*	*Sì-sʋ̀ŋ*	"Holy Spirit"

The tonal evidence from similar cases in my informants' speech strongly suggests that this tendency reflects segmental remodelling of combining forms $\boxed{11.2.2}$ rather than an expansion of the rôle of apposition at the expense of compounding:

lànnɪg-kàŋā	"this squirrel"	WK
dàp-bàmmā	"these men"	WK

The many examples of *Siig Suŋ* in the audio files on *http://www.bible.is* are likewise clearly read as *Sìɪg-sʋ̀ŋ* (or *Síɪg-sʋ̀ŋ* with L Raising) and not *Sīɪg-sʋ́ŋ*.

Among my informants, SB showed a much greater tendency to produce segmental sg forms before post-determining pronouns, and even adjectives, than my other informants, who generally rejected such formations.

21.6 Compounding

Like other Oti-Volta languages, Kusaal shows abundant productive formation of compound nominals. Kusaal compounds fall into two basic types, depending on whether the combining form is the head or a pre-modifier. Compounding is the standard construction for head nouns with following dependent adjectives and Determiners $\boxed{21.8.1}$ $\boxed{21.8.2.1}$:

būʋg[a]	"goat"
bù-pìəlɪg[a]	"white goat"
bù-kàŋā[+/]	"this goat"
bù-pìəl-kàŋā[+/]	"this white goat"

It is also the normal construction for a generic concrete noun when preceding a head as a modifier $\boxed{21.7.2.1}$ or as a generic argument to a deverbal noun $\boxed{21.7.1}$:

nà'ab lā wíɛ̀f zʋ̄ʋr	"the chief's horse's tail"
but *nà'ab lā wíd-zʋ̄ʋr*	"the chief's horse-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, characteristically in the shape of bare stems which have undergone Apocope, though analogical remodelling based on the form of the singular is common, and indeed regular with some stem types 11.2.2 . Compounding is so productive that the combining form is a regular part of noun and adjective flexion 11.1 , treated under nominal morphology.

For the tone sandhi rules which affect the component following the combining form see 10.1 10.3.1 . They are not sensitive to whether the cb is head or modifier.

21.6.1 Complex Compounds

Compounds may have compounds as components, most commonly as a result of the addition of an adjective or post-determining pronoun to an existing compound, in which case the binding to the new element is weaker than that within the existing compound:

[*bʋ̀-pìəl-*]*kàŋā*	"this [white goat]"
[*nīn-wɔ́k-*]*pìəlɪg*	"white [tall person]"
[*zàʔ-nɔ̄-*]*píəlìg*	"white gate" ("white [compound-mouth]")

A compound may appear as a generic argument to a following deverbal noun:

[*zàʔ-nɔ̄-*]*gúr*	"gate-keeper"
[[*zàʔ-nɔ̄-*]*gúr-*]*kàŋā*	"this [gate-keeper]"

Kusaal also possesses bahuvrihi adjectives 21.8.1.4 formed by zero-derivation of a noun-adjective compound to an adjective:

nīf-ñyáṳk	"one eye"
bʋ̀-[*nīf-ñyáṳk*]	"[one-eyed] goat"
nɔ̄b-wɔ́k	"long leg"
kʋ̀g-[*nɔ̄b-wɔ́k*]	"[long-legged] stool"

The bahuvrihi meaning is also possible when the compound is used as the complement of *àe̯ñ*^{ya} "be something":

Kʋ̀g-kàŋā   á   nɛ̄ nɔ̄b-wɔ́k.
Chair-**DEML.SG COP FOC** leg-long:**SG**.
"This chair is long-legged." WK

Adjectival combining forms can only be used before another adjective or before a post-determining pronoun. If a noun + adjective compound is used as a generic argument it must adopt a sg or pl form:

	fū-zéñdà kùɵs	"seller of red (i.e. dyed) cloth"
not	**fū-zéñ²-kùɵs*	

Compounds may contain uncompounded elements within their structure, because regardless of whether compounded or not **modifiers bind tighter than generic arguments, which bind tighter than determiners**. Generic non-count NPs referring to substances appear as pre-modifiers within other NPs 21.7.2.2 :

sālɪma bútìŋ	"gold cup"
ānzúrɪfà nɛ̄ sālɪma lá²àd	"silver and gold goods"

Even if they consist of phrases rather than single words, they therefore bind more tightly to a following cb used as a generic argument than the cb does to a following deverbal noun:

[*ānzúrɪfà lá²-*]*māan*	"silversmith" ("[silver goods]-maker")
[*ānzúrɪfà nɛ̄ sālɪma lá²-*]*māan*	"silver- and goldsmith"

cf	[*fū-zéñdà*] *kùɵs*	"[dyed cloth]-seller"
		with an adjective post-modifier (see above)

If the cb is itself a pre-modifier, the the construction is nested, with the cb binding to the following head and the preceding unbound pre-modifier applying to the whole resulting compound:

sālɪma [*zá²-nɔ̄ɔr*]	"golden gate" ("golden [compound-mouth]")
zūgʊ́n [*níf-gbáʊ̯ŋ*]	"upper eyelid" ("upper [eye-skin]")

Determiners, whether preceding or following the head, and whether compounded or uncompounded, have the loosest binding:

[*sālɪma bútìŋ-*]*kàŋā*	"this [gold cup]"
[[*sālɪma lá²-*]*màan-*]*kàŋā*	"this [[gold-item]-maker]"
ò [[*sālɪma lá²-*]*māan*]	"her [[gold-item]-maker]"

21.7 Dependents Preceding the Head

The head of a NP may be preceded by dependents, which may be nominal combining forms, thus creating compounds, or may be free NPs or AdvPs. Only one preceding dependent is permitted, but the resulting NP may itself recursively serve as the head of a NP with yet another preceding dependent. Combining forms come last in such a sequence, and pre-determiners precede pre-modifiers:

> *Wínàˀam* [*púˀʋsʋ̀g* [*fúùg dɔ̀ɔ̀g*]]
> "tabernacle" (God's [worship [cloth hut]])

The structure reflects the nature of the preceding dependent: all generic count nouns appear as combining forms, and generic mass nouns also do but only as arguments to deverbal nouns; all other pre-dependents appear uncompounded. With most head nouns, a preceding dependent NP with definite and/or count reference is a possessor, while AdvPs or indefinite mass NP are pre-modifiers expressing either qualities or the material of which the head consists. AdvPs of various kinds also occur as pre-modifiers, and one quantifier as a pre-determiner. With certain types of head the pre-determiner + head construction has specialised meanings 21.9 .

Preceding uncompounded dependents induce M Raising in the following word if they are followed by L Raising; if M Raising is absent, it demonstrates that the construction is in fact head + dependent not dependent + head. Combining Forms in all rôles are followed by M Raising if they end in M toneme 10.3.2 .

21.7.1 Generic Arguments to Deverbal Nouns

If the head is a deverbal noun, it may be preceded by a Combining Form representing a **generic argument**. The argument is a cb irrespective of whether the argument is a count or mass noun.

> *dā-núùr*[e]   "beer-drinking"
> *gɛ̄l-kúὲs*[a]   "egg-seller"

With agent nouns of transitive verbs the cb almost always represents an object. Agent nouns from intransitives may have an AdvP or indirect object cb argument:

> *bùl-sīgɩd*[a/]   "well-diver" (*bùlɩg*[a] "well")
> *tùɵn-gāt*[a]   "leader"   (*Ò gàɵd túὲn* "He's gone ahead")
> *ňyàˀan-dɔ̀l*[la]   "disciple"   (*ňyáˀaŋ*[a] "behind")
>   (*dɔ̄l*[la/] "accompany")
> *pʋ̰ˀà-lāˀad*[a]   "laugher at women" WK
>   (*Ò làˀad pʋ̄ˀab* "He laughs at women")

These compounds can be freely coined, and their meanings are generally transparent:

*nīn-kʊ́ʊ̀d*ᵃ	"murderer"
*bʊ̀-kūʊd*ᵃ/	"goat-killer"
*nɔ̄-kʊ́ʊ̀d*ᵃ	"hen-killer"
*pʊ̠ʔà-kūʊd*ᵃ/	"woman-killer"
*nɔ̄-záɲl*ˡᵉ	"holder of hens"
*wìd-kùəs*ᵃ	"horse-seller"
*bʊ̀-kùəs*ᵃ	"goat-seller"
*sàlɪm-kùəs*ᵃ	"gold-seller"
*dā-núùd*ᵃ	"beer-drinker"

However, there are many idiomatic or set expressions. Further examples:

*zīm-gbáɲʔàd*ᵃ	"fisherman" ("fish-catcher")
*nɔ̄-díʔə̀s*ᵃ	"chief's spokesman" ("command-receiver")
	Ghanaian English "linguist"
*tàn-mɛ̄ɛd*ᵃ	"builder" (*tān*ⁿᵉ "earth")
*làmpɔ̄-díʔə̀s*ᵃ	"tax collector" (French *l'impôt*)
*gbàn-mīʔid*ᵃ/	"scribe" NT ("book-knower")
*pʊ̠ʔà-sāʔam*ᵐᵃ	"adulterer" ("woman-spoiler")
*zàʔ-nɔ̄-gúr*ᵃ	"gate-keeper" (*zàʔ-nɔ̄ɔr*ᵉ/ "gate")
*dà-kīəd*ᵃ	"wood-cutter"
*kɔ̀ɲb-kīm*ⁿᵃ	"herdsman"
	(*kɔ̀ɲb-* as cb of *būn-kɔ́ɲbʊ̀g*ᵒ "tame animal")

My informants freely create and cite agent nouns in isolation, but it is unusual in practice for agent nouns to appear without a pre-dependent cb; in my materials only *bāŋɪd*ᵃ "wise man", *sɪ̠ākɪd*ᵃ "believer", *sūŋɪd*ᵃ "helper" (of the Holy Spirit, NT), *fāaňd*ᵃ/ "robber" "Saviour" occur often. With monosyllabic agent nouns there is often a preceding cognate stem as cb. This is perhaps a cognate object in:

*màal-māan*ⁿᵃ	"sacrificer"
*zī-zîîd*ᵃ	"carrier-on-head"

but generally it seems to be simply a reduplication of the agent noun stem:

*tʊ̀ʔas-tʊ̀ʔas*ᵃ	"talker"
*zàb-zàb*ᵃ	"warrior" (tone *sic*)

*zɔ̀t-zɔ̄t*ᵃ	"racer, athlete"
*tʋ̀m-tūm*ⁿᵃ	"worker"
*lɛ̀m-lɛ̄m*ⁿᵃ	"taster, sipper"
*zàm-zām*ⁿᵃ	"cheat"
*dàm-dām*ⁿᵃ	"shaker"
*tàm-tām*ⁿᵃ	"forgetful person"

Cb pre-dependents occur with deverbal instrument nouns, in object or adverbial senses:

*sḭà-lɔ̄ɔdíŋ*ᵃ	"belt" (waist-tying thing)
*nīn-gɔ́tìŋ*ᵃ	"mirror" (eye-looking thing)
*nīn-gɔ́tìs*ᵉ	"spectacles"

If the head is a gerund, a cb pre-dependent may represent a subject or complement. For the *-r*ᵉ (not *-b*ᵒ) suffix of these 2-mora stem gerunds see 14.1.1.1.

If the underlying verb is transitive, a cb pre-dependent cannot be a subject. It is most often an object:

*pṵʔà-dīɩr*ᵉ	"marriage" (*Ò dì pṵʔā* "He's married a wife")
*nīn-kʋ́ʋ̀r*ᵉ	"murder"
*dā-núʋ̀r*ᵉ	"beer-drinking"
*Sāmán-pīár*ᵉ	Traditional New Year ("cleaning the courtyard")
*bùgʋ́m-tɔ̄ɔňr*ᵉ	Fire Festival ("Throwing Fire")
*nɔ̄-lɔ́ɔ̀r*ᵉ	"fasting" ("mouth-tying")
*nɔ̄-pɔ́ɔ̀r*ᵉ	"oath" (*pɔ̄*⁺ "swear")
*nɔ̄-náà̀r*ᵉ	"covenant" (*nā*⁺ "join")
*nīn-báàl-zɔɔr*ᵉ	"pity" (*Ò zɔ̀t·ō nīn-báalìg.* "He has pity on him")

It may represent an AdvP:

*mɔ̀-pīl*ˡᵉ	"grass roof" ("covering with grass")
*kʋ̀m-vʋ̄ʔʋgír*ᵉ	"resurrection" (*Ò vʋ̀ʔʋg kūmɩn.* "He came alive from death.")

Although many of these are set forms, free creation of nonce-forms is possible:

*fū-yɛ́ɛ̀r*ᵉ	"shirt-wearing" WK

Cbs as subjects are thus confined to verbs which can be used intransitively:

*nɔ̄b-kɔ́ɔ̀r*ᵉ	"breaking a leg" (*kɔ̀*⁺ is intransitive)
*nū̀ʔ-mɔ́dìr*ᵉ	"swelling of the hand"
*wìn-līir*ᵉ	"sunset"
	(*Wìnnɪg lí yā.* "The sun has set/fallen.")
*sūň-sáʔʊ̀ŋ*ᵒ	"sorrow"
	(*M̀ sūňf sáʔàm nɛ̄.* "My heart is spoilt"
	= "I'm sad.")
*sūň-pɛ́ɛ̀n*ⁿᵉ	"anger" (*M̀ sūňf pɛ́lìg nɛ̄.* "My heart is white.")

21.7.2 Modifiers

Nominal pre-modifiers cannot be specific. They vary in form depending on the nature of the dependent. AdvP pre-modifiers may contain *constituents* with specific reference, but as AdvPs they do not themselves refer.

21.7.2.1 Generic Count Nouns

A count noun as a pre-modifier must appear as a Combining Form.

Compounds with a count noun pre-modifier are freely created, but resemble the compounds seen in other languages more closely than the type with Combining Form heads preceding adjectives and post-determining pronouns 21.8. Set forms with individualised lexical meanings often occur when the Combining Form is dependent, but rarely when it is a head before an adjective and, naturally, never with post-determining pronouns.

Note the contrast between a generic pre-modifier and a pre-determiner in e.g.

bīig fúùg	"a child's shirt" (belonging to some child)
bì-fūug	"a children's shirt" (perhaps a small woman's)
nàʔab lā wíə̀f zʊ̄ʊr	"the chief's horse's tail" (the chief has a horse)
nàʔab lā wíd-zʊ̄ʊr	"the chief's horse-tail" (the chief may not own a complete horse at all)

Cb pre-modifiers have a very general quasi-adjectival sense. The resulting compounds are very liable to develop specialised lexical meanings:

wāb-mɔ́ɔgūn WK	"in elephant-bush, where there are elephants"
zàʔ-nɔ̄ɔr	"gate" ("compound-mouth")
mà-bīig	"sibling" ("child by [same] mother")
bāʔ-bîg	"half-sibling" ("child by [same] father")
tɛ̀ŋ-bīig	"native" ("child of a country")

nàsàa-sìlʊg	"aeroplane" (European hawk) ILK
ku̯ˀà-ňwīig	"current" ("water-rope")
	[cb from a mass noun, see below]

WK has the exceptional forms

| *náaf-bìˀisím* | "cow's milk" |
| *būʊg-bíˀisím* | "goat's milk" |

where the modifier has singular form and tone, but the tone sandhi is that of a compound (note the lack of L Raising after *náaf-.*)

A cb pre-modifier of a deadjectival abstract noun may have a sense much like a generic argument:

sūň-kpíˀòŋ[o]	"boldness" ("heart-strength")
sūň-máˀasìm[m]	"joy" ("heart-coolness")
	(*M̀ sūňf máˀe yā.* "I'm joyful.")
nìn-tūllím[m]	"fever" ("body-heat")
wīn-tɔ́ɔ̀g[o]	"ill fate" ("fate-bitterness")

Cases like these resemble those where the second element is a gerund $\boxed{21.7.1}$, but deadjectival nouns are not gerunds $\boxed{14.2}$, and such constructions are not limited to cases where corresponding Adjectival Verbs exist:

| *pʊ̀-pìəlɩm*[m] | "holiness" ("inside-whiteness") |

21.7.2.2 Generic Non-count NPs

Pre-modifers may also consist of Nominal Phrases with generic non-count reference. If they have *abstract* senses, they ascribe a quality to the head:

nāˀam kʊ́k	"throne" ("chieftaincy chair")
nāˀam sʊ́ˀʊlìm	"kingdom" ("chieftaincy possession")
pʊ̀ˀʊsʊg dɔ́ɔ̀g	"temple" ("worship house")
tūlɩgír bún	"heater" ("heating thing" = *būn-tʊ́lɩgìr*[e])
dūgʊb dʊ́t	"cooking pots"
līgɪdɪ túʊmà	"expensive work" (*līgɪdɪ*[+] "money")

Language names may appear as abstract nouns describing an ethnic group:

Kūsáàl yír nɛ̄ kūəb	"Kusaasi houses and agriculture"
Nàsāal búgʋ́m	"electricity" ("European fire")

NPs with *concrete* mass sense express the material of which the head consists. Most often the pre-modifier is a single noun:

sālɩma bʋ́tìŋ	"golden cup"

Count nouns may appear if used in a mass sense 21.2.1 :

fūug dɔ́ɔ̀g	"tent" (cloth hut)
dàad bʋ́n-nám	"wooden things" (*dàʋg*[o] "piece of wood")

NPs formed by coordination may occur in this use:

sālɩma nɛ̄ ānzúrɩfà láʔàd	"gold and silver goods"

Such pre-modifiers are referential, and can be the antecedents of pronouns:

sālɩma láʔàd nɛ́ ò būtɩɩs	"gold goods and [gold] cups" WK 21.4

Contrast the non-referential use of mass nouns as generic arguments to deverbal nouns:

sàlɩm-kùəs	"gold-seller"
dā-núùd	"beer-drinker"

Cb forms of abstract non-count nouns do sometimes occur as pre-modifiers:

	tàñp-sɔ̄b[a]	"warrior"	(*tāñp*[o] "war")
	pʋ̀-pìəl-nīd[a/]	"holy person"	(Rom 5:7)
	pʋ̀-pìəl-sɔ̄b[a]	"holy person"	(Rom 3:10)
but	*pʋ̀-pìəlɩm sɔ́b*[a]	"holy person"	(Mt 10:41) etc
	pʋ̀-pìəl-tūʋma[+]	"holy actions"	(Rom 6:13)
but	*pʋ̀-pìəlɩm túʋmà*[+]	"holy actions"	(Mt 5:10)

An interesting case involving a concrete mass noun is the compound *kṵʔà-ňwīig* "current" ("water" + "rope.") This perhaps represents "aquatic rope" in contrast to **kùʔəm ňwîíg* "a rope made of water"; the construction with concrete mass pre-modifiers may be limited to the specific sense "made of ..."

21.7.2.3 Adverbial Phrases

Like indefinite mass nouns, AdvPs as pre-dependents are pre-modifiers (contrast the determiner sense of AdvPs *following* the head 21.8.2.3 .)

AdvPs as pre-modifiers may not be proadverbs. I do not have any examples of time AdvPs used as NP pre-modifiers.

Examples of AdvP pre-modifiers:

būgʋsígā dáàn	"softly-softly sort of person"
dūnɪya ní nìn-gbīŋ	"earthly body"
kùˀəmīn bʋ́n	"water creature"
kùˀəmīn dín	"aquatic one"
kɔ̄lʋgʋn nɔ́-dáʋ̀g	"crayfish" ("in-the-river cock")

Although the AdvPs in cases like

dàtìu̯ŋ níf	"right eye"
dàgɔ̀bɪg níf	"left eye"
zūgʋ́n níf-gbáu̯ŋ	"upper eyelid"
tɛ̄ŋɪn níf-gbáu̯ŋ	"lower eyelid"

seem to answer "which?" rather than "what kind of?", the possibility of indefinite plurals like *dàtìu̯ŋ nínì* "right eyes" or *tɛ̄ŋɪn níf-gbánà* "lower eyelids" shows that the construction is actually modifying, not determining.

Postpostional phrases with *yɛ̄lá*⁺ "about" 22.6 appears as pre-modifiers, not pre-determiners. Adverbs, including postpositions, behave as generic non-count NPs syntactically; they are not made specific by a definite pre-determiner:

Kūsáàs kúèb nɛ̄ yīr yɛ́là gbàu̯ŋ	"A book about Kusaasi houses and agriculture"
dàu̯-kàŋā lā yɛ́là gbàu̯ŋ	"a book about that man" WK

In the same way, locative AdvPs, including Kusaal place names with no locative particle 22.3 , may occur as uncompounded pre-modifiers:

Bɔ̀k dím	"Bawku people"

The head of locative AdvPs is the locative particle itself, with a zero allomorph in the case of locative AdvPs such as Kusaal place names which are "intrinsically locative" 22.3 ; like other postpositions, this is never itself referential and is not itself rendered specific even though it has a specific pre-determiner. See also on locative complements and their focus behaviour 34.1.1.3 .

21.7.3 Determiners

The **quantifier** *yīigá*⁺ "firstly" appears as a pre-determiner "first", e.g.

yīigá sāa zúg nɛ̄ tɛ̄ŋ   "the first heaven and earth"

Count and/or definite reference NPs as preceding dependents before noun heads are also **determiners**.

If the head itself is a determiner (i.e. a pronoun or quantifier) the construction is **partitive** 21.9.1 .

NP pre-determiners before **gerunds** and other abstract nouns describing events or processes are interpreted as **subjects**:

Dāu̯   lā   kúlʋ̀g   dāa mālɩsí‿ m.
Man:**SG ART** return.home:**GER TNS** be.sweet **1SGO**.
"The man's return home pleased me."

Jesus kúm   dá-pōu̯dá zug   "Jesus' death on the cross"
Jesus death cross:**SG** upon

Further expansion of such NPs is possible 21.9.2 .

The words *mɛ̄ŋ*ᵃ/ "self", *dāan*ᵃ "owner", *sɔ̄b*ᵃ "individual" and *būn*ⁿᵉ/ "thing" as heads have specialised senses with pre-determiners 21.9.3 .

In all other cases, pre-determiners express **possessors**.

m̀ bīig   "my child"
dāu̯ lā bîig   "the man's child"
dāu̯ lā bíɛ̀r bīig náàf zōu̯r   "the man's elder brother's child's cow's tail"
Kūsáàs wádà   "customs of the Kusaasi"

Such determiners do *not* automatically make a NP definite even when themselves definite 21.3 .

The partitive sense with determiner heads is not possible with noun heads:

nīdɩb lā gígɩ̀s   "the dumb ones of
                                [i.e. belonging to] the people"
                                Not possible as "among the people" WK.

21.8 Dependents Following the Head

Dependents follow a head noun in the order adjective(s), Quantifier, determining pronoun or AdvP, Article.

It is characteristic of Kusaal and of other Oti-Volta languages that the normal construction with both adjectives 21.8.1 and post-determining pronouns is that they follow the head noun, which is itself reduced to a Combining Form, while the dependent inflects to show the number of the head. **Quantifiers** do not have combining forms, and so are not compounded with a following post-determining pronoun. (See further on apposition parallel to compounding 21.5.) For Quantifiers as post-determiners see 21.9.1.

Compounds where the combining form is the head are formed absolutely freely with completely transparent meaning, and correspond to uncompounded constructions in most other languages. It is largely because of such head-first compounds that the combining form needs to be treated as a standard part of the nominal paradigm, and it is in these cases particularly that cbs remodelled segmentally on the basis of the singular form (or even the plural) 11.2.2 are frequent.

bʉ̄ʋg[a]	"goat"
bʉ̀-pìəlɪg[a]	"white goat"
bʉ̀-kàŋā[+/]	"this goat"
bʉ̀-pìəl-kàŋā[+/]	"this white goat"

Compounds with post-determining pronouns naturally cannot be lexicalised; compounds with adjectives do occasionally develop specialised individual lexical meanings, though much less often than modifier-first compounds.

For my informants WK and DK, a noun preceding a post-determining pronoun must appear as a combining form, but SB accepts preceding sg/pl forms; I did not record the tones of such forms and therefore do not know if the change is merely segmental remodelling or reflects a different construction (compare 11.2.2 and also *náaf-bì'isím* "cow's milk" 21.7.2.1.) Thus for SB:

?*náaf-kàŋā*	"this cow"	like *náaf-bì'isím*
?*nāaf-káŋā*		segmental remodelling
?*náaf káŋā*		construed like a quantifier

cf	*nā'-káŋā*	"this cow"	WK DK SB

21.8.1 Adjectives

Adjectives as modifiers always follow the head.

Adjectives do not appear without a preceding noun head, except to a very limited extent as complements to *àe̯ñ*[ya] "be something/somehow" 26.2 .

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. My informants can sometimes be induced to accept sg + adjective but never produce such forms spontaneously.

būʋg[a]	"goat"	*būʋs*[e]	"goats"
bʋ̀-pìəlɪg[a]	"white goat"	*bʋ̀-pìəlɪs*[e]	"white goats"
bʋ̀-sʋ̀ŋ[o]	"good goat"	*bʋ̀-sʋ̀ma*[+]	"good goats"
nūa[+/]	"hen"	*nɔ̄ɔs*[e/]	"hens"
nɔ̄-píəlìg[a]	"white hen"	*nɔ̄-píəlìs*[e]	"white hens"
nɔ̄-súŋ[o]	"good hen"	*nɔ̄-súmà*[+]	"good hens"

A second adjective or a post-determining pronoun can follow a first adjective, which thus itself appears as a cb:

nīn-wɔ́k-pìəlɪg[a]	"white tall person"
nɔ̄-píə̀l-kàŋā[+/]	"this white hen"

However, a noun + adjective compound cannot form a cb to be used as the generic argument of a deverbal noun; a sg/pl form appears instead:

fū-zéñdà kùəs[a]	"seller of red (i.e. dyed) cloth"
not **fū-zéñˀ-kùəs*[a]	

i.e. adjective cbs may only precede other adjectives or post-determining pronouns.

Compounds with adjectives occasionally develop specialised lexical meanings:

nūˀ-bíl[a]	"finger" ("small hand")
tì-sābɪlím[m]	a traditional remedy ("black medicine")

Several names of plant and tree species are formed in this way:

gɔ̀ñˀ-sābɪlíg[a]	Haaf *gosabliga* "Acacia Hockii" ("black thorn")

21.8.1.1 Class Agreement

There are isolated set forms showing traces of the old agreement system:

	*làʔ-bīəlíf*ᵒ	NT	"small coin"
cf	*lāʔaf*ᵒ		"cowrie"
	bīʔəlá⁺		"a little"

	*dà-sīʔər*ᵉ		"some day; perhaps"
cf	*dāar*ᵉ		"day"
	sīʔa⁺		"some"

	*dàbɪs-sīʔər*ᵉ		"some day"
cf	*dàbɪsɪr*ᵉ		"day"
	sīʔa⁺		"some"

	*pṵʔà-pāal*ᵃ/		"bride"
cf	*pṵʔā*ᵃ		"wife"
	*pāalíg*ᵃ		"new"

	*dà-pāal*ᵃ/		"young man, son"
cf	*dāṵ*⁺		"man"
	*pāalíg*ᵃ		"new"

where the adjectives do not normally occur with these class suffixes.

There remains a rule in WK's speech (not DK's) and in written materials requiring mᵐ Class agreement in adjectives modifying mᵐ Class mass nouns, and also after *būn* "thing" when it has abstract rather than concrete sense:

	*dā-páalìm*ᵐ		"new millet beer"
			WK does not accept *dā-páàl, *dā-páalìg.
	*tì-sābɪlím*ᵐ		literally "black medicine",
			a specific traditional remedy
	*tì-vūnním*ᵐ		"oral medication" ("swallowing medicine")
	*tì-kūʋdím*ᵐ		"poison" ("killing medicine")
	*kpāň-sɔ́ɔňdìm*ᵐ		"anointing oil" (*kpāaňm*ᵐ/ "oil, grease")
	*būn-bɔ́ɔdìm*ᵐ		"desirable thing"
			(1 Cor 14:1, referring to *nɔ̀ŋɪlím*ᵐ "love")
but	*būn-bɔ́ɔdìr*ᵉ		"desirable thing" BNY p17, referring to a sheep
	*būn-ňyɛ́tìm*ᵐ		"the visible world"
but	*būn-ňyɛ́tìr*ᵉ		"a visible object

The exceptional character of the m^m Class in this matter is presumably due to its strong semantic association with the meanings "liquid" and "abstract."

21.8.1.2 Downtoning

Adjectives may show Apocope Blocking 7.4 as a downtoner (all examples KT):

Lì à nē fū-píəlìgā.	"It's a whitish shirt."
Lì à nē fū-píəlìgā lā.	"It's the whitish shirt."
Lì à nē wíùg.	"It's red."
Lì à nē wíugū.	"It's reddish."
fū-wíugū lā	"the reddish shirt"
Lì à nē tītāʾarɩ.	"It's biggish."

This seems to be possible only with singular forms.

21.8.1.3 Ideophones

Adjectives cannot themselves take adverbs as modifiers. In e.g.

Lì à nē píəlìg pāmm.	"It's very white"

the adverb *pāmm* must be taken with the copula verb rather than the adjective; it is not possible to say

*fū-píəlìg pāmm lā	attempted "the very white shirt"

However, in any syntactic rôle an adjective may be immediately followed by an ideophone with intensifying force. As is common cross-linguistically, ideophones often display unusual phonological features. An ideophone is specific to a particular adjective, along with any cognate Adjectival Verb.

Lì à nē píəlìg fáss fáss.	"It's very white."
Lì à nē sābɩlíg zím zím.	"It's deep black."
Lì à nē zíñʾa wím wím.	"It's deep red."

Ideophones are not limited to use with adjectives as complements of *àẹñ*^ya "be something/somehow" but occur with adjectives in their normal modifier rôle:

Lì à nē fū-zíñʾa wím wím.	"It's a deep red shirt."	WK
* M̀ ňyɛ fū-zíñʾa wím wím.*	"I've seen a deep red shirt."	WK

Fū-zíñˀa wím wím bɛ́.   "There's a deep red shirt."   WK
M̀ bɔ́ɔ̀d fū-zíñˀa wím wím lā.   "I want the deep red shirt."   WK

Adjectival Verbs may take ideophones as intensifiers; they share the ideophone of the corresponding adjective:

Ò à nɛ̄ wɔ̄k tɔ́lɪlɪ̀lɪ.   "She's very tall."
Ò à nɛ̄ gīŋ tírɪgà.   "She's very short."

Ò wàˀam tɔ́lɪlɪ̀lɪ.   "She's very tall."
Ò gìm nɛ̄ tírɪgà.   "She's very short."

I could not elicit ideophones for all adjectives by any means, not even those with gradable senses; thus WK has only

Lì à sʊ́ŋā pāmm.   "It's very good."
Lì à nɛ̄ bɛ̄ˀɛd pāmm.   "It's very bad."
Lì zùlɪm pāmm.   "It's very deep."
Lì màˀas pāmm.   "It's very damp."

Apart from Adjectival Verbs, I have found no unequivocal ideophones in use with verbs; thus only

Ò tʊ̀m pāmm.   "She's worked hard."
Ò tʊ̀m hālí.   "She's worked hard." 23.2
Ò zɔ̀ pāmm.   "She's run a lot."
Ò zɔ̀ hālí.   "She's run a lot."

However, many verbs can be followed by "onomatopoeic" words which resemble ideophones at least in phonology:

Ò zɔ̀t nɛ̄ tɔ́lìb tɔ́lìb.   "He [a rabbit] is running lollop-lollop." WK

Such words occur very frequently in the collection of traditional stories "*Kusaal Solima ne Siilima*." They are evidently stereotyped and often show phonological features not found in the regular vocabulary, but they do not seem to be uniquely associated with particular verbs and are perhaps more of the nature of the "rat-tat-tat" onomatopoeic words familiar in European languages.

For more detail on Kusaal ideophones see Abubakari 2017.

21.8.1.4 Bahuvrihis

The combination noun + adjective may be used as a bahuvrihi adjective itself:

Lì à nē nū²-kpíilớŋ.	"It's a dead hand."
Bīig lā á nē nū²-kpíilớŋ.	"The child is dead-handed."
Ò à nē bí-[nū²-kpíilớŋ].	"He's a dead-handed child."

In constructions like *bì-nū²-kpíilớŋ*[o] "child with a withered hand" the adjective is modifying the cb immediately preceding it, not *vice versa*. It is not possible to say **bì-nū²-kpîm*[m], and in such constructions the adjective may even be plural despite singular reference of the whole noun + adjective compound:

bì-tὺb-kpīda+	"deaf child" (*tὺbʊr*[e] "ear", *kpì*+ "die")
plural *bì-tὺb-kpīda nám*[a]	
or *bì-tὺb-kpīdɩs*[e]	
bì-tὺb-līɩd[e]	"child/children with blocked ears"
	(*lī*+ "block up")

Accordingly, the construction is zero-derivation of a noun-adjective compound to an adjective, and not modification of an adjective by a cb.

Other examples of bahuvrihis:

kὺg-nɔ̄b-wɔ́k[o]	"long-legged stool"
kὺg-nɔ̄b-wá²àd[e]	"long-legged stools"
zūg-máṵk[o]	
plural *zūg-má²àd*[e]	"crushed-headed"
zὺ-wɔ̄k[o/]	"long-tailed"
nɔ̄b-gíŋ[a]	"short-legged"
zū-pέɛlὺg[o]	
plural *zū-pέɛlà*+	"bald; grey haired"; etymologically
	"white headed" with *pὲɛlʊg*[o] for *pìəlɩg*[a]
lām-fɔ́ɔ̀g[o]	
plural *lām-fɔ́ɔ̀d*[e]	"toothless" (*lām*[me/] "gum" *fὺe*+ "draw out")

(Plural analogical from sg, which shows the regular change **uegʊ → ɔɔgʊ*)

The two adjectives "one of a pair" 18.2.4 are often used in bahuvrihis:
ňyàu̯k[o] pl *ňyà*ʔ*ad*[e] for eyes:

nīf-ňyáu̯k[o]	"one eye"
bà-nīf-ňyáu̯k[o]	"one-eyed dog"

yīu̯ŋ[o/] pl *yīná*[+] of other paired body parts:

tʋ̀b-yīu̯ŋ[o/]	"one ear"
bì-tʋ̀b-yīná[+]	"one-eared children"
nɔ̄b-yíu̯ŋ[o]	"one-legged"
*nū*ʔ*-yíu̯ŋ*[o]	"one-handed"

21.8.1.5 Nouns as Adjectives

Human-reference nouns may be used as adjectives modifying other human-reference nouns. This is particularly common with [a]|*b*[a] Class words:

	bì-sāan[a/] or *bì-sáaŋ*[a]	"stranger-child"
only	*bʋ̀-sáaŋ*[a]	"stranger goat"
	*bì-kpī*ʔ*im*[m/]	
or	*bì-kpìilʋ́ŋ*[o]	"dead child"
only	*bʋ̀-kpìilʋ́ŋ*[o]	"dead goat"
	bì-dāu̯[+]	
or	*bì-dāʋg*[o]	"male child"
only	*bʋ̀-dāʋg*[o]	"male goat"
	*bì-pu̯*ʔ*ā*[a] or *bì-pu̯āk*[a]	"female child"
	*bì-zū*ʔ*ɵm*[m/]	
or	*bì-zʋ̀nzɔ̀ŋ*[a]	"blind child"

The same behaviour is also seen with some Agent Nouns:

	*pu̯*ʔ*à-zàaňs*[a]	"dreamy woman" KT
	nīn-nɛ́n[na]	"envious person"
	bì-sīn[na/] or *bì-sīnníg*[a]	"silent child"
only	*bʋ̀-sīnníg*[a] or *bʋ̀-sīnnʋ́g*[o]	"silent goat"

However, WK usually reports a contrast between Agent Nouns/Deverbal Adjectives with head-second compounds in ᵃ|bᵃ Class and head-first compounds in gᵃ|sᵉ or rᵉ|a⁺ Class:

*pʊ̰ˀà-kōʋdíg*ᵃ	"murderous woman, murderess"
*pʊ̰ˀà-kōʋd*ᵃ/	only "killer of women"

This is true also of forms derived from verbs which are usually intransitive:

*pʊ̰ˀà-lā̄ˀadɪg*ᵃ	"woman given to laughing"
*pʊ̰ˀà-lā̄ˀad*ᵃ	"laugher at women"

Nouns not in the ᵃ|bᵃ Class are used adjectivally express bodily defects:

*bì-zʊ̀nzɔ̀ŋ*ᵃ	"blind child"
*bì-gɪ̀k*ᵃ	"dumb child"
*bì-wàbɪr*ᵉ	"lame child"
*bì-bālɛ̄rʋg*ᵒ	"ugly child"
*bì-pɔ̀ň̃ˀɔr*ᵉ	"crippled child"

Other examples include:

*nàsàa-bīig*ᵃ	"European child"
*yàmmʋg-bī-pʊ́ŋ*ᵃ	"slave girl" "girl slave" (Acts 16:16, 1976)
*yàm-bī-pʊ́ŋ*ᵃ	(WK's form)
*nàˀ-bīig*ᵃ	"prince" (not "boy king")
*bì-nàˀab*ᵃ	id
*dàʊ̰-bīig*ᵃ	"male child"
cf *bì-dāʊ̰*⁺	id (above)

Except with deverbal nouns as second elements, there seem to be no grounds for choosing either the first or second element of these compounds as the head, and these structures are essentially appositional. However, rather than set up a third basic type of compound, it seems simplest to regard these cases as reflecting Modifier-Adjectival use of human-reference nouns. Such nouns also resemble adjectives in that they can form the basis of derived abstract nouns, though in most cases they do so by adding derivational suffixes rather than simply being used directly in the *m*ᵐ Class like adjective stems 11.1.1 .

21.8.2 Determiners

21.8.2.1 Pronouns

Pronouns may follow a NP head as post-determining pronouns. The head then normally appears as a combining form. Demonstrative, Indefinite and Interrogative pronouns occur in this construction.

Like Quantifiers, pronouns also occur as NP heads. Some pronouns have forms used only as heads or only as post-determiners 17.2 17.3 .

21.8.2.2 Quantifiers

Quantifiers as NP dependents follow the head, except for *yīigá*⁺ "firstly" 21.7.3 . The head only appears as a cb, optionally, with in a few cases with *yīnní*⁺ "one" and in a few fixed expressions 18.2.2 ; uncompounded post-dependents are not subject to M Raising 18.2.2 :

	kūgʋr yīnní⁺	"one stone"
but	*kūg-yínnì*⁺	"one stone"

I do not have any examples of co-occurrence with adjectives; when quantifiers precede post-determining pronouns the construction is probably always to be taken as a quantifier head with a pre-determiner, not a post-determining quantifier.

nīdɪb bɛ́dʋgū	"a lot of people"
nīdɪb bɛ́dʋgū lā	"the lot of people, the crowd"
nīdɪbá àyí	"two people"
nīdɪbá àyí lā	"the two people"

The head + post-dependent quantifier construction contrasts in meaning with the *partitive* sense of a pre-determiner + Quantifier Phrase head 21.9.1 .

Quantifiers as post-dependents can be coordinated: this is the mechanism for the creation of numbers other than simple digits, tens or hundreds 18.2.2 .

ò ŋyà ̓an-dɔ̀llɪb   pīi nɛ̄ yí
3HU after-follower:**PL** ten with two
"his twelve disciples" (Mt 26:20)

21.8.2.3 Adverbial Phrases

AdvPs following a NP head are post-determiners. Proadverbs do not occur in this use. There is no compounding or M Raising.

Contrast the pre-modifying use with the post-determining in

| | *mɔ̄ɔgʊn wábʊ̀g lā* | "the wild elephant" ("What kind of elephant?") |
| but | *wābʊg mɔ̄ɔgʊn lā* | "the elephant in the bush" ("Which elephant?") |

I do not have any unequivocal examples of time adverbs in this position; in

| *ňwādɩs yúùm lā pʊ́ʊgōn* | "months in the year" SB |

the postposition phrase is formally locative, though used in a metaphorical temporal sense.

The manner-adverb *amɛ̄ŋá* "really, truly" occurs meaning "genuine, real":

Ɔ̄n   sɔ̄b   á   nɛ̄ du̯ʔátà   amɛ̄ŋá   lā.
DEM.HU individual.**HU COP FOC** doctor:**SG ADV:**real:**ADV ART**
"That one's the real doctor."

When an abstract noun with verbal sense has a preceding NP functioning as subject, resulting in a type of clause nominalisation 21.7.3, a following AdvP may occur which represents an adjunct in the corresponding clause structure, but such adjuncts may also even be prepositional phrases, which are not found elsewhere as NP dependents, and even VP-final particles may occur. Accordingly, this is best regarded as a distinct clause nominalisation process rather than part of NP structure as such; see further 21.9.2.

ya antu'a morim koto ni ne taaba la
yà àntu̯ʔà-mɔ̄rím kɔ́tʊ̀   ní nɛ̄   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)

21.9 Specialised NP Heads

21.9.1 Determiners

Pronouns and quantifiers are determiners. They occur as post-dependents 21.8.2, but also frequently as NP heads.

NPs headed by determiners are equivalent syntactically to other NPs in their abilities to form arguments of VPs:

Ɔ̀ŋā lā kɛ́ nā.	"That one came."
Bàmmā lā kɛ́ nā	"Those ones came.".
Pāmm kɛ́ nā.	"Many came."
Bɛ̀dʊgū kɛ́ nā.	"Many came."
Bɛ̀dʊgū lā kɛ́ nā.	"The crowd came"
Àyí kɛ́ nā.	"Two came."
Àyí lā kɛ́ nā.	"The two came."

They manifest the NP category of number.
Quantifier heads pluralise with *nàm*[a]:

màlɪ̠āk-nám túsà pīiga nám   "tens of thousands of angels"

Àyí   námá‿ àyí   á   nɛ̄ nāasí.
NUM:two **PL**   **NUM**:two **COP FOC** four.
"Two two's are four."

NPs headed by Quantifiers may have post-determining 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   yɛ́   tì   ňyɛ̄   dīɪb yáa   nì   mɔ̄ɔgʊn   ňwá
And **3PL** say:**PFV 3PL** find:**PFV** food where **LOC** grass:**SG:LOC** this
ø   dìɪs   nīdɪb   bɛ́dʊgū bámā   ňwá [+]*ø?*
SER feed:**PFV** person:**PL** many   **DEML.PL** this   **CQ**?
"Where are we going to find food in this wilderness to feed this crowd of
 people?" (Mt 15:33)

nīdɪb   bɛ́dʊgū bánì‿ ø   kɛ̄   nā   lā
person:**PL** much   **DEM.PL COMP** come:**PFV** hither **ART**
"the crowd of people who have come"

All cases where quantifiers are followed by post-determining pronouns are probably quantifier-headed, not NPs with quantifiers as dependents.
   There is a contrast between a NP with a noun head and a post-determiner (pronoun or quantifier) as a dependent 21.8.2, and a NP with a determiner head which is itself preceded by a NP pre-determiner; the latter construction is **partitive**. The position of the article *lā*[+/] may distinguish the two constructions.
   NP with a post-determiner:

nīdıb bédʋgū	"a lot of people"	*bèdʋgū*	dependent
nīdıb bédʋgū lā	"the lot of people, the crowd"	*bèdʋgū*	dependent
nīdıbá àyí	"two people"	*àyí*	dependent
nīdıbá àyí lā	"the two people"	*àyí*	dependent
nīn-síəbà	"certain people"	*síəbà*	dependent

NP with a determiner head and a NP pre-determiner:

nīdıb lā bédʋgū	"a lot of the people"	*bèdʋgū*	head
nīdıb lá àyí	"two of the people"	*àyí*	head
yà sɔ̄ʔ	"some one among you"	*sɔ̄ʔ*	head
nīdıb lā síəbà	"certain of the people"	*síəbà*	head
nīdıb síəbà	"certain ones among people"	*síəbà*	head

nīdıbá‿ àtáň̃ʔ   lá ànɔ́ʔɔ̀n ...
person:**PL NUM:**three **ART** who ...
"who, among the three people ...?"

The determiner can be an *ǹ*-Clause:

Pa'alimi ti nidiba ayi nwa fun gaŋ so'.
Pà̀ʔalımī‿ tí   nīdıbá‿ àyí   ňwá fún   gāŋ   sɔ̄ʔ
Show:**IMP 1PLO** person:**PL NUM:**two this **2SG:COMP** choose:**PFV INDF.HU**
"Show us which of these two people you have chosen." (Acts 1:24)

21.9.2 Gerunds and Deverbal Abstract Nouns

Gerunds can take NP pre-determiners as subjects 21.7.3 .

Dāṵ̄   lā kúlʋ̀g   dāa mālısí‿   m.
Man:**SG ART** return.home:**GER TNS** be.pleasing **1SGO**.
"The man's return home pleased me."

A generic object argument may also occur as a Combining Form, and adjunct AdvPs may follow the head:

ninsaalib yadda niŋir Wina'am ni
nīn-sáalìb   yáddā-níŋìr   Wínàʔam ní
Person-smooth:**PL** assent-do:**GER** God   **LOC**
"People's faith in God." (Rom 4:14)

ya antu'a morim koto ni ne taaba la
yà   àntʊ̰ʔà-mɔ̄rím   kɔ́tʊ̀   ní   nɛ̄   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)

VP-final particles may occur too 25.7 :

Ninsaal Biig la ken la na
Nīn-sáàl   Bîig   lā   kɛ̄n   lā   nā
Person-smooth:**SG** Child:**SG ART** come:**GER ART** hither
"the coming of the Son of Man"

Other deverbal abstract nouns may also be used in this way:

Kiristo ku'um dapuudir zug   "Christ's death on the cross" (1 Cor 1:18)
Kiristo kʊ́m   dá-pʊ̄ʊdír   zúg
Christ death wood-cross:**SG** upon

Constructions of this type are rarely used in place of content clauses or as adjuncts, but most often as subjects or with postpositions.

21.9.3 *Mɛ̄ŋ*ᵃ/ *dāan*ᵃ *sɔ̄b*ᵃ *būn*ⁿᵉ/

Certain nouns occur exclusively as heads with a dependent. There is characteristically a specialised sense in the dependent/head relationship. (For *Adverbs* as heads of AdvPs with preceding dependents see Postpositions 22.6 .)
*Mɛ̄ŋ*ᵃ/ "self" is used indifferently for sg/pl, always with a pre-determiner:

m̀ mɛ̄ŋ   "myself"
yà mɛ̄ŋ   "yourselves"

nà'ab   lā   mɛ́ŋ   "the chief himself"
chief:**SG ART** self

Bà ŏyɛ̀ɛ́‿ bà mɛ̄ŋ.   "They've seen for themselves."
3PL see:**PFV 3PL** self.

"Self" forms must be used for verb arguments referring back to the clause subject :

Ṁ   ňwɛ́ʔɛ́‿ m   mɛ̄ŋ.   "I hit myself."
1SG hit:**PFV   1SG** self.

not **Ṁ ňwɛ́ʔɛ̄ m* or **Ṁ ňwɛ́ʔ mān.*

    Kusaal resembles English, as opposed to (say) French, in using a pronoun possessor with body parts acted on by their owner, e.g.

Ba pu piesidi ba nu'us su'uŋa ka nan dita.
Bà pū   pīāsídí‿ bà núʔùs   súŋā,   kà nāan dítā   ⁺ø.
3PL NEG.IND clean:**IPFV 3PL** hand:**PL** good:**ADV** and then eat:**IPFV NEG**.
"They don't wash their hands properly before they eat." (Mt 15:1)

    When ordinary pronouns are permissible, using *mɛ̄ŋ* implies contrast:

Ṁ   píə‿   m̀ mɛ̄ŋ núʔùs.   "I washed my own hands."
1SG wash:**PFV 1SG** self   hand:**PL**.

Fù mɛ̄ŋ kū̄ʋ bí-lìaa   ⁺ø?   "Yourself or the baby?"
2SG self or   child-baby:**SG CQ**?   ("Which of you needs the doctor?")

    The derived manner-adverb *amɛ̄ŋá*⁺ "really, truly" can be used after a sg or pl to mean "genuine, real" and there is an adjectival form *mɛ̄ŋír*ᵉ seen in e.g.

*yɛ̄l-mɛ́ŋìr*ᵉ   "truth" ("genuine matter")

Dāanᵃ "owner of ...", *nàm*ᵃ pl, always has a preceding dependent NP or AdvP. In a few set forms this is a generic count noun cb:

*yī-dáàn*ᵃ   "householder" = *yī-sɔ́b*ᵃ   Hausa *mài gidaa*
*tèŋ-dāan*ᵃ   literally "land-owner": traditional earth-priest

    Normally, the possession is expressed by a free NP, definite or indefinite:

*lɔ́r dáàn*ᵃ   "car owner"
*būʋg dáàn*ᵃ   "goat owner"
*kùʔəm dáàn*ᵃ   "water owner"
*tìəŋ dáàn*ᵃ   "bearded man" Hausa *mài geemùu*
*dāam dáàn*ᵃ   "beer owner"
*pɔ́ɔg lā dáàn*ᵃ   "the owner of the field" (Mt 21:40)

Zu-wok daan po gangid bugum.
Zʋ̀-wɔ̄k   dáàn   pʋ̄   gáŋìd   búgʋ́mm ⁺ø.
Tail-long:**SG** owner:**SG NEG.IND** step.over:**IPFV** fire   **NEG**.
Proverb: "One with a long tail doesn't step over a fire."
(If you have family commitments you shouldn't take risks.) KSS p38

An abstract possession refers to a quality, as with Hausa *mài*, or Arabic ذو

pʋ̀-pìəlɪm dáàn[a]   "holy person"

Manner-adverbs can appear in the same sense as abstracts before *dāan*[a]:

būgʋsígā dáàn[a]   "softly-softly sort of person" WK

See 18.2.4 on the use of *dāan*[a] with numbers to make ordinal expressions.

Sɔ̄b[a] "the one of ..." is a dummy head for a preceding NP or AdvP dependent; it
specifies only number and gender and is otherwise semantically empty.

Human	sg	*sɔ̄b*[a]
Human	pl	*dìm*[a]
Non-human	sg/pl	*dìn*[ne]

With noun or pronoun pre-determiners 21.7.3 the meaning is possessive:

mān dín[ne]   "my one, mine"
À-Wīn dím   "Awini's family"

Fʋ̄n   pi̯áñˀàd   nɛ̄ tīnám   dín.
2SG.CNTR speak:**IPFV FOC 1PL.CNTR** individual.**NH**.
("We can't speak your language but ...") "You're speaking ours."

Abstract NPs and AdvPs 21.7.2.2 21.7.2.3 preceding *sɔ̄b*[a] are pre-modifiers:

pʋ̀-pìəlɪm sɔ́b[a]
pl *pʋ̀-pìəlɪm dím*[a]   "holy person" (*pʋ̀-pìəlɪm*[m] "holiness")

dūnɪya ní dìn[ne]   "earthly one" (1 Cor 15:44)
Bɔ̀k dím   "Bawku people"

The quantifier *yīigá*⁺ "first" is a pre-determiner, as always 21.7.3:

yīigá sɔ̄b^a   "first (person)"   beside *yīig-sɔ́b*^a id

Specialised senses may be found with cb pre-modifiers:

yī-sɔ́b^a   "householder"   (*yīr*^{e/} "house")
pl *yī-sɔ́b-nàm*^a
yī-dím^a   "members of the household"
nīf-sɔ́b^a   "miser"   (*nīf*^{o/}   "eye")
tàǎp-sɔ̄b^a   "warrior"   (*tāǎp*^o "war")
zūg-sɔ́b^a   "boss" NT "Lord"   (*zūg*^{o/} "head")
pl *zūg-sɔ́b-nàm*^a

The expression *ɔ̄n sɔ̄b*^a means "the person we were just talking about."

Bʉ̄n^{ne/} "thing" is probably derived from the old gender agreement pronoun for abstracts. It is used in many constructions as a dummy placeholder. It can make a regular *r*^e|*a*⁺ Class plural *bʉ̄ná*⁺, but in placeholder use it is found indifferently as sg and pl, or pluralises with *nàm*^a like non-human pronouns:

*Bʉ̄n-námá‿ àlá   kà   fù ňyɛ̄tá   *⁺*ø?*
Thing-**PL**   **NUM**:how.many and **2SG** see:**IPFV CQ**?
"How many things do you see?" SB

It is used (beside *nīn-* "person" for human) as a dummy non-human cb before adjectives, avoiding the use of an adjective as complement of *àe̱ñ*^{ya} "be" 26.2.

Dīɪb á   nɛ̄ bʉ̄n-sʉ́ŋ.   "Food is good." ("Food is a good thing.")
Food **COP FOC** thing-good:**SG**.

Some adjectives cannot be used as NP heads at all, so *bʉ̄n-* is necessary in:

bʉ̄n-vʉ́r^e   "living thing"

Even those that can, cannot have any dependents apart from ideophones or articles, so *bʉ̄n-* is also necessary in:

bʉ̄n-píɛ̀l-kàŋā^{+/}   "this white one"

Deverbal Adjectives cannot be used as NP heads while retaining adjectival meaning; with no preceding cb they are interpreted as Agent Nouns 15.1.1.2.1. Thus

	būn-kúʊdìr[e]	"thing to do with killing"
but	*kūʊdír*[e]	"killer"

WK requires an adjective to take the *m*[m] Class suffix if the sense is abstract
21.8.1.1 .

Note the idioms

	būn-gíŋ[a]	"short chap" (informal, humorous)
	būn-kúdùg[o]	"old man" (the normal expression)
		(but *pṵʔà-ňyáʔaŋ*[a] "old woman")

Būn also occurs with abstract 21.7.2.2 pre-modifiers:

tūlıgír bún[ne]	"heating thing, heater" = *būn-túlıgìr*[e]

With an AdvP pre-modifier:

kùʔəmīn bún[ne]	"water creature"

Note that while *būn* is a "thing", tangible or abstract, *dìn* is purely a
semantically empty head, with only number and gender specified:

kùʔəmīn dín[ne]	"the (non-human) one in the water, aquatic one"

21.10 Personifier Clitics

Kusaasi personal names are always preceded by the personifier clitics *À-* or
Ǹ-/M̀-; *À-* is the default, with *Ǹ-/M̀-* appearing before adjective stems. *M̀-* is found
before labial consonants. These are all Liaison Words. The *À-* is like the manner-
adverb prefix *à-* in being preceded by word-final *-ı*, not *-a* as with the number prefix.

Personal names do not take the article or modifiers, but may take pre- or post-
determiners. *À-*, but not *Ǹ-/M̀-*, are deleted after a pre-determiner.

Personal names can pluralise with *nàm*[a]; such plurals can certainly mean e.g.
"more than one (person called) Awini"; I do not know if they can also bear the *cum
suis* meaning "Awini and his companions (etc.)"

	À-Wīn	"Awini"
	tì Wīn	"our Awini"
	M̀ Wīn	"my Awini"

À-Wīn-káŋā	"this Awini"
À-Wīn nám	"Awinis"
Ǹ-Dāʋg	"Ndago"
tì Ǹ-Dāʋg	"our Ndago"

In speech, *À-* is used before foreign names also, though the NT (unlike the Mooré Bible) uses the names without the proclitic (and often in English spelling.)

À-Mūusa	"Moses"
À-Yīisa	"Jesus"
À-Sīimɔ́ɔn	"Simon"

For examples of Kusaasi names see 37.2 .

NT has some personifications of abstractions: *À-Sàʔʋŋ* "Destruction, Abaddon."

In stories where animals are characters, animal names take *À-*:

À-Bāa	"Mr Dog"

A number of animal and bird names incorporate the clitic as part of the common noun, without any implication of personification; among such nouns are *à-dàalʋ́ŋ*[o] "stork" *à-gáʋ̀ŋg*[o] "pied crow" *à-kɔ̄ra-díɛ̀m*[ma] "praying mantis" and the loanword *à-mús*[e] "cat."

Examples:

à-dàalʋ́ŋ	"a stork"
m̀/*mān dáalʋ́ŋ*	"my stork"
1SG/1SG.CNTR stork:**SG**	
dāu̯ lā dáalʋ́ŋ	"the man's stork"
man:**SG ART** stork:**SG**	
Lì à nɛ́ à-dàalʋ́ŋ.	"It's a stork"
3NH COP FOC PERS-stork:**SG**.	
M̀ ŋ̌yɛ́ à-dàalʋ́ŋ.	"I've seen a stork."
1SG see:**PFV PERS**-stork:**SG**.	

The *à-* clitic is not simply elided after a pre-determiner but is completely *replaced*, as is apparent from the L Raising affecting the stem. The clitic *à-* thus

behaves in its formal syntax like a pre-determining personal pronoun, and when nominalising a whole phrase or clause, it is analogous to a non-contrastive subject pronoun 21.10.1 . *À-* is also *phonologically* similar to the clitic pronouns 17.1 8.5 9.3.2 . All this may reflect a historical origin as an indefinite third-person pronoun "someone", perhaps related to the Mooré 3rd person singular pronoun *yẽ~a*.

21.10.1 With VPs and Clauses

Verb Phrases can be nominalised by the Personifier Clitic *À-* 21.10 , which takes the place of a subject pronoun, in the sense "someone who ...":

Atum so'
À-tʊ̀m   sɔ̄ʔ
PERS-send:**PFV INDF.HU**
"Siloam" ("Someone sent someone else") 25.1.1 (Jn 9:7)

Apukpen'baŋo
À-pʊ̄   kpέň̌ʔ   bàu̯ŋʊ
PERS-NEG.IND enter:**PFV** circumcision
"the Uncircumcised" 20.1 (Eph 2:11)

This is common in proverbs and similar set expressions:

À-dāa   yέl   kā̄ʔ   tíīmm   ⁺ø.
PERS-TNS say:**PFV NEG.HAVE** medicine **NEG.**
"Did-say has no remedy." (No use crying over spilt milk.)

À-ňyε̄   nε̄   nīf   sɔ̄ň̌ʔɔ́‿   À-wʊ̀m   tʊ̀ba.
PERS-see:**PFV** with eye:**SG** be.better.than **PERS**-hear:**PFV** ear:**PL**
"Saw-with-eye beats Heard-with-Ears" (Seeing is believing.)

À-Kīdɪgɪ‿   ø Bū̄ʔɵs
PERS-cross:**PFV SER** ask:**PFV**
"Crossed over and asked" (name of the constellation Orion.)

Apozotyel
À-Pʊ̄-zɔ́t-yε̄l
PERS-NEG.IND-run:**IPFV**-thing:**SG**
"Doesn't-fear-trouble", character in KSS p35.

The expected final LF in this expression, induced by the Negative Clitic paired with *pō,* is seen only when the name is clause-final:

Apozotyel da ane o saam biig ma'aa.
À-Pū̄-zɔ́t-yɛ̄l   *dá à nɛ́ ò sàam   bîig   mà'aa.*
PERS-NEG.IND-run:**IPFV**-thing:**SG TNS COP FOC 3HU** father:**SG** child:**SG** only
"Fears-nothing was his father's only child." KSS p35

In some cases, *À-* appears before the subject of an entire clause, as a pre-determiner with the meaning "someone whose ...":

Bà kɛ̀n nɛ́ À-nà   kū̄ʊ́‿ m̀ nū̄a   yír,   kà bà pū   kɛ́n
3PL go:**IPFV FOC PERS-UNR** kill:**PFV 1SG** chicken:**SG** house:**SG** and **3PL NEG.IND** go:**IPFV**
À-nɔ̄ɔs   bɛ́ yírē   ⁺ø.
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 *Nɔ̄ɔs bɛ́.* "There are chickens, chickens exist."]

À-Tìɩm   bɔ́dìg   yā
PERS-medicine get.lost:**PFV INDEP**
Personal name 37.2 , literally "Someone's medicine has got lost."

Nominalisations with *à-* can pluralise with *nàm*[a]:

À-zī̄ʔ‿   ø kpí   nàm kpîîd   nɛ́ kà tɛ́ñbìd.
PERS -**NEG.KNOW SER** die:**PFV 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.")

22 Adverbial Phrases

22.1 Adverbial Phrases: Overview

Adverbial Phrases characteristically appear as Adjuncts within clauses and VPs. To a more limited extent they may appear as arguments of verbs 22.5 , or (with the exception of proadverbs) within NPs as determiners or modifiers 21.7.2.3 21.8.2.3 .

Adverbial Phrases may have morphologically distinctive Adverbs as heads, or may represent adverbial *uses* of NPs; such NPs have the usual structural possibilities for NPs. Otherwise, the range of structures for AdvPs is more limited. Adverbs with a preceding NP determiner are limited to specialised Postpositions 22.6 . *Ǹ*-Clauses without relative pronouns occur as Adverbs of Time/Circumstance 33.1 , while Relative Clauses with pronouns expressing place or manner occur as corresponding types of AdvP. Coordination of AdvPs is possible only for those expressing time and place.

There is a basic syntactic distinction between AdvPs expressing Time, Circumstance or Reason on the one hand, and AdvPs expressing Place or Manner on the other. AdvPs expressing time, circumstance or reason usually appear as Clause adjuncts 30.1.1 before the clause subject, or as VP Adjuncts 25.6 . while AdvPs expressing place or manner may appear as VP Adjuncts but not as Clause Adjuncts; they may only precede the clause subject by preposing with *kà* 34.2 .

Thus **Mɔ̄ɔgʊ́n   mām   bɛ́.*   for "I'm in the bush."
　　Grass:**SG:LOC 1SG.CNTR EXIST**.

is corrected by WK to

　　Mɔ̄ɔgʊ́n   kà mām   bɛ́.   "I'm in the bush."
　　Grass:**SG:LOC** and **1SG.CNTR EXIST**.

22.2 Time and Circumstance

Adverbial Phrases expressing **time** may be instantiated by time Adverbs 19 , but are very often simply nouns or NPs with temporal meanings, and no special marking; for examples see 37.8 .

No formal distinction is made between a point in time and a period over which a state of affairs persists:

　　Fʊ̀ ná kūl   bɛ̄og.
　　2SG UNR return.home:**PFV** tomorrow.
　　"You'll go home tomorrow."

Tì   kpέlìm   ànínā   dábɩsà bíʔəlà.
1PL remain:**PFV ADV:**there day:**PL** few.
"We stayed there a few days."

Time AdvPs can be **coordinated**:

Bɛ̄ogʋn   nɛ̄ záàm   kà fʋ̀ ná nīŋ   tí-kàŋā.
Morning:**LOC** with evening and **2SG UNR** do:**PFV** medicine-**DEML.SG**.
"Use this medicine morning and evening."

Adverbial Phrases expressing **circumstances** are typically *ǹ*-Adverbial
Clauses; such clauses are also frequently used to express time 33.1.1 .

22.3 Place

The core adverb of place is Locative Particle, which has two allomorphs.
Strictly speaking, the head of locative AdvPs is the locative particle itself, with a third
zero allomorph accompanying the "intrinsically locative" forms discussed below;
like other postpositions, this is never itself referential even though it has a pre-
determiner. This analysis is supported by the use of locatives as NP pre-modifiers
21.7.2.3 and by the behaviour of focus marking with locative complements in the
verb phrase 34.1.1.3 .

The form *nɩ*⁺ is used after words ending in a vowel in SF, after pronouns and
after loanwords; the Liaison Enclitic *n*ᵉ is used elsewhere:

mʋ̀ʔarīn   "in a lake"
yūdá nì   "among names"
m̀ nī   "in me"
mān nɩ   "in me"

la'asug doogin ne sueya ni
là̤ʔasʋg   dɔ́ɔgīn   nɛ̄ sṳēyá nì
assembly:**SG** house:**SG:LOC** with road:**PL LOC**
"in the synagogue and in the streets" (Mt 6:2)

*Yīr*ᵉ/ "house" has the exceptional sg and pl locative forms *yín*ⁿᵉ *yáan*ᵉ which
have the particular nuance "home", as in the parting formula 36 :

Pʋ̀ʔʋsɩm yín.   "Greet (those) at home." i.e. "Goodbye."

Note also the locative adverb *yìŋ*ᵃ "outside."

The article *lā*⁺ᐟ may precede or follow the locative particle:

mʊ̀ˀarīn lā

or   *mʊ̀ˀar lā ní*   "in the lake"

Quantifiers may also follow the locative particle:

m gbana ni wusa   "in all my letters" (2 Thess 3:17)
m̀ gbàna   ní   wūsa
1SG letter:**PL LOC** all

The meaning is completely non-specific location: at, in, to, from. The locative particle is attached to nouns which are not place names whenever they are used as complements of verbs expressing motion or location:

Kem Siloam bulugin n pie fu nini.
Kɛ̀m   Siloam búlʊgīn   n   píə‿   fʊ̀ nīní.
Go:**IMP** Siloam well:**SG:LOC SER** wash:**PFV 2SG** eye:**PL**.
"Go to the well of Siloam and wash your eyes." (Jn 9:7)

Ka Sutaana kpen' Judas [...] sunfin.
Kà   Sūtáanà kpéň ˀ   Judas [...] súňfīn.
And Satan   enter:**PFV** Judas [...] heart:**SG:LOC**.
"Satan entered Judas' heart." (Lk 22:3)

Ka Pilate lem yi nidibin la na ya'as n yeli ba ye...
Kà   Pilate lɛ́m   yī   nīdɪbín   lā nā   yáˀàs
And Pilate again emerge:**PFV** person:**PL:LOC ART** hither again
n   yɛ́lì‿   bā   yɛ̄...
SER say:**PFV 3PLO** that ...
"Pilate went out to the people again and said to them ..." (Jn 19:4)

ILK has, transposed into the orthography of this grammar:

Ò bɛ̀ dáˀān.   "He's at market."
Ò bɛ̀ s̩áˀarīn.   "He's at the bush."
Ò bɛ̀ pɔ̄ɔgún.   "He's at the farm."
Ò bɛ̀ yín.   "He's at home."
Ò bɛ̀ sākulín.   "He's at school."
Ò bɛ̀ mɔ̄ɔgʊn.   "He's in the grasslands."

Ò bὲ kɔ̄lıgın   "He's at the stream."

Ò bὲ tʋ̄ʋmın.   "He's at work."

More precise locative meanings are expressed with postpositions, many of which themselves include the locative particle 22.6 .

Ò   dìgıl   gbáṳŋ lā tέɛbʋ̀l lā zúg.
3HU lay.down:**PFV** book:**SG ART** table:**SG ART** upon.
"She's put the book on the table."

Dāṳ   lā bɛ́ nɛ̄ dɔ́-kàŋā   lā púʋgʋ̄n.
Man:**SG ART EXIST FOC** hut-**DEML.SG ART** inside:**SG:LOC**.
"The man is inside that hut."

My informants tend to use postpositions in cases where the NT versions have the locative particle alone.

Kusaasi place names, many postpositions, and a number of other adverbs and proadverbs 19.1 are "intrinsically locative." Syntactic considerations 21.7.2.3 34.1.1.3 suggest such words should in fact be regarded as accompanied by a zero allomorph of the locative particle:

Ò bὲ Bɔ́k.   "He's at Bawku." ILK

Ò bὲ Tέmpáan.   "He's at Tempane." ILK

Ò kὲŋ Bɔ́k.   "He's gone to Bawku."

Ò dìgıl gbáṳŋ lā tέɛbʋ̀l lā zúg.   "She's put the book on the table." (above)

*dàtìṳŋ*⁰ or *dìtúŋ*⁰   "righthand"

*dàgɔ̀bıg*ᵃ   "lefthand"

*àgɔ́l*ˡᵉ or *àgɔ̄lá*⁺   "upwards"

lāllí⁺   "far off"   (? *lāl ní*⁺)

Place names often have a locative proform in apposition, particularly to express rest at a place, as opposed to movement towards or away:

M̀ ná kɛ̄ŋ Bɔ́k.   "I'm going to Bawku."

Fʋ̀ yúùg Bɔ́k kpɛ̄láa?   "Have you been long in Bawku (here)?"

Fʋ̀ yúùg Bɔ́kàa? SB   (rejected by WK as "Mooré")

In the speech of my informants, foreign place names share the syntactic behaviour of Kusaal place names as intrinsically locative, but especially in the sense of rest at a place, the NT often either uses the postposition *nι*⁺ or paraphrases like

Jerusalem téŋīn   "in Jerusalem-land"

For examples of Kusaasi place names see 37.3.

Proforms used as locative relatives are intrinsically locative, and consequently so is the relative clause as a whole 33.2:

biig la n be si'el la
bīig   lá ǹ   bὲ sī⁷әl   lā
child:**SG ART COMP EXIST INDF.NH ART**
"the place where the child was" (Mt 2:9, 1976)

ka more fu keŋ zin'i kan ka fu pu booda.
kà   mɔrí‿ fὺ‿ ø   kὲŋ   zíń⁷-kàn   kà fὺ pū   bɔ́ɔdā ⁺ø.
and have   **2SGO SER** go:**PFV** place-**DEM.SG** and **2SG NEG.IND** want   **NEG**.
"and take you where you do not want." (Jn 21:18)

Some words incorporate the locative particle always, whether used as locatives or not:

    *tὲŋ-pūʋgʋn*ᵉ/   "village"
pl   *tὲŋ-pūʋdιn*ᵉ/

Note also the *time* expressions:

*bēog*ᵒ   "tomorrow"
*bēogʋn*ᵉ/   "morning"
sān-sí⁷ān lā   "at one time, once..." 29.3
*yīigín*ᵉ   "at first"

Locative forms with or without the locative particle may appear as modifiers or determiners within a NP 21.7.2.3 21.8.2.3.

Locative AdvPs can be coordinated:

Nyalima na be winigin ne nwadigin ne nwadibibisin.
Ňyālιmá nà bὲ wínnìgīn nὲ ňwādιgín   nὲ   ňwād-bíbιsīn.
Wonder:**PL UNR 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 construed like Place AdvPs, with a metaphorical extension of the sense of the postposition *zūg* "upon" 22.6 ; similarly for proforms:

*àlá zùg*º	"therefore"	*bɔ̄ zúg*º	"why?"
*dìn zúg*º	"therefore"		

22.4 Manner

Adverbial Phrases expressing manner may again be instantiated by proforms; there are also morphologically distinctive manner-adverb word types 19 .

Manner AdvPs cannot be coordinated.

Reduplication of nouns forms a number of **distributive** Manner AdvPs:

dàbɪsɪr dábɪsìr	"day by day"
zī̌ñˀig zíñˀìg	"place by place"

Reduplication of number words is similarly distributive 18.2.5 .

Reduplication of manner-adverb *words* themselves is intensifying:

àmɛ̄ŋá mɛ̄ŋá	"very truly"
àsīda sɪda	"very truly"

M̀   wʊ́m   Kūsáàl bī̌ˀəlá.   "I know Kusaal a little."
1SG hear:**IPFV** Kusaal slightly,

M̀   wʊ́m   bī̌ˀəl bī̌ˀəl.   "I understand a very little."
1SG hear:**IPFV** little little.

A very common form of Manner AdvP is a Relative Clause using the proform *sī̌ˀəm*ᵐ "somehow" as relative: see 33.2.1.1 .

Manner-adverbs resemble generic mass nouns in their syntactic behaviour in some respects, and conversely some *m*ᵐ Class abstract nouns derived from adjective stems are zero-derived to manner adverbs 19 . On a syntactic level, even count nouns used in generic senses are encountered as AdvPs:

M̀   kɛ́ŋ   nɔ̄bá.
1SG go:**PFV** leg:**PL**.
"I went on foot." SB; WK corrected this to *M̀ kɛ́ŋ nɛ̄ nɔ̄bá*, using *nɛ̄* "with."

A prepositional phrase with *nɛ̄* occurs parallel to a count plural used adverbially in

> *À-ñyɛ̄   nɛ̄   nīf   sɔ̄ň̓ɔ́‿   À-wʋ̀m   tʋ̀ba.*
> **PERS**-see:**PFV** with eye:**SG** be.better.than **PERS**-hear:**PFV** ear:**PL**
> "Saw-with-eye beats Heard-with-Ears" (Seeing is believing.)

Mass quantifiers, like abstract mass nouns, are frequently used adverbially:

> *Ò tʋ̀m bɛ́dʋgū.*   "She's worked a lot."
> *Ò tʋ̀m pāmm.*   "She's worked a lot."

Wūsa "all" readily switches from quantifying an object to adverbial use:

> *Bà gɔ̀sī‿   tí   wūsa.*
> **3PL** look.at:**PFV** **1PLO** all.
> "They've looked at us all." WK (for: *Bà gɔ̀sí tì wūsa.* **3PL** look.at:**PFV** **1PL** all.)

This is not a universal property of quantifiers:

> *Bà gɔ̀sī tí bɛ́dʋgū.*   "They've looked at us a lot." WK
> *Bà gɔ̀sí tì bɛ̀dʋgū.*   "They've looked at a lot of us." WK

Numbers have specific forms for the adverbial meaning "so many times" 18.2.5; the other count quantifiers sometimes appear similarly as adverbs:

> *Bà gɔ̀sī tí bábɪgā.*   "They've looked at us many times." WK
> *Bà gɔ̀sí tì bàbɪgā.*   "They've looked at many of us." WK

22.5 AdvPs as Verb Arguments

The prototypical use of AdvPs is as adjuncts within the VP, or for Time or Circumstance AdvPs, as Clause Adjuncts:

> *Fʋ̀ dúө   wɛ̄lá ⁺ø?*
> **2SG** rise:**PFV** how   **CQ**?
> literally "How did you rise?"; morning greeting.
> (The form *dúө* of the verb *dūe* "rise" shows that the following word is part of the same phrase 9.1.3.)

Bɛ̄ogʋ́‿ fʋ̀ ná kūl.
Tomorrow **2SG UNR** return.home:**PFV**.
"You're going home tomorrow." SB

However, AdvPs also occur as verb arguments.

AdvPs of all types can appear as subjects of the verb *àe̱ǹ*[ya] "be something /somehow" 26.2. Adjectival verbs may also have an AdvP subject:

Yiŋ venl, ka poogin ka'a su'um.
Yìŋ vέǹl kà pūʋgʋn kā̕ sʋ́mm ⁺ø.
Outside be.beautiful and inside:**SG:LOC NEG.BE** good:**ABSTR NEG**.
"Outside is beautiful but inside is not good." (Acts 23:3)

Ǹ-Adverbial Clauses may appear as subjects:

Christ da kpi n tisi ti la ke ka ti baŋ noŋir a si'em.
Christ‿ø dà kpì n tísì‿ tī lā kέ kà tì báŋ
Christ **COMP TNS** die:**PFV SER** give:**PFV 1PLO ART** cause:**PFV** and **1PL** realise:**PFV**
nɔ̀ŋɪr‿ø à sī̕əm.
love **COMP COP INDF.ADV**
"Christ dying for us makes us understand what love is like." (1 Jn 3:16, 1976)

Apart from this AdvPs do not usually appear as subjects: the sentence

Sʋ̀ŋā bέ. "OK it is." WK
Good:**ADV EXIST.**

is probably to be analysed as involving a metalinguistic use of *sʋ̀ŋā*.

The verb *àe̱ǹ*[ya] characteristically takes a manner-adverb or derived abstract noun complement in preference to an adjective 26.2.

Kusaal frequently uses manner-adverb proforms instead of pronouns with abstract reference as verb objects:

Ò nìŋí‿ àlá. "She did that." ("thus")
3HU do:**PFV ADV:**thus.

Dā níŋì‿ àláa ⁺ø! "Don't do that!" ("thus")
NEG.IMP do:**PFV ADV:**thus **NEG**!

Relative Clauses using the proform *sīʔəm*ᵐ "somehow" as relative are accordingly used after verbs of cognition, reporting and perception of the type that take Content Clause complements 31.4 , to express the sense "say [etc] what ...":

> *Fu wum ban yet si'em laa?*
> *Fù wúm   bán   yèt   sīʔəm   láa* ⁺ø?
> **2SG** hear:**IPFV 3PL:COMP** say:**IPFV INDF.ADV ART PQ**?
> "Do you hear what ["how"] they are saying?" (Mt 21:16)

> *Tiig wela bigisid on a si'em.*
> *Tìɩg   wélà   bìgɩsɩd   ɔ́n   à   sīʔəm.*
> Tree:**SG** fruit:**PL** show:**IPFV 3HU:COMP COP INDF.ADV**.
> "The fruit of a tree shows what ["how"] it is." (Mt 12:33, 1976)

Verbs with appropriate meanings frequently take locative AdvPs as complements, rather than as Adjuncts 25.3 . Differing sandhi behaviour of *kāʔe̩* "not be" with respect to losing the final *e̩* 9.1.3 may reflect whether a following locative AdvP is a VP complement or an adjunct:

> *Dāṳ   lā   kāʔ   dɔ́ɔgūn   láa* ⁺ø.
> Man:**SG ART NEG.BE** room:**SG:LOC ART NEG**.
> "The man is not in the room."

> *Dāṳ   kāʔe̩   dɔ́ɔgūn   láa* ⁺ø.
> Man:**SG NEG.BE** room:**SG:LOC ART NEG**.
> "There's no man in the room."

22.6 Postpositions

Postpositions are adverbs with a pre-determiner 21.7.3 . Most such adverbs are either literal locatives or metaphorical extensions of locatives. Postpositional phrases are AdvPs and can be preposed with *kà* 34.2 freely, unlike prepositional phrases with *nɛ̄* 23.1 . Regardless of the definiteness of their pre-determiners, postpositions continue to behave syntactically like generic non-count nouns, so that postpositional phrases as NP pre-dependents are modifiers rather than determiners 21.7.2.3 .

Postpositions may not be coordinated, but their pre-determiners may be:

> *tinam ne fun sisoogin*   "between us and you" (Mt 8:29)
> *tīnám nɛ̄   fūn sísʋ̀ʋgūn*
> **1PL**   with **2SG** between:**LOC**

Many postpositions are readily recognisable as special uses of ordinary nouns. Some postpositions are AdvPs including the locative particle.

zūg[o/]	"onto" (*zūg*[o/] "head")
tέεbʊ̀l lā zúg	"onto the table"

Zūg[o/] is frequently used metaphorically to express a **reason** "because of ..."

mān zūg	"on account of me"
dāu̯ lā zúg	"on account of the man"
bɔ̄-zúgò?	"why?" (cf *bɔ̄ zúgū* "because" 29.3)

With an *ǹ*-Adverbial Clause as pre-determiner:

Mán   ňwὲˀ   dāu̯   lā   zúg   kà   police gbāňˀá‿   m.
1SG:COMP strike:**PFV** man:**SG ART** upon and police seize:**PFV 1SGO**.
"Because I struck the man the police arrested me."

Although Reason AdvPs are, as here, frequently preposed with *kà* 34.2 , they may occur as clause-level presubject adjuncts 30.1.1 :

Pian'akan ka m pian' tisi ya la zug, ya ane nyain.
Pi̯àňˀ-kàn   kà   m̀   pi̯āňˀ‿   ø   tísì   yā   lā   zúg,   yà á   nɛ̄   ňyāe.
Word-**DEM.SG** and **1SG** speak:**PFV SER** give:**PFV 2PLO ART** upon, **2PL COP LOC** brightly.
"Because of the the words I have spoken to you, you are clean." (Jn 15:3)

zūgʊ́n[e]	"on"
tέεbʊ̀l lā zúgūn	"on the table"

tɛ̄ŋír[e]	"under" (*tɛ̄ŋ*[a] "ground")
tέεbʊ̀l lā tέŋìr	"under the table"

Also as a locative adverb by itself:

Gɔ̀sɪm tɛ̄ŋír!	"Look down!", more commonly *Gɔ̀sɪm tɛ̄ŋɪn!*

pūʊgʊn[e/]	"inside" (*pūʊg*[a] "belly, inside")
dūk lā púʊgūn	"in the pot"

Metaphorical:

    ňwādıs yúùm lā púυgūn   "months in the year"

bābá[+]   "beside" (*bābır*[e/] "sphere of activity")
    m̀ nɔ̄bá bàba   "beside my feet"

sìsừυgūn[e/]   "between"
    tīnám nɛ̄ fūn sísừυgūn   "between us and you"

tùən[ne]   "in front of"
    dāká lā túə̀n   "in front of the box"

As an adverb with no pre-determiner:

    Gɔ̀sım túə̀n!   "Look to the front"

gbìn[ne]   "at the bottom of" (*gbìn*[ne] "buttock")
    zūər lā gbín   "at the foot of the mountain"

ňyáʔaŋ[a]   "behind, after" (*ňyáʔaŋ*[a] "back")
    lì ňyáʔaŋ[a]   "afterwards" as a presubject adjunct 30.1.1

Often used in the sense of "after" in time:

    Nɛ̄ʔŋá ňyáʔàŋ kà ò kūl.
    DEM.NH after   and **3HU** return.home:**PFV**.
    "After this she went home."

sāʔan[e/]   "into/in the presence of" "in the opinion of"
    Wínàʔam sáʔàn   "in the sight of God"

    Fừ ná dīʔe   tíìm   pụ̀ʔá-bàmmā lā sáʔàn.
    2SG UNR receive:**PFV** medicine woman-**DEML.PL ART** among.
    "You'll get the medicine from those women."

yɛ̄lá[+]   "about, concerning" (pl of *yɛ̄l*[le/] "matter, affair")
    Bà yɛ̀l·ō mān yɛ̄lá wūsa.   "They told him all about me."

kɔ̄ňʔɔkɔ̄   cf *àdàkɔ́ňʔ* "one" 18.2.3

    m̀ kɔ̄ňʔɔkɔ̄   "by myself"
    1SG by.self

23 Prepositions

There are two basic prepositions: *nɛ̄* "with" and *wōʋ* "like"; others are either loanwords or originated from serial-verb constructions. Prepositional phrases function as clause adjuncts. They do not form components of Noun Phrases (except for *báa yīnní* 23.2 .)

Neither prepositions, nor their objects, can be coordinated.

For prepositional phrases as verb complements see 25.4 .

23.1 Core Prepositions

nɛ̄ is "with" in both the "accompanying" and instrumental senses. The *nɛ̄* "and" which coordinates NPs and AdvPs 21.4 is presumably fundamentally the same word, although in that sense it is parallel in usage to *bɛ̄ɛ* and *kōʋ* "or", which do not behave as prepositions.

WK has forms of *nɛ̄* with bound personal pronouns:

*ní m*ᵃ	*ní tī*⁺ᐟ
*ní f*ᵒ	*ní yā*⁺ᐟ
n·ó⁺ [nŏ(:)]	*ní bā*⁺ᐟ
ní lī⁺ᐟ	

The *ne o* of the 1996 NT version is frequently read [nŏ] in the audio version.

Other speakers only use *nɛ̄* with free pronouns; WK has alternative forms also with *nɛ́* before those clitic pronouns which have a vowel in SF: *nɛ́ lì, nɛ́ tì, nɛ́ yà, nɛ́ bà*, with the pronouns having L toneme throughout; SB has the same forms. The H toneme on the preposition in WK's forms with *ní* is difficult to explain; compare perhaps the tonemes of Pattern H 2-mora stem verbs before object pronouns 8.3.1 .

Examples for *nɛ̄*:

> *Lìgɪním‿ fʋ̀ nīf nɛ́ fʋ̀ nú ʔùg.*
> Cover:**IMP 2SG** eye:**SG** with **2SG** hand:**SG**.
> "Cover your eye with your hand."

> *Bà kɛ̀ŋ nɛ̄ nɔ̄bá.*   "They've gone on foot." WK
> **3PL** go:**PFV** with leg:**PL**.

> *Dìm nɛ̄ Wīn, dā tʋ́ʔàs nɛ̄ Wīnné* ⁺ø.
> Eat:**IMP** with God:**SG**, **NEG.IMP** talk:**PFV** 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 sumalisim.
Kùlɪm   nɛ̄ sū-málɪsìm.
Return.home:**IMP** with heart-sweetness.
"Go home in peace." (Mk 5:34)

[*Bárɪkà nɛ́ fʊ̀*] *kɛ̄n   kɛ̄n.*
[Blessing with **2SG**] arrival arrival.
"Welcome!" (a greeting template 36)

Ǹ   gɛ́ñˀ   nɛ́ fʊ̀.   "I'm angry with you." SB
1SG get.angry:**PRV** with **2SG**.

wʊ̄ʋ "like" occurs often after *wɛ̄n*ⁿᵃ/ "resemble" introducing its complement; the preposition *nɛ̄* also frequently occurs instead of *wʊ̄ʋ*.

