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 to understand Kusaal morphophonemics. It grew into areas where I was even less sure-footed, and I am very conscious of its deficiencies. In the course of working up my old notes after many years many questions have occurred to me which I lacked the experience to ask when I had daily contact with Kusaal speakers. If my description provokes others to ask some of those questions I will be very happy, especially if they share the answers with me.

When I lived in Ghana, there were very few linguistic works available on Kusaal. Happily, the situation has changed; in the References and Bibliography I list numerous works by Urs Niggli on the Toende Kusaal of Burkina Faso, and more encouragingly still, accounts of aspects of Toende Kusaal by Hasiyatu Abubakari, herself a speaker; see further "Other studies of Kusaal" below.

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

My 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

I have updated a few details in my original Preface; here I mention some of the many changes in the grammar itself since December 2016.

I am very grateful to the Ghana Institute of Linguistics, Literacy and Bible Translation for permission to cite verses from the 2016 Kusaal Bible.

My orthography is now closer to that of Kusaal written materials, especially the 2016 Bible. I have adopted most of the recent orthographic changes, which are almost all improvements, except in the marking of nasalisation.

A fair amount of new material on syntax has been added, derived from further study of the readily available digitised Bible versions.

Many errors have been corrected. A number of idiosyncratic technical terms have been replaced by more mainstream equivalents. The presentation has been reorganised in many respects, and I have abandoned the unhelpful separation of description from the internal reconstruction and comparative material which was intended to shed light on it.

Interlinear glosses now appear throughout.

The tonal description previously reflected the close structural parallels with other Western Oti-Volta languages, but from a language-internal standpoint it is more natural to describe the system with high, mid and low tonemes. Altering the tone marking to reflect this, I have also made it much less abstract: the domain of marking is now always the individual word, and low tonemes are marked explicitly.

David Eddyshaw
Swansea, July 2018

Abbreviations

(See also Interlinear Glossing Conventions below.)

AdvP	adverbial phrase
BNY	*Bunkonbid ne Niis ne ba yɛla* (see Sources)
C	consonant
cb	combining form (of noun or adjective)
CGEL	Cambridge Grammar of the English Language (see Bibliography)
DK	informant (see Sources)
dp	discontinuous past
ger	gerund
H	High toneme
ILK	"An Introduction to Learning Kusaal" (David Spratt)
ipfv	imperfective
irreg	irregular
KB	Kusaal Bible of 2016 (see Sources)
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
NP	noun phrase
NT	Kusaal New Testament Versions of 1976 and 1996 (see Sources)
pfv	perfective
pl	plural
SB	informant (see Sources)
SF	Short Form (of word capable of standing clause-finally)
sg	singular
V	vowel
VP	verb phrase
WK	informant (see Sources)
1sg 2pl …	first person singular, second person plural etc

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

Interlinear glossing

Abbreviations:

ABSTR	abstract	9.1.1
ADV	adverbial	12.3
AN	animate gender	16.2.2
CAT	clause catenator (underlyingly *n*)	23.1
CNTR	contrastive (personal pronouns)	28.5
COP	copula *àe̯ň*^{a}	20.2
CQ	content question prosodic clitic	8.1
DEM	(short) demonstrative pronoun	16.3.2
DEM.DEI	deictic (long) demonstrative pronoun	16.3.2
DP	discontinuous-past marker *n*^{ɛ}	24.1.1
EXIST	existence/location verb *bɛ̀*$^{+}$	20.1
FOC	focus particle *nɛ̄*$^{+/}$	28.1.2
GER	gerund	12.2.1
IMP	independent imperative verb form	11.1
INAN	inanimate gender	16.2.2
INDF	indefinite pronoun	16.3.3
IPFV	imperfective verb form	11.1
IRR	positive irrealis mood marker	19.4
LOC	locative postposition (*nī*$^{+/}$ ~ *n*^{ɛ})	17.3
NEG	negative prosodic clitic	8.1
NEG.BE	negative verb to and COP and EXIST	19.5.1
NEG.HAVE	(another use of the same verb)	19.5.1
NEG.IMP	negative imperative marker	19.4
NEG.IND	negative indicative marker	19.4
NEG.IRR	negative irrealis marker	19.4
NEG.KNOW	negative verb *zī*'$^{+}$	19.5.1
NEG.LET	negative verb *mìt*	19.5.1
NUM	number prefix *à- bà- ǹ- bù-*	14.3
NZ	nominaliser (underlyingly *ǹ*)	25
OB	object (liaison-enclitic pronouns)	8.2
PERS	personifier clitic (*à-* or *ǹ-*)	16.6
PFV	independent-perfective marker *yā*$^{+}$	19.6.2.1
PL	plural	16.2.1
PQ	polar question prosodic clitic	8.1
REL	relative pronoun	25.3.2
SG	singular	16.2.1
TNS	tense marker	19.3.1
VOC	vocative prosodic clitic	8.1

Personal pronouns: 16.3.1

1SG 1PL	1st sg/pl
2SG 2PL	2nd sg/pl
3AN 3INAN	3rd sg animate/inanimate
3PL	3rd pl
2PL.SUB	postposed 2nd pl Subject

The linker particle *kà* is conventionally glossed "and" throughout, though this very often does not reflect the true meaning in context 21.2; similarly *yà'* 24.1 is glossed "if" in all cases. The empty particle *nɛ̄* which follows objects of comparison which lack the article 18 is glossed "like."

Mass nouns 16.2.1 are not specified as SG or PL in the glossing; similarly, single-aspect verbs 11.2 are not labelled for aspect. The perfective of dual-aspect verbs is also unlabelled.

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. Prosodic clitics 8.1 are represented by $^{+}$*ø*, and liaison 8.2 is marked by ‿.

For the purposes of interlinear glossing, I have adopted the concept of wordhood reflected in the traditional orthography. This entails a deviation from the Leipzig Glossing Rules for clitics. Clitics which the traditional orthography writes solid with their hosts, as if they were word fragments, are in both the working orthography of this grammar and in glossing joined to their hosts by *hyphens* (not =): these comprise the combining forms of nouns and adjectives, the personifier clitic *À-*/*Ǹ-*, and the liaison enclitics *n*$^{\varepsilon}$ LOC *n*$^{\varepsilon}$ DP ^{ya} 2PL.SUB along with the LF of ^{o} 3AN.OB 1.3.1. All other clitics are written as separate words throughout. Polysyllabic words ending in a vowel symbol before a hyphen are always followed by liaison, and as this is predictable, the ‿ symbol is then omitted: *pʊ̄ʊgʊ-n* "inside", not *pʊ̄ʊgʊ‿n*.

Transcription conventions

For the working orthography used for Agolle Kusaal in this grammar see 1.3.

Phonetic transcriptions are written in square brackets; they are quite broad, and ignore a good deal of allophony, as explained in 3.1 4.1.

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

Hausa words are cited in the orthography of Jaggar 2001, except that long vowels are written with double letters rather than macrons, as in Caron 1991. High tone is unmarked, low tone is marked with a grave, and a circumflex represents falling tone. 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.

Mooré words are cited as in Niggli 2016, along with his tone marking. Acute accents represent high tone, grave low; tone marks apply to all following unmarked morae, and a second acute after a first within a single word represents a downstepped H tone. The Mooré sources reflect Ouagadougou Mooré, which differs somewhat from the dialect with which Kusaal has been in contact.

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

All my Francophone sources use the symbols *ɩ ʊ* for IPA ɪ ʊ, as do Urs Niggli's works in English and the working orthography of this grammar.

Words from other languages are cited as given in the sources from which they are drawn, except for tones, which are are transcribed using acute for H, grave for L, and macron for mid tone. Except with Hausa, absent tone marks signify a lack of tonal information.

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

Internal and external hyperlinks appear like this.

Sources

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

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

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

My materials drawn from conversation were limited as to genre. More informal settings would have rounded out the picture in many respects. For example, features like ideophones 16.11.1.3 are sparsely represented my data, and this has probably led to underestimation of their importance in the language as a whole.

At that time, I had little understanding of syntactic issues at clause or higher level. I compensated as far as I could by private study of written materials, above all the 1976 New Testament version, storing up problems to discuss later with my teachers. In revising the work twenty years later I have had the advantage of access to digitised versions of the 1996 New Testament and the complete Bible version of 2016, which has enabled me to improve my analyses of Kusaal syntax substantially in several areas. I have also drawn on the collection of stories and proverbs *Kusaal Solima ne Siilima*, and to a small extent on other literacy materials. I owe a great debt to the many dedicated individuals involved in Bible translation and literacy work

under the auspices of the Ghana Institute of Linguistics, Literacy and Bible Translation (GILLBT), without whom these materials would not exist.

The Bible versions are regarded by Kusaal speakers as good and idiomatic Kusaal; nevertheless, as translations, they naturally cannot be fully representative of the language. The 1996 revision adapted most foreign names to accord more closely with ordinary Kusaal spelling. Many changes were made to improve accuracy and clarity; strikingly, all instances of the previously very common indirect speech construction 26.2.1 were replaced by direct speech. The 2016 Kusaal Bible makes significant orthographic changes. There is some evidence of actual language change over this forty-year period 8.2.1, but most divergences between the spelling of older sources and the speech of my informants in the 1990's seem simply to be matters of orthographic convention 8.5.2; the audio version of the 1996 NT consistently agrees with my informants in such cases.

There is no standard or prestige form of Agolle Kusaal 1.2.2, and as a natural consequence the language is not entirely uniform in any of the Bible versions.

Written sources are cited in their original orthography, with a transliteration into the working orthography of this grammar. The tone marking of examples drawn from written materials is supplied by me; it should be regarded as illustrating the tonal principles described elsewhere, not as evidence for their validity.

The following texts are cited; apart from the Bible versions, they were published by the Tamale offices of GILLBT (the Ghana Institute of Linguistics, Literacy and Bible Translation):

Wina'am Gbauŋ *Wínà'am Gbáu̯ŋ*	Kusaal Bible 1976 NT © World Home Bible League 1996 NT © The Bible League/GILLBT available as Audio and searchable text 2016 Complete Bible © GILLBT available as an Android application
Bunkonbid ne Niis ne ba yɛla *Bū̀n-kɔ́ňbìd nɛ̄ Níis né bà yɛ̄lá*	"Animals and birds and their affairs" Matthew M. Abokiba
Kusaal Solima ne Siilima *Kū̀sáàl Sɔ́lɪmà nɛ̄ Síílímà*	"Kusaal Stories and Proverbs" Samuel Akon, Joe Anabah
Kusaas Kuob nɛ Yir yela Gbauŋ *Kū̀sáàs Kúèb nɛ̄ Yīr yɛ́là Gbàu̯ŋ*	"A book on Kusaasi farming and housing" William A. Sandow, Joseph A.H.Anaba

Other studies of Kusaal

The pioneers of Kusaal grammatical study were **David and Nancy Spratt**. David Spratt's forty-two page "Introduction to Learning Kusaal" contains a useful sketch of the tone system, which was invaluable in starting me in the right direction. His work has also been helpful in lexical matters.

More recently, numerous 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, and edited a very useful dictionary of Mooré. 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 Toende dictionary has been an excellent resource for comparative material; it marks all vowel contrasts, and the most recent update also marks tone in many headwords. The tones as marked suggest that the effects of external tone sandhi have not always been taken into account.

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

References/Bibliography

Abubakari, Hasiyatu

Object-sharing as symmetric sharing: Predicate Clefting and Serial Verb Constructions in Kusaal

Master's Thesis, University of Tromsø, 2011

Ideophones in Kusaal

Journal of West African Languages, Vol 44.1 (2017)

Adouna, Gbandi

Description phonologique et grammaticale du Konkomba

Université Rennes 2; Université de Lomé (TOGO), 2009.

Aikhenvald, Alexandra Y and Dixon, R M W

Serial Verb Constructions: A Cross-Linguistic Typology

Oxford University Press 2007

Akanlig-Pare, George and Kenstowicz, Michael

Tone in Buli

Studies in African Linguistics, Volume 31, Numbers 1/2,2002

Albro, Daniel

Nawdm-English Dictionary with Examples (1998)

Anttila, Arto and Bodomo, Adams

Stress and Tone in Dagaare

Ashton, Ethel O

Swahili Grammar (Including Intonation)

Longmans 1947

Balima, Adama et al

Moré Basic Course

Foreign Service Institute. Undated

Bendor-Samuel, John (Editor)

The Niger-Congo Languages

University Press of America 1989

Berthelette, John

Sociolinguistic Survey Report for the Kusaal Language

SIL International 2001

Bloomfield, Leonard

A Set of Postulates for the Science of Language

Language 2. 153-164 (1926)

Bodomo, Adams

The structure of Dagaare

Stanford Monographs in African Languages.

CSLI, Stanford, California 1997

Brindle, Jonathan
A dictionary and grammatical outline of Chakali
Language Science Press, 23 Jun. 2017
Canu, Gaston
La Langue Mò:rē; Dialecte de Ouagadougou (Haute-Volta)
Société d'Études Linguistiques et Anthropologiques de France 1976
Caron, Bernard
Le Haoussa de l'Ader
Dietrich Reimer Verlag, Berlin 1991
Chitoran, Ioana
A perception-production study of Romanian diphthongs and glide-vowel sequences
Journal of the International Phonetic Association
Volume 32, Issue 02 (December 2002) pp 203-222
Dimmendaal, Gerrit J
Historical Linguistics and the Comparative Study of African Languages
John Benjamins 2011
Fiedler, Ines
Nawdm
In: Noun Class Systems in Gur Languages. Vol. 2: Oti-Volta Languages.
Gudrun Miehe, Brigitte Reineke & Kerstin Winkelmann (eds.), 566-601.
Köln: Köppe. (Generously shared by the author via Researchgate)
Giffen, Robyn
We begin to write: creating and using the first Nabit orthography
MA Thesis, University of British Columbia 2015
Güldemann, Tom
The Macro-Sudan Belt: towards identifying a linguistic area in northern sub-Saharan Africa; in A Linguistic Geography of Africa, Eds.
Bernd Heine, Derek Nurse, Cambridge University Press, 2007
Guthrie, Malcolm
Grammaire et Dictionnaire de Lingala
Librairie Évangelique au Congo, Léopoldville, 1951
Proto-Bantu reconstructions
Haaf, Ernst
Die Kusase
Gießener Beiträge zur Entwicklungsforschung, Reihe II, Band 1
Gustav Ficher Verlag, Stuttgart 1967
Heath, Jeffrey
Tondi Songway Kiini (Songhay, Mali)
Stanford Monographs in African Languages 2005
Dictionary Humburi Senni (Songhay of Hombori, Mali) - English - French

Huddleston, Rodney and Pullum, Geoffrey
The Cambridge Grammar of the English Language
Cambridge University Press 2002

Hunt, Geoffrey
A Phonology of the Hanga Language
Institute of African Studies, University of Ghana 1981

Hyman, Larry M
Niger-Congo Verb Extensions: Overview and Discussion
Selected Proceedings of the 37th Annual Conference on African Linguistics, ed. Doris L. Payne and Jaime Peña, 149-163. (2007)

Iliasu, A A
The Origins of the Mossi-Dagomba States
Institute of African Studies: Research Review, 1971

Inkelas, Sharon
"The Interaction Between Morphology and Phonology"
in The Handbook of Phonological Theory
Second Edition, edited John Goldsmith et al
Blackwell Publishing Ltd 2011

Jaggar, Philip
Hausa
Benjamins 2001

Jungraithmayr, Hermann and Abu-Manga, Al-Amin
Einführung in die Ful-Sprache
Dietrich Reimer Verlag, Berlin 1989

Kiparsky, Paul
"How Abstract is Phonology?"
in Kiparsky, Paul: "Explanation in Phonology"
Walter de Gruyter 1982

Kleinewillinghöfer, Ulrich
Relationship between Adamawa and Gur Languages:
the Case of Waja and Tula.
Cahiers Voltaïques / Gur Papers I (1996), 25-45

Kröger, Frantz
Buli-English Dictionary
LIT Verlag 1992

Kropp Dakubu, Mary Esther
Parlons farefari (gurenè) : Langue et culture de Bolgatanga (Ghana) et ses environs
L'Harmattan, 2009
The Portuguese Language on the Gold Coast, 1471-1807
Ghana Journal of Linguistics 1.1: 15-33 (2012)

Lambrecht, Knud
Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents
Cambridge University Press, 1994
Lefebvre, Claire and Brousseau, Anne-Marie
A Grammar of Fongbe
Mouton de Gruyter, 2002
Lund, Christian
'Bawku is still volatile': ethno-political conflict and state recognition in Northern Ghana
Journal of Modern African Studies, 41, 4 (2003), pp. 587–610. 2003 Cambridge University Press (available via Researchgate)
Manessy, Gabriel
Contribution à la Classification Généalogique des Langues Voltaïques
Société d'Études Linguistiques et Anthropologiques de France 1979
Naden, Tony
The Gur Languages
in The Languages of Ghana, Ed. M E Kropp Dakubu
Kegan Paul International 1988
Dictionaries of Mampruli (very comprehensive), Nabit and Talni (much less so)
Newman, Paul and Roxana Ma
"Modern Hausa-English Dictionary"
University Press PLC Ibadan 1979
Niggli, Urs
Participant Reference in Kusaal Discourse
MA Degree in Field Linguistics,
Centre for Linguistics, Translation & Literacy, Redcliffe College 2014
La phonologie du kusaal 2012
Grammaire élémentaire du kusaal 2012
Dictionnaire kusaal-français-anglais sans images 2014
Esquisse Grammaticale du ninkãrɛ 2007
Dictionnaire Ninkãrɛ-Français 2013
Dictionnaire mooré-français-anglais 2016 © SIL International
and much other interesting material on Toende Kusaal, Farefare and Kassem
Nurse, Derek and Phillippson, Gérard (eds)
The Bantu Languages
Routledge, 2003
Olawsky, Knut
Aspects of Dagbani grammar
LINCOM Europa 1999

Olson, Kenneth S
An Evaluation of Niger-Congo Classification
SIL International, 2004
Ouaba, Bénôit Bendi
Dictionnaire Bilingue Gulimancéma-Français
Sous-Commission Nationale du Gulimancéma, BP 164 Fada N'Gourma
Painter, Colin
Gonja: a Phonological and Grammatical Study
Indiana University Publications, 1970
Plungian, Vladimir A and van der Auwera, Johan
Towards a typology of discontinuous past marking
Sprachtypol. Univ. Forsch. (STUF), Berlin 59 (2006) 4, 317–349
(Generously shared by the authors via Researchgate)
Prost, André
La Langue Bisa
Centre IFAN, Ouagadougou; republished by Gregg Press Ltd, 1968
Reinhard, Pierre
Description de la Langue Moba
SIL Togo 1984
Rennison, John R
Koromfe
Routledge 1997
Sambiéni, Coffi
Le Proto-Oti-Volta-Oriental
Rüdiger Köppe Verlag, Köln, 2005
Somé, Penou-Achille
Dàgàrà-ʔyɛ̀rbíé ou proverbes dagara
L'Harmattan 1992
Souag, Lameen
Language Contact in the Sahara
Oxford Research Encyclopaedias, Linguistics (online), June 2016
Spencer, Andrew and Luís, Ana
Clitics: An Introduction
Cambridge University Press 2012
Spratt, David
A Short Kusaal-English Dictionary
Ghana Institute of Linguistics, Tamale. Undated photocopy
An Introduction to Learning Kusaal
Ghana Institute of Linguistics, Tamale. Undated photocopy
Kusal Syntax
Institute of African Studies, University of Ghana 1972

Stewart, John M
The potential of Proto-Potou-Akanic-Bantu as a pilot
Proto-Niger-Congo, and the reconstructions updated
Journal of African Languages and Linguistics 23 (2002), 197–224
Trimingham, J. Spencer
Islam in West Africa
Clarendon Press 1959
Vance, Timothy J
'Canadian Raising' in Some Dialects of the Northern United States
American Speech, Vol 63, no 3. (1987) pp 195-210
Zongo, Bernard
Parlons Mooré
L'Harmattan 2010
Zwicky, Arnold M and Pullum, Geoffrey K
Cliticization vs. Inflection: English N'T
Language, Vol 59 no 3 (Sept 1983) 502-513

1 Introduction to Kusaal and the Kusaasi

Upper East Region of Ghana (adapted from Macab5387):

Kusaal is the language of the Kusaasi, the majority ethnic group of the Bawku Municipal, Binduri, Pusiga, Garu-Tempane and Bawku West 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 part of this territory, west of the White Volta river and largely coinciding with Bawku West District, is called **Toende** in Ghanaian English (less often spelt "Tonde", and in French contexts "Tondé"), Kusaal[1] *Tʊ̀ʊ́n*^{nɛ} "in front, West." The eastern part is **Agolle** (less accurately spelt "Agole"), Kusaal *Àgɔ̀l*^{lɛ} "Upper." These Ghanaian districts comprise most of *Kʊ̄sáʊ̀g*^{ɔ} "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 in Togo.

1) Superscript letters represent the parts of Kusaal words deleted in most contexts by apocope 2.4. They play no part in the pronunciation of citation forms, and may be ignored in this section.

1.1 The Kusaasi people

The name *Kʊ̄sáàl*ᵋ "Kusaal" and the name of the people *Kʊ̄sáàs*ᵋ "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'abɔ*, called "TZ" /ti:'zɛd/ in local English (from Hausa *tuwon zaafii*, literally "hot porridge"), and the traditional millet beer, *dāam*ᵐ/, called "pito" (Hausa *fitoo*) in English.

The Kusaasi are divided into numerous patrilineal exogamous clans (*dɔ̀ɔgɔ*, "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 *pɔ̄ɔrᵋ/* "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 peoples, who continued to provide the *tɛ̀ŋ-dàan-nàm*ᵃ. The founder of these kingdoms was *Naa Gbɛwaa*, whose seat was at Pusiga (Kusaal *Pūsɪgᵃ/*) 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 are part of a widespread culture which also encompasses neighbouring peoples like the Mossi, Farefare, Mamprussi, Dagomba and Bulsa. Traditional Kusaasi dress resembles that of the Mamprussi, Dagomba and Mossi, including the long-sleeved baggy *bānāa*$^{=}$ smock, called a "fugu shirt" in English (*fūug*$^{ↄ/}$ "clothing"), popularised in southern Ghana by President Rawlings.

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

Traditional belief includes a creator God, *Wĩn*$^{nɛ/}$, invoked in proverbs and greetings but remote from everyday life and not to be approached in prayer or worship. Characteristic proverbs say

> *Dìm nɛ̄ Wĩn, dā tʋ́'às nɛ̄ Wĩnnɛ́ $^{+}$ø.*
> Eat:IMP with God:SG, NEG.IMP talk with God:SG NEG.
> "Eat with God, don't talk with God."