The object of comparison, whether introduced by *wʊ̄ʋ* or by *nɛ̄* after *wɛ̄n*ⁿᵃ/, is followed by an empty particle *nɛ̄* after any object which does not already have the article *lā*+/, even if it is a pronoun, or is specific:

wʊ̄ʋ mān nɛ̄   "like me"
wʊ̄ʋ bʊ́ŋ nɛ̄   "like a donkey"

Ka o nindaa wenne nintaŋ ne.
Kà ò nīn-dáa   wɛ̄n   nɛ̄ nīntāŋ nɛ̄.
And **3HU** eye-face:**SG** resemble with sun:**SG** like.
"His face is like the sun." (Rev 10:1)

Ala zugo more ya'am wuu wiigi ne...
Àlá zùgū, mɔ̀rī yāˀm wʊ̄ʋ wīigí   nɛ̄...
Therefore, have sense like snake:**PL** like...
"Therefore, be wise as serpents ..." (Mt 10:16)

Wʊ̄ʋ, *wɛ̄n wʊ̄ʋ*, and *wɛ̄n nɛ̄* can also be used for "about" with numbers. The object is not followed by the redundant *nɛ̄* in this case:

wʊ̄ʋ tūsá   àyí
like thousand:**PL NUM:**two
"about 2000"

The object of a comparison is often a *sīˀəm* Relative Clause:

> *Ò   zɔ̀t   wōʋ búŋ   ǹ   zɔ̀t   sīʔəm   lā.*
> **3HU** run:**IPFV** like donkey:**SG COMP** run:**IPFV INDF.ADV ART**.
> "He runs like a donkey runs."

With pronoun objects WK has

> *wōʋ mān* LF *mánè*   *wʋ́ʋ tì*
> *wōʋ fōn* LF *fʋ́nè*   *wʋ́ʋ yà*
> *wōʋ ɔ̄n*ᵉ   *wʋ́ʋ bà*
> *wʋ́ʋ lì*

H toneme again appears before the Fixed-L pronouns.

WK permits phrases introduced by *wōʋ* to be preposed with *kà* 34.2 , but rejects this construction for *nɛ̄* + NP:

> *Wōʋ búŋ   nɛ́ kà ò   zɔ́t.*
> Like donkey:**SG** like and **3HU** run:**IPFV**.
> "Like a donkey, he runs."

But   **Nɛ́   m̀ nʋ́ʔùg   kà   m̀ sīʔɩs.*
> With **1SG** hand:**SG** and **1SG** touch:**PFV**.
> is not possible for "With my hand, I touched it."

A clausal object of *wōʋ* is typically a relative clause with *sīʔəm* 33.2.1.1 , but *wōʋ* can also be construed with a following Content Clause 31.4 :

> *M pian'adi ya wuu ya ane m biis.*
> *M̀ pi̩áňʔadī͜ yá   wōʋ yà á   nɛ́ m̀ bīis.*
> **1SG** speak:**IPFV 2PLO** like **2PL COP FOC 1SG** child:**PL**.
> "I talk to you as if you were my children." (2 Cor 6:13)

23.2 Loanwords

Báa (Hausa *bâa* "not exist") is used to express constituent negation. It takes an object like a preposition; see further 35.4 .

Two Hausa loanwords which are used as conjunctions 29.3 are also used as prepositions. For pronoun objects they use the free forms.

àsɛ́ɛ= "except for" (← Hausa *sai*)

> *àsɛ́ɛ Wínàʔam*   "except for God" (calquing the Twi *gye Nyame*)

hālí [+] "up to and including"; cf Hausa *har*, but this is a word found extremely widely in the savanna and Sahel; it may ultimately derive from Arabic حتى *ḥatta:* (Heath 2005.)

> *O daa pun ane ninkuud hale pin'ilugin sa.*
> *Ò   dāa pún   à   nē nīn-kʊ́ʊ̀d   hālí pīň̓ʔilʊ́gūn   sá.*
> **3HU TNS** previously **COP FOC** person-killer:**SG** even beginning:**SG:LOC** since.
> "He was a murderer from the beginning." (Jn 8:44)

Before a manner-adverb *hālí* means "even" or just "very"

> *Lì   tɔ̀ę̄   hālí bɛ́dʊgū̄.*   "It's very difficult."
> **3NH** be.bitter until much.

The adverb itself may be ellipted:

> *Lì tɔ̀ę̄ hālí.*   "It's very difficult."

Hālí in the adverbial sense "even" may be preposed with *kà* 34.2 :

> *Hale ka nidib mor ban'adnam na.*
> *Hālí kà nīdɩb   mɔ̄r báň̓ʔàd-nàm   nā.*
> Even and person:**PL** have sick.person-**PL** hither.
> "People even brought the sick" (Acts 5:15)

23.3 Compound Prepositions

Expressions deriving from Serial VP constructions with an auxiliary following the main VP 28.3.2 have given rise to compound prepositions:

Wɛ̄n nɛ̄ *X* and ***wɛ̄n wʊ̄ʊ*** *X* have become prepositional phrases, to the extent that the entire sequence *wɛ̄n* + preposition + object can be preposed with *kà* 34.2 , and a change of polarity can occur before it:

> *Da lo ya nindaase, wenne foosug dim la niŋid si'em la.*
> *Dā   lɔ́   yà nīn-dáasē [+]ø, wɛ̄n   nɛ̄   fɔ̄ɔsʊ́g dím   lá‿ ø*
> **NEG.IMP** tie:**PFV 2PL** eye-face:**PL NEG**, resemble with puff:**GER** individual.**PL ART COMP**
> *nìŋɩd   sī̓əm   lā.*
> do:**IPFV   INDF.ADV ART.**
> "Don't screw up your faces like the hypocrites do." (Mt 6:16, 1976)

The compound preposition ***là'am nɛ̄*** "together with" likewise derives from a serial-verb construction:

...mor ya'am yinni la'am ne ten'esa yinni.
... mɔ̄r yā'm yīnní là'am   nɛ̄   tɛ̄n̆'ɛsá yīnní.
... have sense one   together with thought one.
"... had one mind together with one thought." (Acts 4:32)

Hālí also forms compound prepositions:
Hālí nɛ̄ and ***hālí là'am nɛ̄*** are found before *ǹ*-Clauses with the meaning "despite, even though":

Hale ne man daa sobi ya si'em la, man daa pu sobi li ...
Hālí   nɛ̄   mán   dāa sɔ̄bí‿   yā   sī'əm   lā,
Even with **1SG:COMP TNS** write:**PFV 2PLO INDF.ADV ART**,
mān   dāa pū   sɔ̄bí‿   lī ...
1SG.CNTR TNS NEG.IND write:**PFV 3NHO** ...
"Though I wrote to you like that, I did not write it ..." (2 Cor 7:12)

Hale la'am ne on daa a yelsum wusa daan la, o da lieb noŋ daan...
Hālí   là'am   nɛ̄   ɔ́n   dāa á   yɛ̄l-súm   wūsa dáàn   lā,
Even together with **3HU:COMP TNS COP** matter-goodness all   owner:**SG ART**,
ò   dà   lìəb   nɔ̄ŋ-dáàn...
3HU TNS become:**PFV** poverty-owner:**SG**...
"Although he possessed every blessing, he became poor..." (2 Cor 8:9)

Hālí báa means "even":

Hale baa lampodi'esidib me niŋid ala.
Hālí báa làmpɔ̄-dí'əsìdɪb mɛ́   nìŋɪd   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 bas o, on ku bas oo.
Hālí báa bàmmā wūsa yá' nà   zɔ́   kà   bás·ò‿   ø,
Even   **DEML.PL** all   if   **UNR** run:**PFV** and abandon:**PFV 3HUO**,
ɔ̄n   kú   bās·o‿   ō   ⁺ø.
3HU.CNTR NEG.UNR abandon:**PFV 3HUO NEG**.
"Even if they all ran away and left him, *he* would not leave him.
(Mt 26:33, 1976)

24 Verbal Predicators

24.1 Structure

The core of the Kusaal verb phrase is a Verbal Predicator, consisting of a verb word along with clitics which, along with verb flexion, mark tense, aspect, mood and polarity. Other clitics are also phonologically dependent on the Verbal Predicator; as they may intervene between the verb and the predicator category particles, they are also described in this section 24.7 , although they are not part of the Verbal Predicator syntactically. They comprise "Particle-Verbs", a heterogeneous group of words expressing notions like repetition and sequence of events, which immediately precede the verb itself, and enclitic pronouns following the verb, comprising the enclitic 2pl subject pronoun and all the non-contrastive personal pronoun objects.

The Verbal Predicator is subject to Independency Marking 24.6 . This is primarily a tone overlay 24.6.1.1 , but there are associated segmental features: the particle *yā*$^+$ after phrase-final perfective forms 24.6.2.1 and the Variable Verb Imperative flexion *-m*^{a} appear only when the tone overlay is present.

The system cleanly separates tense, marked by proclitic particles, from aspect, marked by verb flexion interacting with the focus particle *nɛ̄*$^{+/}$, though 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 verb flexion *-m*^{a} of Variable Verbs is a portmanteau marker of Imperative Mood along with positive polarity and Independency 24.6.2.2 13.1 .

The Verbal Predicator shows no agreement. Apparent number agreement in imperatives is due to the incorporation of the postposed 2nd pl subject pronoun ^{ya}.

The Verbal Predicator thus consists of a single verb word, along with proclitic and enclitic particles which occur in a fixed order:

	Tense		Mood		P/Vb		LE1	LE2
lɛ̀ɛ	*dàa*	*nàm*	ø ↔ *pō*	*pòn*	VERB	*n*^{e}	*m*^{a}
	sàa		ø ↔ *dā*	*lɛ̀m*		^{ya}	*f*^{o}
	ø		*nà* ↔ *kʋ̀*	*tì*			^{o}
	pà^ʔ			*kpɛ̀lɩm*			*lɩ*$^+$
	sà			*là*^{ʔ}*am*			*tɩ*$^+$
	dāa			*dɛ̀ŋɩm*			*ya*$^+$
	dà			*ňyɛ̄ɛ(tɩ)*			*ba*$^+$
				…			

All elements other than the verb are optional; however, the ø marks places where the absence of any particle from a particular column can be contrastive.

The particles in the column "Mood" also mark polarity: Positive ↔ Negative.
P/Vb "Particle-Verbs" 24.7.2 ; LE1, LE2 are Liaison Enclitic slots 24.7.3 .
For *lὲε* "but" see 24.7.1 ; for *nàm* "still" see 24.3 .
Aspect-focussing *nɛ̄*$^{+/}$ is formally a Verb Phrase particle which immediately follows the Verbal Predicator 34.1.1.2 .
Verbs of the majority Variable type mark aspect by flexion 13.1 .
Tone Pattern O verbs have all-M tones in the Unrealised Mood 8.3 .

24.2 Aspect

Like a great many West African languages, Kusaal has a verbal system dominated by aspect rather than tense. The basic distinction is perfective versus imperfective. Variable Verbs distinguish perfective aspects from imperfective by flexion 13.1 ; Invariable Verbs have a single form which generally behaves like the imperfective flexion of Variable Verbs.

Following the verb directly, or with only enclitics intervening, the **VP focus particle *nɛ̄*$^{+/}$** 34.1.1 applies to the aspect marking of the verb if the verb semantics and the construction permit. The combination with verb flexion marks four aspects:

	Without *nɛ̄*$^{+/}$	With *nɛ̄*$^{+/}$
Perfective	Event	Result
Imperfective	Unbounded	Bounded

Distinctions between the Event and Result Perfective and between Unbounded and Bounded Imperfective are not made in negative polarity or in the Unrealised or Imperative Moods 24.4.1 .

	Ò	*zàbɩd.*			"He fights."
	3HU	fight:**IPFV**.			

	Ò	*zàbɩd*	*nɛ̄.*		"He's fighting."
	3HU	fight:**IPFV FOC**.			

but	*Ò*	*pῡ*	*zábɩdā*	$^+$*ø.*	"He's not fighting"/"He doesn't fight."
	3HU	**NEG.IND**	fight:**IPFV NEG**.		

Passives are restricted to Event Perfective and Unbounded Imperfective aspects 25.1.4 . Thus *nɛ̄*⁺ᐟ only appears in aspectual function in positive Indicative Predicators with verbs which are not used as Passives.

The availability of aspects can also be constrained by the nature of the verb itself 24.2.2.2 , or by the presence of a generic subject 34.1.1.1 .

The focus particle *nɛ̄*⁺ᐟ is not permitted to stand at all in certain syntactic contexts 34.1.1.2 . When it is thus excluded by formal rule, aspectual distinctions still occur in Predicators which would otherwise display them, but are unmarked.

> *Ò   kùɵsɩdī͟ bá.*   "She sells them."
> **3HU** sell:**IPFV**   **3PLO**.

> *Ò   kùɵsɩdī͟ bá nɛ̄.*   "She's selling them."
> **3HU** sell:**IPFV**   **3PLO FOC**.

but *Ò   kùɵsɩd sūmma   lā nɛ̄.*
>   **3HU** sell:**IPFV** groundnut:**PL ART FOC**.
>   "She *sells*/is *selling* the groundnuts." ("They're not free.")

> *Ṁ   pʊ́ʔʊsìdī͟ f   nɛ̄.*   "I'm greeting you."
> **1SG** greet:**IPFV**   **2SGO FOC**.

> *Ṁ   pʊ́ʔʊsìd   nɛ̄ náʔàb   lā.*   "I'm greeting the chief."
> **1SG** greet:**IPFV FOC** chief:**SG ART**.

but *Ṁ   pʊ́ʔʊsìd   náʔàb   lā nɛ̄.*   "I greet/am greeting the chief."
>   **1SG** greet:**IPFV** chief:**SG ART FOC**.

The various aspectual senses of *nɛ̄* with the Imperfective all denote an activity, process or state extending over a limited period, but it is difficult to include the Result Perfective in any unified formulation of the meaning of the particle (cf *Ò kpì nɛ̄.* "He is dead."). *Nɛ̄* might perhaps better be taken as denoting *marked* aspect: perfective is unmarked as against imperfective, while within the pairs, Event Perfective and Unbounded Imperfective are unmarked, and Result Perfective and Bounded Imperfective are marked.

24.2.1 Perfective Aspects

24.2.1.1 Event

The Event Perfective is the least marked and most neutral of the aspects, being appropriate whenever there is no progressive, habitual or stative sense. It is thus not comparable to the marked perfective aspect of Russian, and in particular it is not incompatible with a present tense interpretation. It may correspond to the English "simple present" (when this is not habitual), which is likewise unmarked over against the progressive form. It is the usual aspect found with the Unrealised Mood to express future events. Nevertheless, in contexts where there is no tense marking the Event Perfective often does have an implication of *completion*, in contrast with the imperfective.

The Event Perfective often does occur without tense marking, either explicit or implicit from context 24.3.3 . With most verbs this straightforwardly expresses a completed event or process where the time is unspecified, resembling the English "present perfect." As with the English tense/aspect, this very absence of time specification creates the implication that the event is still currently relevant:

> *Ò   kpì   yā.*   "She's died."
> **3HU** die:**PFV INDEP**.

> *Sāa dāa ní.*   "It rained." (before yesterday.)
> Rain **TNS** rain:**PFV**.

> *Sāa pá^ʔ nì   yā.*   "It rained." (earlier today.)
> Rain **TNS** rain:**PFV INDEP**.

but   *Sāa ní   yā.*   "It has rained."
> Rain rain:**PFV INDEP**.

> The time is unspecified: "Perhaps the grass is still wet, or I am
> explaining that the area is not really a desert." (WK)

Other events and processes can be conceptualised as being simultaneous with the moment of utterance, so that the Event Perfective is appropriate. This resembles the English use of the simple present as an **instantaneous present**:

> *Ò   yèl   yɛ̄ ...*   "He says ...." (translating for the foreign doctor)
> **3HU** say:**PFV** that ...

Performatives naturally fall into this category:

* M̀ pʊ́ˀʊ̀s   yā.*   "Thankyou", "I thank you."
1SG greet:**PFV INDEP**.   (cf Hausa *Naa goodèe*.)

* M̀ sɪ̯ák   yā.*   "I agree."
1SG agree:**PFV INDEP**.

Verbs of perception and cognition (often correponding to English "stative"
verbs that do not use the progressive present) frequently appear as present
perfectives, once again corresponding to English simple present:

M̀ ňyɛ́   nū̀ˀ-bíbɪsá‿   àtáň̀ˀ.
1SG see:**PFV** hand-small:**PL NUM**:three.
"I can see three fingers."

M̀ tɛ́ñ̀ˀɛ̀s   kà ...   "I think that ..."
1SG think:**PFV** and ...

The verb *nɔ̀ŋ*ᵉ "love" has a perfective form but Unbounded Imperfective sense:

M̀ nɔ́ŋī‿ f.   "I love you."
1SG love   **2SGO**.

but this is a morphological irregularity 13.1.2 , not a variant use of the Perfective.

    In Serial VP constructions and in complex clauses, the choice of the Event
Perfective over the Imperfective implies that the event is complete. Consequently,
with Serial VPs the order of VPs when the first has perfective aspect is iconic, with
constituent order constrained to follow event order 28.1 . Thus while English might
say: "Two men stood with them, dressed in white", Kusaal must have

Ka dapa ayi ye fupiela n zi'e ba sa'an.
Kà dāpá‿ àyí   yɛ́   fū-píəlà   n zìˀe bà sā̀ˀan.
And man:**PL NUM**:two dress:**PFV** shirt-white:**PL SER** 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:

Ňwādɪsá‿ àtáň̀ˀ   kà fʊ̀ ná mɔ̄r bīig   lā n kɛ̄   nā.
Month   **NUM**:three and **2SG UNR** have child:**SG ART SER** come:**PFV** hither.
"Bring the child here in three months." ("having the child, come here.")

Ǹ-Clauses are frequently used as presubject adverbs within a main clause to express past "when" 33.1.1 . Tense markers in the *ǹ*-Clause and main clause cannot differ (though they may be ellipted in the main clause), and the temporal relationship is determined by aspect, with a perfective in the *ǹ*-Clause implying priority and an imperfective simultaneity:

> *Ka ban dit la, Yesu yeli ba ye ...*
> *Kà   bán   dìt   lā, Yesu yɛ́lì‿   bā ...*
> And **3PL:COMP** eat:**IPFV ART**, Jesus say:**PFV 3PLO**
> "As they were eating, Jesus said to them ..." (Mt 26:21)

> *Ka ban yi la, ka Zugsob malek nie o meŋ ...*
> *Kà   bán   yī   lā, kà Zūg-sɔ́b   málɛ̄k níe   ò mɛ̄ŋ ...*
> And **3PL:COMP** emerge:**PFV ART** and head-one:**SG** angel:**SG** appear:**PFV 3HU** self
> "After they had left, an angel of the Lord showed himself ..." (Mt 2:13)

In the same way, narrative generally features chains of tense-unmarked Sequential Clauses 30.3.2 with Event Perfectives describing events strictly in order, but Imperfectives can occur with no implication of succession:

> *Ka siakidib wusa bane be Judea ne Galilee ne Samaria daa mor sumalisim. Ka ba kal paasid. Ka ba yadda niŋir nobigid.*
> *Kà   sḭ̄ākɪdɪb   wūsa bánì‿ø   bè   Judea nɛ̄   Galilee nɛ̄   Samaria*
> And believer:**PL** all   **DEM.PL COMP EXIST** Judea with Galilee with Samaria
> *dāa mɔ̄r sū-mális̀ìm.   Kà   bà   kāl   páasìd.   Kà   bà*
> **TNS** have heart-sweetness. And **3PL** number:**SG** increase:**IPVF**. And **3PL**
> *yàddā-níŋ̀ìr   nɔ̄bɪgíd.*
> assent-doing grow:**IPVF**.
> "All the believers who were in Judea and Galilee and Samaria were joyful. Their
> numbers were increasing and their faith was growing." (Acts 9:31, 1976)

24.2.1.2 Result

Verbs which have appropriate semantics can form the marked Result Perfective aspect, describing a **state** resulting from the process expressed by the verb.

> *Ò   kpì   nɛ̄.*   "He's dead." (*Ò kpì yā.* "He's died.")
> **3HU** die:**PFV FOC**.

Lì   sà'am   nɛ̄.   "It's spoilt."
3NH spoil:**PFV FOC**.

M̀   gɛ́ñ   nɛ̄.   "I'm tired."
1SG get.tired:**PFV FOC**.

M̀   gɛ́ñ'   nɛ̄.   "I'm angry."
1SG get.angry:**PFV FOC**.

Bà   kùdʋg   nɛ̄.   "They're old."
3PL grow.old:**PFV FOC**.

Lì   bɔ̀dɪg   nɛ̄.   "It's lost."
3NH lose:**PFV FOC**.

Ò   wàbɪlɪm   nɛ̄.   "She's lame."
3HU lame:**PFV FOC**.

Ò   gɛ̀ɛñm   nɛ̄.   "She's mad."
3HU madden:**PFV FOC**.

Lì   pɛ̀'ɛl   nɛ̄.   "It's full."
3NH fill:**PFV FOC**.

Lì   yɔ̀   nɛ̄.   "It's closed."
3NH close:**PFV FOC**.

M̀   búg   nɛ̄.   "I'm drunk."
1SG get.drunk:**PFV FOC**.   [calque/borrowing of Hausa *bùgu*]

   I have not established whether this construction necessarily entails a previous
process leading up to the state; possibly some abiding states may be expressed in this
way as a lexical matter:

Ò   lɛ̀r   nɛ̄.   "He's ugly." (So translated by WK)
3HU get.ugly:**PFV FOC**.

   Colour adjectives all lack corresponding Adjectival Verbs, and it may be that
expressions like the following fill the gap, if it is indeed the case that Resultative
Perfectives do not necessarily imply a preceding activity:

Lì   pèlıg   nɛ̄.   "It's white."
3NH whiten:**PFV FOC**.

Lì   sɔ̀bıg   nɛ̄.   "It's black."
3NH blacken:**PFV FOC**.

Lì   mùɵ   nɛ̄.   "It's red."
3NH redden:**PFV FOC**.

Result Perfectives can be transitive; all the examples in my materials involve verbs expressing putting on clothing, where the transitive action results in a change of state in the subject:

M̀   yɛ́   fūug.   "I've put a shirt on."
1SG put.on:**PFV** shirt:**SG**.

but   *M̀   yɛ́   nɛ̄ fūug.*   "I'm wearing a shirt."
1SG put.on:**PFV FOC** shirt:**SG**.

All other verbs that I have identified as capable of forming Result Perfectives are either intransitive or Patientive Ambitransitive used intransitively.

Most verbs are semantically incapable of this aspectual meaning; *nɛ̄* after the perfective of such verbs has to be interpreted as focussing either a VP constituent or the entire VP 34.1.1 :

M̀   dáʔ   búŋ.
1SG buy:**PFV** donkey:**SG**.
"I've bought a donkey." ("What have you done?")

M̀   dáʔ   nɛ̄ búŋ.
1SG buy:**PFV FOC** donkey:**SG**.
"I've bought a *donkey*." ("What have you bought?")

M̀   pū   dáʔ   bùŋā   ⁺ø.
1SG NEG.IND buy:**PFV** donkey:**SG NEG**.
"I haven't bought a donkey."

M̀   pū   dáʔ   nɛ̄ búŋā   ⁺ø.
1SG NEG.IND buy:**PFV FOC** donkey:**SG NEG**.
"I haven't bought a *donkey*." ("I bought something else.")

Ò   dìgɪl   nɛ̄.
3HU lay.down:**PFV FOC**.
"He's *laid it down*." ("I thought he'd pick it up.")

Ò   dìgɪn   nɛ̄.
3HU lie.down:**PFV 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."
WK: "You've said: the child looks filthy. I'm replying: He's been lying down."

Ò   zì ˀən   nɛ̄.
3HU stand.still:**PFV FOC**.
"She's pregnant." (Not "She's stood still.")

24.2.2 Imperfective Aspects

24.2.2.1 Unbounded

The unmarked imperfective aspect is the Unbounded Imperfective. With verbs
expressing processes, events, or states which are temporary by default, it has a
habitual sense when the subject is specific (cf Carlson 2012), and a timeless sense
otherwise:

Nīdɪb   kpîd.   "People die."
Person:**PL** die:**IPFV**.

Nīigí   ɔ̀ñbɪd   mɔ̄ɔd.   "Cows eat grass."
Cow:**PL** chew:**IPFV** grass:**PL**.

Nīigí   ɔ̀ñbɪd   nɛ̄ mɔ̄ɔd.   "Cows eat *grass*." ("What do cows eat?")
Cow:**PL** chew:**IPFV FOC** grass:**PL**.   (Not aspectual *nɛ̄*: Constituent focus 34.1.1.3)

Nīigí   lā   ɔ́ñbìd   mɔ̄ɔd.   "The cows eat grass."
Cow:**PL ART** chew:**IPFV** grass:**PL**.

Nīigí   lā   ɔ́ñbìd   mɔ̄ɔd   lā.
Cow:**PL ART** chew:**IPFV** grass:**PL ART**.
"The cows eat the grass."

Nā ˀ-síəbà   ɔ́ñbìd   mɔ̄ɔd.   "Some cows eat grass."
Cow-**INDF.PL** chew:**IPF** grass:**PL**.

Nā'-síəbà   ɔ́ñbìd   mɔ̄ɔd   lā.
Cow-**INDF.PL** chew:**IPFV** grass:**PL ART**.
"Some cows eat the grass."

* M̀   zíñ'i.*   "I sit."
1SG be.sitting.

Unbounded Imperfective is the default for verbs expressing an abiding state:

Ò   gìm.   "She's short."
3HU be.short.

Lì   zùlɪm.   "It's deep."
3NH be.deep.

M̀   mɔ́r pu̯'ā.   "I have a wife."
1SG have wife:**SG**.

M̀   bɔ́ɔdī‿ f.   "I love you."
1SG want   **2SGO**.

24.2.2.2 Bounded

The Bounded Imperfective aspect is in many ways analogous in meaning to the English "progressive aspect."

With verbs which express events or processes, the difference between Bounded and Unbounded Imperfective is very similar to the difference in English between progressive and habitual:

Ò   ɔ̀ñbɪd.   "He chews."
3HU chew:**IPFV**.

Ò   ɔ̀ñbɪd   nɛ̄.   "He's chewing."
3HU chew:**IPFV FOC**.

As with the English progressive, the sense of the Bounded Imperfective with verbs describing events rather than processes is typically "time-limited habitual." The plural subject without *lā* 21.3 contributes to making this the natural interpretation in

Nīdɪb   kpîd   nɛ̄.   "People are dying."
Person:**PL** die:**IPFV FOC**.

versus

    Nīdɩb   kpîd.   "People die."
    Person:**PL** die:**IPFV**.

In English, so-called "stative" verbs characteristically do not use the progressive aspect: "I have a car", not *"I am having a car." Analogously, many of the corresponding Kusaal verbs do not usually appear with the Bounded Imperfective:

    * M̀   mɔ́r   lɔ́r.*   "I have a car."
    1SG have car:**SG**.

not   **M̀   mɔ́r nɛ̄ lɔ́r.*

However, the avoidance of the Unbounded Imperfective does not reflect a distinction between dynamic and stative in Kusaal, but between processes or states which are presented as **temporary** or as **abiding**. Verbs which express states largely divide by meaning into those which *by default* refer to temporary states, such as bodily postures:

    M̀   zíñˀi   nɛ̄.   "I'm sitting."
    1SG be.sitting **FOC**.

and those which by default refer to abiding states, like the "Adjectival Verbs" which have meanings corresponding to predicative adjectives:

    M̀   gím.   "I'm short."
    1SG be.short.

Verbs which typically express temporary states distinguish Bounded and Unbounded Imperfective formally just like verbs expressing processes:

    M̀   zíñˀi.   "I sit."
    1SG be.sitting.

    M̀   zíñˀi   nɛ̄.   "I'm sitting."
    1SG be.sitting **FOC**.

    M̀   záñl   dāká lā.   "I carry the box in my hands."
    1SG carry.in.hands box:**SG ART**.

M̀ záñl nɛ̄ dāká lā.
1SG carry.in.hands **FOC** box**:SG ART**.
"I'm carrying the box in my hands."

Verbs which typically express abiding states divide into two groups with regard to the Bounded Imperfective. The first group consists of all *agentive* abiding-state verbs except *àḙñ*[ya] "be something/somehow." These verbs behave formally just like verbs which typically express temporary states: their meanings lead to a much less frequent appearance of the Bounded Imperfective, but the use of *nɛ̄*[+/] is identical:

M̀ mɔ́r pṵʔā.   "I have a wife."
1SG have wife**:SG**.

but   *M̀ mɔ́r nɛ̄ pṵʔā.*   "I have a woman."
     1SG have **FOC** woman**:SG**.   (not "wife": implies an irregular liaison, WK)

M̀ mɔ́r bīisá‿ àtáŋā.
1SG have child**:PL NUM:**three.exactly.
"I've got exactly three 18.2.2 children."

but   *M̀ mɔ́r nɛ̄ bīisá‿ àtáŋā.*
     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."

The second group consists of the *non-agentive* Adjectival Verbs 13.2.2, which have predicative adjectival meanings, along with the agentive verb *àḙñ*[ya] "be something/somehow." These verbs do not usually appear in the Unbounded Imperfective at all:

Ò gìm.   "She's short."
3HU be.short.

Lì zùlɪm.   "It's deep."
3NH be.deep.

Lì vɛ̀n.   "It's beautiful."
3NH be.beautiful.

If the particle *nɛ̄*[+/] follows such a verb, it is by default interpreted not as marking aspect but as *focussing* either a VP constituent or the entire VP 34.1.1:

> *Ò   gìm   nɛ̄.*   "He's *short*." ("I was expecting someone taller.")
> **3HU** be.short **FOC**.

> *Lì   zùlɪm   nɛ̄.*   "It's *deep*."
> **3NH** be.deep **FOC**.

The verb *à ̱ e ̱ ñ*[ya] "be something/somehow" is *characteristically* followed by *nɛ̄*[+/] focussing its complement 26.2:

> *Ò   à   nɛ̄   bīig.*   "He/she's a child."
> **3HU COP FOC** child:**SG**.

This group of verbs can only be followed by *nɛ̄*[+/] in an aspect-marking sense if there is an explicit time-limiting constituent present in the clause[16] (though this may be simply a tense marker.) The meaning is of limitation of the state described by the verb to a particular time period; this is analogous to the use of the English "progressive" form for temporary states of affairs, as in "She's cycling to work this week (because her car is off the road.)" [Huddlestone and Pullum p167.] There is an implication of contrast between the time referred to and other times when the state referred to was not in effect:

> *Lì   vèn   nɛ̄.*   "It's *beautiful*." (Focus on the verb.)
> **3NH** be.beautiful **FOC**.

but *Nānnánā, lì   vèn   nɛ̄.*
> Now,   **3NH** be.beautiful **FOC**.
> "Just now, it's beautiful."

> *Sān kán   lā, lì   dāa zúlɪm   nɛ̄.*
> Time **DEM.SG ART**, **3NH TNS** be.deep **FOC**.
> "At that time, it was deep."

> *Mʊ̀ˀar lā dāa zúlìm   nɛ̄.*   "The lake *was* deep."
> Lake:**SG ART TNS** be.deep **FOC**.   (Implying, "Now it's shallow." WK)

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16) The requirement for an *explicit* marker of time in the clause to licence Bounded Imperfective with these verbs may be partly an artefact of acceptability judgments based on short isolated clauses.

Lì dāa vέn nɛ̄.		"It *was* beautiful."
3NH TNS be.beautiful **FOC**.		WK: "I gave you a cup, and it was OK then, but you've spoiled it."

Lì dāa būgʋs nɛ̄.	"It *was* soft." ("Now it isn't.")
3NH TNS be.soft **FOC**.	

With the verb *àe̯ñ*^{ya} even this exceptional appearance of the Bounded Imperfective seems to be possible only if the complement does not permit focussing with *nɛ̄*^{+/} 26.2 :

Lì dāa á sʋ́ŋā.	"It was good." WK
3NH TNS COP good**:ADV**.	

Lì dāa á nɛ̄ sʋ́ŋā.	"At the time, it was good." WK
3NH TNS COP FOC good**:ADV**.	

24.3 Tense

24.3.1 Tense Particles

Tense particles come first in the Verbal Predicator, preceded only by *lɛ̀ɛ* "but." They are mutually exclusive. The markers are

dàa	"day after tomorrow"
sàa	"tomorrow"
ø	present, or unmarked 24.3.3
pà^ʔ	"earlier today"
sà	"yesterday"
dāa	before yesterday
dà	before the time marked by *dāa*

The day begins at sunrise. Thus the common morning greeting:

Fʋ̀ sá gbìs wēlá ⁺*ø?*	"How did you sleep yesterday?" i.e."last night"
2SG TNS sleep**:PFV** how **CQ**?	

The future tense markers require Unrealised Mood, except for cases where the main clause has been ellipted before a subordinate clause of purpose; in this case the verb may have future tense marking with the Imperative Mood:

Ò   sáa zàb   nàˀab lā.   "Let him fight the chief tomorrow."
3HU TNS fight:**PFV** chief:**SG ART**.

The tense particle *dāa* means "before yesterday" but can be used freely for even remote past. Some speakers seem not to use *dà* at all; the NT has numerous parallel passages where the same events are narrated in one passage with *dāa* and in another with *dà*. However when both markers occur, *dà* always expresses a time prior to *dāa*; this is one way the language can express a "pluperfect." (Others are the preservation of original tense markers in indirect speech 31.4.2, relative tense marking in *ǹ*-Clauses within Sequential Clauses 30.3.2 and the use of the particle-verb *tì* 24.7.2.)

The auxiliary tense particle *nàm* means "still" or with a negative "yet." It can occur after the tense marker ø:

Tìɩm   lā nám bɛ̀ɛ ⁺ø?   "Is there any medicine left?"
Medicine **ART** still **EXIST PQ**?   ("Does the medicine still exist?")

dunia nam pu pin'il la
dūnɩya‿ ø   nàm pū   pīň̃ˀil   lā
world:**SG COMP** still **NEG.IND** begin:**PFV ART**
"before the world began" (Mt 25:34) ("The world having not yet begun.")

M̀   nám zī̃ˀ‿   ø   ňyɛ̄   gbīgɩmne ⁺ø.
1SG still **NEG.KNOW SER** see:**PFV** lion:**SG**   **NEG**.
"I've never seen a lion." SB (see 28.3 on serial-verb idioms)

24.3.2 Other Constructions for Tense

My informants use the Modal Remoteness enclitic *n*ᵉ 24.4.2 to make an earlier-today past with indicative meaning:

M̀   ɔ́ňbɩdīn   sūmma.   "I was eating groundnuts."
1SG chew:**IPFV:REM** groundnut:**PL**.

This implies "and now I'm not"; a sort of anti-current-relevance which may be the link with the typical hypothetical use. No examples seem to occur in the NT.
    Kusaal does not use tense-unmarked Indicative imperfectives for immediate future (like English "I'm going home.") The common expression at leave-taking

> *M̀ kúl   yā.*   equivalent in usage to "I'm going home."
> **1SG** return.home:**PFV INDEP**.

instead uses a perfective verb form as an instantaneous present 24.2.1.1.

　　There are two periphrastic Indicative constructions for "to be about to ...":

(a) *bɔ̀ɔd*[a] "want" + gerund. The subject need not be animate.

> *Tìɪg   lā bɔ́ɔd līig.*   "The tree is about to fall."
> Tree:**SG ART** want fall:**GER**.

> *Yu'uŋ bood gaadug, ka beog bood nier.*
> *Yú'uŋ bɔ́ɔd gáadùg kà bɛ̄og   bɔ́ɔd níɛ̀r.*
> Night want pass:**GER** and morning want appear:**GER**.
> "The night is about to pass and tomorrow is about to appear." (Rom 13:12)

　　This construction is only possible with gerunds which can be interpreted as expressing an event or process, i.e. gerunds from Variable and Postural Verbs.

(b) using the construction subject + *yɛ̄*-Purpose Clause. (Compare subject + *yɛ̄*-Content Clause 31.4.) This construction does require an animate subject.

> *M̀ yɛ́   m̀ ku̠ā   sūmma.*
> **1SG** say:**PFV 1SG** hoe:**PFV** groundnut:**PL**.
> "I'm going to hoe groundnuts."

> *M̀ yɛ́   m̀ ki̠á   nīm.*
> **1SG** say:**PFV 1SG** cut:**PFV** meat:**SG**.
> "I'm going to cut meat"

24.3.3 Implicit Tense Marking

　　Tense markers are frequently absent. As a basic principle, explicit marking is not needed when the time reference is recoverable from the linguistic context. However, the occurrence of tense markers is not arbitrary, and in some contexts the past tense markers constrast with ∅.

　　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 naturally simply means that the tense is present:

> *Nīdıb   kpîd   nɛ̄.*   "People are dying."
> Person:**PL** die:**IPFV FOC**.

> *Nīdıb   kpîd.*   "People die."
> Person:**PL** die:**IPFV**.

> *M̀   zíñˀi   nɛ̄.*   "I'm sitting down."
> **1SG** be.sitting **FOC**.

> *Ò   gìm.*   "She's short."
> **3HU** be.short.

> *M̀   mɔ́r   pu̱ˀā.*   "I have a wife."
> **1SG** have wife:**SG**.

In isolation, it it is not possible to construe expressions like these as e.g.
"People were dying." With perfective aspects, similarly, the sense without explicit
context of an Event Perfective must be perfective-present or instantaneous present
24.2.1.1 :

> *Ò   kpì   yā.*   "She's died."
> **3HU** die:**PFV INDEP**.

> *Ò   yɛ̀l   yɛ̄ ...*   "He says ...." (translating for the foreign doctor)
> **3HU** say:**PFV** that ...

> *M̀   pʊ́ˀʊ̀s   yā.*   "(I) thank you." cf Hausa *Naa goodèe*.
> **1SG** greet:**PFV INDEP**.

> *M̀   si̱ák   yā.*   "I agree."
> **1SG** agree:**PFV INDEP**.

> *M̀   ňyɛ́   nū̱ˀ-bíbısá‿   àtáñˀ.*
> **1SG** see:**PFV** hand-small:**PL NUM**:three.
> "I can see three fingers."

> *M̀   tɛ́ñˀɛ̀s   kà ...*   "I think that ..."
> **1SG** think:**PFV** and ...

With ø tense marking the Result Perfective naturally has a present sense 24.2 :

> *Ò   kpì   nɛ̄.*   "She's dead."
> **3HU** die:**PFV FOC**.

Tense-markers can, however, be omitted if there is another time reference in the clause itself, such as a time adverb, or with the Unrealised Mood, or with the today-past usage of the Modal Remoteness enclitic:

> * M̀   sá zàb   ná³àb lā sú³ès.*
> **1SG TNS** fight:**PFV** chief:**SG ART** yesterday.

and * M̀   záb   ná³àb lā sú³ès.*
> **1SG** fight:**PFV** chief:**SG ART** yesterday.
> both acceptable as "I fought the chief yesterday."

> *Fʊ̀ sáa nà   kūl.*
> **2SG TNS UNR** return.home:**PFV**.

and *Fʊ̀ sáa nà   kūl   bɛ̄og.*
> **2SG TNS   UNR** return.home:**PFV** tomorrow.

and *Fʊ̀ nà kūl   bɛ̄og.*
> **2SG UNR** return.home:**PFV** tomorrow.
> ... all acceptable for "You'll go home tomorrow."

cf *Fʊ̀ ná   kūl.*
> **2SG UNR** return.home:**PFV**.
> "You will go home." (later today, tomorrow, next week ...)

> * M̀   pá³ ɔ̀n̆bɪdīn   sūmma.*   "I was eating groundnuts earlier today."
> **1SG TNS** chew:**IPFV:REM** groundnut:**PL**.

and * M̀   ɔ́n̆bɪdīn   sūmma.*   "I was eating groundnuts earlier today."
> **1SG** chew:**IPFV:REM** groundnut:**PL**.
> (today-past sense of Modal Remoteness clitic)

Systematic and meaningful omission of past tense markers occurs in the Sequential Clauses characteristic of narrative. In narrative clauses with Event Perfective aspect preceded by *kà*, omission of past tense marking signifies that the event described in the clause follows in temporal sequence from what precedes, and explicit tense marking signals an interruption for asides, flashbacks, descriptions etc 30.3.2.

24.4 Mood

There are three moods. The distinction among the three moods 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 *pū*. It is used for statements and questions about the present and past, and timeless events and states. It can express immediate future in the periphrastic constructions described under Tense 24.3.2 . It is used instead of Unrealised Mood in clauses with *yàˀ* "if", though with some exceptions in negative polarity 32.1 .

Imperative Mood is negated by *dā*. In Variable Verbs with tone overlay due to Independency Marking it shows a special inflection *-m*ᵃ 24.6.2.2 13.1 but otherwise the verb word coincides in form with the Indicative.

> *Ò   vʋ̀l   tíɩm   kà ò nɔ́bìr pū   zábē   ⁺ø.*
> **3HU** swallow:**PFV** medicine and **3HU** leg:**SG NEG.IND** fight:**PFV NEG**.
> "She took medicine and her leg didn't hurt." WK

> *Ò   vʋ̀l   tíɩm   kà ò nɔ́bìr dā   zábē   ⁺ø.*
> **3HU** swallow:**PFV** medicine and **3HU** leg:**SG NEG.IMP** fight:**PFV NEG**.
> "She took medicine so her leg wouldn't hurt." WK

Note that the clause introducer particle *kà* permits either construction 29.1.2 .

Whether or not it carries the distinctive flexion, Imperative Mood is followed by the enclitic 2pl subject pronoun ʸᵃ in direct commands to several people 30.2.3 .

The *-m*ᵃ form is perfective by default but acquires imperfective meaning before *àlá* "thus" 24.4.1 .

Imperative Mood is used in direct commands and prohibitions and in subordinate clauses expressing purpose. Imperative Mood also follows another Imperative in the serial-verb construction.

> *Gɔ̀sɩm!*   "Look!"
> Look:**IMP**!

> *Gɔ̀sɩmī‿ø!*   "Look ye!"
> Look:**IMP 2PLS**!

> *Dā   gɔ̄se   ⁺ø!*   "Don't look!"
> **NEG.IMP** look:**PFV NEG**!

Kὲl   kà ò   gɔ̄s!   "Let her look!"
Cause:**IMP** and **3HU** look:**PFV**!

Kὲm   nā   n   gɔ̄s!   "Come and look!"
Come:**IMP** hither **SER** look:**PFV**!

Dɔ̀l!   "Follow!"
Follow!

Dɔ̀llī‿ ø!   "Follow ye!"
Follow **2PLS**!

Dɔ̀llī‿ m!   "Follow me!"
Follow **1SGO**!

Dɔ̀llīní‿   m!   "Follow ye me!"
Follow:**2PLS 1SGO**!

Mɔ̀r nīn-báalìg!   "Have pity!"
Have eye-pity!

Unrealised Mood expresses future statements and questions and has the
preverbal mood markers *nà* (positive) *kὺ* (negative.) Tone Pattern O verbs show a
tone perturbation to all-M tonemes in this mood. 8.3 .
Unrealised Mood with past tense markers is conditional (not future-in-the-past.)

Ò   dāa ná zāb   náʔàb   lā.
3HU TNS UNR fight:**PFV** chief:**SG ART**.
"He would have fought the chief" (but didn't)

For the use of this form in clauses with *yà*ʔ "if" see 32.1 .

24.4.1 Mood and Aspect

The Unrealised Mood distinguishes perfective and imperfective aspects by verb
flexion like the Indicative, but *nɛ̄* cannot occur as an aspect marker, so no formal
distinction is made between Event or Result Perfective or between Unbounded and
Bounded Imperfective. The perfective aspect is much the most common.

In direct commands the particle *nɛ̄* may occur only as the VP-final marker of
constrastive focus on the entire VP 34.1.1.4 . It cannot be aspectual.

À   bāaňlím!   "Be quiet!"
COP quiet:**ABSTR**!

Gɔ̀sɪm   nɛ̄.   "Just *look!*" ("Don't *touch*.")
Look:**IMP FOC**.

The *-m*ᵃ imperative of Variable Verbs is Event Perfective by default:

Kɔ̀ňsɪm!   "Cough!"

Imperatives without tone overlay from Independency Marking make
perfective/imperfective distinctions in the usual way by verb flexion:

Dā   kɔ́ňsē   ⁺ø!   "Don't cough!"
NEG.IMP cough:**PFV NEG**!
(To a patient during an eye operation under local anaesthetic, who just has
coughed.)

Dā   kɔ́ňsɪdā   ⁺ø!   "Don't cough!"
NEG.IMP cough:**IPFV NEG**!
(Explaining before the operation what to avoid throughout)

The *-m*ᵃ imperative can be made imperfective by a following *àlá* "thus":

Dìm!   "Eat!"
Dìmí àlá!   "Carry on eating!"

My informants contract the *-í-à-* in these forms to either *-í-* or *-á-* [dɪmɪla] [dɪmala]

Dìmīní‿   àlá!   "Keep ye on eating!"   [dɪmɪnɪla] [dɪmɪnala]
Eat:**IMP:2PLS ADV**:thus!

Kùꝋsɪmīní‿ àlá   kī   n   tísɪdī‿   bá.
Sell:**IMP:2PLS ADV**:thus millet **SER** give:**IPFV 3PLO**.
"Keep ye on selling millet to them."

Agentive Invariable Verbs used as imperatives frequently also add *àlá*:

Dìgí àlá!   "Keep on lying down!"   [dɪgɪla] [dɪgala]
Zìʔé àlá!   text *ziela*   "Be still!" (Jesus to the storm, Mk 4:39, 1976)

Dìgīní‿   *àlá!*   "Keep (ye) on lying down." [dɪgɪnɪla] [dɪgɪnala]
Be.lying.down:**2PLS** **ADV:**thus!

Àāní‿   *àlá*   *bāaňlím!*   "Be (ye) quiet!"
COP:2PLS **ADV:**thus quiet:**ABSTR**!

Bὲēní‿   *àlá*   *ànínā!*   "Be ye there!"
EXIST:2PLS **ADV:**thus **ADV:**there!

The examples suggest that the sense of *àlá* after imperatives is analogous to the effect of *nē* with the Imperfective Indicative.

24.4.2 Modal Remoteness Marker

The basic function of the Modal Remoteness Liaison Enclitic *n*[e] is analogous to the modal remoteness expressed by the use of the English preterite in non-temporal usage (Huddlestone and Pullum pp 148ff); as with the English constructions, the precise meaning depends on the matrix in which the form is embedded. *N*[e] is most commonly seen in Conditional Clauses.

The particle can attach to any verb form in Indicative or Unrealised Mood; it is not compatible with the Imperative Mood.

N[e] in modal function is usually accompanied by the post-subject particle *nāan(ι)* 32.2 . It always occurs without *nāan(ι)* in *yà?*-clause protases. It may also occur without *nāan(ι)* in apodoses, mostly with a hypothetical rather than contrary-to-fact sense 32.4 . In main clauses *n*[e] is most often found attached to *bɔɔd*[a] "wish":

Man boodin ne yaname naan aan ma'asiga bee yaname naan aan tuuliga.
Mān   bɔ́ɔdīn   nē   yānámì‿ø   nāan áān   mā?asígā bɛ̄ɛ
1SG.CNTR want:**REM** with **2PL**   **COMP** then **COP:REM** cold:**ADV**   or
yānámì‿ø   nāan áān   tūʋlígā.
2PL   **COMP** then **COP:REM** hot:**ADV**.
"I might wish you were cold or you were hot." (Rev 3:15, 1996)

Man boodin ne ye ya aan ma'asiga koo tuuliga.
Mān   bɔ́ɔdīn   nέ   yà áān   mā?asígā kūʋ tūʋlígā.
1SG.CNTR want:**REM** that **2PL COP:REM** cold:**ADV**   or   hot:**ADV**.
"I might wish you were cold or you were hot." (Rev 3:15, 1976)

N[e] without *nāan(ι)* occurs with a hypothetical sense within *ǹ*-Clauses when they are embedded in a main clause which expresses a hypothetical state:

M zot dabiem ye m ya'a keenn ya sa'an na, m pa'ati nye ka ya pu wenne wuu
 man boodin ye ya aan si'em laa.

 M̀   zɔ́t   dābíʌ̀m yɛ́ m̀   yá^ʔ kɛ̄ɛ̌ň‿   yà sā^ʔan   nā,
1SG feel.emotion:**IPFV** fear   that **1SG** if   come:**PFV 2PL** among hither,

m̀   pá^ʔ tì   ňyɛ́ kà yà pū   wɛ̄n   nɛ̄ wʊ̄ʊ mán   bɔ̀ɔdīn
1SG perhaps see:**PFV** and **2PL NEG.IND** resemble with like **1SG:COMP** want:**REM**

yɛ́ yà áān   sī^ʔəm   láa ⁺ø.
that **2PL COP:REM INDF.ADV ART NEG**.

"I am afraid that when I come to you, I will perhaps not find you
 as I might wish."(2 Cor 12:20)

Wina'am ya'a da tisin wad line nyaŋedin ketin ka nidib voen,

Wínà^ʔam yá^ʔ dà tìsīn   wād línì‿ ø   ňyāŋídīn‿   ø kɛ̄tín
God   if   **TNS** give:**PFV:REM** law **DEM.NH COMP** prevail:**IPFV:REM SER** cause:**IPFV:REM**

kà nīdıb   vʊ̄ʋn,
and person:**PL** be.alive:**REM**.

"If God had given a law which could make people live." (Gal 3:21)

The enclitic can be used temporally as a today-past, implying specifically that the state of affairs described no longer obtains 24.3.2:

M̀   ɔ́ňbıdīn   sūmma.
1SG chew:**IPFV:REM** groundnut:**PL**.

"I was eating groundnuts." ("and now I'm not.")

With Serial VPs, if *n*^e is found in the first predicator it is repeated in all 28.1.

24.5 Polarity

Verbal Predicator negation markers are preverbal particles which combine this function with mood marking. They appear after tense markers but before Particle-Verbs. The negation markers induce the appearance of a clause final Negative Prosodic Clitic which causes the clause-final word to appear in Long Form 9.2; on the position of the clitic see further 35.3.

No distinction is made in negative polarity between the Event and Result Perfective or between the Unbounded and Bounded Imperfective 24.2.

Indicative Mood is negated by *pū* (for some speakers *bū*, as in Toende Kusaal.) Imperative Mood is negated by *dā*; conversely, forms which are negated by *dā* are Imperative. Unrealised Mood is negated by *kʋ̀*, which *replaces* the positive Unrealised Mood marker *nà*. Younger speakers sometimes use *kʋ̀* for *pū*, but none of my informants accepts this.

> *Ò zàb   ná'àb lā.*   "He's fought the chief."
> **3HU** fight:**PFV** chief:**SG ART**.

> *Ò pū   záb   nà'ab láa* ⁺*ø.*
> **3HU NEG.IND** fight:**PFV** chief:**SG ART NEG**.
> "He hasn't fought the chief."

> *Zàm   ná'àb lā!*   "Fight the chief!"
> Fight:**IMP** chief:**SG ART**!

> *Dā   záb   nà'ab láa* ⁺*ø!*
> **NEG.IMP** fight:**PFV** chief:**SG ART   NEG**!
> "Don't fight the chief!"

> *Ò nà zāb   ná'àb lā.*   "He'll fight the chief."
> **3HU UNR** fight:**PFV** chief:**SG ART**.

> *Ò kʊ̀   zāb   ná'àb láa* ⁺*ø.*
> **3HU NEG.UNR** fight:**PFV** chief:**SG ART NEG**.
> "He won't fight the chief."

There are four Negative Verbs, which are equivalent to negative particle + positive verb ⌈35.1.1⌉ *mìt* "see that it doesn't happen that...", *zī'*⁺ "not know", *kā'ę̄*⁺ "not be, not have", and *kà'asɪge* (LF only) "not exist."

24.6 Independency Marking

The Verbal Predicator of a main clause ⌈30.1⌉ or Content Clause ⌈31.4⌉ is marked as Independent. The marking is absent in all subordinate clause types other than Content Clauses, and all VPs in a Serial VP chain after the first. It is also absent in all clauses introduced by *kà* other than Content Clauses, regardless of whether they are subordinate or insubordinate ⌈29.2⌉ ⌈30.3.2⌉.

The marker is primarily a tonal overlay, but has associated segmental manifestations.

24.6.1 Tonal Features

24.6.1.1 Tone Overlay

The tone overlay of Independency Marking is manifested only on Verbal Predicators in Positive Polarity and Indicative or Imperative Mood. It affects only the *first* word in the Predicator capable of carrying it: first the preverbal particle *lɛ̀ɛ* "but" ⌈24.7.1⌉, next any Particle-Verb, then the verb itself. Preverbal particles which have

intrinsic M tonemes (past tense marker *dāa*, Particle-Verb *ňyɛ̄ɛ*) 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 L Raising, and always show M toneme on the final vowel mora before Liaison (changed as usual to H before Liaison Words beginning with a Fixed-L toneme 10.2 .)

Intrinsic tones after *kà* (with *zàb*[e] "fight" *gɔ̄s*[e] "look at" *nà*ʔab[a] "chief"):

*Kà m̀ záb nà*ʔab lā.*	"And I've fought the chief."
*Kà ò záb nà*ʔab lā.*	"And he's fought the chief."
*Kà m̀ gɔ̄s ná*ʔàb lā.*	"And I've looked at the chief."
*Kà ò gɔ̄s ná*ʔàb lā.*	"And he's looked at the chief."

Intrinsic tones with preverbal particles having intrinsic M tonemes:

*Ò dāa záb nà*ʔab lā.*	"He didn't fight the chief."
*Ò dāa gɔ̄s ná*ʔàb lā.*	"He didn't look at the chief."

Intrinsic tones with Negative Polarity:

*Ò pū záb nà*ʔab láa.*	"He hasn't fought the chief."
*Ò pū gɔ̄s ná*ʔàb láa.*	"He hasn't looked at the chief."

This is not simply another case of blocking of the overlay by a preverbal particle with M toneme, because it is also seen for example with the M negative verbs *kā*ʔe̤*[+] "not be, not have" and *zī*ʔ[+] "not know":

*Dāu̯   lā kā*ʔ   ná*ʔabā [+]ø.*   "The man isn't a chief."
Man:**SG ART NEG.BE** chief:**SG NEG.**

*Bùŋ-bāň*ʔad   zī*ʔ   yɛ̄ tɛ̄ŋ   túllā [+]ø.*
Donkey-rider:**SG NEG.KNOW** that ground:**SG** be.hot **NEG**.
"He who rides a donkey does not know the ground is hot." (Proverb)

Intrinsic tones in subordinate clauses, without Independency Marking:

*Ò yá*ʔ zàb nà*ʔab lā.*	"If he fights the chief."
*Ò yá*ʔ gɔ̄s ná*ʔàb lā.*	"If he looks at the chief."
*Ɔ́n zàb nà*ʔab lā.*	"He having fought the chief"
*Ɔ́n gɔ̄s ná*ʔàb lā.*	"He having looked at the chief."

Tone overlay manifesting Independency Marking in main clauses:

Ǹ záb náʔàb lā.   "I've fought the chief."
Ò zàb náʔàb lā.   "He's fought the chief."
Ǹ gɔ́s náʔàb lā.   "I've looked at the chief."
Ò gɔ̀s náʔàb lā.   "He's looked at the chief."
Ò sà zàb náʔàb lā.   "He fought the chief yesterday."
Ò sà gɔ̀s náʔàb lā.   "He looked at the chief yesterday."

Tone overlay in Content Clauses, which have Independency Marking 31.4 :

Bà yɛ̀l   yɛ́ ò   zàb   náʔàb   lā.
3PL say:**PFV** that **3HU** fight:**PFV** chief:**SG** **ART**.
"They say he's fought the chief."

Bʋ̀ŋ-bāň ʔad   zī ʔ   yɛ̄ tɛ̄ŋ   túllā   ⁺ø.
Donkey-rider:**SG** **NEG.KNOW** that ground:**SG** be.hot **NEG**.
"The donkey-rider doesn't know the ground is hot."
(*Tɛ̄ŋ túl.* "The ground is hot." *tʋ̄l*^la/ "be hot")

Examples for the M of the final host mora before Liaison, using the verbs
bɔ̀dɪg^e "lose", *yādɪg*^e/ "scatter" and the clitics *m*^a "me" *ba*⁺ "them":
Intrinsic tones:

bɔ̀dɪgɪ m^a   *bɔ̀dɪgɪdī m*^a/ (ipfv)   *bɔ̀dɪgɪ bā*⁺/
yādɪgí m^a   *yādɪgídī m*^a/ (ipfv)   *yādɪgí bā*⁺/

After tone overlay:

bɔ̀dɪgī m^a/   *bɔ̀dɪgɪdī m*^a/   *bɔ̀dɪgī bá*⁺
yàdɪgī m^a/   *yàdɪgɪdī m*^a/   *yàgɪdī bá*⁺

Before a Liaison Word with initial Fixed-L toneme 10.2 : contrast

Bà kʋ̀ʋdī‿ bá.   "They kill them."
3PL kill:**IPFV** **3PLO**.

with *Bà kʋ̀ʋdí‿ bà būʋs.*   "They kill their goats."
3PL kill:**IPFV** **3PL** goat:**PL**.

and   *Bà gɔ̀s·ō̰*   ø.   "They looked at her."
       3PL look.at:**PFV 3HUO**.

with   *Bà gɔ̀sʊ̰́*   ò   *bīig.*   "They looked at her child."
       3PL look.at:**PFV 3HU** child:**SG**.

with ML necessarily changed to HL before the Fixed-L proclitic pronouns.

24.6.1.2 Absent L Raising after Subject Pronouns

Bound pronoun subjects are normally followed by L Raising despite their own fixed L tonemes 10.1 10.2 .

However, the *third* persons *ò lì bà* are never followed by L Raising when the following Verbal Predicator has Independency Marking.

Examples with *zàb*ᵉ "fight" *gɔ̄s*ᵉ "look at" *nà'ab*ᵃ "chief":

Without Independency Marking (Sequential Clause 30.3.2):

*Kà **m̀ záb** nà'ab lā.*   "And I've fought the chief."
*Kà **ò záb** nà'ab lā.*   "And he's fought the chief."
*Kà **m̀ gɔ̄s** ná'àb lā.*   "And I've looked at the chief."
*Kà **ò gɔ̄s** ná'àb lā.*   "And he's looked at the chief."

With Independency Marking:

***M̀ záb** ná'àb lā.*   "I've fought the chief."
***Ò zàb** ná'àb lā.*   "He's fought the chief."
***M̀ gɔ́s** ná'àb lā.*   "I've looked at the chief."
***Ò gɔ̀s** ná'àb lā.*   "He's looked at the chief."

The first and second person bound subject pronouns *are* followed by L Raising before a Verbal Predicator with Independency Marking, *unless* they are immediately preceded by *yɛ̄* "that" (here introducing a Content Clause 31.4):

*Ò   tɛ̀ñ'ɛs   kà   **ò   zàb**   ná'àb   lā.*
3HU think:**PFV** and **3HU** fight:**PFV** chief:**SG ART**.
"He thinks he's fought the chief." WK

*Ò   tɛ̀ñ'ɛs   kà   **m̀   záb**   ná'àb   lā.*
3HU think:**PFV** and **1SG** fight:**PFV** chief:**SG ART**.
"He thinks I've fought the chief."

but *Ò yὲl   yɛ́ **ò zàb**   ná⁊àb lā.*
3HU say:**PFV** that **3HU** fight:**PFV** chief:**SG ART**.
"He says he's fought the chief."

and *Ò yὲl   **yɛ́ m̀ zàb**   ná⁊àb lā.*
3HU say:**PFV** that **3HU** fight:**PFV** chief:**SG ART**.
"He says I've fought the chief."

Absence of L Raising after bound subject pronouns is independent of tone overlay and is still seen when tone overlay is absent, e.g. when the Verbal Predicator has Unrealised Mood, or there is a preverbal particle carrying a M toneme:

Ò kʊ̀   *zāb   ná⁊àb láa* ⁺ø.
3HU NEG.UNR fight:**PFV** chief:**SG ART NEG**.
"He will not fight the chief."

Ò lὲɛ *dāa záb   nà⁊ab lā.*
3HU but **TNS** fight:**PFV** chief:**SG ART**.
"But he did fight the chief."

*Ò yὲl   **yɛ́ m̀ nà** zāb   ná⁊àb lā.*
3HU say:**PFV** that **3HU UNR** fight:**PFV** chief:**SG ART**.
"He says I've fought the chief."

24.6.2 Segmental Features

There are two segmental features of Independency Marking. They occur when and only when the verb word itself has undergone *tonal* overlay, and are therefore absent whenever the verb is preceded by the preverbal particle *lὲɛ* "but", by a particle verb, or by a preverbal particle with M toneme. Similarly, they are absent when the predicator has Unrealised Mood or Negative Polarity.

Verbs which have intrinsic L tonemes show no surface sign of having been subject to tonal overlay, but this is apparent in that such forms are followed by L Raising and that the segmental features of Independency Marking may occur.

24.6.2.1 Perfective *yā*⁺

Any perfective verb form affected by the tone overlay of Independency Marking which would otherwise be phrase-final (without even an enclitic following) is followed by the enclitic particle *yā*⁺. This particle is tonally unique among M toneme enclitic *CV(V)* words in that it does not change the M toneme to H in the LF; when the LF occurs in questions, the toneme is L (i.e. *yā*⁺ has Tone Pattern O) 8.5.

Lì   bɔ̀dɩg   yā.   "It's got lost."
3NH get.lost:**PFV INDEP**.

Lì   bɔ̀dɩg   yàa   ⁺ø?   "Has it got lost?"
3NH get.lost:**PFV INDEP PQ**?

The phrase-final constraint on the appearance of *yā⁺* may reveal that a final element is a clause adjunct rather than a VP complement 34.3 :

Yà   yídìg   yā   bɛ́dʊgū.
2PL go.astray:**PFV INDEP** much.
"You are very much mistaken." (Mk 12:27)

M̀   pʊ́ʔʊ̀s   yā   bɛ́dʊgū.
1SG greet:**PFV INDEP** much.
"Thank you very much."

NT writes this particle very often as *-eya*, as if it were a Liaison Word, but my informants show no trace of a preceding vowel after consonant-final verbs, nor of final short vowel prolongation.
Further examples:

Sāa   ní   yā.   "It has rained."
Rain:**SG** rain:**PFV INDEP**.

Ò   zàb   yā.   "He's fought."
3HU fight:**PFV INDEP**.

Ò   gɔ̀s   yā.   "He's looked."
3HU look:**PFV INDEP**.

Ò   sà zàb   yā.   "He fought (yesterday.)"
3HU TNS fight:**PFV INDEP**.

M̀   tɛ́ñʔɛ̀s   kà lì lù   yā.
1SG think:**PFV** and **3NH** fall:**PFV INDEP**.
"I think it's fallen down." (content clause)

Non-final:

Ò   zàbī‿   m.   "He's fought me."
3HU fight:**PFV 1SGO**.

Ò   gɔ̀sī‿   m.   "He's looked at me."
3HU look.at:**PFV 1SGO**.

When the tone overlay of Independency Marking is absent, so is the particle:

Sāa   dāa ní.   "It rained." (M preverbal particle)
Rain:**SG TNS**   rain:**PFV**.

Ò   nà   zāb.   "He'll fight." (Unrealised Mood)
3HU UNR fight:**PFV**.

Ò   dāa záb.   "He fought." (M preverbal particle)
3HU TNS fight:**PFV**.

Kà   ò   záb.   "And he fought." (No Independency Marking)
And **3HU** fight:**PFV**.

Kà   ò   gɔ̄s.   "And he looked." (No Independency Marking)
And **3HU** look:**PFV**.

Ò   pū   zábē   ⁺ø.   "He's not fought." (Negative Polarity)
3HU NEG.IND fight:**PFV NEG**.

Ò   pū   gɔ̄se   ⁺ø.   "He's not looked." (Negative Polarity)
3HU NEG.IND look:**PFV NEG**.

Not perfective; thus with the Invariable Verbs

Ò gìm.   "He's short."
Ò mì’.   "He knows."
Ò nɔ̀ŋ.   "He loves her."
                              perfective *form* but stative meaning 13.1.2

24.6.2.2 Imperative *-m*ᵃ

Imperatives of Variable Verbs which are affected by the tone overlay of Independency Marking adopt the flexion *-m*ᵃ 13.1 .

Gɔ̀sɪm!	"Look!"	
Gɔ̀sɪmī‿ m! Look:**IMP 1SGO**!	"Look at me!"	
Gɔ̀sīm.	"Look at me!" vowel absorbed 4	
Gɔ̀sɪmí‿ fʊ̀ nú ͑ʔ ùg! Look:**IMP 2SG** hand:**SG**!	"Look at your hand!"	
Gɔ̀sím fʊ̀ nú ͑ʔ ùg!	id with *ɪ*-vowel absorbed 4	

Without tone overlay on the verb word:

Dā gɔ̄se ⁺ø! **NEG.IMP** look:**PFV NEG**!	"Don't look!" (Negative Polarity)	
Kɛ̀l kà ò gɔ̄s! Cause:**IMP** and **3HU** look:**PFV**!	"Let her look!" (No Independency Marking: subordinate)	
Kɛ̀m nā n gɔ̄s! Come:**IMP** hither **SER** look:**PFV**!	"Come and look!" (No Independency Marking after **SER**)	

With overlay, but not a Variable Verb:

Dɔ̀llī‿ m! Follow **1SGO**!	"Follow me!"	
Dɔ̀llīní‿ m! Follow:**2PLS 1SGO**!	"Follow ye me!"	

where *-ya* (← *ɲa*) assumes the allomorph *-ní-* before a second clitic 9.3.1.2

Dì ͑ʔ əm!	"Receive!"	

Dìʔəmī‿ ø!   "Receive ye!"
Receive:**IMP 2PLS**!

Dìʔəmīní‿ bā!   "Receive ye them!"
Receive:**IMP:2PLS 3PLO**!

Dìʔəmīn·ó‿ ø!   "Receive ye her!"
Receive:**IMP:2PLS 3HUO**!

Dìʔəmīní‿ àlá!   "Keep ye on receiving!" 24.4.1
Receive:**IMP:2PLS ADV:**thus!

24.7 Clitics Bound to the Predicator

Clitic Subject Pronouns 17.1 are bound to the predicator, and linked with it to the extent that they are involved in the tonal manifestations of Independency Marking 24.6.1.2.

Post-subject particles 29.1.3 capable of following clitic subject pronouns are phonologically bound bound to the predicator.

In this section I will treat *lèɛ* "but", along with Particle-Verbs, on the grounds that they intervene between tense/aspect markers and the verb, and Liaison Enclitics, which precede the focus particle *nɛ̄*⁺ᐟ when it is an enclitic aspect marker.

24.7.1 *Lèɛ* "but"

lèɛ "but", like a particle-verb, prevents the tone overlay of Independency Marking from falling on the verb, and is then itself followed by L Raising. *Lèɛ* precedes even tense particles.

Kà ò lɛ́ɛ dāa záb nàʔab lā.
And **3HU** but **TNS** fight:**PFV** chief:**SG ART**.
"But he fought the chief."

Ka man pian'ad la lee ku gaade.
Kà m̀ pi̯àňʔad lā lɛ́ɛ kʋ̀ gāade ⁺ø.
And **1SG** speech **ART** but **NEG.UNR** pass:**PFV NEG**.
"But my words will not pass away. (Mt 24:35)

Bà lèɛ záb nàʔab lā.
3PL but fight:**PFV** chief:**SG ART**.
"But they've fought the chief." WK

Kà bà lɛ́ɛ zàb   nàˀab   lā.
And **3PL** but fight:**PFV** chief:**SG ART**.
"But they've fought the chief." WK

Lɛ̀ɛ záb   nàˀab   lā!
But fight:**PFV** chief:**SG ART**!
"But fight the chief!" WK

NT has the *-m*ª-imperative, suggesting tone overlay on the verb, in

Lee iemini o na'am so'olim la...
Lɛ̀ɛ ìəmīní‿   ò nā̄ˀam sʊ́ˀʊlìm   lā...
But seek:**IMP:2PLS 3HU** kingship possession **ART**...
"But seek ye his kingdom ..." (Lk 12:31, 1976)

but WK specifically rejected

*Lɛ̀ɛ gɔ́sìm   náˀàb   lā!
 But look.at:**IMP** chief:**SG ART**!
attempted: "But look at the chief!"

correcting to

Lɛ̀ɛ gɔ̄s   náˀàb   lā.
But look.at:**PFV** chief:**SG ART**.

24.7.2 Particle-Verbs

The particle-verbs do not form a paradigm, and they are of varied character, united only by their position immediately before the verb. As a group, they show the phonology of full words rather than clitics. Some at least presumably originated from older serial-verb constructions, and particle-verbs carry any tone overlay from Independency Marking in place of the following main verb (cf *lɛ̀ɛ* "but" 24.7.1 .)

pʊ̀n "previously, already"

Ò pʊ̀n   záb   nàˀab   lā.
3HU already fight:**PFV** chief:**SG ART**.
"He's already fought the chief."

Kà   ò   pún   zàb   nà'ab   lā.
And **3HU** already fight:**PFV** chief:**SG ART**.
"And he's already fought the chief."

lèm   "again"   (cf *lèb*ᵉ "return")

Ò   lèm   záb   nà'ab   lā.
3HU again fight:**PFV** chief:**SG ART**.
"He's fought the chief again"

Kà   ò   lɛ́m   zàb   nà'ab   lā.
And **3HU** again fight:**PFV** chief:**SG ART**.
"And he's fought the chief again."

Ò   pū̄   lɛ́m   zàb   nà'ab   láa ⁺ø.
3HU NEG.IND again fight:**PFV** chief:**SG ART NEG**.
"He hasn't fought the chief again."

Ò   nà   lɛ̄m   záb   nà'ab   lā.
3HU UNR again fight:**PFV** chief:**SG ART**.
"He'll fight the chief again.

M̀   nīf   lɛ́m   zábìd   nɛ̄.
1SG eye:**SG** again fight:**IPFV FOC**.
"My eye is hurting again."

Ka so' kudin ku len nyee li ya'asa.
Kà   sɔ̄'   kūdɩm kʋ́   lɛ̄m   ǐyɛ̄ɛ́‿   lī   yá'asā ⁺ø.
And **INDF.HU** ever   **NEG.UNR** again see:**PFV 3NHO** again   **NEG**.
"Nobody will ever see it again." (Rev 18:21)

kpèlɩm   "still" with a following imperfective; "immediately afterwards" before a
    perfective (compare the Latin *continuo* "immediately.") It occurs also as a
    main verb "remain, still be."

Ka o kpelim zu'om.
Kà   ò   kpɛ́lìm   zū'ɵm.
And **3HU** immediately go.blind:**PFV**.
"Immediately he went blind." (Acts 13:11)

là'am "together" (cf *là'as*ᵉ "gather"); as a main verb *là'am*ᵐ is "associate with."

> *ka nidib wusa da la'am kpi ne o.*
> *kà   nīdɪb   wūsa dá là'am   kpì   nɛ́   ò.*
> and person:**PL** all   **TNS** together die:**PFV** with **3HU**.
> "so all people died together with him." (2 Cor 5:14)

dèŋɪm "beforehand" (cf *dèŋ*ᵉ "go, do first": *m̀ dɛ́ŋī f* "I've got there before you."
   *Dèŋ*ᵉ is used with the same meaning in serial-verb constructions 28.3.)

> *Ka Wina'am pun deŋim nye bunsuma ye o tisi ti.*
> *Kà   Wínà'am pún   dèŋɪm   ňyɛ̄   būn-súmà   yɛ́   ò   tísì ︡   tī.*
> And God   already beforehand see:**PFV** thing-good:**PL** that **3HU** give:**PFV 1PLO**.
> "God previously found good things in advance to give us" (Heb 11:40, 1976)

ňyɛ̄ɛ or **ňyɛ̄ɛ tí** "habitually" NT *nyii ti* KT *ɛ̄ɛň*, *ɛ̄ɛň tí*. The main verb is imperfective
   and displays no tone overlay from Independency Marking.

> *Ò   ňyɛ̄ɛ   zábìd   ná'àb   lā.*
> **3HU** usually fight:**IPFV** chief:**SG ART**.
> "He's accustomed to fight the chief." WK

> *Ò   ňyɛ̄ɛ   gɔ̄sɪd   ná'àb   lā.*
> **3HU** usually look.at:**IPFV** chief:**SG ART**.
> "He's accustomed to look at the chief." WK

> *Ò   dāa ňyɛ̄ɛ   zábìd   ná'àb   lā.*
> **3HU TNS** usually fight:**IPFV** chief:**SG ART**.
> "He was accustomed to fight the chief." WK

> *Ò   ɛ̄ɛň tí   zàbɪd   nɛ̄ ná'àb   lā.*
> **3HU** usually fight:**IPFV FOC** chief:**SG ART**.
> "He's accustomed to fight the chief." KT

> *Ò   ɛ̄ɛň tí   zìň'i   kpɛ̄lá.*   "He's accustomed to sit there." KT
> **3HU** usually be.sitting there.

> *Ò   ɛ̄ɛň tí   dīgɪ   kpɛ̄lá.*   "He's accustomed to lie there." KT
> **3HU** usually be.lying there.

tì "afterwards" conveys accomplishment or completion; the main verb is perfective. It occurs often in serial VPs; for *hālí tì pāa ...* "up until" see 33.1.2 .

> *Hale ka Herod ti kpi.*
> *Hālí   kà   Herod   tí   kpì.*
> Until and Herod afterwards die:**PFV**.
> "Until Herod had died." (Mt 2:15)

> *Kɛ̀m‿   ø   tí   ňyɛ̄   du̱ʔátà.*
> Go:**IMP SER** afterwards see:**PFV** doctor:**SG**.
> "Go to see the doctor." SB

It is common after the Unrealised markers, perhaps in a "future perfect" sense:

> *Noraug ku ti kaas zina nwaa, ka fu na ki'isi m noora atan'.*
> *Nɔ̄-dáʊ̀g   kʊ́   tī   kāas   zīná   ňwāa ⁺ø*
> Hen-male:**SG NEG.UNR** afterwards cry.out:**PFV** today this   **NEG**
> *kà   fʊ̀   ná   kīʔɩsí‿ m   nɔɔrá‿   àtáňʔ.*
> and **2SG UNR** deny   **1SGO** occasion:**SG NUM**:three.
> "The cock will not have crowed this day and you will deny me three times."
> (Lk 22:61)

24.7.3 Liaison Enclitic Pronouns

Liaison Enclitics precede all other Verb Phrase complements and also precede the focus particle *nɛ̄⁺/* in all its senses. There are two slots, and a Predicator may have two successive Liaison Enclitics.

The first slot may be occupied by one of the two clitics *ya* "2pl subject of direct command" or *nᵉ* the Modal Remoteness marker 24.4.2 ; there are no circumstances in which they might occur together, as the Modal Remoteness marker is only found with Indicative and Unrealised Moods. For my informants, the 2pl subject enclitic is an allomorph of the normal proclitic subject pronoun *yà*, but for some speakers it has become a plural imperative marker. See further 30.2.3 .

These two clitics are tonally alike; both always change the toneme of the last preceding host vowel mora to M, and themselves have H toneme.

The second slot for Liaison Enclitics is for bound object pronouns. There is no formal distinction between direct and indirect objects. Only one clitic object pronoun may occur; cases where a verb has a non-contrastive direct and indirect object pronoun are expressed by ellipsis of a pronoun 25.1.1 or by periphrasis with a serial-verb construction using *tìsᵉ* "give" 28.3 .

25 Verb Phrases

A Verb Phrase consists of a Verbal Predicator followed by complements and adjuncts.

There is no recursive embedding as with the NP, but Verb Phrases are frequently concatenated within a single clause in the Serial VP construction 28.

"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 25.1.1.

NP and AdvP complements can be classified as direct and indirect objects, as predicative complements, or as locative complements.

25.1 Transitivity and Objects

Indirect objects precede direct, and objects precede other complements, except in cases of extraposition or dislocation due to weight 34.3. A clitic pronoun before a noun object therefore cannot be the direct object:

> * M̀ dāa tísì‿   lī   náˀàb   lā.
> **1SG TNS** give:**PFV 3NHO** chief:**SG ART**.
> Not possible with the intended meaning "I gave it to the chief."

There is otherwise no formal difference between direct and indirect objects.

25.1.1 Obligatory Transitives and Agentive Ambitransitives

Transitive verbs vary in whether they require a direct object:

> da ku nidaa, da zuuda
> dā   kū   nīdá   ⁺ø, dā   zūudá   ⁺ø...
> **NEG.IMP** kill:**PFV** person:**SG NEG, NEG.IMP** steal:**IPFV NEG**...
> "Do not kill [a person] ... do not steal ..." (Lk 18:20)

Obligatorily Transitive verbs may appear without any expressed object, but in such cases the meaning is necessarily **anaphoric**:

> Ò pū   zámm   ⁺ø.   "She didn't cheat him/her."
> **3HU NEG.IND** cheat:**PFV NEG**.

Transitive Invariable Verbs always require a complement, and again there is necessarily an anaphoric sense if none is explicitly present. Thus with *àe̯ň*[ya] "be something/somehow":

> *Mānι‿*   ø   *á*   *du̯ʔátà*   *àmáa fūn*   *pū*   *áe̯ňyā* [+]ø.
> **1SG.CNTR SER COP** doctor:**SG** but   **2SG.CNTR NEG.IND COP**   **NEG**.
> "I'm a doctor but you aren't."

> *Mānι‿*   ø   *á*   *du̯ʔátà*   *kà*   *fūn*   *mέn áe̯ň.*
> **1SG.CNTR SER 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* 34.2 33.2.2.1 and with Supplement Clauses 31.3 .

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 mɔ́r gbāu̯ŋ*   *láa* [+]ø?   "Do you have the letter?"
>   **2SG** have letter:**SG**   **ART**   **PQ**?

> A.   *Ḗεň, m̀   mɔ́r.*   "Yes, I have it."
>   Yes, **1SG** have.

> Q.   *Fù bɔ́ɔd·ō‿ ó*   [+]ø?   "Do you love her?"
>   **2SG** want   **3HUO PQ**?

> A.   *Áyìι, m̀ pū*   *bɔ́ɔdā* [+]ø.   "No, I don't love her."
>   No,   **1SG NEG.IND** want   **NEG**.

Agentive Ambitransitive verbs appear both with and without an object, with no change in the rôle of the subject, and no anaphoric implication if the object is absent; thus

> *bane zuud nidibi gban'ad*
> *bànι‿*   ø   *zūud*   *nīdιbι‿*   ø   *gbāňʔad*
> **DEM.PL COMP** steal:**IPFV** person:**PL**   **SER**   seize:**IPFV**
> "those who steal people by force" (1 Tim 1:10)

> *one daa zuud*   "he who used to steal" (Eph 4:28)
> *ɔ̀nι‿*   ø   *dāa zūud*
> **DEM.HU COMP 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   bɔ́-tʋ̀ʋma ⁺ø?*   "What (work) are you doing?"
> **2SG** work:**IPFV** what-work **CQ**?

> *Bà nà zāaň̌sɩm záaň̌símà.*   "They will dream dreams." (cf Acts 2:17, 1976)
> **3PL UNR** dream:**PFV** dream:**PL**.

25.1.2 Patientive Ambitransitives

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

> *yɔ̀⁺*   "close"
> *nāe⁺/*   "finish"
> *nāˀmɩsᵉ/*   "suffer/make suffer"
> *zàˀmɩsᵉ*   "learn/teach"
> *bɔ̀dɩgᵉ*   "lose, get lost"
> *bàsᵉ*   "go/send away"
> *dūe⁺/*   "raise/rise"
> *māˀe⁺/*   "get cool"

Many, though not all, Patientive Ambitransitive verbs express entry into a state and can use *nē* with the perfective to express the state 24.2.1.2 :

> *Kʋ̀lɩŋ   lā   yɔ́   nɛ̄.*   "The door is closed."
> Door:**SG ART** close:**PFV FOC**.

> *M̀ náa   tʋ̄ʋma lā.*   "I've finished the work."
> **1SG** finish:**PFV** work **ART**.

> *Tʋ̄ʋma lā náa   nɛ̄.*   "The work is finished."
> Work   **ART** finish:**PFV FOC**.

Conversely, the majority of verbs capable of forming a Result Perfective are Patientive Ambitransitive, though there are also some intransitive-only verbs like *kpì⁺* "die."

25.1.3 Ditransitives

Almost any verb can potentially take an indirect object expressing benefit, interest etc (this could lead to ambiguity in principle):

> *Ò   dùgū‿   m.*   "She cooked (for) me."
> **3HU** cook:**PFV** **1SGO**.

> *Lì   màlɪsī‿   m.*   "I like it." ("It's sweet for me.")
> **3NH** be.sweet **1SGO**.

> *Àláafὺ bέὲ‿ bá.*   "They are well." ("Health exists for them.")
> Health **EXIST** **3PLO**.

Ditransitive verbs, however, *require* an indirect object, which cannot be ellipted unless any direct object is also ellipted, and in which case there is necessarily an anaphoric sense; *tìs*ᵉ "give" is the prototypical example, along with causatives from transitive verbs like *dìɪs*ᵉ "feed" *nūlʋs*ᵉ/ "give to drink" 25.1.1 .

> *Ṁ   tís   ná*ʔàb lā   dāká.*   "I've given the chief a box."
> **1SG** give:**PFV** chief:**SG** **ART** box:**SG**.

> *Ṁ   tís   ná*ʔàb lā.*   "I've given it to the chief."
> **1SG** give:**PFV** chief:**SG** **ART**.

> **Ṁ tís dāká.*   impossible as "I've given him a box", which is

> *Ṁ   tís·ō‿   ø   dāká.*
> **1SG** give:**PFV** **3HUO** box:**SG**.

> *Dā   tís·ò‿   ø   sī*ʔəla ⁺ø.*
> **NEG.IMP** give:**PFV** **3HUO** **INDF.NH** **NEG**.
> "Don't give her anything!"

> *Dā   tísē   ⁺ø!*   "Don't give it to her!"
> **NEG.IMP** give:**PFV** **NEG**.

> *Ṁ   tís   yā.*   "I've given it to him."
> **1SG** give:**PFV** **INDEP**.

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", *mɔ̄r* X *nīn-báalìg* or *zɔ̀* X *nīn-báalìg* "have pity on X", *nìŋ* X *yàddā* "believe X, believe in X", *zɔ̀* X *dābíɛ̀m* "fear X" 13.2.1, *si̠àk* X *nɔ̄ɔr* "obey X", *ňwɛ̀ʔ* X *nú̠ʔùg* "make an agreement with X."

> *Wina'am na kad nidib poten'esua'ada saria.*
> *Wínàʔam ná   kād   nīdɪb   pú-tɛ̀ň̃ʔ-sū̠ʔadá   sàríyà.*
> God   **UNR** drive:**PFV** person:**PL** inside-mind-secret:**PL** judgment.
> "God will judge people's secret thoughts." (Rom 2:16)

> *Biise, siakimini ya du'adib noya.*
> *Bīise   ⁺ø, si̠àkɪmīní   yà dū̠ʔadɪb nɔ́yà.*
> Child:**PL VOC**, agree:**IMP:2PLS 2PL** parent:**PL** mouth:**PL**.
> "Children, obey your parents." (Eph 6:1.)

> *Ò   zɔ̀t·ō̠   ø   nīn-báalìg.*
> **3HU** feel.emotion:**IPFV 3HUO** eye-pity.
> "She has pity on him."

> *Bà zɔ̀t·ō̠   ø   dābíɛ̀m.*
> **3PL** feel.emotion:**IPFV 3HUO** fear.
> "They are afraid of him."

> *Bà nìŋ·ō̠ ø   yáddā.*   "They believed her."
> **3PL** do:**PFV 3HUO** assent.

> *Ò   ňwɛ̀ʔ   náʔàb lā nú̠ʔùg.*
> **3HU** strike:**PFV** king:**SG ART** hand:**SG**.
> "He made an agreement with the king."

25.1.4 Passives

Transitive verbs can be used passively with no formal change. This is possible both with verbs that require an object and those that do not, like *nū*⁺ "drink":

> *M̀ nú   dāam lā.*   "I've drunk the beer."
> **1SG** drink:**PFV** beer   **ART**.

> *Dāam lā   nú   yā.*   "The beer has got drunk."
> Beer **ART** drink:**PFV INDEP**.

As in many languages, it is not possible to include an agent in such cases. Indirect objects cannot become passive subjects:

Dāká   lā   tís   yā.   "The box was given."
Box:**SG**   **ART** give:**PFV INDEP**.

but   **Nà'ab lā tís   yā.*   not possible in sense "The chief was given (it.)"
Chief:**SG ART** give:**PFV INDEP**.

There is an **aspectual restriction on passives**: the only allowable aspects are Event Perfective and Unbounded Imperfective in habitual (never stative) sense. Accordingly, the particle *nɛ̄*[+/] can never be interpreted aspectually with passives.
(All interpretations WK):

Dāká lā záňl   nɛ̄.   "The box is portable by hand."
Box:**SG ART** carry.in.hands **FOC**.   not "The box is being carried."

Dāká lā zîd   nɛ̄.   "The box is for *carrying on the head*."
Box:**SG ART** carry.on.head **FOC**.   ("Not in the hands.")

Dāam lā   núùd.   "The beer gets drunk."
Beer   **ART** drink:**IPFV**.

Dāam núùd   zīná.   "Beer gets drunk today."
Beer   drink:**IPFV** today.

but   *Dāam lā núùd   nɛ̄.*   Only "The beer is for drinking."
Beer   **ART** drink:**IPFV FOC**.   ("Not for throwing away.")
                                  not "The beer is being drunk."

*Dāam núùd nɛ̄.   rejected by WK altogether

As a consequence, the Passive construction is not possible with verbs expressing a state which is abiding by default, like *mɔ̄r*[a/] "have", because habitual imperfectives are infelicitous with such verbs.

The aspect restriction also confirms that the passive use of transitive verbs is distinct from Patientive Ambitransitivity 25.1.2, to which it does not apply:

M̀ yɔ́ɔ̀d   nɛ̄ kúlìŋ lā.   "I'm closing the door."
1SG close:**IPFV FOC** door:**SG ART**.

> *Kʋ̀lıŋ   lā   yɔ́ɔ̀d   nɛ̄.*   "The door is closing."
> Door:**SG ART** close:**IPFV FOC**.

> *Ò   tʋ̀lıgıd   nɛ̄.*   "He's heating it up."
> **3HU** heat.up:**IPFV FOC**.

> *Lì   tʋ̀lıgıd   nɛ̄.*   "It's heating up."
> **3NH** heat.up:**IPFV FOC**.

Contrast the intransitive verb *mā*ʔ*e*[+/] "get cool" with the transitive causative *mā*ʔ*al*[e/] "cool" used passively; only the former can take *nɛ̄* in its aspectual sense:

> *Lì   mà*ʔ*ad   nɛ̄.*   "It is getting cool"
> **3NH** get.cool:**IPFV FOC**.

but   *Lì   mà*ʔ*an   nɛ̄.*   "It gets *cooled*." (contrastive focus on the VP)
         3NH cool:**IPFV FOC**.   Not "It is getting cool"

The verb *sɔ̄b*[e] "write", in line with its probable origin from the homophonous verb "make/go dark", may be construed as Patientive Ambitransitive despite the English translation. It can make an intransitive Result Perfective:

> *Gbàʋ̪ŋ   lā   sɔ́b   yā.*   "The letter has been written."
> Letter:**SG ART** write:**PFV INDEP**.

> *Gbàʋ̪ŋ   lā   sɔ́b   nɛ̄.*   "The letter is written."
> Letter:**SG ART** write:**PFV FOC**.

In the Imperfective *sɔ̄b*[e] in seems to accept intransitive use only when some adverbial modification is present:

> *Gbàna   sɔ́bìd   zīná.*   "Letters get written today." WK
> Letter:**PL** write:**IPFV** today.

> *Gbàʋ̪ŋ   lā   sɔ́bìd   sʋ́ŋā.*   "The letter is writing well (i.e. easily.)" WK
> Letter:**SG ART** write:**IPFV** good:**ADV**.

Further proof that the Passive use of transitive verbs is distinct from Patientive Ambitransitivity is the fact that Verbs which *require* an object or complement (like *zāň*[la/] above) may be used passively.

A passive meaning is often expressed by using an empty *bà* "they" as subject, a construction which has been grammaticalised to the extent that the formal object may behave as the subject in Serial VP constructions 17.1 .

25.1.5 Transitive use of Assume-Posture Verbs

The assume-posture verbs 15.2.1.1 , rather than the make-assume-posture series, are often used transitively for parts of one's own body:

> *Lìgɪním‿ fʋ̀ nīf   nɛ́   fʋ̀ nú'ùg.*
> Cover:**IMP 2SG** eye:**SG** with **2SG** hand:**SG**.
> "Cover your eye with your hand."

Thus *Dìgɪním‿   fʋ̀ nú'ùg.*   "Put your hand down."
       Lie.down:**IMP 2SG** hand:**SG**.

is commoner than

> *Dìgɪlím‿   fʋ̀ nú'ùg.*   "Put your hand down."
> Lay.down:**IMP 2SG** hand:**SG**.

It might be preferable to take the assume-posture verbs in such cases as preserving their usual intransitive sense, with the following body part expression occurring not as a direct object but in an adverbial sense: compare

> *M̀ kɛ́ŋ   nɔ̄bá.*   "I went on foot." (SB; not accepted by WK.)
> **1SG** go:**PFV** leg:**PL**.

25.2 Predicative Complements

Predicative complements may occur after intransitive or transitive verbs; like objects, they may or not be required, in the sense of surface omission necessarily implying anaphora.

As with similar English constructions, predicative complements can have depictive or resultative meaning; the distinction in Kusaal falls out naturally from the stative or dynamic nature of the verb:

> *Kel ka m lieb fu tumtum yinni.*
> *Kɛ̀l   kà m̀ líəb   fʋ̀ tʋ̀m-tūm   yīnní.*
> Cause:**IMP** and **1SG** become:**PFV 2SG** work-worker:**SG** one.
> "Make me [become] one of your servants" (Lk 15:19); dynamic *lìəb*[e]

M̀   á   nɛ́   fʊ̀   tʊ̀m-tʊ̄m.   "I am your servant."; stative *à e̯ n̆*[ya]
1SG COP FOC 2SG work-worker:**SG**.

À e̯ n̆[ya] "be something/somehow" 26.2 takes a predicative complement:

Ò   à   nɛ̄   bīig.   "She is a child."
3HU COP FOC child:**SG**.

M̀   kā ʔ   dʊ̯ ʔ átāa   ⁺ø.   "I'm not a doctor."
1SG NEG.BE doctor:**SG NEG**.

As with other transitive Invariable Verbs, the complement is obligatory 25.1 .
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 *pʊ̀d*[e] "name, dub" has as first object a NP with the head *yū ʔ ur*[e/]
"name", and the name itself as second object; this may be introduced by *yɛ̄* "that."

Ka fu na pud o yu'ur ye Yesu.
Kà   fʊ̀   ná   pʊ́d   ò   yū ʔ ur   yɛ̄   Yesu.
And **2SG UNR** dub:**PFV 3HU** name:**SG** that Jesus.
"And you will call him Jesus." (Mt 1:21)

Ka o pud biig la yu'ur Yesu.
Kà   ò   pʊ́d   bīig   lā   yú ʔ ùr   Yesu.
And **3HU** dub:**PFV** child:**SG ART** name:**SG** Jesus.
"And he called the child Jesus. " (Mt 1:25)

The verb *bùəl*[e] "call, call out, summon" can be used in the Unbounded
Imperfective aspect with an object expressing the person named and the name as a
complement, again possibly introduced by *yɛ̄*:

on ka ba buon ye Piita la
ɔ̀n   kà   bà   bú ə̀ n   yɛ̄   Piita   lā
DEM.HU and **3PL** call:**IPFV** that Peter **ART**
"who was called Peter" (Mt 10:2)

The verb is often used passively 25.1.4 with *yū ʔ ur*[e/] "name" as subject and the
name itself as complement:

dau so' ka o yu'ur buon Joon.
dàu̯-sɔ́ʔ   kà   ò   yūʔur   búèn   Joon.
man-**INDF.HU** and **3HU** name:**SG** call:**IPFV** John.
"a man called John." (Jn 1:6)

The verb *màal*ᵉ "make" is used with an object and a resultative predicative complement in the 1976 NT in Acts 8:9

Ka o maal o meŋ nintita'ar.
Kà   ò   máàl   ò   mɛ̄ŋ nīn-títāʔar.
And **3HU** make:**PFV 3HU** self   person-great:**SG**.
"He made himself out to be a great man."

The 1996 NT version has instead

Ka o du'osi o meŋ ye o ane nintita'ar.
Kà   ò   dūʔəsí‿   ò   mɛ̄ŋ yɛ́   ò   à   nɛ̄ nīn   títāʔar.
And **3HU** elevate:**PFV 3HU** self that **3HU COP FOC** person great:**SG**.
"He made himself up that he was a great man."

A resultative predicative *kà*-clause:

...ka la'am maan gigis ka ba wum ka pia'ad.
...kà   láʔàm   màan   gígìs   kà   bà wúm   kà   pi̯āňʔad.
...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)

The verb *ňyɛ̄*⁺ "see, find" can take a Supplement *kà*-clause as a predicative complement 31.3 :

M̀ dāa ňyɛ̄   dāu̯   lá kà   ò   á   náʔàb.
1SG TNS see:**PFV** man:**SG** ART and **3HU COP** chief:**SG**.
"I saw the man as a chief."

M̀ dāa pū   ňyɛ̄   dāu̯   lá kà   ò   á   náʔabā ⁺ø.
1SG TNS NEG.IND see:**PFV** man:**SG ART** and **3HU COP** chief:**SG NEG**.
"I didn't see the man as a chief."

25.2.1 Manner-adverbs

Manner-adverbs behave syntactically in many respects like abstract mass nouns, and indeed may arise from such noun usages 22.4 . One such instance is in their common usage as predicative complements.

Kusaal characteristically uses proadverbs of manner 19.1 as predicative complements in place of pronouns with abstract reference. i.e. the language says "be/do *how*" rather than "be/do *what*."

> *Dā   níŋì‿ àláa   ⁺ø!*
> **NEG.IMP** do:**PFV** **ADV:**thus **NEG**.
> "Don't do that!" ("thus")

> *Fu wum ban yet si'em laa?*
> *Fʋ̀ wʋ́m   bán   yɛ̀t   sī'əm   láa ⁺ø?*
> **2SG** hear:**IPFV** **3PL:COMP** say:**IPFV** **INDF.ADV ART   PQ**?
> "Do you hear what they are saying?" (Mt 21:16)

> *Tiig wela bigisid on a si'em.*
> *Tìɩg   wɛ́là   bìgɩsɪd   ɔ́n   à   sī'əm.*
> Tree:**SG** fruit:**PL** show:**IPFV** **3HU:COMP COP INDF.ADV**.
> "The fruit of a tree shows what ["how"] it is." (Mt 12:33, 1976)

The Indefinite proadverb *sī'əm*ᵐ is particularly commonly used in this way as a relative pronoun 33.2.1.1 .

Transitive verbs like *nìŋ*ᵉ "do, make" *màal*ᵉ "make" may be followed by *àlá*⁺ "thus" or *wɛ̄lá*⁺ "how?" with following subordinate clause of purpose:

> *M na niŋ wala ka nye faangire?*
> *M̀ ná nīŋ   wɛ̄lá kà ňyɛ̄   fāaňgírè ⁺ø?*
> **1SG UNR** do:**PFV** how and find:**PFV** salvation **CQ**?
> "What must I do to get saved?" (Acts 16:30)

The verb *àe̩ň*ʸᵃ "be something/somehow" typically has a derived manner-adverb or abstract noun as complement rather than an adjective as NP head 26.2 :

> *Lì à nɛ̄ zāalím.*   "It's empty."
> *Lì à nɛ̄ bʋ̄gʋsígā.*   "It's soft."
> *Lì à sʋ́ŋā.*   "It's good."

25.3 Locative Complements

Locative AdvPs $\boxed{22.3}$ occur as complements after verbs of position and movement. Some verbs *require* a locative complement, and its absence is anaphoric.

> *Ǹ   yí   Bɔ̀k.*   "I left Bawku."
> **1SG** emerge:**PFV** Bawku.

> *Ǹ   yí   yā.*   "I've left [there]."
> **1SG** emerge:**PFV INDEP**.

Others do not; so with *kɛ̄ŋ*[e/] "go, walk":

> *...ka pu tun'e kenna.*
> *...kà   pū   tūň^ʔe‿   ø   kɛ̄nná   ⁺ø.*
>   **3HU   NEG.IND**   be.able **SER**   go:**IPFV   NEG**.
> "who couldn't walk." (Acts 14:8)

but   *Ò   kɛ̀ŋ   Bɔ́k.*   "He's gone to Bawku."
      3HU go:**PFV** Bawku.

So too with *dìgɪn*[e] "lie down":

> *Dìgɪnɪm   kpɛ̄!*   "Lie down here!"
> Lie.down:**IMP** here!

> *Ò   dìgɪn   yā.*   "He's lain down."
> **3HU** lie.down:**PFV INDEP**.

and the transitive verb   *dīgɪl*[e/] "lay down":

> *Ò   dìgɪl   gbáʊ̯ŋ   lā.*   "She's put the book down."
> **3HU** lay.down:**PFV** book:**SG ART**.

> *Ò   dìgɪl   gbáʊ̯ŋ   lā   tɛ́ɛbʊ̀l   lā   zúg.*
> **3HU** lay.down:**PFV** book:**SG ART** table:**SG ART** upon.
> "She's put the book on the table."

The verb *bɛ̀*⁺ $\boxed{26.1}$: without a complement is "exist":

Wínà'am bέ.   "God exists."
God   **EXIST**.

Àláafʋ̀ bέ·ō‿ ø.   "He's well." ("Health exists for him.")
Health **EXIST**   **3HUO**.
(Indirect object but no complement.)

With a locative complement, *bὲ*⁺ means "be in a place":

Dāṵ   lā bέ nɛ̄ dɔ́-kàŋā   lā   pʋ́ʋgūn.
Man:**SG ART EXIST FOC** hut-**DEML.SG ART** inside:**SG:LOC**.
"The man is inside that hut."

25.4 Prepositional Phrases as Complements

*Wɛ̄n*ⁿᵃ/ "resemble" usually takes a phrase introduced by *nɛ̄* or *wōʋ* 23.1 .

Ka o nindaa wenne nintaŋ ne.
Kà   ò   nīn-dáa   wɛ̄n   nɛ̄   nīntāŋ nɛ̄.
And **3HU** eye-face:**SG** resemble with sun:**SG** like.
"His face is like the sun." (Rev 10:1)

   With other verbs it can be difficult to distinguish phrases with *nɛ̄* as complements from NP objects or complements preceded by Focus-*nɛ̄*⁺/ 34.1.1 , unless the *nɛ̄* occurs in contexts where focus is prohibited like *ǹ*-Clauses. Thus *yī nɛ̄* X occurs in the sense "come from X" and the metaphorical sense "arise from X":

Ǹ yí   nɛ̄ Bɔ́k.   "I come from Bawku." SB
1SG emerge **FOC** Bawku.

Yadda niŋir yitne labaar la wumug ni.
Yàddā-níŋìr   yít   nɛ̄ lábāar lā wʋ́mʋ̀g ní.
Assent-doing emerge:**IPFV FOC** news   **ART** hearing **LOC**.
"Faith comes from hearing the news." (Rom 10:17)

However, constructions with the same meaning but within a *ǹ*-Clause lack *nɛ̄*:

Meeri one yi Magdala
Meeri ɔ́nì‿   ø   yī   Magdala
Mary   **DEM.HU COMP** emerge:**PFV** Magdala
"Mary who came from Magdala" (Mk 16:9)

A probable case of a verb taking a prepositional phrase as complement in a metaphorical sense is *dɔ̄l*[la/] "accompany a person in subordinate rôle", which with *nɛ̄* means rather "be in accordance with":

> *Li dolne lin sob Wina'am gbauŋin si'em la ye ...*
> *Lì   dɔ̀l   nɛ̄   lín   sɔ̄b   Wínà'am gbáu̯ŋūn   sī'əm   lā   yɛ̄ ...*
> **3NH** follow with **3NH:COMP** write:**PFV** God   book:**SG:LOC INDF.ADV ART** that ...
> "This is in accordance with what is written in God's book ..." (1 Cor 2:16)

25.5 Clausal Complements

Certain verbs require a following clause with a Verbal Predicator in Imperative Mood introduced by a linker particle *kà* or *yɛ̄* 31.2 . They include like *kɛ̄*[+] "let", *mìt* "let not", *nār*[a/] "be obliged to." Of these, *kɛ̄*[+] does not appear at all without a following *kà*-clause, while if *nār*[a/] appears without there is a necessarily anaphoric sense; *mìt* appears with a NP object in the sense "beware of..." 35.1.1 .

The verb *bɔ̀ɔd*[a] "want, love" takes a *yɛ̄*-purpose clause in the sense "want to ..."; without any object it has an anaphoric meaning in either sense.

The verb *gūr*[a/] "be on guard, watch, wait for" takes a NP headed by a gerund or a *yɛ̄*-purpose clause complement to express "waiting for an event"; both in this case and elsewhere the "purpose" sense is reduced to mere expectation.

Verbs of cognition, reporting, and perception have as complement a Content Clause, a Relative Clause with *sī'əm*, or a postpositional AdvP with *yɛ̄lá* "about." Most such verbs have an anaphoric sense without such an object.

The verb *àe̯ñ*[ya] "be something/somehow", which is uniquely flexible in the variety of different types of argument it may appear with, may take a clause introduced by *yɛ̄* as a complement too 26.2 .

Supplement Clauses 31.3 may appear as predicative clausal complements.

25.6 Adjuncts

Adjuncts of all types occur as the last element in the VP. Several VP adjuncts may occur together. Main Clauses and Content Clauses with a Verbal Predicator may contain clause-level adjuncts preceding the subject 30.1.1 .

VP Adjuncts may be AdvPs, prepositional phrases, or subordinate clauses.

> *Bà   dìt   nɛ̄ sā'ab   dɔ́-kàŋā   lā   púʋgūn.*
> **3PL** eat:**IPFV FOC** porridge hut-**DEML.SG ART** inside:**SG:LOC**.
> "They're eating porridge in that hut."

A subordinate clause after a verb is most often a complement:

Fù bɔ́ɔ̀d bɔ́ ⁺*ø?*   "What do you want?"
2SG want what **CQ**?

M̀ bɔ́ɔ̀d yɛ́ fù kūl.
1SG want that **2SG** return.home:**PFV**.
"I want you to go home."

Content clauses 31.4 are always complements:

Bʋ̀ŋ-bāň̉ad zī̉ yɛ tɛ̄ŋ tʋ́llā ⁺*ø.*
Donkey-rider:**SG NEG.KNOW** that ground:**SG** be.hot **NEG**.
"The donkey-rider doesn't know the ground is hot."

25.7 Verb-Phrase-Final Particles

The particles *nā* "hither" and *sà* "hence; ago" follow any complements. The verb *kɛ̄ň*⁺ "come" is invariably used with *nā*; the imperative SF *kɛ̀m*, which coincides for *kɛ̄ň*⁺ "come" and *kɛ̄ŋ*ᵉ/ "go", is always disambiguated by the fact that it is followed by *nā* or *sà* respectively: *kɛ̀m nā!* "come" *kɛ̀m sá!* "go!"

Examples:

M̀ mɔ́r kú̉ɛ̀m náa ⁺*ø?*   "Shall I bring water?" SB
1SG have water hither **PQ**?

bùgʋ́m lā yít yáa nì ná ⁺*ø?*
Fire **ART** emerge:**IPFV** where **LOC** hither **CQ**?
"Where is the light coming from?"

Fù yí yáa nì ná ⁺*ø?*
2SG emerge:**PFV** where **LOC** hither **CQ**?
"Where have you come from?" WK

Sà is often used temporally, for "since" or "ago":

O daa pun ane ninkuud hale pin'ilugin sa.
Ò dāa pún à nɛ̄ nīn-kʋ́ʋ̀d hālí pīň̉ilʋ́gūn sá.
3HU TNS previously **COP FOC** person-killer:**SG** even beginning:**SG:LOC** since.
"He was a murderer from the beginning." (Jn 8:44)

Fu na baŋ li nya'aŋ sa.
Fù ná báŋ   lì   ňyá'aŋ sá.
2SG UNR realise:**PFV 3NH** behind since.
"You will come to understand afterwards." (Jn 13:7, 1976)

Lazarus pun be yaugin ne daba anaasi sa.
Lazarus pún   bɛ̀ yávgūn   nɛ̄ dābá‿ ànāasí   sà.
Lazarus previously **EXIST** grave:**SG:LOC** with 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:

Kɛ̀m   nā   n   gɔ̄s.   "Come and look!" SB
Come:**IMP** hither **SER** look:**PFV**.

Man ya'a pu keen na tu'asini ba...
Mān   yá' pū   kɛ̄ɛn   nā‿ ø   tú'asīní‿   bā...
1SG.CNTR if   **NEG.IND** come:**PFV:REM** hither **SER** talk:**PFV:REM 3PLO**...
"If I had not come to talk to them ..." (Jn 15:22)

Nā⁺/ and *sà⁺* often follow any article *lā⁺/* ending an *ǹ*-Clause containing them:

ba diib n yit na'ateŋ la na zug
bà dīıb ǹ   yīt   ná'-tɛ̄ŋ   lā nā   zúg
3PL food **COMP** emerge:**IPFV** king-land:**SG ART** hither upon
"because their food came from the king's land" (Acts 12:20)

one tum m la na
ɔ̀nı‿ ø   tòmı‿   m   lā nā
DEM.HU COMP send:**PFV 1SGO ART** hither
"the one who sent me here" (Jn 12:44, 1976)

tiname kpen' Rome teŋin la na
tīnámì‿ ø   kpɛ̀ň'   Rome tɛ́ŋīn   lā nā
1PL   COMP enter:**PFV** Rome land:**SG:LOC ART** hither
"after we had entered Rome" (Acts 28:16, 1976; the 1996 version has *...nā lā*)

kokor kaŋa lini yi arazana ni la na
kùkɔ̄r-káŋā   línì‿   ø   yí   àrazánà ní lā nā
voice-**DEML.SG DEM.NH COMP** emerge:**PFV** sky:**SG   LOC ART** hither
"this voice which came from heaven" (2 Pet 1:18, 1976)

I have not been able to discover any principle determining whether *nā*[+/]
precedes the article or not. The article is not usually placed alone between the verb
kɛ̌ň[+] and its associated *nā*[+/], but even this is not invariable, and there are closely
parallel constructions in the NT showing both *nā lā* and *lā nā* .

ňwādɪg kánì⌣ ø   kɛ̄n   nā   lā
month   **DEM.SG COMP** come:**IPFV** hither **ART**
"next month" SB

*dunia kane ken **la na***
dūnɪyá-kànɪ⌣ø   kɛ̄n   lā   nā
world-**DEM.SG COMP** come:**IPFV ART** hither
"the word which is coming" (Lk 20:35)

*saŋkan ka m na leb **na la***
sān-kán   kà   m̀ ná lɛb   nā   lā
time-**DEM.SG** and **1SG UNR** return hither **ART**
"when I come back" (Rom 9:9)

*M mi' ye ya iedne Yesu one yi Nazaret **na la**...*
M̀   mí[ʔ]   yɛ́ yà ìəd   nɛ̄ Yesu ɔ́nì⌣ ø   yī
1SG know that **2PL** seek:**IPFV FOC** Jesus **DEM.HU COMP** emerge:**PFV**
Nazaret   nā   lā...
Nazareth hither **ART**
"I know that you are looking for Jesus who came from Nazareth..." (Mk 16:6)

*Ti iedne Yesu one yi Nazaret teŋin **la na**.*
Tì   íəd   nɛ̄ Yesu ɔ́nì⌣   ø   yī
1PL seek:**IPFV FOC** Jesus **DEM.HU COMP** emerge:**PFV**
Nazaret   tɛ́ŋīn   lā   nā.
Nazareth land:**SG:LOC ART** hither
"We are looking for Jesus who came from Nazareth." (Jn 18:7)

*M diib ane ye m tum one tumi m **la na** boodim n naae.*
M̀   dīɪb á   nɛ̄ yɛ́ m̀ túm   ɔ̀nɪ⌣ ø   tùmɪ   m   lā nā
1SG food **COP FOC** that **1SG** work:**PFV DEM.HU COMP** send:**PFV 1SGO ART** hither
bɔ́ɔdìm n   nāe.
will   **SER** finish:**PFV**.
My food is that I do the will of him who sent me completely. (Jn 4:34)

*ti tum one tum man **na la** tuuma.*

tì   túm   ɔ̀nι⌣   ø   tʊ̀m   mān   nā   lā   tʊ̄ʊma

1PL work:**PFV DEM.HU COMP** send:**PFV 1SG.CNTR** hither **ART** work

"Let us do the work of him who sent me." (Jn 9:4)

VP-final particles can also follow the *gerund* of a verb which is associated with such a particle, and again may follow the assocated article:

Nidib la daa gur Zekaria yiib na.

Nīdιb   lā dāa gūr   Zekaria   yîb   nā.

Person:**PL ART TNS** watch Zechariah emerge:**GER** hither.

The people were watching for Zechariah's coming out. (Lk 1:21)

Ka Ninsaal Biig la ken la na, na wenne wuu saa naani iank ya nya'aŋ n ti paae
 ya tuona la.

Kà   Nīn-sáàl   Bîg   lā kɛn   lā nā   ná

And Person-smooth:**SG** Child:**SG ART** come:**GER ART** hither **UNR**

wɛ̄n   nɛ̄ wʊ̄ʊ sāa⌣   ↓   nāanι įáňk   yà ňyáʔaŋ

resemble with like rain:**SG COMP** then   jump:**PFV 2PL** behind

n   tí   pāé⌣   yà tùɵna   lā

SER afterwards reach:**PFV 2PL** before.**ADV ART**

"The coming of the Son of Man will be like when lightning leaps from
  East to West" (Mt 24:27)

26 The Verbs "to be"

26.1 *Bɛ̀⁺* "be somewhere, exist"

Unlike Pattern O perfectives, *bɛ̀⁺* is followed by L Raising even when not subjected to tone overlay by Independency Marking; it is formally as well as semantically imperfective, despite being a bare root with no suffix.

With no associated locative *bɛ̀⁺* means simply "exist":

Wínà'am bɛ́.   "God exists."
God   **EXIST**.
(Calque of the West African Pidgin *God dey*, used in senses like
"Don't worry, it'll all work out in the end" or "He's got it coming to him.")

Àláafʋ̀ bɛ́·ō‿ ø.   "She's well." ("Health exists for her.")
Health **EXIST**   **3HUO**.

Wāad   bɛ́.   "It's cold."
Cold.weather **EXIST**.

With a locative complement *bɛ̀⁺* means "be located in a place" if the focus is on the locative 34.1.1.3 , or "exist in a place" if the focus is on the subject; Kusaal does not have separate verbs for these two meanings.

Mam bene moogin.
Mām   bɛ́   nɛ̄ mɔ̄ɔgʋn.
1SG.CNTR EXIST FOC grass:**SG:LOC**.
"I'm in the bush." BNY p8 (focus on the locative)

Moogin ka mam bɛ.
Mɔ̄ɔgʋ́n   kà   mām   bɛ́.
Grass:**SG:LOC** and **1SG.CNTR EXIST**.
"I'm in the bush." BNY p10 (*kà*-preposed locative)

Dāu̯   lā bɛ́ nɛ̄ dɔ́-kàŋā   lā pʋ́ʋgūn.
Man:**SG ART EXIST FOC** hut-**DEML.SG ART** inside:**SG:LOC**.
"The man is inside that hut." (Reply to "Where is that man?"; focus on locative)

Dàu̯-sɔ̄'   bɛ́ dɔ́-kàŋā   lā pʋ́ʋgūn.
Man-**INDF.HU EXIST** hut-**DEML.SG ART** inside:**SG:LOC**.
"There's a certain man in that hut." (focus on subject)

Bὲ⁺ is common in Presentational Constructions 34.4 .

For the corresponding negative *kā²ẹ*⁺ see 35.1.1 . *pū bέ is not used.

Bὲ⁺ plays a rôle analogous to a "passive" to *mɔ̄r*ᵃ/ "have" in constructions like:

* M̀*	*bīig*	*bέ.*	"I have a child."; equivalent to
1SG	child:**SG**	**EXIST**.	

M̀	*mɔ́r*	*bīig.*	
1SG	have	child:**SG**.	

M̀	*bīig*	*kā²e* ⁺ø.	"I have no child."; equivalent to
1SG	child:**SG**	**NEG.BE NEG**.	

M̀	*kā²*	*bīiga* ⁺ø.	
1SG	**NEG.HAVE**	child:**SG NEG**.	

Bὲ⁺ can be used in direct commands:

Bὲέ‿ànínā.		"Be (i.e. stay) there!" SB
EXIST	**ADV**:there.	

Bὲēní‿	*àlá*	*ànínā.*	"Be ye there!" [bɛ:nala anina]
EXIST:2PLS	**ADV**:thus	**ADV**:there.	

26.2 *Àẹ̃*ʸᵃ "be something/somehow"

The *ẹ* of the SF of *àẹ̃*ʸᵃ is always lost except on the rare occurrence of the word phrase finally 9.1.3 .

Ò	*à*	*nɛ̄*	*bīig.*	"She is a child."
3HU	**COP**	**FOC**	child:**SG**.	

Ò	*dāa á*	*nɛ̄*	*bīig.*	"She was a child."
3HU	**TNS**	**COP FOC**	child:**SG**.	

Lì	*à*	*súŋā.*	"It's good."
3NH	**COP**	good:**ADV**.	

but   *Mānι‿   ø á dṵˀátà   kà fūn   mɛ́n áe̯ň.*
         1SG.CNTR SER COP doctor:**SG** and **2SG.CNTR** also   **COP**.
         "I'm a doctor and you are too."

The usual negative form is with the negative verb *kā̄ˀe̯*[+] "not be":

    *M̀ kā̄ˀ   dṵˀátāa * [+]*ø.*   "I'm not a doctor."
         1SG NEG.BE doctor:**SG NEG**.

However, *pū áe̯ň* can occur, for example in contrasts:

    *Mānι‿   ø á dṵˀátà   àmáa fūn   pū   áe̯ňyā * [+]*ø* .
         1SG.CNTR SER COP doctor:**SG** but   **2SG.CNTR NEG.IND COP**   **NEG**.
         "I'm a doctor but you aren't."

Àe̯ň[ya] can be used in direct commands:

    À   bāaňlím!   "Be quiet!"
         COP quiet:**ABSTR**!

    Àāní‿   àlá   bāaňlím!   "Be (ye) quiet!"
         COP:2PLS ADV:thus quiet:**ABSTR**!

       As with English copular clauses, the sense may be ascriptive or specifying (cf Huddlestone and Pullum p266.) If it is **ascriptive**, the complement is non-referring, and almost always focussed with *nɛ̄*[+/] 34.1.1.3 if syntactically permitted 34.1.1.2 :

    Ò   à   nɛ̄ bīig.   "She is a child."
         3HU COP FOC child:**SG**.

    *Ò   à   nɛ̄ bíigàa * [+]*ø?*   "Is she a child?"
         3HU COP FOC child:**SG PQ**?

       In the **specifying** construction, however, focus frequently falls on the subject, which usually then has *n*-focus 34.1.2 :

    Mane a konbkem suŋ la.
    Mānι‿   ø á kɔ́ňb-kìm-sὺŋ   lā.
         1SG.CNTR SER COP animal-tender-good:**SG ART**.
         "I am the good shepherd." (Jn 10:11)

Mane a o.   "I am he." (Jn 18:5, 1976) 9.3.1 .

Mānι‿ ø áň·ō‿ ø.
1SG.CNTR SER COP   3HUO.

Nɔbibisi a mam disuŋ.

Nɔ̄-bíbιsì‿ ø á mām dí-sùŋ.
Hen-small:**PL SER COP 1SG.CNTR** food-good:**SG**.
"Chicks are my favourite food." BNY p13

Ne'eŋa a Yesu [...] *yaanam yela.*

Nɛ̄ˀŋá à Yesu [...] *yáa-nám yɛ́là.*
DEM.NH COP Jesus [...] ancestor-**PL** about.
"This is the account of Jesus' ancestors." (Mt 1:1)

When the complement of *àe̯ň*ʸᵃ is definite, the construction is usually specifying, with the subject in focus:

M̀ á nɛ̄ du̯ˀátà.   "I'm a doctor." ("What do you do?")
1SG COP FOC doctor:**SG**.   Ascriptive.

but   *Mānι‿ ø á du̯ˀátà   lā.*   "I'm the doctor." ("Which one is the doctor?")
      1SG.CNTR SER COP doctor:**SG ART**.   Specifying.

However, definite complements may nevertheless be in focus as "pragmatically non-recoverable" because of their internal structure or other factors: see examples in 34.1.1.3 .

*Àe̯ň*ʸᵃ allows a wide range of different types of NP as arguments. It shares with Adjectival Verbs the ability to take an AdvP of any type as subject 22.5 :

Zīná a nɛ̄ dáˀa.   "Today [time] is market."
Today **COP FOC** market:**SG**.

Yiŋ venl, ka poogin ka'a su'um.

Yìŋ   vɛ́ňl   kà pūʋgʋn   kāˀ 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)

Man noŋi ya si'em la ane bedego.

Mán   nɔ̀ŋι‿ yā sīˀəm lā á nɛ̄ bɛ́dʋgū.
1SG:COMP love   **2PLO INDF.ADV ART COP FOC** much.
"How much I love you [manner], is a lot." (2 Cor 7:3, 1976)

Àe̩ñ^{ya} is remarkable in being able to take a complement consisting of an adjective without any noun head. The article *lā*^{+/} is permitted, but no other dependents apart from ideophones 21.8.1.3.

Lì à nɛ̄ píəlìg.	"It's white, a white one."
Lì à nɛ̄ píəlìg fáss.	"It's very white."
Bà à nɛ̄ píəlà.	"They're white."

Many adjectives do not permit this at all, e.g. *vūr*^{e/} "alive." Deverbal Adjectives used without a preceding cb are interpreted instead as agent nouns 15.1.1.2.1. I did not systematically study which adjectives can be used as NP heads, but the examples in my materials are all either adjectives lacking corresponding Adjectival Verbs, or are used with human reference; the latter is perhaps connected with the complementary phenomenon of the use of human-reference nouns adjectivally 21.8.1.5.

More often, compounds with *nīn-* "person" or *būn-* "thing" + adjective 21.9.3 are used:

Ò à nɛ̄ nīn-sṵ́ŋ.	"She's a good person."
3HU COP FOC person-good:**SG**.	

Dīɪb á nɛ̄ būn-sṵ́ŋ.	"Food is a good thing."
Food **COP FOC** thing-good:**SG**.	

Even those adjectives which may appear without a noun head cannot do so before a post-determining pronoun; thus only

Lì à nɛ̄ būn-píəl-kàŋā.	"It is this white one."

Predicative adjective meanings are also expressed by Adjectival Verbs 13.2.2 and by Result Perfectives 24.2.1.2:

Ò gìm.	"She's short."
Lì zùlɪm.	"It's deep."

Bà kùdʊg nɛ̄.	"They're old."
Ò wàbɪlɪm nɛ̄.	"She's lame."
Ò gɛ̀ɛñm nɛ̄.	"She's mad."

Also characteristic is the use of *àe̩ñ*^{ya} with a manner-adverb as complement

25.2.1 . Such manner-adverbs are often deadjectival. Manner-adverbs resemble abstract mass nouns syntactically, and deadjectival abstract nouns are also used in the same way. Such constructions are naturally ascriptive and generally use *nɛ̄*+/ as would be expected:

> *Lì   à   nɛ̄   náʔanā.*   "It's easy."
> **3NH COP FOC** easily.

> *Lì   à   nɛ̄   zāalím.*   "It's empty."
> **3NH COP FOC** empty**:ABSTR**.

> *Lì   à   nɛ̄   būgʊsígā.*   "It's soft."
> **3NH COP FOC** soft**:ADV**.

However, *àẹ̌ñ* consistently omits focus-*nɛ̄*+/ before certain complements:

> *Lì   à   súŋā.*   "It's good."
> **3NH COP** good**:ADV**.

> *Lì   à   súm.*   "It's good."
> **3NH COP** good**:ABSTR**.

> *Lì   à   bɛ̄ʔɛd.*   "It's bad."
> **3NH COP** bad**:ABSTR**.

> *Lì   à   sīda.*   "It's true."
> **3NH COP** truth.

> [*ye ka*] *o sariakadib a sum ne sida.*
> *ò   sàríyà-kādɪb á   súm   nɛ̄   sīda.*
> **3HU** law-drive   **COP** good**:ABSTR** with truth.
> "His judgments are good and true. (Rev 19:2, 1976)

The examples suggest that this behaviour may be characteristic of evaluative adjectives and equivalents. At any rate, it does not seem to be connected with the abiding or transitory nature of the quality. With other Agentive Invariable Verbs, even without an explicit reference to time, the Bounded Imperfective aspect may occur in the sense of limitation of the state described to a particular time period 24.2.2.2 ; for *àẹ̌ñ*ya this probably only occurs when the focus sense is not possible:

> *Lì   dāa   á   súŋā.*   "It was good." WK
> **3NH TNS COP** good:**ADV**.

> *Lì   dāa   á   nɛ̄   súŋā.*   "At the time, it was good." WK
> **3NH TNS COP FOC** good:**ADV**.
>
> = *Sān   kán   lā,   lì   dāa á   nɛ̄   súŋā.*
>   Time **DEM.SG ART**, **3NH TNS   COP FOC** good:**ADV**.

> *Lì   à   nɛ̄   súŋā.*   "It's good." ("Now; it wasn't before." WK)
> **3NH COP FOC** good:**ADV**.

Àe̤ŋ̌^ya may take other types of AdvP as complement too; thus with a
Circumstance AdvP:

> *Dine kɛ ka m a saalbiis zua la anɛ*
> *mam pu sa'amidi ba la'ad ka mɛ pu diti ba ki la.*
> *Dìnɪ‿ ø   kɛ́   kà m̀ á sáàl-bīis   zṳá   lā á nɛ̄*
> **DEM.SG COMP** cause:**PFV** and **1SG COP** smooth-child:**PL** friend:**SG ART COP FOC**
> *mán   pū   sáʔamìdí‿ bà lāʔad   kà mɛ́ pū   dítí‿   bà kī*
> **1SG:COMP NEG.IND** spoil:**IPFV**   **3PL** goods:**PL** and also **NEG.IND** eat:**IPFV 3PL** millet
> *láa   ⁺ø.*
> **ART NEG.**
> "What makes me the friend of human beings is
> my not spoiling their property or eat their millet." BNY p20

Àe̤ŋ̌^ya may also take a clause introduced by *yɛ̄* as a complement:

> *M diib ane ye m tum one tumi m la na boodim n naae.*
> *M̀ dīɪb á nɛ̄ yɛ́ m̀ túm   ɔ̀nɪ‿ ø   tʊ̀mɪ   m lā nā*
> **1SG** food **COP FOC** that **1SG** work:**PFV DEM.HU COMP** send:**PFV 1SGO ART** hither
> *bɔ́ɔdìm n   nāe.*
> will   **SER** finish:**PFV**.
> My food is that I do the will of him who sent me completely. (Jn 4:34)

27 Non-Verbal Predicators

Non-verbal Predicators may only occur in Main Clauses and Content Clauses. There are four types (X standing for a NP):

X *n lā.*	"That is X."
X *n ňwá.*	"This is X."
X *n wá nā.*	"This here is X."
X *lía?*	"Where is X?"

The particle *n* in these forms is the same phonologically as VP Serialiser *n* 9.3.2.1.2 and is here regarded as a special use of the same particle.

The three forms which are not in themselves questions can be used to make content questions with an interrogative pronoun as "X."

Clauses with a Non-verbal Predicator cannot include any pre-subject elements other than linker particles, nor any post-subject particles, nor be focussed.

Examples:

Kʋ̀lιŋι‿ ø lā.   "That's a door."
Door:**SG SER** that.

Bɛ̄ogʋ‿ ø lā.   "See you tomorrow" ("That's tomorrow.")
Tomorrow **SER** that.

Fʋ̀ mà   lā lía   ⁺ø?
2SG mother:**SG ART** be.where **CQ**?
"Where is your mother?" WK

Ka awai la dia [sic]*?*   "But where are the nine?" (Lk 17:17, 1976)
Kà àwāẹ lā lía   ⁺ø?
And **NUM:**nine **ART** be.where **CQ**?

Bɔ̄ɔ‿ ø lá ⁺ø?   "What's that?"
What **SER** that **CQ**?

Non-verbal Predicators may have a serial-verb construction appended to them, or there may be a Supplement *kà*-clause 31.3 modifying X; *kà* is used to introduce a subject different from X, the serial-verb construction otherwise. The resulting constructions are variants of *n*-clefting and *kà*-clefting 34.1.2 34.2.

Ano'on nwa n yiisid nidib tuumbe'ed n basida?

Ànɔ́ʔɔ̀n‿ø ňwá n yīisíd   nīdɩb   túʋ̀m-bɛ̄ʔɛd

Who   **SER** this **SER** expel:**IPFV** person:**PL** deed-bad:**PL**

n   básɩdà   ⁺ø?

SER throw.out:**IPFV CQ**?

"Who is this who drives people's sins out?" (Lk 7:49)

Ɔ̄nɩ‿ ø lá kà fʋ̀ dāa ňyɛ̄t.

DEM.HU SER that and **2SG TNS** see:**IPFV**.

"This is he whom you saw." WK

Ànɔ́ʔɔnì‿ø ňwá kà   tì   ňyɛ̄tá ⁺ø?

Who   **SER** this and **1PL** see:**IPFV CQ**?

"Who is this that we can see?"

Bɔ̄ɔ‿ø lá   kà m̀ ňyɛ̄tá ⁺ø?

What **SER** that and **1SG** see:**IPFV CQ**?

"What is that that I can see?"

28 Serial Verb Phrases

28.1 Serial Verb Phrases: Overview

Kusaal, like many West African languages, makes extensive use of serial verb constructions. A clause may contain a single verb phrase or Non-verbal Predicator, or may add potentially any number of further verb phrases each preceded by the Serialiser particle *n*. (For the realisation of this particle, see 9.3.2.1.2 .) Complements and VP adjuncts (even clauses) are incorporated within such chains of VPs.

*Amaa ka Zugsob malek daa keŋ n yo'og sarega doog za'anoor la **yu'uŋ kan**, n more ba n yiis yiŋ.*

Àmáa kà Zūg-sɔ́b   málɛ̄k dāa kēŋ   n   yɔ́ˀɔ̀g   sārɩgá   dɔ́ɔ̀g
But   and head-one:**SG** angel:**SG TNS** go:**PFV SER** open:**PFV** prison:**SG** house:**SG**
záˀ-nɔ̄ɔr   lā yū̄ˀuŋ-kán,   n   mɔ̄rí‿ bā n   yīis   yíŋ.
compound-mouth:**SG ART** night-**DEM.SG**, **SER** have   **3PLO SER** extract:**PFV** outside.
"But an angel of the Lord came and opened the gate of the prison **that night** and took them outside ..." (Acts 5:19)

*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 dàu̯-sɔ̄ˀ   dūe   n zíˀe láˀasùg   lā nīdɩb   sísùʋgūn,
And man-**INDF.HU** rise:**PFV SER** stand assembly:**SG ART** person:**PL** among:**LOC**,
n   á   Parisee níd   kà ò   yū̄ˀur   búèn   Gamaliel, n á ɔ́nì‿
SER COP Pharisee person:**SG** and **3HU** name:**SG** call:**IPFV** Gamaliel, **SER COP DEM.HU**
ø   pàˀan   Wínàˀam wádà lā yɛ́là,   kà lɛ́m à   yū̄ˀur   dáàn
COMP teach:**IPFV** God   law   **ART** about, and again **COP** name:**SG** owner:**SG**
nīdɩb   sáˀàn.
person:**PL** among.
"A man stood up in the assembly, being a Pharisee **called Gamaliel**, and being a teacher of God's law and also being reputable among the people."
(Acts 5:34, 1976)

Verb phrases within such a chain may be coordinations of component verb phrases linked by *kà* "and" or *bɛ̄ɛ*/*kūʋ* "or" 28.2 .

Normally only the first Verbal Predicator carries tense and polarity particles, which apply to the entire chain; verbs each retain the Modal Remoteness marker *n*[e] however, and while an initial Unrealised Mood marking applies to the whole chain, a predicator following an Indicative may be in the Unrealised Mood, in which case it will be marked itself.

The particle-verb *tì* is often found with non-initial VPs.

Change in polarity within a chain is rare; if there is a change of polarity the construction is normally replaced by coordination of Serial VPs 28.2 or a Supplement Clause (the only case where a Supplement Clause can have the same subject as the main clause before it 31.3):

Ka dau daa zin'i Listra ni ka pu tun'e kenna.
Kà   dāu̲   dāa zíñˀi Listra ní   kà   pū   tūñˀe‿   ø   kɛ̄nná ⁺*ø.*
And man:**SG TNS** sit   Lystra **LOC** and **NEG.IND** be.able **SER** go:**IPFV**   **NEG**.
"There was a man in Lystra who could not walk." (Acts 14:8)

Ka Joon kena lood noor ka pu nuud daam
Kà   Joon kɛ̄   nā̲‿   ø   lɔ́ɔd   nɔ̄ɔr   kà   pū   nūud
And John come:**PFV** hither **SER** tie:**IPFV** mouth:**SG** and **NEG.IND** drink:**IPFV**
dáamm ⁺*ø.*
beer   **NEG**.
"John came, fasting and not drinking beer." (Mt 11:18)

A change from positive to negative polarity is possible, however:

Ya sieba be kpela n ku kpii asee ba ti nye Wina'am na'am la.
Yà   sīəba bɛ́   kpɛ̄lá n   kú   kpīi ⁺*ø,   àsɛ́ɛ   bà   tì*
2PL INDF.PL EXIST here **SER NEG.UNR** die **NEG**, except **3PL** afterwards
ňyɛ̀   Wínàˀam náˀàm   lā.
see:**PFV** God   kingdom **ART**.
There are some of you here who will not die before they see the kingdom of
 God." (Lk 9:27)

This is possibly licensed by the presentational character of the main VP 34.4.

In the case of

Da lo ya nindaase, wenne foosug dim la niŋid si'em la.
Dā   lɔ́   yà   nīn-dáasē ⁺*ø,   wɛ̄n   nɛ̄   fɔ̄ɔsúg dím   lá‿   ø*
NEG.IMP tie:**PFV** **2PL** eye-face:**PL NEG**, resemble with puff:**GER** individual.**PL ART   COMP**
níŋìd   sīˀəm   lā.
do:**IPFV   INDF.ADV ART**.
"Don't screw up your faces like the hypocrites do." (Mt 6:16, 1976)

the construction reflects the reanalysis of *wɛ̄n*ⁿᵃ/ "resemble" as a preposition 23.3.

Verbal Predicators in a chain each have their own aspect marking, which need not necessarily be the same throughout.

In all serial-verb chains the order of events, if they are not simultaneous, is iconic; it must be reflected in the order of the VPs 24.2.1.1 .

Which VP in a chain is semantically the "principal" verb phrase is, as this example suggests, not determinable from the order; many verbs have characteristic "auxiliary" or subordinate rôles in chains and whether they precede or follow the "main" verb depends on their own semantics.

A Serial VP can be attached after a Non-verbal Predicator 27 :

Ano'on nwa n yiisid nidib tuumbe'ed n basida?
Ànɔ́ʔɔ̀n‿ ø ňwá n yīisíd   nīdɪb   túʋ̀m-bɛ̄ʔɛd
Who   SER this SER expel:IPFV person:PL deed-bad:PL
n   básɪdà   +ø?
SER throw.out:IPFV CQ?
"Who is this who drives people's sins out?" (Lk 7:49)

Common patterns with verbs without specialised Serial-VP uses include (a) main VP + imperfective VP expressing accompanying events:

Ka Ninsaal Biig la kena dit ka nuud...
Kà Nīn-sáàl   Bīig kɛ̄n   nā‿ ø dít   kà nūud ...
And Person-smooth:SG child:SG come:IPFV hither SER 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 ye fupiela n zi'e ba sa'an.
Kà dāpá‿ àyí   yɛ́   fū-píəlà   n zìʔe bà sāʔan.
And man:PL NUM:two dress:PFV shirt-white:PL SER stand 3PL among.
"Two men dressed in white were standing with them." (Acts 1:10)

(c) main VP + perfective VP in Unrealised or Imperative Mood, expressing purpose.

...ka pu mor antu'a o yela na sob n tis on na'atita'are.
...kà pū   mɔ̄r ántùʔa ò yɛ̄lá‿ ø na sɔ̄b   n tís
...and NEG.IND have case:SG 3HU about SER UNR write:PFV SER give:PFV
ɔ̄n   náʔ-tītāʔare   +ø.
3HU.CNTR king-great:SG NEG.
"...and he had no case about him to write to his Emperor." (Acts 25:26, 1976)

Man ya'a pu keen na tu'asini ba...

Mān   yá⁷ pū   kɛ̄ɛn   nā‿   ø   tʊ́⁷asīní‿   bā...

1SG.CNTR if   **NEG.IND** come:**PFV:REM** hither **SER** talk:**PFV:REM** **3PLO**...

"If I had not come to talk to them ..." (Jn 15:22)

(note that both verbs have the Modal Remoteness clitic)

Kɛ̀m‿   ø   tí   ňyɛ̄   dʊ̠⁷átà.

Go:**IMP SER** afterwards see:**PFV** doctor:**SG**.

"Go and see the doctor."

There seems always to be semantic subordination involved in the Serial VP construction; the equivalent in translation in European languages would often be a participle modifying the main verb subject. The construction is not used to narrate a series of events, which is the rôle of Sequential Clauses 30.3.2 .

28.2 Coordination

VPs in serial-verb constructions can be coordinated with *kà* "and", *bɛ̄ɛ* "or", *kʊ̄ʋ* "or"; *bɛ̄ɛ* and *kʊ̄ʋ* are here synonymous.

Bà bɛ̀ɛ́‿ ànínā   n   wā⁷ad   bɛ̄ɛ yūum   yūumá.

3PL EXIST   **ADV:**there **SER** dance:**IPFV** or   sing:**IPFV** song:**PL**.

"They're in the process of dancing or singing."

ka keŋ ... n ian'asid ka pian'ad n du'osid Wina'am yu'ur su'uŋa.

kà   kɛ̄ŋ ...   n   i̠ā̄ň⁷asíd kà   pi̠ā̄ň⁷ad   n   dū⁷ɵsíd

and go:**PFV** … **SER** leap:**IPFV** and praise:**IPFV SER** elevate:**IPFV**

Wínà⁷am yú⁷ùr   súŋā.

God   name:**SG** good:**ADV**.

"and went ... leaping and praising the name of God greatly." (Acts 3:8)

Sogia so' kae' n tum ka yood o meŋa.

Sɔ́gi̠à-sɔ̄⁷   kā⁷e   n   túm   kà   yɔ̄ɔd   ò   mɛ̄ŋá ⁺ø.

Soldier-**INDF.HU NEG.BE SER** work:**IPFV** and pay:**IPFV 3HU** self   **NEG**.

"No soldier works and pays for himself." (1 Cor 9:7, 1976)

28.3 Auxiliary Verbs in Serial VPs

Certain verbs have characteristic specialised meanings in Serial VP constructions. Variable Verbs of this type agree in aspect with the main VP verb.

28.3.1 Preceding the Main VP

bɛ̀[+] "exist, be somewhere" + *ànínā* "there" + ipfv "be in the process of ..."

> *Ò   bɛ̀   ànínā   n   ňwɛ́ˀɛ̀d   bīig   lā.*
> **3HU EXIST ADV:** there **SER** beat:**IPFV** child:**SG ART**.
> "He's currently beating the child."

àẹ̌ŋ[ya] "be something/somehow" : the construction seen in

> *Ka li ane o sidi so'e.*
> *Kà   lì   á   nɛ́   ò   sīdι‿   ø   sῡˀe.*
> And **3NH COP FOC 3HU** husband:**SG SER** own.
> "It's her husband who owns it." (1 Cor 7:4, 1976)

is parallel to the Supplement *kà*-clause type 31.3 but with the subject of the main clause as antecedent. By ellipsis, this construction gives rise to *n*-focus 34.1.2 , which uses this same particle *n*.

zῑ̄ˀ[+] "not know": *nàm zῑ̄ˀ n* + perfective "never have X-ed"

> *M̀   nám zῑ̄ˀ‿   ø   ňyɛ̄   gbῑgιmne* [+]*ø.*
> **1SG** still   **NEG.KNOW SER** see:**PFV** lion:**SG**   **NEG**.
> "I've never seen a lion." SB

zàŋ[e] and ***nɔ̄k***[e/] "pick up, take" with object "using" (of a literal object as instrument)

> *M̀   nɔ́k   sῠ́ˀυgὺ‿ø   kί̰á   nῑm   lā.*
> **1SG** pick.up:**PFV** knife:**SG SER** cut:**PFV** meat:**SG ART**.
> "I cut the meat with a knife."

> *M̀   záŋί‿   m̀ núˀugὺ‿ø   sῑ̄ˀιs   dāká   lā.*
> **1SG** pick.up:**PFV 1SG** hand:**SG SER** touch:**PFV** box:**SG ART**.
> "I touched the box with my hand."

Contrast the semantically ill-formed

??*M̀ záŋí‿   m̀ nú^ʔùg kà sī^ʔıs   dāká lā.*
1SG pick.up:**PFV** **1SG** hand:**SG** and touch:**PFV** box:**SG** **ART**.
("I picked up my hand and touched the box.")

***mɔ̄r*^{a/} "have" + object "bringing" with motion verbs:**

Dābá‿ àyɔ́pɔ̀ȩ   kà fù mɔ̄r·ó‿ø‿   ø   kɛ̄   nā.
Day:**PL** **NUM:**seven and **2SG** have   **3HUO** **SER** come:**PFV** hither.
"Bring her here in a week." WK

***dɔ̄l*^{la/} "accompany in subordinate rôle"**

Bà dɔ̀ll·ō‿ ø‿   ø   kɛ̄ŋ   Bɔ́k.
3PL follow   **3HUO** **SER** go:**PFV** Bawku.
"They went to Bawku with him."

Beginning verbs naturally precede:

Amaa Piita daa pin'il n pa'ali ba
Àmáa Piita dāa pīň^ʔil   n   pá^ʔalì‿ bā.
But   Peter **TNS** begin:**PFV** **SER** teach:**PFV** **3PLO**.
"But Peter began to tell them." (Acts 11:4)

Tì dɛ́ŋì‿   ø   tís·ò‿   ø   lɔ́r.
1PL precede:**PFV** **SER** give:**PFV** **3HUO** car.
"We previously gave him a car." (*dèŋ*^e "do/go first")

Ka dau so' due n zi'e ...
Kà dàų-sɔ̄^ʔ   dūe   n   zí^ʔe ...
And man-**INDF.HU** rise:**PFV** **SER** stand ...
"And a man (having risen) stood ..." (Acts 5:34)
[*zì^ʔe*^{ya} is "stand (still)" not "stand (up)"]

"**Come**" and "**go**" can be used similarly as initiators:

M̀ kɛ́ŋì‿ ø   pīə nú^ʔùs.
1SG go:**PFV** **SER** wash hand:**PL**.
"I went and washed my hands."

su̯ʾā̄ ^{**a**} "conceal" is used in this construction for "secretly":

> *Ka Herod su'a buol baŋidib la ...*
> *Kà   Herod su̯ʾā̄‿   ø búèl   bā̄ŋɪdɪb   lā ...*
> And Herod conceal:**PFV SER** ask:**PFV** understander:**PL ART**...
> "Herod secretly called for the wise men ..." (Mt 2:7)

ňyāŋ ^{**e/**} means "overcome" as a main verb:

> *Ka m nyaŋ dunia.*
> *Kà   m̀ ňyā̄ŋ   dūnɪya.*
> And **1SG** overcome:**PFV** world:**SG**.
> "I have overcome the world." (Jn 16:33)

As a Serial-VP auxiliary it means "carry out successfully, prevail in":

> *M̀ pū̄   ňyā̄ŋɪ‿   ø záb   nà̀ʾab láa ⁺ø.*
> **1SG NEG.IND** prevail:**PFV SER** fight:**PFV** chief:**SG ART NEG**.
> "I wasn't able to fight the chief."

Unlike English *can*, *ňyāŋ* ^{e/} expresses events and not states. Thus, to express present ability or inability, the auxiliary is in the Unrealised Mood:

> *M̀ kʊ́   ňyā̄ŋɪ‿   ø záb   nà̀ʾab láa ⁺ø.*
> **1SG NEG.UNR** prevail:**PFV SER** fight:**PFV** chief:**SG ART NEG**.
> "I can't fight the chief." ("I won't succeed in fighting the chief.")

If the main verb is Imperfective the auxiliary is imperfective too; it must be Unbounded:

> *Wad line nyaŋedin ketin ka nidib voen.*
> *Wā̄d-línì‿   ø   ňyā̄ŋídīn‿   ø kɛ̄tín   kà nīdɪb   vū̄ʋn.*
> Law-**DEM.NH COMP** prevail:**IPFV:REM SER** cause:**IPFV:REM** and person:**PL** be.alive:**REM**.
> "A law which could make people live." (Gal 3:21)

tūň'e means "be able"; it occurs almost always as an auxiliary. A rare example of independent use appears in:

> *ba daa tis ka li zemis ba paŋ tun'e si'em*
> *bà dāa tís   kà lì zēmís   bà pàŋ   ø   tūň'e sī'əm*
> **3PL TNS** give:**PFV** and **3NH** become.equal:**PFV 3PL** strength:**SG COMP** be.able **INDF.ADV**
> "They gave as much as their strength permitted" (2 Cor 8:3)

I have no examples of the LF, but there are no Imperfective forms in -*d*[a]; instead *tūň'e* occurs before both Perfective and Imperfective main verbs. The verb is thus Invariable. Unlike *ňyāŋ*[e/], *tūň'e* can be construed as expressing a state, and both Indicative and Unrealised Moods can express present ability or inability.

> *ka li ku tun'e n su'aa.*
> *kà lì kú   tūň'e‿ n sṵ'āa   ⁺ø.*
> and **3NH NEG.UNR** be.able **SER** hide:**PFV NEG**.
> "which cannot be hidden" (Mt 5:14)

> *So' kae' na tun'e dol na'anam ayii.*
> *Sɔ́'   kā'e‿ ø ná tūň'e‿ ø dɔ̄l   ná'-nàmá‿ àyíi   ⁺ø.*
> **INDF.HU NEG.BE SER UNR** be.able **SER** follow king-**PL**   **NUM**:two **NEG**.
> "Nobody can serve two kings."
> (Mt 6:24, 1976)

> *Fu tun'e nyet si'ela?*
> *Fù túň'e‿ ø ňyɛ̄t   sí'əlàa ⁺ø?*
> **2SG** be.able **SER** see:**PFV INDF.NH PQ**?
> "Can you see anything?" (Mk 8:23)

> *O pu tun'e pian'ada.*
> *Ò pū   tūň'e‿ ø pḭ̄āň'adá ⁺ø.*
> **3HU NEG.IND** be.able **SER** speak:**IPFV NEG**.
> "He could not speak." (Lk 1:22)

> *Yanam pu tun'e baŋida?*
> *Yānám pū   tūň'e‿ø báŋìdaa   ⁺ø ⁺ø?*
> **2PL.CNTR NEG.IND** be.able **SER** understand:**IPFV NEG PQ**?
> "Can't you understand?" (Mt 15:16)

Tūň'e occurs as auxiliary to *ňyāŋ*[e/] used as a main verb in

bozugo ba ku tun'e nyaŋe ba meŋa.

bɔ́ zúgū bà kừ   tūñˀe‿ ø ňyāŋí‿   bà mɛ̄ŋá ⁺ø.

because **3PL NEG.UNR** be.able **SER** control:**PFV** **3PL** self   **NEG**.

"because they cannot control themselves." (1 Cor 7:5)

28.3.2 Following the Main VP

***tìs**^e* "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.

[*ye*] *O pu ma' n tis ninsaala, amaa* [*ye*] *o ma' n tisne Wina'am.*

Ò   pū   má ́ n tìs   nīn-sáalā   ⁺ø, àmáa ò mà ́

3HU NEG.IND lie:**PFV SER** give:**PFV** person-smooth:**SG NEG** but   **3HU** lie:**PFV**

n tís   nɛ̄ Wínàˀam.

SER give:**PFV FOC** God.

 "He has not lied to a human being; rather, he has lied to God." (Acts 5:4, 1976)

M̀ dāa kúès   bừŋʋ‿   ø tís   dṵˀátà.

1SG TNS sell:**PFV** donkey:**SG SER** give:**PFV** doctor:**SG**.

"I sold a donkey to the doctor."

Contrast the semantically ill-formed

*M̀ dāa kúès   bừŋ   kà tís   dṵˀátà.

1SG TNS sell:**PFV** donkey:**SG** and give:**PFV** doctor:**SG**.

("I sold a donkey and gave it to the doctor.")

***gàad**^e* "pass, surpass" can be used in comparisons:

Isaac kárìm‿   ø gát   John.

Isaac read:**IPFV SER** pass:**IPFV** John.

"Isaac reads better than John." SB

À-Wīn   gím‿   ø gát   À-Būgʋr.

PERS-Awini be.short **SER** pass:**IPFV PERS**-Abugri.

"Awini is shorter than Abugri." SB

Fu noŋi mi n gat bamaa?
Fù nɔ́ŋī‿ mī‿ n gát bámmáa ⁺ø?
2SG love **1SGO SER** pass:**IPFV DEML.PL** **PQ**?
"Do you love me more than these?" (Jn 21:15, 1976)

gàlɪs^e "get to be too much" (as in *Sāa gálìs yā* "There's too much rain") is used intransitively for "too much":

Ò dì n gálìs.
3HU eat:**PFV SER** exceed:**PFV**.
"She's eaten too much."

Dā kárìm gbánà‿ ø gálɪsìdā ⁺ø.
NEG.IMP read:**IPFV** book:**PL SER** exceed:**IPFV NEG**.
"Don't read books too much."

bàs^e "send/go away" is used for "away, off, out":

Bà yìis dāu̯ lā‿ ø bás.
3PL expel:**PFV** man:**SG ART SER** throw.out:**PFV**.
"They threw the man out."

Ano'on nwa n yiisid nidib tuumbe'ed n basida?
Ànɔ́ʔɔ̀n‿ ø ňwá n yīisíd nīdɪb túʋ̀m-bɛ̄ʔɛd n básɪdà ⁺ø?
Who **SER** this **SER** expel:**IPFV** person:**PL** deed-bad:**PL SER** 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‿ ø nāe.
3HU eat:**PFV SER** finish:**PFV**.
"He's finished eating."

Ò dìɪ‿ ø tíg.
3HU eat:**PFV SER** become.satiated:**PFV**.
"He's eaten to satiety."

Motion verbs occur here with meanings like local prepositions e.g.

Ò   kàt   kíkīr-bɛ́ˀɛd-nàm n   yīisíd   nīdɪb.
3HU drive:**IPFV** fairy-bad-**PL**   **SER** expel:**IPFV** person:**PL**.
"He drives evil spirits out of people."

Jesus ban'ad buŋ n kpen'ed Jerusalem
Jesus‿ ø   bāň ˀad búŋ   n   kpɛ́ň ˀɛd Jerusalem
Jesus   **COMP** ride:**IPFV** donkey:**SG SER** enter:**IPFV** Jerusalem
"Jesus riding a donkey into Jerusalem" (picture caption, NT 1976)

Èňrɪgɪm‿   ø   pāa   dṵ ˀátà.
Shift.along:**IMP SER** reach:**PFV** doctor:**SG**.
"Shift along up to the doctor." (*pāe*⁺ᐟ "reach")

Èňrɪgɪm‿   ø   pāá‿   m.
Shift.along:**IMP SER** reach:**PFV 1SGO**.
"Shift along up to me."

***wɛ̄n*ⁿᵃᐟ** "be like": as a main verb it occurs as in e.g.

Ka o nindaa wenne nintaŋ ne.
Kà   ò   nīn-dáa   wɛ̄n   nɛ̄   nīntāŋ nɛ̄.
And **3HU** eye-face:**SG** resemble with sun:**SG** like.
"His face is like the sun." (Rev 10:1)

Wɛ̄n is very common in Serial VP constructions, with the linker *n* nearly always lost. The verb is itself intransitive, but followed by a prepositional phrase as complement, using either *wʊ̄ʋ* "like" or *nɛ̄* "with" 23.1 . Regardless of which preposition is used, if its object does not have the article *lā*⁺ᐟ it is followed by a (meaningless) *nɛ̄*, even if it is a pronoun or proper name. *Wɛ̄n* is used before numbers and measurements for "about, approximately." Numbers standing as NP heads are not followed by the meaningless *nɛ̄*:

Li ane wuu maila ayi ne.
Lì   wɛ̀n   nɛ̄   maila àyí   nɛ̄.
3NH resemble with mile   **NUM:**two like.
"It's about two miles." (Jn 11:18, 1976)

but   *ka ba kal a wuu kobuga ne piisi.*
kà   bà   kāl   á   wʊ̄ʋ kɔ́bɪgā   nɛ̄   pīsí.
and **3PL** number:**SG COP** like hundred with twenty
"and their number was about 120." (Acts 1:15)

Wɛ̄n + complement sequences have been reanalysed as prepositional phrases to a considerable degree 23.3 .

là^ʔam^m "together" is also found as a particle-verb 24.7.2 . In *là^ʔam nɛ̄* "together with" the expression has become a compound preposition 23.3 . It appears as a main verb meaning "associate with":

> *Bà pū   lá^ʔamìd   tāabaa   ⁺ø.*
> **3PL NEG.IND** associate:**IPFV** each.other **NEG**.
> "They don't associate together."

yà^ʔas^e or **yà^ʔas^a** "again" usually lacks *n* and has become effectively an adverb, preposable with *kà* 34.2 . ILK glosses the word as "repeat", but I have no example of its use as a main verb.

> *Ya'as ka m gos ...*
> *Yà^ʔas kà m̀ gɔ̄s ...*
> Again and **1SG** look:**PFV** ...
> "Again I looked ..." (Rev 5:11, 1976)

tì pāe "up until", with the particle-verb *tì* 24.7.2 followed by *pāe^{+/}* "reach", is followed by an *ǹ*-Clause expressing time 33.1.2 :

> *Ba da ditne, ka nuud, ka dit po'ab, ka ke ka po'ab kun sidib, n ti paae dabiskan*
> *ka Noa kpen' aaruŋin la.*
> *Bà dà dìt   nɛ̄, kà nūud,   kà dít   pʊ̄^ʔab, kà kɛ́   kà*
> **3PL TNS** eat:**IPFV FOC**, and drink:**IPFV**, and take:**IPFV** wife:**PL**, and cause:**PFV** and
> *pʊ̄^ʔab kūn   sīdɪb   n tí   pāe   dábìs-kàn*
> wife:**PL** return.home:**IPFV** husband:**PL SER** afterwards reach:**PFV** day-**DEM.SG**
> *kà Noa kpɛ́ñ^ʔ   àñrʊŋʊ̄n   lā.*
> and Noah enter:**PFV** boat:**SG:LOC ART**.
> "They were eating and drinking and marrying and being given in
> marriage up until Noah entered the boat." (Lk 17:27)

28.4 Serial VPs Introduced by *hālí⁺*

Hālí⁺ 23.2 can introduce Serial VPs in the sense "until":

...ka keŋ ia arakon' kane bodig la hale n ti nye o?

...kà kɛ̄ŋ‿ ø   i̯á   àdàkɔ́ñˀ-kànı‿ ø   bɔ̀dıg   lā

...and go:**PFV SER** seek:**PFV NUM:**one-**DEM.SG COMP** get.lost:**PFV ART**

hālí   n   tí   ňyɛ̄·óo   ⁺ø?

until **SER** afterwards see:**PFV:3HUO CQ**?

"... and go and look for the one which is lost until he finds it?" (Lk 15:4)

Ka bene moogin hale n paae saŋkan ka o nie o meŋ Israel dim
 sisoogin la.

Kà   bɛ́   nɛ̄   mɔ̄ɔgʊn   hālí n   pāe   sān-kán   kà ò   níe

and **EXIST FOC** grass:**SG:LOC** until **SER** reach:**PFV** time-**DEM.SG** and **3HU** reveal:**PFV**

ò   mɛ̄ŋ Israel dím   sísʊ̀ʊgūn   lā.

3HU self Israel individual.**PL** among:**LOC ART**.

"... and remained in the bush until the day when he showed himself to
the Israelites." (Lk 1:80, 1976)

29 Clauses

29.1 Basic Clause Structure

Kusaal is strictly SVO; deviations not achieved by *kà*-preposing 34.2 always represent extraposition or dislocation 34.3 . Indirect objects precede direct, and objects precede other complements.

Verb phrases can be concatenated by Serial VP constructions 28 .

Except in certain special circumstances 29.1.1 all clauses require a subject NP.

Clause-level particles may occur at various points within the clause structure. These comprise clause-linker 29.1.2 and post-subject 29.1.3 particles along with Focussing Modifiers 34.6 .

VP adjuncts may follow each VP. Clause-level adjuncts may follow the last VP; it is generally not possible to distinguish these formally from adjuncts of the last VP itself, unless the VP ends in a particle confined to VP-final position 34.3 29.2 . Clause-level adjuncts may also precede the subject, but only in Main or Content Clauses 30.1.1 , and only if they express time or circumstance.

Main Clauses and Content Clauses have similar structures. Both display Independency Marking on the first Verbal Predicator 24.6 , and have structural possibilities not possible for clauses of any other type: they may contain Non-verbal Predicators 27 or lack a predicator altogether 30.2.4 , and they can show clefting or preposing with *kà*, or focus with *nɛ̄*$^{+/}$. *Nɛ̄*$^{+/}$ may follow a Verbal Predicator, precede a verb complement or adjunct, or appear clause-finally 34.1.1 .

29.1.1 Subjects

A VP subject must normally be present; Kusaal is not a pro-drop language, and requires, for example, dummy subject pronouns for impersonal constructions such as

Lì tʋ̀l.		"It (weather) is hot."
3NH be.hot.		

Lì à sʋ́ŋā.		"It's good."
3NH COP good:**ADV**.		(Contrast Mooré *yaa sõama*, with no pronoun)

Lì nàr kà fʋ̀ kūl.		"It's necessary for you to go home."
3NH must and **2SG** return.home:**PFV**.		

The dummy pronoun is 3sg non-human; human-gender *ò* is not found. The dummy subject may be omitted in *yà*ʔ-clauses:

Ya'a ka'ane alaa, m naan ku yeline ya ye ...

Yàˀ kāˀaní‿   àlá,   m̀ nāan kʊ́   yɛ̄lɪní‿   yā   yɛ̄ ...

If   **NEG.BE:REM ADV:**thus, **1SG** then **NEG.UNR** say:**PFV:REM 2PLO** that...

"If it were not so, I would not have told you that ..." (Jn 14:2)

Omission of the 2sg subject pronoun is required in direct commands, unless a presubject adjunct is present. In the contexts where the 2sg pronoun is deleted, the 2pl subject pronoun is transferred to follow the verb as an enclitic.

After clause linker *kà* "and" a pronoun repeating the subject of the previous clause is deleted 29.1.4.2 (though its tone-raising effect remains 10.1 .)

Absence of subject pronouns in other cases is due to ellipsis 29.1.4 ; such structures are informal and are "corrected" by reinsertion of pronouns when informants' attention is drawn to them. This will therefore not be taken to invalidate the general principle that clauses require explicit subjects. Any L Raising induced by the ellipted pronoun 10.1 remains.

Náe   yàa ⁺ø?   "[Have you] finished?"

Finish:**PFV INDEP PQ**?

This is particularly common in greeting formulae like

Gbís wɛ̄lá?   "How did you sleep last night?"

for *Fʊ̀ sá gbìs   wɛ̄lá ⁺ø?*

2SG TNS sleep:**PFV** how   **CQ**?

Dúɵ wɛ̄lá?

for *Fʊ̀ dúɵ   wɛ̄lá ⁺ø?*   literally "(You) arose how?"

2SG arise:**PFV** how   **CQ**?

29.1.2 Clause-linker Particles

The **Clause-linker particles** *kà* "and" and *yɛ̄* "that" are placed before the subject (which may itself be ellipted after *kà* 29.1.4.2 .) Conjunctions almost always precede any clause-linker particles 29.3 . When other clausal elements precede *kà* before the subject, the construction is probably to be understood as *kà*-preposing instead 34.2 . "Resumptive" *yɛ̄* in longer passages of indirect speech frequently precedes clause-linking *kà* 31.4.3 , but otherwise the clause-linker particles are mutually exclusive; apparent exceptions always arise from ellipsis 29.1.4.1 .

While *yɛ̄* is invariably subordinating, *kà* may be coordinating or subordinating.

The glosses "and" and "that" are inadequate; both particles are used in a variety of constructions with meanings that vary considerably.

kà	introduces	subordinate clauses of purpose or result	31.2
		subordinate clauses expressing a relative sense	31.3
		from which derives *kà*-preposing	34.2
		subordinate content clauses	31.4
		sequential clauses	30.3.2
yɛ̄	introduces	subordinate clauses of purpose or result	31.2
		subordinate content clauses	31.4

The meaning is largely determined by the nature of the clauses; for example, purpose clauses contain Imperative Mood, and Content Clauses show main-clause type structural features. *Yɛ̄* has different tonal effects with a following bound subject pronoun depending on the construction 10.1 .

29.1.3 Post-Subject Particles

The post-subject position is used for several particles which mark a subordinate clause type, including *yàʔ* "if" ... *nāan* "then" 32.1 32.2 and the complementiser *ǹ* 33 ; other particles found in this slot are

sìd "truly"

> *Ò   sìd   à   nɛ̄ zɔ̄lʊg.*   "He really is a fool."
> **3HU** truly **COP FOC** fool:**SG**.

> *Ò   sìd   dāa á   nɛ̄   náʔàb.*   "Truly, he was a chief." WK
> **3HU** truly **TNS COP FOC** chief:**SG**.

kūlɩm or **kūdɩm** "always" (← Hausa) seems only to be found with negatives:

> *Ka so' kudin ku len nyee li ya'asa.*
> *Kà   sɔ̄ʔ   kūdɩm kʊ́   lɛ̄m ňyɛ̄ɛ́‿   lī   yáʔasā ⁺ø.*
> And **INDF.HU** ever   **NEG.UNR** again see:**PFV 3NHO** again   **NEG**.
> "Nobody will ever see it again." (Rev 18:21)

ňyāan or **nāan** 32.2 "next, afterwards"

> *Ka Yesu tans ne kukotita'ar ka nyaan kpi.*
> *Kà   Yesu   táňs   nɛ̄   kʊ́kɔ̄-títāʔar   kà   ňyāan kpí.*
> And Jesus   shout:**PFV**   with voice-great:**SG** and next   die:**PFV**.
> "Jesus cried out with a loud voice and then died." (Mt 27:50)

pà^ʔ tì "perhaps", like *yà^ʔ*, is followed by Indicative Mood with future meaning:

> *Ya yinni pa'a ti bu'osi m ye ...*
> *Yà   yīnní   pá^ʔ tì   bū^ʔɵsí͜ m   yɛ̄...*
> **2PL** one   perhaps ask:**PFV 1SGO** that...
> "One of you will perhaps ask me ..." (Rom 9:19, 1976)

sādɩgím "since, because" follows the complementiser *ǹ*: see 33.1.1

29.1.4 Ellipsis

Ellipsis is a spectrum. Informal ellipsis may be constantly used by speakers but is liable to be declared incorrect if their attention is drawn to it; it does not affect the meaning of the clause in which it occurs. More systematic ellipsis often implies anaphora or a similar repetition of preceding material. In yet more formalised cases the ellipted type has become an autonomous construction with its own meaning.

Bound words, by definition, can never be left standing alone after ellipsis of the word to which they are bound but must be ellipted along with it; however, many types of bound particle or pronoun are themselves subject to ellipsis.

Cases where I invoke ellipsis as a descriptive and explanatory device are with yes/no questions ending in *kúʋ* or *bɛ́ɛ* 30.2.2; indirect commands 31.2 31.4.1; ellipsis of complements of verbs 25.1.1; *kà*-preposing and *n*-focus 34.1.2 34.2; *hālí* as intensifier 23.2; ambiguity with coordinated modifiers and determiners in the NP and cases where a pre-modifier applies to a coordinated head 21.4; and omission of aspect-marking *nɛ̄* in replies to questions 24.2.2.2. Implicit tense marking 24.3.3 could also reasonably be classified as a form of ellipsis.

29.1.4.1 Coordination and Ellipsis

Ellipsis is involved in most cases of coordination within NPs 21.4.
Ellipsis of repeated elements in clause coordination is common, e.g.

> *Dāu̯   lā   ňyɛ́   bī-díbìŋ   kūʋ bī-púŋàa   ⁺ø?*
> Man:**SG ART** see:**PFV** child-boy:**SG** or   child-girl:**SG PQ**?
> "Did the man see a boy or a girl?"

The surface form *kà yɛ̄* "but in order that ..." is always the result of ellipsis; the two particles cannot co-occur in a clause, unless the *yɛ̄* is "resumptive" 31.4.3, in which case it precedes the *kà*. Thus in the sequence *kà yɛ̄*, a clause must have been ellipted between the two particles:

M̀ pū tísì‿ f gbáṳŋ lā yɛ́ fʊ̀ kúʊsì‿ líɩ ⁺ø,
1SG NEG.IND give:**PFV** **2SGO** book:**SG** **ART** that **2SG** sell:**PFV** **3NHO** **NEG**,

kà yɛ́ fʊ̀ kárìm.
and that **2SG** read:**PFV**.

"I didn't give you the book so you'd sell it, but [I gave it] so you'd read it."

29.1.4.2 Null Anaphora of Subjects

For null anaphora of VP complements see 25.1.1 .

Kusaal is not a pro-drop language. For example, clause subjects are required to be explicitly present in most constructions, though with cross-linguistically common exceptions like the subjects of direct commands 29.1.1 . Dummy subject pronouns (always 3rd sg non-human) are required in impersonal constructions like

Lì tʊ̀l.	"It (weather) is hot."
Lì à sʊ́ŋā.	"It's good."
Lì nàr kà fʊ̀ kūl.	"It's necessary for you to go home."

However, subject pronouns are regularly deleted after the clause linker particle *kà* when they would have the same reference as the subject of the preceding clause. The L Raising that would follow the pronoun remains 10.1 .

Pronouns after the *kà* introducing a Content Clause are not subject to this 31.4 , and Supplement Clauses 31.3 usually have different subjects from the preceding clause, so this is particularly characteristic of **Sequential Clauses** 30.3.2 , though it can occur with a *kà*-purpose clause too 31.2 :

M na niŋ wala ka nye faangire?
M̀ ná nīŋ wēlá kà ňyē fāaňgírè ⁺ø?
1SG **UNR** do:**PFV** how and find:**PFV** salvation **CQ**?
"What must I do to get saved?" (Acts 16:30)

Although the rule is not absolute, a *non-deleted* subject pronoun after *kà* thus consistently signals a change of subject. A reported conversation may be expressed simply by *Kà ò yɛ́l ... kà ò yɛ́l ...* with each *ò* marking a switch of speaker.

Kusaal is strict in requiring a pronoun to refer to the last grammatically possible antecedent; with the collapse of gender agreement 17.1 this can mean any antecedent of the same number, and can trump semantic appropriateness, e.g.

Pṳʔā lā dáʔ dāká kà kɛ̄ŋ Bɔ́k.
Woman:**SG** **ART** buy:**PFV** box:**SG** and go:**PFV** Bawku.
"The woman bought a box and went to Bawku."

*_Pṳˀā   lā dáˀ   dāká kà ò   kɛ̄ŋ   Bɔ́k._
 Woman:**SG ART** buy:**PFV** box:**SG** and **3HU** go:**PFV** Bawku.
("The woman bought a box and it went to Bawku")

Pṳˀāb   lā dáˀ   dāká kà kɛ̄ŋ   Bɔ́k.
Woman:**PL ART** buy:**PFV** box:**SG** and go:**PFV** Bawku.
"The women bought a box and went to Bawku."

Pṳˀāb   lā dáˀ   dāká kà bà kɛ̄ŋ   Bɔ́k.
Woman:**PL ART** buy:**PFV** box:**SG** and **3PL** go:**PFV** Bawku.
"The women bought a box and they went to Bawku."
(acceptable but unusual with _bà_ = _pū̄ˀab_)

Occasionally the pronoun after _kà_ is ellipted as referring, not to the subject of the preceding clause, but to the subject of a preceding _kà_-preposed _ǹ_-Clause:

Ban da dol wa'e la, ka nye dau ...
Bán   dà dɔ̄l‿   ø   wáˀe lā,   kà ňyɛ̄   dāṳ ...
3PL:COMP TNS follow **SER** go   **ART**, and see:**PFV** man:**SG**...
"As they were going together, (they) saw a man ..." (Mt 27:32, 1976)

Ban wum ne'eŋa la ka sin.
Bán   wòm   nɛ̄ˀŋá lá kà sīn.
3PL:COMP hear:**PFV DEM.NH ART** and be.silent.
"After they heard this they fell silent." (Acts 11:18)

29.2 Downranking and Insubordination

Clauses are either main or subordinate.

Subordinate Clauses can be divided formally into those marked by a post-subject particle and those preceded by a clause-linker particle.

The post-subject particle types, _yàˀ_-clauses 32 and _ǹ_-Clauses 33 are AdvPs or NPs and there is no ambiguity regarding their embedded character. All such clauses lack Independency Marking on the Verbal Predicator.

Subordinate clauses may also be introduced by one of the two linker particles _yɛ̄_ "that" or _kà_ "and, that." _Yɛ̄_-clauses are always subordinate, but _kà_-clauses may be subordinate or coordinate. Among such subordinate clauses, whether introduced by _yɛ̄_ or _kà_, there is a basic distinction between clauses which lack Independency Marking 24.6.1.1 and have a restricted set of internal structures (viz. excluding focus, clefting, _kà_-preposing and independent tense marking), and clauses which

show both Independency Marking and the full range of possible structures seen in main clauses. The latter are **Content Clauses** 31.4 : Main Clauses in terms of formal internal structure, they function as subordinate Content Clauses by **Downranking**.

    The clearest criterion for subordination is whether a clause precedes or follows a Negative Prosodic Clitic induced by a negative Verbal Predicator in the preceding clause. Although placement before the Negative Clitic necessarily implies that a clause is subordinate, the converse is not always true: in the case of constructions which by default involve negative raising, if the subordinate clause is, exceptionally, outside the scope of the negation semantically, the Negative Clitic placement is also exceptional and precedes the subordinate clause 35.3 . However, such cases are marginal, and the normal position of the Negative Clitic will accordingly be taken as diagnostic with regard to the distinction of subordination and coordination.

    On the question of subordination with Conjunctions see 29.3 .

    All clauses introduced by *yɛ̄* are subordinate, whether Purpose Clauses or Content Clauses. (On Negative Raising, see 35.2 .)

    Purpose Clauses:

M̀ **pū**   *bɔ́ɔ̀d yɛ́* *fʋ̀* *kɛ̄ŋ* **Bɔ́kō** ⁺ø.
1**SG NEG.IND** want that **2SG** go:**PFV** Bawku **NEG**.
"I don't want you to go to Bawku."