> *Wĩn ňyɛ́ kà sĩn.*
> God:SG see and be.silent.
> "God sees and is silent."

Everyday religious practice is concerned with local non-anthropomorphic spirits, also called *wĩn*$^{nɛ/}$. A *wĩn*$^{nɛ/}$ resides in a *bʋ̄gʋr*^{ɛ}, an object such as a stone or horn, but it is the *wĩn*$^{nɛ/}$ that is spiritually significant, not its place of attachment.

A central figure is the *bā'a*$^{=}$ "diviner", who seeks guidance for a client (*bʋ̄gʋd*^{a}) on all matters by casting lots. Traditional healers, a separate group, show considerable variation in approach from herbalist to occult.

A human being is understood as having four components: *nìn-gbĩŋ*$^{ↄ/}$ "body"; *ňyɔ̀-vʋ̄r*$^{ɛ/}$ "life" as opposed to death, possessed by all living animals; *wĩn*$^{nɛ/}$ (in this sense) "*genius*, spirit, a person's own spiritual self"; and *kìkĩrɪs*$^{ɛ/}$, protective spirits (called "fairies" in local English.) Men have three *kìkĩrɪs*$^{ɛ/}$, women a fourth, because of the dangers of childbirth. (Throughout the cultural zone, three is a man's number, and four is a woman's.) There are wild *kìkĩrɪs*$^{ɛ/}$ in the bush which are hostile and try to lead travellers astray. *Sĩɪg*^{a} "life force", used for "spirit" in Christian materials, is in traditional belief intimately associated with a person's tutelary *kìkĩrɪs*$^{ɛ/}$.

The key term *wīn*$^{nɛ/}$ has yet further senses, overlapping with the European concepts of fate or destiny: *wīn-tɔ́ɔ̀g*^{ɔ}, literally "bitterness of *wīn*$^{nɛ/}$" is "misfortune." Most people have a particular *sīgɪr*$^{ɛ/}$ "guardian spirit" which is often the *wīn*$^{nɛ/}$ of an ancestor; the word *bʊ̄gʊr*^{ɛ} may also mean "a *wīn*$^{nɛ/}$ inherited from one's mother's family." Many Kusaasi personal names refer to an individual's *sīgɪr*$^{ɛ/}$ 30.2.

Sɔ̄ɔ̆nb^{a} "witches" exist in the traditional world view; though they cause harm, their condition can be involuntary. As in European tradition, those accused are often marginalised or older women. The Mamprussi king, whose 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.

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 people were proficient in reading or writing the language in the 1990's. When I was learning to communicate in Kusaal at work, colleagues sometimes interrupted me to say that patients were "literate", meaning that they knew English.

Though 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. It is the normal medium of communication among Kusaasi of all ages, most of whom are monolingual, and is also 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 show numerous small differences in speech. Bawku does not serve as a centre for the Kusaal language: as is typical for the zone, it is a multiethnic trading centre around a Muslim quarter or "zongo" (Hausa *zangòo* "camping ground, lodging place") where the main common language is Hausa. The independent spirit of traditional Kusaasi society also militates against the acceptance of any standard.

The major dialect division is between Agolle and Toende. The differences are striking, considering the size of the Kusaasi area. Agolle vowel breaking 4.2 correlates with numerous other isoglosses, resulting in a sharp discontinuity between Agolle and Toende Kusaal, probably attributable to the depopulation of the border zone along the White Volta caused by the river blindness (onchocerciasis) prevalent in the region until quite recent times.

My informants reported no difficulty communicating with Toende speakers, but 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: 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." Recorded text tests administered to Burkina Faso Toende speakers showed scores of 93% for comprehension of Ghanaian Toende versus 80.5% for Agolle, but Ghanaian Toende speakers achieved 94.5% with Agolle, presumably reflecting their greater exposure to the dialect. It is possible that Agolle speakers find Toende Kusaal 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, perhaps not on strictly linguistic grounds but because of speaker attitudes: Toende speakers feel their own dialect is "purer", which may affect judgments of comprehensibility.

Berthelette reports a rate of apparent lexical cognates between Toende and Agolle of only 84%. Judging by Urs Niggli's dictionary, this figure seems surprisingly low; it may be that the divergence is more marked among the commonest words.

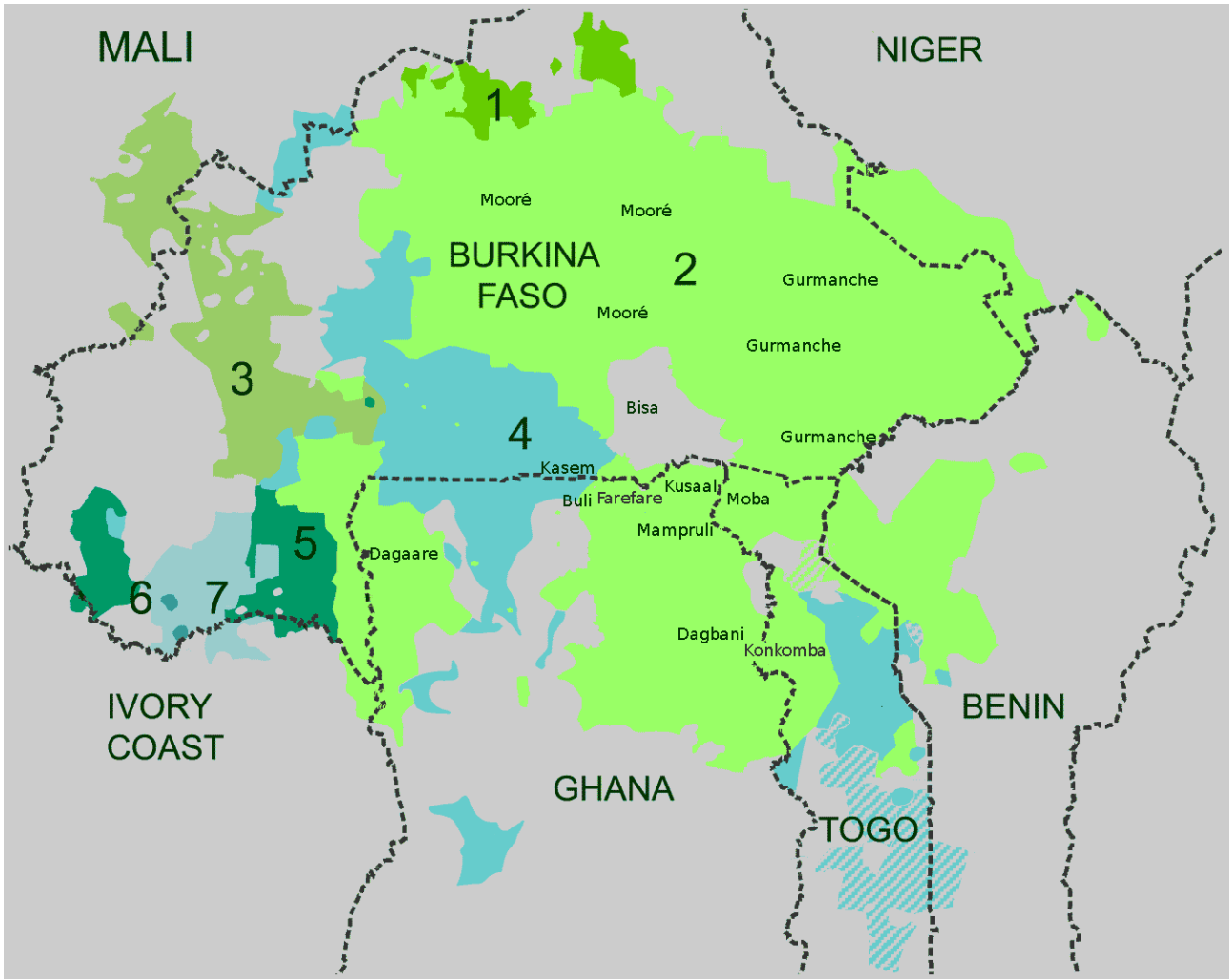
Agolle and Toende Kusaasi themselves agree that they constitute a single ethnic group, and that they speak dialects of a single language; this is perhaps reinforced by a strong local tendency to equate language and ethnicity (note the language names formed from ethnonyms in 30.4.) Nevertheless, the differences are great enough to justify separate grammatical treatment for the two major dialects.

This account describes Agolle Kusaal, the language of the majority of Kusaasi, including those of the vicinity of Bawku. This is the basis of most written materials, including the Bible versions. As a matter of convenience, by "Kusaal" I will mean "Agolle Kusaal" by default below; I do not intend by this to imply that Agolle speech is the sole standard form of the language.

1.2.3 Related languages

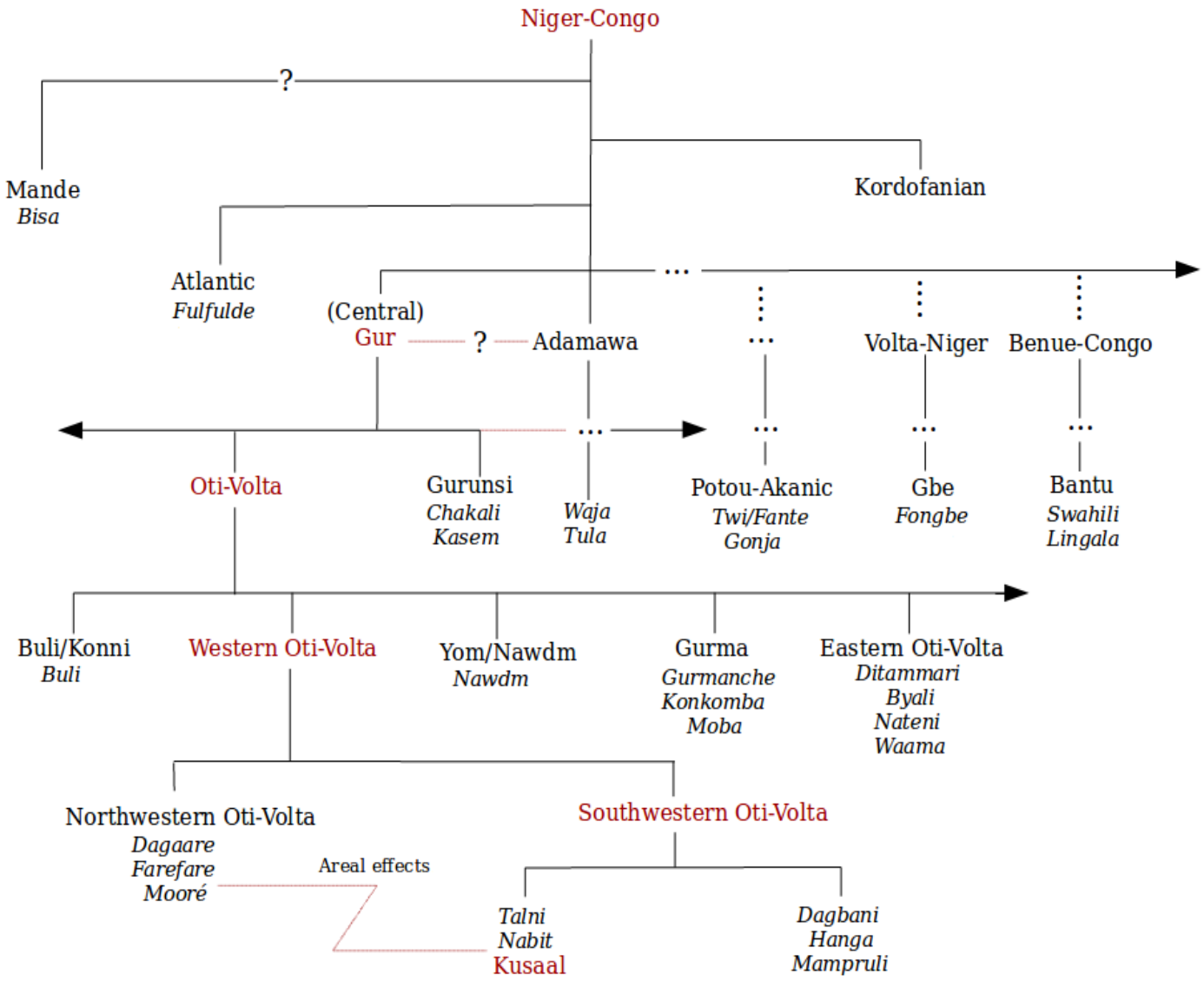
Kusaal belongs to the **Gur** or **Voltaic** language family within the huge and diverse **Niger-Congo** phylum.

The Gur Languages (created by Davius):



1 Koromfé	2 Oti–Volta languages	3 Bwamu	4 Gurunsi
5 Kirma–Lobi	6 Dogoso–Khe	7 Doghose–Gan	

The chart below outlines the relationships between some of the Niger-Congo languages mentioned in this account, omitting all but a few branches and languages. Subclassifications are often uncertain. Neither "Atlantic" nor "Kordofanian" seems to be a real unity; Twi has been said to belong to a "Kwa" branch, 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 as a subgroup is harder to establish.



Mande is the most divergent group, and may not belong with Niger-Congo at all. The inclusion of Kordofanian and Atlantic in Niger-Congo is a long-range hypothesis, rather than a well-established linguistic grouping like Indo-European. Striking typological similarities with core Niger-Congo do not prove genetic unity: for West Africa (and beyond) as a *Sprachbund* see especially Güldemann 2007.

However, there is unequivocal evidence for Volta-Congo (the branches after "Atlantic" in the chart) as a genetic grouping. Basic lexical items recur frequently: compare Kusaal *bīig*^{a} "child", *dì*$^{+}$ "eat", *nū*$^{+}$ "drink", *kpì*$^{+}$ "die", *tìɪg*^{a} "tree", *àtáň*$^{'+}$ "three", *tʊ̀bʊr*^{ɛ} "ear" with their Fongbe equivalents *ví*, *ɖù*, *nù*, *kú*, *átín*, *àtɔ̀n*, *tó*. Guthrie's Proto-Bantu reconstructions parallel all except "child": *-dí-* "eat", *-nú-* "drink", *-kú-* "die", *-tí* "tree", *-tátɔ̀* "three", *-tʊ́* "ear", and his Proto-Bantu *-tʊ́m-* "send" corresponds to Kusaal *tʊ̀m*^{m}. 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."

The most salient morphological feature of Niger-Congo is the presence of noun class systems, with frequent congruences in both form and meaning among the Volta-Congo branches. Thus the Kusaal human-plural noun *suffix -b*^{a} seen in *nīdɪb*$^{a/}$ "people", plural of *nīd*$^{a/}$, matches the Gonja human-plural *prefix* in *bá-sà* "people", plural of *é-sà*, and the *ba* of Lingala *bato* "people", plural of *moto*. Particular singular/plural *pairings* of noun class affixes recur throughout Volta-Congo; for example, the suffixes *r*^{ɛ}|*a*$^{+}$ seen in Kusaal *tʊ̀bʊr*^{ɛ} "ear", *tʊ̀ba*$^{+}$ "ears" are cognate to the Bantu prefix pair labelled 5/6 in the Bleek-Meinhof system (Nurse and Phillippson 2003.) Lingala has the cognate of Kusaal *tʊ̀bʊr*^{ɛ} in this very class: *litói* "ear", plural *matói*. It is the Bantu pronominal and verbal concord prefixes which correspond to the affixes of other Volta-Congo languages, rather than the noun class prefixes themselves, which often show an additional initial nasal, as with *matói*. The Swahili subject prefixes for the 5/6 class are singular *li*, plural *ya*; as in Kusaal, names of fruits usually belong to this class.

Similarities also appear in verbal derivation by suffixes, here usually called "verbal extensions", after the term used for Bantu languages, in which such processes are typically highly productive. However, at the level of Niger-Congo, form and function can be difficult to correlate, and some processes may even be areal phenomena, found also in Afro-Asiatic and Nilo-Saharan (see Hyman 2007.[2])

With some lower-level groupings detailed comparative work has achieved much already, very notably with Bantu; among languages closer to Kusaal, see Sambiéni 2005 on Eastern Oti-Volta. High-level comparative work is generally at an early stage; see, however, Gabriel Manessy on Gur, and especially the publications of John Stewart on Potou-Akanic and its relationships with Bantu and Atlantic.

At the lowest level Kusaal belongs to a family called **Western Oti-Volta** by Manessy; Adams Bodomo has suggested "Mabia" (cf Kusaal *mà-bīig*^{a} "sibling") as an alternative name. The group is well demarcated by many common innovations. Proto-Oti-Volta **c *ɟ* have become *s z*; there is 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; words referring to trees have been transferred wholesale to the *g*^{a}|*s*^{ɛ} class (Buli *tìib* "tree", Kusaal *tìɪg*^{a}, Mooré *tìɪgá* etc); there is much distinctive vocabulary, e.g. Kusaal *kù'ʊ́m*^{m} "water", Mooré *kòóm*, versus Gurmanche *ñíma*, Buli *nyíam* (cf Kusaal *nì*$^{+}$ "rain.") The Bulba (Nõõtre) language of Benin is classified by Manessy as Western Oti-Volta, but his own data suggest otherwise: **c *ɟ* fall together as *c*, for example, and "tree" is *tiibo*.

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2) For Gur, Hyman cites only Canu 1976. Some of Canu's proposals segment *CVC* roots as *CV+C*, where *CV-* is not attested as a root; however, Canu's *second*-position suffixes have numerous cognates throughout Western Oti-Volta; for Kusaal see 13.1.

Western Oti-Volta is roughly as diverse internally as Romance. Claims of mutual intelligibility are often overstated: they reflect underappreciation of the fact that many local people are competent users of more than one distinct language. Kusaal and Mampruli, for example, are not mutually intelligible (as I had abundant opportunity to observe in our outpatient clinics.)

The group is subdivided into Northwestern and Southwestern branches. Northwestern Oti-Volta includes Mooré, 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.) Southwestern Oti-Volta includes Kusaal, Nabit, Talni, Mampruli, Dagbani, Hanga, Kamara and some smaller languages. A distinctive Southwestern feature is the inflection *-*ma* used for positive imperatives.

Where many people are multilingual in closely related languages, it can be difficult to distinguish historical common innovations from the effects of diffusion. Most of the numerous isoglosses which cross the Northwest/Southwest division clearly involve shared retentions, such as noun-class-based grammatical gender in Talni, Mampruli and Farefare and vowel glottalisation in Kusaal, Nabit, Talni and Farefare. Mooré and Farefare show some common innovations not seen in Dagaare, such as preverbal negative-indicative *ká*, and rounding in the plural suffix *-do*/*-ro* 4.7.

Mampruli, Dagbani, Hanga and some similar smaller languages form a clear subgroup. Among other shared innovations, they show great simplification of the inherited vowel system, with loss of contrasts in glottalisation, nasalisation and tenseness, along with lowering of original short *e* to *a*, and the secondary development of a series of contrastively palatalised velars.

Nabit, Talni and Kusaal may also constitute a subgroup. Tony Naden's Nabit materials closely resemble Toende Kusaal. Giffen 2015 in her interesting discussion of the social and cultural setting implies that that Nabit has been swept up into the cultural and political orbit of the more distantly related Farefare. She also notes that Talni speakers understand Nabit to some extent.

Nabit and Talni, like Kusaal, have lost inherited final short vowels in citation forms. This is of course very common cross-linguistically (and seen also in Moba), but some sentences in Naden's dictionaries suggest that Nabit and Talni retain the final vowel at the end of negated clauses and of questions, as with Kusaal apocope 2.4. If this unusual behaviour is indeed common to all three languages it would be compelling evidence for a subgroup (Toende forms from Niggli):

Nabit	*La biˈimɛ.*	"It is ripe"
Toende	*La bɪˈɪ me.*	
Agolle	*Lì bìˈig nɛ̄.*	
	3INAN ripen FOC.	

Nabit	*La na bu biigɛ.*	"It is not yet ripe."
Toende	*La nan bʊ bɪˈɪge.*	
Agolle	*Lì nàm pū bíˈigɛ̄* $^{+}$*ø.*	
	3INAN still NEG.IND ripen 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 dɔgɪm bʊ bɔkɪra, bʊraa dɔgɪm bɔkɪt.*
Agolle	[*Pu̱ˈā*] *dúˈàm pū bu̱ákìdā* $^{+}$*ø,* [*dāu̱*] *dúˈamì‿ø bu̱ákìd.*
	Woman:SG kindred NEG.IND split:IPFV NEG, man:SG kindred CAT split:IPFV.

Other groups within the broader **Oti-Volta** family can readily be seen to be related. All groups show the characteristic noun classes with suffixes, and all but Buli distinguish perfective and imperfective aspects in verb flexion.

The detailed materials in Kröger 1992 show that Buli is closely related to Western Oti-Volta: there are numerous obvious cognates in vocabulary and parallels in nominal morphology. Buli preserves Proto-Oti-Volta **s *z *c *ɟ* unchanged.

The Gurma languages Gurmanche, Konkonba, Moba etc are much less close. Gurmanche and Konkonba typically show nouns with both class prefixes and class suffixes, and the languages have complex and unpredictable verb aspect flexion, making the imperfective by changing the stem tones, and/or dropping a derivational suffix from the perfective or adding one of several different imperfective suffixes.

Both Buli and Gurma have three-tone systems, and the three basic Western Oti-Volta Tone Patterns 7.1 can be systematically matched with these. Pattern H corresponds to Buli *high* tone, but Gurmanche *low*; Pattern O to Buli mid and Gurmanche high, and Pattern L to Buli low and Gurmanche mid:

Kusaal		Gurmanche	Buli
wáafɔ	"snake"	*wà*	*wáab*
mɔ̄ɔgɔ	"grass"	*múagū*	*mūub* ("blade of grass")
tìɪgᵃ	"tree"	*tībū*	*tìib*

Nawdm aligns tonally with Western Oti-Volta and Buli: *wá:gbè* "snake", *mó:gú* "grass", *tì:bé* "tree." Nawdm has shifted **p → f, *s → h, *c → s*, and **z → ɟ*. It has *r* for Proto-Oti-Volta **ʎ*, which has fallen together with *y* in Western Oti-Volta and Buli, and with *l* in Gurma. Nawdm noun morphology shows few innovations.

One verb class shows the suffixes *-ra* for perfective, *-n(e)* for imperfective, and the other opposes perfective *-e* to imperfective *-a*; verbs with perfective *-ege* have imperfective *-a*, not *-ega*.