Li **pu** *nar ye fu di fu ba'abiig po'a* **Herodiase**.
Lì   *pū*   *nār* *yɛ́* *fʋ̀* *dí* *fʋ̀* *bā̰ʔ-bîg*   *pʋ̰ʔá*   *Herodiase* ⁺ø.
3NH 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)

Content Clauses:

M **pu** *yel ye noor ayopoi* **ma'anee**.
M̀ *pū*   *yɛ́l*   *yɛ̄* *nɔ̄ɔr*   *àyɔ́pɔ̀ḛ*   *máʔanē* ⁺ø.
1**SG NEG.IND** say:**PFV** that occasion:**SG NUM**:seven only   **NEG**.
"I don't say, only seven times." (Mt 18:22)

Bʋ̀ŋ-bā̰ň̰ʔad   **zḭ̄ʔ**   *yɛ̄ tɛ̄ŋ*   **túllā** ⁺ø.
Donkey-rider:**SG NEG.KNOW** that ground:**SG** be.hot **NEG**.
"The donkey-rider doesn't know the ground is hot."

ka o lee **pu** *baŋ ye li ane* **one**.
kà *ò* *lɛ́ɛ* *pū*   *báŋ*   *yɛ́* *lì* *à* *nɛ̄* *ɔ̄ne*   ⁺ø.
And **3HU** but **NEG.IND** realise:**PFV** that **3NH COP FOC 3HU.CNTR NEG**.
"but she didn't realise it was him." (Jn 20:14)

*Tiname sagidim aa o biis la, ti **da** ten'es ye Wina'am beilim wenne wuu ba'a ban*
 *ka ninsaal nok salima bee anzurifa bee kuga, n ten'esi maal ne o **nu'use**.*
Tīnámì⁀ø   sādɪgím áá⁀o   bīis   lā,   tì   dā   tɛ̄ň̚ʔɛs   yɛ̄
1PL   COMP since   **COP 3HU** child:**PL ART 1PL NEG.IMP** think:**PFV** that
Wínàʔam bélím   wēn   nɛ̄   wōʋ báʔa   bán   kà   nīn-sáàl
God   existence resemble with like idol:**PL DEM.PL** and person-smooth:**SG**
nɔ̄k   sālıma bɛ̄ɛ ānzúrıfà bɛ̄ɛ kūgá   n   tɛ̄ň̚ʔɛsí⁀   ø   máàl
take:**PFV** gold   or   silver   or   stone:**PL SER** think:**PFV SER** make:**PFV**
nɛ́   ò   núʔusē   ⁺ø.
with **3HU** hand:**PL NEG.**
"Since we are his children, we should not think that God's existence resembles idols which a human being thinks to make by hand using gold or silver or stone." (Acts 17:29)

*Ka o ba' ne o ma daa **pu** baŋ ye o kpelim **yaa**.*
Kà   ò   bāʔ   nɛ́   ò   mà   dāa pū   báŋ
and **3HU** father:**SG** with **3HU** mother:**SG TNS NEG.IND** realise:**PFV**
yɛ́   ò   kpɛ̀lɪm yāa   ⁺ø.
that **3HU** remain **INDEP NEG.**
"His father and mother did not realise that he had remained." (Lk 2:43)

The linker *kà*, despite the label "and" which I have adopted for it consistently in the glossing, and its uses in coordination, very often introduces clauses which are clearly subordinate and appear before a Negative Clitic belonging to the preceding clause. There are types equivalent to both kinds of *yɛ̄*-clause, both Purpose and Content:

*ka **pu** nar ka ba buoli m ye **Tumtum na** [for *Tumtumna*]*
kà   pū   nár   kà   bà   búɵlì⁀   m   yɛ̄   Túm-tūmna   ⁺ø.
and **NEG.IND** must and **3PL** call:**PFV 1SGO** that work-worker:**SG NEG.**
"and ought not to be called an apostle" (1 Cor 15:9)

M̀   téň̚ʔɛs   kà   nīigí   lā   ɔ́ňbìd   nɛ̄.
1SG think:**PFV** and cow:**PL ART** chew:**IPFV FOC.**
"I think the cows are eating." WK

In addition, *kà*-clauses may be Supplement Clauses 31.3 , attached to a preceding NP anchor in the main clause with a quasi-relative sense. They precede any main clause Negative Clitic (again, see 35.2 on Negative Raising):

*M̀ dāa **pū** ňyɛ̄ dāų̄ lá kà ò á **ná'abā** ⁺ø.*
1SG TNS NEG.IND see:**PFV** man:**SG ART** and **3HU COP** chief:**SG NEG**.
"I didn't see the man as a chief." KT

*Lì **kā'** mān bīig kà fừ **ňwɛ́'ɛ̄** ⁺ø.*
3NH NEG.BE 1SG.CNTR child:**SG** and **2SG** beat:**PFV NEG**.
"It's not my child that you've beaten."

*Li lem **ka'** fun yel si'el la zug, ka ti niŋ o **yaddaa**.*
Lì lèm kā' fún yèl sī'əl lā zúg kà
3NH again **NEG.BE 2SG:COMP** say:**PFV INDF.NH ART** upon and
tì níŋ·ò‿ø yàddáa ⁺ø.
1PL do:**PFV 3HUO** assent **NEG**.
"It is no longer because of what you said that we believe in him." (Jn 4:42)

Kà also introduces clauses with main-clause structural features which are not subordinate by the criterion of Negative Prosodic Clitic placement. This use of *kà* to coordinate semantically and structurally main clauses is notably characteristic of narrative 30.3.2 , where clause after clause is introduced by *kà* so long as the sequence of events is proceding in order. Surprisingly, ***all* clauses introduced by *kà* other than Content Clauses lack Independency Marking on the Verbal Predicator**, including all these cases where the clause is not subordinate.
So, for example

*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-zɔ́t-yɛ̄l dá à nɛ́ ò sàam bîig mà'aa.
PERS-NEG.IND-fear:**IPFV**-thing:**SG TNS COP FOC 3HU** father:**SG** child:**SG** only.
Kà dāar yīnní kà bīig lā nɛ́ ò sàam zíñ'i‿ø sɔ̄ňsɪd.
And day:**SG** one and child:**SG ART** with **3HU** father:**SG** sit **SER** converse:**IPFV**.
Kà bīig lā tí yèl ò sàam yɛ̄ ...
And child:**SG ART** afterwards say:**PFV 3HU** 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

where the second *kà* is preposing the time expression *dāar yīnní* "one day", where *kà*-preposing is a structural feature not found in subordinate clauses 34.2 .
Historically, *kà* was perhaps always subordinating (compare *nɛ̄* "and" connecting NPs, which is essentially the same word as the preposition *nɛ̄* "with" 21.4 .) The promotion of subordinate clauses to main-clause function is **Insubordination**, a concept introduced by Nicholas Evans in his grammar of the

typologically very unusual Australian language Kayardild. Evans 2009 defines insubordination as "the conventionalised main-clause use of what, on prima facie grounds, appear to be formally subordinate clauses."

The criterion of Negative Prosodic Clitic placement breaks down in cases where a subordinate clause has to be excluded from the scope of a negation in the main clause, which can give a spurious appearance of insubordination 35.3 :

> *Ka li **pu yuuge** ka o po'a me kena.*
> *Kà lì pū̠ yúugē ⁺ø, kà ò pu̠ʾā mɛ́ kɛ̄ nā.*
> And **3NH NEG.IND** delay:**PFV NEG**, and **3HU** wife:**SG** also come:**PFV** hither.
> "Not much later, his wife came too." (Acts 5:7)

but *Man be ne ya ka li yuug.*
> *M̀ān bɛ́ nɛ́ yà kà lì yúùg.*
> **1SG.CNTR EXIST** with **2PL** and **3NH** delay:**PFV**.
> "I have been with you a long time." (Jn 14:9)

With a contrast such as

> *Ò vùl tíìm kà ò nɔ́bùr dā zábē ⁺ø.*
> **3HU** swallow:**PFV** medicine and **3HU** leg:**SG** **NEG.IMP** fight:**PFV NEG**.
> "She drank medicine so her leg wouldn't hurt."   (*dā* negative Imperative)

> *Ò vùl tíìm kà ò nɔ́bùr pū̠ zábē ⁺ø.*
> **3HU** swallow:**PFV** medicine and **3HU** leg:**SG** **NEG.IND** fight:**PFV NEG**.
> "She drank medicine and her leg didn't hurt."   (*pū̠* negative Indicative)

it is tempting to interpret the second construction as parallel to the first, with both containing a subordinate clause, expressing respectively purpose and consequence. However, I could not elicit any sentences like

> ?*Ò pū̠ nū̠ dāam kà ò zūg pū̠ zábē ⁺ø.*
> **3HU NEG.IND** drink:**PFV** beer   and **3HU** head:**SG** **NEG.IND** fight:**PFV NEG**.
> "He didn't drink beer and so his head didn't hurt."

but only sentences with the Negative Clitic occurring after each clause, as in

> *Ò pū̠ nū̠ dáamm ⁺ø kà ò zūg pū̠ zábē ⁺ø.*
> **3HU NEG.IND** drink:**PFV** beer   **NEG** and **3HU** head:**SG** **NEG.IND** fight:**PFV NEG**.
> "He didn't drink beer and his head didn't hurt."

Accordingly, the construction is simply a mini-narrative and the second clause is Sequential 30.3.2.

In

Amaa Wina'am keya ka ya a noor yinni ne Yesu Kiristo.
Àmáa Wínàˀam kɛ́   yá   kà yà á   nɔɔr   yīnní nɛ̄ Yesu Kiristo.
But   God   cause:**PFV INDEP** 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)

the phrase-final perfective marker *yā* 24.6.2.1 appears before the clearly subordinate *kà*-clause after *kɛ̄*⁺ "cause" 31.2, but this represents extraposition 34.3 of the subordinate clause from the VP to clause-adjunct position, rather than coordination.

29.3 Conjunctions

No one group of words in Kusaal corresponds to English conjunctions. The particles *kà* "and" and *yɛ̄* "that" need to be treated separately 29.1.2.

Some words translatable as English conjunctions are actually presubject clause-level adjuncts 30.1.1. The criterion for the label "conjunction" will be placement with respect to clause-linker particles: conjunctions either do not occur together with clause-linkers at all or precede them, whereas clause-level adjuncts follow. When there are no clause-linkers, conjunctions precede adjuncts. Thus

kūʋ   "or" (← Hausa)
bɛ̄ɛ   "or"

never appear before or after *kà*, while

àmáa   "but" (cf Arabic اما *ʔamma:* "as for")
hālí   "until" (cf Arabic حتى *ħatta:*); preposition 23.2
àsɛ́ɛ   "unless" (cf Hausa *sai*); preposition 23.2

occur overwhelmingly more often before *kà* than after it. The 1996 NT version has 92 examples of the order *àmáa kà*, 99 of *hālí kà* and 49 of *àsɛ́ɛ kà*; for example

*Ka sieba la' o. **Amaa ka** sieba yel ye ...*
Kà sīəba láˀ·ò‿   ø.   Àmáa kà sīəba   yɛ́l   yɛ̄ ...
And **INDF.PL** laugh:**PFV 3HUO**. But   and **INDF.PL** say:**PFV** that...
"Some laughed at him, but others said..." (Acts 17:32.)

*...n zin'in anina **hale ka** Herod ti kpi.*

...n   zíñˀi ànínā,   hālí kà Herod tí   kpì.

...**SER** sit   **ADV:** there, until and Herod afterwards die:**PFV**.

"...remaining there until Herod had died." (Mt 2:14)

*Amaa baa yinni ku lu teŋin n kpii, **asee ka** ya Ba' Wina'am siaki li.*

Àmáa báa yīnní kù   lū   tɛ̄ŋɪn   n kpíi ⁺ø, àsɛ́ɛ kà yà

But   not.one   **NEG.UNR** fall:**PFV** ground:**SG:LOC SER** die:**PFV NEG**, unless and **2PL**

Bā̄ˀ   Wínàˀam si̱ákì̱   lī.

father:**SG** God:**SG**   agree:**PFV 3NHO**.

"But not one of them will fall to the ground and die, unless your Father God
   agrees to it." (Mt 10:29)

It has just one example each of the orders *kà àmáa*, *kà hālí* and *kà àsɛ́ɛ*, as in

*Ka na'ab la sunf sa'am, **ka amaa** on po saam tuon la zug ka o tis noor ye ba
tisim bipuŋ la on bood si'el.*

Kà nàˀab lā súñf   sàˀam, kà àmáa ɔ́n   pɔ̄   sáam

And king:**SG ART** heart:**SG** spoil:**PFV**, and but   **3HU:COMP** swear:**PFV** stranger:**PL**

túè̱n lā zúg kà ò tís   nɔ̄ɔr   yɛ́ bà tìsɪm bī-púŋ   lā

before **ART** upon and **3HU** give:**PFV** command:**SG** that **3PL** give:**IMP** child-girl:**SG ART**

ɔ́n   bɔ̀ɔd sīˀəl.

3HU:COMP want **INDF.NH**.

"The king was sad, but because he had sworn in front of guests he commanded
that they give the girl what she wanted." (Mt 14:9)

Conjunctions also precede *yɛ̄* (both as linker and "resumptive" *yɛ̄* 31.4.3):

*Wina'am daa pu gaŋi ti ye ti sunya a dian'ade, **amaa ye** li a nyain.*

Wínàˀam dāa pū   gāŋí̱   tī yɛ́ tì sū̄ñyá à   di̱ā̄ˀadé ⁺ø,

God   **TNS NEG.IND** choose:**PFV 1PLO** that **1PL** heart:**PL COP** dirt   **NEG**,

àmáa yɛ́ lì á ňyāe.

but   that **3NH COP** brightly.

"God did not choose us so that our hearts would be unclean, but so that they
   would be clean."(1 Thess 4:7)

Adjuncts appear *after* clause-linking *kà*; any following *kà* is not clause-linking
but *kà*-preposing 34.2 . Time and circumstance adjuncts are not often *kà*-preposed.
   For example, a rough count of the text of the 1996 NT shows with *nannanna
nānná-nā⁺/* "now" and *lin a si'em la lín à sīˀəm lā* "as things stand"

	X alone	*kà* X	X *kà*
nānná-nā⁺ᐟ	33	28	4
lín à sīˀəm lā	4	6	0

Similarly *sān-síˀə̄n lā* "at one time, once ..." is a presubject AdvP:

saŋsi'en la ya da ka' yinni ne Kiristo
sān-síˀə̄n   lā, yà dà kāˀ   yīnní nɛ̄   Kiristo
time-**INDF.NH:LOC ART 2PL TNS NEG.BE** one   with Christ
"at one time you were not one with Christ." (Eph 2:12)

Ka saŋsi'en *la tinam meŋ da ane zon*
Kà   sān-síˀə̄n   lā tīnám mɛ̄ŋ dá à   nɛ̄ zɔ̄n.
And time-**INDF.NH:LOC ART 1PL.CNTR** self **TNS COP FOC** fool:**PL**
"and once we ourselves were fools" (Titus 3:3)

Constructions based on *zùgū* (with Apocope Blocking), like *dìn zúgū* "therefore" *bɔ̄ zúgū* "because" are conjunctions like *kūʊ/bɛ̄ɛ* "or" which do not usually occur with clause linkers at all. *Bɔ̄ zúgū*, though stigmatised as an Anglicism in ILK, is in fact freely used in the NT version for "because."

Police gbáňˀā̠   m   bɔ̄ zúgʊ́ m̀ ňwɛ́ˀ dāṳ   lā.
Police seize:**PFV 1SGO** because **1SG** hit:**PFV** man:**SG ART**.
"The police arrested me because I hit the man." (ILK)

However, the corresponding types with Apocope, like *àlá zùg* "therefore" *dìn zúg* "therefore", can be used *either* as *kūʊ/bɛ̄ɛ*-type conjunctions or as AdvPs; in the latter case, if they precede the subject they must be *kà*-preposed because they do not express time or circumstance 22.1 . This results in a characteristic pattern: all combinations with *kà* occur *except kà* X (1996 NT again):

	X alone	*kà* X	X *kà*	*kà* X *kà*
dìn zúgū	208	2	0	0
dìn zúg	39	2	69	17

Unlike the NT, WK also treats *nānná-nā*⁺ᐟ "now" in this way, accepting

Nānná-ná m̀ á nɛ̄ náˀàb.   "Now I am a chief."
Now-hither **1SG COP FOC** chief:**SG**.

> *Nānná-ná* **kà** *m̀* *á* *ná'àb.*   "Now I am a chief."
> Now-hither and **1SG COP** chief**:SG**.

> **Kà** *nānná-ná* **kà** *m̀* *á* *ná'àb.*   "And now I am a chief."
> And now-hither and **1SG COP** chief**:SG**.

but rejecting

> ****Kà** *nānná-ná m̀ á ná'àb*   "And now I am a chief."
> ****Kà** *nānná-ná m̀ á nɛ̄ ná'àb.*

Conjunctions have no effect on clause structure or on the occurrence of tense marking in narrative 30.3.2 . A *subordinating* conjunction would therefore have to be regarded as preceding a Content Clause 31.4 . Usually the meaning is not consistent with subordination and the issue does not arise; sometimes, although the English translation suggests subordination, the Kusaal construction is shown to be otherwise by the position of the Negative Prosodic Clitic. Thus with *àsɛ́ɛ* "unless":

> *O* **ku** *kpii, asee o ti nye Zugsob Kiristo la.*
> *Ò* *kù* *kpīi* ⁺ø, *àsɛ́ɛ* *ò* *tì* *ňyè* *Zūg-sɔ́b* *Kiristo lā.*
> **3HU NEG.UNR** die**:PFV NEG**, unless **3HU** afterwards see**:PFV** head-one**:SG** Christ **ART**.
> "He will not die, without seeing the Lord's Christ." (Lk 2:26)

However, the preposition *wōʋ* "like" 23.1 may introduce formally subordinate clauses with Content/Main Clause features like focus-*nɛ̄*⁺/:

> *ka tuumbe'ed* **ku** *len so'e ti wuu ti aa li* **yamugo***.*
> *kà* *tùʋm-bɛ̄'ɛd* *kʋ́* *lɛ̄m* *sʋ̄'ʋ̄_tī* *wōʋ tì áá_ lì yàmmʋgō* ⁺ø.
> and work-bad**:PL NEG.UNR** again own **1PLO** like **1PL COP 3NH** slave**:SG** **NEG**.
> "and that sin will not again own us as if we were its slave." (Rom 6:6)

> *M pian'adi ya wuu ya a***ne** *m biis.*
> *M̀* *pi̯áň'adī_ yá* *wōʋ yà á* *nɛ́* *m̀* *bīis.*
> **1SG** speak**:IPFV 2PLO** like **2PL COP FOC 1SG** child**:PL**.
> "I talk to you as if you were my children." (2 Cor 6:13)

Hālí "until" and *àsɛ́ɛ* "unless, except for" 23.2 occur both as conjunctions and as prepositions, suggesting that these categories could be merged. *Nɛ̄* appears both as *nɛ̄* "with" and as "and" coordinating NPs 21.4 , but cannot link clauses which have not first been nominalised; however, conjunctions are in any case a separate category from clause linker particles like *kà* "and."

30 Main Clauses

30.1 Main Clause Structure

Main clauses show numerous structural possibilities which are not found in subordinate clauses other than Content Clauses, which are structurally identical, and regarded as downranked main clauses 31.4. Both clause types display characteristic Independency Marking on the first Verbal Predicator 24.6. They may contain Non-verbal Predicators 27 or even lack a predicator altogether 30.2.4. They can be focussed or clefted or prepose elements with *kà*; Focus-*nɛ̄*$^{+/}$ occurs at most once in a main or content clause, following a Verbal Predicator, before a verb complement or adjunct, or clause-finally 34. Main and Content Clauses may contain time, circumstance or reason-why adjuncts before the subject.

30.1.1 Clause-Level Adjuncts Preceding the Subject

Main Clauses and Content Clauses with a verbal predicate may contain adjuncts which precede the subject and follow any clause linker particle. Such adjuncts may only express time, circumstance or reason, not place or manner. AdvPs expressing place or manner can only be placed before the subject by preposing with *kà* 34.2. Thus the AdvP may precede the subject in e.g.

> *Bɛ̄ogʊ́   fʊ̀ ná kūl.*
> Tomorrow **2SG UNR** return.home:**PFV**.
> "You're going home tomorrow." SB

but not in

> **Mɔ̄ɔgʊ́n   mām   bɛ́.*   for "I'm in the bush."
> Grass:**SG:LOC 1SG.CNTR EXIST**.

which is corrected by WK to

> *Mɔ̄ɔgʊ́n   kà mām   bɛ́.*   "I'm in the bush."
> Grass:**SG:LOC** and **1SG.CNTR EXIST**.

Permissible pre-subject adjunct types may be any AdvPs or clauses expressing time, circumstances, or reason, such as *ǹ*-Clauses, *sādɪgím*-clauses 33.1.1, AdvPs like *àlá zùg*, *dìn zúg* "therefore"; *lì ňyá*ʔ*aŋ*[a] "afterwards", *yà*ʔ-clauses "if/when ...", *hālí* + *ǹ*-Clause "although ...", "even though ... ", *yā*ʔ*a* + NP "as for ...", *lín à sī*ʔ*əm lā* "as things stand", *àsīda* "truly."

Some AdvPs of this kind, like *ǹ*-Clauses, *lì ňyá²aŋ*ᵃ or *dìn zúg* may also occur preposed with *kà*; others, like *yà²*-clauses or *sādɪgím*-clauses, may not.

Pre-subject adjuncts are not followed by L Raising ⏎10.1⏎.

30.2 Clause Types

Main Clauses, along with the structurally similar Content Clauses, can be classified into declarative, interrogative and imperative types. Declarative main clauses are the unmarked default. Interrogatives comprise Content and Polar question types, and the Imperative type are commands. There are also minor clause types with Non-verbal Predicators or no predicator at all.

30.2.1 Content Questions

Content questions (except for *lìa* ⏎27⏎) contain an interrogative pronoun or determiner; the final word of the question appears as a LF with a tone perturbation due to the final Interrogative Prosodic Clitic ⏎10.4.2⏎.

There is no special interrogative word order; however if the interrogative word is the subject (or part of the subject NP) it is always *n*-focussed ⏎34.1.2⏎ when syntactically possible, and other interrogatives are very often also fronted with *kà* ⏎34.2⏎, obligatorily so in the case of *bɔ̄* in the sense "why?" (compare the parallel construction with a demonstrative pronoun expressing a reason in *Dìn kà Kūsáàs yɛ̄ ...* "That is why the Kusaasi say ..." KSS p16.)

> *Ànɔ́²ɔnì‿ø ňyɛ̄   bíigà   ⁺ø?*
> Who   **SER** see:**PFV** child:**SG CQ**?
> "Who has seen a child?"

> *Fʋ̀ bɔ́ɔ̀d bɔ́   ⁺ø?*   "What do you want?"
> **2SG** want what **CQ**?

> *Bɔ́   kà   fʋ̀ kúmmà   ⁺ø?*   "Why are you crying?"
> What and **2SG** weep:**IPFV CQ**?

For "which?" the short demonstratives are used:

> *Lìne?*   "Which one?"
> *Nīf-kánè?*   "Which eye?"
> *Nīn-kánè?*   "Which person?"

> *Fʋ̀ bɔ́ɔ̀d línè   ⁺ø?*   "Which do you want?"
> **2SG** want **DEM.NH CQ**?

Note the *short* final LF vowels 9.2 ; these are content, not polar, questions.
Used after a cb, as a dependent pronoun, *bɔ̄*⁺ is a determiner: "what?":

*nā*ʔ*-bɔ́*	"what cow?" WK DK
	(not *náaf bɔ́*,
	only possible in the sense "What, of a cow's?")
bʋ̀-bɔ̄	"what goat?"
dā-bɔ́	"what beer?"

Bɔ̀- can be used as a pre-modifier, querying a description: "what sort of ...?"

Fʋ̀ túm   bɔ́-tʋ̀ʋma ⁺ø?
2SG work:**IPFV** what-work **CQ**?
"What kind of work do you do?"

Bo yir ka ya na me' n tis mane?
Bɔ̀-yír   kà yà ná mɛ̄   n tís   mánè ⁺ø?
What-house:**SG** and **2PL UNR** build:**PFV SER** give:**PFV 1SG.CNTR CQ**?
"What kind of house will you build for me?" (Acts 7:49)

The compound *bɔ̀-būudɩ*⁺ "what kind of?" can be used as a post-determiner:

*nā*ʔ*-bɔ́-būudɩ*	"what kind of cow?"
dā-bɔ́-būudɩ	"what kind of beer?"

Note the idiom:

Fʋ̀ á nɛ̄ bɔ́- bùudɩ ⁺ø?   "What tribe do you belong to?"
2SG COP FOC what sort   **CQ**?

The focus particle *nɛ̄*⁺/ may not be used in content questions; this applies also
to aspect-focus *nɛ̄*⁺/.

Dāu̯   lā ňyɛ́   bīig.   "The man has seen a child."
Man:**SG ART** see:**PFV** child:**SG**.

*Ànɔ́*ʔ*ɔnì‿ø ňyɛ̄   bíigà   ⁺ø?*
Who   **SER** see:**PFV** child:**SG CQ**?
"Who has seen a child?"

Dāṳ̄ lā ňyɛ́ ànɔ́ʔɔnè ⁺*ø?*
Man:**SG ART** see:**PFV** who　　**CQ**?
"Whom did the man see?"

or　*Ànɔ́ʔɔ̀n kà dāṳ̄ lā ňyɛ́ɛ* ⁺*ø?*
　　Who　　and man:**SG ART** see:**PFV CQ**?
　　"Whom did the man see?"

Bà kʊ̀ʋd nɛ̄ bʊ̄ʋs.　　　　　"They're killing goats."
3PL kill:**IPFV FOC** goat:**PL**.

Ànɔ́ʔɔnì‿ø kūʋd búʋsè ⁺*ø?*
Who　　　**SER** kill:**IPFV** goat:**PL CQ**?
"Who is killing goats?"　　　　Bounded Imperfective sense without *nɛ̄*.

Ànɔ́ʔɔ̀n bīigɩ‿ ø ňwá ⁺*ø?*　"Whose child is this?"
Who　　child:**SG SER** this　**CQ**?

Bɔ́ kà fʊ̀ kúɵsìda ⁺*ø?*　　"What are you selling?"
What and **2SG** sell:**IPFV**　**CQ**?　Bounded Imperfective possible without *nɛ̄*.

Fʊ̀ bɔ́ɔ̀d bɔ́ ⁺*ø?*　　　　"What do you want?"
2SG want what　**CQ**?

Fʊ̀ bɔ́ɔ̀d nɛ̄ bɔ́ ⁺*ø?*　　"What do you want it with?"
2SG want with what **CQ**?　WK confirms that *nɛ̄ must* be "with" here.

Ṁ á nɛ̄ dāṳ̄.　　　　　　"I am a man."
1SG COP FOC man:**SG**.

Ṁ á bɔ́ ⁺*ø?*　　　　　"What am I?"
1SG COP what **CQ**?

Fʊ̀ wáʔe yáa ⁺*ø?*　　　"Where are you going?"
2SG go　where **CQ**?

Bùgʊ́m lā yít yáa nì ná ⁺*ø?*
Fire　**ART** emerge:**IPFV** where **LOC** hither **CQ**?
"Where is the light coming from?"

30.2.2 Polar Questions

Polar questions are of two types. One is exactly like a statement but with final LF and tone changes due to the Interrogative Prosodic Clitic; in this case the neutralisation of LF-final vowel length is to long 9.2. There are no restrictions on focus *nē*. The answer expected is *ɛ̄ɛñ* 30.2.4.

> *Dāų̄   lā   ňyɛ́   bíigàa ⁺ø?* "Has the man seen a child?"
> Man:**SG ART** see:**PFV** child:**SG PQ**?

> *Bà kừʋd   nɛ̄ búʋsèe ⁺ø?*   "Are they killing goats?"
> **3PL** kill:**IPFV FOC** goat:**PL   PQ**?

> *M̀   á   nɛ̄ dáừʋ   ⁺ø?*   "Am I a man?"
> **1SG COP FOC** man:**SG   PQ**?

> *Fừ pū̄   wúmmàa ⁺ø ⁺ø?*   "Don't you understand?"
> **2SG NEG.IND** hear:**IPFV   NEG PQ**?   (expects *ɛ̄ɛñ*, here "no")

Note that the Negative Prosodic Clitic **NEG** is effectively lost before the Interrogative Prosodic Clitic **CQ** or **PQ**.

The second type of polar question follows the ordinary statement form with either *bɛ́ɛ* (expecting disagreement, with *áyìɩ*) or *kúʋ* (expecting agreement, with *ɛ̄ɛñ*.)   NT rarely uses *kō̄ʋ* in this way. These are evidently the words for "or", with ellipsis of the rest of a tag question "or isn't it?" etc; such constructions are common in local languages, and indeed "or?" is used like this in local English.

> *Dāų̄   lā ňyɛ́   bīig   kúʋ ⁺ø?*
> Man:**SG ART** see:**PFV** child:**SG** or   **PQ**?
> "Has the man seen a child?" (I expect so.)

> *Dāų̄   lā ňyɛ́   bīig   bɛ́ɛ ⁺ø?*
> Man:**SG ART** see:**PFV** child:**SG** or   **PQ**?
> "Has the man seen a child?" (I expect not.)

30.2.3 Commands

For indirect commands, see 31.2, 31.4.1.

In a direct command the subject is 2nd person; in accordance with a cross-linguistically common pattern, a singular pronoun is deleted, and a plural subject pronoun is placed immediately after the verb, in Kusaal assuming the Liaison enclitic form ᵞᵃ; for the realisation of ᵞᵃ see 9.3.1 and 9.3.1.2. Thus

Fʋ̀ gɔ́s   bīig   lā.   "You (sg) have looked at the child."
2SG look.at:**PFV** child:**SG ART**.

Yà gɔ́s   bīig   lā.   "You (pl) have looked at the child."
2PL look.at:**PFV** child:**SG ART**.

but   *Gɔ̀sɩm   bīig   lā!*   "Look (sg) at the child!"
Look.at:**IMP** child:**SG ART**!

Gɔ̀sɩmī⁀   ø   bīig   lā!   "Look (pl) at the child!"
Look.at:**IMP 2PLS** child:**SG ART**!

Gɔ̀sɩm   tēŋɩn!   "Look (sg) down!"
Look:**IMP** ground:**SG:LOC**!

Gɔ̀sɩmī⁀ ø   tēŋɩn!   "Look (pl) down!"
Look:**IMP 2PLS** ground:**SG:LOC**!

Dā   gɔ̄s   tēŋɩné   ⁺ø!
NEG.IMP look:**PFV** ground:**SG:LOC NEG**!
"Don't (sg) look down!"

Dā   gɔ̄sɩ⁀   ø   tēŋɩné   ⁺ø!
NEG.IMP look:**PFV 2PLS** ground:**SG:LOC NEG**!
"Don't (pl) look down!"

Dā   gɔ̄se   ⁺ø!   "Don't (sg) look."
NEG.IMP look:**PFV NEG**!

Dā   gɔ̄sɩ⁀   yá ⁺ø!   "Don't (pl) look."
NEG.IMP look:**PFV 2PLS NEG**!

No pronoun changes occur after presubject elements, e.g *yà*ˀ-clauses 32.1:

Fu ya'a mor po'a, fun da mood ye fu bas oo.
*Fʊ̀ yá*ˀ *mɔ̄r pʊ̰ˀā,   fūn dā   mɔ̄ɔd   yɛ́ fʊ̀ bás·òō   ⁺ø.*
2SG if   have wife:**SG**, **2SG NEG.IMP** struggle:**IPFV** that **2SG** abandon:**PFV:3HUO NEG**.
"If you have a wife, don't try to leave her." (1 Cor 7:27)

Nor do they occur in quoted direct commands within indirect speech 31.4.1, even when the addressee is the same as in the original utterance:

Ò yèl   yɛ́ bà gɔ̀sɪm   tēŋɪn.
3HU say:**PFV** that **3PL** look:**IMP** ground:**SG:LOC**.
"He said to them: Look down!" WK

Ò yèl   yɛ́ fʊ̀ gɔ̀sɪm   tēŋɪn.
3HU say:**PFV** that **2SG** look:**IMP** ground:**SG:LOC**.
"He said to you **SG**: Look down!"

Ò yèl   yɛ́ yà gɔ̀sɪm   tēŋɪn.
3HU say:**PFV** that **2PL** look:**IMP** ground:**SG:LOC**.
"He said to you **PL**: Look down!"

However, some speakers do still keep the enclitic ʸᵃ after the verb even when there is a pronoun subject before it:

Ò yèl   yɛ́ bà gɔ̀sɪmī‿ ø   tēŋɪn.
3HU say:**PFV** that **3PL** look:**IMP**   **2PLS** ground:**SG:LOC**.
"He said to them: Look down!" WK

Similarly in a serial-verb construction, where WK treats ʸᵃ as a pronoun and, consistently with this, does not repeat it:

Kὲmī‿   ø   nā   n gɔ̄s!
Come:**IMP 2PLS** hither **SER** look:**PFV**!
"Come (ye) and look!"

such speakers have

Kὲmī‿   ø   nā   n gɔ̄sɪ‿   ø!
Come:**IMP 2PLS** hither **SER** look:**PFV 2PLS**!
"Come (ye) and look!"

For these speakers ^{ya} is no longer a pronoun but an imperative plural marker.

Direct commands which consist only of a verb, or a verb with a following enclitic subject pronoun, occasionally end in a Long Form like that preceding a Negative Prosodic Clitic:

Gɔ̀sɩmā!	"Look!"
Gɔ̀sɩmīyá!	"Look! (plural)

30.2.4 Clauses without Predicators

Some particles and phrases occur characteristically as complete utterances:

Tɔ̀.	"OK."
Báp.	"Wallop!"
N fá!	"Well done!"

Some of these are onomatopoeic; others are widely shared among local languages.

"Yes" is *ɛ̄ɛɲ̆*; "No" is *áyɩ̀ɩ*. 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   nɛ́ɛ ⁺ø?   "Is it finished?"
3NH finish:**PFV FOC   PQ**?

Ɛ̄ɛɲ̆.	"Yes."
Áyɩ̀ɩ.	"No"

Lì pū   nāée   ⁺ø ⁺ø?   "Isn't it finished?"
3NH NEG.IND finish:**PFV NEG PQ**?

Ɛ̄ɛɲ̆.	"No."
Áyɩ̀ɩ.	"Yes."

Vocative phrases usually either precede a main clause, or stand alone.
Vocatives may take the form of NPs followed by the Vocative Prosodic Clitic 9.2:

M̀   bīiga   ⁺ø!   "My child!"
1SG child:**SG   VOC**!

M̀   bīise   ⁺ø!   "My children!"
1SG child:**PL VOC**!

M̀   pṳˀā   nɛ́   m̀   bīise   ⁺ø!
1SG wife:**SG** with **1SG** child:**PL** **VOC**!
"My wife and my children!"

M̀   dìəmmā   ⁺ø,   bɔ́   kà   fʊ̀   kúɵsìda ⁺ø?
1SG parent.in.law:**SG** **VOC**, what and **2SG** sell:**IPFV**   **CQ**?
"Madam 37.1 , what are you selling?"

Vocative phrases often end in *ňwà* "this":

Bīis ňwá!	[bi:sa]	"Children!"	9.1.1 .
Pṳˀā ňwá!	[pʰʊ̯a̰wã]	"Woman!"	
Zɔn ňwá	[zɔn:a]	"Fools!"	

This structure is sometimes simply exclamatory:

ňwāamɪs ňwá!	[w̃ã:mɪsa]	"Monkeys!" (From a passenger in my car, on suddenly catching sight of some.)

30.3 Insubordinate *kà*-Clauses

30.3.1 Coordination of Main Clauses

Coordinated main clauses agree in type as declarative, interrogative or imperative. They are coordinated with *kà* "and", *kʊ̄ʋ* "or", *bɛ̄ɛ* "or". It is possible to regard *kʊ̄ʋ bɛ̄ɛ* as conjunctions , but the position with *kà* is more complex because it can occur *alongside* conjunctions. Even in coordinating function, *kà* introduces an *Insubordinate* clause *without* Independency Marking on the Verbal Predicator 29.2 .
Coordination of statements with *kà* outside of narrative has a similar sense to English *and* (though *kà ... lɛ̀ɛ* is "but" 24.7.1 .)
Coordination of commands with *kà* is quite common:

Pʊ̀ˀʋsɪm   À-Wīn,   kà   pʊ́ˀʋ̀s   À-Būgʋr.
Greet:**IMP** **PERS**-Awini, and greet:**PFV** **PERS**-Abugri.
"Greet Awini, and greet Abugri."

Coordination of questions is not common. It is seen in alternative questions like

Fʊ̀ búg   nɛ́ɛ ⁺ø? Bɛ̄ɛ fʊ̀   gɛ́ɛ̀ňm   yā   kúʋ ⁺ø?
2SG get.drunk:**PFV** **FOC** **PQ**? Or **2SG** go.mad:**PFV** **INDEP** or   **PQ**?
"Are you drunk? Or have you gone mad?"

30.3.2 Narrative and Sequential Clauses

Kusaal narrative joins clause after clause with *kà*, corresponding to *zero* in English. Such clauses are again Insubordinate, but *without* Independency Marking on the Verbal Predicator 29.2 . Tense marking in narrative is the norm for all main clauses without *kà* unless they contain an explicit time expression; clauses introduced by *kà*, on the other hand, usually only have tense marking to signal that they disrupt the narrative flow, as with flashbacks or descriptive passages[17]. Kusaal narrative favours long sequences of such **Sequential *kà*-clauses** with Event Perfective aspect without tense marking, which carry on the sequence of events narrated in order.

*Ka Jesus n **daa** a yuma pii ne ayi la, ba ken maluŋ la wuu ban yiti niŋid si'em la. Ka maluŋ la dabasa naae la, ka ba lebid n kun. Ka Jesus kpelim Jerusalem teŋin. Ka o ba' ne o ma **daa** pu baŋ ye o kpelim yaa. Ba **daa** ten'es ye o bene ne ba teŋ dim la, ka keŋ ...*

Kà   Jesus ǹ   dāa á yúmà   pīi né   àyí   lā, bà kēn   málʋ̀ŋ   lā
And Jesus **COMP TNS COP** year:**PL** ten with **NUM**:two **ART**, **3PL** go:**IPFV** sacrifice:**SG ART**

wūʋ bán   ň̄yɛ̄ɛ tí nìŋɪd sī'əm lā. Kà màlʋŋ   lā dábɪsà‿ø
like **3PL:COMP** usually do:**IPFV INDF.ADV ART**. And sacrifice:**SG ART** day:**PL**   **COMP**

nāe   lā, kà bà lébìd   n   kūn.   Kà Jesus kpɛ́lìm
finish:**PFV ART**, and **3PL** return:**IPFV SER** return.home:**IPFV**. And Jesus remain:**PFV**

Jerusalem tɛ́ŋīn.   Kà ò bā'   né ò mà   dāa pū
Jerusalem land:**SG:LOC**. And **3HU** father:**SG** with **3HU** mother:**SG TNS   NEG.IND**

báŋ   yɛ́ ò kpèlɪm   yāa ⁺ø; bà dāa tɛ̄ň'ɛs   yɛ́ ò bɛ̀ nɛ̄
realise:**PFV** that **3HU** remain:**PFV INDEP NEG**; **3PL TNS** think:**PFV** that **3HU EXIST FOC**

nɛ́ bà tèŋ-dìm   lā, kà kɛ̄ŋ ...
with **3PL** land-individual.**PL ART**, and go:**PFV**...

"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. But his father and mother **didn't realise** that he had stayed; they **thought** that he was with their fellow-countrymen. And they went ..." (Lk 2:42-44, 1976)

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17) It is quite common in Africa for non-initial clauses in narrative to resemble subordinate clauses: Hausa narrative, for example, uses the Focus Perfective, otherwise found in relative clauses and in clefting (Jaggar 2001 pp161ff pp526ff), and the Kordofanian Talodi language Lumun uses *á* "and, while" followed by the Dependent Perfective, used elsewhere in purpose clauses and in coordinated commands following the Imperative (Smits pp363, 652.) Consistent narrative tense-marking behaviour of this kind is not seen in Mooré or Dagbani, which seemingly also lack subordinate-type tonal marking following a coordinating clause linker 29.2 .

Most clauses without tense marking in narrative thus show initial *kà*, but some begin with a *ǹ*-Clause, itself usually without tense-marking, *followed* by *kà*. Note these patterns of tense marking with *ǹ*-Adverbial Clauses preceding main clauses (from Mark, Luke, and Acts 1-14, 1976 version):

Tense Markers		A, B	A *kà* B	*kà* A, B	*kà* A *kà* B
A	B				
-	-	7	23	40	85
-	+	2	0	4	2
+	-	0	7	3	17
+	+	11	2	11	0

Absent tense marking in *ǹ*-Clauses within narrative is expected, because they mark tense relative to the narrative timeline rather than absolutely (see below.) Absent tense marking in A-*kà*-B type main clauses probably signifies that even tense-unmarked *ǹ*-Clauses suffice to licence implicit tense marking in main clauses 24.3.3.

Conjunctions precede the linking *kà* of Sequential Clauses 29.3, and have no effect on the tense marking behaviour:

> *Ka sieba la' o. Amaa ka sieba yel ye ...*
> *Kà   sīəba láˀ·ò⌣   ø.   Àmáa kà sīəba yɛl   yɛ̄ ...*
> And **INDF.PL** laugh:**PFV 3HUO**. But   and **INDF.PL** say:**PFV** that...
> "Some laughed at him, but others said..." (Acts 17:32.)

> *Ka o ma daa a siakid. Amaa ka o saam daa a Greek nid.*
> *Kà   ò   mà   dāa á si̠ākıd.   Àmáa kà ò   sàam   dāa á*
> And **3HU** mother:**SG TNS COP** believer:**SG**. But   and **3HU** father:**SG TNS COP**
> *Greek níd.*
> Greek person:**SG**.
> "His mother was a believer, but his father was a Greek." (Acts 16:1, 1976.)

"Resumptive" *yɛ̄* in indirect speech also has no effect on the licencing of the dropping of explicit tense marking in *kà*-clauses in narrative 31.4.3.

A subject pronoun can be ellipted, not only after *kà* coordinating clauses when the preceding clause has a subject with the same reference, but also after *kà* when it is preposing an *ǹ*-Adverbial Clause with a subject with the same reference 29.1.4.2:

Ban da dol wa'e la, ka nye dau ...
Bán   dà dɔ̄l‿ ø wá'e lā, kà ňyɛ̄   dāu̯ ...
3PL:COMP TNS follow **SER** go   **ART**, and see:**PFV** man:**SG**...
"As they were going together, (they) saw a man ..." (Mt 27:32, 1976)

The possible occurrence of pre-subject adjuncts demonstrates that Sequential Clauses are not only semantically but structurally main clauses, not subordinate. Sequential Clauses also differ from subordinate clauses in permitting the particle *nɛ̄* in its constituent-focussing sense.

Very long descriptions in NT sometimes change to Sequential Clauses, but in general the pattern is consistent. In the genealogy of Jesus in Luke 3:23ff, which moves backwards in time, there are dozens of consecutive examples of

kà X *sáàm*   **dá** *à nɛ̄* Y   "and X's father **was** Y"
and X father:**SG TNS COP FOC** Y

whereas the genealogy in Matthew 1.1ff has dozens of clauses of the pattern

kà X *du̯'á*   Y   "and X begat Y."
and X beget:**PFV** Y

Note the "aside" *Ò mà* **dá** *à nɛ̄ ...* in

*Ka Jese du'a na'ab David. Ka David du'a Solomon. O ma **da** ane Uria po'a. Ka*
 Solomon du'a Rehoboam.
Kà   Jese du̯'á   ná'àb David. Kà David du̯'á   Solomon. Ò mà
And Jesse beget:**PFV** king:**SG** David. And David beget:**PFV** Solomon. **3HU** mother:**SG**
dá à nɛ̄ Uria pu̯'á.   Kà Solomon du̯'á   Rehoboam...
TNS COP FOC Uriah wife:**SG**. And Solomon beget:**PFV** Rehoboam...
"And Jesse begat King David. And David begat Solomon. His mother **was**
 Uriah's wife. And Solomon begat Rehoboam..." (Mt 1:6-7)

*Ǹ-*Clauses normally mark tense independently and absolutely:

*Ɔ̄n   dāa ňyɛ̄t súŋā   ɔ́n   dāa á bí-līa   láa *⁺*ø?*
3HU.CNTR TNS see:**IPFV** good:**ADV** **3HU:COMP TNS** **COP** child-baby:**SG ART** **PQ**?
"Did he see well when he was a baby?"

but within a series of Sequential Clauses in narrative they mark tense relative to the narrative timeline:

Kà bà ǐyɛ̄ dáų̄-kànι̯ ø sà kō ná'àb lā.
And **3PL** see:**PFV** man-**DEM.SG COMP TNS** kill:**PFV** chief:**SG ART**.
"And they saw the man who killed the chief the day before."

Kà bà níŋ ɔ́n pà' yɛ̀lι̯ bā sī'əm lā.
And **3PL** do:**PFV 3HU:COMP TNS** say:**PFV 3PLO INDF.ADV ART**.
"And they did what he'd told them earlier that day."

These principles regarding tense marking in narrative are less reliably seen in KSS than in the NT, but are still evident.

30.3.2.1 Aspect

The typical aspect seen in narration is naturally the Event Perfective. Asked to comment on the acceptability of *kà*-clauses without tense marking presented in isolation, informants interpreted them as narrative Sequential Clauses, and rejected interpretations with other aspects. The particle *nɛ̄* was taken as necessarily marking constituent focus rather than aspect:

Lì bɔ̀dιg nɛ̄.   "It's lost."
3NH get.lost:**PFV FOC**.

Kà lì bɔ́dìg nɛ̄.
And **3NH** get.lost:**PFV FOC**.
Rejected by WK as ill-formed; accepted after some thought by DK, explaining the expression as contradicting "someone hid it", i.e. as contrastive VP focus.

Bà kὺdιg nɛ̄.   "They're old."
3PL get.old:**PFV FOC**.

Kà bà kύdìg nɛ̄.   "And they're old."
And **3PL** get.old:**PFV FOC**.
 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. contrastive focus on the VP.

With any tense marker, the aspectual meaning becomes freely acceptable to WK and DK, because the clause is no longer taken as Sequential:

Kà lì dāa bɔ́dìg nɛ̄.   "And it was lost."
And **3NH TNS** get.lost:**PFV FOC**.

Kà bà sá kʊ̀dɪg nɛ̄.
Kà bà dāa kúdìg nɛ̄.
Kà bà dá kʊ̀dɪg nɛ̄.   all acceptable as "and they were old."

In an appropriate context in actual texts, other aspects are perfectly possible:

*Ka ba due keŋ. Ka ban ken la, Jesus **gbisid ne**.*
Kà bà dūe‿ ø kɛ̄ŋ. Kà bán kɛ̄n lā, Jesus gbīsɪd nɛ̄.
And **3PL** arise:**PFV SER** go:**PFV**. And **3PL:COMP** go:**IMPF ART**, Jesus sleep:**IPFV FOC**.
"So they started out. As they were travelling, Jesus was sleeping."
(Lk 8:22-23, 1976; no *nɛ̄* in the 1996 version.)

Ka on kpen' la, o yeli ba ye [...]. *Ka ba **la'ad** o.*
Kà ɔ́n kpèň ʔ lā, ò yɛ́lì‿ bā yɛ̄ [...]. Kà bà láʔad·ō‿ ø.
And **3HU:COMP** enter:**PFV ART**, **3HU** say:**PFV 3PLO** that ... and **3PL** laugh:**IPFV 3HUO**.
"After he came in, he said to them [...]. But they laughed (ipfv) at him."
(Mk 5:39-40)

Even in narrative, *kà* can mark coordination rather than sequence. The tense marker of the preceding clause is still not repeated, but again any aspect is possible:

*Ba da pu mor biiga, bozugo Elizabet **da** ane kundu'ar, ka babayi la wusa
  me **kudigne**.*
Bà dà pū mɔ̄r bīiga ⁺ø, bɔ̄zúgū Elizabet dá à nɛ̄
3PL TNS NEG.IND have child:**SG NEG**, because Elizabeth **TNS COP FOC**
kúndʊ̀ʔar kà bà bàyí lā wūsa mɛ́ kʊ̀dɪg nɛ̄.
barren.woman:**SG** and **3PL NUM:**two **ART** all   also get.old:**PFV FOC**.
"They had no child, because Elizabeth was barren and they were both old."
(Lk 1:7)

*Ka siakidib wusa bane be Judea ne Galilee ne Samaria **daa** mor sumalisim. Ka
ba kal **paasid**. Ka ba yadda niŋir **nobugid**.*
Kà sī̠ākɪdɪb wūsa bánì‿ ø bɛ́ Judea nɛ̄ Galilee nɛ̄ Samaria
And believer:**PL** all   **DEM.PL COMP EXIST** Judea with Galilee with Samaria
dāa mɔ̄r sū-málɪsìm. Kà bà kāl páasìd. Kà bà
TNS have heart-sweetness. And **3PL** number:**SG** increase:**IPVF**. And **3PL**
yàddā-níŋìr nɔ̄bɪgíd.
assent-doing grow:**IPVF**.
"All the believers who were in Judea and Galilee and Samaria were joyful. Their
 numbers were increasing and their faith was growing." (Acts 9:31, 1976)

31 Subordinate Clauses after *kà* and *yɛ̄*

31.1 Subordinate Clauses and Independency Marking

Both linker particles *kà* and *yɛ̄* can introduce subordinate clauses of several kinds. These subordinate clauses appear last within their main clauses, normally just before any Negative Prosodic Clitic 35.3 , and can be verb phrase complements or clause adjuncts. Particular verbs may prefer or require a complement clause with one or the other particle, and the Supplement Clause type always uses *kà*, but in other cases the two particles are often equivalent.

The major structural distinction among subordinate clauses introduced by linker particles is between Content Clauses and all the rest. Content Clauses are downranked main clauses 29.2 , showing Independency Marking and independent tense marking on the Verbal Predicator, and permitting the full range of focus and foregrounding constructions. Other clause types lack Independency Marking, do not allow focus or foregrounding, and show tense marking only if the main clause itself is ellipted:

> *Ò   sáa zàb   nà ʔab   lā.*
> **3HU TNS** fight:**PFV** chief:**SG ART**.
> "He should fight the chief tomorrow."

In addition, *kà* may be coordinating instead of subordinating 29.2 30.3 . In some cases the construction is formally coordinating even though the sense is subordinating. In the same way even conjunctions which are not formally subordinating can have meanings like English subordinating conjunctions 29.3 .

Clauses of the type introduced by linker particles are themselves coordinated with *kà* "and" *kūʋ/bɛ̄ɛ* "or", not *nɛ̄* like *ǹ*-Clauses:

> *M̀ bɔ́ɔ̀d yɛ̄ dāṳ   lā kɛ̄ŋ dáʔān,   kà pṵʔā   lā dūg   dīıb.*
> **1SG** want that man:**SG ART** go:**PFV** market:**SG:LOC**, and woman:**SG ART** cook:**PFV** food.
> "I want the man to go to market and the woman to cook food." WK

> *Li nar ka on du ka man sie.*
> *Lì nàr kà ɔ̄n   dū,   kà mān   sīe.*
> **3NH** must and **3HU.CNTR** rise:**PFV**, and **1SG.CNTR** lower:**PFV**.
> "He must increase and I must decrease." (Jn 3:30)

31.2 Purpose Clauses

Purpose Clauses can be introduced by either *yɛ̄* or *kà*. They have Imperative Mood. There is no Independency Marking and hence no special *-m*[a] flexion of Variable Verbs, but the mood is apparent in the use of *dā*, not *pū* or *kʋ̀*, as the negation particle.

Purpose Clauses may appear as main clause adjuncts, and are then most often introduced by *yɛ̄*:

Bà tìs·ō‿ ø   kú'èm yɛ́   ò   nū.
3PL give:**PFV** **3HUO** water that **3HU** drink:**PFV**.
"They gave him water to drink. ("So that he might drink it.")

M̀ ná tī‿   f   tíìm   yɛ́   fʋ̀ zàbɩr bás.
1SG **UNR** give:**PFV** **2SGO** medicine that **2SG** pain go.away:**PFV**.
"I'll give you medicine so your pain will go away."

M̀ ná tī‿   f   tíìm   yɛ́   fʋ̀ nīf   dā   zábē   [+]ø.
1SG **UNR** give:**PFV** **2SGO** medicine that **2SG** eye:**SG** **NEG.IMP** fight:**PFV** **NEG**.
"I'll give you medicine so your eye won't hurt."

Kà + Purpose Clause is also possible as an adjunct:

M na niŋ wala ka nye faangire?
M̀ ná nīŋ   wɛ̄lá kà ňyɛ̄   fāaňgírè [+]ø?
1SG **UNR** do:**PFV** how and find:**PFV** salvation **CQ**?
"What must I do to get saved?" (Acts 16:30)

Purpose Clauses frequently appear as complements of particular verbs. Some such verbs prefer either *yɛ̄* or *kà* specifically; thus *bɔ̀ɔd*[a] "want" takes *yɛ̄* + Purpose Clause. Answers to *Fʋ̀ bɔ́ɔd bɔ́?* "What do you want?" might be

M̀   bɔ́ɔ̀d yɛ́   ò   kūl.
1SG want that **3HU** return.home:**PFV**.
"I want him to go home."

M̀   bɔ́ɔ̀d yɛ́   m̀   kūl.
1SG want that **1SG** return.home:**PFV**.
"I want [me] to go home."

M̀ bɔ́ɔ̀d yɛ́ fʊ̀ dā   kūle   +ø.
1SG want that **2SG NEG.IMP** return.home:**PFV NEG**.
"I want you not to go home."

cf   *M̀ pū   bɔ́ɔ̀d yɛ́ fʊ̀ kūle   +ø.*
1SG NEG.IND want that **2SG** return.home:**PFV NEG**.
"I don't want you to go home."

Verbs expressing necessity or permission, e.g *nār*[a/] "be obliged to" (negated "be obliged not to"); *mɔ̄r sūɵr* "be allowed to" (literally "have a way [to]") usually take *yɛ̄* when used personally:

Fʊ̀ pū   nār yɛ́ fʊ̀ níŋ   àláa   +ø.
2SG NEG.IND must that **2SG** do:**PFV ADV:**thus **NEG**.
"You're not allowed to do that."

Yà mɔ́r sūɵr   yɛ́ yà kūl.
2PL have way:**SG** that **2PL** return.home:**PFV**.
"You may go home."

With *impersonal* expressions of this type *kà* may however be used instead of *yɛ̄*:

Lì   nàr yɛ́/kà   fʊ̀ kūl.
3NH must that/and **2SG** return.home:**PFV**.
"You must go home."

Lì pū   nār yɛ́ fʊ̀ kūle   +ø.
3NH NEG.IND must that **2SG** return.home:**PFV NEG**.
or   *Lì pū   nár kà fʊ̀ kūle   +ø.*
3NH NEG.IND must and **2SG** return.home:**PFV NEG.**
"You must not go home."

Sūɵr   bɛ́ yɛ́/kà   tì kūl.
Way:**SG EXIST** that/and **1PL** return.home:**PFV**.
"We may go home." (" There's a way that ...")

Never **Lì pū nārá kà fʊ̀ kūl* 29.2 . So too with *lì à* [*nɛ̄*] *tīlás* "it is necessary", either particle may be used:

Li a tilas ye m keŋ Jerusalem.

Lì   à   tīlás   yɛ́   m̀   kɛ̄ŋ   Jerusalem.

3NH COP necessity that **1SG** go:**PFV** Jerusalem.

"I must go to Jerusalem." (Mt 16:21)

Li ane tilas ka m niŋid ala.

Lì   à   nɛ̄ tīlás   kà   m̀   níŋìd   àlá.

3NH COP FOC necessity and **1SG** do:**IPFV ADV:**thus.

"I must do that." (1 Cor 9:16)

Certain verbs require a Purpose Clause introduced by *kà* as complement. Thus *mìt* "see that it doesn't happen that ...", a defective negative verb used only in the imperative 35.1.1 :

Mit ka ya maal ya tuumsuma nidib tuon ye ba gosi yaa.

Mìt   kà yà máàl   yà tʋ̀ʋm-sʋ̀ma nīdɪb   túòn

NEG.cause.**IMP** and **2PL** make:**PFV 2PL** deed-good:**PL** person:**PL** front

yɛ́   bà gɔ̄sí‿   yáa   ⁺ø.

that **3PL** look.at:**PFV 2PLO   NEG**.

"See that you don't do your good deeds in front of people so they'll look at
  you." (Mt 6:1, 1976)

So too *kɛ̄⁺* "let, leave off" in the sense "let, cause that" which makes periphrastic causatives.

Tì   kɛ́   kà   bà   lɛ́bɪsì‿   tī.

1PL cause:**PFV** and **3PL** reply:**PFV 1PLO**.

"We made them reply to us."

Ò   kɛ̀   kà   bà   pʋ̄   kūle   ⁺ø.

3HU cause:**PFV** and **3PL NEG.IND** return.home:**PFV NEG**.

"He caused them not to go home." (Indicative)

The irregular imperative *kɛ̀l*ᵃ, followed by a *kà*-clause with Imperative Mood, creates a way of expressing indirect commands, including first and third persons:

Kɛ̀l   kà   ò   gɔ̄s   tɛ̄ŋɪn.

Cause:**IMP** and **3HU** look:**PFV** ground:**SG:LOC**.

"Let him look down."

Dā   kɛ́   kà dābíàm bɛ́ɛ̄ ⁺ø!
NEG.IMP cause:**PFV** and fear   **EXIST NEG**.
"Don't be afraid." ("Let fear not exist.")

Kɛ̀l   [or Kɛ̀lí‿   ø] kà tì pʋ́ˀʋ̀s   Wínàˀam.
Cause:**IMP**   cause:**IMP 2PLS**   and **1PL** greet:**PFV** God.
"Let us praise God."

In informal speech *kɛ̀l kà ...* is often ellipted 29.1.4 , leaving the lack of
Independency Marking as the only sign that the clause is an indirect command:

Ò gɔ̄s tēŋɩn.	"Let her look down."
3HU look:**PFV** ground:**SG:LOC**.	(No Independency Marking, so
	no tone overlay on *gɔ̄s*.)
Tì pʋ́ˀʋ̀s Wínàˀam.	"Let us praise God."
1PL greet:**PFV** God.	(homophonous with "We thank God.")
M̀ gɔ̄s nīf lā.	"Let me look at the eye."
1SG look.at:**PFV** eye:**SG ART**.	(No tone overlay on *gɔ̄s*.)

cf	*M̀ gɔ́s nīf lā.*	"I've looked at the eye."
	1SG look.at:**PFV** eye:**SG ART**.	(Independency marked: tone overlay on *gɔ́s*.)

M̀ dígɩnèe ⁺ø?	"Am I to lie down?"
1SG lie.down:**PFV** **PQ**?	(No Independency Marking: no impv -*m*ᵃ)
Tì záb náˀàb lā.	"We've fought the chief."
1PL fight:**PFV** chief:**SG ART**.	(Independency: Tone overlay on *záb*
	seen in the following L raising 24.6.1.1)
Tì záb nàˀab lā.	"We should fight the chief."
1PL fight:**PFV** chief:**SG ART**.	(No Independency: No tone overlay on *záb*.)

Another tonal minimal pair with and without Independency Marking:

	Ò zàb náˀàb lā.	"He's fought the chief."
	3HU fight:**PFV** chief:**SG ART**.	
but	*Ò záb nàˀab lā.*	"He should fight the chief."
	3HU fight:**PFV** chief:**SG ART**.	(No Independency: No tone overlay on *záb*.)

Absence of Independency Marking here forces interpretation as a subordinate clause, with an ellipted main clause *M̀ bɔ́ɔ̀d yɛ̄ ...* "I want that ..." or *Kɛ̀l kà... .*

The "purpose" sense of a Purpose Clause is sometimes very attenuated:

Ka ba gban'e ba n kpen'es sarega ni ye beog nie.
Kà   bà   gbāň'á‿   bā   n   kpéň'ɛ̀s   sārɪgá   nì   yɛ̄   bēog   níe.
And **3PL** seize:**PFV 3PLO SER** put.in:**PFV** prison:**SG LOC** that morning appear:**PFV**.
"They seized them and put them in prison until tomorrow should come."
(Acts 4:3)

The verb *gūr*[a/] "be on guard, watch, wait for" in the sense of "waiting for an event" may take as complement either a NP headed by gerund, or a Purpose Clause, again with this attenuated sense:

Nidib la daa gur Zekaria yiib na.
Nīdɪb   lā   dāa gūr   Zekaria   yîîb   nā.
Person:**PL ART TNS**   watch Zechariah emerge:**GER** hither.
The people were watching for Zechariah's coming out. (Lk 1:21)

dap bane gur ye ba zugsob naan po'adiir di'ema zin'igin kul na
dàp-bànɪ‿   ø   gūr yɛ́   bà   zūg-sɔ́b   nāan   pu̱'á-dīɪr   dí'əmà
man-**DEM.PL COMP** wait that **3PL** head-one:**SG** be.there wife-taking:**SG** feast:**PL**
zíň'igīn‿   ø   kūl   nā
place:**SG:LOC SER** return.home:**PFV** hither.
"men who are waiting for their lord [being] at a wedding feast to return ..."
(Lk 12:36)

...n gur ye po'a la du'a ka o ob o biig la.
...n   gūr   yɛ̄   pu̱'á   lā   du̱'á   kà   ò   ɔ́ňb   ò   bīig   lā.
  SER watch that woman:**SG ART** bear:**PFV** and **3HU** eat:**PFV 3HU** child:**SG ART**.
"...waiting for the woman to give birth so that he could devour her child."
(Rev 12:4)

Purpose can also be expressed by Serial VPs $\boxed{28}$, or the particle-verb *tì* $\boxed{24.7.2}$.

31.3 Supplement Clauses

A subordinate *kà*-clause with Indicative or Unrealised Mood and without Independency Marking is a **supplement** (Huddlestone and Pullum 2002 pp1350 ff.) attached to a NP **anchor**, usually though not invariably the NP directly preceding the *kà*, but not the main clause subject (with one exception discussed below.) The *kà*-clause contains a pronoun referring to this NP, which is ellipted if it is a verb direct object 25.1.1 . The sense is usually that of a non-restrictive relative clause:

Asee line a be'ed ma'aa ka m na tun'e niŋ.
Àsɛ́ɛ línɪ‿ ø   à   bɛ̄ʾɛd máʾàa kà   m̀   ná tūň̓ʾe‿ ø   níŋ.
Only **DEM.NH COMP COP** bad   only   and **1SG UNR** be.able **SER** do:**PFV**.
"It's only that which is bad that I can do." (Rom 7:21)

Li ane ya taaba bane pu'usid Wina'am ka li nar ka ya kad saria.
Lì   à   nɛ́ yà tāaba bánì‿ ø   pʊ̀ʾʊsɪd Wínàʾam kà   lì   nár
3NH COP FOC 2PL fellow **DEM.PL COMP** greet:**IPFV** God   and **3NH** must
kà yà kád   sàríyà.
and **2PL** drive:**PFV** judgment.
"It is your fellow-worshippers of God whom you must judge." (1 Cor 5:12)

Dau so' daa be Sizerea, ka o yu'ur buon Konelus.
Dàu̯-sɔ̄ʾ   dāa bɛ́ Sizerea kà   ò   yū̄ʾur   búèn   Konelus.
Man-**INDF.HU TNS** **EXIST** Caesarea and **3HU** name:**SG** call:**IPFV** Cornelius.
"There was a man in Caesarea whose name was Cornelius." (Acts 10:1)

Anina ka o nye dau ka o yu'ur buon Aeneas.
Àníná   kà   ò   ňyɛ̄   dáu̯   kà   ò   yū̄ʾur   búèn   Aeneas.
ADV: there and **3HU** see:**PFV** man:**SG** and **3HU** name:**SG** call:**IPFV** Aeneas.
"There he found a man whose name was Aeneas." (Acts 9:33)

The main clause may have a Non-verbal Predicator 27 :

Ɔ̄nɪ‿ ø   lá   kà   fʊ̀ dāa ňyɛ̄t.
DEM.HU SER that and **2SG TNS** see:**IPFV**.
"This is he whom you saw." WK

Ànɔ́ʾɔnì‿ ø   ňwá kà   tì   ňyɛ̄tá ⁺ø?
Who   **SER** this and **1PL** see:**IPFV CQ**?
"Who is this that we can see?"

Bɔɔ‿ ø   lá   kà   m̀   ňyɛ̄tá   +ø?

What **SER** that and **1SG** see:**IPFV** **CQ**?

"What is that that I can see?"

The construction is not permitted if the subject of the main clause is the same as the subject of the *kà*-clause; a serial-verb construction then is used instead, in a parallel way.

Supplement clauses are the basis of *kà*-clefting and *kà*-preposing 34.2.

Supplement *kà*-clauses with definite NPs as anchors may occur in the sense of predicative complements 25.2 in place of Content Clauses 31.4.

Examples (KT's translations) with an indefinite NP as anchor:

M̀   dāa ňyɛ̄   dáu̯   kà   ò   á   ná'àb.

1SG TNS see:**PFV** man:**SG** and **3HU COP** chief:**SG**.

"I saw a man who was a chief."

M̀   dāa pū   ňyɛ̄   dáu̯   kà   ò   á   ná'abā   +ø.

1SG TNS NEG.IND see:**PFV** man:**SG** and **3HU COP** chief:**SG NEG**.

"I didn't see a man who was a chief."

M̀   dāa pū   ňyɛ̄   ná'àb   kà   ò   á   bālɛ̄rʋgó +ø.

1SG TNS NEG.IND see:**PFV** chief:**SG** and **3HU COP** ugly:**SG**   **NEG**.

"I didn't see a chief who was ugly."

With a definite NP as anchor:

M̀   dāa ňyɛ̄   dāu̯   lá kà   ò   á   ná'àb.

1SG TNS see:**PFV** man:**SG ART** and **3HU COP** chief:**SG**.

"I saw the man as a chief."

M̀   dāa pū   ňyɛ̄   dāu̯   lá kà ò   á   ná'abā   +ø.

1SG TNS NEG.IND see:**PFV** man:**SG ART** and **3HU COP** chief:**SG NEG**.

"I didn't see the man as a chief."

KT did not accept the readings "I saw the man, who was a chief" or "I didn't see the man, who was a chief."

KT rejected some similar sentences as ill-formed.

NEG before *ka*, making the subordinate reading impossible:

* M̀ dāa pū   ňyɛ̄   dáʋ   ⁺ø kà ò á   náʔàb.
1SG TNS NEG.IND see:PFV man:SG NEG and 3HU COP chief:SG.

*M̀ dāa pū   ňyɛ̄   náʔabá ⁺ø kà ò á   bālɛ̄rʋg.
1SG TNS NEG.IND see:PFV chief:SG NEG and 3HU COP ugly:SG.

Tense marking in the subordinate clause:

*M̀ dāa pū   ňyɛ̄   dāụ̄   lá kà ò dāa á náʔabā ⁺ø.
1SG TNS NEG.IND see:PFV man:SG ART and 3HU TNS COP chief:SG NEG.

Focus marking in the subordinate clause:

*M̀ dāa pū   ňyɛ̄   dāụ̄   lá kà ò á nɛ̄ náʔabā ⁺ø.
1SG TNS NEG.IND see:PFV man:SG ART and 3HU COP FOC chief:SG NEG.

*M̀ dāa pū   ňyɛ̄   dāụ̄   lá kà ò dāa á nɛ̄ náʔabā ⁺ø.
1SG TNS NEG.IND see:PFV man:SG ART and 3HU TNS COP FOC chief:SG NEG.

Supplement Clauses are essentially in complementary distribution with Serial VPs 28.1 , replacing these when the subject and/or polarity do not agree with those of the main clause. A Supplement Clause has the same subject as the main clause only when it replaces a Serial VP because of polarity change, e.g.

Ka dau daa zin'i Listra ni ka pu tun'e kenna.
Kà dāụ̄   dāa zíñʔi Listra ní kà pū   tūñʔe‿ ø kɛ̄nná ⁺ø.
And man:SG TNS sit   Lystra LOC and NEG.IND be.able SER go:IPFV NEG.
"There was a man in Lystra who could not walk." (Acts 14:8)

Compare also *n*-focus versus *kà*-preposing constructions 34.1.2 34.2 .

31.4 Content Clauses

Yɛ̄, and less often *kà*, may introduce clauses displaying Independency Marking on the Verbal Predicator 24.6 . They show all the structural features possible for main clauses, such as focus and foregrounding. They occur very frequently representing passages of indirect speech, but are also found much more generally after verbs of cognition, reporting, and perception as **Content Clauses**. Kusaal content clauses are thus **downranked** main clauses functioning as subordinate clauses.

Verbs taking content clauses as objects include

*yɛ̀l*ᵉ	"say"	*wʋ̀m*ᵐ	"hear"
n̆yɛ̄⁺	"see"	*tɛ̄n̆ˀɛs*ᵉ/	"think"
*mī*ˀ⁺	"know"	*bàŋ*ᵉ	"come to know"
*pà*ˀal*ᵉ	"teach, show"	*kàrɩm*ᵐ	"read"
*zī*ˀ⁺	"not know"		

Although the tone is different, *yɛ̄* is presumably connected with *yɛ̀l*ᵉ "say, tell." It occurs by itself in the sense *yɛ̀l yɛ̄*: *Wínàˀam yɛ̄ ...* "God says: " Compare the immediate future construction with subject + *yɛ̄*-Purpose Clause 24.3.2 .

Except in indirect speech 31.4.1 , content clauses are normally declarative. The equivalent of an interrogative main clause is a Relative Clause using an indefinite pronoun as the relative 33.2.1.1 , and the equivalent of an imperative main clause is a subordinate Purpose Clause 31.2 .

Fu wum ban yet si'em laa?
*Fʋ̀ wʋ́m   bán   yɛ̀t   sī*ˀəm   láa ⁺ø?*
2SG hear**:IPFV 3PL:COMP** say**:IPFV INDF.ADV ART   PQ**?
"Do you hear what ["how"] they are saying?" (Mt 21:16)

*Bà nà yɛ̄l·o‿ ø   ɔ́n   nà nīŋ   sī*ˀəm.
3PL UNR say**:PFV 3HUO 3HU:COMP UNR** do**:PFV INDF.ADV**.
"They will tell him what he is to do."

Lì nàr yɛ́/kà   fʋ̀ kūl.
3NH must that/and **2SG** return.home**:PFV**.
"You must go home."

An *ǹ*-Adverbial Clause 33.1 cannot be used as the object of a verb of cognition, reporting, or perception; for "know (etc) the fact that ..." Content Clauses must be used.

Another possibility for the object of such verbs is NP + *yɛ̄lá* "about" 22.6 .

In WK's speech *yɛ̄* + content clause is usual, but he prefers *kà* + content clause after *tɛ̄ňˀɛs*^e/ "think"; the structure is otherwise the same, and this therefore constitutes an exception to the rules that *kà* is never followed by Independency Marking, and that *kà* deletes a following subject pronoun with the same reference as the preceding subject:

> *Ò   tèňˀɛs   kà   ò   zàb   náˀàb   lā.*
> **3HU** think:**PFV** and **3HU** fight:**PFV** chief:**SG ART**.
> "He thinks he's fought the chief." WK

> *Ṁ   tɛ́ňˀɛ̀s   kà   ò   à   nɛ̄ du̯ˀátà.*
> **1SG** think:**PFV** and **3HU COP FOC** doctor:**SG**.
> "I think she's a doctor." WK

> *Ṁ   tɛ́ňˀɛ̀s   kà   ò   lù   yā.*
> **1SG** think:**PFV** and **3HU** fall:**PFV INDEP**.
> "I think she's fallen." WK

> *Ṁ   tɛ́ňˀɛ̀s   kà   m̀ lú   yā.*
> **1SG** think:**PFV** and **1SG** fall:**PFV INDEP**.
> "I think I've fallen" WK

> *Ṁ   tɛ́ňˀɛ̀s   kà   nīigí   lā   ɔ́ňbìd.*
> **1SG** think:**PFV** and cow:**PL ART** chew:**IPFV**.
> "I think the cows eat." WK

> *Ṁ   tɛ́ňˀɛ̀s   kà   nīigí   lā   ɔ́ňbìd   nɛ̄.*
> **1SG** think:**PFV** and cow:**PL ART** chew:**IPFV FOC**.
> "I think the cows are eating." WK

NT sometimes has *kà* + content clause after other verbs, and *yɛ̄* + content clause after *tɛ̄ňˀɛs*^e/.

> *Ya pun wum ka ba da yel ye...*
> *Yà pún   wòm   kà   bà dá yèl   yɛ̄ ...*
> **2PL** previously hear:**PFV** and **3PL TNS** say:**PFV** that...
> "You previously heard that they had said ..." (Mt 5:43)

...yanam baŋim ka li nwa'ab li'eleya.

*...yānám   bàŋım   kà   lì   ňwā*ʾab   lí*ʾàl   yā.*

...2PL.CNTR realise:**IMP** and **3NH** breaking.up approach:**PFV INDEP**.

"Know that its breaking up has come near." (Lk 21:20, 1976)

Ka ya ten'es ye m mood ye m ma'e nidib sunf bee?

*Kà   yà   tɛ́ň*ʾɛ̀s   yɛ́   m̀   mɔ̄ɔd   yɛ́   m̀   mā*ʾe   nīdıb   súňf   bɛ́ɛ ⁺ø?*

And **2PL** think:**PFV** that **1SG** strive:**IPFV** that **1SG** cool:**PFV** person:**PL** heart:**SG** or   **PQ**?

"And do you think that I am trying to please people?" (Gal 1:10, 1976)

Pronouns are changed throughout in the Content Clause to reflect its setting, on the same basis as in English "indirect speech."

The free personal pronouns have **logophoric** 31.4.2 meaning in Content Clauses.

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 yɛ́l   yɛ́   bà   dāa kūl.

3HU TNS say:**PFV** that **3PL TNS** return.home:**PFV**.

"She said that they had gone home."

*Tì   dāa tɛ̄ň*ʾɛs   yɛ́   ò   nà   zāb   ná*ʾàb   lā.*

1PL TNS think:**PFV** that **3HU UNR** fight:**PFV** chief:**SG ART**.

"We thought he was going to fight the chief."

Examples of main-clause type structural features within content clauses:

ban mi' ye biig la kpine la zug

*bán   mī*ʾ   yɛ̄   bīig   lā   kpí   nɛ̄   lā   zúg*

3PL:COMP know that child:**SG ART** die:**PFV FOC ART** upon

"Because they knew that the child was dead" (Lk 8:53)

where focus-*nɛ̄*⁺/ occurs in a content clause within an *ǹ*-Clause. The second article *lā* marks the end of the *ǹ*-Clause.

*Bὺŋ-bāň*ʾad   zī*ʾ   yɛ̄   tɛ̄ŋ   túllā   ⁺ø.*

Donkey-rider:**SG NEG.KNOW** that ground:**SG** be.hot **NEG**.

"The donkey-rider doesn't know the ground is hot."

(*Tɛ̄ŋ túl.* "Ground is hot."; *tῡl*|ᵃ/"be hot")

There is tone overlay due to Independency Marking on *tʊ̄l*[a/]. The final LF is induced by the Negative Prosodic Clitic belonging with the negative verb in the superordinate clause.

Content Clauses also appear after *wʊ̄ʋ* "like" 23.1 ; the construction involves a subordinate rather than main clause, as is demonstrated by e.g.

> *ka tuumbe'ed **ku** len so'e ti wuu ti aa li **yamugo**.*
> *kà   tʋ̀ʋm-bɛ̃ʔɛd kʊ́   lɛ̄m   sʊ̄ʔʊ́_tī   wʊ̄ʋ tì   áá_ lì   yàmmʋgō* [+]*ø.*
> and work-bad:**PL NEG.UNR** again own **1PLO** like **1PL COP 3NH** slave:**SG**   **NEG**.
> "and that sin will not again own us as if we were its slave." (Rom 6:6)

See further 29.3 on conjunctions and prepositions.

31.4.1 Direct and Indirect Speech

After a speech-verb *yɛ̄* may introduce the words of the direct speech itself, unaltered except for the presence of "resumptive" *yɛ̄* at intervals 31.4.3 . This is an uncommon strategy in written materials prior to the 1996 NT Version; in the 1976 version it seems to be chosen mostly for direct utterances of Jesus.

More commonly, the original direct speech is downranked to a content clause or series of coordinated content clauses, with personal pronouns altered throughout as in English indirect speech. The free personal pronouns are used logophorically 31.4.2 as in all Content Clauses. All other features of the original main clauses, including tense marking and Independency Marking, are unchanged as usual.

Such passages of indirect speech may be kept up for very long stretches; the 1976 NT version has examples extending over several pages. The 1996 revision consistently replaces all indirect speech with direct, however.

Pronouns are changed even within a vocative in indirect speech:

> *O zuanam ne o saamnama, ye ba kelisim.*
> *Ò   zu̯à-nàm nɛ́   ò   sàam-nàmā* [+]*ø, yɛ́   bà kɛ̀lɪsɪm!*
> **3HU** friend-**PL** with **3HU** father-**PL**   **VOC** that **3PL** listen:**IMP**!

for direct

> *M̀ zu̯à-nàm nɛ́   m̀ sàam-nàmā* [+]*ø,   kɛ̀lɪsɪmī̄_ ø!*
> **1SG** friend-**PL** with **1SG** father-**PL**   **VOC**, listen:**IMP 2PLS**!
> "My friends and my fathers, listen!" (Acts 7:2, 1976)

Ka m wum Wina'am kokor ka li yi arazana ni na ye,
o nidiba, ye ba yimi teng la ni na.

Kà m̀ wúm   Wínà'am kúkɔ́r   kà lì yī   áràzánà ní nā   yɛ̄,
And **1SG** hear:**PFV** God   voice:**SG** and **3NH** emerge:**PFV** heaven   **LOC** hither that

ò nīdɩbá ⁺ø, yɛ́ bà yìmī‿   ø tɛ̄ŋ   lā ní nā.
3HU person:**PL VOC**, that **3PL** emerge:**IMP 2PLS** 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)

These examples also illustrates the fact that **the indirect speech construction differs from other types of content clause in that it may feature imperative clauses as content clauses**, which elsewhere would be replaced by subordinate clauses of purpose.

In such quoted direct commands the usual deletion of a 2nd sg subject and change of 2pl subject to enclitic ya does not occur; this is true even when the addressee is the same as in the original utterance so that the pronouns remain 2nd person. Some speakers still keep the enclitic ya after the verb even when there is a pronoun subject before it; see the second example above, and 30.2.3 .

Indirect-speech quoting of imperatives provides an alternative way of expressing indirect commands to the use of purpose clauses 31.2 ; as with that construction, the main clause and linker may be altogether ellipted 29.1.4 informally:

M̀ yɛ́l   yɛ́ ò gɔ̀sɩm tɛ̄ŋɩn.
1SG say:**PFV** that **3HU** look:**IMP** ground:**SG:LOC**.
"I said she should look down."

Ò gɔ̀sɩm   tɛ̄ŋɩn.   "She should look down."
3HU look:**IMP** ground:**SG:LOC**.

M̀ tɛ́ñ'ɛ̀s   kà tì pʊ́'ʊsìm Wínà'am.
1SG think:**PFV** and **1PL** greet:**IMP** God.
"I think we should praise God."

Tì pʊ́'ʊsɩm Wínà'am.   "We should praise God."
1PL greet:**IMP** God.

A main clause of interrogative type can be downranked in indirect speech too:

Ka Peter bu'os o ye, Ananias, ye bo ka o ke ka Sutaana kpen' o suunrin...

Kà   Peter bū^ʔǝs·ó‿ ∅   yɛ̄ Ananias, yɛ̄   bɔ́   kà   ò   kɛ́   kà   Sūtáanà

And Peter ask:**PFV** **3HUO** that Ananias, that what and **3HU** cause:**PFV** and Satan

kpɛ̀ň^ʔ   ò   sūuňrín ...   ⁺∅?

enter:**PFV** **3HU** heart:**SG:LOC** ...   **CQ**?

"Peter asked him: Ananias, why did you let Satan enter your heart ...?"
(Acts 5:3, 1976)

Similarly with a main clause without a predicate structure 30.2.4 :

Ò   yɛ̀l   yɛ̄   báp.   "She said 'Bap!'"

3HU say:**PFV** that Bap.

31.4.2 Logophoric Pronouns

Within Content Clauses personal pronouns are altered throughout as in English indirect speech, except in directly embedded passages of direct speech 31.4.1 .

The free 3rd person pronouns have **logophoric** sense. In contexts where bound pronouns could have occurred instead (i.e. where they are contrastive 34.5) they refer to the speaker(s), replacing 1st persons of the original utterance. Bound 3rd persons may also have this sense, but the free pronouns are much commoner, especially as subjects, even when no ambiguity would otherwise result.

Thus "He said: I will kill them.'" is usually

Ò   yɛ̀l   yɛ̄   ɔ̄n   ná kūʋ́‿ bā.

3HU say:**PFV** that **3HU.CNTR UNR** kill:**PFV 3PLO**.

It is possible to say *Ò yɛ̀l yɛ́ ò nà kūʋ́ bā* with this meaning, but this is more likely to be the equivalent of "He(1) said: 'He(2) will kill them.'" So e.g (all 1976 NT version):

Festus tans Paul ye o geem ne ... ka Paul lebis ye on pu geem.

Festus táňs   Paul yɛ́   ò   gɛ̀ɛňm   nɛ̄ ... kà Paul lɛ́bìs

Festus shout:**PFV** Paul that **3HU** go.mad:**PFV FOC** ... and Paul reply:**PFV**

yɛ̄   ɔ̄n   pū   gɛ́ɛňmm   ⁺∅.

that **3HU.CNTR NEG.IND** go.mad:**PFV NEG**.

"Festus shouted to Paul that he [Paul] was mad ...
  Paul replied that he [Paul] was not mad." (Acts 26:24-25)

Wina'am ye ... arazana ane on na'am kuk
... bo yir ka ba na me n tis one?
Wínà²am   yɛ́ ... àrazánà   á   nɛ̄   ɔ̄n   nā²am kúk
God   say:**PFV** that...heaven:**SG COP FOC 3HU.CNTR** realm chair:**SG**
... bɔ̀-yír   kà bà ná mɛ̄   n   tís   ɔ̀ne   ⁺ø?
... what-house:**SG** and **3PL UNR** build:**PFV SER** give:**PFV 3HU.CNTR CQ**?
"God says: .... heaven is his throne ... what house will they build for him?"
(Acts 7:49)

The corresponding direct speech would be:

Àrazánà á   nɛ́   m̀   nā²am kúk
Heaven   **COP FOC 1SG** realm chair:**SG**
... bɔ̀-yír   kà yà ná mɛ̄   n   tísì⌣   mà ⁺ø?
... what-house:**SG** and **2PL UNR** build:**PFV SER** give:**PFV 1SGO CQ**?

31.4.3 Resumptive *yɛ̄*

Regardless of whether a passage is direct or indirect speech, if it is longer than two or three clauses "resumptive" *yɛ̄* is inserted at intervals of roughly every third clause, after any conjunctions but before clause-linker *kà*; this is the only way that *yɛ̄* and *kà* occur together apart from ellipsis 29.1.2 29.1.4.1 .

Ye *ka Paul yel ye o bood ye o kpelim sarega ni.*
Yɛ́   kà Paul yɛ́l   yɛ́ ò bɔ̀ɔd yɛ́ ò   kpɛ́lìm   sārıgá   nì.
That and Paul say:**PFV** that **3HU** want that **3HU** remain:**PFV** prison:**SG LOC**.
" .... but that Paul said he wanted to remain in prison...(Acts 25:21, 1976)

 ... amaa **ye** *ba yaanam da pu bood ye ba siak o noore*
... àmáa yɛ́   bà yāa-nám   dá pū   bɔ́ɔd yɛ́ bà sḭák·ò⌣   ø
... but   that **3PL** ancestor-**PL TNS NEG.IND** want that **3PL** agree:**PFV 3HUO**
nɔ̄ɔré   ⁺ø.
mouth:**SG NEG**.
(within a speech) " ... but their ancestors did not want to obey him"
(Acts 7:39, 1976)

Amaa **ye** *ka on yeli ba ye ...*
Àmáa yɛ́   kà ɔ̄n   yɛ́lì⌣   bā yɛ̄...
But   that and **3HU.CNTR** say:**PFV 3PLO** that...
"But he [the speaker] had said to them ..." (Acts 25:16, 1976)

*Alazug **ye** Wina'am sadigim tisi ba piini kan ka o daa tisi ti la...*
Àlá zùg yɛ̄ Wínà'am ø   sādıgím tísì‿   bā pīını kán   kà   ò   dāa
Thus   that God   **COMP** since   give:**PFV 3PLO** gift **DEM.SG** and **3HU TNS**
tísì‿   tī   lā...
give:**PFV 1PLO ART**.
"Thus, since God had given them the gifts that he had given us ..."
(Acts 11:17, 1976)

*Alazug **ye** ka on ke ka ba mor o ba sa'an na ...*
Àlá zùg yɛ́ kà   ɔ̄n   kɛ́   kà   bà mɔ̄r·ó‿ ø   bà sā'an   nā ...
Thus   that and **3HU.CNTR** let:**PFV** and **3PL** have   **3HUO 3PL** before hither...
"So he [the speaker] had made them bring him [Paul] into their presence..."
(Acts 25:26, 1976)

*Dinzugo **ye** ba kel tikpeedug...*
Dìn zúgū̄   yɛ́   bà   kèl ...
Therefore that **3PL** let:**IMP** ...
"Therefore they should leave off disturbance ..." (Acts 19:36, 1976)

Resumptive *yɛ̄* may be placed between a clause-level presubject adjunct and the subject, or between a vocative NP and the following clause:

*Nanana **ye** o zuanam, **ye** o baŋ ye...*
Nānná-nā   yɛ́   ò   zu̯à-nàm, yɛ́   ò   bàŋ   yɛ̄ ...
Now-hither that **3HU** friend-**PL**,   that **3HU** understand:**PFV** that ...
"Now, his friends should understand that..."
(Acts 3:17, 1976)

*Ka nanana **ye** o niŋi ba Wina'am ne o popielim pia'ad la nu'usin...*
Kà   nānná-nā   yɛ́   ò   nìŋī‿ bá Wínà'am nɛ́   ò   pʋ̀-pìəlım
And now-hither that **3HU** do:**PFV 3PLO** God   with **3HU** inside-whiteness
pi̯áń'àd lā   nú'usīn...
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   zu̯à-nàm nɛ́   ò   sàam-nàmā ⁺ø, yɛ́   bà kèlısım!
3HU friend-**PL** with **3HU** father-**PL**   **VOC** that **3PL** listen:**IMP**!
"His friends and my fathers should listen." (Acts 7:2, 1976)

32 Conditional Clauses

32.1 Conditional Clauses: Overview

Conditional clauses have a subordinate protasis clause before the subject of the apodosis clause. The protasis clause contains the post-subject particle *yà*ˀ. *Yà*ˀ-clauses cannot be coordinated with each other, though they may contain coordinated subclauses, and a main clause may contain more than one *yà*ˀ-clause:

> *Fʊ̀ yá*ˀ *bɔ̀ɔd, m̀ yá*ˀ *lɛ̀b   nā,   m̀ ná yɔ̄ɔ́‿   f.*
> **2SG** if   want, **1SG** if   return:**PFV** hither, **1SG UNR** pay:**PFV** **2SGO**.
> "If you want, when I return, I will pay you."

*Ya*ˀ-clauses occur immediately before the subject of the main clause, after any other pre-subject adjuncts, clause-linker particles or conjunctions.

There must be a non-zero subject after a *yà*ˀ-clause; even direct commands do not, as usual, delete the 2nd person subject pronoun 30.2.3 ; my informants use a free pronoun in this context, as does the NT version in

> *Fu ya'a mor po'a, fun da mood ye fu bas oo.*
> *Fʊ̀ yá*ˀ *mɔ̄r pu̯*ˀ*ā,   fūn dā   mɔ̄ɔd   yɛ́ fʊ̀ bás·ɔ̀ɔ̄   ⁺ø.*
> **2SG** if   have wife:**SG**, **2SG NEG.IMP** struggle:**IPFV** that **2SG** abandon:**PFV:3HUO** **NEG**.
> "If you have a wife, don't try to leave her." (1 Cor 7:27)

Other speakers permit bound pronouns:

> *Bung ya'a bood ye o lubuf, fu po nyeti o tubaa.*
> *Bʊ̀ŋ   yá*ˀ *bɔ̀ɔd yɛ́ ò   lūbʊ́‿   f,*
> Donkey:**SG** if   want that **3HU** throw.off:**PFV** **2SGO**,
> *fʊ̀ pʊ̄   ňyɛ̄tí‿   ò   tʊ̀bāa ⁺ø.*
> **2SG NEG.IND** see:**IPFV** **3HU** ear:**PL** **NEG**.
> "If a donkey wants to throw you off, you don't see his ears." KSS p44

The main clause can be of any type, including a command, as above, or a question; it may have elements preposed with *kà* 34.2 :

> *Fʊ̀ yá*ˀ *gɔ̄s   kpɛ̄lá, bɔ́   kà fʊ̀   ňyɛ̄tá   ⁺ø?*
> **2SG** if   look:**PFV** here,   what and **2SG** see:**IPFV** **CQ**?
> "If you look here, what do you see?"

*Yà*ˀ-clauses express tense independently of the main clause. Indicative Mood, not Unrealised, is used for future meaning, but WK accepts negation with *kʊ̀* instead of *pʊ̄* when the sense is future; so too NT

> *So' ya'a ku tum, on da dii.*
> *Sɔ̄ˀ   yáˀ kʊ̀   tʊ̄m,   ɔ̄n   dā   díʊ   ⁺ø.*
> **INDF.HU** if   **NEG.UNR** work:**PFV**, **3HU.CNTR** **NEG.IMP** eat:**PFV** **NEG**.
> "If anybody will not work, let him not eat." (2 Thess 3:10, 1976)

Occasionally, the protasis appears clause-finally as a consequence of dislocation due to weight (cf 34.3), notably in constructions meaning "it would be better if ...":

> *Li naani so'on ba ya'a nokin neertita'are loon kollin o niŋgoonr ka zaŋ o lobi bas kolugin, n gati*
> *Lì   nāanı sɔ̄ňˀɔn,   bà yáˀ nɔ̄kın   nɛ̄ɛr-títāˀarı͜   ø   lɔ̄ɔn*
> **3NH** then   be.better:**REM** **3PL** if   take:**PFV:REM** millstone-big:**SG** **SER** tie:**PFV:REM**
> *kɔ̄llın   ɔ̄n   nín-gɔ̀ɔr   kà   záŋ·ò͜   ø͜   ø   lɔ̄bı͜*
> around:**LOC** **3HU.CNTR** body-neck:**SG** and take:**PFV** **3HUO** **SER** throw:**PFV**
> *ø   bás   kɔ̄lʊgʊn,   n   gát ...*
> **SER** abandon:**PFV** river:**SG:LOC** **SER** pass:**IPFV**...
> "It would have been better if they had fastened a big millstone round his neck and thrown him into the river, than ..." (Lk 17:2)

> *Dinzug li naan a su'um ba ya'a pu du'an dau kaŋaa.*
> *Dìn-zúg   lì   nāan á   sʊ́m   bà yáˀ pʊ̄   dʊ́ˀān*
> That-upon **3NH** then   **COP** good:**ABSTR** **3PL** if   **NEG.IND** bear:**PFV:REM**
> *dáʊ̰-kàŋáa ⁺ø.*
> man-**DEM.SG** **NEG**.
> "So it would have been better for that man not to have been born."
> (Mk 14:21)

In archaic materials like proverbs, *yà*ˀ-clauses sometimes end in a LF (but see 9.3.2.2 for an alternative analysis):

> *Buŋ ya'a kpi **be'ede**, ba siido ne be'ed.*
> *Bʊ̀ŋ   yáˀ kpì   bɛ̄ˀɛde, bà sìıd·ō͜   ø   nɛ̄ bɛ̄ˀɛd.*
> Donkey:**SG** if   die:**PFV** bad:**PL**, **3PL** flay:**IPFV** **3HUO** **FOC** bad:**PL**.
> "When a donkey dies wrongly, they skin it wrongly." KSS p42
> ("Make the best of a bad job.")

32.2 *Nāan(ι)* "in that/which case"

The post-subject particle *nāan(ι)* is distinct from *ňyāan* "next, afterwards, then", but *nāan* (never *nāanι*) occurs commonly in the same sense as *ňyāan*. Thus in the parallel NT passages:

> *Fu na ki'is noor atan' ye, fu zi' ma, ka noraug nyaan kaas.*
> *Fù ná kīˀιs   nɔ̄ɔr   àtáñˀ   yɛ́ fù zīˀ(‿   mā ⁺ø,*
> **2SG UNR** deny:**PFV** occasion:**SG NUM:**three that **2SG NEG.KNOW 1SGO NEG**,
> *kà nɔ̄-dáʋ̀g   ňyāan kāas.*
> and hen-male:**SG** next   cry:**PFV**.
> "You will deny three times that you know me before the cock crows."
> (Mt 26:75)

> *Fu na ki'is man noor atan' ka noraug naan kaas noor ayi.*
> *Fù ná kīˀιs   mān   nɔ̄ɔr   àtáñˀ   kà nɔ̄-dáʋ̀g*
> **2SG UNR** deny:**PFV 1SG.CNTR** occasion:**SG NUM:**three and hen-male:**SG**
> *nāan kāas   nɔ̄ɔr   àyí.*
> next cry:**PFV** occasion:**SG NUM:**two.
> "You will deny me three times before the cock crows twice." (Mk 14:30)

The particle *ňyāan* is probably a form of *ňyáˀaŋ*[a] "behind, after" with loss of glottalisation and assimilation of the final nasal because of its proclitic status 5.2.2 9.1.1 . The particle *nāan(ι)* itself seems to have a core locative and logical sense "be(ing) there/thus, in that case" which has presumably broadened for speakers who use it in the sense of *ňyāan* to temporal "then", unless the falling-together of the forms is simply phonological or dialectal.

There are examples in the NT of *nāan(ι)* used as an auxiliary verb with its own locative complement in both the Serial VP construction and in Supplement Clauses:

> *M nye ka Sutaana naane arazana ni n lu wenne saa yiti iank si'em la.*
> *M̀ ňyɛ́   kà Sūtáanà nāaní‿   ø àrazánà nì n lù‿   ø wēn   nɛ̄*
> **1SG** see:**PFV** and Satan   be.there **SER** sky   **LOC SER** fall:**PFV SER** resemble **FOC**
> *sāa‿   ↓   yītι‿   ø ḭ̄āñk   sīˀəm   lā.*
> rain:**SG COMP** emerge:**IPFV SER** leap:**PFV INDF.ADV ART**.
> "I saw Satan [being] in heaven fall like lightning." (Lk 10:18)

Ka nwadibibis na naan agol lu teŋin na.

Kà ňwād-bíbìs   ná nāan   àgɔ́l‿   ø   lú   tɛ̄ŋ‿ın   nā.

And moon-small:**PL UNR** be.there **ADV:**above **SER** fall:**PFV** ground:**SG:LOC** hither.

"And the stars [being] above will fall to earth." (Mk 13:25)

dap bane gur ye ba zugsob naan po'adiir di'ema zin'igin kul na

dàp-bànı‿   ø   gūr yɛ́ bà zūg-sɔ́b   nāan   pʊ̰ʔá-dīır   díʔəmà

man-**DEM.PL COMP** wait that **3PL** head-one:**SG** be.there wife-taking:**SG** feast:**PL**

zíňʔigīn‿   ø   kūl   nā

place:**SG:LOC SER** return.home:**PFV** hither.

"men who are waiting for their lord [being] at a wedding feast to return ..." (Lk 12:36)

yinni piiga wusa puugin ka li naan o yaab Abraham nu'usin

yīnní pīiga wūsa púʊgʊ́n   kà lì nāan   ò yáab   Abraham

one ten all   inside:**SG:LOC** and **3NH** be.there **3HU** ancestor:**SG** Abraham

núʔusīn

hand:**PL:LOC**

"the tithe which was in his ancestor Abraham's hands" (Heb 7:9)

The form *nāanι* thus evidently originated in *nāan* followed by Serialiser *n*, but I will omit **SER** in the interlinear glosses henceforward for simplicity.

In its usual modal sense *nāan(ι)* usually appears with the Modal Remoteness enclitic *n*[e] 24.4.2; in main clause statements *nāan(ι)* without *n*[e] is usually rather to be taken as a by-form of *ňyāan* as described above. In questions and *ǹ*-Clauses, on the other hand, *nāan(ι)* without *n*[e] may simply be equivalent to the form which includes the Remoteness marker. By far the most cases of modal *nāan(ι)* appear in the apodoses of Conditional Clauses 32.4. In non-conditional main clause contexts it appears most often in the NT with *bɔ̀ɔd*[a] "want, wish" to convey a hypothetical "might have wished"; the sense need not be contrary-to-fact:

M naan boodin ka ya sid aan na'anam.

M̀ nāan bɔ́ɔdín   kà yà síd   àān   náʔ-nàm.

1SG then want:**REM** and **2PL** truly **COP:REM** king-**PL**.

"I might wish you really were kings." (1 Cor 4:8)

Nāan(ι) appears in subordinate clauses of all types. Again the meaning need not be contrary-to-fact.

Subordinate clauses introduced by *kà* or *yɛ̄*:

Li su'm ka fu daa naan zaŋin m ligidi n su'an banki ni.

Lì   sʊ̀ˀm   kà   fʊ̀   dāa nāan záŋín‿   m̀   līgɪdɪ
3NH be.good and **2SG TNS** then take:**PFV:REM 1SG** money

n   sʊ̄ˀan   bánkì   ní.
SER hide:**PFV:REM** bank:**SG LOC**.

"You should have put my money in the bank." (Mt 25:27, 1976)

Ka m bood ye li naani pun niŋin sa.

Kà   m̀   bɔ́ɔ̀d yɛ́   lì   nāanɪ púŋ   nìŋīn   sá.
And **1SG** want that **3NH** then   already do:**PFV:REM** hence.

"I wish it had happened already." (Lk 12:49, 1976)

Ǹ-Clauses:

Hale baa m meŋi naani moren suekane na keen ka m nwe' nyo'og ne saalib yela laa.

Hālí báa m̀ mɛ̄ŋí‿ ø   nāanɪ mɔ̄rɪn   su̱ā-kánì‿   ø   nà   kɛ̄ɛn
Even not **1SG** self   **COMP** then   have:**REM** way-**DEM.SG COMP UNR** cause:**PFV:REM**

kà   m̀   ňwɛ́ˀ   ňyɔ̄ˀɔg nɛ̄   sáalìb   yɛ́là   láa ⁺ø.
and **1SG** beat:**PFV** chest:**SG** with human:**PL** about **ART   NEG**.

"Although I myself might have reason to boast in human terms." (Phil 3:4)

M daa pu bood ye nimbane naan tisini m sumalisim la keen ka m moren susa'aŋ.

M̀   dāa pʊ̄   bɔ́ɔ̀d yɛ̄   nīn-bánì‿ ø   nāan tísīní‿   m̀
1SG TNS NEG.IND want that person-**DEM.PL COMP** then give:**PFV:REM 1SG**

sū-málɪsìm   lā   kɛ̄ɛn   kà   m̀   mɔ̄rɪn   sū-sáˀàŋā   ⁺ø.
heart-sweetness **ART** cause:**PFV:REM** and **1SG** have:**REM** heart-spoiling **NEG**.

"I did not want those who should have given me joy to give me sorrow."
(2 Cor 2:3)

M ten'esug ane dau wusa naan a wuu mane a si'em la.

M̀   tɛ̄ňˀɛsʊ́g   á   nɛ̄   dāu̱   wūsa‿ ↓   nāan á
1SG thought:**SG COP FOC** man:**SG** all   **COMP** then **COP**

wʊ̄ʊ mánì‿ ø   à   sīˀəm   lā.
like **1SG.CNTR COMP COP INDF.ADV ART**.

"My wish is that every man might be as *I* am." (1 Cor 7:7)

Bo a na'ana ne man naan yelin ka li niŋine?

Bɔ̄   á   ná'anā nē   mán   nāan yélín   kà   lì   níŋīné   ⁺ø?

What **COP** easily   with **1SG:COMP** then say:**PFV:REM** and **3NH** do:**PFV:REM**   **CQ**?

"What is easier for me to say to happen?" (Lk 5:23, cf Mt 9:5)

In *ǹ*-Adverbial Clauses, *nāan(ɩ)* means "the case being that":

Fun naani tum be'ed ka ba sigis uf ne kpisiŋkpil ka fu sin ka mor suguru, li su'um a bo?

Fún   nāanɩ túm   bɛ̄'ɛd kà bà sīgɩsʊ́‿   f   nē   kpísìnkpìl

2SG:COMP then do:**PFV** bad   and **3PL** put.down:**PFV 2SGO** with fist:**SG**

kà   fʊ̀ sín   kà   mɔ̄r sūgʊrú,   lì   sʊ̀m   á   bɔ́   ⁺ø?

and **2SG** be.silent and have forbearance, **3NH** 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)

Ka li su'um ye ya namis yaname naan niŋid line dol suer... n gat yanam na tum line pu dol suere ka namis.

Kà   lì   sʊ̀m   yɛ́   yà   nā'mɩs   yānámì‿ø   nāan níŋìd   línì‿   ø

And **3NH** be.good that **2PL** suffer:**PFV 2PL**   **COMP** then do:**IPFV DEM.NH COMP**

dɔ̄l   sūƟr ... n   gát   yānám‿ø   nà   tūm línì‿   ø   pū   dɔ̄l

follow way:**SG**...**SER** pass:**IPFV 2PL**   **COMP UNR** do:**PFV DEM.NH COMP NEG.IND** follow

sūƟré   ⁺ø   kà   nā'mɩs.

way:**SG NEG** and suffer:**PFV**.

"It is better that you suffer if you are doing what is right ... than that you do what is wrong and suffer." (1 Pet 3:17)

Niŋbiŋ naan be ka siig kae' ka li a zaalim la, ala men ...

Nìn-gbīŋ‿   ↓   nāan bɛ́   kà   sīɩg   kā'e kà lì   á   zāalím   lā,

Body-skin:**SG COMP** then   **EXIST** and spirit:**SG NEG.BE** and **3NH COP** empty:**ABSTR ART**,

àlá   mèn ...

ADV:thus also...

"As a body being with no spirit is empty, so too ..." (Jas 2:26)

Amaa da ke ka ya so' namisid tuum bamanaminee, on naani a ninkuud ...

Àmáa dā   kɛ́   kà   yà sɔ̄'   nā'mɩsíd   túùm-bàmmā námīné   ⁺ø,

But   **NEG.IMP** cause:**PFV** and **2PL INDF.HU** suffer:**IPFV** deed-**DEML.PL**   **PL:LOC**   **NEG**,

ɔ́n   nāanɩ á   nīn-kʊ́ʊ̀d ...

3HU:COMP then **COP** person-killer:**SG**.

"But do not let any of you suffer for acts like these, whether as a murderer ..." (1 Pet 4:15)

Noŋir lem kae' gaad nidi naan kpi o zuanam zugo.

Nòŋɪr lɛ́m   kā̰ʔe‿   ø   gáàd   nīdí‿   ø   nāan kpí

Love again **NEG.BE SER** pass:**PFV** person:**SG COMP** then die:**PFV**

ò   zṵà-nàm zúgō ⁺ø.

3HU friend-**PL** upon **NEG**.

"There is no love greater than if a person dies for his friends." (Jn 15:13)

Occasional examples occur even in Main Clauses and Content Clauses:

Ka so' naam mori [sic] *pe'is kobuga ka yinni bodige?*

Kà   sɔ̄ʔ   nāan mɔ̄rɪn   pɛ̄ʔɛs   kɔ́bɪgá kà yīnní bòdige   ⁺ø?

And **INDF.HU** then have:**REM** sheep:**PL** hundred and one   get.lost:**PFV** **PQ**?

"If someone has a hundred sheep and one gets lost?" (Mt 18:12 1976)

Li a su'um ye dau yinni naani kpi nidib la yela n gaad ...

Lì   à   súm yɛ̄   dāṵ   yīnní nāanɪ kpí   nīdɪb   lā yɛ́là n   gàad ...

3NH COP good that man:**SG** one   then die:**PFV** person:**PL ART** about **SER** pass:**PFV**

"It is better if one man should die for the people than ..." (Jn 11:50)

In *ǹ*-Clauses used as objects of *wūʋ* "like" and *wɛ̄n*ⁿᵃ/ "resemble", *nāan(ɪ)* conveys a hypothetical rather than contrary-to-fact sense:

wenne wuu saa naani iank ya nya'aŋ n ti paae ya tuona la

wɛ̄n   nɛ̄   wūʋ sāa‿   ↓   nāanɪ i̠áňk   yà ňyáʔaŋ

resemble with like rain:**SG COMP** then   jump:**PFV** 2PL behind

n   tí   pāé‿   yà tùθna   lā

SER afterwards reach:**PFV 2PL** before.**ADV ART**

"like when lightning leaps from East to West" (Mt 24:27)

Ba wenne zunzoŋ naani ve'ed zunzoŋ ne.

Bà wɛ̄n   nɛ̄   zúnzòŋ‿   ø   nāanɪ vɛ̄ʔɛd   zúnzòŋ   nɛ̄.

3PL resemble with blind.person:**SG COMP** then lead:**IPFV** blind.person:**SG** like.

"They are like when a blind person leads a blind person." (Mt 15:14)

Ka namisug ne'eŋa wenne po'a naani sa'a ye o du'a ne.

Kà   nā̄ʔmɪsúg nɛ̄ʔŋá wɛ̄n   nɛ̄   pṵʔá‿   ø   nāanɪ sā̄ʔ

And suffering **DEM:NH** resemble with woman:**SG COMP** then   strain:**PFV**

yɛ́ ò dṵʔá   nɛ̄.

that **3HU** bear:**PFV** like.

"This suffering is like when a woman is in distress to give birth." (Mt 24:8)

Di'em o wuu fun naani di'eni m si'em la.

*Dì*ʔ*əm·ō‿   ø   wōʊ fún   nāanɪ dīʔə́ní‿   m̀ sīʔəm   lā.*

Receive:**IMP 3HUO** like **2SG:COMP** then   receive:**PFV:REM** **1SGO INDF.ADV ART**.

"Welcome him as if you were welcoming me." (Philemon 1:17)

wuu kunduna naan lusi ba meŋ ne pe'es gbana n kpen' pe'esin.

wōʊ kúndʊ̀na‿ ø   nāan lūsí‿   bà mɛ̄ŋ nɛ̄   pɛ̄ʔɛs   gbánà

like jackal:**PL**   **COMP** then wrap:**PFV 3PL** self with sheep:**PL** skin:**PL**

n   kpɛ̀ňʔɛs   pɛ̄ʔɛsín.

SER enter:**PFV** sheep:**PL:LOC**.

"Like jackals wrapping themselves in sheepskins to go among sheep." (Mt 7:15)

32.3 Without Modal Remoteness

Conditional clauses without the Modal Remoteness particle *n*e or *nāan(ι)* express "if", and also "when" with a main clause with present or future reference. With main clauses with past reference, *yà*ʔ is only used for conditionals; for the meaning "when", an *ǹ*-Adverbial Clause with time reference is used as a pre-subject adjunct 33.1 , 30.1.1 . In the protasis, Indicative Mood is consistently used instead of Unrealised in positive polarity, and usually though not invariably in the negative.

Nid ya'a tum, o di'ed yood.

Nīd   yáʔ tʊ̀m,   ò   dìʔəd   yɔ̄ɔd.

Person:**SG** if   work:**IPFV**, **3HU** receive:**IPFV** pay.

"If a person works, he gets pay." (Rom 4:4, 1976)

Christ ya'a da pu vu'ug kumine, ala ti moolug la ane zaalim.

Christ yáʔ dà pū   vūʔʊg   kūmɪné +ø, àlá   tì

Christ if   **TNS NEG.IND** come.alive:**PFV** death:**LOC NEG**, **ADV**:thus **1PL**

mɔ̄ɔlʊ́g   lā   á   nɛ̄ zāalím.

proclamation **ART COP FOC** empty:**ABSTR**.

"If Christ did not rise from death, our preaching is empty." (1 Cor 15:14, 1976)

Fu ya'a kenna, fun on more m waad fukan ...

Fʊ̀ yáʔ kɛ̄n   nā,   fūn   ɔ̄n mɔ̄rí‿ m̀ wāad fú-kán ...

2SG if   come:**IPFV** hither, **2SG.CNTR** also have   **1SG** cold   clothing-**DEM.SG**...

"When you come, bring my warm clothes that ..." (2 Tim 4:13)

Beog ya'a nie fu na wum o pian'ad.
Bɛ̄og   yáˀ nìe,   fʋ̀ ná wʋ́m   ò pi̯àňˀad.
Tomorrow if   appear**:PFV**, **2SG UNR** hear**:PFV** **3HU** speech.
"When tomorrow comes, you will hear his words." (Acts 25:22)

Bʋ̄n-píəlìg   bɛ́ fʋ̀ nīf   lā pʋ́ʋgūn.   Fʋ̀ yáˀ bɔ̀ɔd, tì ná
Thing-white**:SG EXIST 2SG** eye**:SG ART** inside**:SG:LOC**. **2SG** if   want, **1PL UNR**
yīis,   kà fʋ̀ ná ňyɛ̄   sʋ́ŋā   yáˀàs.
extract**:PFV**, and **2SG UNR** see**:PFV** good**:ADV** again.
"There is a white thing [i.e. cataract] inside your eye. If you want, we'll take it
  out and you'll see well again."

Fʋ̀ yáˀ si̯àk,   tì ná dīgɪlí͜   f.
2SG if   agree**:PFV**, **1PL UNR** lay.down**:PFV 2SGO**.
"If you agree, we'll put you to bed. [i.e. admit you to hospital]"

Negative polarity with non-past reference in the protasis:

M ya' pu toom, suŋid la ku kenn ya ni naa.
M̀ yáˀ pū   tɔ́ɔmm   ⁺ø, sūŋɪd   lā kʋ́   kɛ́ň
1SG if   **NEG.IND** disappear**:PFV NEG**, helper**:SG ART NEG.UNR** come**:PFV**
yà nī náa   ⁺ø.
2PL LOC hither **NEG**.
"If I do not depart, the helper will not come to you." (Jn 16:7, 1976)

So' ya'a ku tum, on da dii.
Sɔ̄ˀ   yáˀ kʋ̀   tūm,   ɔ̄n   dā   díɪ   ⁺ø.
INDF.HU if   **NEG.UNR** work**:PFV**, **3HU.CNTR NEG.IMP** eat**:PFV NEG**.
"If anybody will not work, let him not eat." (2 Thess 3:10, 1976)

32.4 With Modal Remoteness

If the Modal Remoteness particle n^e 24.4.2 occurs in the protasis, it also occurs in the apodosis. Here Modal Remoteness n^e has an effect similar to the non-temporal use of the preterite in English conditional constructions.

The particle *nāan(ι)* does not occur in a protasis. If it is also absent in the apodosis, there is no contrary-to-fact implication; the apodosis usually has Unrealised Mood.

Wief ya'a sigin li ni, li zuluŋ na paaen o salabir.

Wìəf yá⁷ sīgín lì nī, lì zùlʋŋ ná pāan‿ ò sàlιbιr.

Horse:**SG** if descend:**PFV:REM 3NH LOC**, **3NH** depth **UNR** reach:**PFV:REM 3HU** bridle:**SG**.

"If a horse went down in it, its depth would reach its bridle." (Rev 14:20, 1976)

Nobir ya'a yelin ye, on pu a nu'ug la zug, o ka' niŋgbiŋ nii, lin ku nyaŋin keen ka o ka' niŋgbiŋ nii.

Nɔ́bìr yá⁷ yèlīn yɛ̄, ɔ́n pʋ̄ á nú⁷ùg lā zúg,

Leg:**SG** if say:**PFV:REM** that **3HU:COMP NEG.IND COP** hand:**SG ART** upon,

ò kā⁷ nín-gbīŋ níι ⁺ø, līn kʋ́ ŏyāŋιn‿ ø

3HU NEG.BE body-skin:**SG LOC NEG**, **DEM.NH NEG.UNR** accomplish:**PFV:REM SER**

kɛ̄ɛn kà ò kā⁷ nín-gbīŋ níι ⁺ø.

cause:**PFV:REM** and **3HU NEG.BE** body-skin:**SG LOC NEG**.

"If the leg were to say, 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)

Ya ya'a aan zunzoos, ya pu morin taale.

Yà yá⁷ àān zúnzɔ̀ɔ̌s, yà pʋ̄ mɔ̄rιn táàllē ⁺ø.

2PL if **COP:REM** blind.person:**PL**, **2PL NEG.IND** have:**REM** fault:**SG NEG**.

"If you were blind, you wouldn't be guilty ." (Jn 9:41, 1976)

The 1996 version has *Ya ya'a aan zunzoos ya ku moren taale.*

More often, the apodosis has the particle *nāan(ι)*. There is then a contrary-to-fact implication if the protasis or apodosis has negative polarity, or there is past tense marking:

Man ya'a pu keen na tu'asini ba, ba naan ku moren taale.

Mān   yá' pū   kɛɛn   nā‿ ø   tú'asīní‿   bā,   bà nāan kʊ́

1SG.CNTR if   **NEG.IND** come:**PFV:REM** hither **SER** talk:**PFV:REM 3PLO**, 3PL then **NEG.UNR**

mɔ̄rɪn   táàllē   ⁺ø.

have:**REM** 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'aní‿   àlá,   m̀ nāan kʊ́   yɛ̄lɪní‿   yā   yɛ̄ ...

If   **NEG.BE:REM ADV:**thus, **1SG** then   **NEG.UNR** say:**PFV:REM 2PLO** 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 a na'amtita'ar daan la
 dapuudir zugo.

Bà yá' dāa mī'iní‿   lī,   bà nāan kʊ́   kpā'an   Zūg-sɔ́b   ɔ́nì‿

3PL if   **TNS** know:**REM 3NHO**, 3PL then   **NEG.UNR** fasten:**PFV:REM** hea-one:**SG DEM:HU**

ø   à   ná'àm-tītā'ar   dáàn   lā dá-pūʊdá   zùgō   ⁺ø.

COMP COP kingdom-great:**SG** owner:**SG ART** wood-cross:**SG** upon **NEG**.

"If they had known it, they would not have fastened the Lord, possessor of a
 great kingdom, to a cross." (1 Cor 2:8)

In other cases, contrary-to-fact is the default interpretation but not invariable:

Ya ya'a mi'ine [sic] *zina nwa, dine na tisi ya laafe, li naan aan su'um!*

Yà yá' mī'in   zīná ňwá, dìnɪ‿ ø   nà tīsɪ‿   yá láafì,

2PL if   know:**REM** today this, **DEM.NH COMP UNR** give:**PFV 2PLO** health,

lì   nāan áān   súm!

3NH then **COP:REM**   good:**ABSTR**.

"If you had known this day what would have brought you health, that would
 have been good." (Lk 19:42)

Ya ya'a siakin Moses ya naani siakin man men.

Yà yá' sɪ̠àkīn   Moses, yà nāanɪ sɪ̠ákīn   mān   mέn.

2PL if   believe:**PFV:REM** Moses, **2PL** then   believe:**PFV:REM 1SG.CNTR** also.

"If you believed Moses you'd believe me too." (Jn 5:46)

Li ya'a aane m meŋ gaŋir ka m tummin tuum kaŋa, m naani di'edin nyood.

Lì   yá^ʔ àāní‿   m̀ mɛ̄ŋ gáŋìr kà m̀ túmmīn   túʋ̀m-kàŋā,

3NH if **COP:REM** **1SG** self   choice and **1SG** work:**IPFV:REM** work-**DEML.SG**,

m̀   nāanι dī^ʔədιn   ňyɔ̄ɔd.

1SG then   receive:**IPFV:REM** pay.

"If it were my own choice that I was doing this work, I would be getting pay."
(1 Cor 9:17, 1976)

Ya yadda niŋir ya'a zu'en n zemin wuu biilif kane pood gat si'el wusa, ya
naani tun'e yelin tiig tita'akaŋa nwa ye ...

Yà   yàddā níŋìr yá^ʔ zù^ʔən   n   zɛ̄mmιn   wōʋ bīιlíf kànι‿ ø

2PL assent doing if get.more:**PFV:REM** **SER** be.equal:**REM** like seed **DEM.SG** **COMP**

pɔ̀ɔd‿   ø   gát   sī^ʔəl   wūsa, yà nāanι tūň^ʔe‿ ø   yέlīn

be.small **SER** pass:**IPFV** **INDF.NH** all,   **2PL** then   be.able **SER** say:**PFV:REM**

tíìg-tītá^ʔ-kàŋā   ňwá yɛ̄ ...

tree-great-**DEML.SG** this that...

"If your faith were equal to a seed which is smaller than anything, you would
 be able to say to this great tree ..." (Lk 17:6, 1976)

32.5 Unrealised Mood with Past Tense Markers

Contrary-to-fact conditions in the past are also sometimes marked by
combining the Unrealised Mood with past tense marking:

Ka Josua ya'a da tisini ba vu'usum zin'ig, Wina'am da ku pia'a li nya'aŋ dabis
yinni yela ya'ase.

Kà   Josua yá^ʔ dà tìsīní‿   bā   vō^ʔʋsím zíň^ʔìg,   Wínà^ʔam dá kʋ̀

And Joshua if **TNS** give:**PFV:REM** **3PLO** resting place:**SG**, God   **TNS** **NEG.UNR**

pι̯ā^ʔá‿   lì   ňyá^ʔaŋ dábìs-yīnní yèla   yà^ʔasē ⁺ø.

speak:**PFV** **3NH** after   day-one   about again   **NEG**.

"If Joshua had given them a resting place, God would not subsequently
  have spoken of "one day."" (Heb 4:8, 1976)

Similarly without a *yà^ʔ*-clause protasis:

Ò   dāa ná zāb   ná^ʔàb   lā.

3HU **TNS** **UNR** fight:**PFV** 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."

33 Ǹ-Clauses

Kusaal transforms complete clauses into AdvPs or NPs by inserting the post-subject particle *ǹ*. (For the realisation of the particle, see 9.3.2.1.1 .) The *ǹ* by itself is a complementiser, but the result is characteristically used as an *Adverbial* Phrase 33.1 signifying "it being the fact that X." However, if an *ǹ*-Clause contains a short demonstrative or an indefinite pronoun, this functions as a relative; the meaning of the *ǹ*-Clause is then that of the pronoun or the cb before the determiner modified by the rest of the *ǹ*-Clause.

Ǹ-Clauses have independent tense marking (relative to the narrative timeline within a series of *kà*-clauses without tense marking in narrative, however 30.3.2 .)

They cannot use the Imperative Mood; Unrealised Mood appears instead:

> *Yaname na mor sam si'a ane ye ya noŋ taaba.*
> *Yānámì‿ ø   nà   mɔ̄r sām-síʔa   á   nɛ̄ yɛ́   yà   nɔ́ŋ tāaba.*
> **2PL   COMP UNR** have debt-**INDF.NH COP FOC** that **2PL** love each.other
> "Any debt which you are to have is to love each other." (Rom 13:8.)

Ǹ-Clauses cannot have any pre-subject elements or be *n*-focussed, but often prepose a relative pronoun using *kà* 33.2 .

If the *ǹ*-Clause has a negative Verbal Predicator, it only shows a final LF if the *ǹ*-Clause is itself clause-final in the superordinate clause:

> *Nīn-bánì‿   ø   pʊ̄   dít   ná kpī.*
> Person-**DEM.PL COMP NEG.IND** eat:**IPFV UNR** die:**PFV**.
> "People who don't eat will die." WK

> * M̀ ŏyɛ́   nīn-bánì‿   ø   pʊ̄   dítā   ⁺ø.*
> **1SG** see:**PFV** person-**DEM.PL COMP NEG.IND** eat:**IPFV NEG**.
> "I've seen some people who don't eat."

Ǹ-Clauses can contain other *ǹ*-Clauses, serial-verb constructions and subordinate clauses:

> *ban mi' ye biig la kpine la zug*
> *bán   mīʔ yɛ̄ bīig lā kpí nɛ̄ lā zúg*
> **3PL:COMP** know that child:**SG ART** die:**PFV FOC ART** upon
> "because they knew that the child was dead" (Lk 8:53)

Paul n sob gbauŋ si'a n tis Efesus dim la nwa.

Paul ǹ   *sɔ́b*   *gbáṵŋ-sī͎ʾa*   n   *tís*   *Efesus*   *dím*   *lā*‿

Paul **COMP** write:**PFV** book-**INDF.NH** **SER** give:**PFV** Ephesus individual.**PL** **ART**

ø   *ňwá.*

SER this.

"This is the letter Paul wrote to the Ephesians." (NT heading)

Ka m tuuma lin ka m tum n tis Zugsob la ke ka yanam a yadda niŋidib.

Kà   *m̀*   *tūʋma* *lín*   *kà*   *m̀*   *túm*   n   *tìs*   *Zūg-sɔ́b*   *lā*

And **1SG** work   **DEM.NH** and **1SG** work:**PFV** **SER** give:**PFV** head-one:**SG** **ART**

kɛ́   *kà* *yānám* *á*   *yáddā-níŋ̀ìdɪb.*

cause:**PFV** and **2PL.CNTR** **COP** assent-doer:**PL**.

"My actions which I did for the Lord led to you being believers." (1 Cor 9:1)

dàṵ-kànɪ‿   ø   *bɔ̀ɔd* *yɛ́* *ò*   *záb*   *nàʾab*   *lā*

man-**DEM.SG** **COMP** want that **3HU** fight:**PFV** chief:**SG** **ART**

"the man who wants to fight the chief"

Ba mi' on daa tum si'em, on daa be ba sa'an sansa wusa,
daadin [sic] *ka o daa paae Asia so'olim la na sa.*

Bà   *mì͎ʾ*   *ɔ́n*   *dāa* *túm*   *sī͎əm*   *ɔ́n*   *dāa* *bɛ́*   *bà* *sā͎ʾan*

3PL know **3HU:COMP** **TNS**   work:**IPFV** **INDF.ADV** **3HU:COMP** **TNS**   **EXIST** **3PL** presence

sānsá *wūsa,* *dàa-lìn*   *kà* *ò*   *dāa* *pāe*   *Asia* *sṵ́ʾʋlìm* *lā* *nā*   *sá.*

time:**PL** all,   day-**DEM.NH** and **3HU** **TNS**   reach:**PFV** Asia realm   **ART** hither ago.

"They knew what he'd been doing all the time he'd been with them
since the day he had arrived in the province of Asia" (Acts 20:18, 1976)

They can contain coordinated clauses and verb phrases:

dāṵ   *lá* *ǹ*   *dāa* *kɛ̄ŋ*   *dá͎ʾān,*   *kà* *pṵ͎ʾā*   *lā* *dāa* *kɛ̄ŋ*

Man:**SG** **ART** **COMP** **TNS**   go:**PFV** market:**SG:LOC** and woman:**SG** **ART** **TNS** go:**PFV**

pɔ̄ɔg *lā*   *zúg*

field:**SG** **ART** upon

"because the man went to market and the woman went to the farm" WK

mam pu sa'amidi ba la'ad, ka mɛ pu diti ba ki la.

mán   *pū*   *sá͎ʾamìdí*‿ *bà* *lā͎ʾad,*   *kà* *mɛ́* *pū*   *dítí*‿

1SG:COMP **NEG.IND** spoil:**IPFV**   **3PL** goods:**PL** and also **NEG.IND** eat:**IPFV**

bà *kī*   *láa* ⁺ø.

3PL millet **ART** **NEG**.

"that I don't spoil their property or eat their millet" BNY p20

Ǹ-Clauses are NPs or AdvPs and may take the article *lā*[+/], but they cannot take modifiers or post-determining pronouns. They can participate in forming larger NPs or AdvPs as pre-determiners, and may also themselves have pre-determiners:

ba diib n yit na'ateŋ la na zug
*bà   dīɩb   ǹ   yīt   ná*ʔ*-tēŋ   lā   nā   zúg*
3PL food **COMP** emerge:**IPFV** king-land:**SG ART** hither upon
"because their food came from the king's land" (Acts 12:20)

nidiba ayi nwa on n gaŋ so'
*nīdɩbá‿   àyí   ňwá ɔ́n   gāŋ   sɔ*ʔ
person:**PL NUM:**two this   **3HU:COMP** choose:**PFV INDF.HU**
"which, of these two people, he had chosen" (Acts 1:24, 1976)

The article *lā*[+/] is not repeated a second time after an *ǹ*-Clause which ends in a NP with *lā*[+/].

If the clause contains the VP-final particles *nā*[+/] "hither" *sà*[+] "hence" these may *follow* an article *lā*[+/] belonging to the *ǹ*-Clause 25.7 .

Ǹ-Clauses, like other NPs and AdvPs, are coordinated with *nɛ̄* "and" *kūʋ*/*bɛ̄ɛ* "or."

...n pa'ali ba on daa nye Zugsob la suerin, ka o tu'as o si'em,
ne on daa mool Jesus yela la ne sukpi'uŋ Damaskus ni si'em.
*...n   pá*ʔ*alì‿   bā   ɔ́n   dāa ňyɛ̄   Zūg-sɔ́b   lā   sūōrín   kà   ò*
...**SER** teach:**PFV 3PLO 3HU:COMP TNS** see:**PFV** head-one:**SG ART** road:**SG:LOC** and **3HU**
*tú*ʔ*as·ò‿   ø   sī*ʔ*əm,   nɛ̄   ɔ́n   dāa mɔ̄ɔl   Jesus yɛ́là   lā*
speak:**PFV 3HUO INDF.ADV** with **3HU:COMP TNS** proclaim:**PFV** Jesus about **ART**
*nɛ̄   sū-kpí*ʔ*òŋ   Damaskus ní   sī*ʔ*əm.*
with heart-strength:**SG** Damascus **LOC INDF.ADV**
"...informing them how he had seen the Lord on the road and He had spoken to him, and how he had proclaimed boldly about Jesus in Damascus."
(Acts 9:27, 1976)

The first *ǹ*-Clause itself contains two subclauses linked by *kà*.

33.1 *Ǹ*-Adverbial Clauses

Ǹ-Clauses without determiners acting as relatives mean "it being the fact that X", where "X" is the clause prior to the insertion of Complementiser-*ǹ*:

> *Dāy̨   lā dāa záb   nàˀab lā.*
> Man:**SG ART TNS** fight:**PFV** chief:**SG ART**
> "The man fought the chief."

> *dāy̨   lá‿ ø   dāa záb   nàˀab lā*
> Man:**SG ART COMP TNS** fight:**PFV** chief:**SG ART**
> "the man having fought the chief"

Ǹ-Clauses without relative pronouns seem always to take the article *lā*$^{+/}$; in practice they usually have a specific past or present reference.

The characteristic use of *ǹ*-Clauses without relatives is as **adverbs** of circumstance or time. Like other adverbs, they have limited use as verb arguments, most often as the complement of *àe̯ñ*^{ya} "be", though occasionally as subjects:

> *Dine kɛ ka m a saalbiis zua la anɛ*
> *mam pu sa'amidi ba la'ad ka mɛ pu diti ba ki la.*
> *Dìnɩ‿ ø   kɛ́   kà m̀ á sáàl-bīis   zy̨á   lā á nɛ̄ mán*
> **DEM.SG COMP** cause:**PFV** and **1SG COP** smooth-child:**PL** friend:**SG ART COP FOC 1SG:COMP**
> *pū   sáˀamìdí‿ bà lāˀad   kà   mɛ́ pū   dítí‿   bà kī   láa* $^{+}$ø.
> **NEG.IND** spoil:**IPFV**   **3PL** goods:**PL** and also **NEG.IND** eat:**IPFV 3PL** millet **ART NEG.**
> "What makes me a friend of human beings is
> that I don't spoil their property or eat their millet." BNY p20

> *Christ da kpi n tisi ti la ke ka ti baŋ noŋir a si'em.*
> *Christ‿ ø   dà kpì   n tísì‿   tī lā kɛ́   kà tì báŋ*
> Christ **COMP TNS** die:**PFV SER** give:**PFV 1PLO ART** cause:**PFV** and **1PL** realise:**PFV**
> *nɔ̀ŋɩr‿ ø   à sīˀəm.*
> love   **COMP COP INDF.ADV**
> "Christ's dying for us makes us understand what love is like." (1 Jn 3:16, 1976)

Ǹ-Adverbial Clauses are accordingly not used as objects of verbs of perception or communication; either Relative Clauses with *sīˀəm* 33.2.1.1 or Content Clauses 31.4 appear in this function.

33.1.1 Time/Circumstance Adjuncts

*Ǹ-*Adverbial Clauses are the usual way of expressing past "when." They may occur as adjuncts in the pre-subject position of main clauses 30.1.1 , or preposed with *kà* 34.2 , or less commonly as adjuncts clause-finally. Kusaal is stricter than English in requiring constituent order to reflect event order (cf Serial VPs 28.1), so the clause-final position is usually confined to cases where the *ǹ-*Adverbial Clause expresses a state of affairs rather than a single event:

> *Ɔ̄n   dāa ǎyɛ̄t   sʋ́ŋā,   ɔ́n   dāa á bí-līa   láa +ø?*
> **3HU.CNTR TNS** see:**IPFV** good:**ADV**, **3HU:COMP TNS** **COP** child-baby:**SG ART** **PQ**?
> "Did she see well when she was a baby?"

Tense markers in the *ǹ-*Adverbial Clause are the same as in the main clause; the main clause markers may be omitted if the Complement 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 Complement Clause implying a prior event and imperfective a simultaneous one, setting the temporal scene for the main clause.

> *Ka ban dit la, Yesu yeli ba ...*
> *Kà   bán   dìt   lā, Yesu yɛ́lì ̮   bā ...*
> And **3PL:COMP** eat:**IPFV ART**, Jesus say:**PFV 3PLO**
> "As they were eating, Jesus said to them ..." (Mt 26:21)

> *Ka ban yi la, ka Zugsob malek nie o meŋ ...*
> *Kà   bán   yī   lā, kà Zūg-sɔ́b   málɛ̄k níe   ò mɛ̄ŋ ...*
> And **3PL:COMP** emerge:**PFV ART** and head-one:**SG** angel:**SG** appear:**PFV 3HU** self
> "After they had left, an angel of the Lord showed himself ..." (Mt 2:13)

*Ǹ-*Adverbial Clauses with *sādɪgím* "since, because" immediately following the complementiser-*ǹ* occur in the pre-subject adjunct position of a main clause 30.1.1 and express "reason why":

> *Tiname sagidim aa o biis la, ti da ten'es ...*
> *Tīnámì ̮ø   sādɪgím áá ̮ò bīis   lā, tì dā   tɛ̄ǎ'ɛs ...*
> **1PL**   **COMP** since   **COP 3HU** child:**PL ART**, **1PL NEG.IMP** think:**PFV**
> "Since we are his children, we should not think ..." (Acts 17:29)

Wina'am Siig Suŋ sadigim tisi ti vum paal la, keli ka ti beilim dolne o boodim la.

Wínàˀam Sí-sùŋ‿   ø   sādɩgím tísì‿   tī   vūm-páàl   lā,
God   spirit-good:**SG COMP** since   give:**PFV 1PLO** life-new:**SG**   **ART**

kèlí‿ ø   kà   tì   bèlím   dɔl   nɛ́   ò   bɔɔdɩm lā.
cause **2PLS** and **1PL** existence follow with **3HU** will   **ART**

"Since God's Holy Spirit has given us new life,
let our lives be in accord with his will." (Gal 5:25)

On sadigim niŋ ala la, o sid na tisi ti si'el mekama wusa la'am ne o.

Ɔ́n   sādɩgím nīŋ   álá   lā, ò   sìd   nà tīsɩ‿   tí   sīˀəl
3HU:COMP since   do:**PFV ADV:**thus **ART**, **3HU** truly **UNR** give:**PFV 1PLO** **INDF.NH**

mɛ́kàma   wūsa láˀàm   nɛ́   ò.
altogether all   together with **3HU**

"Since he has done this, he will certainly give us everything together with him."
(Rom 8:32, 1976)

For *ǹ*-Adverbial Clauses with post-subject *nāan(ɩ)* see 32.2 .

33.1.2 With Prepositions and Postpositions

Ǹ-Adverbial Clauses occur after *hālí nɛ̄* or *hālí làˀam nɛ̄* "although"

Hale la'am ne on daa a yelsum wusa daan la

Hālí   làˀam   nɛ̄   ɔ́n   dāa á yɛ̄l-súm   wūsa dáàn   lā
Even together with **3HU:COMP TNS** **COP** matter-goodness:**SG** all   possessor **ART**

"though he was the possessor of every blessing" (2 Cor 8:9)

Similarly after *hālí n tì pāa ...* "up until the time when ..." 28.3

hālí   n   tì   pāa   tīnámì‿ ø   kūl   lā
Up.to **SER** afterwards reach:**PFV 1PL**   **COMP** return.home:**PFV ART**

"Until we'd returned home."

Before the postposition *zūg*ᵒ/ "on account of", *ǹ*-Adverbial Clauses form reason-
why AdvPs used as adjuncts:

Ka ba la'as taaba n deŋi 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'ateŋ la na zug.

Kà	*bà*	*láʔàs*	*tāaba*	*n*	*déŋì‿*	*ø*	*ňyē̄*	*Blestus*

And **3PL** gather:**PFV** each.other **SER** do.first:**PFV** **SER** see:**PFV** Blestus

ɔ́nì‿   *ø*   *à*   *náʔàb*   *Herod*   *sāmán-nàʔab*   *lā*   *n*   *máàl*   *sūɵr*

DEM.HU COMP COP king:**SG** Herod courtyard-chief:**SG** **ART** **SER** make:**PFV** way:**SG**

yɛ́   *ò*   *ňwɛ́ʔ*   *nàʔab*   *núʔùg,*   *bà dīιb*   *ǹ*   *yīt*   *náʔ-tɛ̄ŋ*

that **3HU** strike:**PFV** king:**SG** hand:**SG**, **3PL** food **COMP** emerge:**IPFV** king-country:**SG**

lā   *nā*   *zúg.*

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)

When they contain perfective forms, such *ǹ*-Adverbial Clauses may need to be preposed with *kà* 34.2 to match the word order to event order 24.2.1.1:

Mán   *ňwɛ̀ʔ*   *dāu̯*   *lā*   *zúg*   *kà*   *police gbāňʔá‿*   *m.*

1SG:COMP strike:**PFV** man:**SG ART** upon and police seize:**PFV 1SGO**.

"Because I struck the man the police arrested me."

It is commoner for causation to be simply implied by a pre-subject *ǹ*-Adverbial Clause or by a Sequential Clause construction:

Mán   *ňwɛ̀ʔ*   *dāu̯*   *lā,*   *kà*   *police gbāňʔá‿*   *m.*

1SG:COMP strike:**PFV** man:**SG ART** and police seize:**PFV 1SGO**.

"I having struck the man, the police arrested me."

Ǹ *ňwɛ́ʔ*   *dāu̯*   *lā,*   *kà*   *police gbāňʔá‿*   *m.*

1SG strike:**PFV** man:**SG ART** and police seize:**PFV 1SGO**.

"I struck the man and the police arrested me."

yɛ̄lá[+] "concerning" appears after an *ǹ*-Adverbial Clause in section headings in the NT:

Jesus n kpen' Jerusalem la yela

Jesus ǹ   *kpèň ʔ*   *Jerusalem lā yɛ́là*

Jesus **COMP** enter:**PFV** Jerusalem **ART** about

"[about] Jesus entering into Jerusalem."

The NT favours *ǹ*-Adverbial Clauses alone as picture captions:

Ban meed yir
Bán mɛ̀ɛd yīr
3PL:COMP build:**IPFV** house:**SG**
"A house being built"

Paul n sobid gboŋ nwa
Paul ǹ sɔ̄bɩd gbáṵŋ ňwá
Paul **COMP** write:**IPFV** letter:**SG** this
"Paul writing this letter"

33.2 Relative Clauses

In an *ǹ*-Clause with no relative pronoun the *ǹ* acts as a complementiser producing an AdvP meaning "it being the fact that X":

Dāṵ lā dāa záb nà'ab lā.
Man:**SG ART TNS** fight:**PFV** chief:**SG ART**
"The man fought the chief"

dāṵ lá‿ø dāa záb nà'ab lā
Man:**SG ART COMP TNS** fight:**PFV** chief:**SG ART**
"the man having fought the chief"

However, a short demonstrative or an indefinite pronoun in an *ǹ*-Clause functions as a relative; the meaning is then that of the pronoun or the cb before the determiner, as modified by the rest of the clause, usually with a restrictive sense. A restrictive meaning is probably necessary unless the construction is appositional ⟦33.2.4⟧, and is usual even then. Compare ⟦31.3⟧ on Supplement *kà-* clauses, used typically with a non-restrictive relative meaning.

dàṵ-kànɩ‿ ø dāa záb nà'ab lā
Man-**DEM.SG COMP TNS** fight:**PFV** chief:**SG ART**
"the man who fought the chief"

dāṵ lá‿ ø dāa záb nà'-sɔ̄' lā
Man:**SG ART COMP TNS** fight:**PFV** chief-**INDF.HU ART**
"the chief whom the man fought"

Paul n sob gbauŋ si'a n tis Efesus dim la

Paul ǹ   sɔ̄b   gbáṳŋ-sīˀa   n   tís   Efesus dím   lā

Paul **COMP** write:**PFV** letter-**INDF.NH SER** give:**PFV** Ephesus individual.**PL ART**

"the letter which Paul wrote to the Ephesians" (NT heading)

As here, an Indefinite relative remains in situ and need not be either initial or final within the relative clause, so this type of relative clause is internally headed. The type with demonstratives as relatives evidently originated in internally headed constructions too, but many speakers reintroduce *ǹ* after initial demonstratives even when their rôle within the relative clause is not as subject 33.2.2 . Moreover, the appositional use of demonstrative-type relative clauses is frequent and the preceding NP in such cases behaves as an external head 33.2.4 .

The form of the relative pronoun is determined by its position within the *ǹ*-Clause: it must be a short demonstrative pronoun 17.2 if it either comes first in the *ǹ*-Clause or is a dependent attached to the first word; otherwise it must be an indefinite pronoun 17.3 , with a few cases of other determiners occurring 33.2.3 . There appears to be no difference in the meaning of the two types of pronoun in those cases when either could be used as relatives. In particular, the Indefinite pronouns are found in cases where the reference is definite and old information, e.g.

*Ka bugum n dit **teŋtita'ar si'a** la nyo'os dut ne agol saŋa dine ka' benne.*

Kà   bùgúm ǹ   dìt   tɛ́ŋ-tītáˀàr-sīˀa   lā   ňyɔ́ˀɔ̀s dùt   nɛ́

And fire   **COMP** eat:**IPFV** land-big-**INDF.NH ART** smoke   ascend:**IPFV FOC**

àgɔ́l   sāŋá dìnɪ‿ ø   kāˀ   bɛ̄nne ⁺ø.

ADV:upwards time:**SG DEM.NH COMP NEG.HAVE** end:**SG   NEG**.

"The smoke of **that great city** which fire is consuming is going up for time without end."(Rev 19:3), referencing the ongoing topic of the previous chapter *Babilon teŋtita'ar* "the great city of Babylon" (Rev 18:21)

33.2.1 Indefinites as Relatives

Thus, one type of relative clause leaves the antecedent in situ within an *ǹ*-Clause, marking it as the antecedent and head of the whole by the fact that it either is an indefinite pronoun or has a dependent indefinite post-determining pronoun.

This construction cannot relativise subjects or indirect objects, or extract constituents from phrases or subordinate clauses. It is less common than the antecedent-first patterns described below 33.2.2 in cases where both constructions are possible; it is not clear what factors determine the choice in such cases.

33.2.1.1 Antecedent Rôles

Direct objects, predicative and locative complements, and adjuncts may be relativised by an Indefinite relative left in situ:

Ɔ́n   yɛ̀l   sī'əl   lā kā'   sīdaa [+]*ø.*
3HU:COMP say**:PFV INDF.NH ART NEG.BE** truth   **NEG.**
"What he says is not true" SB

dāụ̄   lá‿ø   zàb   nà'-sɔ̄'   lā
man**:SG ART COMP** fight**:PFV** chief-**INDF.HU ART**
"the chief whom the man fought"

nà'ab lá‿ø   zàb   sīəba lā
chief**:SG ART COMP** fight**:PFV INDF.PL ART**
"those whom the chief fought"

dāụ̄   lá‿ ø   sɔ̄b   gbán-sī'a   lā
man**:SG ART COMP** write**:PFV** letter-**INDF.NH ART**
"the letter which the man has written"

Ka ban tum so' la ku gaad one tum o la.
Kà   bán   tùm   sɔ̄'   lā kú   gāad   ɔ́nì‿ø   tùm·o‿ ø
And **3PL:COMP** send**:PFV INDF.HU ART NEG.UNR** surpass**:PFV 3HU:COMP** send**:PFV 3HUO**
láa [+]*ø.*
ART NEG.
"The one who was sent does not surpass the one who sent him." (Jn 13:16)

Paul n sob gbauŋ si'a n tis Efesus dim la

Paul ǹ   sɔ́b   gbáu̯ŋ-sĩʔa   n   tís   Efesus   dím   lā

Paul **COMP** write:**PFV** letter- **INDF.NH SER** give:**PFV** Ephesus individual.**PL ART**

"the letter which Paul wrote to the Ephesians" (NT heading)

Tiname mi' si'el nannanna la ane bi'ela.

Tīnámì‿ø   mĩʔ   sĩʔəl   nānnánā lā   á   nɛ̄ bĩʔəlá.

1PL   COMP know **INDF.NH** now   **ART COP FOC** small.**ADV**

"What we know now is small." (1 Cor 13:12)

nàʔab   lá‿ø   kpì   sān-síʔa   lā

chief:**SG ART COMP** die:**PFV** time-**INDF.NH ART**

"(at) the time the chief died"

Locative Relative Clauses with *sĩʔəl*[a] as the relative pronoun are frequent in "where, whither" senses; neither the pronoun itself nor the whole Relative Clause have the locative particle attached to them in such cases:

Fʋ̀ kɛ́ŋ   fʋ́n   bɔ̀ɔd sĩʔəl.

2SG go:**PFV 2SG:COMP** want **INDF.NH**.

"You went wherever you wanted." cf Jn 21:18.

biig la n be si'el la zugin

bīig   lá ǹ   bɛ̀   sĩʔəl   lā zúgū̄n

child:**SG ART COMP EXIST INDF.NH ART** head:**LOC**.

"over where the child was" (Mt 2:9, 1976)

Relativisation by *kà*-preposing with a Demonstrative relative is also possible with these types of constituent 33.2.2.1 .

Objects of Invariable Verbs are usually relativised with Indefinite Relatives. (Compare the comparative rarity of *kà*-preposing with such objects 34.2 .)

Yaname na mor sam si'a ane ye ya noŋ taaba.

Yānámì‿ø   nà mɔ̄r sām-síʔa   á   nɛ̄ yɛ́   yà   nɔ́ŋ tāaba.

2PL   COMP UNR have debt-**INDF.NH COP FOC** that **2PL** love each.other

"Any debt which you are to have is to love each other." (Rom 13:8.)

Examples with demonstratives do occur 33.2.2.1 . However, as with *kà*-preposing elsewhere, it is probably ungrammatical to relativise predicative complements via Demonstrative Relatives and *kà*, and all examples of their relativisation seem to use Indefinite Relatives instead:

M mi' fun a so'.
Ǹ   mí⁷   fún   à   sɔ́⁷.
1SG know **2SG:COMP COP INDF.HU**
"I know who you are." (Lk 4:34)

Tiig wela bigisid lin a tisi'a.
Tììg   wɛ́là   bìgɪsɪd   lín   à   tí-sī⁷a.
Tree:**SG** fruit:**PL** show:**IMPF 3NH:COMP COP** tree-**INDF.NH**
"The fruit of the tree shows what tree it is." (Mt 12:33)

*Sī⁷əm*ᵐ, the form of the indefinite pronoun system with the mass *m*ᵐ Class
suffix, is frequent in adverbial use as "somehow" and also as indefinite quantifier
"some amount." Kusaal frequently uses manner-adverbs as predicative complements
25.2.1 . Accordingly, relative clauses with *sī⁷əm* as relative pronoun are common as
objects of verbs of cognition, reporting, and perception:

Christ da kpi n tisi ti la ke ka ti baŋ noŋir a si'em.
Christ‿ø   dà kpì   n   tísì‿   tī   lā kɛ́   kà   tì   báŋ
Christ **COMP TNS** die:**PFV SER** give:**PFV 1PLO ART** cause:**PFV** and **1PL** realise:**PFV**
nɔ̀ŋɪr‿ø   à   sī⁷əm.
love   **COMP COP INDF.ADV**
"Christ's dying for us makes us understand what love is like." (1 Jn 3:16, 1976)

The article *lā*⁺/ has its usual function with *sī⁷əm* Relative Clauses:

Ǹ   mí⁷   mán   nà   nīŋ   sī⁷əm.
1SG know **1SG:COMP UNR** do:**PFV INDF.ADV**.
"I know what to do."

Ǹ   mí⁷   mán   nà   nīŋ   sī⁷əm   lā.
1SG know **1SG:COMP UNR** do:**PFV INDF.ADV ART**.
"I know what I'm to do"
(WK: "You explained the plan earlier; this is my reply when you ask if I
remember it")

In the 1976 NT almost all Relative Clauses with *sī⁷əm* and past tense marking
have *lā*⁺/; 75% lacking *lā*⁺/ have Unrealised Mood. Cf the two standing expressions

ɔ́n   bɔ̀ɔd sī^ʔəm
3HU:COMP want **INDF.ADV**
"as he wishes"

lín   à   sī^ʔəm   lā
3NH:COMP COP INDF.ADV ART
"as things are"

Yɛ̀l^e "say, tell" tends to take a *sī^ʔəm* Relative Clause with *lā* in its sense of "say, tell how something is" and without *lā* in the sense "say how to do something":

Bà yɛ̀l·ō‿   ø   bán   nìŋ   sī^ʔəm   lā.
3PL say:**PFV 3HUO 3PL:COMP** do:**PFV INDF.ADV ART**
"They told him what they'd done"

Bà nà yɛ̄lı‿   f   fún   nà nīŋ   sī^ʔəm.
3PL UNR tell:**PFV 2SGO 2SG:COMP UNR** do:**PFV INDF.ADV**.
"They'll tell you what to do."

Pà^ʔal^e "teach, inform", surprisingly, typically takes a Relative Clause object without *lā*:

Bà pà^ʔal·ō‿   ø   bán   nìŋ   sī^ʔəm.
3PL inform:**PFV 3HUO 3PL:COMP** do:**PFV INDF.ADV**.
"They informed him of what they'd done."

Other verbs taking a *sī^ʔəm* Relative Clause as an object are

Gàad^e "pass, surpass" in comparing actions:

Mam tum pamm n gaad ban tum si'em la.
Mām   túm   pāmm n   gáàd   bán   tùm   sī^ʔəm   lā.
1SG.CNTR work:**PFV** much **SER** pass:**PFV 3PL:COMP** work:**PFV INDF.ADV ART**
"I've worked much harder than (how) they have." (2 Cor 11:23, 1976)

Gbāň^ʔe^{+/} "catch" is used with a *sī^ʔəm* Relative Clause idiomatically for "decide what to do":

M̀ gbáň^ʔe mán   nà nīŋ   sī^ʔəm.
1SG seize:**PFV 1SG:COMP UNR** do:**PFV INDF.ADV**.
"I've decided what to do."

With verbs of doing a *sī*ʔ*əm* Relative Clause can be a manner-adverb:

> *Bà   nìŋ   ɔ́n   yɛ̀lι‿   bā   sī*ʔ*əm   lā.*
> **3PL** do:**PFV 3HU:COMP** tell:**PFV 3PLO INDF.ADV ART**.
> "They did as he'd told them."

which could answer *Bà nìŋ bɔ́?* or *Bà nìŋ àlá?* "What/how did they do?"
Like other AdvPs *sī*ʔ*əm* Relative Clauses can be verb subjects:

> *Man noŋi ya si'em la ane bedego.*
> *Mán   nɔ̀ŋι‿ yā sī*ʔ*əm   lā á   nɛ̄ bɛ́dʊgū.*
> **1SG:COMP** love   **2PLO INDF.ADV ART COP FOC** much.
> "How much I love you, is a lot." (2 Cor 7:3, 1976)

*Sī*ʔ*əm* Relative Clauses occur often as objects of *wūʊ* "like" and *wɛ̄n*^na/ "resemble"

> *Ò   zɔ̀t   wūʊ búŋʋ̀‿   ø   zɔ̀t   sī*ʔ*əm   lā.*
> **3HU** run:**IPFV** like donkey:**SG COMP** run:**IPFV INDF.ADV ART**
> "He runs like a donkey (runs.)"

> *...ka ba ke ka nidib dol o wuu ziŋba'adib n gban'ad zimi si'em la.*
> *...kà bà kɛ́   kà   nīdιb   dɔ̄ll·ó‿ ø   wūʊ zīm-gbáň*ʔ*adìb ǹ*
> ...and **3PL** cause:**PFV** and person:**PL** follow **3HUO** like fish-catcher:**PL COMP**
> *gbāň*ʔ*ad zīmí   sī*ʔ*əm   lā.*
> catch:**IPFV** fish:**PL INDF.ADV ART**
> "... they would make people follow him like fishermen catch fish."
> (Mt 4:19, 1976)

Hālí (*là*ʔ*am*) *nɛ̄* "although", alongside its use with *ǹ*-Adverbial Clauses 33.1.2 can take a *sī*ʔ*əm* Relative Clause in the sense "despite how...":

> *hale ne man daa sobi ya si'em la*
> *hālí nɛ̄ mán   sɔ̄bí‿   yā   sī*ʔ*əm   lā*
> even with **1SG:COMP** write:**PFV 2PLO INDF.ADV ART**
> "despite how I wrote to you" (2 Cor 7:12.)

33.2.2 Demonstratives as Relatives

It is much commoner for a relative clause to begin with a short demonstrative pronoun. If this is a head pronoun, the entire relative clause is an independent NP, but such structures are often used in apposition to a preceding NP which is then functionally the antecedent 33.2.4 . If the pronoun is a post-determiner, the head on which it depends is the antecedent to the relative clause.

If the antecedent is the subject within the relative clause, it is followed by the complementiser *ǹ*:

> *Ǹ ňyɛ́   dáṳ-kànι̰   ø   zàb   nà*ʔ*ab lā.*
> **1SG** see:**PFV** man-**DEM.SG COMP** fight:**PFV** chief:**SG ART**
> "I saw the man who fought the chief."

> *bànι̰   ø   zàb   nà*ʔ*ab   lā*
> **DEM.PL COMP** fight:**PFV** chief:**SG ART**
> "those who fought the chief"

If it is a direct or indirect object, or an adverb, or part of a subordinate clause within the relative clause, the initial relative pronoun is followed by *kà*:

> *nà*ʔ*-kàn   kà dāṳ   lā záb   lā*
> chief-**DEM.SG** and man:**SG ART** fight:**PFV ART**
> "the chief whom the man fought"

> *bàn   kà nà*ʔ*ab   lā záb   lā*
> **DEM.PL** and chief:**SG ART** fight:**PFV ART**
> "those whom the chief fought."

> one ka ba tis o ka li zu'e
> *ɔ̀nι̰   ø   kà bà tís·ò̰   ø   kà lì   zú*ʔ*e*
> **DEM.HU COMP** and **3PL** give:**PFV 3HUO** and **3NH** become.much:**PFV**
> "he to whom they have given much" (Lk 12:48)

> yikan ka mam Paul be la
> *yī-kán   kà mām   Paul bɛ́ lā*
> house-**DEM.SG** and **1SG.CNTR** Paul **EXIST ART**
> "the house where I, Paul, am" (Rom 16:23, 1976)

So too when the antecedent is a pre-determiner of a NP which is not the subject within the relative clause:

on buudi ka Jew dim kis
ɔ̀n   būudí   kà   Jew dím   kīs
DEM.HU tribe:**SG** and Jew individual.**PL** hate
"whose tribe the Jews hate" (Lk 10:33)

My informant WK has always *ɔ̀n lìn bàn kàn* before this *kà*, but written materials very frequently show *one line bane kane*:

gbankane ka dau la sob la
for   *gbàn-kàn   kà   dāu̯   lā   sɔ̄b   lā*
letter-**DEM.SG** and man:**SG ART** write:**PFV ART**
"the letter which the man has written"

The *-e* shows that complementiser-*ǹ* follows; this is unexpected if constructions like these arose by ellipsis from e.g. **lín à gbàn-kàn kà dāu̯ lā sɔ̄b lā* "the one which is the book the man wrote." However, many speakers evidently reintroduce the complementiser after the initial pronoun regardless of its rôle within the relative clause, not only before *kà* but even between possessor and possessum:

Dau kane yadda niŋir pu zu'e la
dàu̯-kànι‿   ø   yàddā-níŋìr   pū   zúʔe   lā
man-**DEM.SG COMP** assent-doing:**SG NEG.IND** become.great:**PFV ART**
"O man whose faith is not great..." (Mt 14:31)

Toende Kusaal shows the same development. Complementiser-*ǹ* is *ne* in Toende, and Serial-*n* is segmentally, at least, *ø*. Thus Abubakari 2011 (using her orthography):

N sa nye buraa kanne da da'a gbana la.
"I saw the man who bought the book."

With *ne* before *ka* in relative clauses:

*Buraa **kanne ka** fo bor la kiŋ tuma.*
"The man you are looking for is gone to work"

*N sa nye buraa **kanne ka** Ayi da nye la.*
"I saw the man that Ayi saw."

33.2.2.1 Antecedent Rôles

If the antecedent is the subject within a Relative Clause, the relative pronoun is always a short demonstrative (head or dependent) followed by *n*:

> *bànι‿ ø   zàb   nàˀab lā*
> **DEM.PL COMP** fight:**PFV** chief:**SG ART**
> "those who fought the chief"

> *Ǹ ňyέ dáṵ-kànι‿ ø   zàb   nàˀab lā.*
> **1SG** see:**PFV** man-**DEM.SG COMP** fight:**PFV** chief:**SG ART**
> "I saw the man who fought the chief."

The antecedent may be a *pre-determiner* (possessor, typically) of the subject in the relative clause. The short demonstrative pronouns must be used for relatives, and if the *ǹ* particle is present it *intervenes* between the demonstrative relative and the head NP of the subject: the sequence "demonstrative + *ǹ*" effectively functions as a relative pronoun:

> *nimbane yuda sob Pe'ebil la nyovurpaal dim la gbauŋ la ni*
> *nīn-bánì‿   ø   yūdá sɔ̄b   Pɛ̃ˀ-bíl lā ňyɔ́-vūr-páàl*
> person-**DEM.PL COMP** name:**PL** write:**PFV** Lamb:**SG ART** breath-alive-new:**SG**
> *dím   lā gbáṵŋ lā ní*
> individual.**PL ART** book:**SG ART LOC**
> "those whose names are written in the Lamb's book of those with new life"
> (Rev 21:27)

With all other rôles of the antecedent within the relative clause, the relevant constituent within the relative clause must be preposed with *kà* so that it can precede the demonstrative relative. This is the only case where preposing with *kà* may occur within a subordinate clause. There is no focus or foregrounding sense, and it is not clear whether there is any but a stylistic difference between this construction and the type with Indefinite relatives in situ in those cases where that is a possible alternative.

Only the *kà*-preposing type with demonstrative relatives is possible with indirect objects, or with antecedents extracted from a prepositional phrase or from a subordinate clause. In all these cases an explicit resumptive pronoun occurs in the corresponding gap within the relative clause:

One ka ba tis o ka li zu'e, ba me mor poten'er ye o na lebis line zu'e.

Ɔ̀nɪ‿   ø   kà   bà   tís·ò‿   ø   kà   lì   zú'e,   bà   mɛ̀   mɔ̀r

DEM.HU COMP and **3PL** give:**PFV 3HUO** and **3NH** become.much:**PFV**, **3PL** also have

pú-tɛ̀ǹ'ɛr   yɛ́   ò   nà   lɛ̄bɪs   línì‿   ø   zù'e.

inside-mind:**SG**   that **3HU UNR** return:**PFV DEM.NH COMP** become.much:**PFV**

"He who they have given much to, they too expect that he will return much." (Lk 12:48)

Búraa sǫ dāa bę ànīa, ôn kà mān néōn dāa túm lā.

Būrá-sɔ̄'   dāa bɛ́   ànínā,   ɔ̀n   kà   mān nɛ̄   ɔ̄n dāa túm   lā.

Man-**INDF.HU TNS**   **EXIST**   **ADV**:there, **DEM.HU** and **1SG**   with **3HU TNS** work:**IPFV ART**

"There was a man there whom I used to work with." ILK

niŋkan ka ba ke ka ba gban'e o la

nīn-kán   kà   bà   kɛ́   kà   bà   gbāǹ'·ó‿ ø   lā

person-**DEM.SG** and **3PL** cause:**PFV** and **3PL** seize:**PFV**   **3HUO ART**

"a person whom they have caused to be seized" (Acts 25:16)

niŋ kane ka na'ab Aretus ke ka o so'e Damaskus la

nīn-kánì‿   ø   kà   nà'ab   Aretus kɛ́   kà   ò   sū'e Damaskus lā

person-**DEM.SG COMP** and king:**SG** Aretus cause:**PFV** and **3HU** own Damascus **ART**

"the person King Aretus had caused to possess Damascus" (2 Cor 11:32)

lin ka Kiristo bood ye ti pian' la

lìn   kà   Kiristo bɔ́ɔ̀d yɛ́   tì   pi̠ā̠ǹ'   lā

DEM.NH and Christ want that **1PL** speak:**PFV ART**

"what Christ wishes us to say" (2 Cor 12:19)

nimbane ka ya ten'es ye ba a nintitada la

nīn-bánì‿   ø   kà   yà   tɛ̄ǹ'ɛs   yé   bà   à   nīn-títāda   lā

person-**DEM.PL COMP** and **2PL** think:**PFV** that **3PL COP** person-great:**PL ART**

"those whom you consider to be great" (Gal 2:6)

Only the *kà*-preposing type is possible when the antecedent corresponds to a pre-determiner/possessor of a NP which is not the subject within the relative clause. The demonstrative relative then precedes the head as its determiner:

Samaritan nid (on buudi ka Jew dim kis)

Samaritan níd,   ɔ̀n   būudí   kà   Jew dím   kīs

Samaritan person:**SG DEM.HU** tribe:**SG** and Jew individual.**PL** hate

"a Samaritan, whose tribe the Jews hate" (Lk 10:33)

biig kan poog ka o mor la
bìig-kàn   púʊ̀g   kà   ò   mɔ̄r lā
child-**DEM.SG** belly:**SG** and **3HU** have **ART**
"the child she is pregnant with" (Mt 1:20) ("child whose pregnancy she has")

Direct objects, complements and adjuncts may be relativised by *kà*-preposing, in this case alongside constructions with indefinite relatives 33.2.1.1 . There is no explicit resumptive pronoun in these cases; compare null anaphora in Verb Phrases 25.1.1 .

Gbauŋ kane ka Jerusalem kpeenmnam daa sob la nwa.
Gbàu̯ŋ-kànɩ‿ø   kà Jerusalem kpέɛ̀ňm-nàm dāa sɔ̄b   lā‿ø   ňwá.
Letter-**DEM.SG COMP** and Jerusalem elder-**PL**   **TNS** write:**PFV ART SER** this.
"This is the letter that the elders of Jerusalem wrote." (heading, Acts 15:23)

nà²-kàn   kà dāu̯   lā záb   lā
chief-**DEM.SG** and man:**SG ART** fight:**PFV ART**
"the chief whom the man fought"

bàn   kà nà²ab lā záb   lā
DEM.PL and chief:**SG ART** fight:**PFV ART**
"those whom the chief fought."

nà²-kàn   kà dāu̯   lā dāa záb   lā
chief-**DEM.SG** and man:**SG ART TNS** fight:**PFV ART**
"the chief whom the man fought"

gbàn-kàn   kà dāu̯   lā sɔ̄b   lā
letter-**DEM.SG** and man:**SG ART** write:**PFV ART**
"the letter which the man has written"

m antu'a lin ka ba mor la
m̀ àntù²a lìn   kà bà mɔ̄r lā
1SG case   **DEM.NH** and **3PL** have **ART**
"the charge they have against me" (Acts 25:11)

yeltood ayopoi bane ka maleknama ayopoi mor la
yɛ̄l-tɔ́ɔ̀d   àyɔ́pɔ̀ɛ̨ bánì‿ø   kà màlɛ̄k-námá‿ àyɔ́pɔ̀ɛ̨   mɔ̄r lā
matter-bitter:**PL NUM**:seven **DEM.PL COMP** and angel-**PL**   **NUM**:seven have **ART**
"the seven plagues which the seven angels have" (Rev 15:8)

sān-kán   kà nàˀab lā kpí   lā
time-**DEM.SG** and chief:**SG ART** die:**PFV ART**
"at the time the chief died"

Relative clauses with locative reference do not take the locative *nι*[+] 22.3 :

yikan ka mam Paul be la yidaan
yī-kán   kà mām   Paul bɛ́   lā yí-dáàn
house-**DEM.SG** and **1SG.CNTR** Paul **EXIST ART** house-owner:**SG**
"the owner of the house where I, Paul, am" (Rom 16:23, 1976)

33.2.3 Other Determiners as Relatives

The vast majority of relative clauses use the demonstrative or indefinite pronouns as relatives.

However, occasional forms, always of the in-situ type, occur with other determiners: for example, ordinal expressions can function as relatives:

Paul n sob gbauŋ yiiga daan n tis Korint dim la nwa.
Paul ǹ   sɔ̄b   gbáṵŋ yīigá dāan   n tís
Paul **COMP** write:**PFV** letter:**SG** firstly owner:**SG SER** give:**PFV**
Korint dím   lā‿ ø ňwá.
Corinth individual.**PL ART SER** this.
"This is the first letter which Paul wrote to the Corinthians." (NT heading)

Cf   *Paul n sob gbauŋ-si'a n tis Galatia dim la nwa.*
Paul ǹ   sɔ̄b   gbáṵŋ-sīˀa   n tís
Paul **COMP** write:**PFV** letter-**INDF.NH SER** give:**PFV**
Galatia dím   lā‿ ø ňwá.
Galatia individual.**PL ART SER** this.
"This is the letter which Paul wrote to the Galatians." (NT heading)

Perhaps parallel, but with the deictic *ňwà*[+] "this" instead of a determiner, is

Zugsob yel ye, Man voe nwa...
Zūg-sɔ́b   yɛ́l   yɛ̄, Mán   vṵ̄e̲   ňwá ...
head-one:**SG** say:**PFV** that **1SG:COMP** be.alive this *...*
"The Lord says: As I live .." (Rom 14:11)

33.2.4 Appositional Relative Clauses

Written materials frequently show constructions with a human-reference NP followed by a Relative Clause introduced by *one* or *bane*. Before *one*, the preceding word never appears as a combining form. Examples may even show antecedents with a coordinate structure, which must represent appositional constructions:

> *Mam Paul ne Timoti bane a Yesu Kiristo tumtumnib n sob gbauŋ kaŋa nwa.*
> *Mām   Paul nɛ̄   Timoti   bánì‿   ø   à   Yesu Kiristo túm-tūmníb*
> **1SG.CNTR** Paul with Timothy **DEM.PL COMP COP** Jesus Christ work-worker:**PL**
> *n   sɔ̄b   gbáu̯ŋ-kàŋā   ňwá.*
> **SER** write:**PFV** letter-**DEML.SG** this.
> "I, Paul, and Timothy, servants of Jesus Christ, wrote this letter." (Phil 1:1)

On apposition elsewhere with human reference see 21.5 21.8.1.5.

Appositional constructions are necessary, regardless of gender, when the antecedent cannot appear as a combining form, e.g. with coordinate structures or quantifiers (compare 21.5 17.2):

> *salima laas ayopoi line ka Wina'am one be saŋa line ka' ben la supeen pe'eli ba ni la*
> *sālıma láàs   àyɔ́pɔ̀ȩ   línì‿   ø   kà Wínàʔam ɔ́nì‿   ø   bɛ̀*
> gold   vessel:**PL NUM:**seven **DEM.NH COMP** and God   **DEM.HU COMP EXIST**
> *sāŋá   lìnı‿   ø   kāʔ   bēn   lā súň-pɛ́ɛ̀n   pɛ́ʔɛlì‿ bā ní lā*
> time:**SG DEM.NH COMP NEG.HAVE** end:**SG ART** heart-whiteness fill:**PFV** **3PLO LOC ART**
> "the seven gold bowls filled with the anger of God who exists for time without
>   end" (Rev 15:7)

Within the above example, *sāŋá* is unequivocally not a combining form in *saŋa line ka' ben la.*

An appositional relative clause may follow a noun with a post-determining pronoun of its own:

> *kokor kaŋa lini yi arazana ni la na*
> *kùkɔ̄r-káŋā   línì‿   ø   yí   àrazánà nı lā nā*
> voice-**DEML.SG DEM.NH COMP** emerge:**PFV** sky:**SG**   **LOC ART** hither
> "this voice which came from heaven" (2 Pet 1:18, 1976)

Appositional clauses with Demonstratives as relatives are typically, though not invariably, restrictive. In written sources the absence of tone marking, variability of word division, and the remodelling of combining forms on the model of the singular

make it impossible to be certain in many cases whether or not the construction is appositional, so it is difficult to find unequivocal test cases.

Appositional clauses also occur with Indefinites as relatives:

Ka Yesu daa keŋ Nazaret ban da ugus o teŋ si'a la.
Kà Yesu dāa kɛŋ Nazaret bán dà ūgʋs·ó‿ ø tɛ̀ŋ-sɪ́ˀa lā.
And Jesus **TNS** go:**PFV** Nazareth **3PL:COMP TNS** raise:**PFV 3HUO** land-**INDF.NH ART**.
"And Jesus went to Nazareth, where he was raised." (Lk 4:16)

33.2.5 Article with Relative Clauses

With Relative Clauses with relative pronouns other than *sɪ́ˀəm* the function of the **article** after the clause is straightforward:

Ɔ̄n sɔ̄b á nɛ̄ dáu̞-kànɪ‿ ø
3HU.CNTR individual.**SG** COP FOC man-**DEM.SG COMP**
sà kɛ̄ nā súˀès lā.
TNS come:**PFV** hither yesterday **ART**
"That one's the man who came yesterday."

Dàp-bànɪ‿ ø bɔ̀ɔd yɛ́ bà ňyɛ̄ɛ́‿ f kɛ́ nā.
Man-**DEM.PL COMP** want that **3PL** see:**PFV 2SGO** come:**PFV** hither
"Some men who want to see you have come."

one du'a ne Siig
ɔ̀nɪ‿ ø du̞ˀà nɛ̄ Sīɩg
DEM.HU COMP bear:**PFV** with spirit:**SG**
"someone born of the Spirit" (Jn 3:8)

one tumi m la na
ɔ̀nɪ‿ ø tʋ̀mɪ‿ m lā nā
DEM.HU COMP send:**PFV 1SGO ART** hither
"he who sent me hither" (Mk 9:37)

(ɔ̀nɪ = short demonstrative + *ǹ*; contrast *ɔ́n* 3sg subject pronoun with *ǹ*)

Simple absence of the article here does duty for what with nouns is expressed with indefinite post-determining pronouns, of necessity as Relative Clauses cannot take any dependents other than the article or pre-determiners.

34 Information Packaging

34.1 Focus: Overview

The term "Focus" is used significantly differently in different grammars, and cross-linguistically it is not clear that there is even a fundamental common core to the concept. Apart from the theoretical challenges, the matter is difficult to investigate in practical terms. I had little acquaintance with these issues when I had access to Kusaal speakers, and it is not easy to remedy this retrospectively from my limited data. Much of this section is therefore very tentative.