Sambiéni 2005 provides considerable detail on the Eastern Oti-Volta languages Ditammari, Nateni, Byali and Waama. He assumes the validity of Manessy's Eastern Oti-Volta, which is based on shared initial-consonant changes. All these changes except *z → y (shared with Gurma) and *ɟ → y involve unconditioned losses of voicing contrasts and may be areal phenomena, shared with the neighbouring supposedly *Western* Oti-Volta Bulba. Eastern Oti-Volta has distinct reflexes of Oti-Volta *ʃ and *s: Waama *cāābú* "millet porridge" *sōngā* "hare", Kusaal *sā'abɔ sú'ɵŋ*ᵃ, Buli *sāab súom*.

The noun class systems do not seem to show any common innovations.

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

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

Waama shows high tones in words corresponding to Western Oti-Volta Pattern H. It has a group of verbs with stems ending in vowels or alveolars opposing perfective *-i* to imperfective *-u*, but most verbs use the bare stem as perfective and add *-ri -di* or *-ti* for the imperfective. Waama is an outlier lexically; of roughly 400 vocabulary items compared by Sambiéni, 55 Waama words are not cognate to those of the other languages; the figures for the other languages are all under 20. There are lexical isoglosses uniting Waama with Western Oti-Volta and Buli, e.g. Waama *wōmmā* "*entendre*" = Kusaal *wʊ̀m*ᵐ, Buli *wom*, versus Byali *yō*, Ditammari *yō*, Nateni *yēkà*; Waama *cáárō* "*forgeron*" = Kusaal *sāe̱ň*⁺, versus Byali *má-máárāū*, Ditammari *ōmáátà*, Nateni *málō*; Waama *yété* pl *yéyā* "*maison*" = Kusaal *yīr*ᵋ/, Buli *yérí*, versus Byali *tə́púú*, Ditammari *tācĩɛ̃tà*, Nateni *hɔ̃ɔ̃tā*.

There is much less similarity between Oti-Volta as a whole and the other main branch of Central Gur, the **Gurunsi** languages. Oti-Volta and Gurunsi may be coordinate members of a continuum including at least some Adamawa groups: Kleinewillinghöfer 1996 references studies suggesting that the Adamawa languages Waja and Tula are closer to the Gurunsi languages than to the rest of "Central Gur." Further progress on this issue will probably only come about after more descriptive work on Adamawa languages.

A few languages are classified as Central Gur, but neither Oti-Volta nor Gurunsi. Most are poorly documented; an exception is Koromfe (Rennison 1997.)

Various languages have been previously taken as Gur on the basis of nonspecific typological criteria, especially the use of noun class suffixes rather than prefixes. This is notably the case with the Senoufo group, now usually held to constitute a distinct branch of Niger-Congo.

1.2.4 External influences

Most identifiable loanwords in Kusaal come from **Hausa**, the largest African language after Arabic by number of first-language speakers, used by millions more as a lingua franca in the savanna zone of West Africa. In Ghana, Hausa has strong associations with Islam and with trade. There are many ethnic *Hàusàawaa* in the Kusaasi area, especially in Bawku, but the language which has influenced Kusaal is the *Gaanancii* lingua franca. Though mutually intelligible with Kano Hausa, *Gaanancii* among other differences lacks not only grammatical but even natural gender, uses [z] for [d͡ʒ], monophthongises diphthongs, and drops the distinction between glottalic consonants and their plain counterparts.

The other major lingua francas of Ghana, Twi/Fante ("Akan") and English, have contributed 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. 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.

Among neighbouring languages, **Farefare** has certainly influenced Nabit and perhaps also Toende Kusaal. With **Mampruli**, matters are complicated by the political history of the area, and by the fact that many local Mamprussi speak Kusaal rather than Mampruli, but some loanwords are identifiable.

Many Mossi people are found in the Kusaasi area, and many Kusaasi themselves speak **Mooré** well; they often attribute local or individual peculiarities of Kusaal speech to Mooré influence. Early Christian missionary work among the Kusaasi used Mooré materials, leading to some borrowing and calquing.

There is little evidence of influence on Kusaal from Moba, the neighbouring language to the east, or even from Bisa to the north, despite the fact that many Bisa people have settled in the villages among the Kusaasi, and in Bawku. Bisa people in Ghana use Kusaal as the areal lingua franca, and few others can communicate in their Mande language. Nor is there evidence of borrowing from the language of the nomadic cattle-raising Fulɓe, found locally as throughout the savanna of West Africa. Fulfulde *nagge*, plural *na'i* "cow" strikingly resembles Kusaal *náaf*ɔ (← **nāágfʊ̄*) plural *nīigɪ́*$^{+}$, but this cannot be a loanword into Kusaal itself, because both the word and its distinctive flexion can be reconstructed to a stage prior to the Western Oti-Volta protolanguage (cf Buli *nááb* pl *níígā*.)

1.3 Orthography

Except as specified otherwise below, symbols represent sounds similar to their IPA values; for more specific details see 3.1 4.1. Acute, grave and macron signs mark tone 5.1; for word division conventions see 1.3.1.

y represents [j]; *kp gb* represent [k͡p] [g͡b].

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

The vowel symbols *a ɛ ɔ i u* have IPA values, while *ɪ ʊ* represent [ɪ] [ʊ] respectively. The allophony [ɪ]~[i] and [ʊ]~[u] epenthetic and prefix vowels 4.6 4.7 is ignored, only *ɪ ʊ* being used. Written *e o* always represent [ɪ] [ʊ], used instead of *ɪ ʊ* only as non-initial elements of diphthongs 4.5 and for the 3sg animate pronoun *o* [ʊ] along with the [ʊ] mora which precedes it in liaison, which is written *·o* 1.3.1.

	dɪ̄ˈe	"receive"	[dɪ̰ɪ̰]
	pāe	"reach"	[pʰaɪ]
	bɛ̄og	"tomorrow"	[bɛʊg]
	kpɪ̄ˈoŋ	"strong"	[k͡pɪ̰ʊ̰ŋ]
but	*dāʊg*	"male"	[daʊg]
	ò bīig	"her child"	[ʊbiːg]
	zú·o	"steal him"	[zuʊ]
	dà'·o	"bought for him"	[dɐ̰ʊ̰]

e̱ i̱ both represent [ɪ̰]; *i̱* is used before vowel symbols and after *u*. The symbol *u̱* is used for [ʊ̰].

gbàu̱ŋ	"book"	[g͡bau̱ŋ]
sɔ̄e̱ǹ	"witch"	[sɔ̃ɪ̰]
mùi̱	"rice"	[mũi̱]

Long vowels are written by doubling the vowel symbol.

bāa	"dog"	[baː]

Glottalisation of vowels and diphthongs is marked by the symbol ' following the first/only vowel symbol (including *u̱*) *other* than *i̱*:

dà'	"buy"	[dɐ̰]
dà'a	"market"	[dɐ̰ː]
kù'ʋm	"water"	[kʰu̱e̱m]

pu̯'ā	"woman"	[pʰʊ̯a̯]
di̯ā'	"get dirty"	[dɪ̯a̯]

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 *'* mark; *ň* also precedes the raised dot of *·o*.

tɛ̄ɛňs	"lands"	[tʰɛ̃ːs]
áňsìb	"mother's brother"	[ãsɪb]
gɛň	"get tired"	[gɛ̃]
gɛň'	"get angry"	[gɛ̰̃]
gɛň'ɛd	*id* (ipfv)	[gɛ̰̃ːd]
āň·o	"be him/her"	[ãʊ̃]

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

ňwām	"calabash"	[w̃ãm]

The sequences [i̯a] [u̯a] [iə] [uɵ], with their nasalised and glottalised counterparts, arise from **Agolle vowel breaking**. *i̯a u̯a iə uɵ* are digraphs for *phonemic* monophthongs, though realised *phonetically* as diphthongs 4.2.

pìəlɪg	"white"	[pʰiəlɪg]
bū'ɵs	"ask"	[bʊ̰ɵ̰s]
ti̯àk	"change"	[tʰɪ̯ak]
pu̯āk	"female"	[pʰʊ̯ak]
kpi̯à'	"shape wood"	[k͡pɪ̯a̰]
ki̯à	"cut"	[kʰɪ̯a]

Contrast the *phonemic* diphthongs in e.g.

kpì'a	"neighbour"	[k͡pi̯a̰]
sīa	"waist"	[sia]

1.3.1 Word division

Nominal compounds are hyphenated rather than written solid as in traditional orthography. Nominal combining forms 9.1 are not word fragments but clitic words, and compounds are not single words but a particular type of noun *phrase*. Compounding occurs constantly where other languages would use uncompounded phrases, and compounds may even incorporate uncompounded elements 16.9.

zīm-gbáň'àd	"fisherman"	*wāb-kúùd*	"elephant-killer"
bì-fūug	"children's shirt"	*pu̱'à-sāň'am*	"adulterer"
bù-pìəlıg	"white goat"	*bù-kàŋā*	"this goat"
bù-pìəl-kàŋā	"this white goat"	*wāb-píəlìg*	"white elephant"

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

kpùkpàrıg	"palm tree"	*tītā'ar*	"big"
wāb-títā'ar	"big elephant"	*Ňwāmpūrıl*	"Mampruli"
bùrkìn	"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 14.1.4.

Pronouns reduced to single consonants by apocope are still written as independent words:

Fù bɔ́ɔdī‿m. "You love me." [fʊbɔ:dɪm]
2SG want 1SG.OB.

Ḿ bɔ́ɔdī‿f. "I love you." [m̩bɔ:dɪf]
1SG want 2SG.OB.

The 3sg animate object pronoun ᵒ [ʊ] "him/her" loses its entire segmental form by apocope 2.4, after causing the host final vowel mora to become [ʊ]. The LF-final vowel mora has traditionally been mistaken for the pronoun itself and written as a separate word. As a concession to tradition, the final vowel mora is separated from the rest of the host by a raised point *·o*; the LF is written as ending in *·o-o*.

Fù bɔ́ɔd·ō‿ø. "You love her." [fʊbɔ:dʊ]
2SG want 3AN.OB.

Fù pō bɔ́ɔd·ó-o ⁺*ø.* "You don't love her." [fʊpʰʊbɔ:dʊ:]
2SG NEG.IND want-3AN.OB NEG.

Fù ňyɛ́·o‿ø. "You've seen her." [fʊjɛ̃ʊ̃]
2SG see 3AN.OB.

Fù pō ňyɛ̄·ó-o ⁺*ø.* "You've not seen her." [fʊpʰʊjɛ̃ʊ̃:]
2SG NEG.IND see-3AN.OB NEG.

The locative enclitic *nɛ* and the discontinuous-past marker *nɛ* are reduced to *n* by apocope. Like the enclitic 2pl subject pronoun *ya*, they are traditionally written solid with the preceding word, but they follow allomorphs of complete words, with liaison changes just as before the object pronouns. The enclitic 2pl subject *ya* is in complementary distribution with the proclitic pronoun *yà* and the locative enclitic *nɛ* is in complementary distribution with the ordinary enclitic particle *nī*$^{+/}$. Like all liaison enclitics they are clearly words and not flexions morphosyntactically; for phonological evidence cf 4.7 5.2.2. In the orthography of this grammar they are accordingly separated from preceding words by hyphens:.

pʊ̄ʊgʊ-n	"inside"
inside:SG-LOC	

bɔ̀ɔdī-n	"might wish"
want-DP	

The personifier clitic *à*/*ṅ*, 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 clitic "'s" 16.6.

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

1.3.2 Written materials

Written materials are cited in their original orthography. Tone is unmarked.

The clusters *ll mm nn* are very often written single prior to 2016.

KSS uses *ng* throughout for *ŋ*.

Older orthography writes *e o* for *ɛ ɔ, i* for both *i* and *ɪ*, *u* for both *u* and *ʊ*; *e o* are sometimes also used unsystematically for *ɪ ʊ* as root vowels. The 2016 Bible uses the same basic conventions as this grammar except that it does not distinguish [i]~[ɪ]: *tiig* = *tìɪg* "tree", *biig* = *bīig* "child."

Word-final short -*ɪ* after *m n* is usually written *ɛ* in KB: *pɛbanɛ* for *pɛ̄'-bánì* "sheep which ..." Mk 6:34; so in all cases with the relative pronouns *onɛ kanɛ linɛ banɛ* 25.3.2 and with *anɔ'ɔnɛ* "who?" before liaison.

The root-vowel is consistently written as *e* in KB in the words *ye* "that" *teŋ* "land" *keŋ* "go" (pfv) *ken* "go" (ipfv) for *yɛ̄ tɛ̄ŋ kɛ̄ŋ kɛ̄n*, where my informants have [ɛ]. The form *ye* is probably due to the unstressed nature of the particle, but the other words may reflect actual variants with *ɪ* [ɪ]: compare Toende *tīŋ* "land", Mampruli *tiŋŋa* "land" versus Toende *meŋ*, Mampruli *maŋŋa* = *mɛ̄ŋ* "self."

The demonstrative and pronoun forms *ɔ̃n*/*ɔ́n*/*ɔ̀n ɔ̀ŋā* are written *on oŋa*.
As in this grammar, *e o* are used non-initially in diphthongs for [ɪ] [ʊ].
The phonemic monophthongs *iə uɵ* are written respectively as *ie uo*:

pielig	*pìəlɪg*	"white"	[pʰiəlɪg]
bu'os	*bū'ɵs*	"ask"	[bu̯e̯s]

ie uo are also used to write the phonemic *diphthongs ie uo* [iɪ] [uʊ] but the ambiguity is marginal, because *ie uo* only appear word-finally and in *-iey-*, while *iə uɵ* only appear word-internally before consonants, and in external sandhi 8.5.2:

di'e	*dī'e*	"receive"	[di̯ɪ̯]
zu o	*zú·o*	"steal him"	[zuʊ]

The 2016 orthography writes *-ue* [uɪ] as *-uoe* and *-ʋe* [ʊɪ] as *-ʋoe* (similarly when nasalised and/or glottalised): *duoe* = *dūe* "raise, rise", *sʋ'oe* = *sʋ̄'e* "own."
The diphthong *io* [iʊ] is written *io* in the 1976 NT but *ieu* later: thus *kpī'oŋ* "strong" [k͡pi̯ʊ̯ŋ] is *kpi'oŋ* in the 1976 NT, *kpi'euŋ* in the 1996 NT and KB.
Traditional orthography uses *e i u* for non-moraic *e̯ i̯ u̯* and thus does not mark length in diphthongs consistently, but only two length contrasts are actually found in phonemic diphthongs 4.5. The distinction *ae*/*ae̯* is expressed by writing *aae* (or *aaɛ*) for *ae* versus *ae* for *ae̯*:

paae	*pāe*	"reach"	[pʰaɪ]

The contrast *aʋ*/*au̯* is not marked. KB uses both *au* and *aʋ*, spelling each individual word consistently, but not as marking any length distinction: thus *yaʋg* "grave" for *yàʋg*, but *na'araug* "ox" for *nā'-dáʋg*; *dau* for *dāu̯* "man" but *taʋn* for *tāu̯ň* "sibling of opposite sex." Ambiguity appears word-medially before *ŋ*:

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

The use of *ia ua* for the short monophthongs *i̯a u̯a* creates potential ambiguity with word-final *ia ua*:

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

The convention that ' is not written after *i* when it represents *i̱* disambiguates

kpi'a	*kpì'a*$^{+}$	"neighbour"	[k͡pi̱a̱]
kpia'	*kpi̱à'*$^{+}$	"shape wood"	[k͡pɪa̱]

Before 2016, *u̱'a* [ʊ̱a̱] was usually written *o'a*, but did not even then contrast consistently with *u'a* representing *u'a* [u̱a̱]. All *u'a u̱'a* and *ʋ'a* are now written *u'a*.

po'a or *pu'a*	*pu̱'ā*	"woman"	[pʰʊ̱a̱]
po'ab or *pu'ab*	*pʊ̄'ab*	"women"	[pʰʊ̱a̱b]

NT/KB write *-ey-* in Long Forms 2.4 corresponding to Short Forms where final *-y* has become *-e̱*: *vʋeya* = *vʊ̄yá* Long Form of *vʊ̄e̱* "be alive." Older NT versions also write *bʊ̄n-vʊ́yà* "living things" as *bunvoeya*, but KB has the expected *bʊnvʊya*.

After the low root vowels *a* and *ɔ*, epenthetic *ɪ* is often written *e*:

sa(n)rega	*sārɪgá*	"prison"	[sarɪga]

The 2016 orthography writes *bieya* for *bi̱ēyá* "elder same-sex siblings" etc, but *suoya* for *su̱ēyá* "roads", *zuoya* for *zu̱ēya* "hills" etc by analogy with the singulars. *suor sūʊr* and *zuor zūʊr*. Older sources write *sueya*, *zueya*.

Traditional orthography omits word-internal *y* after *i*, except with Long Forms 2.4 ending in *-ya*; thus *dūnɪya*$^{+}$ "world" and *láafɪya*$^{+}$ "health" are written *dunia* and *laafia* although they end in [ɪja], not in the diphthong *ia*.

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

tɛɛns	*tɛ̄ɛňs*	"lands"	[tʰɛ̃:s]
gɛn'	*gɛ̄ň'*	"get angry"	[gɛ̰̃]
gɛn'ɛd	*gɛ̄ň'ɛd*	*id* (ipfv)	[gɛ̰̃:d]
nwam	*ňwām*	"calabash"	[w̃ãm]

As prefix vowels show no contrastive nasalisation, *n* ending a prefix (not a combining form) in traditional orthography must represent the consonant *n*:

dunduug	*dʊ̀ndʊ̀ug*	"cobra"	[dundu:g]

Elsewhere, the constraints on word-internal consonant clusters usually prevent ambiguity, except when the *n* would be word-final without even a following glottalisation mark. Here the orthography formerly wrote *nn* to mark nasalisation, but the 2016 system unfortunately uses an ambiguous single *n*:

gaan (old: *gaann*)	*gāaň*	"ebony tree"	[gã:]
daan (old: *daan*)	*dāan*	"owner"	[da:n]

Some NT/KB spellings represent **variant forms** different from those used by my informants; the words in question are probably loans from Toende Kusaal 15.1.

NT/KB	WK's forms	Toende Kusaal	
Wina'am	*Wínnà'am*	*Wínā'am*	"God"
faangid	*fāaňd*	*fãagɪt*	"saviour"
faangir	*fáaňr*	*fãagɪt*	"salvation"

Wínà'am fāaňgíd fāaňgír are used when transliterating Bible verses. *Fāaňgíd fāaňgír* have become independent words, used to avoid the homophony with *fāaňd* "robber" and *fáaňr* "robbery."

NT versions prior to 2016 write *aaruŋ* for *àňrʊŋ* "boat" (cf Toende *ãarʊ̀ŋ*), and *malek* for *màl̩jāk* "angel" (Toende *màlɛ́k*); KB has the expected *anrʊŋ* and *maliak* throughout, matching the usage of all my informants and of the audio 1996 version.

The spelling *nyain* appears for *ňyāe* "brightly" even in texts prior to 2016, where *nyainn* would be expected. The 1992 audio NT renders it [j̃ãĩ].

Foreign proper names in the Bible 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 later versions than in the 1976 New Testament. There is no systematic relationship between the English pronunciation and the Kusaal renderings, and the 1996 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.

Traditional **word division** can generally be obtained from the orthography of this grammar by writing all hyphenated groups solid, and by replacing the raised dot symbol · by word division.

Thus, compounds are written solid, except when a cb happens to have the same segmental form as the sg:

ziŋgban'ad	*zīm-gbáň'àd*	"fisherman"
bʊkaŋa	*bʊ̀-kàŋā*	"this goat"
yamug bipuŋ	*yàmmʊg-bī-púŋ*	"slave girl" 9.2.2

Pronouns are written as separate words when they have vowels of their own:

*Fʊ bɔɔdi **ti**.*	"You love us."	[fʊbɔ:dɪtʰɪ]
Fʊ̀ bɔ́ɔdī‿tí.		
2SG want 1PL.OB.		

KB writes the Short Form 2.4 pronouns *m f* solid with the preceding word:

Fʋ bɔɔdim. "You love me." [fʊbɔ:dɪm]
Fʋ̀ bɔ́ɔdī‿m.
2SG want 1SG.OB.

M bɔɔdif. "I love you." [m̩bɔ:dɪf]
M̀ bɔ́ɔdī‿f.
1SG want 2SG.OB.

Prior to 2016, object *m* was written separately. It occurs before liaison 8.2 in

Fu noŋi mi n gat bamaa?
Fʋ̀ nɔ́ŋī‿mī‿ n gát bámmáa ⁺*ø?*
2SG love 1SG.OB CAT pass:IPFV DEM.DEI.PL PQ?
"Do you love me more than these?" (Jn 21:15, 1976)

With 2sg *f* the final mora was separated from the verb and joined to the pronoun, creating spurious pronouns *if uf*; thus *M bood if* and

1996 *M nye uf.* "I've seen you." [m̩j̃ɛ̃ʊ̃f]
M̀ ňyɛ́o‿f.
1SG see 2SG.OB.

1996 *M gban'e uf.* "I've grabbed you." [m̩g͡bã̰ʊ̰̃f]
M̀ gbáň'ʋ‿f. (See 8.5.2 for the -*e*)
1SG seize 2SG.OB.

In the case of the 3sg animate pronoun, as noted above, the LF-final rounded vowel preceding the segmentally-zero Short Form of the pronoun has traditionally been mistaken for the pronoun itself and written as a separate word.

Fʋ bɔɔd o. "You love her." [fʊbɔ:dʊ]
Fʋ̀ bɔ́ɔd·ō‿ø.
2SG want 3AN.OB.

Fʋ pʋ bɔɔd oo. "You don't love her." [fʊpʰʊbɔ:dʊ:]
Fʋ̀ pʊ̄ bɔ́ɔd·ó-o ⁺*ø.*
2SG NEG.IND want-3AN.OB NEG.

Fʊ nyɛ o. "You've seen her." [fʊjɛ̃ʊ̃]
Fù ňyɛ́·o‿ø.
2SG see 3AN.OB.

Fʊ pʊ nyɛ oo. "You've not seen her." [fʊpʰʊjɛ̃ʊ̃ː]
Fù pʊ̄ ňyɛ̄·ó-o +*ø.*
2SG NEG.IND see-3AN.OB NEG.

In traditional orthography, focus-*nɛ̄* is always written solid after *à(ň)* from *àe̱ň* "be", and temporal *nɛ̄*+/ is usually written solid with a preceding verb:

O anɛ biig. "He/she's a child."
Ò à nɛ̄ bīig.
3AN COP FOC child:SG.

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

Nɛ̄ "with" is written solid after *wɛ̄n* "resemble":

Ka o nindaa wenne nintaŋ ne.
Kà ò nīn-dáa wɛ̄n nɛ̄ nīntāŋ nɛ̄.
And 3AN eye-face:SG resemble with sun:SG like.
"His face is like the sun." (Rev 10:1, 1996)

In KB *wɛ̄n nɛ̄* appears as *nwɛnɛ*: *Ka o nindaa nwɛnɛ winnig nɛ.*
A stressed final syllable 2.3 is sometimes mistaken for a segmentally homophonous particle:

Amaa fʊ anɛ ninsaal ka ka' win nɛ.
Àmáa fʊ̀ á nɛ̄ nīn-sáal kà kā' wīnnɛ́ +*ø.*
But 2SG COP FOC person-smooth:SG and NEG.BE god:SG NEG.
"But you are a human being and not a god." (Ezekiel 28:2)

Arezana nɛ dunia gaadʊg pʊ tɔi yaa
Àrazánà nɛ̄ dūnɪya gáadʊ̀g pʊ̄ tɔ̄yá +*ø.*
Heaven with world passing NEG.IND be.difficult NEG.
"The passing of heaven and earth is not difficult" (Lk 16:17)

1.3.3 Kusaal proper names in English

When speaking English or French, Kusaasi cite Kusaal personal and place names in a form showing the underlying final vowel without apocope 2.4: thus *À-Wīn* from *Wìdı-ňyá'aŋ* will introduce himself as "Awini" from "Woriyanga." Similarly "Kusaasi" for *Kʊ̄sáàs*, "Bawku" for *Bɔ̀k*, and so forth.

If this behaviour were confined to personal names, it might plausibly be attributed to the incorporation of the vocative prosodic clitic 8.1, but, as has been seen, it is equally characteristic of place names. Moreover, the form "Woriyanga" for *Wìdı-ňyá'aŋ* 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* rather than Mampruli *Wuddaana* "(title of) a chief's linguist" and female personal names like "Awimpoaka" *À-Wīn-pʊ́ák* even show the characteristic Agolle Kusaal vowel breaking, in contrast to the Toende form *Awınpɔ́ka* (Niggli.) Again, the personal name "Akudugu" *À-Kʊ̄dʊg* shows the postvocalic *-d-* characteristic of Agolle Kusaal rather than Mampruli. The Toende place name *Tīl* "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-Dʊ̄k*.

1.4 Outline of Kusaal grammar

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** 2.4), a feature shared with Nabit and Talni. (Clause-*medial* loss or reduction of word-final vowels is in contrast extremely common throughout the group.) Thus where Mooré has the citation form *bíiga* "child", the cognate Kusaal word *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 *mer* ← Latin *mare*; 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."
3AN COP FOC child:SG.

Ò kā' bīiga ⁺*ø.* "He/she is not a child."
3AN NEG.BE child:SG NEG.

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

So too at the end of vocative phrases:

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

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

Lì kā' gbīgɪmnɛ ⁺*ø.* "It's not a lion."
3INAN NEG.BE lion:SG NEG.

Lì à nɛ̄ gbīgɪm. "It's a lion."
3INAN COP FOC lion:SG.

This appearance of surface untruncated forms rather than truncated is regarded as being triggered by following **prosodic clitics**, which have no segmental form of their own but show their presence by this effect on the preceding word form. There are four prosodic clitics: negative NEG, vocative VOC, polar-question PQ and

content-question CQ, with different effects on preceding vowel length and tone. In interlinear glossing they are represented by $^{+}ø$, as above.

In citing word forms, superscripts 2.4.1 will be used to write the parts of words which are dropped everywhere except before prosodic clitics and liaison: *bīig*^{a} "child", *gbīgɪm*^{nɛ} "lion", *kʊ̄k*^{a} "chair", *dʊ̄k*$^{ɔ/}$ "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

vīidɛ́ "owls"

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

vīugɔ́ "owl"

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

vīug "owl"

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

āaňdɪga "black plum tree"

has the default epenthetic vowel *ɪ* before the flexion, and appears as *āaňdɪg* after apocope, whereas

gàadʊgɔ "passing" (gerund)

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

Certain **liaison words** 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:

Ḿ pʊ̄ 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 3PL.OB.	Modified Long Form *bɔ̀ɔdī* before liaison.
M̀ pʊ̄ zábɛ̄ ⁺ø.	"I haven't fought."
1SG NEG.IND fight NEG.	Long Form *zàbɛ̄* preceding negative clitic.
M̀ zábī‿bá.	"I've fought them."
1SG fight 3PL.OB.	Modified Long Form *zàbī* before liaison.

With interlinear glossing, liaison is marked by ‿, as above.

Apocope reduces several liaison words of the underlying form *CV* to a single consonant. Thus with *bɔ̀ɔd*ᵃ "wants, loves" and *fᵓ* "you (sg)":

M̀ pʊ̄ bɔ́ɔdī‿fɔ́ ⁺ø.	"I don't love you."
1SG NEG.IND want 2SG.OB NEG.	Long Form *fɔ* of the pronoun "you (sg)"
M̀ bɔ́ɔdī‿f.	"I love you."
1SG want 2SG.OB.	Short Form *f* of the pronoun "you (sg)"

The locative postposition *nᵋ* is another such word. It is conventionally written solid with the preceding host word, but hyphenated to it in this grammar:

Lì kā' kʊ̄ka ⁺ø.	"It's not a chair."
3INAN NEG.BE chair:SG NEG.	
Lì kā' kʊ̄kɪ-nɛ́ ⁺ø.	"It's not in a chair."
3INAN NEG.BE chair:SG-LOC NEG.	
kʊ̄kɪ-n	"in a chair"
chair:SG-LOC	
Lì kā' dʊ̄kɔ́ ⁺ø.	"It's not a pot."
3INAN NEG.BE pot:SG NEG.	
Lì kā' dʊ̄kí-nɛ̄ ⁺ø.	"It's not in a pot."
3INAN NEG.BE pot:SG-LOC NEG.	
dʊ̄kí-n	"in a pot"
pot:SG-LOC	

The 3sg animate object pronoun ᵒ "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 *fᵑ* "you (sg)" with the forms with ᵒ "him/her":

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

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

M̀ pū bɔ́ɔd·ó-o ⁺ø. "I don't love him/her." [m̩pʰʊbɔ:dʊ:]
1SG NEG.IND want-3AN.OB NEG. Long Form *o* of the pronoun "him/her"

M̀ bɔ́ɔd·ō‿ø. "I love him/her." [m̩bɔ:dʊ]
1SG want 3AN.OB. 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 after front vowels by apocope is deleted:

Gɔ̀sɪm! "Look!"
Look:IMP!

Gɔ̀sɪmī‿ø! "Look ye!" by apocope from *gɔ̀sɪmī-yá*
Look:IMP 2PL.SUB!

Liaison words are not all enclitic. Personal pronoun subjects and predeterminers also cause inhibition of apocope in the *preceding* word, as does one proclitic particle *à-* and all words beginning with certain derivational prefixes.

Two liaison-word particles which have the underlying form *n* also frequently lose their own segmental form entirely. As with *o* "him/her", their presence is then apparent only from the modified Long Form of the preceding word and from tone.

m̀ zūgú‿ ø zàbɪd lā zúg "because my head hurts" (nominaliser-*ǹ*)
1SG head:SG NZ fight:IPFV ART upon

M̀ zūgʊ‿ ø zábì̀d. "My head hurts." (catenator-*n*)
1SG head:SG CAT 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."

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.

Agolle Kusaal shows a systematic mismatch between phonetics and phonemics in the vowel system, because of **Agolle vowel breaking** of earlier short and long *ɛ ɔ* vowels, still preserved as phonetic monophthongs in the Toende dialect. This has produced four phonemes *i̯a u̯a iə uɵ* which are realised phonetically as diphthongs; for phonemic purposes these are digraphs representing monophthongs. Kusaal has also developed *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.

Kusaal is **tonal**, like the great 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. Original H has become M (Mid), and the new toneme takes the place of H.

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

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.

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

dīˈəsídìb	"receivers"
bāŋɪdɪb	"wise men"
gbīgɪmnɛ	"lion" (longer form, as above)

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. For *kp gb ň* ' see Orthography 1.3. Consonant clusters cannot occur word-initially or finally, except for final geminate *-mm* in Long Forms where there has been loss of syllabicity in an originally syllabic final *m*.

Many nouns, and one adjective, have a **noun prefix** before the root, taking the forms *CV-* or *CVn-*, or less often *CVlɪn-* or *CVsɪn-*. Nouns with prefixes may thus contain *-nC-* clusters at the junction between the prefix and the rest of the stem:

pīpīrɪg	"desert"
dìndɛ̄og	"chameleon"

Other word-internal clusters are confined to loanwords.

Flexional **suffixes**, like prefixes, have only a three-way vowel contrast *a*/*ɪ*/*ʊ*. Suffix vowels are lost by apocope in the surface Short Forms; when they are retained before prosodic clitics, *ɪ ʊ* appear lowered to *ɛ ɔ*. Clusters of two consonants cccur freely across word division (including within compounds) due to apocope of word-final short vowels:

Gbīgɪm lā dāa kʊ̄ʊd bʊ́ŋ lā.
Lion:SG ART TNS kill:IPFV donkey:SG ART.
"The lion (*gbīgɪm*^{nɛ}) was killing (*kʊ̄ʊd*$^{a/}$) the donkey (*bʊ̀ŋ*^{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, as is all productive stem derivation. Noun prefixes do not usually have identifiable meanings, but prefixes derived from older flexions occur in some quantifiers and adverbs.

Kusaal flexional morphology is underlyingly fairly straightforward, but with some morphophonemic complications. These words all belong to the same *g*^{a}|*s*^{ɛ} noun class, and are all regular:

bʊ̄ʊg	"goat"	*bʊ̄ʊs*	"goats"
sàbùa	"lover"	*sàbùʊs*	"lovers"
nūa	"hen"	*nɔ̄ɔs*	"hens"
kʊ̄k	"chair"	*kʊ̄gʊs*	"chairs"
zàk	"compound"	*zà'as*	"compounds"
dà'a	"market"	*dà'as*	"markets"
bʊ̀ŋ	"donkey"	*bʊ̀mɪs*	"donkeys"
tɛ̄ŋ	"land"	*tɛ̄ɛ̌ns*	"lands"

Noun flexion marks singular and plural by suffixes which come in matched pairs, allowing a division of all nouns into seven noun classes with relatively few exceptions, other than those transparently explicable for phonological reasons. As with many such systems, the classes show a partial correlation with meaning. The bare stem is itself an important part of the paradigm, because (as is typical for 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 **postdeterminer pronoun**:

bʊ̄ʊ́gᵃ	"goat"	+ *pìəlɪ́gᵃ*	"white"	→ *bʊ̀-pìəlɪ́gᵃ*	"white goat"
bʊ̄ʊ́gᵃ	"goat"	+ *sɪ̄ˈa⁺*	"another"	→ *bʊ̀-sɪ̄ˈa⁺*	"another goat"
kʊ̄kᵃ	"chair"	+ *pìəlɪ́gᵃ*	"white"	→ *kʊ̀g-pìəlɪ́gᵃ*	"white chair"
kʊ̄kᵃ	"chair"	+ *kàŋāˊ*	"this"	→ *kʊ̀g-kàŋāˊ*	"this chair"

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 natural animate/inanimate gender opposition. Noun classes remain central to noun morphology, with a few fossilised traces of agreement.

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

A characteristic feature of Western Oti-Volta is a striking simplification of **verb flexion**, with just one "conjugation" of prototypical dual-aspect verbs, using the bare stem for **perfective** aspect and marking the **imperfective** aspect with a single suffix *-dᵃ*. There are few real irregularities, though unobvious consonant changes and vowel deletions again complicate the surface picture:

kʊ̄⁺	perfective	"kill" (⁺ means that the vowel is long in the LF)
kʊ̄ʊ́dᵃ/	imperfective	
ňyɛ̄⁺	perfective	"see"
ňyɛ̄tᵃ/	imperfective	
vʊ̄lᵋ	perfective	"swallow"
vʊ̄nⁿᵃ/	imperfective	

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

Single-aspect verbs typically express body positions, relationships, or predicative adjectival senses. They have only a single finite form, which has either **stative** or **dynamic imperfective** aspect depending on the verb:

Ò dìgɪ nɛ̄.	"She's lying down."
3AN be.lying.down FOC.	
Ò mɔ̀r bʊ́ŋ.	"She has a donkey."
3AN have donkey:SG.	
Ò gìm.	"She's short."
3AN be.short.	

There are two **verbs "to be"**: *bɛ̀* "exist, be in a place" and *àe̯ň* "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."
3AN COP FOC child:SG.	

The two "be" verbs share a common negative-verb counterpart *kā'e* "not be", which usually appears as *kā'* clause-medially:

Ò kā' bīiga $^{+}$*ø.*	"He's not a child."
3AN NEG.BE child:SG NEG.	

Kusaal is well-provided with word-level **derivational** processes. For example, regular deverbal gerunds, agent nouns and instrument nouns can be made freely from most verb types:

kʊ̄ʊb$^{ɔ/}$	"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 strictly **SVO**, with indirect objects preceding direct:

M̀ tís dṵ'átà búŋ lā.
1SG give doctor:SG donkey:SG ART.
"I've given Doctor the donkey."

As seen above, an adjective follows its noun and forms a compound with it. There are two native **prepositions**, *nɛ̄* "with" and *wʊ̄ʊ* "like" (*nɛ̄* also links NPs and some AdvPs in the sense "and", but *kà* is "and" when linking VPs and clauses.)

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

m̀ bīig	"my child"
dāṵ lā bîig	"the man's child"

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

tɛ́ɛbʊ̀l lā zúg	"onto the table" (*zūg* "head")

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

mʊ̀'arī-n	"in a lake" (*mʊ̀'arɛ̄* "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:

Gbīgɪm lā dāa kʊ̄ búŋ lā.
Lion:SG ART TNS kill donkey:SG ART.
"The lion killed the donkey."

Gbīgɪm lā dāa pʊ̄ kʊ̄ búŋ láa $^{+}$*ø.*
Lion:SG ART TNS NEG.IND kill donkey:SG ART NEG.
"The lion didn't kill the donkey."

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

The **focus** particle *nɛ̄* appears frequently after a verb, limiting the *temporal* reference of the VP to "at the time referred to in particular":

Nīdɩb kpîd. "People die."
Person:PL die:IPFV.

Nīdɩb kpîd 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 it also focusses VP constituents or entire VPs. With stative verbs like *àẹ̀ň* "be something" above, the temporal sense is usually not possible, and the particle must be interpreted as focussing a verb phrase constituent.

In Kusaal the verb phrase is specifically marked not for subordination but for its absence. Main and content clauses have **independency marking** of the first verb phrase, marked by a **tone overlay** affecting the first word, 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 irrealis mood and with various preverbal particles. Independency marking itself is completely absent after the clause-linker particle *kà* even in *coordinating* function, as in narrative:

Ò zàb dụ́'átà. "He's fought the doctor."
3AN fight doctor:SG.

Ò gɔ̀s dụ́'átà. "He's looked at the doctor."
3AN look.at doctor:SG.

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

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

Kà ò gɔ̄s dụ́'átà. "And he's looked at the doctor."
And 3AN look.at 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 dụ́'átāa $^{+}$*ø!* "Don't look at the doctor!"
NEG.IMP look.at doctor:SG NEG!

but *Gɔ̀sɪm dụ́'átà!* "Look at the doctor!"
Look.at:IMP doctor:SG!

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

Fù yá' bɔ̀ɔd, m̀ ná tīsɪ͡f búŋ.
2SG if want, 1SG IRR give 2SG.OB donkey:SG.
"If you want, I'll give you a donkey."

As with many West African languages, many clauses contain more than one verb phrase. Kusaal does not have canonical serial verbs, but clause subordination by **catenation** creates very similar structures with the same-subject catenator particle *n*; in this example *tìs* "give" is used simply as means of adding an indirect object:

M̀ dāa kúès bùŋʊ͡ ø tís dụ́'átà.
1SG TNS sell donkey:SG CAT give doctor:SG.
"I sold a donkey to Doctor."

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

Lì à nɛ̄ gbīgɪm lá kà m̀ ňyɛ̄t.
3INAN COP FOC lion:SG ART and 1SG see:IPFV.
"It's the lion I see."

A second type of subordination is **nominalisation** by insertion of the nominaliser particle *ǹ* (frequently realised as segmental ø) after the subject:

gbīgɪm lá͡ø kʊ̄ búŋ "the lion having killed the donkey"
lion:SG ART NZ kill donkey:SG ART

One type of relative clause is internally-headed:

[*Paul ǹ sɔ̃b gbáụŋ-sɪ̄'a n tís Efesus dím lā*]͡*ø ňwá.*
Paul NZ write letter-INDF.INAN CAT give Ephesus one.PL ART CAT this.
"This is [the letter Paul wrote to the Ephesians]." (NT heading)

Here *gbàụŋ-sɪ̄'a* is *gbàụŋ* "book" compounded with the postdeterminer pronoun *sɪ̄'a* which marks it as antecedent, and the entire sequence *Paul ... lā* is the

relative clause. The subordinator is not the pronoun but the nominaliser particle *ǹ*.

Kusaal has also developed an antecedent-initial relative clause type where the nominaliser has fused with a preceding demonstrative to form a relative pronoun:

dàu̱-kànɪ pu̱'ā kpí lā "the man whose wife has died"
man-REL.SG wife:SG die ART

A third type of subordinate clause uses the initial linker particles *yɛ̄* or *kà* in **complementisation**. Purpose clauses are of this type:

Ḿ ná tī‿ f tíìm yé fù nīf dā zábɛ̄ +ø.
1SG IRR give 2SG.OB medicine that 2SG eye:SG NEG.IMP fight NEG.
"I'll give you medicine so your eye won't hurt."

Kusaal **narrative** links clause after clause with *kà*, regularly omitting tense marking so long as the action is preceding in sequence, but including it when there are descriptive passages or "flashbacks." In this passage the past-tense marker *dà* occurs only in the first clause. The second *kà* is preposing the time expression *dāar yīnní*, in a foregrounding construction (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-Pʊ̄-zɔ́t-yɛ̄l dá à nɛ́ ò sàam bîig mà'aa.
PERS-NEG.IND-fear:IPFV-thing:SG TNS COP FOC 3AN father:SG child:SG only.
Kà dāar yīnní kà bīig lā nɛ́ ò sàam zíň'i‿ø sɔ̄ňsɪd.
And day:SG one and child:SG ART with 3AN father:SG sit CAT converse:IPFV.
Kà bīig lā tí yɛ̀l ò sàam yɛ̄ ...
And child:SG ART after say 3AN father:SG that...
"Fears-nothing was his father's only son. [And] one day the son and father were sitting talking. [And] then the son said to his father ..." KSS p35

Content clauses are formally identical to main clauses, and likewise display independency marking, but have personal pronouns altered as in indirect speech. Content clauses are used for reporting speech and also very generally after verbs expressing communication or thought. Most often they are introduced by *yɛ̄* "that." There are **logophoric** uses of contrastive personal pronouns within content clauses.

*Dau da be mori o po'a yimmir, ka po'a la ye **on** pu lem bood ye o sid la di po'a ya'ase.*
Dāu̱ dá bɛ̀‿ ø mɔ̄rí‿ò pu̱'à-yīmmír, kà pu̱'ā lā yɛ́
Man:SG TNS EXIST CAT have 3AN wife-single:SG and wife:SG ART say
ɔ̄n pō lɛ́m bɔ̀ɔd yɛ́ ò sīd lā dí pu̱'ā yá'asɛ̄ ⁺ø.
3AN.CNTR NEG.IND again want that 3AN husband:SG ART take wife:SG again NEG.
"There was a man who had only one wife. [And] the wife said that **she** did not want her husband to take another wife." KSS p26

Clefting constructions have arisen from clause catenation, and given rise by ellipsis to structures using *n* for focussing subjects and *kà* for foregrounding other elements:

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

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

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

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

Bɔ́ kà fù ňyɛ̄tá ⁺ø? "What can you see?"
What and 2SG see:IPFV CQ?

Ànɔ́'ɔnì‿ ø kū búŋ lā ⁺ø?
Who CAT kill donkey:SG ART CQ?
"Who has killed the donkey?"

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

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

Mɔ̄ɔgú-n kà mām bɛ́. "I'm in the bush." BNY p10 (*kà required*)
Grass:SG-LOC and 1SG.CNTR EXIST.

Morphophonemics

2 Preliminaries

2.1 Rule order

Agolle vowel breaking 4.2 belongs to the basic phonological structure.

Consonant assimilation/epenthetic-vowel insertion 6.2 precedes *_g_-deletion/vowel fusion 6.3 and vowel fronting/rounding 6.4, which do not need to be ordered with respect to each other, but must both precede apocope 2.4.

Tone Patterns 7.1 (and the tone overlay of independency marking 19.6.1.1) allocate tonemes prior to all segmental changes which delete morae 7.2.1.1, including apocope.

Tonal external sandhi follows apocope. L spreading 8.4 and the tonal effects of prosodic clitics 8.1 and liaison enclitics 8.2.2 precede M spreading 8.3, which precedes toneme delinking 5.2.

2.2 Word classes

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; the distinction between clitics and flexions is made along the lines suggested in Zwicky and Pullum 1983. 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 noun and adjective combining forms, but denies it to prefixes.

The open word classes comprise **verbs** and **nominals**, the latter subdivided into **nouns** and **adjectives** along with closed subclasses of **quantifiers**, **adverbs**, and **pronominals**. **Ideophones** are treated in 16.11.1.3.

All other words are **particles**. Most particles are bound words; exceptions include *ɛ̄ɛ́ň* "yes" and *áyìɪ* "no." Particles include the article *lā*$^{+/}$ and the deictic *ňwà*$^{+}$ "this", the locative marker *nī*$^{+/}$~*n*^{ɛ}, the prepositions *nɛ̄* "with" and *wʊ̄ʊ* "like", preverbs and markers of tense, aspect and mood in VPs, the focus particle *nɛ̄*$^{+/}$, the clause linkers *kà* and *yɛ̄*, nominaliser-*ǹ*, catenator-*n*, VP-final *nā*$^{+/}$ "hither" and *sà*$^{+}$ "hence", and some clause adjuncts and emphatics.