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."

I will also adopt a distinction 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 Huddleston and Pullum, p1424, foregrounded elements in English need not be focussed.

Two syntactic devices in Kusaal evidently relate to Focus: the use of the particle *nɛ̄*$^{+/}$ 34.1.1 , and clefting with Serialiser *n*, along with corresponding ellipted versions 34.1.2 . Clefting constructions with the clause linker *kà* and corresponding ellipted types either relate to foregrounding rather than Focus 34.2 , or are motivated simply by ordering constraints, with no foregrounding implications.

Main clauses without any special syntactic marking of Focus have ordinary focus on the predicate by default.

34.1.1 The Focus Particle *nɛ̄*$^{+/}$

As a constituent-focus particle *nɛ̄*$^{+/}$ has two distinct rôles, readily distinguishable by position: preceding a VP-constituent, *nɛ̄*$^{+/}$ focusses that constituent, while VP-final *nɛ̄*$^{+/}$ focusses the entire VP contrastively.

The focus particle is homophonous with the preposition *nɛ̄* "with, and" and with the empty particle *nɛ̄* which follows objects of comparisons when they do not have the article 23.1 ; on distinguishing constituent-focus *nɛ̄*$^{+/}$ from the preposition see 25.4 .

Greater difficulty arises over the distinction from the *nɛ̄*$^{+/}$ which is part of the aspect system 24.2 [18], and which actually represents a specialised use of the same particle to focus the verb aspect. The aspect marker is subject to the same formal

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18) In Dagbani, two different particles, *mi* and *la*, correspond to Kusaal *nɛ̄*$^{+/}$, but they are in complementary distribution with no meaning difference to shed light on *nɛ̄*$^{+/}$; together, they show much the same range of senses. Mampruli *ni* shares the initial *n*- of *nɛ̄*$^{+/}$, but in the related languages the corresponding particles mostly have *m*-: Dagbani *mi*, Mooré *me*, Nabit and Farefare *mɛ*; even Toende Kusaal has *me*.

constraints on appearance as the focus marker, and *nɛ̄*⁺/ cannot appear twice in a clause to mark both focus and aspect 34.1.1.2 . The *aspectual* sense normally prevails wherever semantically and formally possible; otherwise, the particle is interpreted as constituent focus. When aspectual *nɛ̄*⁺/ is excluded only by formal constraints, different verbal aspects still appear but are unmarked.

34.1.1.1 Ambiguity between Focus and Aspectual *nɛ̄*⁺/

Nɛ̄⁺/ as focus marker of VP complements and adjuncts precedes the focussed constituent. If this constituent follows the verb, there is thus a potential ambiguity between the focus particle and the aspect marker. The default interpretation is as aspectual, but this requires the particle to be separated from the verb by at most a Liaison Enclitic, the Predicator to have Positive Polarity and Indicative Mood 24.4.1 , and the verb not to be Passive 25.1.4 . If the verb has Perfective Aspect it must be capable of a Result Perfective interpretation 24.2.1.2 . With Adjectival Verbs and the verb *àe̯ñ*ʸᵃ "be something/somehow", *nɛ̄*⁺/ may only occur, in a time-limiting sense, if there is an explicit time expression in the immediate context 24.2.2.2 .

Furthermore, a generic subject is not semantically compatible with the Bounded Imperfective aspect. Thus *nɛ̄*⁺/ after a VP with Imperfective Aspect must be focus-marking if the subject is generic:

> *Nīigí   ɔ̀ñbɪd   nɛ̄   mɔ́ɔd.*   "Cows eat grass." ("What do cows eat?")
> Cow**:PL** chew**:IPFV FOC** grass**:PL**.

A form like *nīigí* is in itself ambiguous between generic and specific indefinite interpretations (like English *cows* versus the explicitly specific-indefinite *some cows*) but the specific sense is only likely in the context of explicit introduction of a new discourse element 21.3 . By context, pronoun subjects also can be generic or specific:

> *Bà ɔ̀ñbɪd   nɛ̄   mɔ́ɔd.*   "They (cows in general) eat *grass*."
> **3PL** chew**:IPFV FOC** grass**:PL**.   or "They (particular cows) are eating grass."

A generic subject *is* compatible with the Event Perfective; this is seen, for example, in proverbs, though as proverbs shade into mini-anecdotes or analogies they may contain NPs that are not so so much generic as illustrative or exemplary:

> *Kukoma da zab taaba ason'e bi'ela yela.*
> *Kùkɔ̀ma dá zàb   tāabá   à-sɔ̄ñˀe   bīˀəlá yɛ̀la.*
> Leper**:PL TNS** fight**:PFV** each.other **PERS**-better.than slightly about.
> "Lepers once fought each other about who was a bit better." KSS p40

34.1.1.2 Formal Constraints on the Appearance of *nɛ̄*⁺ᐟ

Nɛ̄⁺ᐟ cannot appear in either focus or aspectual sense

(a)   if the subject has *n*-focus
(b)   in subordinate clauses other than Content Clauses
(c)   in content questions

In commands, only VP-focus *nɛ̄*⁺ᐟ is permitted. Neither constituent focus nor aspect marking may appear.

Nɛ̄⁺ᐟ **may only occur *once* in a clause** (not necessarily in the *first* VP of a Serial VP chain.) When *nɛ̄*⁺ᐟ is present as marking focus, the possible Verbal Predicator aspect distinctions remain unchanged but are unmarked formally. This constraint reveals that the aspect marker is fundamentally a particular instance of the focus particle where the focus falls on the aspect of the verb.

Examples:

N-focussing of the subject excluding aspect marking:

M̀ zūgʋ‿ ø zábìd.	"My head is hurting/hurts."
1SG head **SER** fight:**IPFV**.	(Reply to "Where is the pain?")

Ànɔ́ˀɔnì‿ ø dít sáˀabò ⁺ø?	
Who **SER** eat:**IPFV** porridge **CQ**?	
"Who eats/is eating millet porridge?"	

Exclusion of *nɛ̄*⁺ᐟ in subordinate clauses:
Ǹ-Clauses:

Ò dāa á nɛ̄ bīig.	"She was a child."
3HU TNS COP FOC child:**SG**.	

but	*ɔ́n à bīig lā zúg*	"because she's a child"
	3HU:COMP COP child:**SG ART** upon	

M̀ yí nɛ̄ Bɔ́k.	"I come from Bawku." SB
1SG emerge **FOC** Bawku.	

Yadda niŋir yitne labaar la wumug ni.	
Yàddā-níŋìr yít nɛ̄ lábāar lā wúmʋ̀g ní.	
Assent-doing emerge:**IPFV FOC** news **ART** hearing **LOC**.	
"Faith comes from hearing the news." (Rom 10:17)	

but   *Meeri one yi Magdala*
       Meeri ɔ́nì‿   ø   yī   Magdala
       Mary   **DEM.HU COMP** emerge:**PFV** Magdala
       "Mary who came from Magdala" (Mk 16:9)

       Supplement Clauses:

       M̀ dāa pū   ňyɛ̄ dāṳ lá kà ò á ná̰ʔabā ⁺ø.
       1SG TNS NEG.IND see:**PFV** man:**SG ART** and **3HU COP** chief:**SG NEG.**
       "I didn't see the man as a chief."
not   **M̀ dāa pū ňyɛ̄ dāṳ lá kà ò á nɛ̄ ná̰ʔabā.*

       Contrast an *Insubordinate* Sequential clause 30.3.2 introduced by *kà*, showing
       aspectual *nɛ̄⁺ᐟ*:

       Ka ba due keŋ. Ka ban ken la, Jesus gbisid ne.
       Kà bà dūe‿   ø kɛ̄ŋ. Kà bán   kɛ̄n   lā, Jesus gbīsɪd   nɛ̄.
       And **3PL** arise:**PFV SER** go:**PFV**. And **3PL:COMP** go:**IMPF ART**, Jesus sleep:**IPFV FOC**.
       "So they started out. As they were travelling, Jesus was sleeping."
       (Lk 8:22-23, 1976)

       With a clause type that permits Aspect/Focus *nɛ̄⁺ᐟ*, the particle may occur in a
non-initial VPs of a Serial VP chain:

       O pu ma' n tis ninsaala, amaa [ye] o ma' n tisne Wina'am.
       Ò pū   má̰ n tìs   nīn-sáalā   ⁺ø, àmáa ò mà̰
       3HU NEG.IND lie:**PFV SER** give:**PFV** person-smooth:**SG NEG** but   **3HU** lie:**PFV**
       n tís   nɛ̄ Wínà̰am.
       SER give:**PFV FOC** God.
        "He has not lied to a human being; rather, he has lied to *God*." (Acts 5:4, 1976)
       (*nɛ̄* in a second Serial VP.)

       Exclusion of *nɛ̄⁺ᐟ* in content questions: aspect-marking *nɛ̄⁺ᐟ*:

       Bɔ́   kà fʊ̀ kúɵsìda ⁺ø?   "What are you selling/do you sell?"
       What and **2SG** sell:**IPFV CQ**?

       Fʊ̀ kúɵsìd bɔ́   ⁺ø?   "What are you selling/do you sell?"
       2SG sell:**IPFV** what **CQ**?

Bɔ́   kà   fʋ̀   kúmmà ⁺*ø?*   "Why are you crying/do you cry?"
What and **2SG** cry:**IPFV** **CQ**?

*Fʋ̀   níŋìd   bɔ́   *⁺*ø?*   "What are you doing/do you do?"
2SG do:**IPFV** what   **CQ**?

*Fʋ̀   wáˀe   yáa   *⁺*ø?*   "Where are you going (just now)?"
2SG go   where   **CQ**?

Constituent-focus *nɛ̄*^{+/}:

*Mām   á   bɔ́   *⁺*ø?*   "What am I?"
1SG.CNTR **COP** what   **CQ**?

*Fʋ̀   áá_   ànɔ́ˀɔnè *⁺*ø?*   "Who are you?"
2SG **COP**   who   **CQ**?

*Fʋ̀   bɔ́ɔ̀d   nɛ̄   bɔ́   *⁺*ø?*   "What do you want it with?"
2SG want with what   **CQ**?   *Nɛ̄ must* be interpreted as preposition (WK)

Commands permitting *nɛ̄*^{+/} only in VP-focussing rôle:

Ò   gɔ̀sɪd   nɛ̄.   "She's looking."
3HU look:**IPFV** **FOC**.

Gɔ̀sɪm   kpɛ̄.   "Look here!"
Look:**IMP** here.

but   *Gɔ̀sɪm   nɛ̄.*   "*Look*!" ("Don't *touch*." WK)
Look:**IMP** **FOC**.

Ò   à   nɛ̄   bāaňlím.   "She is quiet."
3HU **COP** **FOC** quiet:**ABSTR**.

but   *À   bāaňlím!*   "Be quiet!"
COP quiet:**ABSTR**.

Nɛ̄^{+/} focussing a constituent, thereby leaving aspect distinctions unmarked:

M̀   pʋ́ˀʋsìdī_   f   nɛ̄.   "I'm greeting you."
1SG greet:**IPFV** **2SGO** **FOC**.

> *Ò   kùɵsɩdī‿ bá nɛ̄.*   "She's selling them."
> **3HU** sell:**IPFV** **3PLO FOC**.

but *Ò   kùɵsɩd sūmma   lā nɛ̄.*
>   **3HU** sell:**IPFV** groundnut:**PL ART FOC**.
> "She *sells*/is *selling* the groundnuts." ("They're not free.")

> *Tì dít   sā'ab   nɛ̄ záàm.*
> **1PL** eat:**IPFV** porridge **FOC** evening.
> "We eat/are eating millet porridge *in the evening*."

34.1.1.2.1 Omission of *nɛ̄*^{+/} in Replies

The Bounded Imperfective omits the particle *nɛ̄*^{+/} in replying to polar questions or responding to questions by repeating the verb:

A: *Gɔ̀sɩm!*   "Look!"
B: *M̀ gɔ́sìd!*   "I'm looking!"
A: *Fù gɔ́sìd nɛ́ɛ?*   "Are you looking?"
B: *M̀ gɔ́sìd!*   "I'm looking!"

This probably simply represents the cross-linguistically common phenomenon of ellipsis in declarative replies to questions 29.1.4.

34.1.1.3 VP Constituent 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 34.1:

> *M̀ dá'   nɛ̄ búŋ.*   "I've bought a donkey."
> **1SG** buy:**PFV FOC** donkey:**SG**.   ("What have you bought?")

> *Nīigí   ɔ̀ñbɩd   nɛ̄ mɔ́ɔd.*   "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**:

> *M̀ pū   dá'   nɛ̄ búŋā   ⁺ø.*
> **1SG NEG.IND** buy:**PFV FOC** donkey **NEG**.
> "I haven't bought a *donkey*."   ("I bought something else.")

With **definite objects/predicative complements**, because definiteness implies old-information status, the ordinary-focus sense of "unpredictable or pragmatically non-recoverable" is likely to be difficult. *Nɛ̄* before a definite object is in fact usually aspectual:

> *Nīigí   lā   ɔ́ñbɩ̀d   nɛ̄ mɔ̄ɔd   lā.*
> Cow:**PL ART** chew:**IPFV FOC** grass:**PL ART**.
> "The cows are eating the grass."

> *Nā̰ʔ-síəbà   ɔ́ñbɩ̀d   nɛ̄ mɔ̄ɔd   lā.*
> Cow-**INDF.PL** chew:**IPFV FOC** grass:**PL ART**.
> "Some cows are eating the grass."

but if focus does occur with old-information arguments, it is **contrastive**.

> *O pu ma' n tis ninsaala, amaa [ye] o ma' n tisne Wina'am.*
> *Ò   pū   má̰ʔ n   tɩ̀s   nīn-sáalā   ⁺ø, àmáa ò   mà̰ʔ*
> **3HU NEG.IND** lie:**PFV SER** give:**PFV** person-smooth:**SG NEG** but   **3HU** lie:**PFV**
> *n   tís   nɛ̄   Wínà̰ʔam.*
> **SER** give:**PFV FOC** God.
> "He has not lied to a human being; rather, he has lied to *God*." (Acts 5:4, 1976)

> *Lin ka ba'amaanib maani tit ba'ar, ba maani tisidne kikirbe'ednam ka pu*
> *maani tisidne Wina'am.*
> *Lìn   kà   bà̰ʔ-māannɩb   máànnɩ‿   ø   tít   bá̰ʔàr,*
> **DEM.NH** and idol-sacrificer:**PL** sacrifice:**IPFV SER** give:**IPFV** idol:**SG**
> *bà màannɩ‿   ø   tísɩ̀d   nɛ̄   kíkīr-bɛ́ʔɛ̀d-nàm kà pū   máànnɩ‿*
> **3PL** sacrifice:**IPFV SER** give:**IPFV FOC** fairy-bad-**PL**   and **NEG.IND** sacrifice:**IPFV**
> *ø   tísɩ̀d   nɛ̄   Wínā̰ʔamm ⁺ø.*
> **SER** give:**IPFV FOC** God   **NEG**.
> "That which idol-worshippers sacrifice to an idol, they sacrifice to *evil spirits* and they don't sacrifice to *God*." (1 Cor 10:20, 1976)

The predicative complement of *àe̯ñ*[ya] "be something/somehow" in its ascriptive sense 26.2 is non-referring and almost prototypically "unpredictable or pragmatically non-recoverable", and therefore is naturally preceded by *nɛ̄* for **ordinary** focus:

> *Ò   à   nɛ̄   bīig.*   "She is a child."
> **3HU COP FOC** child:**SG**.

Ò   dāa á   nɛ̄   bīig.   "She was a child."
3HU TNS COP FOC child:**SG**.

Ò   à   nɛ̄   nīn-súŋ.   "She's a good person."
3HU COP FOC human-good:**SG**.

Dīιb á   nɛ̄   būn-súŋ.   "Food is a good thing."
Food **COP FOC** thing-good:**SG**.

Ò   à   nɛ̄   bāaňlím.   "She is quiet."
3HU COP FOC quiet:**ABSTR**.

Lì   à   nɛ̄   zāalím.   "It's empty."
3NH COP FOC empty:**ABSTR**.

Lì   à   nɛ̄   būgʋsígā.   "It's soft."
3NH COP FOC soft:**ADV**.

While such complements are characteristically indefinite, this is not invariably so: the pragmatic non-recoverability may lie in the internal relationship of the components of the complement, as for example in

Biis la diemid nɛ dua gbinin. Ba zamisid nɛ bula wa'ab. Ba anɛ Apam biis.
Bīis   lā   díˀəmìd   nɛ̄   dúaň   gbínnīn.   Bà   zàˀmιsιd   nɛ̄
Child:**PL ART** play:**IPFV FOC** dawadawa:**SG** base:**SG:LOC**. **3PL** learn:**IPFV FOC**
būla wáˀàb.   Bà à   nɛ́   À-Pām   bîis.
bula dance:**SG**. **3PL COP FOC PERS**-Apam child:**PL**.
"The children are playing under a dawadawa tree. They are learning the *bula*
 dance. They are Apam's children." KKY p6
(The father Apam has already been mentioned, as have the children, but the
fact that the children belong to Apam is new.)

Ka bunbuuda bane lu gon'os soogin la ane bane wum pian'ad la, ka...
Kà   būn-búʋdà   bànι‿ø   lù   gòňˀɔs súʋgōn   lā   á   nɛ̄
And thing-planting:**PL DEM.PL COMP** fall:**PFV** thorn:**PL** among:**LOC ART COP FOC**
bánì‿ø   wòm   pι̣àňˀad lā,   kà
DEM.PL COMP hear:**PFV** speech   **ART**, and...
"And the seeds which fell among thorns are those who heard the word, but..."
(Lk 8:14)

In this context proper names are non-referential (cf Huddlestone and Pullum p402):

> *O yu'ur na ane Joon.*   "His name will be John." (Lk 1:60)
> *Ò yū̃ʔur ná ā nɛ̄ Joon.*
> **3HU** name**:SG UNR COP FOC** John.

> *Ò à nɛ́ À-Wīn.*   "He is Awini."
> **3HU COP FOC PERS**-Awini.

As with objects, when the complement falls under the scope of the negative (here with the negative verb *kā̃ʔe̯+* "not be") focus is difficult to interpret in the "ordinary" sense, so that if *nɛ̄* is present at all the result is normally **contrastive**:

> *M̀ á nɛ̄ du̯ʔátà.*   "I'm a doctor."
> **1SG COP FOC** doctor**:SG**.

> *M̀ kā̃ʔ du̯ʔátāa +ø.*   "I'm not a doctor."
> **1SG NEG.BE** doctor**:SG NEG**.

> *M̀ kā̃ʔ nɛ̄ du̯ʔátāa +ø.*   "I'm not a *doctor*." ("I'm a lab assistant.")
> **1SG NEG.BE FOC** doctor**:SG NEG**.

Focus on a **Locative complement** $\boxed{25.3}$ typically involves a definite pre-determiner of a locative postposition or an old-information place name, but locatives may be pragmatically non-recoverable because of their semantically oblique relationship to the verb: the fact that a referent is at a known place may easily be new information and result in **ordinary** focus on the locative. The head of a locative AdvP is the locative particle, with a zero allomorph in the case of words like Kusaal place names $\boxed{22.3}$; like other postpositions, it is not itself referential even though it has a pre-determiner. (Cf locatives as pre-modifiers $\boxed{21.7.2.3}$.)

> *Dā̯u̯ lā bɛ́ nɛ̄ dɔ́-kàŋā lā púʊgūn.*
> Man**:SG ART EXIST FOC** hut-**DEML.SG ART** inside**:LOC**.
> "The man is inside that hut." (Reply to "Where is that man?")

> *Mām bɛ́ nɛ̄ mɔ́ɔgʊn.*   "I'm in the bush." BNY p8
> **1SG.CNTR EXIST FOC** grass**:SG:LOC**.

> *M̀ yí nɛ̄ Bɔ́k.*   "I come from Bawku." SB
> **1SG** emerge**:PFV FOC** Bawku.

Yadda niŋir yitne labaar la wumug ni.

Yàddā-níŋìr yít   nɛ̄ lábāar lā   wúmùg ní.

Assent-doing emerge:**IPFV FOC** news   **ART** hearing **LOC**.

"Faith comes from hearing the news." (Rom 10:17)

Contrast the existential use of *bɛ̀⁺*, where focus is not on the locative:

Dàṵ-sɔ̄ˀ   bɛ́   dɔ́-kàŋā   lā   pʋ́ʋgūn.

Man-**INDF.HU EXIST** hut-**DEML.SG ART** inside:**SG LOC**.

"There is a certain man in that hut."

There are few examples of *nɛ̄*-focus on an **adjunct** in my data; one is

Tì dít   sā́ˀab   nɛ̄ záàm. "We eat millet porridge *in the evening*."

1PL eat:**IPFV** porridge **FOC** evening.   ("When do you eat porridge?")

34.1.1.4 VP Focus

When *nɛ̄* is placed finally in the VP and cannot be interpreted as aspectual, there is focus on the entire VP; this is usually **contrastive**, reflecting the fact that non-contrastive "ordinary" focus on the VP is the *default* state implied by the unmarked construction of a clause with a VP.
Examples:

Gɔ̀sɪm   nɛ̄.   "*Look*!" ("Don't *touch*." WK)
Look:**IMP FOC**.

Ò kùθsɪd sūmma   lā nɛ̄.
3HU sell:**IPFV** groundnut:**PL ART FOC**.
"She *sells*/is *selling* the groundnuts." ("They're not free.")

Ò gìm   nɛ̄.   "He's *short*." ("I was expecting someone taller.")
3HU be.short **FOC**.

Lì zùlɪm   nɛ̄.   "It's *deep*."
3NH be.deep **FOC**.

M̀ bɔ́ɔdī‿ f nɛ̄.   "I really *love* you."
1SG want   **2SGO FOC**.

Ò   dìgʋl   nɛ̄.   "He's *laid it down*." ("I thought he'd pick it up.")
3HU lay.down:**PFV FOC**.

Ò   dìgʋn   nɛ̄.   "He's *lain down*."
3HU lie.down:**PFV FOC**.

DK "Someone calls at your house and gets no answer; he thinks you're out, but
 I'm explaining that in fact you've gone to bed."

Kà   lì   bɔ́dìg   nɛ̄.   "It's *lost*." Contradicting "someone hid it."
And **3NH** get.lost:**PFV FOC**.

For the effect of *kà* in making the aspectual sense *nɛ̄* of infelicitous see
30.3.2.1 . Thus too

Kà   bà   kʋ́dìg   nɛ̄.   "And they're *old*."
And **3PL** grow.old:**PFV FOC**.   DK: "You're saying they're old when he
                                             promised to give you new ones."

An idiomatic use, perhaps developed from pragmatic non-recoverability for
social reasons (i.e. marking a euphemism), is seen in

Ò   zì'ən   nɛ̄.   "She's pregnant." (Not "She has stood still.")
3HU stand.still:**PFV FOC**.

Verbs when used passively 25.1.4 may only have Event Perfective or
Unbounded Imperfective aspects; thus a contrastive focus on the VP is forced in

Dāká lā záɲl   nɛ̄.   "The box gets carried *in the hands*."
Box:**SG ART** carry.in.hands **FOC**.   ("Not on your head.")

Dāká lā zîd   nɛ̄.
Box:**SG ART** carry.on.head:**IPFV FOC**.
"The box is for carrying *on the head*." ("Not carrying in the hands.")

Dāam lā   núùd   nɛ̄.   "The beer is for *drinking*."
Beer   **ART** drink:**IPFV FOC**.   ("Not washing with!")

Lì   mà'an   nɛ̄.   "It gets *cooled*."
3NH get.cool:**IPFV FOC**.   ("Not heated!")

34.1.2 Constructions with Serialiser *n*

N-clefting uses a serial-verb construction in the sense of a relative clause with the subject as antecedent, after a main clause with *Lì à nɛ̄* "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 pu so'e o meŋ niŋgbinaa. Ka li ane o po'a so'e.*
>
> *Kà   dāṳ   mɛ́ pū   sʊ̄ˀʊ́ ò mɛ̄ŋ nín-gbīnáa   ⁺ø.*
> And man**:SG** also **NEG.IND** own **3HU** self body-skin**:PL NEG.**
> *Kà lì á nɛ́ ò pṳˀā‿ø sʊ̄ˀe.*
> And **3NH COP FOC 3HU** wife   **SER** own.
> "And a husband, too, does not own his own body. It is his wife who owns it."
> (1 Cor 7:4, 1976)

Like it-clefting in English (Huddlestone and Pullum p1416) the construction has an implicature of exhaustiveness and exclusiveness: it is the wife (only), not the husband, who is the owner.

Similarly, a main clause with a Non-Verbal Predicator may attach a serial-verb construction ⎣27⎦:

> *Ano'on nwa n yiisid nidib tuumbe'ed n basida?*
>
> *Ànɔ́ˀɔ̀n‿ø ňwá n yīisíd   nīdɪb   túʊ̀m-bɛ̄ˀɛd*
> Who   **SER** this **SER** expel**:IPFV** person**:PL** deed-bad**:PL**
> *n   básɪdà   ⁺ø?*
> **SER** throw.out**:IPFV CQ**?
> "Who is this who drives people's sins out?" (Lk 7:49)

N-focus presumably arose from *n*-clefting by ellipsis of everything but the NP in the main clause. The focussed element stands first, followed by a *n* introducing the remainder of the clause; this *n* is phonologically identical to the Serial VP particle ⎣9.3.2.1.2⎦. The clause lacks Independency Marking but has independent tense marking, unlike a non-initial VP. (Compare tense marking in ellipted indirect commands ⎣24.3.1⎦.)

The meaning of this construction is *focus* rather than foregrounding:

> *Wáafʊ̀‿ ø dúm·ō‿ø.*   "A snake bit him." WK
> Snake**:SG SER** bite**:PFV 3HUO**.

would be a felicitous reply to "What's happened?" as well as "Did a dog bite him?"

The focus meaning presumably arose to fill the gap caused by the fact that a clause subject cannot be focussed with *nɛ̄* 34.1.1 .

Focus rather than foregrounding is also demonstrated by the fact that **Interrogative Pronouns as subjects are always *n*-focussed**. As a subject *ànɔ́ʔɔ̀n* "who" thus always appears as *ànɔ́ʔɔn n* [anɔ̀ːnɪ], virtually always written *ano'one* in NT.

> *Ànɔ́ʔɔnì‿ ø   kābɪrídà   ⁺ø?*
> Who   **SER** ask.for.entry:**IPFV CQ**?
> "Who is asking permission to enter?"

Clauses containing interrogative pronouns may not contain focus-*nɛ̄⁺ˊ*, an incompatibility which seems most readily explained by analysing interrogative pronouns as intrinsically focussed, though this is only syntactically manifested when they are subjects.

Furthermore, the focus particle *nɛ̄⁺ˊ* in all its rôles is excluded from clauses which are *n*-focussed, with verb aspect distinctions present but unmarked, as in other cases of formal exclusion of the marker 34.1.1.2 :

> *M̀   zūgʊ‿ ø   zábɪ̀d.*   "My head is hurting."
> **1SG** head   **SER** fight:**IPFV**.   (Reply to "Where is the pain?")

> cf   *M̀   zūg   lā pʊ́ʔalɪ̀m   nɛ̄.*   "My head is hurting."
>   **1SG** head **ART** damage:**IPFV FOC**.   (Reply to "What's the matter with you?")

Accordingly, the ellipted construction with Serialiser *n* after the subject represents focus, parallel to the use of *nɛ̄* with other clause constituents.

34.2 Clefting and Preposing with *kà*

Kà-clefting arises from constructions with Supplement *kà*-clauses 31.3 in a way similar to the development of *n*-clefting from Serial VPs:

> *Asee line a be'ed ma'aa ka m na tun'e niŋ.*
> *Àsɛ́ɛ línì‿   ø   à   bɛ̄ʔɛd máʔàa kà   m̀   ná   tūñʔe‿ ø   níŋ.*
> Only **DEM.NH COMP COP** bad   only   and **1SG UNR** be.able **SER** do:**PFV**.
> "It's only that which is bad that I can do." (Rom 7:21)

Once again, there is an implicature of exhaustiveness and exclusiveness, in this case made explicit by *màʔaa* "only."

The preposed element may be extracted from a subordinate clause:

Li ane ya taaba bane pu'usid Wina'am ka li nar ka ya kad saria.

Lì   à   nɛ́   yà   tāaba bánì‿ ø   pʊ̀ˀʊsɪd   Wínàˀam kà   lì   nár

3NH COP FOC 2PL fellow **DEM.PL COMP** greet:**IPFV** God   and **3NH** must

kà   yà   kád   sàríyà.

and **2PL** drive:**PFV** judgment.

"It is your fellow-worshippers of God whom you must judge." (1 Cor 5:12)

As with *n*-clefting, there are similar constructions with a main clause with a Non-Verbal Predicate:

Ɔ̄nɪ‿   ø   lá   kà   fʊ̀   dāa ǐyɛ̄t.

3HU.CNTR SER that and **2SG TNS** see:**IPFV**.

"This is he whom you saw." WK

Ànɔ́ˀɔnì‿ ø   ǐwá kà   tì   ǐyɛ̄tá   ⁺ø?

Who   **SER** this and **1PL** see:**IPFV** **CQ**?

"Who is this that we can see?"

Bɔ̄ɔ‿ ø   lá   kà   m̀   ǐyɛ̄tá   ⁺ø?

What **SER** 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 25.1.1 .

Bɔ́   kà   fʊ̀   kúəsìda ⁺ø?   "What are you selling?"

What and **2SG** sell:**IPFV** **CQ**?

Unlike the construction with *n*, the effect of *kà*-preposing remains *foregrounding*, not focus. Preposing with *kà* is compatible both with *n*-focus and with the occurrence of the focus particle *nɛ̄*⁺/:

Bīˀəl bīˀél kà kɔ̄lɪg   pɛ́ˀɛ̀l   nɛ̄.

Little little and river:**SG** get.full:**PFV FOC**.

"Little by little, and a river is full." (Proverb)

Dinzug ka mam Paul n be sarega ni Yesu Kiristo zug yanam buudbane ka' Jew dim la yela.

Dìn-zúg kà mām Paul n bέ sārɩgá nì Yesu Kiristo zúg yānám
That-upon and **1SG.CNTR** Paul **SER EXIST** prison:**SG LOC** Jesus Christ upon **2PL.CNTR**

búùd-bànɩ‿ ø kāʔ Jew dím lā yέlà.
tribe-**DEM.PL COMP NEG.BE** Jew individual.**PL ART** about.

"Therefore, I, Paul, am in prison for Jesus Christ because of you whose tribe is not Jewish." (Eph 3:1)

Kà-foregrounding of VP objects containing interrogative pronouns is very common. There is no syntactic movement rule as such for interrogative pronouns/proforms:

Bùgúm lā yít yáa nì ná ⁺ø?
Fire **ART** emerge:**IPFV** where **LOC** hither **CQ**?
"Where is the light coming from?"

but *bɔ̄* "what?" is very often preposed with *kà*, as in the example above; preposing is *required* if the sense is "why?" rather than "what?":

Bɔ́ kà fù kúmmà?   "Why are you crying?"
cf   **Fù kúm bɔ́?*   ***"What are you crying?"

This construction with *bɔ́ kà*... is by far the most frequent way of rendering "Why?", and most cases of *bɔ́ kà*... have this meaning, but foregrounding *bɔ̄* in the normal sense "What?" occurs too:

Bo ka ti na niŋe?   "What are we going to do?" (Acts 21:22)
Bɔ́ kà tì ná nìŋe ⁺ø?
What and **1PL UNR** do:**PFV CQ**?

Other queried NP objects in content questions are often preposed with *kà*:

Nūʔ-bíbɩsá‿ àlá kà fù ŋyɛ̄tá ⁺ø?
Hand-small:**PL NUM:**how.many and **2SG** see:**IPFV CQ**?
"How many fingers can you see?"

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 ano'onam ka Wina'am sunf da pelig ne ba yuma piisnaasi la?

Kà   ànɔ́ʔɔ̀n-nàm kà   Wínàʔam súňf   dá pèlıg   nέ   bà

And who-**PL**   and God   heart:**SG TNS** go.white with **3PL**

yùma pīs nāasí lá ⁺ø?

year:**PL** tens four   **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 object of an Invariable Verb is uncommon, and interrogative pronouns in such cases usually remain in situ:

Fù bɔ́ɔ̀d bɔ́   ⁺ø?   "What do you want?"

2SG want what **CQ**?

Examples do occur, however:

Niŋgbiŋ bo buudi ka ba na ti mora?

nìn-gbīŋ   bɔ́-būudí kà bà ná tī   mɔ̄rá ⁺ø?

Body-skin:**SG** what-sort and **3PL UNR** afterwards have **CQ**?

"What kind of body will they have?" (1 Cor 15:35)

Predicative complements do not seem to permit preposing. Thus, the interrogative pronouns are left in situ in:

Mām   á bɔ́   ⁺ø?   "What am I?"

1SG.CNTR COP what **CQ**?

Kà fù áá‿ ànɔ́ʔɔnè ⁺ø?   "Then who are you?"

And **2SG COP**   who   **CQ**?

Adjuncts are often preposed with *kà*; there is probably a contrast between foregrounding with *kà* and focussing with *nɛ̄*:

Ňwādısá‿ àtáňʔ   kà fù ná lēb   nā.

Month:**PL** **NUM**:three and **2SG UNR** return:**PFV** hither.

"You're to come back in three months."

Instructions: not a reply to a question; excludes any other time.

Tì dít   sā́ʔab   nɛ̄ záàm.
1PL eat:**IPFV** porridge **FOC** evening.
"We eat millet porridge in the evening."
Reply to "When do you eat porridge?"

Kà-preposed elements cannot be clause subjects, as is to be expected if the construction has arisen from ellipsis, because a Supplement Clause normally has a different subject from its main clause.

The only structure other than a NP (including *ǹ*-Clauses) or AdvP that I have found preposed with *kà* is *wōʋ* "like" + object:

Wōʋ búŋ   nɛ́ kà ò zɔ́t.
Like donkey:**SG** like and **3HU** run:**IPFV**.
"It's like a donkey that he runs."

*Nɛ́   m̀ núʔùg kà m̀ sīʔιs.
*With **1SG** hand:**SG** and **1SG** touch:**PFV**.
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. Purely formal *kà*-preposing is a feature of many relative clauses 33.2 . Manner, place and reason adjuncts can *only* precede the subject by *kà*-preposing, and *ǹ*-Adverbial Clauses as adjuncts must often precede the main clause subject so that constituent order parallels event order 24.2.1.1 29.2 28.1 33.1.1 30.3.2 :

Mán   ňwὲʔ dāu̯   lā zúg kà police gbāň̀ʔá‿ m.
1SG:COMP hit:**PFV** man:**SG ART** upon and police seize:**PFV 1SGO**.
"Because I hit the man, the police caught me." ILK

34.3 Extraposition and Dislocation

A NP or AdvP placed after a distinctively phrase-final verb form must be an extraposed clause adjunct rather than part of the VP. The commonest cases involve manner-adverbs, where the effect seems to be to intensify the adverb:

Ya yidigiya bedego.   "You are very much mistaken." (Mk 12:27)
Yà yídìg   yā   bɛ́dʋgū.
2PL go.astray:**PFV INDEP** much.

M̀ pʋ́ˀʋ̀s   yā   bédʋgū.   "Thank you very much."
1SG greet:**PFV INDEP** much.

NP objects (other than pronouns) can be extraposed; the sense seems to be that the extraposed element is contrary to expectation:

Ò ňyɛ̀   yā   náˀàb   lā.   "He's seen the chief." ("of all people!")
3HU see:**PFV INDEP** chief:**SG ART**.

Ò dàˀ   yā   múi̱.   "She's bought rice." ("of all things!")
3HU buy:**PFV INDEP** rice.

Contrast the effects of focussing with *nɛ̄*, and foregrounding by *kà*-clefting:

Ò dàˀ   nɛ̄ múi̱.   "She's bought rice."
3HU buy:**PFV FOC** rice.   (reply to "What did she buy?")

Lì à nɛ̄ múi̱ kà ò   dáˀ.   "It's rice that she's bought." ("not millet.")
3NH COP FOC rice and **3HU** buy:**PFV**.

Leftward dislocation of objects and complements on the basis of **weight**, without clefting or *kà*-preposing, occurs in e.g.

Wilkan be m ni ka pu wan na, m Ba' nwaadi li n basid.
Wìl-kàn   bɛ̀ m̀ ní kà pū   wɛ́nnā   ⁺ø,
Branch-**DEM.SG EXIST 1SG LOC** and **NEG.IND** bear.fruit:**IPVF NEG**.
m̀ Bā̄ˀ   ňwáˀadī‿ lí   n   básìd.
1SG father:**SG** cut:**IPFV**   **3NHO SER** 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'e, ba me mor poten'er ye o na lebis line zu'e.
Ɔnɩ‿   ø   kà bà tís·ò‿   ø   kà lì zúˀe,   bà mɛ̀ mɔ̀r
DEM.HU COMP and **3PL** give:**PFV 3HUO** and **3NH** become.much:**PFV**, **3PL** also have
pʋ́-tɛ̀ňˀɛr   yɛ́ ò nà lɛ̄bɩs   línì‿   ø   zùˀe.
inside-mind:**SG** that **3HU UNR** return:**PFV DEM.NH COMP** become.much:**PFV**
"He who they have given much to, they too expect that he will return much."
(Lk 12:48)

A heavy indirect object is right-dislocated to follow the object in

Mam Paul … tisid gboŋ kaŋa Wina'am nidib bane a sida dim ka a yinni ne
Jesus Christ Efesus teŋin la.

Mām   Paul … tísìd   gbáu̯ŋ-kàŋā Wínàˀam nídìb   bànɪ̯‿ ø   à
1SG.CNTR Paul … give:**IPFV** book-**DEML.SG** God   person:**PL DEM.PL COMP COP**

sīda dím   kà á yīnní nɛ̄ Jesus Christ Efesus   téŋīn   lā.
truth individual:**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)

34.4 Presentational Constructions

A number of constructions are employed to introduce new entities into
discourse. The NPs referring to the entities are, naturally, characteristically
indefinite; it is in this context that absence of the article *lā*[+/] typically reflects an
indefinite but *specific* rather than generic reference 21.3 . The NP may (but need not)
have an Indefinite post-determining pronoun or number.

The verb *bɛ̀*[+] "be somewhere/exist" is frequent in presentational clauses, often
with a following Serial VP construction 28 or Supplement Clause 31.3 .

Dau da be mori o po'a yimmir
Dāu̯   dá bɛ̀‿ ø   mɔ̄rí‿ò   pu̯ˀà-yīmmír
Man:**SG TNS EXIST SER** have   **3HU** wife-single:**SG**
"There was a man who had one wife." KSS p26

Ka po'a so' da be more o bipuŋ ka kikirig dol o.
Kà pu̯ˀà-sɔ̄ˀ   dá bɛ̀‿ ø mɔ̄rí‿ ò   bī-púŋ   kà kìkīrɪg dɔ̄ll·ó‿ ø.
And woman-**INDF.HU TNS EXIST SER** have   **3HU** child-girl:**SG** and fairy:**SG** follow   **3HUO**.
"There was a woman whose daughter was oppressed by a devil." (Mk 7:25)

Farisee dim nid yinni da be…
Farisee dím   nid   yīnní dà bɛ̀ …
Pharisee individual.**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‿ àtáñˀ   n   dá bɛ̀.
Man:**PL NUM:**three **SER TNS EXIST**

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 dāu̯ dāa zíñˀi Listra ní kà pū tūñˀe̯ ø kēnná ⁺ø.
And man:**SG** **TNS** sit Lystra **LOC** and **NEG.IND** be.able **SER** go:**IPFV** **NEG**.
"There was a man in Lystra who could not walk." (Acts 14:8)

Anina ka o nye dau ka o yu'ur buon Aeneas.
Àníná   kà ò ňyē dáu̯   kà ò yū̄ˀur búèn Aeneas.
ADV: there and **3HU** see:**PFV** man:**SG** and **3HU** name:**SG** call:**IPFV** Aeneas.
"There he found a man whose name was Aeneas." (Acts 9:33)

Change of polarity within a Serial VP construction, unusual elsewhere, may occur with presentational constructions:

Ya sieba be kpela n ku kpii asee ba ti nye Wina'am na'am la.
Yà sīəba bɛ́ kpēlá n kú   kpīi ⁺ø, àsɛ́ɛ bà nà tì
2PL INDF.PL EXIST here **SER NEG.UNR** die **NEG**, except **3PL UNR** afterwards
ňyɛ̀   Wínàˀam náˀàm   lā.
see:**PFV** God   kingdom **ART**.
There are some of you here who will not die before they see the kingdom of
 God." (Lk 9:27)

34.5 Free and Bound Personal Pronouns

There are environments in which only free pronoun *forms* are possible.

Isolation:	*Mánè?*	"Me?"
Apposition:	*mān Paul*	"I, Paul"
Coordination:	*tīnám nē̄ fūn*	"us and you"
Relative Clause Antecedent:	*fūn-kánì ...*	"you, who ..."

and for some speakers, the 2nd persons before direct commands after a *yàˀ*-clause
32 . In these contexts the free pronoun forms are simply allomorphs of the bound pronouns; but in other contexts, the choice of a free pronoun over bound implies *contrast*. For the special case of **logophoric** use see 31.4.2 .
A personal pronoun which is focussed 34.1 must be contrastive:

Mane a konbkem suŋ la.
Mānι̯   ø á kóñb-kìm-sùŋ   lā.
1SG.CNTR SER COP animal-tender-good:**SG** **ART**.
"I am the good shepherd." (Jn 10:11)

Bà ŏyɛ̀   nɛ̄ mān.   "They have seen *me*."
3PL see:**PFV FOC 1SG.CNTR**.

Fune mi', ka man zi'.
Fŭnɩ‿   ø   mī ʔɩ,   kà   mān   zīʔɩ   ⁺ø.
2SG.CNTR SER know, and **1SG.CNTR NEG.KNOW NEG**.
"*You* know but *I* do not know." (Rev 7:14)

Subordinate clauses cannot show any of the other markers of focus:

Li nar ka on du ka man sie.
Lì   nàr   kà   ɔ̄n   dū,   kà   mān   sīe.
3NH must and **3HU.CNTR** rise:**PFV**, and **1SG.CNTR** lower:**PFV**.
"He must increase and I must decrease." (Jn 3:30)

Contrastive pronouns as subjects of *ǹ*-Clauses are distinguishable from the usual *non-contrastive* fused *ǹ*-Clause pronoun subject series 17.1 :

M ten'esug ane dau wusa naan a wuu mane a si'em la.
M̀   tɛ̄ñʔɛsúg   á   nɛ̄ dāu̯   wūsa‿↓   nāan á
1SG thought:**SG COP FOC** man:**SG** all   **COMP** then **COP**
*wūʋ **mánì‿**   ø   à   sīʔəm   lā.*
like   **1SG.CNTR COMP COP INDF.ADV ART**.
"My wish is that every man might be as *I* am." (1 Cor 7:7)

34.6 Focussing Modifiers

Focussing modifiers occur after top-level NPs or AdvP within clauses. They relate the NP or AdvP to the discourse context. Those which are not loanwords share the unusual morphological feature of forming the LF by adding -*nɩ* to the SF 7.4 .

mɛ̀ DK KT SB NT *mɛ̀n* WK; clause finally (all sources) *mɛ̀n*ᵉ "also, too"

On kuos la men, o na tun'e n maal o yam bood si'em.
Ɔ́n   kùɵs   lā   mɛ́n, ò   nà   tūñʔe   n   máàl
3HU:COMP sell:**PFV ART** also, **3HU UNR** be.able **SER** make:**PFV**
ò   yám‿   ø   bɔ̀ɔd   sīʔəm.
3HU mind   **COMP** wish   **INDF.ADV**
"After he'd sold it, too, he could have done whatever he wanted with it."
 (following an *ǹ*-Adverbial Clause) (Acts 5:4, 1976)

O po'a me kena.   "His wife also came." (Acts 5:7)

Ò   pṵʔā   mɛ́   kɛ̀   nā.

3HU wife:**SG** also come:**PFV** hither.

The particle may follow *kà* + ellipted subject pronoun 29.1.4.2 (1 Cor 15:38):

Wina'am tisid ... ka me tisid ...

Wínàʔam tísìd ...   kà   mɛ́   tɪsɪd ...

God   give:**IPVF** ... and also give:**IPFV**

"God gives ... and [God] also gives ..."

mà'aa (LF *mà'ane*) "only"

Asee line a be'ed ma'aa ka m na tun'e niŋ.

Àsɛ́ɛ línì‿   ø   à   bɛ̄ʔɛd máʔàa kà   m̀   ná   tūňʔe‿ ø   níŋ.

Only **DEM.NH COMP COP** bad   only   and **1SG UNR** be.able **SER** do:**PFV**.

"It's only that which is bad that I can do." (Rom 7:21)

(*Kà*-foregrounding of the NP, which also implies exclusiveness 34.2 .)

gʋ̀llɪmne "only"

M̀   níŋī‿   lí   m̀   gʋ̀llɪm.   "I did it myself alone."

1SG do:**PFV 3NHO 1SG** only

kɔ̀tàane "at all"

Áyìɪ kɔ̀tàa.   "Not at all."

The added *-ne* of the LF of these words is found also with the quantifier *pāmm*
SF *pāmné* LF "a lot" and the adverb *ňyāe*ne/ "brightly, clearly" 7.4 .

The loanword **hālí**, in addition to its many other rôles, can be used preceding a
top-level NP in the sense "even":

Hale tuumbe'ed dim niŋidi ala.

Hālí tʋ̀ʋm-bɛ̄ʔɛd dím   níŋìdí‿ àlá.

Even deed-bad:**PL** individual:**PL** do:**IPFV ADV:**thus.

"Even sinners do that." (Lk 6:33)

35 Negation

35.1 Negation of Clauses

Negation of clauses is achieved by using a negative marker particle in the
Verbal Predicator 24.5 along with a clause-final Negative Prosodic Clitic 9.2.

> *Ti **pu** bood ye dau kaŋa a ti **na'aba**.*
> *Tì pū   bɔ́ɔ̀d yɛ̄ dáṳ-kàŋā   á   tì nà'abā ⁺ø.*
> **1PL NEG.IND** want that man-**DEML.SG COP 1PL** king:**SG NEG**.
> "We don't want this man to be our king." (Lk 19:14)

Pū negates the Indicative, as above; Imperative is negated with *dā*:

> *Dìm   nɛ̄   Wīn,   **dā**   tʋ́'às   nɛ̄ **Wīnné** ⁺ø.*
> Eat:**IMP** with God:**SG**, **NEG.IMP** talk:**PFV** with God:**SG** **NEG**.
> "Eat with God, don't talk with God."

The negative particle *kʋ replaces* the positive Unrealised Mood marker *nà*:

> *Ka man pian'ad la lee **ku gaade**.*
> *Kà   m̀   pḭ̀àǹ'ad lā lɛ́ɛ kʋ̀   gāade ⁺ø.*
> And **1SG** speech   **ART** but **NEG.UNR** pass   **NEG**.
> "But my words will not pass away. (Mt 24:35)

35.1.1 Negative Verbs

There are four negative verbs, functionally equivalent to negative particle +
verb: they are followed by a clause final Negative Prosodic Clitic, and they do not
undergo tone overlay from Independency Marking 24.6.1.1.

mìt (always imperative) "see that it doesn't happen that ..." is construed with a
following *kà*-clause of purpose 31.2. In address to more than one person it may or
may not have the usual postposed 2pl subject enclitic ᵞᵃ: *mìtī*.

> *Mit ka ya maal ya tuumsuma nidib tuon ye ba gosi yaa.*
> *Mìt   kà yà máàl   yà tʋ̀ʋm-sʋ̀ma   nīdɩb   túèn*
> **NEG**.bring.about and **2PL** do:**PFV 2PL** deed-good:**PL** person:**PL** before
> *yɛ́ bà gɔ̄sí‿   yáa ⁺ø.*
> that **3PL** look.at:**PFV 2PLO** **NEG**.
> "See that you don't do your good deeds in front of people so they'll look at
>   you." (Mt 6:1, 1976)

Mìt also appears with a NP object in the sense "beware of ..."; it is not followed by the Negative Prosodic Clitic in that case:

Miti ziri nodi'esidib bane kene ya sa'an na la.

Mìtī͜   ø   zīrí nɔ̀-díʔəsìdɪb   bánì͜ ø   kɛnní͜   yà sāʔan   nā   lā.

Beware **2PLS** lie   mouth-receiver:**PL DEM.PL COMP** come:**IPFV 2PL** among hither **ART**.

"Beware of false prophets who come among you." (Mt 7:15)

zī͞ʔ⁺ "not know" seems to be used to the exclusion of **pū mī́ʔ* in the Indicative:

Bʊ̀ŋ-bāň̃ʔad   zī͞ʔ   yɛ̄ tɛ̄ŋ   túllā   ⁺ø.

Donkey-rider:**SG NEG.KNOW** that ground:**SG** be.hot **NEG**.

"He who rides a donkey does not know the ground is hot." (Proverb)

However, in the Unrealised Mood, the 1976 New Testament has

sansa kan ka ya ku mi'i

sānsá-kàn   kà   yà kú   mī́ʔi   ⁺ø

time-**DEM.SG** and **2PL NEG.UNR** know **NEG**.

"a time that you will not know"

(Mt 24:44, 1976; 1996 *ya ku baŋi* for *yà kú bāŋe*)

kā́ʔe̩⁺ "not be, not have" appears as *kā́ʔ* in close connexion with a following word 9.1.3 . It is the negative to both "be" verbs, *à̩e̩ň*ʸᵃ "be something/somehow" and *bɛ̀⁺* "be somewhere, exist" and also to *mɔ̄r*ᵃ/ "have." **Pū bɛ́* is not found, but *pū mɔ̄r* is quite common; *pū á̩e̩ň* is rare but can be found in contrastive contexts like

Mānɪ͜   ø   á   du̩ʔátà   àmáa fʊ̄n   pū   á̩e̩ňyā ⁺ø.

1SG.CNTR SER COP doctor:**SG** but   **2SG.CNTR NEG.IND COP**   **NEG**.

"I'm a doctor, but you're not."

Examples:

Dāu̩   lā kā́ʔ   dɔ́ɔgʊ̄n   láa ⁺ø.

Man:**SG ART NEG.BE** room:**SG:LOC ART NEG**.

"The man is not in the room."

Dāu̩   lā kā́ʔ   bīiga   ⁺ø.

Man:**SG ART NEG.HAVE** child:**SG NEG**.

"The man hasn't got a child."

Dāṵ   lā kāʔ   náʔabā   ⁺ø.   "The man isn't a chief."
Man:**SG ART NEG.BE** chief:**SG   NEG.**

Dāṵ   lā kāʔe   ⁺ø.   "The man isn't there."
Man:**SG ART NEG.BE   NEG.**

Dāṵ   kāʔe̱ dɔ́ɔgūn   láa ⁺ø.
Man:**SG NEG.BE** room:**SG:LOC ART   NEG.**
"There's no man in the room."

Pṵʔā   lā mɔ́r bīig   àmáa dāṵ   lā kāʔe   ⁺ø.
Woman:**SG ART** have child:**SG** but   man:**SG ART NEG.HAVE   NEG.**
"The woman has a child but the man hasn't."

kàʔasɪge (LF always: only appears clause finally) "not exist"

Ò   bīig káʔasɪ̀gē ⁺ø.   "He has no child."
3HU child **NEG.EXIST   NEG.**

35.2 Negative Raising

Negative Raising occurs in a way generally analogous to negative raising in English. It is normal with verbs taking purpose-clauses as complements:

Ti pu bood ye dau kaŋa a ti na'aba.
Tì pū   bɔ́ɔd yɛ̄ dáṵ-kàŋā   á   tì nàʔabā ⁺ø.
1PL NEG.IND want that man-**DEML.SG COP 1PL** king:**SG NEG.**
"We don't want this man to be our king." (Lk 19:14)

Li pu nar ye fu di fu ba'abiig po'a Herodiase.
Lì   pū   nār yɛ́ fù dí fù bāʔ-bîig   pṵʔá Herodiase ⁺ø.
3NH 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)

It occurs with a Content Clause following *tɛ̄ňʔɛs*[e/] "think":

Tiname sagidim aa o biis la, ti da ten'es ye Wina'am beilim wenne wuu ba'a ban ka ninsaal nok salima bee anzurifa bee kuga, n ten'esi maal ne o nu'use.

Tīnámì͜ø		*sādıgím áá͜ o*	*bīis*	*lā,*	*tì*	*dā*	*tɛ̄ň'ɛs*	*yɛ̄*
1PL	**COMP** since	**COP 3HU** child:**PL ART**			**1PL**	**NEG.IMP** think:**PFV**		that

Wínà'am bɛ́lím	*wēn*	*nɛ̄*	*wūʋ bá'a*	*bán*	*kà*	*nīn-sáàl*
God	existence	resemble	with like	idol:**PL DEM.PL**	and	person-smooth:**SG**

nɔ̄k	*sālıma*	*bɛ̄ɛ*	*ānzúrıfà*	*bɛ̄ɛ*	*kūgá*	*n*	*tɛ̄ň'ɛsı͜ø*	*máàl*
take:**PFV**	gold	or	silver	or	stone:**PL SER**		think:**PFV SER**	make:**PFV**

nɛ́	*ò*	*nú'usē*	*⁺ø.*
with	**3HU**	hand:**PL**	**NEG.**

"Since we are his children, we should not think that God's existence resembles idols which a human being thinks to make by hand using gold or silver or stone." (Acts 17:29)

Contrast Content Clauses after *mī'*⁺ "know" or *bàŋ*ᵉ "realise":

Bʋ̀ŋ-bāň'ad	*zī'*	*yɛ̄*	*tɛ̄ŋ*	*tʋ́llā*	*⁺ø.*
Donkey-rider:**SG NEG.KNOW**		that	ground:**SG**	be.hot	**NEG**.

"He who rides a donkey does not know the ground is hot."

Ka o ba' ne o ma daa pu baŋ ye o kpelim yaa.

Kà	*ò*	*bā'*	*nɛ́*	*ò*	*mà*	*dāa*	*pū*	*báŋ*
and	**3HU**	father:**SG**	with	**3HU**	mother:**SG**	**TNS**	**NEG.IND**	realise:**PFV**

yɛ́	*ò*	*kpɛ̀lım*	*yāa*	*⁺ø.*
that	**3HU**	remain	**INDEP**	**NEG**.

"His father and mother did not realise that he had remained." (Lk 2:43)

ka o lee pu baŋ ye li ane one.

kà	*ò*	*lɛ́ɛ*	*pū*	*báŋ*	*yɛ́*	*lì*	*à*	*nɛ̄*	*ɔ̄ne*	*⁺ø.*
And	**3HU**	but	**NEG.IND**	realise:**PFV**	that	**3NH**	**COP**	**FOC**	**3HU.CNTR**	**NEG**.

"but she didn't realise it was him." (Jn 20:14)

Negative raising similarly occurs with Supplement Clauses attached to a NP as an anchor 31.3, when the anchor is the object of a verb like *ňyɛ̄*⁺ "see, find" used in the sense "see as...":

M̀	*dāa*	*pū*	*ňyɛ̄*	*dāʋ̱*	*lá*	*kà*	*ò*	*á*	*ná'abā*	*⁺ø.*
1SG	**TNS**	**NEG.IND**	see:**PFV**	man:**SG ART**		and	**3HU**	**COP**	chief:**SG**	**NEG.**

"I didn't see the man as a chief." KT

It is not seen after verbs expressing existence; so in particular with constituent negation constructions involving clefting 35.4 and a formally subordinate Supplement Clause:

Li lem ka' fun yel si'el la zug, ka ti niŋ o yaddaa.

Lì   lèm   kā²   fún   yèl   sí²əl   lā   zúg   kà

3NH again **NEG.BE 2SG:COMP** say:**PFV INDF.NH ART** upon and

tì   níŋ·ò‿ø   yàddáa   ⁺ø.

1PL do:**PFV 3HUO** assent   **NEG.**

"It is no longer because of what you said that we believe in him." (Jn 4:42)

Lì   kā²   mān   bīig   kà   fʋ̀   ňwɛ́²ɛ̄   ⁺ø.

3NH NEG.BE 1SG.CNTR child:**SG** and **2SG**   beat:**PFV NEG.**

"It's not my child that you've beaten."

35.3 Position of the Negative Prosodic Clitic

The Negative Prosodic Clitic 9.2 normally appears at the end of the clause containing the negated verb, passing over all subordinate clauses:

*Ti **pu** bood ye dau kaŋa a ti **na'aba**.*

Tì   pū   bɔ́ɔ̀d yɛ̄   dáṳ-kàŋā   á   tì   nà²abā   ⁺ø.

1PL NEG.IND want that man-**DEML.SG COP 1PL** king:**SG NEG.**

"We don't want this man to be our king." (Lk 19:14)

Subordinate clauses only fall within the *semantic* scope of the negation when the main clause verb induces **negative raising** 35.2.

However, if a construction which by default would imply negative raising occurs exceptionally with the subordinate clause excluded from the negative scope, the Negative Prosodic Clitic is placed *before* the subordinate clause:

*on nye ka Yesu **pu** pie o **nu'use** ka nyaan di la.*

ɔ́n   ňyɛ́   kà   Yesu   pū   píe   ò   nú²usé   ⁺ø   kà

3HU:COMP see:**PFV** and Jesus **NEG.IND** wash:**PFV 3HU** hand:**PL NEG**   and

ňyāan dí   lā

then   eat:**PFV ART**

"when he saw that Jesus didn't wash his hands before eating" (Lk 11:38)

*Nidib be ka **pu** tum **si'ela** ye ba a popielim dim, ka kudun niŋ Wina'am*
one ke ka tuumbe'ed dim lieb popielim dim o tuon la yadda.
Nīdıb   bɛ́   kà   pū   túm   sīˀəla ⁺ø   yɛ́ bà   á
person:**PL EXIST** and **NEG.IND** work:**IPFV INDF.NH NEG** that **3PL COP**
pú-pìəlım   dím,   kà   kūdım níŋ   Wínàˀam
inside-whiteness individual.**PL** and ever   do:**PFV** God
ɔ́nì‿   ø   kɛ́   kà   tùʋm-bɛ̄ˀɛd dím   líə̀b
DEM.HU COMP cause:**PFV** and work-bad:**PL** individual.**PL** become:**PFV**
pʋ̀-pìəlım   dím   ò   tùən lā   yáddā.
inside-whiteness individual.**PL 3HU** before **ART** assent.
"There are people who haven't done anything that they become blessed, but
have believed in the God who causes sinners to become blessed before him."
(Rom 4:5, 1976)

The Negative Clitic is dropped at the end of *ǹ*-Clauses containing a negative
unless they are themselves clause final in the main clause, and also before the article
lā⁺/:

*m bi'emnam bane **pu** bood ye m so'e ba la*
m̀ bìˀəm-nàm báni‿   ø   pū   bɔ́ɔ̀d yɛ́   m̀ sū̄ˀʋ́‿ bā   lā
1SG enemy-**PL**   **DEM.PL**   **COMP NEG.IND** want that **1SG** own   **3PLO ART**
"my enemies who do not want me to rule over them." (Lk 19:27)

Clauses with *yàˀ* "if" keep their own Negative Clitics:

*Ba ya'a **pu** niŋ **si'ela**, o pu'usum doog la na lieb zaalim.*
Bà yáˀ pū   níŋ   sīˀəla ⁺ø,   ò   pʋ̀ˀʋsım dɔ́ɔ̀g   lā
3PL if   **NEG.IND** do:**PFV INDF.HU NEG 3HU** worship house:**SG ART**
ná   līəb   zāalím.
UNR become:**PFV** empty:**ABSTR**.
"If they don't do anything, her temple will become of no account."
(Acts 19:27)

Apparent exceptions in the NT seem all to involve *yàˀ* clauses ending in words
with final vowels or final *-m*, and probably do end in the Negative Clitic in reality.
With clauses with two VPs coordinated with *bɛ̄ɛ/kū̄ʋ* "or", if the first VP is
negated with the scope extending over both VPs, the Negative Clitic ends the whole
clause and may optionally precede the *bɛ̄ɛ/kū̄ʋ* also.

35.4 Constituent Negation

Clefting is the usual way of achieving constituent negation, using the patterns

Lì kā² X kà ... /*Lì kā² X n ...*   "It's not X that ..."
X *ká²ę̄ kà ...* /X *kā²ę̄ n ...*   "There's no X that ..."

For example

So' kae' na tun'e dol na'anam ayii.
Sɔ̄²   kā²e‿ ø ná tūň²e‿ ø dɔ̄l   ná²-nàmá‿ àyíi   ⁺ø.
INDF.HU NEG.BE SER UNR be.able **SER** follow king-**PL**   **NUM:**two **NEG.**
"Nobody can serve two kings." (Mt 6:24, 1976)

Sogia so' kae' n tum ka yood o meŋa.
Sɔ́gi̶à-sɔ̄²   kā²e n túm   kà yɔ̄ɔd   ò mɛ̄ŋá ⁺ø.
Soldier-**INDF.HU NEG.BE SER** work:**IPFV** and pay:**IPFV 3HU** self   **NEG.**
"No soldier works and pays for himself." (1 Cor 9:7, 1976)

Lì kā²   mān   bīig   kà fù ňwɛ́²ɛ̄ ⁺ø.
3NH NEG.BE 1SG.CNTR child:**SG** and **2SG** beat:**PFV NEG.**
"It's not my child that you've beaten."

Another method is to use the particle *báa* 23.2 (Hausa *bâa* "not exist") as *báa* + NP extraposed from a negated clause:

Bà pū   kɛ̄   náa   ⁺ø, báa yīnní.
3PL NEG.IND come:**PFV** hither **NEG,** not one.
"They didn't come, not one."

Báa yīnní can be used as a NP, or as a dependent following a NP head. The meaning is "not one", with a negative concord of the clause Verbal Predicator, e.g.

Ka ba pu nye baa yinni.
Kà bà pū   ňyɛ̄   [⁺ø] báa yīnní.
and **3PL NEG.IND** see:**PFV [NEG]** not one.
"But they didn't find a single one." (Mt 26:60)

Ka nid baa yinni pu yel ye on mor si'el la, one so'e lii.

Kà   nīd   báa yīnní pū   yέl yɛ̄ ɔ́n   mɔ̄r

and person:**SG** not   one   **NEG.IND** say that **3HU:COMP** have

sī́ʔəl   lā, ɔ̄nɩ‿   ø   sū̄ʔʊ́‿ líɩ   ⁺ø.

INDF.NH ART 3HU.CNTR SER own   **3NHO NEG.**

"Not one person said that what he had, *he* owned." (Acts 4:32)

Fu du'adib baa yinni kae' ka o yu'ur buon alaa.

Fʊ̀ dū̄ʔadɩb   báa yīnní kā̄ʔé kà ò   yū̄ʔur   bú ɛ̀n

2SG relative:**PL** not one   **NEG.BE** and **3HU** name:**SG** call:**IPFV**

àláa   ⁺ø.

ADV:thus **NEG.**

"Not one of your relatives is named thus." (Lk 1:61)

Relative clauses can also be used for constituent negation:

Da mor noor yinni ne bane ka' yadda niŋidib la ye ya niŋ si'ela.

Dā   mɔ̄r nɔ̄ɔr   yīnní nɛ̄ bánì‿ ø   kā̄ʔ   yáddā-níŋìdɩb lā

NEG.IMP have mouth:**SG** one   with **DEM.PL COMP NEG.BE** assent-doer:**PL ART**

yɛ́   yà níŋ sī́ʔəla ⁺ø.

that **2PL** do **INDF.NH NEG.**

"Do not agree with those who are not believers to do anything." (2 Cor 6:14)

Lexicon

36 Greetings and Other Formulae

(a) Enquiries after health.

[*Fʋ̀ sá*] *gbìs wɛ̄lá?*	"How did you sleep?"
Dúɵ wɛ̄lá?	literally "How did you get up?"
	both usual greetings on meeting
	for the first time in the morning.
Nīntāŋ á wɛ̄lá?	"How is the day/afternoon?"
Yúʔuŋ á wɛ̄lá?	"How is the evening?" literally "night"
Fʋ̀ yī-dímàa?	"[How are] your household?"
Nìn-gbīnáa?	"[How is your] body?" i.e. "How are you?"
Fʋ̀ sìdaa?	"[How is your] husband?"
Pṳ̀ʔā nɛ̄ bíisèe?	"[How are your] wife and children?"

... and so on, often at great length.

Replies:

Àláafʋ̀ bɛ́.	literally "There is health."
	(Also a general purpose greeting itself.)
Àláafʋ̀ bɛ́·ō.	... for him/her.
Àláafʋ̀ bɛ́ɛ̄ bá.	... for them.

(b) Blessings

These follow the pattern

Bárɩkà nɛ́ fʋ̀ ...	"Blessing with your ..."

with the introductory words usually ellipted; the reply to all of these is *Náa*.

Kɛ̄n kɛ̄n.	"Welcome!" *Kɛ̄n*, gerund of *kɛ̄ň* "come"
	cf Hausa: *Barkà dà zuwàa.*
Nɛ̄ záàm záàm.	"Good evening."
Tʋ̄ʋma!	
or *Tʋ̄ʋma tʋ̄ʋma!*	literally "(Blessing on your) work!"
	Interpreted to include practically anything
	which could be regarded as work, and hence
	probably the commonest daytime greeting.

Nɛ̄ sɔ́ñsɩgā.	"(Blessing on your) conversation." to greet a group of people talking; also to greet a person sitting quietly alone, assumed to be conversing with his or her own *wīn*[ne/] (spiritual essence, personal *genius*)
Nɛ́ fʋ̀ būrɩyá-sʋ̀ŋ.	"Merry Christmas." (*būrɩyá*[+] ← **bʋrʋ̃ya* ← Twi/Fante *bronya*, of unclear ultimate origin)
Nɛ́ fʋ̀ yùum-pāalíg.	"Happy New Year."

(c) Prayers. Reply *Àmí!* "Amen!"

Wīn ná lɛ̄bɩsɩ f nɛ̄ láafìya.	"Safe journey!" literally "[I pray that] God will bring you back in health."
Wīn ná sʋ̄ŋɩ f.	"God will help you." Generally a formula expressing thanks.
Wīn ná tā^ˀasí f.	"Safe journey!" ("God will help you travel.")

(d) Statements of fact and commands. Reply *Tɔ̀* "OK", or as appropriate.

Bɛ̄ogʋ lā.	"See you tomorrow!" ("That's tomorrow.")
Àtínì dáarì lā.	"See you on Monday."
Gbìsɩm súŋā.	"Sleep well."
Kpɛ̀lɩmī súm.	"Remain (ye) well." Said by departing person to those remaining.
Pʋ̀^ˀʋsɩm yín.	"Greet (those) at home." i.e. "Goodbye." reply *Tɔ̀* "OK", or *Bà nà wōm* "They will hear."

(e) Miscellaneous formulae

M̀ pʋ́^ˀʋ̀s yā.	"Thankyou." reply *Tɔ̀*, or *Pʋ̀^ˀʋsʋg kā^ˀe.* "No thanks (sc. needed.)"
M̀ pʋ́^ˀʋ̀s yā bɛ́dʋgū.	"Thank you very much."
Gáafàra.	(← Arabic) "Pardon me, sorry." Also (like Ghanaian English *sorry*) used simply to empathise with misfortune, with no implication of apology as such.

Kābɩr kābɩrí!	Formula asking admission to a house or compound. "Knock, knock!" Twi *agoo* is also used. (Actual knocking is for robbers trying to find out if anyone is at home.)
Dìm sūgʋrʋ́.	"Please forgive me."
M̀ bɛ́lìm nɛ̄.	"I beg you." Not equivalent to "please"; Kusaasi etiquette does not demand a spoken equivalent of the English "please."
X *lábāar á wēlá?*	"What is the news of X?" A common initial reply is *Dīɩb máʔàa.* "Only food." i.e. "good"
M̀ mɔ̄r kúʔèm náa?	literally "Shall I bring water?" Traditional first words to guest. Reply for "No, thank you" is *Kùʔɵm á súm.* ("Water is good.")
Wīn yɛ́l sīda.	"Bless you!" (after a sneeze.) Literally "God speaks truth"; WK explained: "If you sneeze, it means someone elsewhere is praising you."
Fʋ̀ wʋ́m Kūsáalèe?	"Do you understand [literally "hear"] Kusaal?"
Ɛ̄ɛň, m̀ wʋ́m.	"Yes, I do."
Áyìɩ, m̀ pʋ̄ wʋ́mmā.	"No, I don't."

37 Structured Semantic Fields

37.1 Kinship Terms

     Though my informants readily cite them in isolation, kinship terms seem in actual usage to be always possessed. Thus *m̀ sàam* "my father", *nīn-sɔ́ˀ sáàm* "someone's father" etc.

     Pervading the whole system is the importance of birth order among same-sex siblings, and its irrelevance between siblings of opposite sex. Some basic terms, such as those for siblings, do not in themselves distinguish sex, in a way that is surprising from a European perspective. 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.

My
Father	is my	*sàam*[ma], less formally *bā̄ˀ*[+/]
Father's elder brother		*sàam-kpɛ̄ɛ̌m*[m]
Father's younger brother		*sàam-pīt*[a/]
Father's sister		*pùgʊdɩb*[a]

My
Mother	is my	*mà*[+]
Mother's elder sister		
or senior co-wife		*mà-kpɛ̄ɛ̌m*[m]
Mother's younger sister		
or junior co-wife		*mà-bīl*[a] or *mà-pīt*[a/]
Mother's co-wives	are my	*mà nám*[a]
Mother's brother	is my	*áǹsìb*[a]

     I am my mother's brother's *āǹsíŋ*[a]; to all the other relatives above I am *bīig*[a] "child" or specifically *dà-kɔ̀ɔňr*[e] "son" or *pu̯ˀà-yùa*[+] "daughter." Although the Kusaasi are not matrilineal, the mother's brother is felt to be a particularly close relation with a traditionally benevolent rôle towards his sister's child.

     There are no special terms for aunts or uncles by marriage. Kusaasi tend to find the English usage of the same term for them as for blood relations bizarre.

My

Grandparent	is my	*yáab*[a]	Sex can be specified as
		♂ *yāa-dáu̯*[+]	
		♀ *yāa-pu̯ʔá*[a]	
Grandchild		*yáaŋ*[a]	

These words are also used for ancestor/descendant.

My

Elder sibling of my own sex is my	*bīər*[e/]
Younger sibling of my own sex is my	*pītʊ́*[+]
Sibling of opposite sex is my	*tāu̯ň*[+/]

These words are also used for cousins, with seniority, as always, going by family branch.

My

Wife	is my	*yī-pu̯ʔá*[a] or simply *pu̯ʔā*[a]	
Wife's parent		*dìəm*[ma]	Sex can be specified as
		♂ *dìəm-dāu̯*[+]	
		♀ *dìəm-pu̯āk*[a]	
Wife's sibling		*dàkīig*[a]	Sex can be specified as
		♂ *dàkì-dāu̯*[+]	
		♀ *dàkì-pu̯āk*[a]	

Dìəm[ma] is also used as polite address by a man to an unrelated woman of similar or greater age to himself but not old enough to be called *m̀ mà* "my mother." Parents-in-law are greatly respected, but with siblings-in-law there is a traditional reciprocal joking relationship; certain whole ethnic groups are said to bear this relationship to each other, called "playmate" in local English. At *Bùgúm-tɔ̄ɔňr*[e], the Fire Festival, one throws eggs at one's brothers-in-law.

I am my wife's parents' *bīig*[a] "child" and my wife's siblings' *dàkīig*[a].

My

Husband	is my	*sīd*[a]	
Husband's parent		*dàyáam*[ma]	Sex can be specified as
		♂ *dàyāam-dáu̯*[+]	
		♀ *dàyāam-pu̯ák*[a]	
Husband's elder brother		*sìd-kpɛ̄ɛňm*[m]	
Husband's younger brother		*sìd-bīl*[a]	
Husband's sister		*sìd-pu̯āk*[a]	

I am my husband's parents' *bīig*[a] "child"; all my husband's siblings (of both sexes) call me *pu̯ˀā*[a] "wife."

My co-wife is my *nìn-tāa*[=], "rival" in Ghanaian English. In traditional stories the rôle of the "wicked stepmother" in European folklore is assumed by one of the father's other wives.

Two men married to sisters are each *dàkì-tùa*[+] to the other; two women married to brothers are *nìn-tāas*[e], "co-wives." "Fiancée" is *pu̯ˀà-ɛ̄líŋ*[a].

37.2 Personal Names

Kusaasi personal names are mostly formed by the personifier clitic *À-* [21.10] followed by common nouns, but a few based on adjective stems are preceded by *Ǹ-*, becoming *Ṁ-* before labial consonants. There are also some less common names with the clitic *À-* followed by a whole verb phrase, or even by a clause. Names of foreign origin take the *À-* clitic: *À-Sīimɔ́ɔ̀n* "Simon."

Many names relate to birth circumstances. Kusaasi do not use surnames traditionally; although everyone knows his or her clan, and indeed at least part of its genealogy, clan names are not used as surnames, as they are with the Mossi.

A relatively few personal names account for a large proportion of all individuals; *À-Wīn* and *À-Būgʋr* are especially common as names for males. Identification of particular individuals often requires further enquiries about kindred or residence.

On the form in which Kusaal personal and place names appear in English-language contexts see [37.3.1].
Examples:

À-Wīn[ne/]	Awini	*wīn*[ne/]	"personal god, *genius*"
À-Būgʋr[e]	Abugri	*būgʋr*[e]	"object where a *wīn*[ne/] resides";
			also a *wīn*[ne/] inherited from one's
			mother's side
À-Nàˀab[a]	Anaba	*nàˀab*[a]	"chief" but in the sense "afterbirth"
			(because a chief leaves his house
			after his retainers)
			Name for sole survivor of twins
À-Fūug[o/]	Afugu	*fūug*[o/]	"clothing"
			for child born with a caul
À-Tūl[le]	Atuli	*tùlɪg*[e]	"invert" for breech-delivered child
À-Tìɪg[a]	Atiga	*tìɪg*[a]	"tree"

À-Sāan^{a/}	Asana	*sāan*^{a/}	"guest, stranger"
À-Sāan-dʋ́⁺	Sandow	*sāan*^{a/}	"guest" + *dāu̯*⁺ "man"
À-Tàmpūʋr^e	Tampuri	*tàmpūʋr*^e	"ashpit, rubbish tip"
À-Dūk^{o/}	Aruk	*dūk*^{o/}	"pot"

These two names are given to children born alive after previous stillbirths; they come from the apotropaic practice of throwing away the dead child or just burying it in a pot to avoid attracting malevolent spiritual attention.

À-Kūdʋg^o	Akudugu	*kūdʋg*^o	"piece of iron (as a *būgʋr*^e)" As a common noun displaced by the plural-as-sg *kūt*^e

Ǹ-Dāʋg^o	Ndago	*dāʋg*^o	"male"
Ṁ-Pu̯āk^a	Mpoaka	*pu̯āk*^a	"female"
Ṁ-Bīl^a	Mbillah	*bīl*^a	"little"

The younger sibling of *À-Wīn*^{ne/} may be called *À-Wīn-bíl*^a "Awimbillah", of *À-Kūdʋg*^o, *À-Kud-bīl*^a "Akudibillah" etc. Names for girls may follow the pattern *À-Wīn-pu̯ák*^a "Awimpoaka."

A whole clause 21.10.1 is seen as a birth-circumstance personal name in

À-Tìʋm bɔ́dìg yā	"The medicine has got lost."

Many Kusaasi traditionally had non-Kusaasi names as yet another method of breaking a cycle of stillbirths or early deaths, via pretended adoption by a "stranger"; hence Fulfulde names like Jambeedu, and along similar lines

À-Zàngbèog^o	Azangbego	*Zàngbèog*^o	"Hausa person"
À-Nàsà-pu̯āk^a	Anasapoaka		"European woman"; also a birth-circumstance name for a child delivered by a European midwife.

Muslims often use day-of-the-week names depending on birth; these are not so common among traditional Kusaasi, as the seven-day week was not generally in use; older persons still do not use it, adhering to the older three-day cycle of markets instead.

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 Islamic Arabic names, sometimes adapted to Kusaal phonology, like *Dàhamáanì*[+]/*Dàsmáanì*[+] عبد الرحمن *ʕAbdu-r-Raħma:n(i)*

KKY p6 has the interesting girl's personal name *Amɔryam*, which looks like an adaptation of the Arabic name مريم *Maryam(u)* "Mary" as *À-Mɔ̄r Yām* "Has Common Sense."

Christians use English (or French) baptismal names in speaking European languages, and in official contexts use their Kusaal personal names as "surnames."

37.3 Place Names

For the form in which Kusaal personal and place names appear in English-language contexts see 37.3.1 .

Many, though by no means all, Kusaal place names have transparent meanings.

John Turl maintains a site dedicated to Ghanaian toponymy, with much of interest both for the Kusaasi area and elsewhere. His research has helped me improve this section considerably. He does not always concur with my analyses: consult his site for details.

Place names include:

Bɔ̀k[o]	Bawku	"pit, geographical depression"
Kūk[a/]	Koka	"mahogany tree"
Kùkpàrɪg[a]	Kokpariga	"palm tree"
Tèmpáan[ne]	Tempane	perhaps "new villages"
Mu̧ʔà-nɔ̄ɔr[e/]	Mogonori	"lakeside" ("lake-mouth")
Bàs-yɔ̄n[ne/]	Basyonde	"abandon sacks" ?reason for name
Kūgʋr[e/]	Kugri	"stone"
Būgʋr[e]	Bugri	*būgʋr*[e], object housing a *wīn*[ne/] "spirit"
Wìdì-ŋyáʔaŋ[a]	Woriyanga	archaic for *wìd-ŋyáʔaŋ*[a] "mare"
Bì-nàʔab[a]	Binaba	"prince"
Gàarʋ[+]	Garu	said to be Hausa *gadoo* "bed"; cf Toende *gárʋ́k* (= Agolle *gādʋg*[o/]) "bed; cattle pen" (Niggli)
Wìid-nàʔab[a]	Widinaba	"chief of the clan *Wìid*[a]"
Pūsɪg[a/]	Pusiga	"tamarind"

Tı̄l^{le/}	Tilli	"tree trunk" cf Toende Kusaal *tíl* id (Hasiyatu Abubakari, p.c.)
Mì^ʔisʊg^a	Missiga	Explained locally as from "mission" i.e. the Assemblies of God mission around which the village grew; perhaps influenced by *mì^ʔisʊg*^o "dunking" (not in my materials, but cf Toende *mi'isʊk* "baptism", KED *mi'is* "duck someone")
Pùlıma Kú^ʔə̀m^m	Pulimakom	"water by *pùlıma*⁺ (grass sp)"
Wìdāan^a	Widana	for *Wìd-dāan*^a "Horse-Owner", title of a chief's *nɔ̄-dí^ʔə̀s*^a "linguist" (spokesman/counsellor.) Usual informal name for Pulimakom, as the seat of this particular linguist.
Dènʊg^o	Denugu	No known meaning
Sā-bíl^a	Zebilla	"small grass"?
Sā-píəlìg^a	Sapeliga	"*Isoberlinia Doka*" ("white grass")
Kɔ̀l-tā^ʔamís^e	Kultamse	"dog almonds" ("river shea trees")

WK thought that the first component of the names *Sā-bíl*^a and *Sā-píəlìg*^a was a plant used in making brooms. *Sāa^{=/} does not occur in my data (only *sāa*⁼ "rain") or in Niggli's dictionary, but the cognate *sáagá* is glossed in his Farefare dictionary as "a kind of grass used for making brooms", and the Mampruli/Dagbani cognate *saa* refers to a grass (*Sporobolus subglobosus A. Chev*, Blench) used for binding materials together to make mats and traps, and presumably also brooms. Compounds need not have the literal sense of the components 21.8.1 21.7.2.1, especially with names for plant and tree species: John Turl has located a careful 1935 report by an assistant agricultural officer which lists among local trees in the Farefare/Nabit area *sapelaga Isoberlinia doka*; it seems likely that this is the meaning of *sā-píəlìg*^a. The report also lists *ta-anga* "Butyrospermum parkii" (Kusaal *tá^ʔaŋ*^a), and *kulta-anga* "Andira inermis", so *kɔ̀l-tá^ʔaŋ*^a is probably this "dog almond."

Kùlʊgúŋ^o	Kulungungu	?? *kɔ̀l-gùŋ*^a "river-kapok"

Turl cites a Bisa-speaking informant who suggests a more plausible origin in Bisa "Kuurgongu", "Crooked Sheanut Tree." Prost's grammar of Bisa confirms that Bisa adjectives follow head nouns, and his dictionary cites *kúr* "karité." The second element is probably a simplex form of Prost's *gongeda* "arqué" (*ng* = [ŋ]); Prost notes an adjectival suffix *-da* "s'appliquant aux grandes choses ou marquant intensité."

Àgɔ̀l[le]	Agolle	the Kusaasi area east of the White Volta; cf *àgɔ́l*[le] "upwards"; for the H toneme see 10.1.
Tùən[ne]	Toende	Kusaasi area west of the White Volta; cf *tùən*[ne] "in front", "West"

For points of the compass, WK gave as accepted terms

N	*Bārʊg*[o/]	"Bisa country"
E	*Ŋ́yáˀaŋ*[a]	"behind"
S	*Zṵēya*[+]	"hills" (i.e. the Gambaga Escarpment)
W	*Tùən*[ne]	"in front"

reflecting the traditional Kusaasi orientation, opposite to the Muslim one.

Words referring to ethnic groups and clans consistently have place names formed from the same stem with the suffix -*g*[o]. These can be nonce-formations and need not necessarily refer to any established political entity or permanent settlement:

Kʊ̀tāṵŋ[o/]	any place inhabited by the clan *Kʊ̀tām*[ma/]
Kūsáʊ̀g[o]	"Kusaasiland"
Mɔ̀ɔg[o]	"Mossi country"
	(*Mɔ̀ɔg Náˀàb*[a] "Moro Naba, King of the Mossi")

Places outside *Kūsáʊ̀g*[o] generally do not have Kusaal names (an exception is *Sānkáàŏ̌s*[e] "Sankanse" in Burkina Faso.) For "Accra" the Twi-derived name *Ankara* is usual. Niggli's Dictionnaire has Toende *Wa'arʊk* for "Ouagadougou", but I could not elicit any Agolle equivalent. The form looks like **Wāˀadʊ́g*[o] "Place of the Dancers (*wāˀadíb*[a])", but the Mooré name *Wagdugu* apparently does not have a transparent meaning for Mooré speakers, and its true etymology is uncertain.

Curiously, there seems to be no Agolle Kusaal proper name for the White Volta river, which is simply *kɔ̄lʊg*[a] "river"; presumably this is simply because it is the only real river within *Kūsáʊ̀g*[o].

37.3.1 Kusaal Personal and Place Names in English

When speaking English or French, Kusaasi cite Kusaal personal and place names in a guise which resembles the Long Form, showing the underlying final vowel without Apocope: thus *À-Wīn*[ne/] from *Wìdι-ňyáˀaŋ*[a] will introduce himself as "Awini" from "Woriyanga." Similarly "Kusaasi" for *Kūsáàs*[e], "Bawku" for *Bɔ̀k*[o], and many other examples in 37.2 and 37.3.

If this behaviour were confined to personal names, it might plausibly be attributed to the incorporation of the Vocative Prosodic Clitic, but, as has been seen, it is equally characteristic of place names. Moreover, the form "Woriyanga" for *Wìdι-ňyáˀaŋ*[a] shows a characteristically Mampruli rather than Kusaal form for the initial combining form of "horse": Mampruli *wuri-* versus Kusaal *wìd-*. It seems probable that this reflects a convention which originally arose from the fact that the British came to know the region through Mamprussi guides and interpreters. According to Tony Naden (p.c.) a parallel development had taken place earlier in Mamprussi country when the British arrived with Dagomba guides: thus "Gambaga" for the Mampruli place name "Gambaa."