2.3 Morae, syllables and stress

All segments constitute **morae**, except for consonants immediately followed by vowels within the same word; other consonants represent **non-vocalic** morae. Written *k p t ŋ* between vowels represent *kk pp tt ŋŋ*, so that e.g. *súˈɵŋ* SF "rabbit" has three morae, while the LF *súˈɵŋā* has four. Vocalic morae are the domain of **tone**, but not all vocalic morae bear a toneme 5.2.

Stress operates with **syllables**; all vocalic morae form syllables, except for the final morae of 2- and 3-mora vowels/diphthongs.

Three-mora vowel sequences are disyllabic, with syllable division following the first mora: LF *nū-áa* "hen."

Word stress falls on the root, except before a prosodic clitic 8.1, where it falls on the last syllable. 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 *mɛ̀* "build (pfv)" *bʊ̀ŋ* "donkey" *ɔ̄n* "he/she." Monosyllables with a long vowel, like *mɛ̀ɛd* "build (ipfv)" do have intrinsic stress.

Before pause, all intrinsically unstressed words acquire stress, including clitics like the article *lā*$^{+/}$. Even a liaison enclitic 8.2 acquires stress if it has a vowel of its own, while its host retains its own stress.

Stress is important in allotony; downstepping before H tonemes is dependent on syllable structure and stress 5.1.

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

	dìtúŋ^{ɔ}	['dɪtːʊŋ]	"right hand", probably a derivative of *dì*$^{+}$ "eat"
	dàtìu̯ŋ^{ɔ}	[daˈtʰɪʊ̯ŋ]	"right hand"
	bʊ̄tɪŋ^{a}	['bʊtːɪŋ]	"cup" (instrument noun from *bʊ̀d*^{ɛ} "plant seeds", but now "cup" in general)
pl	*bʊ̄tɪɪs*^{ɛ}	[bʊˈtʰɪːs]	wholly exceptional apparent lengthening of an epenthetic vowel 6.2 via reanalysis of the sg as prefix *bʊ̄* + stem *tīŋ*^{a}

2.4 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" 8.2:

Ò dāa ňyɛ̄ bīig. "She saw a child."
3AN TNS see child:SG.

bīig lā nú'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 kā' bīiga ⁺*ø.* "He/she is not a child."
3AN NEG.BE child:SG NEG.

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

Ànʊ́'ɔnì‿ø dāa ňyɛ̄ bíigà ⁺*ø?*
Who CAT TNS see child:SG CQ?
"Who saw a child?"

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

The Long Form also appears as a **derivational** feature in the *citation* form of some words 6.6. Direct commands sometimes end in a LF 22.1.3.

The LF appears in a modified form before **liaison**, with LF final short vowels losing all contrasts of quality 8.2.

The LF is not predictable in general from the shape of the SF alone (but see 2.4.2); however, the SF is always derivable from the LF by **apocope**:

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

Subsequently
Word-final consonant clusters drop the second consonant
(*kk tt pp ŋŋ* become *k t p ŋ* but are *written* single in any case 1.3)
Word-final *y* becomes *e̯* after back vowels and zero elsewhere

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

ia	→ *i̯a*	*ua*	→ *u̯a*	*i̯a'a*	→ *i̯a'*	*u̯'aa*	→ *u̯'a*
ae	→ *ae̯*	*aʊ*	→ *au̯*	*ui*	→ *ui̯*		
Vaa	→ *Va*	*Vee*	→ *Ve*	*Vʊʊ*	→ *Vʊ*		

The term "apocope" will be used exclusively for this phenomenon. Apocope is described as a single process, but historically the matter was more complex: comparative and internal evidence suggests that loss of quality contrasts preceded the complete deletion of word-final vowels clause-medially, which was itself probably a stress-related process distinct from the clause-final apocope characteristic of Kusaal, Nabit and Talni. (Cf also on Toende word-final stop devoicing 3.1 fn.)

Examples:

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

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

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

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

Ànɔ́'ɔnì‿ø ñyɛ̄ kúkà ⁺ø? "Who saw a chair?"
Who CAT see chair:SG CQ?

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

Lì à nɛ̄ dūk.	"It's a cooking pot."	
Dūk lā bɔ́dìg yā.	"The pot's got lost."	
Lì kā' dūkɔ́.	"It's not a pot."	/kk/
Lì à nɛ̄ dūkɔ́ɔ?	"Is it a pot?"	
Ànɔ́'ɔnì ñyɛ̄ dūkɔ́?	"Who saw a pot?"	
Lì à nɛ̄ gbīgɪm.	"It's a lion."	
Lì kā' gbīgɪmnɛ.	"It's not a lion."	
Lì à nɛ̄ gbígìmnɛɛ?	"Is it a lion?"	
Ànɔ́'ɔnì ñyɛ̄ gbígìmnɛ?	"Who saw a lion?"	
Lì à nɛ̄ yáarìm.	"It's salt."	
Lì kā' yáarīmm.	"It's not salt."	
Lì à nɛ̄ yáarìmm?	"Is it salt?"	
Ànɔ́'ɔnì ñyɛ̄ yáarìmm?	"Who saw salt?"	
Bà à nɛ̄ gbīgɪma.	"They're lions."	
Bà kā' gbīgɪmaa.	"They're not lions."	
Bà à nɛ̄ gbígɪmàa?	"Are they lions?"	
Ànɔ́'ɔnì ñyɛ̄ gbígɪmà?	"Who saw lions?"	
Ò à nɛ̄ dāu̯.	"He's a man."	
Ò kā' dāʊ.	"He's not a man."	
Ò à nɛ̄ dáùʊ?	"Is he a man?"	
Ànɔ́'ɔnì ñyɛ̄ dáʊ?	"Who saw a man?"	
Ò à nɛ̄ sāe̯ň.	"He's a blacksmith."	
Ò kā' sāeň.	"He's not a blacksmith."	
Ò à nɛ̄ sáèeň?	"Is he a blacksmith?"	
Ànɔ́'ɔnì ñyɛ̄ sáeň?	"Who saw a blacksmith?"	
Lì à nɛ̄ múi̯.	"It's rice."	
Lì kā' múi.	"It's not rice."	
Lì à nɛ̄ múìi?	"Is it rice?"	
Ànɔ́'ɔnì ñyɛ̄ múi?	"Who saw rice?"	

Kà ò sị̀ák. "And he agreed."
And 3AN agree.

Ò pō sị̀ákɛ̄ ⁺ø. "He didn't agree."
3AN NEG.IND agree NEG.

Kà ò dīgı. "And she's lying down."
And 3AN be.lying.

Ò pō dīgıyá ⁺ø. "She isn't lying down."
3AN NEG.IND be.lying NEG.

Kà ò vō̰e̱. "And she's alive."
Ò pō vōyá. "She's not alive."

Kà ò kụ̀ā. "And he farmed."
Ò pō kūa. "He hasn't farmed."

Kà ò kị̀á. "And she cut (it)."
Ò pō kía. "She hasn't cut (it)."

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

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

Lì à nɛ̄ bʊ̄n-bɛ́dʊ̀g. "It's a big thing."
3INAN COP FOC thing-big:SG.

Lì kā' bʊ̄n-bɛ́dʊgɔ̄ ⁺ø. "It's not a big thing."
3INAN NEG.BE thing-big:SG NEG.

M̀ pʊ́'ʊ̀s yā bɛ́dʊgʊ̄. "Thank you very much."
1SG greet PFV much.

2.4.1 Superscript notation

The exact shape of a Long Form differs in different contexts. Final vowel length may be neutralised, final short vowel qualities may be altered or completely neutralised, and final tonemes may be altered. Changes to LFs occur clause-medially before **liaison** 8.2, and clause-finally before **prosodic clitics** 8.1, which have no segmental form of their own but cause the preceding word to appear as a LF rather than the default SF. Derivational LF types are taken as showing **apocope-blocking** 6.6. The Long Form as such is an abstraction, representing the underlying word-form which produces the surface SF through apocope, and the various surface LFs through application of the rules for each environment. For convenience, the LF form preceding the *negative* prosodic clitic will be taken as basic. It shows underlying LF-final short -*ɪ* -*ʊ* as -*ɛ* -*ɔ*, *-*mʊ* *-*mɪ* as -*mm* -*mm* and -*iə* -*uɐ* as -*ia* -*ua* 4.2, and its final toneme is always either M or H.

Words in isolation will be cited in **superscript notation**, writing forms with the portion of the LF which does not appear in the SF as a following superscript.

bīig^{a}	"child"	*kūk*^{a}	"chair"
dūk$^{ɔ/}$	"pot"	*s̰ìàk*^{ɛ}	"agree"
gbīgɪm^{nɛ}	"lion"	*yàarɪm*^{m}	"salt"
dīgɪ$^{ya/}$	"be lying down"	*zì'e*^{ya}	"be standing"

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

gbīgɪma^{+}	"lions"	SF *gbīgɪma*	LF *gbīgɪmaa*
mɔ̀lɪ$^{+}$	"gazelles"	SF *mɔ̀lɪ*	LF *mɔ̀līɪ*
gɔ̀ň$^{+}$	"hunt"	SF *gɔ̀ň*	LF *gɔ̄ɔň*
tìeň$^{+}$	"inform"	SF *tìeň*	LF *tìēeň*
k̰ìà$^{+}$	"cut"	SF *k̰ìà*	LF *kīa*
kṵā$^{+}$	"hoe"	SF *kṵā*	LF *kūa*
dāṵ$^{+}$	"man"	SF *dāṵ*	LF *dāʊ*
sāe̱ň$^{+}$	"blacksmith"	SF *sāe̱ň*	LF *sāeň*

(This use of $^{+}$ exploits the extent to which LFs can be predicted from SFs 2.4.2. More radical simplifications could be made: $^{+}$ = ^{ɛ} could all be taken as defaults, with -*m* defaulting to -*m*^{m}, and ^{a} used for ^{ya}.)

Superscript ^{a} is written after a vowel symbol in two cases.

Words ending in LF *i̯a'a u̯'aa* are written with superscript ᵃ rather than ⁺ to distinguish them from words ending in LF *i'a u'a*:

	kpi̯à'⁺	"shape wood"	SF *kpi̯à'*	LF *kpī'a*
but	*di̯ā'*ᵃ	"get dirty"	SF *di̯ā'*	LF *di̯ā'a*
	ku̯ā⁺	"hoe"	SF *ku̯ā*	LF *kūa*
but	*pu̯'ā*ᵃ	"woman"	SF *pu̯'ā*	LF *pu̯'āa*

Words with LFs in *-ya* where the SFs changes the word-final *-y* to *-e̯* are also written with superscript ᵃ:

*vʊ̄e̯*ᵃ/	"be alive"	SF *vʊ̄e̯*	LF *vʊ̄yá*
*tɔ̄e̯*ᵃ/	"be bitter"	SF *tɔ̄e̯*	LF *tɔ̄yá*

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

dà'a⁼	"market"

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

In accordance with the LF tonemes seen before the negative prosodic clitic, **the LF is to be understood as ending with M toneme, unless the superscript is followed by an acute mark** ˊ (for H.)

This final M or H tone is by default realised on the rightmost vocalic mora of the LF, but **tautosyllabic delinking** 5.2.1 may apply. If a pitch rise would otherwise result within a single syllable, the first mora is delinked and the second toneme links to both morae; this process is not marked in superscript notation itself:

*fūug*ɔ/	"shirt, clothes"	SF *fūug*	LF *fūugɔ́*
pāe⁺/	"reach"	SF *pāe*	LF *pāée*
nūa⁺/	"hen"	SF *nūa*	LF *nūáa*
yā⁺/	"houses"	SF *yā*	LF *yáa*
lā⁺/	(article)	SF *lā*	LF *láa*
bɛ̀dʊgʊ̄⁺/	"a lot"	SF *bɛ̀dʊgʊ̄*	LF *bɛ̀dʊgʊ́ʊ*
gāaň⁼/	"Nigerian ebony"	SF *gāaň*	LF *gáaň*
*dāam*ᵐ/	"millet beer"	SF *dāam*	LF *dáamm*
tāu̯ň⁺/	"opposite-sex sib"	SF *tāu̯ň*	LF *táʊň*
mɔ̀lɪ⁺	"gazelles"	SF *mɔ̀lɪ*	LF *mɔ̀lī*

Similarly, when the liaison enclitic ᵒ "him/her" is attached to a perfective form ending in a root vowel, the first mora in the SF is delinked when a pitch rise would otherwise occur within the syllable: such forms are written with *LF* tones:

ňyɛ̄·ó-ᵒ	"see him/her"	SF *ňyɛ́·o*	LF *ňyɛ̄·ó-o*

Note that *kʊ̄·ó*ᵌ "kill him/her" represents the identical SF and LF *kʊ́·o.*

Tautosyllabic delinking also applies if the sequence HM would result on a single syllable. In this case it is the M on the *second* mora which is delinked:

	Lì kā' yáarīmm.	"It's not salt (*yàarɪmᵐ*)."
but	*Lì ká' ò tīɪmm.*	"It's not her medicine (← *tìīmm* ← *tìɪmᵐ*)."
	Lì kā' tíɪmm.	"It's not medicine (← *tíīmm*)."
	Lì ká' bà dā'a.	"It's not their market (← *dà'ā* ← *dà'aᵌ*)."
	Lì kā' dá'a.	"It's not a market (← *dá'ā*)."

Tautosyllabic delinking causes words like *náafᵑ* and *nú'ùgᵑ* to coincide tonally in the LF only: such words are written in superscript notation with the SF tonemes.

Lì	*kā'*	*nú'ugɔ̄* ⁺*ø.*	"It's not a hand."
3INAN NEG.BE		hand:SG NEG.	
Lì	*kā'*	*náafɔ̄* ⁺*ø.*	"It's not a cow."
3INAN NEG.BE		COW:SG NEG.	

2.4.2 Predictability of Long Forms

The LF can usually be predicted from the SF given the aspect of a verb, or whether a noun has human reference 9.1. Historically expected LFs have been systematically replaced in some cases by different LFs corresponding to the same SFs 9.3.1 9.3.2. Apocope frequently does *not* lead to loss of segmental contrasts despite deleting segments which condition preceding sound changes, and working in reverse, such features can often accurately predict LFs from SFs; even words completely deleted by apocope remain recognisable from their effects on preceding words.

All this raises questions about the psychological reality of LFs as underlying word forms. The LF will be treated as synchronically primary, as it certainly is historically, but the matter merits discussion.

Apocope abolishes the contrast between Tone Patterns H and O in nominals with 2-mora stems, and where LFs lack contrasts present in SFs this is due only to

late toneme delinking rules. However, Tone Patterns are suprasegmental features of stems rather than words 7.1, so this does not establish the primacy of the LF.

With **SFs ending in consonants**, it is not possible in principle to predict the LF from the SF alone. The LF may end in *a ɛ* or *ɔ*; preceding SF-final *m n* or *l* may or may not be geminated; *-m* may become *-mn-* instead of *-mm-*. Even before liaison 8.2, where vowel quality is neutralised, the same issues arise with consonant clusters:

nwɛnɛ tinamɛ kɛt banɛ ***tʊmmi*** *ti taali* [*sic*] *basid si'em la.*
wɛ̄n nɛ̄ tīnámì◡ø kɛ́t bánì tʊ̀mmī◡ tí tàallì◡ ø
resemble with 1PL NZ let:IPFV REL.PL work:IPFV 1PL fault:SG CAT
básìd sɪ̄ʾəm lā.
throw.out:IPFV INDF.ADV ART.
"like we forgive the sin of those who do it to us." (Lk 11:4)

ka ban ka kikirbe'ednam ***daamne*** *ba daa nye laafiya*
kà bàn kà kìkīr-bɛ́'ɛ̀d-nàm dáàmnī◡ bá dāa ňyɛ̄ láafì̀ya
and REL.PL and fairy-bad-PL trouble:IPFV 3PL.OB TNS see health
"And people who were afflicted by evil spirits became well."
(Lk 6:18, 1976; KB: *ka banɛ ka kikiris* ***daamidi*** *ba daa nyɛ laafi*)

However, given whether a noun has human reference, it is usually possible to identify its noun class and thus the correct LF 9.1. Perfectives end in *-mm* if the the SF ends in *-m* and in *-ɛ* otherwise; imperfectives end in ***-a*** with gemination of preceding *n l m*. Dual-aspect verb imperfectives with SFs ending in *-m* formerly had LFs in ***-mna***, though not for my informants nor in KB:

...kà pʊ̄ tʊ́mnā. "...and does not work." (2 Thess 3:11, 1996, written *ka pu tum na* 1.3.2; KB *ka pʊ tʊmma*.)

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

Li pu nar ye fu di fu ba'abiig po'a Herodiase.
Lì pʊ̄ nār yɛ́ fʊ̀ dí fʊ̀ bā'-bîig pu̱'á Herodiasɛ $^{+}$*ø.*
3INAN NEG.IND must that 2SG take 2SG father-child:SG wife:SG Herodias NEG.
"It's not right for you to marry your brother's wife Herodias." (Mt 14:4, 1996)

Pu'abi du'a sieba la wʊsa, sɔ̄' kae gat Joon nɛ [*sic* 1.3.2].
Pʊ̄'abí◡ ø du̱'à sīəba lā wʊ̄sa, sɔ̄' kā'e◡ø gát Joonɛ $^{+}$*ø.*
Woman:PL NZ bear INDF.PL ART all, INDF.AN NEG.BE CAT pass:IPFV John NEG.
"Of all those born of women, none surpasses John." (Lk 7: 28)

Almost all **SFs ending in vowels** have LFs which can be obtained simply by lengthening the final vowel/diphthong, including all that do not end in *i̯a i̯a'*, short *ɪ*, or a fronting diphthong, and many that do:

sīa^{+}	"waist"	*sàbùa*$^{+}$	"girlfriend"
bāa$^{=}$	"dog" 8.1	*pāe*$^{+/}$	"reach"
nìe^{+}	"appear"	*dūe*$^{+/}$	"raise/rise"
kūgá$^{+}$	"stones"	*wìdɪ*$^{+}$	"horses"
kʊ̄$^{+}$	"kill"	*mà*$^{+}$	"mother"
bɛ̀dʊgʊ̄$^{+/}$	"a lot"		

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

di̯ā'^{a}		"get dirty"	← **di̯agɪ*	Farefare	*dɛ̃gɛ̀*
du̯'à^{a}		"bear, beget"	← **du̯agɪ*	Farefare	*dɔ̀gɛ̀*
zɔ̀$^{+}$		"run"		Farefare	*zòè*
dāu̯$^{+}$	LF *dāʊ*	"man"	← **dawa*	Mooré	*ráoa*
tāu̯ň$^{+/}$	LF *táʊň*	"opposite-sex sib"	← **tãwa*	Mooré	*tãoa*

A marginal exception to predictability is the fact that words ending in *i̯a'* may have LFs in *i̯a'a* like *di̯ā'*^{a} "get dirty" or in *i'a* like *kpi̯à'*$^{+}$ "shape wood with an axe."

The major exception is SFs ending in a fronting diphthong or short *ɪ*, where the LF may either prolong the diphthong or add *-ya*. Two nouns have variant sg LFs:

sāe̯ň	"blacksmith"	LF *sāeň* or *sāňya*
sɔ̄e̯ň	"witch"	LF *sɔ̄eň* or *sɔ̄ňya*

All other cases involve **single-aspect verbs** 11.2, where LF *-ya* is regular except for a handful of bare root forms:

dīgɪ$^{ya/}$	"be lying down"	*wà'e*^{ya}	"be en route for"
vʊ̄e̯$^{a/}$	"be alive"	*sʊ̄'e*$^{ya/}$	"own"

Before liaison, single-aspect verbs follow the *general* rule, prolonging any final short diphthong and then applying phrase-medial loss of fronting 8.2.

3 Consonants

3.1 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] [g͡b]. 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 still contrast with the unaspirated word-final *k t p*.[3]

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.

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3) In Toende Kusaal word-final *g d b* normally become *k t p*, but *g b* (though not *d*) remain at the end of verb perfectives and cbs; there are even minimal pairs like *ya'ab* "mould pots" versus *ya'ap* "potter." This suggests that in Toende, after proclitics and perfectives *only*, apocope applies later than word-final stop devoicing.

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"
sɔ́g̰ià^{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 6.4.
Before *a* and *ɔ* velars are pronounced further back, with some speakers even as uvulars:

kɔ̀bıgā$^{=}$	"hundred"	[qʷʰɔbɪɢa]

Underlying **g* is deleted after short oral or nasal *a i̯a u̯a*, which become glottalised, and also after *aa iə uɵ aaň ɛɛň ɔɔň* and their glottalised counterparts unless it stands before a rounded vowel; diphthongs may result 6.3. The effect of this **g* is still apparent in stem tone patterns 7.2.1.1.

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

fʊ̄fʊ̄m^{mɛ}	"envy"
náafᵓ	"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*^{ɛ})	"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-dáʊ̀g^{ↄ}	"cock"	[nɔɾaʊg]
	nā'-dáàd^{ɛ}	"oxen"	[nạ̰ɾa:d]
but	*wìd-dāʊg*^{ↄ}	"stallion"	[wɪd:aʊg]

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

ɛ̀ňdɪg^{ɛ}	"unplug"
ɛ̀ňrɪg^{ɛ}	"shift along"
mɔ̄d^{ɛ}	"swell"
mɔ̄r$^{a/}$	"have"
yàad^{ɛ}	"graves"
yāar$^{ɛ/}$	"scatter"

r itself is the alveolar flap [ɾ], except after an epenthetic vowel (e.g. in the *r*^{ɛ} 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"

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 *ɪ*-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 fù nú'ùg!	"Look at your hand!"
Gɔ̀sím fù nú'ùg!	*id*

m is unique in that it can form the word-final cluster *mm* [mː], which appears chiefly in LFs but also in some forms with derivational apocope-blocking 6.6. 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 8.1.

n is syllabic when representing various proclitic particles, and as the number prefix. Unlike *m*, it assimilates to the position of a following consonant even when syllabic. The clause catenator *n* and the clause nominaliser *ǹ* are syllabic [n̩] 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 *kpʊ̀kpàrɪgᵃ* "palm tree" where other speakers have *kʊ̀kpàrɪgᵃ* 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.

kūmᵐ	"death"	cf *kpì*⁺	"die"	
kɔ̄baˍ⁺	"bones"	cf Gurmanche	*kpábá*	*id*
kpàkʊ̄rᵋ/	"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]
ňwādɪg$^{a/}$	"moon"	[w̃ãdɪg]
ňwɛ̀$^{'+}$	"beat"	[w̃ɛ̰̃]

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		*àňrʊŋ*^{ↄ}	"boat"
nyá	[ɲa]	*ňyɛ̄*$^{+}$	"see"
ŋme	[ŋ͡me]	*ňwɛ̀*$^{'+}$	"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 *ɪ*/*i* original *ɲ* has often become *n* 8.2.3.

y 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 4.5. When apocope leaves *-y-* as word-final after a short back vowel, it is replaced by *e̯*, producing a short fronting diphthong 6.4.

Consonantal *w* occurs only root-initially, i.e. word-initially and after prefixes: *wìəfᵓ* "horse", *dàwānⁿɛ/* "pigeon", but consonantal *y* occurs root-initially (*yáaŋ*^{a} "grandchild", *dàyūug*$^{ↄ/}$ "rat"), and also word-medially before the vowel *a*: *nɔ̄yá*$^{+}$ "mouths."

3.2 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 8.5.1.

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

At the junction between a noun 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].

*kʉ̀ndʉ̀ŋ*ᵃ	"jackal"	
*gʉ̄mpʉ̄zɛ̄r*ᵋ/	"duck"	
*dànkɔ̀ŋ*ɔ	"measles"	[daŋkʰɔŋ]
*zʉ̀nzɔ̀ŋ*ᵃ	"blind"	[zʊŋzɔŋ]

Loanwords may include clusters not found elsewhere.

*bʉ̀rkì n*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 5.2.2 7.2.1 7.3.1.

Gemination of *mm nn ll* before LF affix vowels is clearly audible, even where the LF-final vowel has been downranked before liaison 8.2; the audio version of the 1996 NT for example provides numerous examples of *dɔ̄ll·ó* "follow him" (written

dol o) clearly read as [dɔlːʊ]. It is harder to hear length contrasts with *mm nn ll* preceding an epenthetic vowel. Written materials prior to 2016 rarely mark gemination in such cases, but KB is generally reliable. The tones of Pattern H stems can also confirm the presence of clusters. Urs Niggli's Toende materials never show geminate consonants except before LF flexions preceding prosodic clitics; this may be a genuine difference from Agolle Kusaal.

The only 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 *mn* in dual-aspect verb imperfectives:

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

There are a few examples of *mn* in the NT prior to 2016:

ka ba li' ba toba ka pu wum na [*sic* 1.3.2]
kà bà lí bà tʊ̀ba kà pū wʊ́mnā $^{+}$*ø.*
And 3PL block 3PL ear:PL and NEG.IND hear:IMPF NEG.
"they have blocked their ears and do not hear" (Mt 13:15, 1996)

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

Informants differ with regard to the singular forms of *r*^{ɛ}|*a*$^{+}$ class *m*-stems:

gbīgɪm^{nɛ}	SB	*gbīgɪm*^{mɛ}	WK	"lion"
dūm^{nɛ}	SB	*dūm*^{mɛ}	WK	"knee"

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

ňwān^{nɛ}	SB	pl *ňwāna*$^{+}$ (Lk 11:39, 1976)	"calabash"
ňwām^{mɛ}	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
pɛ̄'ɛs bánì kā' kɔ́ňb-kīmma $^{+}$*ø*
sheep:PL REL.PL NEG.BE animal-tender:SG NEG
"sheep without a shepherd" (Mt 9:36, 1996)

m naan ku aan Kiristo tumtum na [*sic* 1.3.2].
m̀ nāan kú āa-n Kiristo túm-tūmna $^{+}$*ø*.
1SG then NEG.IRR COP-DP Christ work-worker:SG NEG.
"I would not have been Christ's servant." (Gal 1:10, 1996; KB *tumtumma*)

The plurals usually show *-mn-*:

O tumtumnib pii nɛ ayi' la yuda nwa.
Ò tùm-tūmnɪb pīi nɛ́ àyí lā yúdà◡ ø ňwà.
3AN work-worker:PL ten with NUM:two ART name:PL CAT this.
"These are the names of his twelve servants." (Mt 10:2)

All examples of dynamic adjectives derived from *m*-stem verbs in my data show *-mm-* before epenthetic vowels:

bū̄n-túmmɪ̀r^{ɛ}	"useful thing"; plural *tūmna*$^{+}$ is cited by some informants.
bù-sāň'ammɪr^{ɛ}	"goat for destruction, scapegoat" WK

The great majority of cases *-mn-* within words precede front vowels; compare focus-*nɛ̄*$^{+/}$, corresponding to *me* in Toende Kusaal, Mooré etc 28.1.2.
KB has no word-internal or word-final *-mna-* or *-mnɛ-* at all; all examples so written involve separate words by the criteria of this grammar. Word-internal *-mni-* is common, however, in plurals like *tumtumnib* = *tùm-tūmnɪb* "servants."

The consonants *r f s* are sometimes shown by Tone Pattern allocation rules to reflect underlying clusters 7.2.1.1, but unlike *k t p ŋ* they are never actually realised as geminates.

tīntɔ̄ňríg^{a}	"mole" (animal)	← **tīntɔ̄ňrrígā*
píɪňf^{ɔ}	"genet"	← **pīínfū*
níis^{ɛ}	"birds"	← **nīínsī*

Morphophonemic considerations also sometimes suggest that *r s* are simplified from clusters. The agent nouns *sɔ̀s*^{a} "beggar" and *tìs*^{a} "giver" drop the formant *-d-* in the sg and have Tone Pattern L like 3-mora stems 9.3.1. The Pattern H verbs *gɔ̄s*^{ɛ} "look", *sɔ̄ňs*^{ɛ} "converse", *kīr*^{ɛ} "hurry" make Pattern HL gerunds 7.2.1.2, perhaps as a result of historical mora loss.

4 Vowels

4.1 Inventory and symbols

Agolle Kusaal has a basic seven-vowel system /a/ /ɛ/ /ɔ/ /i/ /u/ /ɪ/ /ʊ/, written by default as *a ɛ ɔ i u ɪ ʊ* respectively. See 1.3 for the orthographic conventions for the use of *e o* in place of *ɪ ʊ* for /ɪ/ /ʊ/, the symbols *ň* and ' marking nasalisation and glottalisation, the glide symbols *e̯ i̯ u̯* and the representation of long vowels.

Long vowels contrast with short vowels in length, but not quality.

The vowel *ɪ* is more central after velars and labials, and *ʊ* is slightly more fronted after alveolars and *y*; *u* is noticeably fronted after alveolar consonants, which may then even be realised as palato-alveolars. This is particularly common with *z*: [ʒyg] for *zūg* "head" 3.1. The glide symbols *e̯ i̯* both represent /ɪ̯/, but in *ui̯* and in the monophthong *i̯e* the realisation of *i̯* is as [i̯]. The symbol *u̯* always represents [ʊ̯].

i̯a u̯a iə uɵ are *phonemic monophthongs* but are realised as written: [ɪ̯a] [ʊ̯a] [iə] [uɵ]. Before *y* word-internally, *i̯a u̯a* are realised [i̯ɪ] [ʊ̯ɪ] and written *i̯e u̯e*. The orthography of this grammar follows tradition in representing these segments according to their *phonetic* realisation, but the symbols are digraphs representing monophthongs 4.2. The letters *ə ɵ* are used only in these digraphs.

There are many diphthongs, consisting either of contiguous dissimilar vowel morae or of a short vowel mora followed by a glide.

The glides *e̯/i̯ u̯* contrast with *y w* in not forming syllable boundaries or consonant clusters, either as components of the digraphs *i̯a u̯a* representing single short vowel phonemes, or as the final components of short diphthongs:

bi̯āu̯ňkɔ	[bɪ̯ãʊ̯k]	"shoulder"		CVC
bu̯àkɛ	[bʊ̯ak]	"split"		CVC
dāu̯⁺	[daʊ̯]	"man"		CV
gbàu̯ŋɔ	[g͡baʊ̯ŋ]	"book"		CVC
sɔ̄e̯ň	[sɔ̃ɪ̯]	"blacksmith"	SF	CV
tɔ̄e̯	[tʰɔɪ̯]	"be bitter"	SF	CV
mùi̯⁺	[mũi̯]	"rice"		CVCV

Word-final *-Ve̯ -Vi̯ -Vu̯* behave exactly like word-final short root vowels in being followed by [ʔ] before pause in statements 4.4:

Ò à nɛ̄ dāu̯.	[ʊanɛdaʊ̯ʔ]	"He is a man"

Word-initial *ya* [ja] contrasts with *i̯a* [ɪ̯a] in the tenseness of the semivowel, and probably in timing features; the contrast is not [ʔja] ~ [ja].

i̯ā$^{+}$	[ɪa̯]	"seek"
yā$^{+/}$	[ja]	"houses"

Chitoran 2002 finds that unlike *ia*/*ea*, the contrast *ua*/*oa* has no phonetic basis in Romanian, and hypothesises that this is 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.*

There are great differences in the range of vowel contrasts possible in different positions within a full word. Correlation with stress 2.3 is only partial, so the system is best regarded as involving **positional prominence**. Diphthongs, glottalisation, emic nasalisation and the sevenfold quality contrast appear only in the **root vowels** of non-clitic words. **Affix vowels** have only a three-way contrast in quality *a ɪ ʊ* but like root vowels also distinguish length. **Epenthetic vowels** contrast only short *ɪ ʊ*.

Even in roots, there are few minimal pairs for the contrasts *i*/*ɪ u*/*ʊ* in short vowels, except when shortened by apocope from long *ii*/*ɪɪ uu*/*ʊʊ*, where the tenseness contrast is robust. Minimal pairs include

lìdɪg	"astonish, be amazed"	*lìdɪg*	"turn a shirt" WK
sībɪg	antelope species KED	*sībɪg*	"termite"
bʊ̀l	"astonish"	*bʊ̀l*	"germinate"
ʊ̀k	"vomit"	*ūk*	"bloat"
bʊ̄n	"thing"	*bʊ̀n*	"germinate" ipfv
kʊ̄dʊg	"old"	*kʊ̄dʊg*	"piece of iron"
kʊ̄g-káŋā	"this mahogany tree"	*kʊ̄g-káŋā*	"this stone"
tʊ̄lɪg	"heat up"	*tʊ̀lɪg*	"invert"

4.2 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 6.4 just like other monophthongs. They will be described as monophthongs throughout this grammar. All other sequences beginning with written *i u* are *diphthongs* both phonetically and phonemically.

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	
sɛ̄ɛ̄s	*sīəs*^{ɛ}	"waists"
pē'ēs	*pɛ̄'ɛs*$^{ɛ/}$	"sheep" pl
bɔ́'ɔs	*bū'ɵs*$^{ɛ/}$	"ask"
tōom	*tɔ̄ɔm*$^{m/}$	"depart, disappear"

Common Kusaal probably preserved older diphthongs, like Mooré; Kusaal *ɔɔ*/*ua* pairings correspond to Mooré *oo*, but Mooré *ao* corresponds to *ɔɔ*/*ɔɔ*:

bɔ̀ɔ̀t	*bɔ̀ɔd*^{a}	"want, wish" (Mooré *bàoda*)

There are gaps in the distribution of Agolle *ɛɛ ɔɔ* probably connected with their diphthongal origins; some occurrences seem to be due to levelling within *g*^{ɔ}|*d*^{ɛ} class paradigms 9.2.1. Short *ɛ ɔ* do not contrast underlyingly with *i̯a u̯a* (see below.)

iə uɵ may only occur word-finally through loss of fronting in word-final *ie ue* by phrase-internal sandhi 8.5.2:

pīá tī$^{+/}$	"wash us"	(*pīe*$^{+/}$ "wash")
dūó tī$^{+/}$	"raise us"	(*dūe*$^{+/}$"raise")

Word-final *iə uɵ* diphthongise to *ia ua* before prosodic clitics, but not liaison:

LF	*kīa*	"cut"	pfv	[kʰia]	cf *kìəd*^{a}	ipfv
LF	*kūa*	"hoe"	pfv	[kʰua]	cf *kūɵd*$^{a/}$	ipfv

Nasalised *iəň uɵň*, including after *m n* 4.3, occur only in the inflexion and gerund formation of fusion verbs 6.3. In all other contexts *iəň uɵň* and *ɛɛň ɔɔň* have fallen together. The vowels were distinct historically: compare *nɔ̄ɔr* "times" (Mooré *náooré*) with *nɔ̄ɔr* "mouth" (Mooré *nóorè*) 16.4.2.4.

The short vowels corresponding to *iə uɵ* are *i̯a u̯a* [ɪ̯a] [ʊ̯a].

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

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

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

Short *ɛ ɔ* replace *i̯a u̯a* everywhere else, except before *k* and underlying **g*, which is deleted, with vowel glottalisation and fusion 6.3. Almost all short *ɛ ɔ* are either of this origin, or derive from apocope of *ɛɛ ɔɔ*. *Bɔ̀k*^{ɔ} "pit" contrasting with *bu̯àk*^{ɛ} "split" is due to the rounding change **u̯akkʊ* → *ɔkkʊ* 6.4, while *tɛ̄k*$^{ɛ/}$ "pull",

contrasting with *tia̰kᵋ* "change" is due to shortening of a long vowel before an original plosive cluster **tɛɛkkɪ* 6.5. Presumably *nɔ̄kᵋ/* "pick up" is similarly derived by shortening of **nɔɔkkɪ*; Toende Kusaal has *nɔ̀k*, with a variant form *nכ'כ* (for **nכ'כg*.)

ḭe ṵe [ḭɪ] [ʊ̰ɪ] appear in place of *ḭa ṵa* before *-y-*, which can occur only in the context of *rᵋ|a⁺* class plurals of nouns and adjectives with stems in *iə* and *uɵ* 6.1.1.1:

bīərᵋ/	"elder same-sex sib"	pl *bḭēyá⁺*	
sūɵrᵋ/	"road"	pl *sṵēyá⁺*	KB *suoya* 1.3.2

4.3 Nasalisation

Contrastive nasalisation is confined to root vowels. It is marked with *ň* in the orthography of this grammar 1.3. It often represents originally automatic nasalisation after **ŋ* **ɲ* **n͡m*, or arises before underlying **ns* **nf* 6.2.

Short *iň uň* are laxer than oral *i u*, but there are no contrasting short **ɪň* **ʊň*. In all but one case, short *iň uň* arise from apocope of *iiň uuň*:

sīiňfↄ/	"bee"	cb *sīň-*
zùuňgↄ	"vulture"	cb *zùň-*

The only remaining case is *sūňfↄ/* "heart" pl *sūňyá⁺* cb *sūň-*; the vowel of this word is consistently written *ʊn* in KB.

Nasalisation is automatic on long vowels preceded by a nasal consonant:

mɛ̀ɛdᵃ	"build" ipfv	[mɛ̃ːd]

Long *ɪɪň ʊʊň* contrasting with *iiň uuň* appear exclusively from the change of **nf* **ns* to *f s* with nasalisation of the preceding vowel 6.2:

	níiŋᵃ	"bird"	
but	*píɪňfↄ*	"genet"	pl *pīɪní⁺*
	zùuňdᵋ	"vultures"	
but	*zʊ́ʊňfↄ*	"dawadawa seed"	pl *zʊ̄ʊní⁺*
	tɛ̀ŋ-zʊ̀ʊňsᵋ	"foreign lands"	sg *tɛ̀ŋ-zʊ̀ŋↄ*

Nasalised *iəň uɵň* occur only in fusion verbs 6.3.

4.4 Glottalisation

Glottalisation is confined to root vowels and the proclitic tense marker *pà'* "earlier today." It does not affect vowel quality. It is marked by the symbol ' 1.3.

Glottalisation may be realised as a creaky-voiced glottal approximant [ʔ̰] after the first vocalic mora, or the creakiness may be more widely spread within the vowel; but in either case it behaves as a vowel feature, not a consonant. The flap realisation of initial *d* 3.1 occurs after *V'* as well as after *V*; and in general glottalised vowels pattern exactly like unglottalised vowels. The glottalisation which has arisen from deletion of **g* after *a i̯a u̯a* 6.3 does not differ phonetically from other types.

Tonal considerations confirm that ' is not a consonant. Thus

	Lì kā' mɔ́lɪfɔ̄.	"It's not a gazelle."
but	*Lì kā' ↓nú'ugɔ̄.*	"It's not a hand."
like	*Lì kā' ↓tíɪgā.*	"It's not a tree."

differ in whether the H toneme is realised with a preceding downstep, because the sequence *-lɪ-* in *mɔ́lɪfɔ̄* is a separate unstressed syllable preceding the final stress on *-fɔ̄*, whereas the ' in *nú'ugɔ̄* is not a consonant and does not begin a syllable 5.1.

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

	Kà bà gɛ̄ň.	"and they got tired"	is homophonous with
	Kà bà gɛ̄ň'.	"and they got angry"	
but	*Bà gɛ̀ň nɛ̄.*	"they're tired"	differs in realisation from
	Bà gɛ̀ň' nɛ̄.	"they're angry"	

There is nothing corresponding to Kusaal vowel glottalisation in Mooré, Dagaare, Mampruli, Hanga or Dagbani, but Farefare, Nabit and Talni share it: *yʊ̄'ʊrᵋ/* "name", Farefare *yʊ́'ʊ́rɛ́*; *kù'ɵmᵐ* "water", Talni *kwoʔm*; *kpá'ʊŋɔ* "guinea fowl", Nabit *kpa'uŋ*; *nɔ̄-ňyá'àŋᵃ* "hen", Nabit *nɔnya'aŋ*.

Nawdm, too, has *ʔ* in many words with Kusaal cognates showing glottalised vowels, e.g. *mì-tâʔ* "three" (in counting) = Kusaal *ntáň'; núʔú* "arm, hand" = *nú'ùgɔ*; *ráʔḿ* "bile" = Kusaal *yā'amᵐ/* (WK), Farefare *yá'ám*. Vowel glottalisation is thus clearly inherited from Oti-Volta.

Glottalised short vowels are almost all the result of apocope. Besides *kā'e̯⁺* "not be" (← **kagɪ*) all other cases precede *m* or *ŋ* in closed syllables in some words for some informants. The vowels are written as if long in KB.

kpɛ̀'ŋ^{ɛ}	"strengthen"	*lā'ŋ*$^{ɛ/}$	"set alight"
nī'm$^{nɛ/}$	"meat"	*kɔ̄'m*$^{m/}$	"hunger"
sù'ŋā$^{+}$	"well"	*sù'm*^{m}	"goodness"

The adjective *sùŋ*^{ɔ} (pl *sùma*$^{+}$) "good" itself never has a glottalisation mark. Toende Kusaal, Farefare, Nabit and Talni lack this phenomenon. It has probably arisen from gemination of *m ŋ*; KB has 385 examples of *an sʊm* to 47 of *an sʊ'ʊm* (*àň sʊ́m* "is good"), but 30 of *ka' sʊm* to 40 of *ka' sʊ'ʊm*, which would be *kā' sʊ́mm* "is not good" when clause-final. *Yām*$^{m/}$ "gall bladder; sense" seems to have a real variant *yā'am*$^{m/}$; it was the only case where my informants confirmed glottalisation.

4.5 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 2.3, are structurally extra-long diphthongs.

The word-final diphthongs *aʊ aʊň ui* arose historically from **Vw *Vy* 6.1.1.1. All other word-internal **primary** diphthongs result from active word-internal morphophonemic processes of fusion, fronting and rounding 6.3 6.4. Rounding diphthongs occur only word-finally and before velars, fronting diphthongs only word-finally and before *y*. The primary diphthongs are

1-Mora		2-Mora		3-Mora	
		ia	[ia]	*iaa*	[ia:]
		i̯a'a	[i̯a̯:]		
		ua	[ua]	*uaa*	[ua:]
		ʊ'a	[ʊ̯a̯]		
ae̯	[ai̯]	*ae*	[aɪ]	*aee*	[aɪ:]
ɔe̯	[ɔi̯]	*ɔ'e*	[ɔ̯i̯]		
ʊe̯	[ʊi̯]	*ʊ'e*	[ʊ̯i̯]		
ui̯	[ui̯]	*ui*	[ui]		
		ie	[iɪ]	*iee*	[iɪ:]
		ue	[uɪ]	*uee*	[uɪ:]
aʊ̯	[aʊ̯]	*aʊ*	[aʊ]		
		iu	[iu]		
ɪʊ̯	[ɪʊ̯]				
ɛʊ̯	[ɛʊ̯]	*ɛo*	[ɛʊ]		
i̯aʊ̯	[i̯aʊ̯]				
		io	[iʊ]		

These diphthongs also occur nasalised, and if not 1-mora, glottalised; those written glottalised above *only* occur glottalised. A 2-mora diphthong may become 3-mora by prolongation of the second mora before the polar-question prosodic clitic 8.1. The diphthongs *ʋ'a ʋň'a* appear as *u̯'aa u̯ň'aa* respectively when LF-final.

Secondary diphthongs are created by *replacement* of final morae of word-final root vowels by [ɪ] [ʊ] before liaison enclitics 8.2.1: ^{o} [ʊ] "him/her" replaces any preceding vowel mora by [ʊ], never [u], and the 2pl subject enclitic ^{ya} replaces any preceding vowel mora by [ɪ], never [i]. Any of *a ɛ ɔ ɩ ʋ i u* may precede:

zū·ó-o	[zuʊ:]	"steal him"	LF
zú·o	[zuʊ]	"steal him"	SF
bɛ̄ɩyá	[bɛɪja]	"be ye!"	LF
bɛ̄ɩ	[bɛɪ]	"be ye!"	SF

The digraphs *i̯a u̯a iə uɵ* and their nasalised/glottalised forms are *phonemic monophthongs* 4.2. Long *iə uɵ* are falling diphthongs phonetically, as are all the phonemic diphthongs apart from the disyllabic 3-mora type.

Length contrasts among phonemic diphthongs in identical contexts can occur only with word-final *ae*/*ae̯* and with *aʋ*/*au̯* before *ŋ*.

4.6 Epenthetic vowels

The default epenthetic vowel is *ɩ*.

Before LF -*g*^{ɔ} -*ŋ*^{ɔ} the epenthetic vowel becomes *ʋ*, remaining *ʋ* in the SF 6.4.