However, not all these forms can be explained without further ado as Mampruli. The place name "Widana", for example, resembles Kusaal *Wìdāan*[a] rather than Mampruli *Wuddaana* "(title of) a chief's linguist" and female personal names like "Awimpoaka" *À-Wīn-pu̯ák*[a] even show the characteristic Agolle Kusaal vowel breaking, in contrast to the Toende form *Awιnpɔka* (Niggli.) Again, the personal name "Akudugu" *À-Kūdʋg*[o] shows the postvocalic *-d-* characteristic of Agolle Kusaal rather than Mampruli. The Toende place name *Tīl*[le/] "Tilli" corresponds to Toende Kusaal *tíl* and Farefare *tíllé* "tree trunk", but no cognate word appears in Naden's extensive dictionary of Mampruli. Accordingly, even if the convention of preserving underlying final vowels originated from transposition of personal and place names from Kusaal into Mampruli, it has apparently been generalised by analogy and can now produce forms which cannot be regarded as Mampruli.

Cases also occur of straightforward reproduction of the Kusaal, as in "Aruk", alongside "Aruku" for the personal name *À-Dūk*[o/].

37.4 Ethnic Group and Clan Names

Names for the group belong to the ᵃ|bᵃ or gᵃ|sᵉ Classes (apart from *Zàngbèog*ᵒ "Hausa" and *Nàsāara*⁺ "European") and their language to the *l*ᵉ Subclass of *r*ᵉ|*a*⁺. The place they inhabit has the suffix *-g*ᵒ.

Ethnic gp sg	Ethnic gp pl	Language	Place	
Kūsáa=	*Kūsáàs*ᵉ	*Kūsáàl*ᵉ	*Kūsáʋg*ᵒ	Kusaasi
*Ňwāmpūrɪg*ᵃ/	*Ňwāmpūrɪs*ᵉ/	*Ňwāmpūrɪl*ᵉ/	*Ňwāmpūrʋg*ᵒ/	Mamprussi
*Bārɪg*ᵃ/	*Bārɪs*ᵉ/	*Bāt*ᵉ/	*Bārʋg*ᵒ/	Bisa
Mùa⁺	*Mɔ̀ɔs*ᵉ	*Mɔ̀ɔl*ᵉ	*Mɔ̀ɔg*ᵒ	Mossi
*Dàgbān*ⁿᵉ/	*Dàgbām*ᵐᵃ/	*Dàgbān*ⁿᵉ/	*Dàgbāṵŋ*ᵒ/	Dagomba
*Bìn*ⁿᵉ	*Bìm*ᵐᵃ	*Bìn*ⁿᵉ	*Bìṵŋ*ᵒ	Moba
*Sìmīig*ᵃ	*Sìmīis*ᵉ	*Sìmīil*ᵉ	*Sìmīug*ᵒ	Fulɓe
*Yàaŋ*ᵃ	*Yàaňs*ᵉ	*Yàan*ⁿᵉ		Yansi
*Gūríŋ*ᵃ	*Gūrís*ᵉ	*Gūrín*ⁿᵉ		Farefare
*Yārɪg*ᵃ/	*Yārɪs*ᵉ/	*Yāt*ᵉ/		Yarsi
*Zàngbèog*ᵒ	*Zàngbɛɛd*ᵉ	*Zàngbɛɛl*ᵉ		Hausa
*Bùlɪg*ᵃ	*Bùlɪs*ᵉ	*Bùl*ˡᵉ		Bulsa
*Tàlɪŋ*ᵃ	*Tàlɪs*ᵉ	*Tàlɪn*ⁿᵉ		Tallensi
*Nàbɪd*ᵃ	*Nàbɪdɪb*ᵃ	*Nàbɪr*ᵉ		Nabdema
*Bùsáŋ*ᵃ	*Bùsáàňs*ᵉ	*Bùsáàňl*ᵉ		Bisa
Nàsāara⁺	*Nàsàa-nàm*ᵃ	*Nàsāal*ᵉ		European
*Kàmbùŋ*ᵃ	*Kàmbùmɪs*ᵉ	*Kàmbùnɪr*ᵉ		Ashanti

*Bārɪs*ᵉ/ is "Bisa" generally, not just the Bareka; *Bìm*ᵐᵃ similarly is "Moba" in general, and not only the Bemba (WK.)
Note

*Tùən*ⁿᵉ	"Toende area"
*Tùənɪr*ᵉ	"Toende dialect of Kusaal"
*Àgɔ̀l*ˡᵉ	"Agolle area"
*Àgɔ̀l*ˡᵉ	"Agolle dialect of Kusaal"
*Ò pi̯àň*ʔ*ad Àgɔ̀l.*	"She speaks Agolle Kusaal."

3HU speak:**IPFV** Agolle.

Kusaasi clan names include, among many others:

Singular	Plural	Place	
Kʊ̀tān^ne/	*Kʊ̀tām*^ma/	*Kʊ̀tāṵŋ*^o/	WK's clan
Zùa^+	*Zùɵs*^e		subclans
	Zṵà-sābɩlís^e		
	Zṵà-wìib^a		
or	*Zṵà-wìis*^e		
Wìid^a	*Wìid-nam*^a	*Wìidʊg*^o	
Nàbɩd^a	*Nàbɩdɩb*^a	*Nàbɩdʊg*^o	
Gɔ̀ɔg^a	*Gɔ̀ɔs*^e	*Gɔ̀ɔg*^o	
*Sà*ʔ*dàbùa*^+	*Sà*ʔ*dàbùɵs*^e *-bùɵb*^a	*Sà*ʔ*dàbɔ̀ɔg*^o	
	*Nà*ʔ*dàm*^ma	*Nà*ʔ*daṵŋ*^o	
	Gùm-dìm^a	*Gùm*^me	

Nàbɩd^a as a clan name is different from the ethnic group "Nabdema" (WK.)

37.5 Trees and Fruits

Tree names are almost all *g*^a|*s*^e Class, like *tìɩg*^a "tree"; their fruits are Classes *r*^e|*a*^+ or *g*^o|*d*^e.

Tree sg	Tree pl	Fruit sg	Fruit pl	
āañdɩg^a	*āañdɩs*^e	*āañdɩr*^e	*āañda*^+	Vitex doniana
dùañ^+	*dɔ̀ɔñs*^e	*dɔ̀ɔñg*^o	*dɔ̀ɔñd*^e	dawadawa
gāañ^=/	*gāañs*^e/	*gāñr*^e/	*gāñyá*^+	Nigerian ebony
gùŋ^a	*gùmɩs*^e	*gùm*^me	*gùma*^+	kapok
kìkàŋ^a	*kìkàmɩs*^e	*kìkàm*^me	*kìkàma*^+	fig tree
kpʊ̀kpàrɩg^a	*kpʊ̀kpàrɩs*^e	*kpʊ̀kpàr*^e	*kpʊ̀kpàra*^+	palm
pūsɩg^a/	*pūsɩs*^e/	*pūsɩr*^e/	*pūsá*^+	tamarind
sīsíbìg^a	*sīsíbìs*^e	*sīsíbìr*^e	*sīsíbà*^+	neem
*tá*ʔ*aŋ*^a	*tā*ʔ*amís*^e	*tá*ʔ*am*^me	*tā*ʔ*amá*^+	shea butter
*tɛ̀*ʔ*ɛg*^a	*tɛ̀*ʔ*ɛs*^e	*tɛ̀*ʔ*og*^o	*tɛ̀*ʔ*ɛd*^e	baobab
vúɵŋ^a	*vūɵmís*^e	*vúɵr*^e	*vūaá*^=	red kapok

The stems for "red kapok" and its fruit are slightly different: tree *vuɵm-* fruit *vuɵg-*

37.6 Body Parts

Most human and animal body parts belong to the Classes $r^e|a^+$ and $g^o|d^e$:

bi̯āu̯ňk[o]	"shoulder"	*bīən*[ne]	"shin"
bìʔisɩr[e]	"woman's breast"	*dūm*[me]	"knee"
gbāu̯ŋ[o/]	"animal skin; lip, eyelid"	*gbēr*[e/]	"thigh"
gbɛ̀ʔog[o]	"forehead"	*gbìn*[ne]	"buttock"
gbìn-vɔ̀ɔňr[e]	"anus"	*gūʋr*[e]	"ridge of back"
íɩl[le]	"horn"	*kɔ̄bɩr*[e]	"bone"
kɔ̄ňbʋg[o]	"hair"	*kpēňdɩr*[e/]	"cheek"
kpìsukpìl[le]	"fist"	*lām*[me/]	"gum"
lān[ne]	"testicle"	*lùgʋr*[e]	"organ, member"
nìn-gbīŋ[o/]	"human skin, body"	*nìn-gɔ̀ɔr*[e]	"neck"
nóbòr[e]	"leg"	*nɔ̄b-púmpàu̯ŋ*[o]	"foot"
nɔ̄ɔr[e/]	"mouth"	*ňyīn*[ne/]	"tooth"
ňyɔ̄ɔd[e]	"intestines"	*ňyɔ̄ʔɔg*[o/]	"chest"
ňyɔ̄ɔr[e]	"nose"	*pɛ̀n*[ne]	"vagina"
pūʋr[e/]	"stomach"	*sɔ̄ɔňr*[e]	"liver"
tàsɩntàl[le]	"palm"	*tàtàl*[le]	"palm"
tìəŋ-gūʋr[e]	"chin"	*tùb-kpìr*[e]	"half of jaw"
tùbʋr[e]	"ear"	*yìər*[e]	"jaw"
yūʔər[e]	"penis"	*zàňl*[le]	"umbilicus"
zìlɩm[me]	"tongue"	*zūg*[o/]	"head"
zūəbúg[o]	"human head hair"	*zūʋr*[e]	"tail"

There are significant exceptions, however:
$g^a|s^e$ Class:

núʔùg[o]	"hand" 11.3.2.1	perhaps as the prototypical tool.	
nūʔ-bíl[a]	"finger"	but *nūʔ-dáʋg*[o]	"thumb"
nūʔ-íňʔa[+]	"fingernail"	*nɔ̄b-bíl*[a]	"toe"
nɔ̄b-íňʔa[+]	"toenail"	*sīa*[+]	"waist"
ňyáʔaŋ[a]	"back"	*tìəŋ*[a]	"beard"

$f^o|ι^+$ Class:

nīf[o/]	"eye"	as a "small round thing"?
si̯à-nīf[o/]	"kidney"	as a compound of "eye"
sūňf[o/]	"heart"	beside *sūuňr*[e/] $r^e|a^+$ Class

37.7 Colour Terms

Kusaal, like many local languages, has a basic three-colour system:

zèň^ʔog^o	"red"	covering all reddish shades
sābʊlíg^a	"black"	covering all darker shades of colour
pìəlʊg^a	"white"	covering all lighter shades of colour

Wìug^o "red" is synonymous with *zèň^ʔog*^o. Kusaal has many more or less standardised expressions for colour (e.g. *wōʊ támpʊ̄ʊr nɛ̄* "like ash", i.e. "grey"), often with parallels in other West African languages. The system is described as "three-colour" because any colour can be allocated correctly to one of only three terms, and not because only three colour terms exist.

37.8 Time Expressions

Answers to *bɔ̀-wìn*^{ne} "what time of day?"

bēogʊn^{e/}	"morning"	*àsùbá*⁺	"dawn" (← Arabic)
bèkèkèoňg^o	"very early morning"	*zàam*^m	"evening"
wìn-līir^e	"sunset"	*yú^ʔuŋ*^o	"night"
wìn-kɔ̀ɔňr^e	"sunset"	*nīntāŋ*^{a/}	"heat of the day, early afternoon"

Wìn^{ne} "time of day" (cf *wìnnʊg*^a "sun"), always with a pre-determiner.
There are no traditional expressions for clock time; the NT adapts from Hausa:

kárʊfà àtáň^ʔ	"three o'clock"	Hausa:	*karfèe ʔukù*

The deictic particle *ňwà* "this" is commonly attached to time words:

zàam ňwá	"this evening"	[za:ma]	
yú^ʔuŋ ňwá	"tonight"	[yy̰:ŋ:a]	9.1.1

The day begins at sunrise, not sunset as with Muslims.
Answers to *būn-dáàr*^e "which day?":

zīná⁺	"today"	*sù^ʔəs*^a	"yesterday"
bēog^o	"tomorrow"	*dāar*^e	"day after tomorrow/ day before yesterday"

Weekday names are from Arabic via Hausa, 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.

Àláasìd dáàr[e]	"Sunday"	*Àtínì dáàr*[e]	"Monday"
Àtàláatà dáàr[e]	"Tuesday"	*Àlárɪbà dáàr*[e]	"Wednesday"
Àlàmíisì dáàr[e]	"Thursday"	*À(r)zúmà dáàr*[e]	"Friday"
Àsíbɪtì dáàr[e]	"Saturday"		

Dāar[e] "day" is "twenty-four hour period" (*nīntāŋ* "day as opposed to night") and is used with pre-determiners to specify a particular day; the word *dàbɪsɪr*[e] is also used for "day" in counting periods of time, occurring usually in the plural:

Dābá àyɔ́pɔ̀ę̀ dáàr kà fʋ̀ ná lɛ̄b nā.	"You'll come back in a week."
Dābá àyɔ́pɔ̀ę̀ kà fʋ̀ ná lɛ̄b nā.	"You'll come back for a week."
Àláasìd dáàr kà fʋ̀ ná lɛ̄b nā.	"You'll come back on Sunday."
Tì kpέlìm ànínā dábɪsà bīʔəlá.	"We stayed there a few days."

Longer periods of time:

dābá àyɔ́pɔ̀ę̀	"week"	also *bákpàę̀* ← Hausa *bakwài* "seven"
ňwādɪg[a/]	"moon, month"	
ňwād-kánì kɛ̄n nā lā	"next month"	("the month which is coming")
ňwād-kánì gàad lā	"last month"	("the month which has passed")

There are two seasons:

sɛ̄oňg[o]	"rainy season"	*úun*[ne]	"dry season"

The Harmattan part of *úun* is called *sāpál*[le] and the very hot humid part before the rains is *dàwàlɪg*[a].

yùum[me]	"year"	*dūnná*[+]	"this year"

"Time" in general is the irregular noun *sāŋá*[+] pl *sānsá*[+] cb *sān-*; "time of day" is *wìn*[ne]; "time" as in "several times" is *nɔ̄ɔr* 18.2.5. Examples with *sāŋá*[+]:

sān-kánè?	"when?"	*sān-kán lā*	"at that time"
sāŋá kám	"all the time"	*sāŋá bὲdʋgū*	"a long time"
sānsá bὲdʋgū	"many times"	*sāŋá bīʔəlá*	"for/in a short time"

38 Minimal Pairs

In this section I will note only a few instances from two areas where the traditional orthography is deficient: the tense/lax distinction in monophthongal high vowels, and tone.

38.1 Tense and Lax Vowels

There are few minimal or near-minimal pairs for the contrast *u/ʊ* in short root vowels and even fewer for *i/ɩ*, excluding forms due to Apocope reducing word-final long root vowels to short; there is no contrast in the corresponding nasal short vowels 5.2.1 . There is a robust contrast between long *uu/ʊʊ* and long *ii/ɩɩ* but even in this case it is difficult to find minimal pairs; while *lì* "fall", for example, certainly contrasts with *lɩ* "it", the words differ in prosody as a full word contrasting with a clitic of a type which lacks the full range of possible vowel contrasts in any case.

Minimal/near-minimal pairs include

lìdɩg	"turn a shirt" WK	*lìdɩg*	"astonish, be amazed"
sīd	"husband"	*sīn*	"be silent"
bʊ̀l	"astonish"	*bùl*	"germinate" pfv
ʊ̀k	"vomit"	*ūk*	"bloat"
bʊ̄n	"thing"	*bùn*	"germinate" ipfv
kʊ̄dʊg	"old"	*kūdʊg*	"piece of iron"
kʊ̄g-káŋā	"this mahogany tree"		
kūg-káŋā	"this stone"		
tʊ̄lɩg	"heat up"	*tùlɩg*	"invert"
yʊ̄gʊ́m	"camel"	*yūgʊdɩr*	"hedgehog"

The introduction to KED mentions a contrast between *sībɩg*[a/] "termite" and *sɩbɩg* "a species of antelope" (probably *sībɩg,* to judge by the HH tones given for the Farefare cognate *síbgá* in Niggli's dictionary.) The word is not found in my own data.

Although contrasts do thus exist in short *i/ɩ u/ʊ* even when these are not the result of Apocope, written sources show great fluctuation in the writing of *e/ɩ o/ʊ*, and it may well be that in many contexts a three-way contrast is not demonstrable.

Contrasts among the short root vowels seem to be often found only after particular classes of preceding consonant, and may historically reflect consonant contrasts such as palatal/alveolar which have been lost in the Western Oti-Volta languages. The distribution of the contrasts does, however, agree well across these languages, other than the Mampruli-Dagbani-Hanga subgroup where the whole vowel system has been radically simplified 1.2.3 .

38.2 Tones

Tone functions more as a syntactic marker than to distinguish lexemes, and words often undergo alteration of their tone patterns by tone sandhi or overlay. Lexically, tone has a fairly low functional load, and the absence of tone marking in the traditional orthography seems to cause no great difficulty to Kusaasi experienced in reading the language. Lexical tonal minimal pairs do exist, however:

àgɔ́l[le]	"upwards"	*Àgɔ̀l*[le]	"Eastern Kusaasiland"
bāŋ[a]	"ring, chain"	*bàŋ*[a]	"agama lizard"
bʉ̄ʔar[e/]	"skin bottle"	*bʉ̀ʔar*[e]	"hole"
bʉ̄k[e/]	"weaken"	*bʉ̀k*[e]	"cast lots"
dāʊg[o]	"male"	*dàʊg*[o]	"piece of wood"
dīgɩr[e/]	"lying-place"	*dìgɩr*[e]	"dwarf"
dúər[e]	"raising" (gerund)	*dūər*[e/]	"stick"
gāŋ[e/]	"choose"	*gàŋ*[e]	"step over"
gbāʉ̯ŋ[o/]	"skin", "book" DK	*gbàʉ̯ŋ*[o]	"book" WK
kʉ̄k[a/]	"mahogany tree"	*kʉ̀k*[a]	"ghost"
kʉ̄k[a]	"chair"		
māk[e/]	"measure"	*màk*[e]	"crumple up"
mɔ̄ɔg[o]	"bush, wilderness"	*Mɔ̀ɔg*[o]	"Mossi realm"
nɛ̄ɛm[m/]	"grind with millstone"	*nɛ̀ɛm*[m]	"emptiness; for free"
nɛ̄ɛr[e/]	"millstone"	*nɛ̀ɛr*[e]	"empty"
níis[e]	"birds"	*nīis*[e]	"bodies"
pīd[e]	"get bloated"	*pìd*[e]	"put on hat, shoes etc"
pīəs[e/]	"wash"	*pìəs*[e]	"fool somebody"
sáam[ma]	"guests"	*sàam*[ma]	"father"
sāam[m/]	"mash up"		
si̱āk[e/]	"suffice"	*si̱àk*[e]	"agree"
wēog[o]	"cheap/common thing"	*wèog*[o]	"deep bush"
yáaŋ[a]	"grandchild"	*Yàaŋ*[a]	"Yansi, Yanga person"
yīdɩg[e/]	"untie"	*yìdɩg*[e]	"go astray"
yɔ̄[+]	"pay"	*yɔ̀*[+]	"close"

A SF-only minimal pair:

lābɩs[a/]	"be wide"	*làbɩs*[e]	"walk stealthily"

Cb-only minimal pairs are quite common, due to the absence of class suffixes and the effects of Apocope; an example is

nāʔ-káŋā	"this cow"	*nàʔ-kàŋā*	"this chief"

Some common particles differ in tone alone:

dāa	"two days ago"	*dàa*	"day after tomorrow"
dā	negative Imperative	*dà*	"before two days ago"

39 General Vocabulary

Words are ordered by Short Forms.

Vowel glottalisation, and the distinctions *n/ň, ə/e/ẹ/ɛ , i/ι/i̯, ɵ/o/ɔ* and *u/ʋ/u̯* are ignored in the ordering. The consonant *ŋ* follows *n*.

Compounds are not listed if they are regularly formed and have transparent meanings. Those that *are* listed follow the entry for the Combining Form of the first element.

Nouns are listed under the singular form. Adjectives are listed under the *g*ᵃ|*s*ᵉ Class form if extant, if not, then *g*ᵒ|*d*ᵉ or *r*ᵉ|*a*⁺. Variable Verbs are listed under the perfective.

Variable Verb imperfectives and imperatives are listed only where irregular. Gerunds, Agent Nouns and Imperfective Deverbal Adjectives are not listed unless they show some irregularity of form or a specialised meaning.

Personal names and Kusaasi place names are not listed below: see 37.2 37.3 for examples.

I have attempted to list all function words, with references to the sections in which they are treated above.

All words occuring in the paradigms and examples in the grammar should be included. I have added other words from my collected materials, and words from David Spratt's "A Short Kusaal-English Dictionary" (KED below) in all cases where I was able to determine the tones and also the quality of *i u* versus *ι ʋ* where necessary. Unfortunately, time considerations prevented me from systematically going through KED in its entirety with my informants.

Words listed as derived from Arabic are probably all borrowed via other languages, generally Hausa 20.1 .

Binomial names of plants taken from Haaf (see sources) are likely to be reliable; he checked the identifications with local botanical experts.

Abbreviations:

adj	Adjective	*adv*	Adverb
agt	Agent Noun	*cb*	Combining Form
ger	Gerund	*ipfv*	Imperfective
imp	Imperative	*n*	Noun
pfv	Perfective	*pl*	Plural
q	Quantifier	*sg*	Singular
vv	Variable Verb	*iv*	Invariable Verb

A

à-		Personifier proclitic 21.10
*āañdıg*ᵃ		*n.* black plum tree, *Vitex doniana* 37.5
	pl *āañdıs*ᵉ	
	cb *àañd-*	
*āañdır*ᵉ		*n.* black plum fruit 37.5
	pl *āañda*⁺	
*àañs*ᵉ		*vv.* tear
àb̀lá⁺		how many-fold? 18.2.5
àb̀yí⁺ *àb̀táñˀ*⁺ *àb̀nāasí*⁺		*adv.* twice, three times etc 18.2.5
*à-dàalúŋ*ᵒ		*n.* stork 21.10
	pl *à-dàalís*ᵉ *à-dàalímìs*ᵉ	
	cb *à-dàalúŋ-*	
àdàkóñˀ⁺		*q.* one 18.2.3
*àẹñ*ʸᵃ		*iv.* be something/somehow 26.2 9.1.3 9.1.2
	ger *àañlím*ᵐ	
àeñ⁺		*vv.* get torn
	*pfv adj àañlúŋ*ᵒ	*adj.* torn
*à-gá̀ŋg*ᵒ		*n.* pied crow 21.10
	pl *à-gáàñd*ᵉ	
	cb *à-gāñ-*	
*àgɔ́l*ˡᵉ *àgɔlá*⁺		*adv.* upwards
*Àgɔ̀l*ˡᵉ		*n.* Agolle district of Kusaasi territory
		n. Agolle Kusaal dialect
*à-kɔ̄ra-díàm*ᵐᵃ		*n.* praying mantis 21.10
	pl *à-kɔ̄ra-díàm-nàm*ᵃ	
àlá⁺		*adv.* thus 19.1
àlá⁺		*q.* so many; how many? 19.1
àláafù⁺		*n.* health; in greetings 36 cf *láafìya*⁺
		(← Arabic العافية *ʔal-ʕa:fiya(tu)*)
*Àláasìd dáàr*ᵉ		*n.* Sunday 37.8 (← Arabic)
*Àlàmíisì dáàr*ᵉ		*n.* Thursday 37.8 (← Arabic)
*Àlárıbà dáàr*ᵉ		*n.* Wednesday 37.8 (← Arabic)
*àlá zùg*ᵒ		therefore 30.1.1 19.1
*àlɔ́pìr*ᵉ		*n.* aeroplane (← English)
	pl *àlɔ́pìya*⁺	
àmáa⁼		but 29.3 (← Hausa ← Arabic)
àmɛ̄ŋá⁺		*adv.* really, truly 22.4
àmí		amen (← Arabic آمين) in replies to greetings 36

à-mús^e			*n.* cat 21.10 ; cf Hausa *mussàa* id
	pl	*à-mús-nàm*^a	
ànāasí^+			*q.* four 18.2.2
àní^+			*adv.* there 19.1
àníi^=			*q.* eight 18.2.2
àní nā^+/			*adv.* there 19.1
àníŋà^+			*adv.* promptly 22.4
ànɔ́ʔɔ̀n^e			who? 17.4
àňrʋŋ^o			*n.* boat (consistently written *aaruŋ* in the NT)
	pl	*àňrɩma*^+	
	cb	*àňrʋŋ-*	
āňs^e			*vv.* pluck (leaves)
áňsìb^a			*n.* mother's brother 37.1
	pl	*āňs-nám*^a	
	cb	*āňs-*	
āňsɩg^e/			*vv.* break at an angle
āňsíŋ^a			*n.* (man's) sister's child 37.1
	pl	*āňsís*^e	
	cb	*āňsɩŋ-*	
àntùʔa^=			*n.* lawsuit
	pl	*àntùʔɵs*^e	
	cb	*àntu̯ʔà-*	
ànū^+			*q.* five 18.2.2
àňwá^+			*adv.* like this 19.1
ānzúrɩfà^+			*n.* silver
			(Hausa *ʔazùrfaa* ← Berber **a-ẓrəf*, Souag 2016)
àrazàk^a			*n.* wealth, riches (← Arabic الرزق *ʔar-rizq(u)*)
	pl	*àrazàʔas*^e	*Generally used in pl*
	cb	*àrazà'-*	
àrazánà^+			*n.* heaven, sky (← Arabic الجنة *ʔal-ɟanna(tu)*)
Àrzúmà dáàr^e			*n.* Friday 37.8 (← Arabic)
àsɛ́ɛ			except, unless 23.2 29.3 (← Hausa *sai*)
Àsíbɩtì dáàr^e			*n.* Saturday 37.8 (← Arabic)
àsīda^+			*adv.* truly 22.4
àsùbá^+			*n.* dawn (← Arabic الصباح *ʔasˤ-sˤaba:ħ(u)*)
àtáň^ʔ+			*q.* three 18.2.2
Àtàláatà dáàr^e			*n.* Tuesday 37.8 (← Arabic)
àtáŋā^+/			*q.* three exactly 18.2.2
Àtínì dáàr^e			*n.* Monday 37.8 (← Arabic)
àtìu̯k^o			*n.* sea (← Hausa *tèeku*)
àwánā^+/			*adv.* like this 19.1

àwāe̯⁺   *q.* nine 18.2.2
àyí⁺   *q.* two 18.2.2
áyɩ̀   no 30.2.4
àyíŋā⁺/   *q.* two exactly 18.2.2
àyɔ́pɔ̀e̯⁺   *q.* seven 18.2.2
àyúɵbʊ̀⁺   *q.* six 18.2.2

B

bà   they, their (Proclitic) 17.1
ba⁺   them (Enclitic object) 17.1
bāʔ⁺/   *n.* father 11.4
     pl   *bāʔ-nám*ᵃ
     cb   *bāʔ-*
bāa⁼   *n.* dog
     pl   *bāas*ᵉ
     cb   *bà-*
bāʔa⁼   *n.* traditional diviner
     pl   *bāʔab*ᵃ
     cb   *bàʔa-*
       *bàʔa-kɔ̀lʊg*ᵒ   *n.* diviner's bag
         pl *bàʔa-kɔ̀n*ⁿᵉ
         cb *bàʔa-kɔ̀l-*
bāʔa⁼   *n.* peg to hang things on
     pl   *bāʔas*ᵉ
     cb   *bàʔ-*
*bàʔan*ⁿᵉ   *n.* stocks (punishment)
     pl   *bàʔana*⁺
     cb   *bàʔan-*
*bàaǎlɩg*ᵃ   *adj.* narrow, slender
     pl   *bàaǎlɩs*ᵉ
*bāaǎlíg*ᵃ   *adj.* quiet
*bāaǎlím*ᵐ   *adv.* quietly
*bàʔar*ᵉ   *n.* idol
     pl   *bàda*⁺ *bàʔa*⁺
     cb   *bàʔ-*
bābá⁺   beside, postposition 22.6
       cf *bābɩr*ᵉ/ sphere of activity
bàbɩgā⁺/   *q.* many 18.1
bákpàe̯⁺   *n.* week (← Hausa *bakwài* "seven")

bàlàar^e   *n.* stick, staff, club

     pl   *bàlàya*^+

     cb   *bàlà-*

bàlàŋιr^e   *n.* hat

     pl   *bàlàŋa*^+

     cb   *bàlàŋ-*

bālɛ̄rʊg^o/   *adj.* ugly cf *lɛ̄r*^e "get ugly"

     pl   *bālɛ̄rιd*^e/ *bālɛ̄rιs*^e/

     cb   *bālɛ́r-*

bàmmā^+/   these, those (Demonstrative 17.2)

bàn^e   these, those (Demonstrative 17.2)

bán   they (Subject of *ǹ*-Clause) 17.1

bān^e   they, them (Contrastive) 17.1

bāň^ʔ+   *vv.* ride

bānāa^=   *n.* traditional "fugu" smock

     pl   *bānāas*^e

     cb   *bànà-*   tone *sic* in my materials; ?error for *bāná-*

bàň^ʔad^a   *n.* ill person

     pl   *bàň*^ʔ*ad-nàm*^a

bāň^ʔal^e/   *vv.* make to ride (horse, bicycle)

bāň^ʔas^e   *n. pl as sg* disease

     cb   *bàň*^ʔ-

bàn-dāʊg^o   *n.* crocodile

     pl   *bàn-dāad*^e

     cb   *bàn-dà-*

bān-kúsɛl^le   *n.* lizard

     pl   *bān-kúsɛ̄lá*^+

     cb   *bān-kúsɛ̄l-*

bāŋ^a   *n.* ring, chain, fetter

     pl   *bāaňs*^e

     cb   *bàŋ-*

bàŋ^a   *n.* agama lizard

bàŋ^e   *vv.* come to know

báp   wallop!

Bārιg^a/   *n.* Bisa person 37.4 ; not only the Bareka, WK

     pl   *Bārιs*^e/

     cb   *Bār-*

bárιkà^+   *n.* blessing; in greetings 36

                           (← Arabic بركة) *baraka(tun)*)

Bārʊg^o/   *n.* Bisa country; North 37.3

bàs^e   *vv.* go away; abandon

Bāt^{e/}		*n.* Bisa language 37.4
bàtáň^{ˀ+}		*q.* three (after personal pronoun 18.2.2)
bàu̯ŋʋ⁺		*n.* found only as in
		*Ò kpèň*ˀ *báu̯ŋʋ̀.* "He was circumcised."
		(← Songhay "pool"; for the idiom 20.1)
bàyɛ̄og^{o/}		betrayer of secrets cf *yɛ̄ɛs*^{e/}
bàyí⁺		*q.* two (after personal pronoun 18.2.2)
bàyɔ́pɔ̀ẹ⁺		*q.* seven (after personal pronoun 18.2.2)
bὲ⁺		*iv.* exist; be in a place 26.1
	ger *bὲlím*^m *sic*	
bɛ̄dɪg^{e/}		*vv.* go rotten
bὲdʋg^o *bὲdɪr*^e		*adj.* great
	pl *bὲda*⁺	
	cb *bὲd-*	
bὲdʋgū^{+/}		*q.* much, a lot 18.1
bɛ̄ɛ		or 29.1.2 30.2.2
bὲkὲkὲoňg^o or *bὲkὲoňg*^o		*n.* very early morning
bὲlɪm^m		*vv.* beg
bὲlɪs^e		*vv.* comfort
bɛ̄n^{ne}		*n.* end
	pl *bɛ̄na*⁺	
	cb *bὲn-*	
bὲň^{ˀ+}		*vv.* fall ill
	ger *bɛ̄ň*ˀ*ɛs*^e	
bὲňsɪg^e		*vv.* serve soup
bὲŋ^e		*vv.* mark out a boundary
bɛ̄ŋíd^e		*n. pl* bean leaves
	cb *bɛ̄ŋ-*	*Vigna unguiculata* (Haaf)
	bɛ̄ŋíd nɛ̄ kī^{+/}	*n.* beanleaf-and-millet, a traditional snack
bɛ̄ŋír^e		*n.* brown bean
	pl *bɛ̄ŋá*⁺	
	cb *bɛ̄ŋ-*	
bɛ̄og^o		*n.* tomorrow 37.8
		Kà bɛ̄og níe kà ... "The next day ..."
bɛ̄ogʋn^{e/}		*n.* morning 37.8
*bɛ̄*ˀ*og*^o *bī*ˀ*a*⁺		*adj.* bad
	pl *bɛ̄*ˀ*ɛd*^e *bī*ˀ*əs*^e	
	cb *bὲ*ˀ- *bi̯à*ˀ-	
bὲrɪŋ^a		*n.* a plant used for fibre (KED)
	pl *bὲrɪgɪs*^e *sic*	*Hibiscus cannabinus* (Haaf)

bɛ̄rɪga⁺   *pl* leaves of *bɛ̀rɪŋ* used for soup (KED)

     cb   *bɛ̀rɪg-*

bɛ̄sʋg^o   *n.* a kind of wide-mouthed pot

     pl   *bɛ̄sɪd*^e

     cb   *bɛ̀s-*

bi̯āň'ar^{e/}   *n.* wet mud, black mud; riverbed

     pl   *bi̯āň'adá*⁺ *bi̯āň'á*⁺

     cb   *bi̯āň'-*

bi̯āu̯ňk^o   *n.* shoulder

     pl   *bi̯āň'ad*^e

     cb   *bi̯àň'-*

bīə̄l^{le}   *adj.* naked

     pl   *bīəlá*⁺

bìəl^e   *vv.* accompany

bī'əlá⁺   *q.* a little ⏐18.1⏐

     bī'əl bī'əl   *q. and adv.* a very little; little by little

bī'əm^m   *n.* enemy

     pl   *bì'əm-nàm*^a *bī'əmma* LF

     cb   *bì'əm-*

bīən^{ne}   *n.* shin

     pl   *bīəna*⁺

     cb   *bìən-*

bīər^{e/}   *n.* elder sibling of the same sex

     pl   *bi̯ēyá*⁺

     cb   *bi̯ā-*

bì'əs^e   *vv.* doubt

bìgɪs^e   *vv.* show, teach

bīig^a   *n.* child

     pl   *bīis*^e

     cb   *bì- bī-*

           bī-díbìŋ^a   *n.* boy

           bì-līa⁺   *n.* baby

           bì-nà'ab^a   *n.* prince

           bì-pīt^{a/}   *n.* father's younger brother ⏐37.1⏐

                pl bì-pītíb^a

                cb bì-pīt-

           bī-púŋ^a   *n.* girl

bì'ig^e   *vv.* ripen, become pregnant

bīilíf^o   *n.* seed

     pl   *bīilí*⁺

     cb   *bīil-*

*bìilɩm*ᵐ		*n.* childhood
*bìilím*ᵐ		*n.* childhood
*bīɩm*ᵐ/		*n.* soup, stew
cb	*bī-*	
*bìʔisím*ᵐ		*n.* milk (human or animal)
*bìʔisɩr*ᵉ		*n.* woman's breast
pl	*bìʔisa*⁺	
cb	*bìʔis-*	
*bīl*ᵃ		*adj.* little, small
pl	*bībɩs*ᵉ	
cb	*bìl-* or *bì-*	
*bìlɩg*ᵉ		*vv.* roll (transitive)
*bìlɩm*ᵐ		*vv.* roll (intransitive)
*bìmbìm*ᵐᵉ		*n.* altar NT (KED: "mound or pillar of earth")
pl	*bìmbìma*⁺	
cb	*bìmbìm-*	
*Bìn*ⁿᵉ		*n.* Moba, Bimoba person 37.4
		not only Bemba, WK
pl	*Bìm*ᵐᵃ	
cb	*Bìn-*	
*Bìn*ⁿᵉ		*n.* Moba language 37.4
*bīn*ⁿᵉ/		*n.* excrement (possibly Tone Pattern O)
*Bìųŋ*ᵒ		*n.* Moba country 37.4
bɔ̀⁺		*vv.* seek
*bɔ̀ɔd*ᵃ		*ipfv* used for:
		want, like, love (sexual, romantic)
ger	*bɔ̀ɔdɩm*ᵐ	*ipfv* gerund "will" 15.1.1.4
bɔ̄⁺		what? why? 17.4
cb	*bɔ̀-*	
	bɔ̀-būudɩ⁺	what sort of ..?
	bɔ̄-zúgū	because 29.1.2 ; why? 19.1
	*bɔ̀-wìn*ⁿᵉ	what time of day?
*bɔ̀bɩg*ᵉ		*vv.* wrap round, tie round
*bɔ̀dɩg*ᵉ		*vv.* lose, become lost
bɔ̀dɔ̀bɔ̀dɔ̀⁺		*n.* bread (? ultimately ← English)
*bɔ̀k*ᵒ		*n.* pit
pl	*bờʔad*ᵉ	
cb	*bųʔà-*	
*bɔ̄sɩr*ᵉ		*n.* a kind of small, very poisonous snake
pl	*bɔ̄sa*⁺	
cb	*bɔ̀s-*	

bū̠ˀ⁺			*vv*. beat
*bṵàk*ᵉ			*vv*. split
*bṵ̀ˀar*ᵉ			*n*. hole
	pl	*bṵˀàa⁺*	
	cb	*bṵˀà-*	
*bū̠ˀar*ᵉ/			*n*. skin bottle
	pl	*bṵˀāá⁺*	
	cb	*bṵˀā-*	
*bṵ̀d*ᵉ			*vv*. plant seeds
	ger	*bū̠dɪg*ᵃ *bū̠dʋg*ᵒ	
*bṵ̀dɪm*ᵐ			*vv*. get confused
*bṵ̀dɪmís*ᵉ			*n*. confusion
bṵ̀ˀe⁺			*vv*. pour out
*bṵ̀g*ᵉ			*vv*. get drunk; cf Hausa *bùgu* id
*bū̠gʋd*ᵃ			*n*. client of a *bā̠ˀa*⁼ (traditional diviner)
*bṵ̀gʋlɪm*ᵐ			*vv*. cast lots
*bū̠gʋr*ᵉ			*n*. dwelling-place of a *wīn*ⁿᵉ (localised spirit);
	pl	*bū̠ga⁺*	also a *wīn*ⁿᵉ inherited from one's mother
	cb	*bṵ̀g-*	
*bṵ̀gúm*ᵐ			*n*. fire
	cb	*bṵ̀gū̠m- bṵ̀gúm-*	
		*Bṵ̀gúm-tɔ̄ɔňr*ᵉ	*n*. Fire Festival
*bū̠gʋs*ᵃ/			*iv*. be soft
*bū̠gʋsíg*ᵃ *bū̠gʋsír*ᵉ			*adj*. soft, weak
	pl	*bū̠gʋsá⁺*	
	cb	*bū̠gʋs-*	
bū̠gʋsígā̠⁺/			*adv*. softly 22.4
*bū̠gʋsím*ᵐ			*n*. softness, weakness
*bū̠k*ᵉ/			*vv*. weaken
*bṵ̀k*ᵉ			*vv*. cast lots
*bṵ̀l*ᵉ			*vv*. germinate, ooze
*bṵ̀l*ᵉ			*vv*. astonish
*Bṵ̀l*ˡᵉ			*n*. Buli language 37.4
*Bṵ̀lɪg*ᵃ			*n*. Bulsa person 37.4
	pl	*Bṵ̀lɪs*ᵉ	
	cb	*Bṵ̀l-*	
*bṵ̀lɪg*ᵃ			*n*. well, pond
	pl	*bṵ̀lɪs*ᵉ	
	cb	*bṵ̀l-*	

*bùmbàrıg*ᵃ			*n.* ant
	pl	*bùmbàrıs*ᵉ	
	cb	*bùmbàr-*	
*bùn*ᵉ			*vv.* reap, harvest
*būn*ⁿᵉ/			*n.* thing (concrete or abstract) 21.9.3
	pl	*būná*⁺ *būn-nám*ᵃ	
	cb	*būn-*	
		*būn-búʋdìf*ᵒ	*n.* plant
		*būn-gíŋ*ᵃ	*n.* short chap (informal, joking)
		*būn-kɔ́ñbʋ̀g*ᵒ	*n.* animal
		*pl būn-kɔ́ñbìd*ᵉ	
		cb kɔ̀ñb-	used as *cb*
		*būn-kúdʋ̀g*ᵒ	*n.* old man
*būn-dáàr*ᵉ			which day? 19.1
*bùŋ*ᵃ			*n.* donkey
	pl	*bùmıs*ᵉ	
	cb	*bùŋ-*	
*bùŋ*ᵉ			*vv.* take a short cut
*bùɵl*ᵉ			*vv.* call, summon
			Ò yū'ur búèn X. "She is called X." 25.2
*bùɵr*ᵉ			*n.* grain store, silo
	pl	*bu̱èya*⁺	
	cb	*bu̱à-*	
*bū'ɵs*ᵉ			*vv.* ask
	ger	*bū'ɵsúg*ᵒ	*n.* question
bù-pīiga			*adv.* ten times 18.2.5
būráa⁼			*n.* man, male adult; in ILK but characteristically *Toende* Kusaal; no examples in NT. See *dāu̱*⁺
būrıyá⁺			*n.* Christmas (Twi/Fante ← *bronya*)
*bùrkìn*ᵃ			*n.* free person; honourable person
	pl	*bùrkìn-nàm*ᵃ	(← Songhay, probably via Mooré 20.1)
	cb	*bùrkìn-*	
*Bùsáàñl*ᵉ			*n.* Bisa language 37.4
*Bùsáŋ*ᵃ			*n.* Bisa person 37.4
	pl	*Bùsáàñs*ᵉ	
	cb	*Bùsāŋ-*	
*būtıŋ*ᵃ			*n.* cup (in general; etymologically "seed planting [cup]")
	pl	*būtııs*ᵉ	*irregular* 7.2.1 3.4
	cb	*bùtıŋ-*	

būudɩ⁺   *n.* kind, sort, ethnic group
  cb *bùud-*
būʋg^a   *n.* goat
  pl *būʋs*^e
  cb *bù-*
    bù-dìbɩg^a   *n.* male kid

D

dà   before two days ago, Tense Particle $\boxed{24.3.1}$
dā   "not" with Imperative Mood $\boxed{24.5}$
dàa   day after tomorrow, Tense Particle $\boxed{24.3.1}$
dāa   before yesterday, Tense Particle $\boxed{24.3.1}$
dàʔ⁺   *vv.* buy
dàʔa⁼   *n.* market
  pl *dàʔas*^e
  cb *dàʔ-*
dàʔabɩr^e   *n.* slave
dàalɩm^m   *n.* masculinity
dàalím^m   *n.* male organs
  pl *dàalímìs*^e
dāam^{m/}   *n.* millet beer, "pito"
  cb *dā-*
    dā-núùr^e   *n.* beer-drinking
    dā-bín^{ne}   *n.* residue of beer; NT "yeast"
    cb dā-bín-
dàam^m   *vv.* disturb, trouble; cf Hausa *dàamaa* id
dāan^a   *n.* owner of ... $\boxed{21.9.3}$
  pl *dàan-nàm*^a
  cb *dàan-*
dāar^e   *n.* day, 24-hour period $\boxed{37.8}$
  pl *dābá*⁺
  cb *dà-*
    dà-pīiga⁺   *n.* ten days
dābíə̀m^m *tone sic*   *n.* fear
dàbīog^o   *n.* coward
  pl *dàbīəd*^e
  cb *dàbi̧à-*
dàbɩsɩr^e   *n.* day (as one of several)
  pl *dàbɩsa*⁺
  cb *dàbɩs-*

*dādʊ́k*ᵒ   *n.* a kind of large pot

dāˀe⁺ᐟ   *vv.* push; blow (of wind)

*Dàgáàd*ᵃ   *n.* Dagaaba person (L toneme prefix *sic*)

     pl   *Dàgáadìb*ᵃ *Dàgáàd-nàm*ᵃ

     cb   *Dàgáàd-*

*Dàgbān*ⁿᵉᐟ   *n.* Dagomba person 37.4

     pl   *Dàgbām*ᵐᵃᐟ

     cb   *Dàgbān-*

*Dàgbān*ⁿᵉᐟ   *n.* Dagbani language 37.4

*Dàgbāʊ̯ŋ*ᵒᐟ   *n.* Dagomba country, Dagbon 37.4

*dàgɔ̀bɪg*ᵃ   *n.* left-hand

dāká⁺   *n.* box (← Hausa *ʔàdakàa*)

     pl   *dāká-nàm*ᵃ

     cb   *dāká-*

*dàkīig*ᵃ   *n.* wife's sibling 37.1

     pl   *dàkīis*ᵉ

     cb   *dàkì-*

         dàkì-dāʊ̯⁺   *n.* wife's brother

         *dàkì-pʊ̯āk*ᵃ   *n.* wife's sister

         dàkì-tùa⁺   *n.* wife's sister's husband

*dà-kɔ̀ɔ̌r*ᵉ   *n.* unmarried son 37.1

     pl   *dà-kɔ̀ňya*⁺

     cb   *dà-kɔ̀ň-*

*dàm*ᵐ   *vv.* shake

     ipfv   *dàmɪd*ᵃ

dàmàˀa⁼   *n.* liar cf *màˀ*⁺

*dàmàˀam*ᵐ   *n.* lie, untruth, lying

*dàmàˀar*ᵉ   *n.* lie, untruth

*dāmpʊ̄sāar*ᵉ   *n.* stick

*dànkɔ̀ŋ*ᵒ   *n.* measles

*dà-pāal*ᵃᐟ   *n.* young man, son

*dà-sāŋ*ᵃ   *n.* young man

     pl   *dà-sāaňs*ᵉ *dà-sām*ᵐᵃ

     cb   *dà-saŋ-*

dà-tāa⁼   *n.* enemy

     pl   *dà-tāas*ᵉ

     cb   *dà-tà-*

*dàtìʊ̯ŋ*ᵒ   *n.* right-hand

dāʊ̯⁺   *n.* man (as opposed to woman)

     pl   *dāp*ᵃ

     cb   *dàʊ̯- dàp-*

dàʊgᵒ			*n.* piece of wood, log
	pl	*dàadᵉ*	*pl* also: wood (material)
	cb	*dà-*	
		dà-kīədᵃ	*n.* wood-cutter
		dà-kpī'ədᵃ	*n.* carpenter
		dà-pūʊdírᵉ	*n.* cross-piece
		pl dà-pūʊdá⁺	*n.* used as sg cross NT
dāʊgᵒ			*adj.* male
	pl	*dāadᵉ*	
	cb	*dà-*	
dàwàlɪgᵃ			*n.* hot humid season before the rains
dàwānⁿᵉ/			*n.* pigeon
	pl	*dàwāná⁺*	
	cb	*dàwān-*	
dàyáamᵐᵃ			*n.* husband's parent 37.1
	pl	*dàyāam-námᵃ*	
	cb	*dàyāam-*	
		dàyāam-dáu̯⁺	*n.* husband's father
		dàyāam-pu̯ákᵃ	*n.* husband's mother
dàyūugᵒ/			*n.* rat
	pl	*dàyūudᵉ/*	
	cb	*dàyū-*	
dèbɪrᵉ			*n.* mat, pallet, bed
	pl	*dèba⁺*	
dɛ̄ɛŋᵃ			*q.* first 18.2.4
	pl	*dɛ̄ɛňsᵉ dɛ̄ɛmɪsᵉ dɛ̄ɛna⁺*	
	cb	*dèɛŋ-*	
dɛ̄lˡᵃ/			*iv.* lean on something (of a person)
	ger	*dɛ̄llúgᵒ dɛ̄llímᵐ*	
dèlɪmᵐ			*vv.* begin to lean
dɛ̄ŋᵃ			*n.* accidental bruise
	pl	*dɛ̄mɪsᵉ*	
	cb	*dèŋ-*	
dèŋᵉ			*vv.* go, do first
dèŋɪm			beforehand, Particle-Verb 24.7.2
dì			it, its (Proclitic) 17.1 = *lì*

dì +			*vv*. eat, receive
	ipfv	*dìt*a	
	imp	*dìm*ma	
	ger	*dīɩb*o	*n*. food
			Ò dì pṳʾā. "He's married a wife."
			Ò dì ňyán. "She's ashamed."
*dɩ̰ā̰ʾ*a			*vv*. get dirty
*dɩ̰ā̰ʾad*e/			*n*. dirt
dīʾe +/			*vv*. receive, get
*dìəm*ma			*n*. wife's parent 37.1 ; also polite address by a man to an unrelated woman of similar or greater age
	pl	*dìəm-nàm*a	
	cb	*dìəm-*	
		dìəm-dāṳ +	*n*. wife's father
		*dìəm-pṳāk*a	*n*. wife's mother
*dìʾəm*m			*vv*. play, not be serious
dìʾəma +			*n*. festival
*dīʾəs*e/			*vv*. make receive
*dīgɩ*ya/			*iv*. be lying down
	ger	*dīk*a/ KT *dīgɩr*e/ WK	
dīgɩsá +			*n. pl* lairs
*dīgɩl*e/			*vv*. lay down
*dìgɩn*e			*vv*. lie down
*dìgɩr*e			*n*. dwarf
	pl	*dìga* +	
	cb	*dìg-*	
*dìɩs*e			*vv*. feed
	agt	*dìɩs*a	*n*. glutton
*dìɩsúŋ*o			*n*. spoon
	pl	*dìɩsímà* + *dìɩsís*e	
	cb	*dìɩsúŋ-*	
*dìm*a			dummy head pronoun, human pl 21.9.3
*dìn*ne			dummy head pronoun, non-human 21.9.3
dín			it (Subject of *ǹ*-Clause) 17.1
*dīn*e			it (Contrastive) 17.1 = *līn*e
*dìndēog*o/			*n*. chameleon
	pl	*dìndɛ̄ɛd*e/	
	cb	*dìndɛ̄-*	
*dìndìɩs*a			*n*. glutton
*dìn zúg*o			therefore 19.1

dìtúŋ^o

n. right-hand: see *dàtìu̯ŋ*^o

dì-zɔ̄rʋg^{o/}

n. crumb

    pl   *dì-zɔ̄rá*⁺

    cb   *dì-zɔ̄r-*

dɔ̄l^{la/}

iv. accompany in a subordinate rôle

    ger   *dɔ̄llím*^m

Ànɔ́ˀɔnì dɔ̄llí fò? "Who has come with you?" (to an elderly patient.)

Bà dɔ̀l nɛ̄ tāaba. "They went together."

dɔ̄lɩg^{e/}

vv. make accompany, send along with

dɔ̄lɩs^{e/}

vv. investigate, trace

dɔ̄ñlɩg^{e/}

vv. stretch oneself

dɔ̀ñˀɔs^e

vv. water plants

dɔ̀ɔg^o

n. house, hut; clan

    pl   *dɔ̀ɔd*^e *dɔ̀t*^e

    cb   *dɔ̀-*

    dɔ̀ɔg bîig^a

n. (house) cat

dɔ̀ɔ̌ŋg^o

n. dawadawa fruit 37.5

    pl   *dɔ̀ɔ̌ňd*^e

    cb   *dɔ̀ň-*

dɔ̄⁺

vv. go up

    ipfv   *dɔ̄t*^{a/}

    imp   *dʋ̀m*^{ma}

du̯ˀà^a

vv. bear, beget

    agt   *dʋ̄ˀad*^a

n. elder relation

dʋ̀ˀal^e

vv. make interest (of a loan)

dʋ̄ˀam^m

n. birth

dùaǎň⁺

n. dawadawa 37.5

    pl   *dɔ̀ɔ̌ňs*^e

Parkia clappertoniana [= *biglobosa*] (Haaf)

    cb   *dɔ̀ň-*

du̯ˀátà⁺

n. doctor (← English)

dūe^{+/}

vv. raise, rise

dūg^e

vv. cook

dūk^{o/}

n. cooking pot

    pl   *dūgʋd*^{e/} *dút*^e

    cb   *dūg-*

    dūg-pɛ́ˀɛla⁺

n. full pots

dʋ̀m^m

vv. bite

dūm^{me} *dūm*^{ne}

n. knee

    pl   *dūma*⁺

    cb   *dùm-*

dùndùug^o   *n.* cobra
     pl   *dùndùud*^e
     cb   *dòndù-*
dūnɩya^+   *n.* world (← Arabic دنيا *dunya:*)
     cb   *dūnɩyá-*   11.7
dūnná^+   *adv.* this year 37.8
dūŋ^a   *n.* mosquito
     pl   *dūmɩs*^e
     cb   *dùŋ-*
dūɵr^e/   *n.* stick
     pl   *du̯ēyá*^+
     cb   *du̯ā-*
*dū*ʔ*ɵs*^e/   *vv.* lift up, honour
dùr^a   *iv.* be many
*dù*ʔ*un*^e   *vv.* pass water
*dū*ʔ*uním*^m   *n.* urine
     cb   *dū*ʔ*un-*
dūʋsá^+   *n. pl.* steps

E

ɛ̄ɛɴ̌   yes 30.2.4
ɛ̄ɛɴ̌ or *ɛ̄ɛɴ̌ tí*   see *ɴ̌yɛ̄ɛ*, *ɴ̌yɛ̄ɛ tí* Particle-Verb 24.7.2
ɛ̄ɛɴ̌b^e/   *vv.* lay a foundation
ɛ̄ɛɴ̌bír^e   *n.* foundation 14.1.2
èɴ̌bɩs^e   *vv.* scratch
èɴ̌d^e   *vv.* block up, plug up
èɴ̌dɩg^e   *vv.* unblock, unplug
èɴ̌rɩg^e   *vv.* shift along (e.g. a bench)

F

fāaɴ̌^=   *q.* every 18.1
fāeɴ̌^+/   *vv.* save
     agt   *fāaɴ̌d*^a/ *fāaɴ̌gíd*^a   *n.* saviour 20.1
fāɴ̌^+   *vv.* grab, rob
fáss   ideophone for *pìəlɩg*^a "white" 21.8.1.3
fɛ̄ɛg^e/   *vv.* (of food) get old, cold
*fɛ̄ɴ̌*ʔ*og*^o/   *n.* ulcer
     pl   *fɛ̄ɴ̌*ʔ*ɛd*^e/
     cb   *fɛ̄ɴ̌*ʔ*-*

*fɩəb*ᵉ		*vv.* beat	
*fɩʔig*ᵉ		*vv.* cut off	
fɩiň⁼		*q.* a little (liquid)	18.1
fɩtlá⁺		*n.* lamp (← Hausa *fitilàa*)	
*fɔɔs*ᵉ⁄		*vv.* blow, puff (wind)	
	ger *fɔɔsʊ́g*ᵒ	*n.* hypocrisy NT	
fù		you, your sg (Proclitic)	17.1
fᵒ		you sg (Enclitic object)	17.1
fùe⁺		*vv.* draw out	
*fʊ̄fʊ̄m*ᵐᵉ		*n.* envy; also: stye (believed to result from envy)	
	pl *fʊ̄fʊ̄ma*⁺		
	cb *fʊ̄fʊ́m-*		
fʊ́n		you *sg* (as subject of *ǹ*-Clause)	17.1
fʊ̄n SF *fʊ́nè* LF		you *sg* (contrastive)	17.1
*fʊ̄ug*ᵒ⁄		*n.* shirt, clothing	
	pl *fʊ̄ud*ᵉ⁄ *fʊ̄t*ᵉ⁄	*pl* also: cloth	
	cb *fʊ̄-*		

G

*gàad*ᵉ		*vv.* pass, surpass	28.3.2
gáafàra		sorry (in formulae,	36)
*gàʔal*ᵉ		*vv.* button up	
*gàʔam*ᵐ		*vv.* grind teeth	
gāaň⁼⁄		*n.* Nigerian ebony	37.5
	pl *gāaňs*ᵉ⁄	*Diospyros mespilliformis* (Haaf)	
	cb *gāň-*		
*gàas*ᵉ		*vv.* pass by	
gādʋ⁺ *gādʋg*ᵒ⁄		*n.* bed (← Hausa *gadoo*)	
	pl *gādʋ-nám*ᵃ *gāt*ᵉ⁄		
	cb *gād- gādʋ-*		
*gàlɩm*ᵐ		*vv.* joke	
*gàlɩs*ᵉ		*vv.* exceed, get to be too much	
*gāňr*ᵉ⁄		*n.* fruit of Nigerian ebony	37.5
	pl *gāňyá*⁺		
	cb *gāňr-*		
*gàŋ*ᵉ		*vv.* step over	
*gāŋ*ᵉ⁄		*vv.* choose	
gbāňʔe⁺⁄		*vv.* catch	
gbáňyàʔa⁼		*n.* lazy person	20
*gbáňyàʔam*ᵐ		*n.* laziness; 1976 NT *gonya'am*	

gbàu̯ŋ[o]   *n.* book WK
    pl   gbàna[+]
    cb   gbàn- gbàu̯ŋ-

gbāu̯ŋ[o/]   *n.* animal skin WK; animal skin, book DK
    pl   gbāná[+]
    cb   gbān- gbāu̯ŋ-

gbɛ́ɛ̀ňm[m]   *n.* sleep
    cb   gbɛ̄ň-

gbɛ̀ʔog[o]   *n.* forehead; shore of a lake
    pl   gbɛ̀ʔɛd[e] gbɛ̀da[+]
    cb   gbɛ̀ʔ-

gbɛ̄r[e/]   *n.* thigh
    pl   gbɛ̄yá[+]
    cb   gbɛ̄r-

gbīgɩm[ne]   *n.* lion
    pl   gbīgɩma[+]
    cb   gbìgɩm-

gbìn[ne]   *n.* buttock; base (e.g. of a mountain); meaning as postposition 22.6
    pl   gbìna[+]
    cb   gbìn-

gbìn-vɔ̀ɔ̌r[e]   *n.* anus
gbīs[e]   *vv.* sleep
gɛ̄ɛl[e/]   *vv.* place between one's legs; Pattern H
gɛ̄ɛňm[m/]   *vv.* go mad, madden
    pl   gɛ̄ɛňmís[e]   *n. pl as sg* madness
gɛ́ɛňŋ[a]   *n.* madman
    pl   gɛ̄ɛňmís[e]
gɛ́l[le]   *n.* egg
    pl   gɛ̄lá[+]
    cb   gɛ̄l-
gɛ̄ň[+]   *vv.* get tired
    pfv adj gɛ̄ɛňlúŋ[o]   *adj.* tired
gɛ̄ň[ʔ+]   *vv.* get angry
gēog[o]   *n.* place between one's legs; Pattern O
gīiňlím[m]   *n.* shortness
gìk[a]   *n. or adj.* dumb
    pl   gìgɩs[e]
    cb   gìg-
gīlɩg[e/]   *vv.* go around 13.1.2
    ipfv   gīn[na/]

gīm^ma/			*iv.* be short
gīŋ^a			*adj.* short
	pl	*gīma*^+	
	cb	*gìŋ-*	
gìŋ^e			*vv.* scrimp
gīŋa^+			*adv.* shortly 22.4
gīŋιlím^m			*n.* shortness
gɔ̄dιg^e/ *gɔ̀ʔɔn*^e			*vv.* look up
gɔ̄l^la/ *gɔ̄r*^a/ *gɔ̄ʔe*^ya/			*iv.* be looking up
gɔ̀ñ^+			*vv.* hunt
	ipfv	*gɔ̀ɔ̌nd*^a	wander
	ger	*gɔ̀ɔ̌ndιm*^m	15.1.1.4
Gɔ̀ɔg^a			*n.* clan name 37.4
	pl	*Gɔ̀ɔs*^e	
Gɔ̀ɔg^o			*n.* place of the Goosi clan
gɔ̀ʔɔn^e			*vv.* look up
gɔ̄r^a/			*iv.* be looking up
gɔ̄s^e			*vv.* look
	ipfv	*gɔ̄sιd*^a/ *gɔ̄t*^a/	
	imp	*gɔ̀sιm*^a *gɔ̀m*^ma	
	ger	*gɔ́sìg*^a	
	agt	*gɔ̄t*^a/	*n.* seer, prophet
gʋ̀l^e			*vv.* suspend
	ipfv	*gʋ̀n*^na	
gʋ̀l^la			*iv.* be suspended
	ger	*gʋ̄lιb*^o	
gʋ̀llιm^ne			only; Post NP/AdvP Particle 34.6
gʋ̀m^me			*n.* kapok fruit 37.5; also "thread" WK
	pl	*gʋ̀ma*^+	
Gʋ̀m^me			*n.* place of the clan *Gʋ̀m-dìm*^a 37.4
gʋ̄mpʋ̄zɛ̄r^e/			*n.* duck
	pl	*gʋ̄mpʋ̄zɛ̄yá*^+	
	cb	*gʋ̄mpʋ̄zɛ́r-*	
gʋ̀ñʔa^+			*n.* thorn
	pl	*gɔ̀ñʔɔs*^e	
	cb	*gɔ̀ñʔ-*	
gʋ̀ngʋ̄m^me			*n.* kapok material
gʋ̀ŋ^a			*n.* kapok tree 37.5
	pl	*gʋ̀mιs*^e	*Ceiba pentandra* (Haaf)
	cb	*gʋ̀ŋ-*	

*gūr*ᵃ/		*iv.* be on guard, watch for 31.2
	ger	*gūrím*ᵐ
*Gūrín*ⁿᵉ		*n.* Farefare language 37.4
*Gūríŋ*ᵃ		*n.* Farefare person 37.4
	pl	*Gūrís*ᵉ
*gūʔul*ᵉ/		*vv.* put on guard
*gʊ̀ʔʊlɩm*ᵐ		*vv.* become half-ripe
*gʊ̀ʊr*ᵉ		*n.* upland; bank of river
	pl	*gʊ̀ya*⁺
	cb	*gʊ̀-*
*gʊ̄ʊr*ᵉ		*n.* ridge of back
	pl	*gʊ̄ya*⁺
	cb	*gʊ̀-*
*gū ʔus*ᵉ/		*vv.* take care, watch out
*gʊ̄ʔʊs*ᵉ		n *pl.* half-ripe fruit

H

hālí⁺	until, up to and as far as 29.3 28.4 23.2
	Probably ultimately ← Arabic حتى *ħatta:*

I

i̯ā⁺		*vv.* seek
*i̯āň ʔas*ᵉ/		*vv.* leap
*i̯āňk*ᵉ/		*vv.* leap, fly 13.1.2
	ger	*i̯āň ʔad*ᵃ/
	agt	*i̯āň ʔad*ᵃ/
*īgɩ*ʸᵃ/		*iv.* be kneeling
	ger	*īk*ᵃ/ KT *īgɩr*ᵉ/ WK
*īgɩl*ᵉ/		*vv.* make to kneel
*ìgɩn*ᵉ		*vv.* kneel down
*íɩl*ˡᵉ		*n.* horn
	pl	*īɩlá*⁺
	cb	*īɩl-*
*īsɩr*ᵉ		*n.* scar
	pl	*īsa*⁺
	cb	*ìs-*
*ìsɩg*ᵉ		*vv.* get up early

K

kà		and, that 29.1.2 30.3.2
kāab^e/		*vv.* offer, invite
kāal^e/		*vv.* count
kāas^e/		*vv.* cry out, weep; (cock) crow
kàʔasɪge		*iv.* not exist 35.1.1
kābɪg^e/		*vv.* ladle out (liquid)
kābɪr^e/		*vv.* call out asking for admission 36
	ger	*kābɪrí*^+	*n.* calling out for admission
kàd^e		*vv.* drive away
	kàd sàríyà		*vv.* judge 25.1.3
	agt	*sàríyà-kāt*^a	*n.* judge NT
kāʔe̞^+		*iv.* not exist, not be, not have 35.1.1 9.1.3
	ger	*kāʔalím*^m	
kāl^le/		*n.* number
	pl	*kālá*^+	
	cb	*kāl-*	
kàlɪgā^+/		*q.* few 18.1
kàm^a		*q.* every 18.1
Kàmbʊ̀nɪr^e		*n.* Twi language 37.4
Kàmbʊ̀ŋ^a		*n.* Ashanti person 37.4
	pl	*Kàmbʊ̀mɪs*^e	
	cb	*Kàmbʊ̀ŋ-*	
kàn^e		this, that (Demonstrative 17.2)
kàňb^e		*vv.* scorch
	ger	*kāňbɪr*^e	
kàŋā^+/		this, that (Demonstrative 17.2)
kàr^a		*iv.* be few
kárɪfà		from Hausa *ƙarfèe*; used in telling time 37.8
kàrɪm^m		*vv.* read
kàsɛ̄t^a/		*n.* witness; testimony; ?ultimately Songhay, cf Humburi Senni *kàsé:tè* "inform in advance"
	pl	*kàsɛ̄tíb*^a	*plural* witnesses
kɛ̄^+		*vv.* let, cause to ... 13.1.2 31.2
	ipfv	*kɛ̄t*^a/	
	imp	*kɛ̀l*^a	
kɛ̀ɛkɛ̀^+		*n.* bicycle (← Hausa *kèekè*)
	pl	*kɛ̀ɛkɛ̀-nàm*^a	
	cb	*kɛ̀ɛkɛ̀-*	
kɛ̀ɛs^e		*vv.* say farewell to

kɛ̀lɪs^e			*vv.* listen
kɛ̄ň⁺			*vv.* come 13.1.2 ; always with *nā* 25.7
	ipfv	*kɛ̄n*^{a/}	
	imp	*kɛ̀m*^a	
	ger	*kɛ̄n*^{ne/}	
		kɛ̄n kɛ̄n	welcome! 36
kɛ̄ŋ^{e/}			*vv.* go; walk 13.1.2
	ipfv	*kɛ̄n*^{na/}	
	imp	*kɛ̀m*^{ma}	disambiguated with *sà* 25.7
	agt	*kɛ̄n*^{na/}	*n.* traveller
kī^{+/}			*n.* cereal, millet
	cb	*kī- kā-*	
		*kì-dà*ʔ*ar*^e	*n.* purchased millet
		*pl kì-dà*ʔ*ada*⁺	
		kā-wɛ̄nnɪr^e	*n.* corn
		pl kā-wɛ̄nna⁺	
		cb kā-wɛ́n-	
ki̯à⁺			*vv.* cut
kīdɪg^{e/}			*vv.* cross over
		*À-Kīdɪgɪ Bū*ʔ*ɵs*	*n.* the constellation Orion
kīibʊ́⁺			*n.* soap WK; probable Mampruli loan 20.1 ; written materials *ki'ib*^o, probably *kī*ʔ*ɪb*^{o/}
	cb	*kīib-*	
kíiňf^o			*n.* millet seed
	pl	*kīiní*⁺	
kìɪs^e			*vv.* listen
*kī*ʔ*ɪs*^{e/}			*vv.* deny
kìkàm^{me}			*n.* fig 37.5
	pl	*kìkàma*⁺	
kìkàŋ^a *kìnkàŋ*^a			*n.* fig tree 37.5
	pl	*kìkàmɪs*^e	*Ficus capensis* (Haaf)
	cb	*kìkàŋ-*	
kìkīrɪg^{a/}			*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 *kìkīrɪs*^{e/} hostile to man live in the bush. "Their feet are attached backwards to confuse trackers." WK
	pl	*kìkīrɪs*^{e/}	
	cb	*kìkīr-*	
		*kɪkīr-bɛ́*ʔ*ɛ̀d-nàm*^a	*n.* NT evil spirits, demons
kīlɪm^{m/}			*vv.* become, change into

kìm^m			*vv*. tend flock, herd
	agt	*kɔ̀ñb-kīm*^{na}	*n*. herdsman, shepherd
kīr^e			*vv*. hurry, tremble
	ger	*kıkírʊ̀g*^o *kīrıb*^o	
kīs^{a/}			*iv*. hate
	ger	*kísʊ̀g*^o	
	agt	*kīs*^{a/} *kīsıd*^{a/}	
kísʊ̀g^o			*adj*. hateful, taboo
kɔ̀⁺			*vv*. get broken, break (intransitive)
	pfv adj	*kɔ̀ɔlʊ́ŋ*^o	*adj*. broken
kɔ̀bıgā kɔ̀bısí⁺			*q*. one hundred, two hundred [18.2.2]
kɔ̄bır^e			*n*. bone
	pl	*kɔ̄ba*⁺	
	cb	*kɔ̀b-*	
kɔ̄dʊ́⁺			*n*. banana ← Twi *kwadu*
kɔ̄lıg^a			*n*. river
	pl	*kɔ̄lıs*^e	
	cb	*kɔ̀l-*	
		kɔ̄lʊgʊn nɔ́-dáʊ̀g^o	*n*. crayfish
kɔ̀lʊg^o			*n*. sack, bag
	pl	*kɔ̀n*^{ne}	
	cb	*kɔ̀lʊg-*	[11.2.2]
kɔ̄m^{m/}			*n*. hunger
	cb	*kɔ̄m-*	
kɔ̄ñbʊg^o			*n*. animal hair or human body hair; cf *zūɵbʊ́g*^o
	pl	*kɔ̄ñbıd*^e	
	cb	*kɔ̀ñb-*	also used as *cb* of *būn-kɔ́ñbʊ̀g*^o animal
	agt	*kɔ̀ñb-kīm*^{na}	*n*. shepherd, herdsman
		pl kɔ̀ñb-kīmmıb^a	
kɔ̄ñʔɔkɔ̄⁺			*adv*. alone, by oneself [22.4]
kɔ̀ñs^e			*vv*. cough
kɔ̀ñsım^m			*vv*. cough
kɔ̀ʔɔg^e			*vv*. break (transitive or intransitive)
kɔ̀ʔɔs^e			*vv*. break several times
kɔ̀tàa^{ne}			at all; Post NP/AdvP Particle [34.6]
kɔ́tʊ̀⁺			*n*. lawcourt (← English, probably via Hausa)
kpà^ʔ*a*⁼			*n*. rich person
	pl	*kpà*^ʔ*a-nàm*^a	
kpāad^{a/}			*n*. farmer, cultivator
	pl	*kpāadíb*^a	
	cb	*kpāad-*	

kpàˀam^m			*n.* riches
kpāaňm^m/			*n.* grease, ointment
	cb	*kpāň-*	
		kpāň-sɔ́ňˀɔdìm^m	*n.* anointing oil
kpàkūr^e/			*n.* tortoise
	pl	*kpàkūyá*^+	
	cb	*kpàkūr-*	
kpān^ne			*n.* spear
	pl	*kpāna*^+	
	cb	*kpàn-*	
kpàňdɩr^e			*n.* baboon
	pl	*kpàňda*^+	
	cb	*kpàňd-*	
kpàr^e			*vv.* lock
kpār-kɛ́òňg^o			*n.* rag
	pl	*kpār-kɛ́ɛ̀ňd*^e	
	cb	*kpār-kɛ́ň-*	
kpāˀʊ́ŋ^o			*n.* guinea fowl
	pl	*kpɪ̄ˀiní*^+	
	cb	*kpāˀ-*	
kpɛ̄^+			*adv.* here ⏎19.1
kpɛ̄ɛňm^m			*n.* elder
	pl	*kpɛ̀ɛňm-nàm*^a	
	cb	*kpɛ̀ɛňm-*	
kpɛ̄ɛňm^ma/			*iv.* be older than
kpɛ̄lá^+			*adv.* here ⏎19.1
kpɛ̀lɩm			still; immediately after, Particle-Verb ⏎24.7.2
kpɛ̀lɩm^m			*vv.* remain
kpɛ̀ňˀ^+			*vv.* enter
kpɛ̄ňdɩr^e/			*n.* cheek
	pl	*kpɛ̄ňdá*^+	
	cb	*kpɛ̄ňd-*	
kpɛ̀ňˀɛs^e			*vv.* make enter
kpɛ̀ˀŋ^e			*vv.* strengthen
kpɛ̄oňŋ^o			*n.* seniority
kpì^+			*vv.* die
	pfv adj	*kpìilʊ́ŋ*^o	*adj.* dead
kpìˀa^+			*n.* neighbour
	pl	*kpìˀəs*^e	
	cb	*kpi̮àˀ-*	
kpi̮àˀ^+			*vv.* shape wood with axe etc

*kpì*ˀ*e*+   *vv.* approach

*kpī*ˀ*əm*ma/   *iv.* be strong, hard

*kpìibɪg*a   *n.* orphan

       pl   *kpìibɪs*e

       cb   *kpìib-*

*kpìig*e   *vv.* go out (fire)

*kpī*ˀ*im*m/   *n.* dead person, corpse

       pl   *kpī*ˀ*imís*e

       cb   *kpī*ˀ*im-*

*kpìis*e   *vv.* quench (fire)

*kpīkpīn*na/   *n.* merchant

       pl   *kpīkpīnníb*a

       cb   *kpīkpín-*

*kpī*ˀ*oŋ*o   *adj.* strong, hard

       pl   *kpī*ˀ*əma*+

       cb   *kpì*ˀ*oŋ-*

*kpìsɪnkpìl*le   *n.* fist

       pl   *kpìsɪnkpìla*+

       cb   *kpìsɪnkpìl-*

*kpìsʊkpìl*le   *n.* fist

*kpʊ̀kpàr*e   *n.* palm tree fruit 37.5

       pl   *kpʊ̀kpàra*+

*kpʊ̀kpàrɪg*a   *n.* palm tree 37.5

       pl   *kpʊ̀kpàrɪs*e   (Probably *Borassus akeassii* or *aethiopum*)

       cb   *kpʊ̀kpàr-*

*kpʊ̀kpàu̯ŋ*o   *n.* arm, wing

       pl   *kpʊ̀kpàma*+

       cb   *kpʊ̀kpàu̯ŋ-*

kʊ̀   not; negates Unrealised Mood 24.5

kū+   *vv.* kill

kū+   *vv.* gather, threaten (of rain)

                                      Sāa kʊ́ yā. "It looks like rain."

ku̯ā+   *vv.* hoe, farm

*kū*ˀ*alíŋ*a   *n.* sleeveless traditional smock

       pl   *kū*ˀ*alímìs*e *kū*ˀ*alís*e

       cb   *kū*ˀ*alíŋ-*

*kùd*e   *vv.* work iron

*kùdɪg*e   *vv.* shrivel up, dry out, age

*kūdɪm*m   *n.* the olden days

kūdʊg^o *kūdɪr*^e   *adj.* old

    pl   *kūda*⁺ *kūt*^e

    cb   *kʊ̀d-*

kūdʊg^o   *n.* iron, nail; sg obsolete except in names 37.2

    pl   *kūt*^e   *pl* used as sg 11.5

    cb   *kʊ̀t-*

kūgʊr^{e/}   *n.* stone

    pl   *kūgá*⁺

    cb   *kūg-*

kūk^a   *n.* chair

    pl   *kūgʊs*^e

    cb   *kʊ̀g-*

kūk^{a/}   *n.* mahogany tree, *Khaya senegalensis* (Haaf)

kʊ̀kɔ̀m^{me}   *n.* leper

    pl   *kʊ̀kɔ̀ma*⁺

    cb   *kʊ̀kɔ̀m-*

kʊ̀kɔ̄r^{e/}   *n.* voice

    pl   *kʊ̀kɔ̄yá*⁺

    cb   *kʊ̀kɔ̄r-*

kʊ̀kpàrɪg^a   see *kpʊ̀kpàrɪg*^a id

kūl^e   *vv.* return home;

                        transitive "marry" (woman subject, man object)

    ger   *kūlɪg*^{a/}

kūlɪm   always, Post-Subject Particle 29.1.3

kʊ̀lɪŋ^a   *n.* door

    pl   *kʊ̀lɪmɪs*^e *kʊ̀lɪs*^e

    cb   *kʊ̀lɪŋ-*

kʊ̀m^m   *vv.* cry, weep

kūm^m   *n.* death

    cb   *kʊ̀m-*

           kʊ̀m-vū̀ʔʊgír^e   *n.* resurrection NT

kʊ̀ndʊ̀ʔar^e   *n.* barren woman

    pl   *kʊ̀ndʊ̀ʔada*⁺

    cb   *kʊ̀ndu̠ʔà-*

kʊ̀ndʊ̀ŋ^a   *n.* jackal, hyena

    pl   *kʊ̀ndʊ̀mɪs*^e *kʊ̀ndʊ̀na*⁺

kʊ̀ʔəm^m   *n.* water

    cb   *ku̠ʔà-*

           ku̠ʔà-nūud^{e/}   *n.* thirst

           ku̠ʔà-ňwīig^{a/}   *n.* current in a river

                 pl *ku̠ʔà-ňwīis*^{e/}

*kùʊs*ᵉ			*vv.* sell
*kùrkʊ̄r*ᵉ/			*n.* pig
	pl	*kùrkʊ̄yá*⁺	
	cb	*kùrkʊ̄r-*	
Kʊ̄sáa⁼			*n.* Kusaasi person 37.4
	pl	*Kʊ̄sáàs*ᵉ	
	cb	*Kʊ̄sá-*	
*Kʊ̄sáàl*ᵉ			*n.* Kusaal language 37.4
*Kʊ̄sáʊ̀g*ᵒ			*n.* Kusaasi country 37.4
*Kʊ̀tān*ⁿᵉ/			*n.* member of WK's clan
	pl	*Kʊ̀tām*ᵐᵃ/	
	cb	*Kʊ̀tān-*	
*Kʊ̀tāʊ̯ŋ*ᵒ/			*n.* country of clan Kutamba
kʊ̄ʋ			or 29.1.2 30.2.2 (← Hausa)
*kūug*ᵃ/ *kūug*ᵒ/			*n.* mouse
	pl	*kūus*ᵉ/	
	cb	*kū-*	
*kùʋl*ᵉ			*vv.* get drunk

L

lā⁺/			definite article 21.3
*là*ʔ⁺			*vv.* laugh
*lā*ʔ*af*ᵒ			*n.* cowrie
	pl	*līgɩdɩ*⁺	*n.* cowries; money
	cb	*lìg- là*ʔ-	
		*là*ʔ*-bīəlíf*ᵒ	*n.* small coin
láafɩ̀ya⁺			*n.* health (← Arabic العافية *ʔal-ʕa:fiya(tu)*) replaced throughout by *laafe láafì* in 1996 NT
*là*ʔ*am*			together, Particle-Verb 24.7.2
*là*ʔ*am*ᵐ			*vv.* associate with; together with 28.3
*là*ʔ*as*ᵉ			*vv.* gather together (transitive)
			*Bà là*ʔ*as tāaba* "They gathered together."
*làbāar*ᵉ			*n.* news (← Arabic الاخبار *ʔal-ʔaxba:r(u)*)
	cb	*làbà-*	
*làbɩ*ʸᵃ			*iv.* be crouching, hiding behind something (cf Hausa *laɓèe* "crouch behind something to eavesdrop" 20.1)
*làbɩl*ᵉ			*vv.* make crouch behind something
*làbɩn*ᵉ			*vv.* crouch behind something
*làbɩs*ᵉ			*vv.* walk stealthily

*lābɪs*ᵃ/			*iv*. be wide
*lābɪsíg*ᵃ *lābɪsír*ᵉ			*adj*. wide
	pl	*lābɪsá*⁺	
	cb	*lābɪs-*	
*lābɪsím*ᵐ			*n*. wideness
*lāk*ᵉ/			*vv*. open (eye, book)
*lāl*ˡᵃ/			*iv*. be distant
*lālɪg*ᵉ/			*vv*. get to be far, make far
lāllí⁺			*adv*. far off
*lāllíŋ*ᵃ			*adj*. distant
	pl	*lāllís*ᵉ	
	cb	*lāllíŋ-*	
*lāllúg*ᵒ			*adj*. distant
	pl	*lāllá*⁺	
	cb	*lāl-*	
*lām*ᵐᵉ/			*n*. gum (of tooth)
	pl	*lāmá*⁺	
	cb	*lām-*	
		*lām-fɔ́ɔ̀g*ᵒ	*adj*. toothless 21.8.1.4
		pl *lām-fɔ́ɔ̀d*ᵉ	
*làmpɔ̄-dí*ʔ*ə̀s*ᵃ			*n*. tax collector 20 (French *l'impôt*)
*lān*ⁿᵉ			*n*. testicle
	pl	*lāna*⁺	
	cb	*làn-*	
*làngāʊ́ŋ*ᵒ			*n*. crab (cf *màngāʊ́ŋ*ᵒ id)
	pl	*làngáam*ᵐᵉ *làngāamá*⁺	
	cb	*làngāʊŋ-*	
*lànnɪg*ᵃ			*n*. squirrel
	pl	*lànnɪs*ᵉ	
	cb	*lànnɪg-*	11.2.2
*lāʔŋ*ᵉ/			*vv*. set alight
*lāŋím*ᵐ			*vv*. wander around searching
*lāu̯k*ᵒ			*n*. item of goods
	pl	*lāʔad*ᵉ	*pl* goods
	cb	*là*ʔ*-*	
*là*ʔ*ʊŋ*ᵒ			*n*. fishing net
	pl	*là*ʔ*ama*⁺	
*lὲb*ᵉ			*vv*. return (intrans)
	ger	*lɛ́bɪg*ᵃ	
*lὲbɪg*ᵉ			*vv*. turn over
*lὲbɪs*ᵉ			*vv*. answer; send back; divorce (wife)

lὲɛ			but, Verbal Predicator particle [24.7.1]
lὲm			again, Particle-Verb [24.7.2]
lὲm^m			*vv.* sip, taste
lɛ̄r^e			*vv.* get ugly
lì			it, its (Proclitic) [17.1]
lι^+			it (Enclitic object) [17.1]
lì^+			*vv.* fall
	ipfv	*lìt*^a	
	imp	*lìm*^ma	
	ger	*līig*^a	
lɪ̄^+			*vv.* block up
lìa			where is ...? [27]
lìdɪg^e			*vv.* turn a shirt WK
lìdɪg^e			*vv.* astonish, be amazed
lìəb^e			*vv.* become
lìˀəl^e			*vv.* approach, come near
līə́ŋ^a			*n.* axe
	pl	*līəmís*^e	
	cb	*līəŋ-*	
lìg^e			*vv.* patch
lìgɪl^e			*vv.* cover
lìgɪn^e			*vv.* cover oneself
lɪ̄ɪbɪr^e			*n.* twin
	pl	*lɪ̄ɪba*^+	
	cb	*lìɪb-*	
lɪ̄k^a			*n.* darkness
	pl	*līgɪs*^e	
lìlāalíŋ^a			*n.* swallow
	pl	*lìlāalís*^e *lìlāalímìs*^e	
	cb	*lìlāalíŋ-*	
lín			it (subject of *ǹ*-Clause) [17.1]
lɪ̄n^e			it (Contrastive) [17.1]
lìn^e			that (Demonstrative [17.2])
lìná^+			that (Demonstrative [17.2])
lɔ^+			*vv.* tie
lɔb^e			*vv.* throw stones at
lɔbɪdíg^a			*n.* water drawing vessel
	pl	*lɔbɪdís*^e	

*lɔ̄dɪg*ᵃ/			*n.* corner
			*lɔ̄dɪgín kúg-sʊ́ŋ*ᵒ "cornerstone" NT
	pl	*lɔ̄dɪs*ᵉ/	
	cb	*lɔ̄d-*	
*lɔ̄dɪg*ᵉ/			*vv.* untie
*lɔ̀k*ᵒ			*n.* quiver (for arrows)
	pl	*lʊ̀ʔad*ᵉ	
	cb	*lu̱ʔà-*	
*lɔ̀mbɔ̀ʔɔg*ᵒ			*n.* garden (← Hausa *làmbuu*)
	pl	*lɔ̀mbɔ̀ʔɔd*ᵉ	
	cb	*lɔ̀mbɔ̀ʔ-*	
*lɔ̄ŋ*ᵃ			*n.* a kind of frog
	pl	*lɔ̄mɪs*ᵉ	
	cb	*lɔ̀ŋ-*	
*lɔ̄ʔŋ*ᵉ/			*vv.* go across river, road etc
*lɔ́r*ᵉ			*n.* car, lorry (← English)
	pl	*lɔ́yà*⁺ *lɔ́ɔm*ᵐᵃ	
	cb	*lɔ́r-*	
lù⁺			*vv.* fall
	ipfv	*lùt*ᵃ	
	imp	*lùm*ᵐᵃ	
*lūb*ᵉ			*vv.* buck, kick, struggle, throw off rider
	ger	*lūbɪr*ᵉ/	
*lūg*ᵉ			*vv.* swim
*lʊ̀gʊr*ᵉ			*n.* organ, member

M

m̀			I, my (Proclitic) 17.1
*m*ᵃ			me (Enclitic) 17.1
mà⁺			*n.* mother
	pl	*mà nám*ᵃ	(mother's sisters/co-wives) Tone *sic.*
	cb	*mà-*	
		*mà-bīig*ᵃ	*n.* sibling with same mother
		*mà-bīl*ᵃ	*n.* mother's younger sister or junior co-wife
		*mà-kpɛ̄ɛ̌m*ᵐ	*n.* mother's elder sister or senior co-wife
		*mà-pīt*ᵃ/	*n.* mother's younger sister
*mà*ʔ⁺			*vv.* lie, deceive
*mà*ʔaa SF *mà*ʔane LF			only; Post NP/AdvP Particle 34.6

màal[e]			*vv.* prepare, sacrifice
	agt	*màal-māan*[na]	*n.* sacrificer; used for "priest" in the NT, but in traditional usage just a worker who conducts the actual slaying for the the *tèŋ-dāan*[a] earth-priest himself
mā̄ʔal[e/]			*vv.* make cool, wet
māan[ne]			*n.* sacrifice
	pl	*māana*[+]	
	cb	*màan-*	
máʔan[ne]			*n.* okra
	pl	*mā̄ʔaná*[+]	
	cb	*mā̄ʔan-*	
mā̄ʔas[a/]			*iv.* be cool, wet
mā̄ʔasíg[a] *mā̄ʔasír*[e]			*adj.* cool, wet
	pl	*mā̄ʔasá*[+]	
	cb	*mā̄ʔas-*	
mā̄ʔasígā̄[+/]			*adv.* coolly 22.4
mā̄ʔasím[m]			*n.* coolness, wetness
mādɩg[e/]			*vv.* overflow, abound
mā̄ʔe[+/]			*vv.* cool down
màk[e]			*vv.* crumple up
māk[e/]			*vv.* measure, judge
màlɩ̯āk[a/]			*n.* angel (← Arabic ملاك *malʔak(un)*; 20.1) always *malek* (*pl maleknam*) in the NT
	pl	*màlɩ̯ā̄ʔas*[e/] *màlɩ̯āk-nám*[a]	
	cb	*màlɩ̯ā̄ʔ-*	
mālɩs[a/]			*iv.* be sweet, pleasant
mālɩsíg[a] *mālɩsír*[e]			*adj.* sweet, pleasant
	pl	*mālɩsá*[+]	
	cb	*mālɩs-*	
mālɩsím[m]			*n.* sweetness
mālɩsíŋ[a]			*adj.* sweet, pleasant
	pl	*mālɩsís*[e]	
	cb	*mālɩsíŋ-*	
mālʋŋ[o]			*n.* sacrifice
	pl	*mālɩma*[+]	
	cb	*màlʋŋ-*	
mām			I, me 17.1
mán			I (as subject of *ǹ*-Clause) 17.1
mān SF *mánè* LF			I, me (contrastive) 17.1

*màngāʋ́ŋ*ᵒ   *n.* crab (cf *làngāʋ́ŋ*ᵒ id)

    pl   *màngáam*ᵐᵉ *màngāamá*⁺

    cb   *màngāʋŋ-*

*màu̯k*ᵒ   *adj.* crumpled up

    pl   *màʔad*ᵉ

mὲ⁺   *vv.* build

*mὲ mὲn*ᵉ   too, also; Post NP/AdvP Particle ⎡34.6⎤

      mὲ-kàma   -soever ⎡17.3⎤

*mɛ̄d*ᵉ   *vv.* mash up

*mὲɛŋ*ᵃ   *n.* turtle

    pl   *mὲɛmιs*ᵉ

    cb   *mὲɛŋ-*

*mὲlιgιm*ᵐ   *n.* dew

*mɛ̄ŋ*ᵃ/   self ⎡21.9.3⎤

*mɛ̄ŋír*ᵉ   *adj.* genuine

*mɛ̄t*ᵉ/   *n. pl as sg* pus

    cb   *mɛ̄t-*

mī̄ʔ⁺   *iv.* know

    ger   *mī̄ʔilím*ᵐ

    agt   *gbàn-mī̄ʔid*ᵃ/   *n.* scribe NT

*míif*ᵒ   *n.* okra seed

    pl   *mīiní*⁺

*mìʔig*ᵉ   *vv.* become sour

*mìʔis*ᵃ   *iv.* be sour

*mìʔisʋg*ᵒ   *adj.* sour

    pl   *mìʔisa*⁺

    cb   *mìʔis-*

*mīlιg*ᵉ/   *vv.* get dirty

*mìmīilím*ᵐ *mìmīilúg*ᵒ   *n.* sweetness

mìt   see that it doesn't happen that... ⎡35.1.1⎤

mɔ̄⁺   *vv.* strive, struggle

*mɔ̄d*ᵉ   *vv.* swell

*mɔ̄dιg*ᵉ/   *vv.* be patient, endure

*mɔ̀lιf*ᵒ   *n.* gazelle

    pl   *mɔ̀lι*⁺

    cb   *mɔ̀l-*

*mɔ̄n*ᵉ   *vv.* grind millet to make *sā̄ʔab*ᵒ porridge

*mɔ̄ŋ*ᵉ/   *vv.* refuse to lend

*mɔ̄ɔɡ*ᵒ			*n.* grass; "bush"
	pl	*mɔ̄ɔd*ᵉ	
	cb	*mɔ̀-*	
		*mɔ̀-pīl*ˡᵉ	*n.* grass thatch
*Mɔ̀ɔɡ*ᵒ			*n.* Mossi realm
	*Mɔ̀ɔɡ Ná ʔàb*ᵃ		*n.* the Moro Naba, King of the Mossi
*mɔ̄ɔl*ᵉ/			*vv.* proclaim
	agt	*mɔ̄ɔl-mɔ́ɔn*ⁿᵃ	*n.* proclaimer
*Mɔ̀ɔl*ᵉ			*n.* Mooré language
*Mɔ̄r*ᵉ/			*n.* Muslim
	pl	*Mɔ́ɔm*ᵐᵃ	
	cb	*Mɔ̄r-*	
*mɔ̄r*ᵃ/			*iv.* have, possess; *mɔ̄r nā* "bring" 25.7
	ger	*mɔ̄rím*ᵐ	
Mùa⁺			*n.* Mossi person 37.4
	pl	*Mɔ̀ɔs*ᵉ	
	cb	*Mɔ̀-*	
*mu̯ʔà*ᵃ			*vv.* suck (of a baby)
*mu̯àk*ᵃ			*n.* maggot
	pl	*mʊ̀ʔas*ᵉ	
	cb	*mu̯ʔà-*	
*mʊ̀ʔar*ᵉ			*n.* dam; reservoir
	pl	*mu̯ʔàa*⁺ *mʊ̀ʔada*⁺	
	cb	*mu̯ʔà-*	
*mʊ̀ʔas*ᵉ			*vv.* give (to baby) to suck
mù̯ʔe⁺			*vv.* redden
mùi̯⁺			*n. pl as sg* rice
	cb	*mùi̯-*	
*mùl*ᵉ			*vv.* itch
*mùm*ᵐ			*vv.* bury

N

ǹ	Clause Complementiser particle 33
n	VP Serialiser particle 28.1
ǹ-	Personifier proclitic before an adjective 21.10
*n*ᵉ	Modal Remoteness Enclitic 24.4.2
*n*ᵉ *nɩ*⁺	Locative Enclitic 22.3
nà	Positive Unrealised Mood marker 24.4
nā⁺/	hither: VP-final particle 25.7
nā⁺	*vv.* join

náa			reply to greetings invoking blessings 36
*nàˀab*ᵃ			*n.* chief, king
	pl	*nàˀ-nàm*ᵃ	
	cb	*nàˀ-*	
		*nàˀ-bīig*ᵃ	*n.* prince, princess
*náaf*ᵒ			*n.* cow
	pl	*nīigí*⁺	
	cb	*nāˀ-*	
		*nāˀ-lɔ́r*ᵉ	*n.* place in compound for tying up cows
		*nāˀ-dáʊ̀g*ᵒ	*n.* ox
		*pl nāˀ-dáàd*ᵉ	
		cb nāˀ-dá-	
		*nāˀ-dá-kūɵdír*ᵉ	*n.* ox for ploughing
*nāˀam*ᵐ			*n.* chieftaincy, kingdom
	cb	*nàˀam-*	
nāan			next, afterwards = *ňyāan*
nāan or *nāanɪ*			then, in that case, being thus/there 32.2
nàˀanā⁺ᐟ			*adv.* easily 22.4
*nàˀas*ᵉ			*vv.* honour
	ger	*nàˀasɪ*⁺	*n.* honour
*Nàbɪd*ᵃ			*n.* Nabdema person 37.4
	pl	*Nàbɪdɪb*ᵃ	
	cb	*Nàbɪd-*	
*Nàbɪdʊg*ᵒ			*n.* Nabdema country
*Nàbɪr*ᵉ			*n.* Nabit language 37.4
*Nàˀdàm*ᵐᵃ			*n.* clan name 37.4
*Nàˀdàʊ̯ŋ*ᵒ			*n.* place of clan Nadamba
*nàˀ-dàwān*ⁿᵉᐟ			*n.* pigeon KED (= *dàwān*ⁿᵉᐟ)
nāe⁺ᐟ			*vv.* finish
nàm			still, yet; auxiliary tense particle 24.3.1
*nàm*ᵃ			pluraliser 11.4
*nāˀmɪs*ᵉᐟ			*vv.* persecute, suffer
*nān*ᵉ			*vv.* love, respect, appreciate
*nàˀ-nɛ̄sɪnnɛ̄og*ᵒᐟ			*n.* centipede WK
nānná⁺			*adv.* now 19.1
nānná-nā⁺ᐟ			*adv.* now 19.1
*nànzù̀ˀus*ᵉ			*n.* pepper ?tones
*nāŋ*ᵃ			*n.* scorpion
	pl	*nāmɪs*ᵉ	
	cb	*nàŋ-*	

nār^{a/}		*iv.* be obliged to; impersonal: to be necessary with following purpose clause 31.2
		negated: "be obliged not to"
	ger *nārím*^m	
nàrʋŋ^o		*adj.* necessary
	pl *nàrɪma*⁺	
	cb *nàrʋŋ-*	
Nàsāal^e		*n.* English/French language
Nàsāara⁺		*n.* European person (← Arabic نصارى *Nasˤaːra:*)
	pl *Nàsàa-nàm*^a *Nàsàar-nàm*^a	
	cb *Nàsàa- Nàsàar-*	
	Nàsàa-bīig^a	*n.* European child
nàyīig^a		*n.* thief
	pl *nàyìig-nàm*^a *nàyìis*^e	
nàyīigɪm^m		*n.* thievery
nàʔ-zɔm^{me}		*n.* locust
nɛ̄		preposition: with 23.1
		linking NPs and AdvPs: and 21.4
nɛ̄^{+/}		after objects of *wūʋ* and *wɛ̄n*^{na/} 23.1
nɛ̄^{+/}		focus particle 34.1.1; aspectual marker 24.2
nɛ̄ʔ^{+/}		this (pronoun) 17.2
nèɛl^e		*vv.* reveal
nèɛm^m		*adv.* for free
nɛ̄ɛm^{m/}		*vv.* grind with a millstone
nɛ̄ɛr^{e/}		*n.* millstone
nɛ̄m-nɛ́ɛr^e		*n.* someone who grinds
	pl *nɛ̄m-nɛ́yà*⁺	
nɛ̄n^{na/}		*iv.* envy
	ger *nɛ̄nním*^m	
nɛ̄ʔŋá⁺		this (pronoun) 17.2
nèog^o *nèɛr*^e		*adj.* empty
	pl *nèɛd*^e *nèya*⁺	
	cb *nè-*	
nɛ̄sɪnnɛ̄og^{o/}		*n.* envious person WK; others: centipede
	pl *nɛ̄sɪnnèɛd*^{e/}	
	cb *nɛ̄sɪnnɛ́-*	
ǹ fá!		Well done! 30.2.4
nɪ⁺		locative enclitic 22.3 see *n*^e
nì⁺		*vv.* rain

nīd[a/]			*n.* person
	pl	*nīdɪb*[a/]	
	cb	*nīn-*	
		nīn-sáàl[a]	*n.* human being
		pl nīn-sáalìb[a]	
		cb nīn-sáàl-	
		nīnpūnān[na/]	*n.* disrespectful person
		pl nīnpūnānníb[a]	
		cb nīnpūnán-	
		nīn-sábɪlìs[e]	*n.* Africans
nìe[+]			*vv.* appear, reveal
nīf[o/]			*n.* eye
	pl	*nīní*[+]	
	cb	*nīn- nīf-*	
		nīf-gbáy̰ŋ[o]	*n.* eyelid
		nīf-sɔ́b[a]	*n.* miser
		nīf-ňyáy̰k[o]	*adj.* one-eyed 18.2.4 21.8.1.4
		nīn-dáa[=]	*n.* face
		nīn-gɔ́tìŋ[a]	*n.* mirror
		pl nīn-gɔ́tìs[e]	*n.* spectacles, glasses
		nīn-kúgʋdìg[a]	*n.* eyebrow
		pl nīn-kúgʋdìs[e]	
		*nīn-tá*ʔ*àm*[m]	*n.* tear(s)
		nīn-múa[+]	*n.* concentration ("eye-redness")
níiŋ[a]			*n.* bird
	pl	*nīimís*[e] *níis*[e]	
	cb	*nīiŋ-*	
nīm[ne/] *nī*ʔ*m*[ne/]			*n.* meat
	pl	*nīmá*[+]	
	cb	*nīm-*	
nīn-báalìg[a]			*n.* pity
	nīn-báàl-zɔ̀ɔr[e]		*n.* pity:
			Ò zɔ̀t·ō nīn-báalìg. "He has pity on him."
nīn-dáa[=]			*n.* face
	pl	*nīn-dáàs*[e]	
	cb	*nīn-dá-*	

nīŋ^a   *n.* body (uncommon)

     pl   *nīis*^e

     cb   *nìŋ- nìn-*

            nìn-tūllím^m   *n.* fever

            nìn-tāa⁼   *n.* co-wife; husband's sister's wife

                 pl nìn-tāas^e   (Ghanaian English: "rival")

                 cb nìn-tà-

            nìn-gbīŋ^{o/}   *n.* body

                 pl nìn-gbīná⁺   plural often used as singular

                 cb nìn-gbīŋ-

     nìn-gɔ̀ɔr^e   *n.* neck

nīn-púʊ̀d^e   *n. pl as sg* pus

nīntāŋ^{a/}   *n.* heat of the day, early afternoon

     pl   *nīntāaňs*^{e/}

     cb   *nīntáŋ-*

nìŋ^e   *vv.* do

ǹ lā   that is ... 27

ǹnāas   *q.* four 18.2.3

ǹníi   *q.* eight 18.2.3

ǹnū   *q.* five 18.2.3

n ňwá   this is ... 27

n ňwá nā   this here is ... 27

nɔ̄⁺   *vv.* tread

nɔ̄b^e   *vv.* get fat

nɔ̄bɩg^{e/}   *vv.* grow (e.g. child, plant)

nɔ́bìr^e   *n.* leg, foot

     pl   *nɔ̄bá*⁺

     cb   *nɔ̄b-*

            nɔ̄b-bíl^a   *n.* toe

            nɔ̄b-yíʊ̯ŋ^o   *adj.* one-legged 18.2.4 21.8.1.4

            nɔ̄b-íňˀa⁺   *n.* toenail

            nɔ̄b-púmpàʊ̯ŋ^o   *n.* foot

nɔ̄k^{e/}   *vv.* pick up, take up

nɔ̀ŋ^e   *vv.* love (verb; family, spiritual)

                        pfv with *ipfv* sense 13.1.2

     agt   *nɔ̀ŋɩd*^a   agent noun: irregularly Pattern L

nɔ̄ŋ^{o/}   *n.* poverty

     cb   *nɔ̄ŋ-*

            nɔ̄ŋ-dáàn^a   *n.* poor person

nɔ̀ŋɩlím^m   *n.* love (noun)

*nɔ̄ɔr*ᵉ/			*n.* mouth; command, message, opinion
	pl	*nɔ̄yá*⁺	
	cb	*nɔ̄-*	
		*nɔ̄-díˀə̀s*ᵃ	*n.* Chief's "linguist", who speaks on his behalf on all official occasions 15.1.1.1 fn
		*Wínàˀam nɔ́-díˀə̀s*ᵃ	*n.* prophet NT
		*nɔ̄-lɔ́ɔ̀r*ᵉ	*n.* fasting ("mouth-tying"; idiom throughout W Africa)
		*nɔ̄-náàr*ᵉ	*n.* covenant
		*nɔ̄-pɔ́ɔ̀r*ᵉ	*n.* oath
		*nɔ̄-gbáṳŋ*ᵒ	*n.* lip
		pl nɔ̄-gbánà⁺	
*nɔ̄ɔr*ᵉ/			times 18.2.5
*nɔ̄ɔrím*ᵐ			times 18.2.5
ǹpɔ̀ẹ̄			*q.* seven 18.2.3
ǹtáǹ̌ˀ			*q.* three 18.2.3
nū⁺			*vv.* drink
nūa⁺/			*n.* hen
	pl	*nɔ̄ɔs*ᵉ/	
	cb	*nɔ̄-*	
		*nɔ̄-dáʊ̀g*ᵒ	*n.* cock
*nūlıg*ᵉ/			*vv.* make drink
*nūlıs*ᵉ/			*vv.* make drink
*núˀ ̀ùg*ᵒ			*n.* hand, arm
	pl	*núˀ ̀ùs*ᵉ	
	cb	*nū̄ˀ-*	
		*nū̄ˀ-bíl*ᵃ	*n.* finger
		*pl nū̄ˀ-bíbìs*ᵉ	
		*nū̄ˀ-dáʊ̀g*ᵒ	*n.* thumb
		*nū̄ˀ-yíṳŋ*ᵒ	*adj.* one-armed 18.2.4 21.8.1.4
		nū̄ˀ-íǹ̌ˀa⁺	*n.* fingernail
		*pl nū̄ˀ-έǹ̌ˀὲs*ᵉ	
		cb nū̄ˀ-έǹ̌ˀ-	
		*nū̄ˀ-wέǹ̌ˀὲd*ᵃ	*n.* mediator
ňwà⁺			this 21.3
ňwā̄ˀ⁺			*vv.* smash, break up
*ňwāaŋ*ᵃ			*n.* monkey
	pl	*ňwāamıs*ᵉ	
	cb	*ňwàaŋ-*	

ňwādıg^{a/} → *ňwādıg*ᵃ⁷   *n.* moon, month

    pl   *ňwādıs*ᵉ⁷

    cb   *ňwād-*

        *ňwād-bíl*ᵃ   *n.* star

            *pl ňwād-bíbìs*ᵉ

        *ňwād-dár*ᵉ   *n.* Venus

*ňwà*ˀ*e*⁺   *vv.* cut wood

nwāẹ   *q.* nine ⟨18.2.3⟩

*ňwām*ᵐᵉ *ňwān*ⁿᵉ   *n.* calabash

    pl   *ňwāma*⁺ *ňwāna*⁺

    cb   *ňwàm- ňwàn-*

*Ňwāmpūrıg*ᵃ⁷   *n.* Mamprussi person ⟨37.4⟩

    pl   *Ňwāmpūrıs*ᵉ⁷

    cb   *Ňwāmpúr-*

*Ňwāmpūrıl*ᵉ⁷   *n.* Mampruli language ⟨37.4⟩

*Ňwāmpūrʊg*ᵒ⁷   *n.* Mamprussi country

*ňwɛ̀*ˀ⁺   *vv.* beat

    *ňwɛ̀*ˀ X *nú*ˀ*ùg* "make an agreement with X"

    *ňwɛ̀*ˀ *ňyɔ̄*ˀ*ɔg* "boast"

*ňwīig*ᵃ⁷   *n.* rope

    pl   *ňwīis*ᵉ⁷

    cb   *ňwī-*

        *ňwī-tɛ́k*ᵃ   *n.* rope-puller

            *pl ňwī-tɛ́kìdıb*ᵃ

            cb ňwī-tɛ́k-

        *ňwī-tɛ́kìr*ᵉ   *n.* rope for pulling

            pl ňwī-tɛ́kà⁺

*ňwīig*ᵉ⁷   *vv.* make a rope

*ňyā*ˀ*al*ᵉ⁷   *vv.* leave behind

ňyāan   next, afterwards; Post-Subject Particle ⟨29.1.3⟩

*ňyá*ˀ*aŋ*ᵃ   *adj.* female (animal)

    pl   *ňyá*ˀ*as*ᵉ *ňyā*ˀ*amís*ᵉ

    cb   *ňyā*ˀ*aŋ-*

*ňyá*ˀ*aŋ*ᵃ   behind, postposition ⟨22.6⟩

    *ňyà*ˀ*an-dɔ̀l*ˡᵃ *ňyà*ˀ*an-dɔ̀l*ˡᵉ   *n.* disciple NT; tones unexpected, Pattern L

        *pl ňyà*ˀ*an-dɔ̀lla*⁺ *ňyà*ˀ*an-dɔ̀llıb*ᵃ

        *cb ňyà*ˀ*an-dɔ̀l-*

*ňyā*ˀ*ar*ᵉ   *n.* root

    pl   *ňyā*ˀ*a*⁺

    cb   *ňyà*ˀ-

*ňyāe*ⁿᵉ⁷   *adv.* in the light, brightly, clearly ⟨22.3⟩

ňyālʊ́ŋ[o]   *adj.* wonderful

     pl   *ňyālımá*[+]

     cb   *ňyālʊŋ-*

ňyàn[ne]   *n.* shame

                     Ò dı ňyán.   "He's ashamed."

ňyāŋ[e/]   *vv.* overcome 28.3

ňyàu̯k[o]   *adj.* only (eye) 18.2.4 21.8.1.4

     pl   *ňyàˀad*[e]

ňyɛ̄[+]   *vv.* see, find

     ipfv   *ňyɛ̄t*[a/]   *ňyɛ̄ láafı̀ya* "get well"

     imp   *ňyɛ̀m*[ma]

ňyɛ̄ɛ, *ňyɛ̄ɛ tí*   habitually, Particle-Verb 24.7.2

ňyɛ̄ˀɛr[e/]   *n.* next-younger sibling

     pl   *ňyɛ̄dá*[+]

     cb   *ňyɛ̄ˀ-*

ňyɛ̀ɛs[a]   *iv.* be self-confident

ňyɛ̀ɛsım[m]   *n.* self-confidence

ňyɛ̀ɛsíŋ[a]   *adj.* self-confident

     pl   *ňyɛ̀ɛsís*[e]

     cb   *ňyɛ̀ɛsíŋ-*

ňyɛ̀ɛsíŋā[+/]   *adv.* self-confidently 22.4

ǹyí   *q.* two 18.2.3

ňyīn[ne/]   *n.* tooth

     pl   *ňyīná*[+]

     cb   *ňyīn-*

ňyīríf[o]   *n.* a kind of edible seed, egusi

     pl   *ňyīrí*[+]   *Colocynthis citrullus* (Haaf)

ňyɔ̄ɔd[e]   *n.* intestines

ňyɔ̄ˀɔg[o/]   *n.* chest

ňyɔ̄ɔr[e]   *n.* nose; breath

     pl   *ňyɔ̄ya*[+]

     cb   *ňyɔ̀-*

           ňyɔ̀-vʊ̄r[e/]   *n.* life

               pl *ňyɔ̀-vʊ̄yá*[+]

               cb *ňyɔ̀-vʊ̄r-*

                  ňyɔ̀-vʊ̄r-páàl[le] *n.* new life NT

ňyɔ̄ˀɔs[e/]   *n.* smoke

ǹyúὲb   *q.* six 18.2.3

ňyūur[e/]   *n.* yam

     pl   *ňyūyá*[+]

     cb   *ňyū-*

O

ò	[ʊ]	he, she, his, her (Proclitic) 17.1
o	*LF* [ʊ]	him, her (Enclitic object) 17.1 9.3.1.1
ɔ́n		he, she (subject of *ǹ*-Clause) 17.1
*ɔ̄n*ᵉ		he, she (Contrastive) 17.1
*ɔ̀n*ᵉ		this, that (human sg Demonstrative) 17.2
*ɔ̀ñb*ᵉ		*vv.* chew
	*ger ɔ̄ñbɩr*ᵉ	
ɔ̀ŋā⁺ᐟ		this, that (human sg Demonstrative) 17.2
*ɔ̄ɔs*ᵉᐟ		*vv.* warm oneself
		Ò ɔ̀ɔsɩd nɛ̄ búgʊ́m lā.
		"She's warming herself at the fire."

P

*pà*ʾ		earlier today, Tense Particle 24.3.1
*pà*ʾ*al*ᵉ		*vv.* teach, inform
	*agt pā*ʾ*an*ⁿᵃ	*n.* teacher
	*pl pā*ʾ*annɩb*ᵃ	
	*cb pà*ʾ*an-*	
*pà*ʾ*al*ᵉ		*vv.* put on top of something
*pāalíg*ᵃ *páal*ˡᵉ		*adj.* new
	*pl pāalís*ᵉ *pāalá*⁺	
	cb pāal-	
*pāalím*ᵐ		*adv.* recently 22.4
pāalʊ́⁺		*adv.* openly 22.4
*pàaňlʊ́ŋ*ᵒ		*n.* spider's web
	*pl pàaňlímìs*ᵉ	
*pàam*ᵐ		*vv.* receive a gift
*pàas*ᵉ		*vv.* add up to, amount to
pāe⁺ᐟ		*vv.* reach
*pàk*ᵉ		*vv.* surprise
*pàk*ᵉ		*vv.* take off from the top
pāmm SF *pāmné* LF		*q.* much, a lot 18.1 7.4
*pàň*ʾ*alɩm*ᵐ		*vv.* dedicate
*pàňsɩg*ᵉ		*vv.* lack
*pàŋ*ᵃ		*n.* power
	*pl pàaňs*ᵉ	
	cb pàŋ-	
*pà*ʾ *tì*		perhaps; Post-Subject Particle 29.1.3

*pèbɪs*ᵉ vv. blow (of wind)

*pèbɪsɪm*ᵐ *pèbɪsʊg*ᵒ n. wind

*pèˀɛl*ᵉ vv. fill

    *pfv adj pèˀɛlʊ́ŋ*ᵒ adj. full

*pèˀɛs*ᵉ vv. add up to, amount to

*pèlɪg*ᵉ vv. whiten, go white

*pèlɪs*ᵉ vv. sharpen

*pèn*ⁿᵉ n. vagina

*pɛ̄ˀŋ*ᵉ/ vv. borrow; knock over WK

*pèog*ᵒ n. basket

    pl   *pèɛd*ᵉ

    cb   *pè-*

*pɛ̄ˀog*ᵒ/ n. sheep

    pl   *pɛ̄ˀɛs*ᵉ/

    cb   *pɛ̄ˀ-*

        pɛ̄ˀ-sáˀa⁼ n. ewe lamb

*pɛ̄sɪg*ᵉ/ vv. sacrifice

pi̯ā⁺ vv. dig up

*pi̯āň*ˀᵃ vv. speak, praise

    ger   *pi̯àu̯ňk*ᵒ n. word

           pl *pi̯àňˀad*ᵉ plural: language

           cb *pi̯àňˀ-*

               pi̯àňˀ-zʊ̀na⁺ n. foreign language

*pìbɪg*ᵉ vv. uncover

*pìbʊl*ᵉ vv. cover up

*pībɪn*ⁿᵉ *pībʊl*ˡᵉ n. covering 14.1.2

    pl   *pībɪna*⁺

    cb   *pìbɪn-*

*pìd*ᵉ vv. put on (hat, shoes, rings)

*pīd*ᵉ vv. get bloated

*pìdɪg*ᵉ vv. take off (hat, shoes, rings)

pīe⁺/ vv. wash (part of one's own body)

*pìəb*ᵉ vv. blow (e.g. flute)

*pìəlɪg*ᵃ *pìəl*ˡᵉ adj. white

    pl   *pìəla*⁺ *pìəlɪs*ᵉ

    cb   *pìəl-*

    *pèɛlʊg*ᵒ in *zū-péɛlʊ̀g*ᵒ "bald; grey haired" 21.8.1.4

*pìəlɪm*ᵐ n. whiteness

*pìəs*ᵉ vv. fool someone

*pīəs*ᵉ/ vv. wash

pīiga⁺ q. ten 18.2.2

pīim^{m/}			*n.* arrow
	pl	*pīmá*⁺	
	cb	*pīm-*	
píιǹf^o			*n.* genet
	pl	*pīιní*⁺	
	cb	*pīιn-*	
pīinι⁺			*pl* as sg *n.* gift
	cb	*pìin-*	
pìl^e			*vv.* put (hat, shoes, rings) on someone
pìlιg^e			*vv.* take (hat, shoes, rings) off someone
pīǹʔil^{e/}			*vv.* begin
pīpīrιg^{a/}			*n.* desert
	pl	*pīpīrιs*^{e/}	
	cb	*pīpír-*	
pīsí⁺			*q.* twenty 18.2.2
pītú⁺			*n.* younger sibling of the same sex 37.1
	pl	*pītíb*^a	
	cb	*pīt-*	
pɔ̄⁺			*vv.* swear
pɔ̀ǹd^e			*vv.* crouch down
pɔ̄ǹʔɔl^{e/}			*vv.* cause to rot
pɔ̀ǹʔɔlιm^m			*vv.* cripple, get crippled
pɔ̀ǹʔɔr^e			*n.* cripple
	pl	*pɔ̀ǹda*⁺	
	cb	*pɔ̀ǹʔ-*	
pɔ̀ǹr^a			*iv.* be near
	ger	*pɔ̄ǹrʋb*^o	
pɔ̀ɔd^a			*iv.* be few, small
pɔ̀ɔdιg^a *pɔ̀ɔdιr*^e			*adj.* few, small
	pl	*pɔ̀ɔda*⁺	
	cb	*pɔ̀ɔd-*	
pɔ̀ɔdιm^m			*n.* fewness
pɔ̄ɔg^{o/}			*n.* field, farm
	pl	*pɔ̄ɔd*^{e/} *pɔ̄t*^{e/}	
	cb	*pɔ̄-*	
pɔ̀ʔɔg^e			*vv.* diminish, denigrate
pɔ̄ɔr^{e/}			*n.* "slogan" of a clan, part of its traditional genealogy WK; ← *pɔ̄*⁺ "swear", cf Farefare *pɔtɛ*, *pɔrɛ* "nom de famille, nom par lequel on jure" and also "serment"
pʋ̄			not: negates Indicative Mood 24.5

pū̀⁺			*vv.* divide
*pu̯ʔā̄*ᵃ			*n.* woman, wife
			Ò dì pu̯ʔā̄. "He's married a wife."
	pl	*pū̄ʔab*ᵃ	
	cb	*pu̯ʔà-*	
		*pu̯ʔà-dīɩr*ᵉ	*n.* marriage
		*pu̯ʔà-ēlíŋ*ᵃ	*n.* fiancée
		*pu̯ʔà-gīnníg*ᵃ	*n.* prostitute
		*pu̯ʔà-gɔ̄ɔňdɩr*ᵉ	*n.* prostitute
		*pu̯ʔà-ňyáʔaŋ*ᵃ	*n.* old woman
		*pl pu̯ʔà-ňyáʔas*ᵉ	
		*pu̯ʔà-pāal*ᵃ/	*n.* bride
		*pu̯ʔà-sādɩr*ᵉ/	*n.* young woman
		*pu̯ʔà-sāʔam*ⁿᵃ	*n.* adulterer
		pu̯ʔà-yùa⁺	*n.* daughter
*pu̯āk*ᵃ			*adj.* female (human only)
	pl	*pū̄ʔas*ᵉ	
*pʊ̀ʔalɩm*ᵐ			*vv.* cook
*pʊ̀ʔalɩm*ᵐ			*vv.* harm, damage
	*pfv adj pʊ̀ʔalʉ́ŋ*ᵒ		*adj.* damaged
*pʊ̀ʔalɩm*ᵐ			*n.* femininity
*pʊ̀ʔalím*ᵐ			*n.* female sex organs
	pl	*pʊ̀ʔalímìs*ᵉ	
	cb	*pʊ̀ʔalím-*	
*pʊ̀d*ᵉ			*vv.* name
*pū̄dɩg*ᵉ/			*vv.* divide, share out
*pʊ̀gʊdɩb*ᵃ			*n.* father's sister $\boxed{37.1}$
	pl	*pʊ̀gʊd-nàm*ᵃ	
	cb	*pʊ̀gʊd-*	
*pʊ̀kɔ̀ɔňr*ᵉ			*n.* widow
	pl	*pʊ̀kɔ̀ňya*⁺	
	cb	*pʊ̀kɔ̀ň-*	
*pū̄kpāad*ᵃ/			*n.* farmer
	pl	*pū̄kpāadíb*ᵃ	
	cb	*pū̄kpá-*	*irr cb*; contrast *kpāad*ᵃ/
pùlɩma⁺			*n.* a species of grass, *Imperata cylindrica* (Haaf)
*pùmpɔ̄ɔg*ᵒ			*n.* housefly
pʊ̀n			previously, already Particle-Verb $\boxed{24.7.2}$
pūň̄ʔe⁺/			*vv.* rot

pūsɪg^{a/}			*n.* tamarind 37.5
	pl	*pūsɪs*^{e/}	
	cb	*pūs-*	
pūsɪr^{e/}			*n.* tamarind fruit 37.5
	pl	*pūsá*⁺	
pū-sʊ́k^a			*n.* half 18.2.2
	pl	*pū-sʊ́gʊ̀s*^e	
pūt^{e/}			*n. pl as sg* contents of stomach WK
pūum^{m/}			*n.* flowers
	cb	*pūum-*	

pʊ̄ʊg^a   *n.* inside, belly

cb   *pʊ̀-*   *Pʊ̪ʾā lā mɔ́r pʊ̄ʊg* "The woman is pregnant."

pʊ̄ʊgʊn^{e/} inside, postposition 22.6

pʊ̀-pìəlɪm^m   *n.* holiness

pʊ̀-tɛ̀ñʾɛr^e   *n.* mind

pl *pʊ̀-tɛ̀ñda*⁺

cb *pʊ̀-tɛ̀ñʾ-*

pʊ̄ʊr^{e/}   *n.* stomach

pʊ̀ʾʊs^e   *vv.* greet, worship, thank

ger   *pʊ̀ʾʊsɪm*^m   *n.* worship

ger   *pʊ̀ʾʊsʊg*^o   *n.* thanks

pʊ̀ʾʊsʊg dɔ́ɔ̀g^o   NT "temple"

S

sà   yesterday, Tense Particle 24.3.1

sà   hence, ago, VP-final particle 25.7

sāʾ⁺   *vv.* be in distress

sàa   tomorrow, Tense Particle 24.3.1

sāa⁼   *n.* rain

as subject of *i̱āñk*^{e/} "leap": "lightning"

pl   *sāas*^e

cb   *sà-*

sāa díndɛog^{o/} "rainbow" ("rain chameleon")

sāa zúg^o   *n.* sky

pl   *sāa zút*^e

sāʾab^o   *n.* millet porridge,

"TZ", the staple food of the Kusaasi

cb   *sàʾ-*

sāafɪ⁺ (?tones)   *n.* lock, key (← Twi *safɛ̃*)

sàal^a   *n.* human; perhaps ← "hairless" cf *būn-kɔ́ňbùg*^o

    pl   *sàalıb*^a

    cb   *sàal-*

          sàal-bīig^a   *n.* human being

               pl sàal-bīis^e

sàalíŋā^{+/}   *adv.* smoothly 22.4

sà'am^m   *vv.* spoil, get spoiled, get broken; destroy

sàam^{ma}   *n.* father

    pl   *sàam-nàm*^a

    cb   *sàam-*

          sàam-kpɛ̄ɛňm^m   *n.* father's elder brother

          sàam-pīt^{a/}   *n.* father's younger brother

               pl sàam-pītíb^a

               cb sàam-pīt-

sāam^{m/}   *vv.* mash, crumble

sā'an^{e/}   in the presence of, in the opinion of

                         postposition 22.6

sāan^{a/}   *n.* guest, stranger

    pl   *sáam*^{ma}

    cb   *sāan-*

sáannìm^m   *n.* strangerhood

sàbēog^o   *n.* wind, storm

    pl   *sàbɛ̄ɛd*^e

    cb   *sàbɛ̀-*

sābılíg^a *sābíl*^{le}   *adj.* black

    pl   *sābılís*^e *sābılá*⁺

    cb   *sābıl-*

sàbùa⁺   *n.* lover, girlfriend

    pl   *sàbùɵs*^e

    cb   *sàbu̯à-*

Sà'dàbɔ̀ɔg^o   *n.* place of the clan Sarabose 37.4

Sà'dàbùa⁺   *n.* clan name: 37.4

    pl   *Sà'dàbùɵs*^e *Sà'dàbùɵb*^a

sādıgím   since, because 29.1.3   33.1.1

sāe̦ň⁺ or *sāe̦ň*^{ya}   *n.* blacksmith

    pl   *sāaňb*^a

    cb   *sàň-*

sākárùg^o   *n.* fox

    pl   *sākárìd*^e

    cb   *sākár-*

sàlıbır^e   *n.* bridle

sālıma⁺			*n. pl as sg* gold
	cb	*sàlım-*	
		*sàlım-kùɵs*ᵃ	*n.* gold merchant
*sām*ⁿᵉ/			*n.* debt
	pl	*sāmá*⁺	
	cb	*sām-*	
		*sām-kpáˀàs*ᵃ	*n.* household servant
*sāmán*ⁿᵉ			*n.* open space in front of a *zàk*ᵃ compound
	pl	*sāmánà*⁺	
	cb	*sāmán-*	
		*Sāmán-pīɵ́r*ᵉ	*n.* traditional New Year ceremony
*sāngʊ́nnìr*ᵉ			*n.* millipede
	pl	*sāngʊ́nnà*⁺	
	cb	*sāngʊ́n-*	
sāŋá⁺			*n.* time 37.8 11.3.2
	pl	*sānsá*⁺	
	cb	*sān-*	
		*sān-kán*ᵉ	*adv.* then; when?
		sān-síˀən lā	*adv.* at one time, once ... 29.3
*sāpál*ˡᵉ			*n.* Harmattan part of the dry season *úun*ⁿᵉ
sārıgá⁺			*n.* prison (← Hausa *sark̀àa* "chain")
sàríyà⁺ or *sèríyà*⁺			*n.* law (← Arabic شريعة *ʃari:ʕa(tun)*)
	cb	*sàríyà-kāt*ᵃ	*n.* judge NT
*sāʊg*ᵒ/			*n.* broom, brush
	pl	*sāad*ᵉ/	
	cb	*sā-*	
*sàʊk*ᵒ			*n.* mote of dust
	pl	*sàˀad*ᵉ	
*sāʊ́ŋ*ᵒ			*n.* hospitality
sὲ⁺			*vv.* transplant
	ipfv	*sὲɛd*ᵃ	
*sɛ̄oňg*ᵒ			*n.* rainy season
sì⁺			*vv.* skin, flay
sīˀa⁺			some, any (sg) 17.3
sīa⁺			*n.* waist
	pl	*sīəs*ᵉ	
	cb	*sι̣à-*	
		*sι̣à-lɔ̄ɔdíŋ*ᵃ	*n.* belt ("waist-tying-thing")
		*sι̣à-nīf*ᵒ/	*n.* kidney
*sι̣ā̄ˀal*ᵉ/			*vv.* get to be enough

s̩à ʔarᵉ			*n.* forest (WK), wilderness
	pl	*s̩à ʔa⁺*	
	cb	*s̩à ʔ-*	
s̩àkᵉ			*vv.* agree
s̩ākᵉ/			*vv.* suffice
sībɩgᵃ/			*n.* a kind of termite
	pl	*sībí⁺*	
	cb	*sīb-*	
sìd			truly, Post-Subject Particle 29.1.3
sīda⁺			*n. pl as sg* truth
	pl	*sìd-*	
sīdᵃ			*n.* husband 37.1
	pl	*sīdɩbᵃ*	
	cb	*sìd-*	
		sìd-bīlᵃ	*n.* husband's younger brother
		sìd-kpɛ̄ɛ̌mᵐ	*n.* husband's elder brother
		sìd-pṳākᵃ	*n.* husband's sister
sīe⁺/			*vv.* descend, be humbled
sīəba⁺			some(ones), any (ones) 17.3
sīʔəlᵃ			something, anything 17.3
sīʔəmᵐ			somehow, anyhow 17.3 19.1
sīgᵉ			*vv.* descend
sīgɩsᵉ/			*vv.* lower
sīgɩsírᵉ			*n.* stopping-place
	pl	*sīgɩsá⁺*	
sīɩgᵃ			*n.* shade, personal spirit (KED); used in NT for "spirit"; in traditional belief rather "Lebenskraft" (Haaf) "vital energy", closely associated in concept with an individual's tutelary *kìkīrɩsᵉ/* (qv)
	pl	*sīɩsᵉ*	
	cb	*sì-*	
		Sì-sòŋᵒ	*n.* Holy Spirit NT
sìilɩmᵐ			*vv.* cite proverbs
sìilíŋᵃ sìilʊ́ŋᵒ			*n.* proverb
	pl	*sìilísᵉ sìilímìsᵉ sìilímà⁺*	
	cb	*sìilíŋ-*	
sīiňdᵉ/			*n.* honey
sīiňfᵒ/ sīiňgᵃ/			*n.* bee
	pl	*sīiňsᵉ/*	
	cb	*sīň-*	

sīˀɩs[e/]		*vv.* touch
sīlɩnsíùg[o]		*n.* ghost
	pl *sīlɩnsîîs*[e]	
sīlɩnsíù̌g[o]		*n.* spider
	pl *sīlɩnsîîň d*[e]	
sìlʋg[o]		*n.* hawk
	pl *sìn*[ne] *sìlɩs*[e]	
	cb *sìl-*	
sìm[m]		*vv.* sink in a liquid
Sìmīig[a]		*n.* Fulɓe person, Fulani 37.4
	pl *Sìmīis*[e]	
	cb *Sìmì-*	
Sìmīil[e]		*n.* Fulfulde language
Sìmīug[o]		*n.* place of the Fulɓe
sīn[na/]		*iv.* be silent
	ger *sīnním*[m]	
sīnsáañ[=]		*n.* a kind of tiny ant
sīŋ[a]		*n.* a kind of very big pot
	pl *sīɩ̌ns*[e]	
	cb *sìŋ-*	
sīˀŋ[e/]		*vv.* begin
sīsíbɩg[a]		*n.* neem tree 37.5
	pl *sīsíbɩs*[e]	*Azadirachta indica* (Haaf)
	cb *sīsíb-*	
sīsíbɩr[e]		*n.* fruit of neem tree 37.5
	pl *sīsíbà*[+]	
sìsìˀəm[m]		*n.* wind, storm
sìsùʋgūn[e/]		between, postposition 22.6
sīˀúŋ[o]		*n.* a kind of large dish
	pl *sīˀimís*[e]	
	cb *sīˀuŋ-*	
sɔ̄ˀ[+]		some(one), any(one), human sg 17.3
sɔ̄b[a]		dummy head pronoun, human sg 21.9.3
sɔ̄b[e]		*vv.* go/make dark; usually "write"
	sɔ̄bɩr[e/]	*n.* piece of writing 14.1.2
sɔ̄bɩg[e/]		*vv.* blacken
sɔ̄ẹ̌ň[+] or *sɔ̄ẹ̌ň*[ya]		*n.* witch
	pl *sɔ̄ɔ̌ňb*[a]	
	cb *sɔ̀ň-*	
sɔ́gi̯à[a]		*n.* soldier (← English)

sɔ̄lʊŋ^{o/}   *n.* story
       pl   *sɔ̄lɩmá*⁺
sɔ̄ň⁺   *vv.* rub
sɔ̄ňˀe^{ya/}   *iv.* be better than
       agt   *sɔ̄ňˀɔd*^{a/}
             pl sɔ̄ňˀɔb^{a/}
             cb sɔ̄ňˀɔd-
sɔ̄nnɩr^e   *n.* courtyard dividing wall
       pl   *sɔ̄nna*⁺
       cb   *sɔ̀n-*
sɔ̄ňs^e   *vv.* converse, talk with
       ger   *sɔ́ňsìg*^a
sɔ̄ɔňg^o   *n.* witchcraft
sɔ̄ɔňr^e   *n.* liver
       pl   *sɔ̄ňya*⁺
       cb   *sɔ̀ň-*
sɔ̀s^e   *vv.* ask
       ger   *sɔ̄sɩg*^a
       agt   *sɔ̀s*^a   *n.* beggar
sʋ̀⁺   *vv.* take a bath
sṵˀā^a   *vv.* do secretly, hide
sṵāk^{a/}   *n.* hiding place
sūeň^{+/}   *vv.* anoint
sʋ̄ˀe^{ya/}   *iv.* own
       ger   *sʋ̄ˀʋlím*^m   *n.* property
sūgʋr^{e/}   *vv.* show forbearance, be patient with
       sūgʋrʋ́⁺   *n.* forbearance
sʋ̀m^m   *n.* goodness; well $\boxed{22.4}$ $\boxed{26.2}$
sʋ̀m^{ma}   *iv.* be good
sūmmɩr^e   *n.* groundnuts
       pl   *sūmma*⁺
       cb   *sùm-*
       sūm-dʋ́gʋdà⁺   *n.* groundnuts for cooking WK
sùn^e   *vv.* bow one's head
       agt   *sūn*^{na}   *n.* deep thinker, close observer WK
sūň ˀe^{+/}   *vv.* become better than

sūñf[o/] *sūuňr*[e/]   *n*. heart

    pl   *sūňyá*[+]

    cb   *sūň-*

             sūň-kpíʔòŋ[o]   *n*. boldness 21.7.1

             sūň-máʔasìm[m]   *n*. joy

                                 M̀ sūňf máʔe yā. "My heart has cooled."

                                 = "I'm joyful."

             sūň-málɪsìm[m]   *n*. joy

                  cb sūň-málìs-

             sūň-pɛ́ɛ̀n[ne]   *n*. anger

                                 M̀ sūňf pɛ́lìg nɛ̄. "My heart is whitened."

                                 = "I'm angry"

             sūň-sáʔòŋ[o]   *n*. sorrow

                                 M̀ sūňf sáʔàm nɛ̄. "My heart is spoilt"

                                 = "I'm sad."

sòŋ[e]   *vv*. help

sòŋ[o] *sòm*[me]   *adj*. good

    pl   *sòma*[+]

    cb   *sòŋ-*

sòŋā[+/]   *adv*. well 22.4 26.2

súʔəŋ[a]   *n*. rabbit

    pl   *sūʔəmís*[e]

    cb   *sūʔəŋ-*

sūər[e/]   *n*. road;

    pl   *su̩ēyá*[+]   "permission" in *sūər bɛ́*, *mɔ̄r sūər* 31.2

    cb   *su̩ā-*

sùʔəs[a]   *n*. yesterday 37.8

sùʔəs[e]   *vv*. trick

sùr[a]   *iv*. have one's head bowed

sòsɔ̀m[me]   *n*. grasshopper

Sūtáanà[+]   *n*. Satan

sūʊg[e/]   *vv*. wither (leaves) WK

sòʔʊg[a] *sòʔʊg*[o]   *n*. knife

    pl   *sòʔʊs*[e]

    cb   *sòʔ-*

T

tāa= *tāas*ᵉ			fellow- as second part of compound 15.1.1.5
tāaba⁺ *tāab*			each other 17.5
*tāˀadɪr*ᵉ			*n.* sandal
	pl	*tāˀada*⁺	
	cb	*tàˀad-*	
*tàal*ˡᵉ			*n.* fault, sin
	pl	*tàala*⁺	
	cb	*tàal-*	
*táˀam*ᵐᵉ			*n.* shea tree fruit 37.5
	pl	*tāˀamá*⁺	
*táˀaŋ*ᵃ			*n.* shea butter tree 37.5
	pl	*tāˀamís*ᵉ	*Butyrospermum Parkii* (Haaf)
	cb	*tāˀaŋ-*	
*tāˀas*ᵉ/			*vv.* help someone to walk; in greetings 36
*tàb*ᵉ			*vv.* get stuck to
*tàbɪ*ʸᵃ			*iv.* be stuck to
*tàbɪg*ᵉ			*vv.* get unstuck from
*tàbɪl*ᵉ			*vv.* stick to
*tàdɪg*ᵉ			*n.* become weak
*tādɪm*ᵐ/			*n.* weak person
	pl	*tàdɪm-nàm*ᵃ	
	cb	*tàdɪm-*	
*tàdɪmís*ᵉ			*n.* weakness
*Tàlɪn*ⁿᵉ			*n.* Talni language
*Tàlɪŋ*ᵃ			*n.* Tallensi person 37.4
	pl	*Tàlɪs*ᵉ	
	cb	*Tàlɪŋ-*	
*tàm*ᵐ			*vv.* forget
	ipfv	*tàmɪd*ᵃ	
tàmpūa⁺			*n.* housefly 11.3.2
	pl	*tàmpɔ̄ɔs*ᵉ	
	cb	*tàmpɔ̀-*	
*tàmpūʋr*ᵉ			*n.* ashpit, rubbish tip
	cb	*tàmpʋ̀-*	
*tān*ⁿᵉ			*n.* earth
	pl	*tāna*⁺	
	cb	*tàn-*	
		*tàn-mɛ̄ɛd*ᵃ	*n.* builder

tāñp^o		*n.* war
	tàñp-sɔ̄b^a	*n.* warrior
tàñs^e		*vv.* shout
		Wìnnıg táñsìd nɛ̄. The sun is shining.
	ger *tàñsʋg*^o	
tār^{a/}		*iv.* have; more typical of *Toende* Kusaal; NT always has the Agolle word *mɔ̄r*^{a/} instead
	ger *tārím*^m	
tàsıntàl^{le}		*n.* palm of hand
tàtàl^{le}		*n.* palm of hand
tāu̯ñ^{+/}		*n.* sibling of opposite sex 37.1
	pl *tāñp*^{a/}	
	cb *tāu̯ñ- tāñp-*	
tèb^e		*vv.* carry in both hands
	ger *tɛ̄bıg*^a	
tɛ̄bıg^{e/}		*vv.* get heavy
tɛ̄bıs^{a/}		*iv.* be heavy
tɛ̄bısíg^a *tɛ̄bısír*^e		*adj.* heavy
	pl *tɛ̄bısá*⁺	
	cb *tɛ̄bıs-*	
tɛ̄bısím^m		*n.* heaviness
téɛbùl^e		*n.* table (← English)
	pl *téɛbùl-nàm*^a	
tɛ̄ɛg^{e/}		*vv.* drag (ILK)
tɛ̀ˀɛg^a		*n.* baobab 37.5
	pl *tɛ̀ˀɛs*^e	*Adansonia digitata* (Haaf)
	cb *tɛ̀ˀ-*	
tɛ̄k^{e/}		*vv.* pull
tèñb^e		*vv.* tremble, struggle
	ger *tèñbʋg*^o	
tèñɛs^e		*vv.* remind
tɛ̄ñˀɛs^{e/}		*vv.* think
	ger *tɛ̄ñˀɛsá*⁺	*n.* thought
tèñr^a		*iv.* remember
	ger *tɛ̄ñrıb*^o *tɛ̄ñrím*^m *tone sic*	

*tɛ̄ŋ*ᵃ			*n.* land
	pl	*tɛ̄ɛ̌s*ᵉ	
	cb	*tɛ̀ŋ-*	
		*tɛ̀ŋ-bīig*ᵃ	*n.* native
		*tɛ̀ŋ-dāan*ᵃ	*n.* traditional earth-priest
		*tɛ̀ŋ-dū̃ˀadıg*ᵃ	*n.* native land
		*tɛ̀ŋ-pōʊɡʊn*ᵉ/	*n.* village 22.3
		*pl tɛ̀ŋ-pōʊdın*ᵉ/	
		*tɛ̀ŋ-zʊ̀ŋ*ᵒ	*n.* foreign country
		*pl tɛ̀ŋ-zʊ̀ʊ̌s*ᵉ	
*tɛ̄ŋın*ᵉ/			downward; "under" as postposition 22.6
*tɛ̄ŋír*ᵉ			downward; "under" as postposition 22.6
*tɛ̀og*ᵒ			*n.* nest
	pl	*tɛ̀ɛd*ᵉ	
*tɛ̀ˀog*ᵒ			*n.* baobab fruit 37.5
	pl	*tɛ̀ˀɛd*ᵉ	
tì			we, our (Proclitic) 17.1
tı⁺			us (Enclitic object) 17.1
tì			Particle-Verb conveying completion 24.7.2
*tı̯à̀ˀal*ᵉ			*vv.* come next
*tı̯àk*ᵉ			*vv.* change
*tı̃ˀəb*ᵃ			*n.* healer
*tì̃ˀəb*ᵉ			*vv.* heal (ultimately
			← Arabic طب *tˤibb(un)* "medicinal art")
tìeň⁺			*vv.* inform WK ("remember " KED)
tìeň⁺			*vv.* stretch out
*tìən*ᵃ			*n.* beard
	pl	*tìəmıs*ᵉ	
	cb	*tìəŋ-*	
		*tìəŋ-gōʊr*ᵉ	*n.* chin
*tìg*ᵉ			*vv.* become sated
	ger	*tīgır*ᵉ	*n.* glut
*tī̃ˀi*ʸᵃ/			*iv.* be leaning (object)
	ger	*tī̃ˀib*ᵒ/	
*tìıg*ᵃ			*n.* tree
	pl	*tìıs*ᵉ	
	cb	*tì-*	
*tī̃ˀil*ᵉ/			*vv.* lean something

tìɩm^m   *n.* medicine

        cb   *tì-*

               tì-kʊ̄ʋdím^m   *n.* poison (killing-medicine)

               tì-sābɩlím^m   *n.* "black medicine"
                                                         (a particular traditional remedy)

               tì-ʋūnním^m   *n.* oral medication

tìʔin^e   *vv.* begin to lean

tīlás^e   *n.* necessity (← Hausa *tiilàs*) 31.2

tìlɩg^e   *vv.* survive, be saved

tīnámì   we (Subject of *ǹ*-Clause) 17.1

tīnám^a   we, us (Contrastive) 17.1

tīntɔ̄ňríg^a   *n.* mole (animal)

        pl   *tīntɔ̄ňrís*^e

        cb   *tīntɔ́ňr-*

tìp^a   *n.* healer (see *tīʔəb*^a id)

        pl   *tìp-nàm*^a

        cb   *tìp-*

tīráàn^a   *n.* neighbour, peer

        pl   *tīráàn-nàm*^a

        cb   *tīráàn-*

tīráànnɩm^m   *n.* neighbourliness

tírɩgà   ideophone for *gīŋ*^a short 21.8.1.3

tìs^e   *vv.* give
                                         also *tì* before enclitic pronouns*: tì f* "gave you"

        ipfv   *tìsɩd*^a *tìt*^a

        agt   *tìs*^a

tītāʔal^{le}   *n.* proud person

tītāʔallɩm^m   *n.* pride

tītāʔam^m   *n.* multitude

tītāʔʋg^o *tītāʔar*^e   *adj.* big, great

        pl   *tītāda*⁺

        cb   *tītáʔ-*

tɔ̀   OK 30.2.4

tɔ̀d^e   *vv.* give to the poor, share

tɔ̄ȩ^{ya/}   *iv.* be bitter, difficult

tɔ́klàe⁺   *n.* torch (← English "torchlight")

tɔ́lɩlìlɩ   ideophone for *wɔ̄k*^{o/} tall 21.8.1.3

tɔ́lìb   onomatopoeic word 21.8.1.3

tɔ̀ň⁺   *vv.* shoot

tɔ̀ňʔɔs^e   *vv.* hunt

*tɔ̄ɔg*ᵒ   *adj.* bitter, difficult

    pl   *tɔ̄ɔd*ᵉ

    cb   *tɔ̀-*

*tɔ̄ɔm*ᵐ/   *vv.* depart, disappear

tɔ̀ˀɔtɔ̄⁺/   *adv.* straight away ⟦22.4⟧

tṵà⁺   *vv.* grind in a mortar

*tṵà-bīl*ᵃ   *n.* pestle

*tɔ̀ˀas*ᵉ   *vv.* talk

*tʊ̀bʊr*ᵉ   *n.* ear

    pl   *tʊ̀ba*⁺

    cb   *tʊ̀b-*

        *tʊ̀b-kpìr*ᵉ   *n.* half of jaw

        *tʊ̀b-yīṵŋ*ᵒ/   *adj.* one-eared ⟦18.2.4⟧ ⟦21.8.1.4⟧

*tʊ̄l*ˡᵃ/   *iv.* be hot

*tùlɪg*ᵉ   *vv.* invert

*tʊ̄lɪg*ᵉ/   *vv.* heat up

*tʊ̀m*ᵐ   *vv.* work

   ger *tʊ̄ʊm*ᵐᵉ   *n.* deed

        pl tʊ̄ʊma⁺   *n.* deeds; work

        cb tʊ̀ʊm-

          *tʊ̀ʊm-bɛ̄ˀɛd*ᵉ   *n.* bad deeds

          *tʊ̀ʊm-bɛ̄ˀɛd-dím*ᵃ *n.* sinners NT

   agt *tʊ̀m-tʊ̄m*ⁿᵃ   *n.* worker

*tʊ̀m*ᵐ   *vv.* send

                   For the polysemy with "work", compare Hausa

                   àikaa "send", *aikàtaa* "work"

   ger *tìtʊ̄mɪs*ᵉ

*tʊ̄ň*ˀᵉ   *iv.* be able ⟦28.3⟧

*tʊ̄ǝdɪr*ᵉ   *n.* mortar

    pl   *tʊ̄ǝda*⁺

    cb   *tùǝd-*

*tùǝn*ⁿᵉ   in front; as postposition ⟦22.6⟧; West

      *tùǝn-gāt*ᵃ   *n.* leader

*Tùǝn*ⁿᵉ   *n.* Toende part of Kusaasiland

*Tùǝnnɪr*ᵉ   *n.* Toende dialect of Kusaal

*tʊ̄sɪr*ᵉ/   *n.* thousand ⟦18.2.2⟧

*tɔ̀tʊ̄l*ˡᵉ   *n.* upside-down thing cf *tùlɪg*ᵉ

tʊ̄ʊlígā⁺/   *adv.* hotly ⟦22.4⟧

*tʊ̄ʊlúg*ᵒ   *adj.* hot

    pl   *tʊ̄ʊlá*⁺

    cb   *tʊ̄ʊl-*

U

ùdʊg[o]			*n.* (piece of) chaff
	pl	*ùt*[e]	
	cb	*ùd-*	
ūgʊs[e/]			*vv.* bring up a child
ùk[e]			*vv.* vomit
ūk[e]			*vv.* bloat
ùm[m]			*vv.* close eyes
úun[ne]			*n.* dry season 37.8

V

vābɩ[ya/]			*iv.* be lying prone
	ger	*vāp*[o/] KT *vābɩr*[e/] WK	
vābɩl[e/]			*vv.* make lie prone
vàbɩn[e]			*vv.* lie prone
vāʋ̌ŋg[o/]			*n.* leaf
	pl	*vāaňd*[e/]	
	cb	*vāň-*	
vɛ̄ʔ[+]			*vv.* lead
vɛ̄ʔɛg[e/]			*vv.* drag
vèn[na]			*iv.* be beautiful
vèň̆l[la]			*iv.* be beautiful
vèň̆llɩg[a]			*adj.* beautiful
	pl	*vèň̆llɩs*[e] *vèň̆lla*[+]	
	cb	*vèň̆l-*	
vèň̆llíŋ[a]			*adj.* beautiful
	pl	*vèň̆llís*[e]	
	cb	*vèň̆llíŋ-*	
vènnɩg[a] *vènnɩr*[e]			*adj.* beautiful
	pl	*vènnɩs*[e] *vènna*[+]	
	cb	*vèn-*	
vènnɩm[m]			*n.* beauty
vī̄ʔ[+]			*vv.* uproot
vīk[e/]			*vv.* uproot
vīug[o/]			*n.* owl
	pl	*vīid*[e/]	
	cb	*vī-*	

vū[+]   *vv.* make a noise

    ger   *vūug*[o/]

            vūud[e/]   *n.* noise

vʊ̄e̤[ya/]   *iv.* be alive

vʊ̄l[e]   *vv.* swallow

vòlınvùuňl[le]   *n.* mason wasp

vʊ̄m[m/]   *n.* life

    cb   *vʊ̄m-*

            vʊ̄m-páàl[le]   *n.* new life

vúөŋ[a]   *n.* red kapok 37.5

    pl   *vūөmís*[e]   *Bombax buonopozense* (Haaf)

vúөr[e]   *n.* fruit of red kapok 37.5

    pl   *vūaá*[=]

    cb   *vūө-*

vʊ̄r[e/]   *adj.* alive

    pl   *vʊ̄yá*[+]

    cb   *vʊ̄r-*

vʊ̄ʔʊg[e/]   *vv.* come, make alive

vʊ̄ʔʊs[e/]   *vv.* breathe, rest

vʊ̄ʔʊsím[m]   *n.* resting

W

wāʔ[+]   *vv.* dance

wāad[e/]   *n.* cold weather

wáaf[o]   *n.* snake

    pl   *wīigí*[+]

    cb   *wāʔ-*

wāal[e/]   *vv.* sow, scatter seed

wāʔalím[m]   *n.* length

wāʔam[ma/]   *iv.* be long, tall

wàbıg[a] *wàbır*[e]   *n. or adj.* lame

    pl   *wàbıs*[e] *wàba*[+]

    cb   *wàb-*

wàbılım[m]   *vv.* make, go lame

wābʊg[o/]   *n.* elephant

    pl   *wābıd*[e/]

    cb   *wāb-*

wādɩr^(e/)			*n.* law (English "order" via Hausa)
	pl	*wādá*^+	*plural as sg*: law
	cb	*wād-*	
		wād-tís^a	*n.* lawgiver NT
wàˀe^(ya)			*iv.* be en route for
wālɩg^a			*n.* a kind of gazelle
	pl	*wālɩs*^e *wālí*^+ *tone sic*	
	cb	*wàl-*	
wàŋɩm^m			*vv.* waste away
wàsɩnwàl^(le)			*n.* a parasitic gall on trees,
			called "mistletoe" in local English
wàu̬ŋ^o			*adj.* wasted, thin
	pl	*wàna*^+	
	cb	*wàu̬ŋ-*	
wèɛd^a			see *wìɩd*^a
wɛ̄ɛl^(e/)			*vv.* be left unsold (KED) but see *wɛ̄og*^(o/)
wɛ̄l^e			*vv.* bear fruit
wɛ̄l^(le/)			*n.* fruit
	pl	*wɛ̄lá*^+	
	cb	*wɛ̄l-*	
wɛ̄lá^+ or *wālá*^+			how? 19.1
wɛ̄n^(na/)			*iv.* resemble
	ger	*wɛ̄nním*^m	
wɛ̄nnɩr^e			*adj.* resembling (Tone *sic*, confirmed by WK)
wèog^o			*n.* deep bush
wɛ̄og^(o/)			*n.* cheap thing sold in abundance WK
	pl	*wɛ̄ɛd*^(e/)	
wìdɩg^e			*vv.* scatter
wìəf^o			*n.* horse
	pl	*wìdɩ*^+	
	cb	*wìd-*	
		wìd-lɔ̄r^(e/)	*n.* place for tying up horses in a compound
		wìd-dāʋg^o	*n.* stallion
		wìd-ňyáˀaŋ^a	*n.* mare
		wìd-zūʋr^e	*n.* horsetail
wìɩd^a			*n.* hunter
	pl	*wìɩb*^a	
	cb	*wìɩd-*	
Wìid^a			*n.* clan name 37.4
	pl	*Wìid-nàm*^a	
	cb	*Wìid-*	

*Wìidʋg*ᵒ			*n.* place of the clan Wiid
*wīig*ᵃ/			*n.* whistle
*wìɩm*ᵐ			*n.* sickness, disease ("worse than *bāň̓as*ᵉ" WK)
*wìk*ᵉ			*vv.* fetch water 13.1.2
	ipfv	*wìid*ᵃ	
*wìl*ˡᵉ			*n.* branch
	pl	*wìla*⁺	
	cb	*wìl-*	
*wīlɩsʋ́ŋ*ᵒ			*n.* a kind of snail 11.3.2.1
	pl	*wīlɩmís*ᵉ	
	cb	*wīlɩsʋ́ŋ-*	
wím			ideophone for *zìň̓a*⁺ red 21.8.1.3
*wīn*ⁿᵉ/			*n.* God; god; spiritual double, *genius*; destiny
	pl	*wīná*⁺	
	cb	*wīn-*	
		*wīn-tɔ́ɔ̀g*ᵒ	*n.* misfortune
*Wínà̓am*ᵐ			*n.* (Christian) God 20.1
*wìnnɩg*ᵃ			*n.* sun; talent
	cb	*wìn-*	
		*wìn-līir*ᵉ	*n.* sunset
		*wìn-kɔ̀ɔɔ̌r*ᵉ	*n.* sunset
*wìug*ᵒ *wìir*ᵉ			*adj.* red
	pl	*wìya*⁺ *wìid*ᵉ	
	cb	*wì-*	
*wɔ̄k*ᵒ/ *wā̓ar*ᵉ/			*adj.* long, tall
	pl	*wā̓á*⁺ *wā̓ad*ᵉ/	
	cb	*wɔ̄k-* *wā̓-*	
*wìm*ᵐ			*vv.* hear; understand (a language)
wūsa⁺			*q.* all 18.1
wɔ̄ʋ⁺			*q.* all 18.1
wɔ̄ʋ			like, resembling 23.1
*wɔ̄̓ʋg*ᵉ/			*vv.* get wet
*wɔ̄̓ʋl*ᵉ/			*vv.* make wet

Y

yà	you, your *pl* (Proclitic) 17.1
ya⁺	you *pl* (Enclitic object) 17.1
ya	you *pl*, Enclitic Subject after imperative 17.1 30.2.3
yā⁺	Independent/perfective particle 24.6.2.1

yàʔ			if, when 32
yáa			*adv.* whither? 19.1
yāʔa			as for ... 30.1.1
*yáab*ᵃ			*n.* grandparent, ancestor 37.1
	pl	*yāa-nám*ᵃ	
	cb	*yāa-*	
		yāa-dáu̯⁺	*n.* grandfather
		*yāa-pu̯ʔá*ᵃ	*n.* grandmother
*yàʔal*ᵉ			*vv.* hang up; make perch (bird)
*yàʔan*ᵉ			*vv.* perch (of a bird)
*Yàan*ⁿᵉ			*n.* Yansi language (apparently Mooré now)
yáa nì⁺			*adv.* where? 19.1
*yáaŋ*ᵃ			*n.* grandchild, descendant 37.1
	pl	*yáaňs*ᵉ	
	cb	*yāaŋ-*	
*Yàaŋ*ᵃ			*n.* Yansi person 37.4
	pl	*Yàam*ᵐᵃ *Yàamɪs*ᵉ *Yàaňs*ᵉ	
	cb	*Yàaŋ-*	
*yāar*ᵉ/			*vv.* scatter
*yàarɪm*ᵐ			*n.* salt
	cb	*yàar-*	
*yàʔas*ᵃ *yàʔas*ᵉ			again 28.3
*yāʔas*ᵉ/			*vv.* open repeatedly
yàddā yàdā			*n.* faith, trust (Hausa *yàrda*; probably ← Arabic يرضى *yardˤa:* 20.1 25.1.3)
	*yàddā-níŋìr*ᵉ		*n.* belief
*yādɪg*ᵉ/			*vv.* scatter
	agt	*yāt*ᵃ/	irr agent noun: technical term for a participant in a housebuilding ritual
yāʔe⁺/			*vv.* widen, open (mouth)
*yàk*ᵉ			*vv.* unhang, unhook
*yàlɪm*ᵐᵃ			*iv.* be wide
*yālɪsʊ́ŋ*ᵒ			*n.* quail 11.3.2.1
	pl	*yālɪmís*ᵉ	
	cb	*yālɪsʊ́ŋ-*	
*yàlʊŋ*ᵒ			*adj.* wide
	pl	*yàlɪma*⁺	
	cb	*yàlʊŋ-*	

yām^me			*n.* hay WK
	pl	*yàma*^+	
	cb	*yàm-*	
yām^m/			*n.* gall; gall bladder; common sense WK *yāˀm*^m/.
	cb	*yām-*	
yàmmɪg^a *yàmmʊg*^a *yàmmʊg*^o			*n.* slave
	pl	*yàmmɪs*^e	
	cb	*yàm-*	
yānámì			you *pl* (Subject of *ǹ*-Clause) 17.1
yānám^a			you *pl* (Contrastive) 17.1
Yārɪg^a/			*n.* Yarsi 37.4 ; also called Kantonsi; said to have been originally of Manding/Dyula origin
	pl	*Yārɪs*^e/	
	cb	*Yār-*	
Yāt^e/			*n.* Yarsi language (no longer Dyula/Bambara, but a Western Oti-Volta language)
yàʊg^o			*n.* grave, tomb
	pl	*yàad*^e	
yɛ̄			that 31.2 31.4 31.4.3
yɛ̄			be about to ... 24.3.2
yɛ̀^+			*vv.* dress oneself
	pfv adj yɛ̀ɛlʊ́ŋ^o		*adj.* worn (e.g. of a shirt)
yɛ̀ɛg^e			*vv.* undress oneself
yɛ̀ɛl^e			*vv.* dress someone
yɛ̄ɛs^e/			*vv.* betray a secret
yɛ̀l^e			*vv.* say, tell
	ipfv	*yɛ̀t*^a	
	ger	*yɛ̀lʊg*^o	
yɛ̄l^le/			*n.* matter, affair
	pl	*yɛ̄lá*^+	as postposition: about 22.6
	cb	*yɛ̄l-*	
		yɛ̄l-mɛ́ŋìr^e	*n.* truth
		yɛ̄l-nárʊ̀ŋ^o	*n.* necessity
		yɛ̄l-pákìr^e	*n.* disaster
		yɛ̄l-sʊ́ˀadìr^e	*n.* confidential matter
yɛ̄ŋím^m			*vv.* oscillate (like waves)
yɛ̀og^o			*n.* bird's crop; person displaced from family (KED)
	pl	*yɛ̀ɛd*^e	
yɛ̄óŋ			*q.* one 18.2.3
yī^+			*vv.* go, come out

	ipfv	*yīt*ᵃ/	
	imp	*yìm*ᵐᵃ	

*yìdɩg*ᵉ — *vv.* go astray

*yīdɩg*ᵉ/ — *vv.* untie

*yìər*ᵉ — *n.* jaw

yīigá⁺ — *q.* firstly $\boxed{18.2.4}$ $\boxed{22.4}$

    *yīig-sɔ́b*ᵃ — *n.* first person $\boxed{21.9.3}$

*yīis*ᵉ/ — *vv.* make go/come out, extract

    ger *yīisíb*ᵒ

*yīmmír*ᵉ — *adj.* solitary, lone $\boxed{18.2.4}$

    pl *yīmmá*⁺

    cb *yīm-*

yīmmʋ́⁺ — *adv.* straight away, at once $\boxed{18.2.5}$

yīnní⁺ — *q.* one $\boxed{18.2.2}$

*yìŋ*ᵃ — *adv.* outside

*yīr*ᵉ/ — *n.* house

    pl *yā*⁺/

    cb *yī-*

      *yī-dáàn*ᵃ — *n.* householder

      *yī-sɔ́b*ᵃ — *n.* householder

        *pl yī-sɔ́b-nàm*ᵃ

      *yī-dím*ᵃ — *n.* members of the household

      *yī-pɔ́ňrʋ̀g*ᵒ — *n.* neighbouring house

        pl yī-pɔ́ňrà⁺

      *yī-sígɩdìr*ᵉ — *n.* lodging-house

    *yín*ⁿᵉ — at home

      *pl yáan*ᵉ

*yīs*ᵉ — *vv.* make go/come out, extract

*yīu̯ŋ*ᵒ/ — *adj.* single- $\boxed{18.2.4}$ $\boxed{21.8.1.4}$

    pl *yīná*⁺

yɔ̀⁺ — *vv.* close

    *pfv adj yɔ̀ɔlʋ́ŋ*ᵒ — *adj.* closed

yɔ̄⁺ — *vv.* pay

    ger *yɔ̄ɔd*ᵉ/ — *n.* pay

*yɔ̄lɩs*ᵉ/ — *vv.* untie

*yɔ̄lɩsím*ᵐ — *n.* freedom

*yɔ̄lʋg*ᵒ/ — *n.* sack, moneybag, £100, ¢200 (200 cedis)

    pl *yɔ̄n*ⁿᵉ/

    cb *yɔ̄l-*

*yɔ̀ˀɔg*ᵉ — *vv.* open

*yɔ̀ɔr*ᵉ — *n.* soldier ant

	pl	*yɔ̀ya*[+]	
	cb	*yɔ̀-*	

yu̪à[+]   *vv.* bleed; also "fornicate" WK

yùbɪg[a]   *n.* small bottle-like pot

	pl	*yùbɪs*[e]	
	cb	*yùb-*	

yūgʊdɪr[e]   *n.* hedgehog

	pl	*yūgʊda*[+]	
	cb	*yùgʊd-*	

yūgʊ́m[me] *yūgʊ́m*[ne]   *n.* camel

	pl	*yūgʊmá*[+]	
	cb	*yūgʊm-*	

yùlɪg[e]   *vv.* swing (transitive)

*yūň*ʔ*e*[+/]   *vv.* set alight

*yū*ʔ*ər*[e]   *n.* penis

	pl	*yu̪āda*[+]	
	cb	*yù*ʔ*ər-*	

yùug[e]   *vv.* get to be a long time, delay

                              Tì yúùg nɛ̄ tāaba.

                              "It's a long time since we met."

yùul[e]   *vv.* swing (intransitive)

yūum[m/]   *vv.* sing

	agt	*yūum-yúùm*[na]	
		pl *yūum-yúùmnɪb*[a]	

yùum[me]   *n.* year

	pl	*yùma*[+]	
	cb	*yùum-*	
		yùum-pāalíg[a]	*n.* new year

*yú*ʔ*uŋ*[o]   *n.* night

	pl	*yū*ʔ*umís*[e]	
	cb	*yū*ʔ*uŋ-*	

*yū*ʔ*ur*[e/]   *n.* name

	pl	*yūdá*[+]	
	cb	*yū*ʔ*-*	

yūʊr[e]   *n.* water pot

	pl	*yūya*[+]	
	cb	*yʊ̀-*	

Z

zā⁺ᐟ		*n.* millet
	cb	*zā-*
*zāalíg*ᵃ *záal*ˡᵉ		*adj.* empty
	pl	*zāalís*ᵉ *zāalá*⁺
	cb	*zāal-*
*zāalím*ᵐ		*adv.* emptily
*zàam*ᵐ		*n.* evening
	cb	*zà-*
		*zà-sìsɔ̄bɩr*ᵉᐟ *n.* evening
*zàaňsɩm*ᵐ		*vv.* dream
*zāaňsím*ᵐ		*n.* soup; not "fish soup", unlike (according to Tony Naden) the Mampruli cognate cf Toende *zãasím* "*soupe à viande*" (Niggli)
	cb	*zāaňs-*
*zàaňsúŋ*ᵒ		*n.* dream
	pl	*zàaňsímà*⁺
	cb	*zàaňsúŋ-*
*zàb*ᵉ		*vv.* fight; hurt (of body part)
	ger	*zàbɩr*ᵉ
	agt	*zàb-zàb*ᵃ *n.* warrior
	agt	*gbān-záb*ᵃ *n.* leather-beater, leather-worker
*zàbɩl*ᵉ		*vv.* cause to fight
*zàk*ᵃ		*n.* compound
	pl	*zàʔas*ᵉ
	cb	*zàʔ-*
		*zàʔ-nɔ̄ɔr*ᵉᐟ *n.* gate
		*zàʔ-nɔ̄-gúr*ᵃ *n.* gatekeeper
*zàkɩm*ᵐ		*vv.* itch
*zàlɩŋ*ᵃ		*n.* electric eel
	pl	*zàlɩmɩs*ᵉ
	cb	*zàlɩŋ-*
*zàm*ᵐ		*vv.* cheat
	ipfv	*zàmɩd*ᵃ
	agt	*zàm-zām*ⁿᵃ *n.* cheat
*zàʔmɩs*ᵉ		*vv.* learn, teach
zāňʔa⁼		*q.* every 18.1
*zàňʔas*ᵉ		*vv.* refuse
*zàňbɩl*ᵉ		*vv.* tattoo, mark skin

zāňbɪn^{ne} *zāňbɪl*^{le}   *n.* tattoo; NT "sign"

    pl   *zāňbɪna*⁺

    cb   *zàňbɪn-*

Zàngbὲεl^e   *n.* Hausa language 37.4

Zàngbὲog^o   *n.* Hausa person 37.4

    pl   *Zàngbὲεd*^e

zàngùɵm^{me}   *n.* wall

    pl   *zàngùɵma*⁺

    cb   *zàngùɵm-*

zànkὶʾar^e   *n.* jackal

    pl   *zànku̞ʾàa*⁺ *zànkὶʾada*⁺

    cb   *zànku̞ʾà-*

zāňl^{la/}   *iv.* be holding, carrying in hands

    ger   *zāňllím*^m

zàňl^{le}   *n.* umbilicus

zàŋ^e   *vv.* pick up, take up

zὲm^{ma/}   *iv.* be equal

    ger   *zὲmmúg*^o

zὲʾmɪs^{e/}   *vv.* make equal

zὲmmúg^o   *adj.* equal

    pl   *zὲmmá*⁺

    cb   *zὲm-*

zī⁺   *vv.* carry on one's head

    ger   *zīid*^{e/}

    agt   *zī-zîd*^a   *n.* carrier on the head

zīʾ⁺   *iv.* not know 35.1.1

    agt   *zīʾɪd*^{a/}   *n.* ignorant person

    ger   *zīʾɪlím*^m

zὶʾe^{ya}   *iv.* be standing

    ger   *zīʾa*⁺ KED; DK KT *zīʾəg*^a   (exceptional phonology 20 14.1.1.2)

zὶʾəl^e   *vv.* make to stand

zὶʾən^e   *vv.* stand still

                       Ò zὶʾən nὲ. "She's pregnant."

zīɪm^{m/}   *n.* blood

    cb   *zī-*

zíiŋ^a   *n.* fish

    pl   *zīmí*⁺

    cb   *zīm-*

          zīm-gbáňʾàd^a   *n.* fisherman

zìlɪm^{me} → *zìlɪm*^me

zìlɪm^me   *n.* tongue
- *pl*   *zìlɪma*^+
- *cb*   *zìlɪm-*

zīlɪnzíʋg^o   *adj.* unknown

zím   ideophone for *sābɪlíg*^a black 21.8.1.3

zīná^+   today 37.8

zìñˀa^+ *zèñˀʋg*^o   *adj.* red
- *pl*   *zèñˀɛd*^e *zèñˀɛs*^e *zèñda*^+
- *cb*   *zèñˀ-*

zìñˀi^ya   *iv.* be sitting
- *ger*   *zīñˀig*^a   gerund, also "place"
  - *pl zīñˀis*^e
  - *cb zìñ-*

zìñˀil^e   *vv.* make sit, seat

zìñˀin^e   *vv.* sit down

zīnzāṷŋ^o/   *n.* bat
- *pl*   *zīnzāná*^+
- *cb*   *zīnzáṷŋ-*

zīrí^+   *n.* lie, untruth

zɔ̀^+   *vv.* run; fear; experience emotion
- *ipfv*   *zɔ̀t*^a
- *imp*   *zɔ̀m*^ma
- *ger*   *zūa*^+   *zɔ̄ɔg*^o   gerunds "run"
- *ger*   *zɔ̀tɪm*^m   *ipfv* gerund "fear" 15.1.1.4
  - *Ò zɔ̀t·ō nīn-báalìg.* "He has pity on him"

zɔ̄l^e   *vv.* castrate

zɔ̄lɪmís^e   *n.* foolishness

zɔ̄lʋg^o/   *n.* fool
- *pl*   *zɔ̄n*^ne/
- *cb*   *zɔ̄l-*

zɔ̄m^m/   *n.* flour
- *cb*   *zɔ̄m-*

zɔ̄ɔm^me *zɔ̄ɔm*^ne   *n.* refugee, fugitive
- *pl*   *zɔ̄ɔma*^+
- *cb*   *zɔ̀ɔm-*

zɔ̄rɪg^a/   *n.* small child WK

zɔ̄rʋg^o/   *n.* piece
- *pl*   *zɔ̄rá*^+

zū^+   *vv.* steal

zu̯à+			*n.* friend
	pl	*zu̯à-nàm*ᵃ	
	cb	*zu̯à-*	
Zùa+			*n.* clan name 37.4
	pl	*Zùɵs*ᵉ	
	pl	*Zu̯à-wìis*ᵉ *Zu̯à-wìib*ᵃ	subclans of Zoose
	pl	*Zu̯à-sābɪlís*ᵉ	
zù²e+			*vv.* get higher, more
zùe+			*vv.* perch, get on top (? variant of *zù²e*+)
*zūg*ᵒ/			*n.* head; as postposition 22.6; *zūgʊ́n*ᵉ is also used as a postposition
	pl	*zūt*ᵉ/	
	cb	*zūg- zū-*	11.2.2
		*zūg-kūgʊr*ᵉ	*n.* pillow
		pl zūg-kūga+	
		cb zūg-kʊ́g-	
		*zūg-máṳk*ᵒ	*adj.* crushed-headed 21.8.1.4
		*pl zūg-má²àd*ᵉ	
		*zūg-sɔ́b*ᵃ	*n.* boss; NT Lord (Often read as *zū-sɔ́b* in the audio NT)
		*zū-pέɛlʊ̀g*ᵒ	*adj.* bald, grey-haired 21.8.1.4
		pl zū-pέɛlà+	
		*zū-píbìg*ᵃ	*n.* hat
*zùlɪg*ᵉ			*vv.* deepen
*zùlɪm*ᵐᵃ			*iv.* be deep
*zùlʊŋ*ᵒ			*adj.* deep
	pl	*zùlɪma*+	
	cb	*zùlʊŋ-*	
*zùlʊŋ*ᵒ			*n.* depth
*zùnzɔ̀ŋ*ᵃ *zùnzɔ̀ŋ*ᵒ			*adj.* blind
	pl	*zùnzɔ̀ɔňs*ᵉ	
	cb	*zùnzɔ̀ŋ-*	
*zūɵbʊ́g*ᵒ			*n.* hair (of human head); see *kɔ̄ňbʊg*ᵒ
	pl	*zūɵbíd*ᵉ	
	cb	*zūɵb-*	
*zùɵd*ᵉ			*n.* friendship
*zùɵl*ᵉ			*vv.* make to perch
*zū²ɵm*ᵐ/			*n.* blind person
	pl	*zū²ɵmís*ᵉ	
	cb	*zū²ɵm-*	
*zū²ɵm*ᵐ/			*vv.* go blind, make blind

zùɵn^e   *vv*. begin to perch

zūɵr^e   *n*. hill

     pl   *zu̯ēya*⁺

     cb   *zu̯à-*

zùɵs^e   *vv*. befriend

zūríf^o   *n*. dawadawa seed

     pl   *zūrí*⁺

     cb   *zūr-*

zúʋňf^o   *n*. dawadawa seed

     pl   *zūʋní*⁺

zùuňg^o   *n*. vulture

     pl   *zùuňs*^e *zùuňd*^e

     cb   *zùň-*

zūʋr^e   *n*. tail

     pl   *zūya*⁺

     cb   *zʋ̀-*

          zʋ̀-wɔ̄k^{o/}   *adj*. long-tailed ⟨21.8.1.4⟩