	āaňdɩg^{a}	← **ããdɩga*	"black plum tree"
but	*gàadʋg*^{ɔ}	← **gaadɩgʋ*	"(sur)passing" (gerund)
pl	*mālɩma*$^{+}$	← **malɩmaa*	"sacrifices"
but	*mālʋŋ*^{ɔ}	← **malɩŋŋʋ*	"sacrifice"

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

gbīgɩm^{nɛ}	[g͡bɪgɪm]	"lion"
yʋ̄gʋ́m^{nɛ}	[jʊgʊm]	"camel"
wābɩd$^{ɛ/}$	[wabɪd]	"elephants"
dʋ̄gʋd$^{ɛ/}$	[dʊgʊd]	"cooking pots"
dʋ̄gʋdíb^{a}	[dʊgʊdɪb]	"people who cook"
pʋ̄ʋgʋ-n$^{ɛ/}$	[p^{h}ʊ:gʊn]	"belly" (*pʋ̄ʋg*^{a})+ *n*^{ɛ} locative

Speakers vary with rounding of epenthetic vowels after rounded root vowels, but this can only become contrastive before word-final velars, where it can lead to reanalysis of the *gᵃ* sg suffix as *gᵓ* 9.3.2. NT ILK KED have *poogin* and KB *pʊʊgin* for *pʊ̄ʊgʊ-nᵋ/* "inside." 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:

nɔ̄bʊgᵋ/	"grow" (but *nɔ́bìrᵋ* "leg")
kɔ̄lʊgᵃ	"river"
yàmmʊgᵃ	"slave"

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

tìsɪdᵃ	[tʰɪsɪd]	"gives"
sīgɪdᵃ/	[sigid]	"lowers"
bʊ̄gʊrᵋ	[bʊgʊr]	"spirit's dwelling"
kʊ̄gʊrᵋ/	[kʰugur]	"stone"

4.7 Affix vowels

Except for combining forms, and some preverbs, post-subject particles, and emphatics, clitics have vowels showing the same set of *affix vowel* contrasts as the flexions and prefixes of full words.

The affix vowels are short *a ɪ ʊ* and long *aa ɪɪ ʊʊ*. Glottalisation occurs only in the particle *pà'* ← **pag* "earlier today." Nasalisation is never contrastive, but phonetic nasalisation probably underlies the *ɛ* for expected *ɪ* of various particles realised *nɛ̄*, with *nɪ̄⁺/* found only as the non-liaison allomorph of the locative marker.

Prosodic clitics cause short LF-final *ɪ ʊ* to be lowered to *ɛ ɔ*, here realised somewhat closer than as root vowels; the only context in which underlying LF-final short *ɪ ʊ* appear as such is with apocope-blocking 6.6.

LF-final long *aa ɪɪ* appear in the *rᵋ|a⁺* and *fᵓ|ɪ⁺* class plural flexions. SF-final *-a -ɪ* in plurals behave like apocope-blocked forms before liaison, without vowel prolongation, except in *yáanᵋ*, the irregular locative of *yā⁺/* "houses." LF-final *aa ɪɪ ʊʊ* also arise from prolongation of forms with apocope-blocking before prosodic clitics, and *ʊʊ* arises as the result of liaison with the LF of the enclitic pronoun ᵒ 8.2.1.

Prefix *ɪ ʊ* are realised [i] [u] when the first mora of the root is *i* or *u*; this is non-contrastive and ignored in the orthography, with *ɪ ʊ* used throughout. Thus *tītā'arᵋ* "big", *kʊ̀kɔ̄rᵋ/* "voice" have [ɪ] [ʊ] respectively, but

	kìkīrɪg$^{a/}$	[kʰikʰirig]	"protective spirit"
	sìsì'əm^{m}	[sisi̯əm]	"wind"
	dʊ̀ndʊ̀ug^{ɔ}	[dundu:g]	"cobra" KB *dunduug*
	sīlɪnsíʊ̀ŋ̌g^{ɔ}	[siliŋsĩũg]	"spider"
	vʊ̀lɪnvʊ̀uŋ̌l^{ɛ}	[vuliŋvũ:l]	"mason wasp"
but	*nìn-tāa*$^{=}$	[nintʰa:]	"co-wife": there are no short **ɪŋ̌ *ʊŋ̌* 4.3

Affix-vowel and pre-liaison *ɪ ʊ* differ in tone sandhi from epenthetic *ɪ ʊ* 5.2.2, and written materials suggest a prominence contrast at least between affix vowels and word-final epenthetic vowels preceded by a single consonant after a short root vowel, as seen in *dīgɪ* from *dīgɪ*$^{ya/}$ "be lying down." In KB, I found no instances of loss of final affix *ɪ ʊ*, but *dīgɪ* appears as *digi* 101 times, and *dig* 185. Significantly, there are 33 instances of *dig nɛ* with only 5 of *digi nɛ*, where there is no clause boundary after the verb, but where the verb is followed by the unstressed clause linker *kà* there are 7 cases of *digi ka* to only 2 of *dig ka*, while before a full stop there are 5 instances of *digi* to only one of *digi* (excepting the collocation *digi dig*.)

The affix vowels *ɪ* and *ʊ* contrast only after velars and word-initially: *ɪ* is the default after alveolars, and *ʊ* after labials, labiodentals and labiovelars. Prefixes, however, show *ʊ* rather than *ɪ* before root *u*/*ʊ*/*ɔ* (*dʊ̀ndʊ̀ug*^{ɔ} "cobra") and *ɪ* instead of *ʊ* before root *i*/*ɪ*/*ɛ* (*kpīkpīn*$^{na/}$ "merchant.") In flexions *-mm* appears in place of **-mʊ*; *ɪ* appears after labial consonants only in perfectives like *zàb*^{ɛ} "fight" where it is probably analogical. *Sūgʊrʊ́*$^{+}$ "forbearance" is probably a loanword; in any case, it is likely that the final *-ʊ*$^{+}$ is rounded from *-ɪ*$^{+}$ because of the rounded root vowel. Velars followed by affix-vowel *ʊ* could be internally reconstructed throughout as labiovelars (with 3sg *ò* ← **ŋmʊ̀* 16.3.1 fn.) A system with only two distinct affix vowels except after velars is probably reconstructable for Common Western Oti-Volta: in the equivalent of the *g*^{ɔ}|*d*^{ɛ} class, Mooré and Farefare have the plural suffix *-do*/*-ro* corresponding to singular *-go*, but Dagaare agrees with the Southwestern languages in showing an unrounded vowel, and this looks like a shared innovation based on the analogy of the singular suffix. Buli, which is close to the Western subgroup within Oti-Volta, also seems to show a three-way contrast in affix vowels only after velars and initially.

5 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 is now the M (mid) toneme in a three-toneme system.

There are great constraints on tone patterns for single words, with nominals showing only three distinct basic patterns, and verbs only two. Intrinsic tone patterns are frequently changed by tone sandhi and tone overlay.

5.1 Tonemes

There are three tonemes:

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

Structurally, H represents ML on a single mora. The sequence ML can only occur across a pause, otherwise always becoming either HL or MH 8.3.

Tone functions more as a syntactic marker than to distinguish lexemes, but numerous minimal pairs exist, e.g.

bāŋ^{a}	"ring, chain"	*bàŋ*^{a}	"agama lizard"
bʊ̄k$^{ɛ/}$	"weaken"	*bʊ̀k*^{ɛ}	"cast lots"
gāŋ$^{ɛ/}$	"choose"	*gàŋ*^{ɛ}	"step over"
kʊ̄k$^{a/}$	"mahogany tree"	*kʊ̀k*^{a}	"ghost"
kʊ̄k^{a}	"chair"		
māk$^{ɛ/}$	"measure"	*màk*^{ɛ}	"crumple up"
mɔ̄ɔg^{ɔ}	"bush, wilderness"	*Mɔ̀ɔg*^{ɔ}	"Mossi realm"
pīd^{ɛ}	"get bloated"	*pìd*^{ɛ}	"put on hat, shoes etc"
sáam^{ma}	"guests"	*sàam*^{ma}	"father"
sị̂āk$^{ɛ/}$	"suffice"	*sị̀àk*^{ɛ}	"agree"
yáaŋ^{a}	"grandchild"	*Yàaŋ*^{a}	"Yansi, Yanga person"
yɔ̄$^{+}$	"pay"	*yɔ̀*$^{+}$	"close"

Every vocalic mora carries a toneme, except as a result of delinking 5.2. Syllabic *m n* bear L toneme, except for catenator-*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, e.g. *bɛ̄ogʊ-n* for *bɛ̄ōgū-n*, *púkɔ̀ɔ̌ǹr* for *púkɔ̀ɔ̀ǹr*. After an acute mark, however, an unmarked mora is *toneless*, and the H toneme extends over both morae 5.2.2:

*Lì kā' **mɔ́lɪfɔ̄** ⁺ø.* "It's not a gazelle."
3INAN NEG.BE gazelle:SG NEG.

Nominals with prefixes 14 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 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 in a closed syllable, where the fall in pitch occurs from the first mora to the second:

m̀ sáam "my guests"
but *m̀ gbɛ́ɛ̌ǹm* "my sleep"

The H toneme is in certain circumstances realised with a preceding *phonetic* downstep, lowering it to M level; this does not affect the relationship of the H to following tonemes. Downstep insertion applies after all tone sandhi and delinking.

Downstep is inserted before H after:
H: always
M: if the next syllable is stressed and no other toneme intervenes

Downstep is not inserted after M before the last H toneme in a question, due to the interrogative intonation pattern 8.1.

Downstep lowers H to the level of the last preceding M: thus, in MHM the final M has the pitch of the first, but M↓HM is realised [MM↓M].

These predictable downsteps are not marked in the normal orthography of this grammar, but in this section will be written as ↓.

Examples for downstep after M before H immediately preceding stress 2.3. Where relevant, ***bold*** type marks stressed and *green* marks unstressed syllables.

*Kà m̀ gɔ̄s ↓búŋ **lā**.*
And 1SG look.at donkey:SG ART.
"And I looked at the donkey."

but *Kà m̀ gɔ̄s búŋ lā bɛ̄ogʊ-n.*
And 1SG look.at donkey:SG ART morning-LOC.
"And I looked at the donkey in the morning."

*Bīig lā ↓sá **mɛ̀ɛd** yīr lā.*
Child:SG ART TNS build:IPFV house:SG ART.
"The child was building the house yesterday."

but *Bīig lā sá mɛ̀ yīr lā.*
Child:SG ART TNS build house:SG ART.
"The child built the house yesterday."

*Mān ↓bú-**pìəl** kā'e ⁺ø.*
1SG.CNTR goat-white:SG NEG.BE NEG.
"My white goat isn't there."

but *Mān bú-sʊ̀ŋ kā'e ⁺ø.*
1SG.CNTR goat-good:SG NEG.BE NEG.
"My good goat isn't there."

*Yʊ̄↓gúm **kā'e** ⁺ø.* "There's no camel."
Camel:SG NEG.BE NEG.

but *Yʊ̄gúm lā kā'e ⁺ø.* "The camel's not there."
Camel:SG ART NEG.BE NEG.

There is no downstep when L toneme intervenes before the stressed syllable:

*Lì à nɛ̄ ↓náaf **lā**.* "It's the cow."
3INAN COP FOC cow:SG ART.

but *Lì à nɛ̄ dɔ́ɔ̀g **lā**.* "It's the hut."
3INAN COP FOC hut:SG ART.

The tonemes of the following syllable itself are not relevant:

Mān kúkɔ̀m kā'e ⁺*ø.* "My leper isn't there."
1SG.CNTR leper:SG NEG.BE NEG.

Mān kúkɔ̄r kā'e ⁺*ø.* "My voice isn't there." (WK tone)
1SG.CNTR voice:SG NEG.BE NEG.

Before prosodic clitics LFs transfer stress from the root to the affix:

Lì kā' ňyī↓rífɔ̄ ⁺*ø.* "It's not an egusi seed."
3INAN NEG.BE egusi:SG NEG.

Lì kā' púkɔ̀ɔňrɛ̄ ⁺*ø.* "It's not a widow."
3INAN NEG.BE widow:SG NEG.

Ànɔ́'ɔnì‿ø ňyɛ̄ púkɔ̀ɔňrɛ ⁺*ø?*
Who CAT see widow:SG CQ?
"Who saw a widow?"

but *Lì à nɛ̄ ↓púkɔ̀ɔňr lā.* "It's the widow."
3INAN COP FOC widow:SG ART.

As downstepping between M and H does not occur before an unstressed syllable, *nú'ùgɔ* "hand" matches *nɔ́bìrɛ* "leg" tonally in SF but *náafɔ* "cow" in LF:

Lì à nɛ̄ nɔ́bìr. "It's a leg."
Lì à nɛ̄ nú'ùg. "It's a hand."
Lì à nɛ̄ náaf. "It's a cow."
Lì kā' nɔ́bɪrɛ̄. "It's not a leg." (with delinking 5.2.2)
Lì kā' ↓nú'ugɔ̄. "It's not a hand."
Lì kā' ↓náafɔ̄. "It's not a cow."

The **interrogative intonation pattern** 8.1 prevents downstep preceding a H syllable even though the next syllable is stressed before a prosodic clitic:

Ò pō yādɪ↓gídā ⁺*ø.* "He isn't scattering."
3AN NEG.IND scatter:IPFV NEG.

but *Ànɔ́'ɔnì‿ø yādɪgídà* ⁺*ø?* "Who is scattering?"
Who CAT scatter:IPFV CQ?

*Lì kā' bī-↓pú**ŋā*** ⁺*ø.* "It's not a girl."
3INAN NEG.BE child-girl:SG NEG.

but *Lì kā' bī-pú**ŋàa*** ⁺*ø?* "Isn't it a girl?"
3INAN NEG.BE child-girl:SG PQ?

*Ò pū ňyɛ̄↓sú'ʊ**gā*** ⁺*ø.* "She didn't find a knife."
3AN NEG.IND see knife:SG NEG.

but *Ànɔ́'ɔnì‿**ø** ňyɛ̄ sú'ʊ**gà*** ⁺*ø?* "Who found a knife?"
Who CAT see knife:SG CQ.

and *Ò pū dú**gɛ̀ɛ*** ⁺*ø* ⁺*ø?* "Didn't she cook?"
3AN NEG.IND cook NEG PQ.

As downstep insertion applies later than delinking, words like *náaf*ᑭ "cow" (← *nāáf*ᑭ) behave exactly like *gɛ́l*ᑊᴇ "egg":

Kà m̀ gɔ̄s gɛ́l lā bɛ̄ogʊ-n.
And 1SG look.at egg:SG ART morning-LOC.
"And I looked at the egg in the morning."

but *M̀ gɔ́s ↓gɛ́l lā bɛ̄ogʊ-n.*
1SG look.at egg:SG ART morning-LOC.
"I looked at the egg in the morning."

Kà m̀ gɔ̄s náaf lā bɛ̄ogʊ-n.
And 1SG look.at donkey:SG ART morning-LOC.
"And I looked at the cow in the morning."

but *M̀ gɔ́s ↓náaf lā bɛ̄ogʊ-n.*
1SG look.at cow:SG ART morning-LOC.
"I looked at the cow in the morning."

5.2 Delinking

Delinking follows all tone sandhi. Essentially, these are realisation rules, but they are written into the orthography to avoid having to write the same surface tones in several different ways. They do not need to be ordered among themselves.

5.2.1 Tautosyllabic

A pitch rise is not permitted within a syllable; the first toneme is delinked and the second applies to both morae. This rule applies constantly with words with long root vowels which would be expected to have the tonemes MH in Tone Pattern H 7.2.1, and with the allocation of final M and H tones in LFs 2.4.1; it applies also when the discontinuous-past liaison enclitic *n*$^{\varepsilon}$ imposes M toneme on the second mora of a LL root vowel 8.2.2.

	sáam^{ma}	← **sāámmā*	"guests"
LF	*dáamm*	← **dāámm*	"beer"
LF	*tīɪmm*	← **tìīmm*	"medicine"
	mɛ̄ɛ-n$^{\varepsilon/}$	← *mɛ̀ɛ̄-n*$^{\varepsilon/}$	"build" *mɛ̀*$^{+}$ + dp *n*$^{\varepsilon}$

When HM or HH would occur in one syllable the second toneme is delinked:

Dāu̯ lā mɛ́ɛ-n (← *mɛ́ɛ̄-n*) "The man built (earlier today.)"
Man:SG ART build-DP

The only remaining sequence of dissimilar tones in one syllable is HL. Even the sequence **HL is only permitted in a closed syllable**; in an open syllable, the L is delinked and H applies to both morae. This means that words like *nú'ùg*ɔ "hand" and *náaf*ɔ "cow" which have different tonemes in the SF fall together in the LF as the syllable becomes open. Superscript notation writes such words with SF tones.

Lì kā' nú'ugɔ $^{+}$*ø.* "It's not a hand."
3INAN NEG.BE hand:SG NEG.

Lì kā' náafɔ $^{+}$*ø.* "It's not a cow."
3INAN NEG.BE cow:SG NEG.

As three-mora diphthongs are disyllabic, with syllable division following the first mora 2.3, tautosyllabic delinking applies to the final two morae, e.g. LF *nū-áa* "hen" from *nūa*$^{+/}$; see further examples of LFs at 2.4.1.

5.2.2 Heterosyllabic

If a short vowel in an open syllable carries H toneme, the toneme on a following *epenthetic* vowel in an open syllable is delinked and the H is realised across both morae.

*Lì kā' **mɔ́lɪfɔ̄*** $^{+}$*ø.* "It's not a gazelle."
3INAN NEG.BE gazelle:SG NEG.

*Bà kā' dī'ə**sídɪbā*** $^{+}$*ø.* "They are not receivers."
3PL NEG.BE receiver:PL NEG.

The rule does not apply if either syllable is closed:

*Lì à nɛ̄ **mɔ́lìf.*** "It's a gazelle."
3INAN COP FOC gazelle:SG.

*Bà à nɛ̄ dī'ə**sídìb.*** "They are receivers."
3PL COP FOC receiver:PL.

*Lì kā' bʊ̄n-**sábì**llɛ̄* $^{+}$*ø.* "It's not a black thing."
3INAN NEG.BE thing-black:SG NEG.

Written intervocalic *k p t ŋ* represent *kk tt pp ŋŋ,* and block delinking even though generally realised as single except in very slow speech:

Ka ya pʊ siakida. "But you did not agree." (Lk 13:34)
*Kà yà pʊ̄ **si̱ákì**dā* $^{+}$*ø.*
And 2PL NEG.IND agree:IPFV NEG.

Delinking does not occur if the L mora falls on a root or an affix vowel, or if it precedes liaison, where the short vowel is not epenthetic 8.2:

*Lì kā' **dágɔ̀**bɪgā* $^{+}$*ø.* "It's not a left hand."
3INAN NEG.BE left.hand:SG NEG. (Prefix *dà-*, root *gɔ̀b-* 14)

*Bà à nɛ̄ **dígà**.* "They are dwarfs."
3PL COP FOC dwarf:PL. (Affix vowel *-à*)

*Kà ɔ̄n **zábì͡** f.* "And he fought you."
And 3AN.CNTR fight 2SG.OB.

Ò pū ***zábì‿*** *fɔ̄* ⁺*ø.* "He didn't fight you."
3AN NEG.IND fight 2SG.OB NEG.

Contrast the example with the epenthetic vowel in *mɔ̀lɪfɔ* "gazelle" above:

Lì kā' ***mɔ́lɪ*** *fɔ̄* ⁺*ø.* "It's not a gazelle."
3INAN NEG.BE gazelle:SG NEG.

For possible phonological differences between epenthetic vowels and word-final short vowels before liaison *apart* from tones cf 4.7; in any case word-division before liaison enclitics is justifiable morphosyntactically 1.3.1. Epenthetic vowels liable to delinking could instead be regarded as *intrinsically* toneless, becoming L if left in a closed syllable by apocope when preceded by H. However, the distribution of tonemes within words is so constrained that a contrast in *realisation* between such toneless morae and those bearing tonemes would only ever occur after H, the very case addressed by heterosyllabic delinking.

6 Word segmental structure

This section treats the structure of free words, along with bound words which have the same segmental and tonal form as free words. These comprise all combining forms, some clause-level particles and most preverbs.

Clause-linker particles, VP particles, the article, prepositions, the locative marker, and the bound pronouns resemble affixes of full words, with the same much-reduced "affix vowel" contrasts. Enclitics of this type are subject to apocope; in some cases this results in a SF consisting of a single consonant, or even a SF with no segmental form at all. Enclitics with SFs of the form *CV* behave as words with apocope-blocking 6.6. Most proclitics other than cbs have not undergone apocope; some end in long vowels impossible for SFs: *lɛ̀ɛ* "but" 19.7.1 *ňyɛ̄ɛ* "habitually" 19.7.2. However, some do have forms implying apocope, like *pà'* "earlier today": glottalised short vowels occur only in closed syllables before *m* or *ŋ*, or by apocope 4.4.

6.1 Roots, prefixes and suffixes

Word structure is based on **roots**. Roots have the forms *(C)V(C)* or *(C)VV(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^{nɛ}	"dry season"	[ʔu:n], [u:n]

For simplicity, possible root shapes will be given as *CV(C) CVV(C)* elsewhere.

Only *b d g l m n s r* occur as second consonants of roots.

Root vowels show the full range of possible Kusaal vowels, including contrastive length, nasalisation and glottalisation. The underlying basic vowels are

a	*i̯a*/*ɛ*	*u̯a*/*ɔ*			*i*	*u*	*ɪ*	*ʊ*
aa	*iə*	*uɵ*	*ɛɛ*	*ɔɔ*	*ii*	*uu*	*ɪɪ*	*ʊʊ*

The digraphs represent *monophthongs*, short or long, affected by Agolle vowel breaking 4.2. Underlying *i̯a u̯a* are in complementary distribution with *ɛ ɔ*. Long vowels have glottalised counterparts, and all vowels have contrastively nasalised counterparts except for *iə uɵ ɪ ʊ ɪɪ ʊʊ*.

Stems are derived from roots by adding up to three **derivational suffixes** 13 of the form *C*; nominals may add optional **prefixes** 14.

Derivational suffixes again comprise the consonants *b d g l m n s r*, where *b r* are found in very few words. *B g n s r* cannot follow another suffix at all, and *l* only does so in the combination *-lm* which derives abstract nouns from other nouns. The suffix *n* may be historically derived from **ld* 6.2; otherwise, the suffix *d* occurs almost exclusively in nouns and adjectives derived from verb stems and frequently either supplants a preceding derivational suffix or is itself omitted. If there are three derivational suffixes the last two can only be *-dm* or *-lm*. *CVVC* roots assume the allomorph *CVC* before a suffix of a type which cannot follow another 6.1.1.2.

Prefixes are of the forms *V CV CVn CVsɪn CVlɪn*. They only occur in nominal stems. Their vowels are limited to the short **affix vowels** *a ɪ ʊ* and show no contrastive glottalisation or nasalisation. A few stems have two successive prefixes.

tītā'ar^{ɛ}	"big"	*bùmbàrɪg*^{a}	"ant"
sīlɪnsíùňg^{ɔ}	"spider"	*tàsɪntàl*^{lɛ}	"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 fʊ ɪɪ rɪ lɪ aa gʊ dɪ mm bʊ da ma na la ya*. These draw their vowels from the set of **affix vowels** *a ɪ ʊ* which may be short or long, but show no diphthongs, contrastive nasalisation or glottalisation.

Final *-mm* represents *-mʊ*; it is realised as geminate consonantal [mː] but still patterns in most respects as if the final *m* were syllabic.

LF-final short *ɪ ʊ* appear before prosodic clitics lowered to *ɛ ɔ*.

Stem	*bīi-*	"child"	sg *bīig*^{a}	pl *bīis*^{ɛ}
	dɔ̀ɔ-	"hut"	sg *dɔ̀ɔg*^{ɔ}	pl *dɔ̀ɔd*^{ɛ}
	kù'ɵ-	"water"	sg *kù'ɵm*^{m}	

Before vowel-initial flexions *CVV* root-stems become *CVC.* In productive forms they become *CVy* or *CVd*:

Stem	*nɔ̄ɔ-*	"mouth"	sg *nɔ̄ɔr*$^{ɛ/}$	pl *nɔ̄yá*$^{+}$
	yʊ̄'ʊ-	"name"	sg *yʊ̄'ʊr*$^{ɛ/}$	pl *yʊ̄dá*$^{+}$

No consonant clusters occur word-initially, and only *-mm* (from *-mʊ*) word-finally.

Clusters of homorganic nasal + *C* may occur where noun prefixes attach to the root or to another noun prefix.

kùndʊ̀ŋ^{a}	"jackal"
gʊ̄mpʊ̄zɛ̄r$^{ɛ/}$	"duck"

Apart from this, word-internal consonant clusters are limited to *kk tt pp ŋŋ nn mm ll mn*, with exceptions only in loanwords like *bʊ̀rkʊ̀n*ª "honourable person" (from Songhay.) Compounds like *ňwād-bíl*ª "star" are not single words 1.3.1.

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 *ɪ* by default but may be rounded to *ʊ* by adjacent consonants or after a short rounded root vowel 4.6.

Stem	*ňwād-*	"month"	+ sg *-ga*	→	*ňwādɪgá*	LF	*ňwādɪg*	SF
			+ pl *-sɪ*	→	*ňwādɪsɛ́*	LF	*ňwādɪs*	SF
	kʊ̄g-	"chair"	+ sg *-ga*	→	*kʊ̄ka*	LF	*kʊ̄k*	SF
			+ pl *-sɪ*	→	*kʊ̄gʊsɛ*	LF	*kʊ̄gʊs*	SF
	nɔ́b-	"leg"	+ sg *-rɪ*	→	*nɔ́bɪrɛ̄*	LF	*nɔ́bʊ̀r*	SF
	dūm-	"knee"	+ sg *-rɪ*	→	*dūmnɛ*	LF	*dūm*	SF
			+ pl *-aa*	→	*dūmaa*	LF	*dūma*	SF

Diphthongs result from deletion of postvocalic **g* with subsequent vowel fusion and fronting or rounding of vowel morae before **-ya *-gʊ *-kkʊ *-ŋŋʊ*. Apocope removes conditioning factors for diphthong formation and for the quality contrast in epenthetic vowels, leaving these contrastive:

*vīid*ᴱ/	← **viidɪ*	"owls"
*vīug*ɔ/	← **viigʊ*	"owl"
*āaňdɪg*ª	← **ããdɪga*	"black plum tree"
*gàadʊg*ɔ	← **gaadɪgʊ*	"(sur)passing" (gerund)

6.1.1 Root alternations

6.1.1.1 *CV~CVV~CVC*

Most roots ending in a vowel show a long vowel before all consonant-initial flexional and derivational suffixes: *kū*$^{+}$ "kill" ipfv *kūʋd*$^{a/}$. However, some show short vowels before at least some suffixes.

Glottalised roots of this kind are underlyingly **CVg*, and their behaviour is explained by **g* deletion and vowel fusion 6.3.

In flexion, non-glottalised roots show a long vowel before the class suffixes -*g*^{a} -*g*^{ɔ} and short elsewhere, with following **d* → *tt* **b* → *pp* (but *not* **m* → *mm* **l* → *ll*):

fūug$^{ɔ/}$	"clothing"	pl *fūt*$^{ɛ/}$	
pɔ̄ɔg$^{ɔ/}$	"field"	pl *pɔ̄t*$^{ɛ/}$	
dɔ̀ɔg^{ɔ}	"hut"	pl *dɔ̀t*^{ɛ}	
dāʋg^{ɔ}	"male"	cf *dāp*^{a}	"men"
bīig^{a}	"child"	cf *bīl*^{a}	"little"
gāaň$^{=/}$	"ebony tree" (**gããga*)	cf *gāňr*$^{ɛ/}$	"ebony fruit"

ňyɛ̄$^{+}$	"see"	ipfv *ňyɛ̄t*$^{a/}$	imp *ňyɛ̀m*^{a}
dʊ̄$^{+}$	"rise"	ipfv *dʊ̄t*$^{a/}$	imp *dʊ̀m*^{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}
kɛ̄$^{+}$	"allow"	ipfv *kɛ̄t*$^{a/}$	imp *kɛ̀l*^{a}

Some words which never appear with -*g*^{a} or -*g*^{ɔ} show short vowels throughout:

yīr$^{ɛ/}$	"house"	pl *yā*$^{+/}$
zā$^{+/}$	"millet"	
kī$^{+/}$	"cereal, millet"	
mùi̯$^{+}$	"rice"	

Zūg$^{ɔ/}$ "head" pl *zūt*$^{ɛ/}$ cb *zūg-* or *zū-* is exceptional in showing a short vowel before -*g*^{ɔ}. There may be two originally distinct stems **zu-* and **zug-*: cf Farefare *zúugó* pl *zuto*, Mampruli *zugu* pl *zuguri*.

The long vowel before sg -*g*^{a} or -*g*^{ɔ} is often introduced into the plural, in some cases invariably:

	*fūug*ɔ/	"clothing"	pl *fūud*ɛ/	or *fūt*ɛ/
	*pɔ̄ɔg*ɔ/	"field"	pl *pɔ̄ɔd*ɛ/	or *pɔ̄t*ɛ/
	*dɔ̀ɔg*ɔ	"hut"	pl *dɔ̀ɔd*ɛ	or *dɔ̀t*ɛ
	*dāʊg*ɔ	"male"	pl *dāad*ɛ	
	gāaň=/	"ebony tree"	pl *gāaňs*ɛ/	
	*bīig*a	"child"	pl *bīis*ɛ	

Before derivational suffixes the vowel is long, with some exceptions before *-s-*:

	*dìɪs*ɛ	"feed"	cf	*dì*+	"eat"
	*dàalɪm*m	"masculinity"	cf	*dāp*a	"men"
but	*gɔ̄s*ɛ	"look"		ipfv *gɔ̄t*a/	imp *gɔ̀m*a
				or *gɔ̄sɪd*a/	or *gɔ̀sɪm*a
	*tìs*ɛ	"give"		ipfv *tìt*a	
				or *tìsɪd*a	
	*yīs*ɛ	"make go/come out"		*yī*+	"emerge"

The causative *yīs*ɛ has a by-form *yīis*ɛ/ which is clearly shown to be analogical by its gerund *yīisíb*ɔ, the sole 3-mora stem in the *b*ɔ class.

Gerunds in *-b*ɔ always show long vowels: *dīɪb*ɔ "food", *ňyɛ̄ɛb*ɔ/ "seeing", and so, normally, do gerunds in *-r*ɛ: *nɔ̄-lɔ́ɔ̀r*ɛ "fasting" ("mouth-tying"), *fū-yɛ́ɛ̀r*ɛ "shirt-wearing" (WK, nonce-formation), but WK cited two instances of a short vowel before *-r*ɛ: *nā'-lɔ́r*ɛ "place in a compound for tying up cows" and *wìd-lɔ̄r*ɛ/ "place in a compound for tying up horses."

There are a few **CVy* roots, which preserve the final consonant before a flexion **-a* but otherwise show loss of the **y* with vowel fusion to *CVV-*; three probable **CVw* roots show no current **-wa* LF variants 2.4.2:

	*tɔ̄e̯*a/	"be bitter"	*tɔ̄ɔg*ɔ	"bitter"
	*vʊ̄e̯*a/	"be alive"	*vʊ̄'ʊg*ɛ/	"come alive"
	*àe̯ň*a	"be something"	*àaňlím*m	gerund
	*sāe̯ň*a	"blacksmith"	pl *sāaňb*a	
or	*sāe̯ň*+			
	*sɔ̄e̯ň*a	"witch"	pl *sɔ̄ɔňb*a	
or	*sɔ̄e̯ň*+			
	dāu̯+	"man", Mooré *ráoa*	pl *dāp*a	
	tāu̯ň+/	"opposite-sex sib"	pl *tāňp*a/	
	tɔ̀ň+	"shoot", Mooré *tão*	*tāňp*ɔ	"war"

This suggests that *CV(C)~CVV* alternations historically involved **CVy *CVw* roots, with the final consonant preserved before *-a*, or assimilated **yd → tt*, **yr → r(r)*, **wb → pp*, or deleted with subsequent vowel fusion. Mooré cognates support this, but extensive levelling has evidently confused the picture. Some roots probably are simply **CV*; this may explain the unexpected absence of L spreading after a few cbs 7.2.4. Such roots may have acquired **CVy*-type forms by analogy.

Before the noun class plural suffix *-a*$^{+}$ stems ending in a root vowel insert *-y-*, with shortening of long vowels:

kʊ̀kɔ̄r$^{ɛ/}$	"voice"	pl *kʊ̀kɔ̄yá*$^{+}$
gāñr$^{ɛ/}$	"fruit of Nigerian ebony"	pl *gāñyá*$^{+}$
bàlàar^{ɛ}	"stick, club"	pl *bàlàya*$^{+}$
nɔ̄ɔr$^{ɛ/}$	"mouth"	pl *nɔ̄yá*$^{+}$
zʊ̄ʊr^{ɛ}	"tail"	pl *zʊ̄ya*$^{+}$

Shortening of *iə uɵ* produces *i̯e u̯e* [i̯ɪ] [u̯ɪ], found solely in this context:

bīər$^{ɛ/}$	"elder same-sex sibling"	pl *bi̯ēyá*$^{+}$
sūɵr$^{ɛ/}$	"road"	pl *su̯ēyá*$^{+}$
zūɵr^{ɛ}	"hill"	pl *zu̯ēya*$^{+}$

A different rule of attachment of *-a*$^{+}$ is followed after Root-stems in with glottalised long vowels *CV'V*, which change to *CVd*:

yʊ̄'ʊr$^{ɛ/}$	"name"	pl *yʊ̄dá*$^{+}$
pɔ̀ň'ɔr^{ɛ}	"cripple"	pl *pɔ̀ňda*$^{+}$
tītā'ar^{ɛ}	"big"	pl *tītāda*$^{+}$
yū'ɵr^{ɛ}	"penis"	pl *yu̯āda*$^{+}$

Stems in **-ag- *-i̯ag- *-u̯ag-* 6.3 may inflect as *CVC*- stems, or may show analogical forms with *-d-*:

si̯à'ar^{ɛ}	"forest"	pl *si̯à'a*$^{+}$
bà'ar^{ɛ}	"idol"	pl *bà'a*$^{+}$ or *bàda*$^{+}$ **bagrɪ*; Farefare *bàgrɛ̀*
bi̯āň'ar$^{ɛ/}$	"mud, riverbed"	pl *bi̯áň'a*$^{+}$
mʊ̀'ar^{ɛ}	"reservoir, dam"	pl *mu̯'àa*$^{+}$ or *mʊ̀'ada*$^{+}$
zànkʊ̀'ar^{ɛ}	"jackal"	pl *zànku̯'àa*$^{+}$ or *zànkʊ̀'ada*$^{+}$

Roots ending in *ɔ* or *ʊ* become glottalised before derivational **g* and **s* :

kɔ̀$^{+}$	"break" intrans	*kɔ̀ˈɔgᵋ*	"break" trans/intrans
pɔ̀ɔdᵃ	"be few"	*pɔ̀ˈɔgᵋ*	"diminish"
vʊ̄e̱ᵃ/	"be alive"	*vʊ̄ˈʊgᵋ/*	"make, come alive"
nīn-múa^{+}	"concentration"	*mùˈe*$^{+}$ (**mɔ̃ɔ̃gɪ*)	"intensify" 6.3
kɔ̀ɔlʊ́ŋᵓ	"broken"	*kɔ̀ˈɔsᵋ*	"break several times"
tɔ̀ň$^{+}$	"shoot"	*tɔ̀ňˈɔsᵋ*	"hunt"
vʊ̄e̱ᵃ/	"be alive"	*vʊ̄ˈʊsᵋ/*	"breathe, rest"
but *yɛ̀*$^{+}$	"dress oneself"	*yɛ̀ɛgᵋ*	"undress oneself"
dì$^{+}$	"eat"	*dìɪsᵋ*	"feed"

Sporadic *CVV~CVC* root alternations appear elsewhere in

pɛ̄ˈ-sáˈa$^{=}$	"ewe lamb"	*pu̱ˈà-sādɪrᵋ/*	"young woman"
pɔˈɔ-saˈa	"young woman" (Toende)	*pʊ̀gsádà*	"young woman" (Mooré)
lɔ̄$^{+}$	"tie"	*lɔ̄dɪgᵋ/*	"untie"
cf *lɔ*	"tie" (Dagbani)	*lɔrgi*	"untie" (Dagbani)
lóe	"tie" (Mooré)	*lókè* or *lódgè*	"untie" (Mooré)
pʊ̄$^{+}$	"divide"	*pʊ̄dɪgᵋ/*	"divide"
cf *pʊ́i*	"divide" (Mooré)		
		bɔ̀dɪgᵋ	"lose, get lost":
cf *bòɪ*	"*perdre, disparaître*" (Toende)	*bórígᵍ*	"*fondre, disparaître*" (Toende)
dāu̱$^{+}$	"man"	*bī-díbìŋᵃ*	"boy"
		bìríblá	"boy" (Mooré)
		cf *bìpúglá*	"girl" (Mooré)
		pu̱ˈā	"woman" (**pu̱ag-*)
nɔ̄$^{+}$	"tread"	*nɔ̄bá*$^{+}$	"feet"; sg *nɔ́bìrᵋ* is
cf *nao*	"tread" (Mooré)		modelled on the pl (cf Toende sg *nɔ̄ˈɔ̄t*)
*wìid*ᵃ	"draw water" ipfv	*wìk*ᵋ	pfv (← **wiggɪ)*
vɪ̄$^{+}$	"uproot"	*vīk*ᵋ/	"uproot" (← **viggɪ)*

6.1.1.2 *CVVC~CVC*

Roots of the form *CVVC* are confirmed by cases where they alternate with *CVC*. This happens in flexion with a few very common nouns:

*zíiŋ*ᵃ (← **zīímgā*)	*zīmí*⁺	*zīm-*	"fish"
náafɔ (← **nāágfū*)	*nīigí*⁺	*nā'-* (← **nāg-*)	"cow"
wáafɔ(← **wāágfū*)	*wīigí*⁺	*wā'-* (← **wāg-*)	"snake"
*pīim*ᵐ/	*pīmá*⁺		"arrow"
*yʊ̀ʊm*ᵐɛ	*yʊ̀ma*⁺		"year"

The alternation also appears in derivation:

tʊ̄ʊma⁺	"work" noun	*tʊ̀m*ᵐ	"work" verb
yɛ̄óŋ	"one"	*yḭ̄ŋ*ɔ/	"single"
*kāal*ɛ/	"count"	*kāl*ɪɛ/	"number"
*màal*ɛ	"sacrifice" verb	*mālʊŋ*ɔ	"sacrifice" noun
*tʊ̄ʊlʊ́g*ɔ	"hot"	*tʊ̄l*ɪa/	"be hot"

Before verb-deriving suffixes the short allomorph always appears:

*pìəlɪg*ᵃ	"white"	*pɛ̀lɪg*ɛ	"whiten"
*kpī'oŋ*ɔ	"strong"	*kpɛ̀'ŋ*ɛ	"strengthen"
*lìəb*ɛ	"become"	*lɛ̀bɪg*ɛ	"turn over"
*tʊ̄ʊlʊ́g*ɔ	"hot"	*tʊ̄lɪg*ɛ/	"heat"
*yāar*ɛ/	"scatter"	*yādɪg*ɛ/	"scatter"
*dɛ̄ɛŋ*ᵃ	"first"	*dɛ̀ŋ*ɛ	"go first"
*pìəb*ɛ	"blow" (flute)	*pɛ̀bɪs*ɛ	"blow" (wind)
*yʊ̀ʊl*ɛ	"swing" intrans	*yʊ̀lɪg*ɛ	"swing" transitive
cf *ɛ̄ɛn̆b*ɛ/	"lay a foundation"		cf Mooré *yẽbgè id*

The only derivational suffix found after a *CVVC* allomorph is *-l-* in *-lɪm-* "-ness/-hood" 13.2.2:

*sáannìm*ᵐ	"strangerhood"	(**saanlɪmmʊ*)

CVVC 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 6.5.

6.2 Consonant cluster assimilation

The deletion of underlying **g* after short *a i̯a u̯a añ i̯añ u̯añ* and long *aa iə uɵ aañ ɛɛñ ɔɔñ* follows the changes described in this section.

Except between a prefix and a root, adjacent consonants within a word must either assimilate to one of the clusters *kk pp tt ŋŋ mm nn ll mn* or insert an **epenthetic vowel** (*ɪ* by default); *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 y*.

Nasals usually take up the position of articulation of a following consonant, and then homorganic consonants mostly form clusters, with exceptions among alveolars, where changes attested in derivation have apparently been levelled in flexion.

The treatment of the possible pairs is as follows, with *ə* representing the insertion of an epenthetic vowel. Suffixes beginning with *l f y* do not occur in productive paradigms, so there are gaps in the table.

1st↓ 2nd→	*g*	*d*	*b*	*m*	*r*	*s*	*l*	*f*	*y*
g	*kk*	*ə*	*ə*	*ə*	*ə*	*ə*			*ə*
d	*ə*	*tt*	*ə*	*ə*	*ə*	*ə*			
b	*ə*	*ə*	*pp*	*[mm]*	*ə*	*ə*			*ə*
m	*ŋŋ*	*mn*	*mm*	*mm*	*mn*	*[s̃ː]*	*nn*		
n	*ŋŋ*	*nn*	*mm*	*ə*	*nn*	*s̃ː*	*nn*	*f̃*	*nn*
r	*ə*	*ə*	*ə*	*ə*	*r*	*ə*	*tt*	*ə*	*r*
s	*ə*	*ə*	*ə*	*ə*	*ə*	*ə*			
l	*ə*	*nn*	*ə*	*ə*	*ll*	*ə*	*ll*	*ə*	*ll*

The unusual change *ld* → *nn* is carried out completely regularly; Dagbani and Mooré have similar rules.

The forms in square brackets occur only under certain phonological conditions:

bm → *mm*	only occurs after a short root vowel
ms → *s̃ː*	never occurs after a short root vowel; elsewhere it is optional. Assimilation and epenthesis occur side by side in many words.

*__ns__, and *_ms_ when it assimilates, become _s_ with nasalisation of a preceding root vowel, and lengthening of a preceding short root vowel:

_tɛ̄ŋ_^{a}	"land"	pl	_tɛ̄ɛ̌s_^{ɛ}	← *_tɛnsɪ_
kʊ̀lɪŋ^{a}	"door"	pl	_kʊ̀lɪs_^{ɛ}	← *_kʊlɪnsɪ_

Exceptionally, an *epenthetic* vowel becomes long before *_ns_ in

bʊ̄tɪŋ^{a}	"cup"	pl	_bʊ̄tɪɪs_^{ɛ}

This reflects a reanalysis of the form as noun prefix _bʊ̄_ + _tīŋ_^{a} 2.3.

*__nf__ becomes _f_ with nasalisation of a preceding root vowel, but there is no lengthening of a short preceding root vowel in the only case which occurs:

nīf$^{ɔ/}$	"eye"	pl	_nīní_$^{+}$
_pɪ́ɪ̌nf_^{ɔ}	"genet"	pl	_pīɪní_$^{+}$

*__rr__ becomes _r_ in e.g.

kʊ̀kpàr^{ɛ}	"palm fruit"	pl	_kʊ̀kpàra_$^{+}$

*_rr_ → _r_ is an active process in phrase-level sandhi 8.5.1.

*__ss__ inserts an epenthetic vowel in

pūsɪg$^{a/}$	_pūsɪs_$^{ɛ/}$	_pūs-_	"tamarind"

However, all other examples of _g_^{a}|_s_^{ɛ} plurals ending in _-sɪs_^{ɛ} in my materials are for *_-sɪnsɪ_, from stems in *_m_. A plural *_pūs_$^{ɛ/}$ would have appeared to show no ending in SF; nouns usually avoid such ambiguity by selecting a different flexion 9.1, but there is a very strong association of tree names with the _g_^{a}|_s_^{ɛ} class and of their fruits with the _r_^{ɛ}|_a_$^{+}$ and _g_^{ɔ}|_d_^{ɛ} 30.5; _pūsá_$^{+}$ in fact means "tamarind fruits."

Derivation precedes flexion in consonant cluster formation.
Stem-final _kk pp tt ŋŋ_ and _nn_ (regardless of origin) never assimilate further.

sɔ̄nnɪr^{ɛ}	_sɔ̄nna_$^{+}$	_sɔ̀n-_	"inner _zàk_ wall"
sāngʊ́nnìr^{ɛ}	_sāngʊ́nnà_$^{+}$	_sāngʊ́n-_	"millipede"
vɛ̀nnɪg^{a}	_vɛ̀nnɪs_^{ɛ}	_vɛ̀n-_	"beautiful"
vɛ̀nnɪr^{ɛ}	_vɛ̀nna_$^{+}$		

With _-nn-_ from *_nd_ 13.2.1.2.1:

bùn$^{\varepsilon}$	"reap"	→	*bʊ̄n-búnnìr*$^{\varepsilon}$	"thing for reaping"
gīlɪg$^{\varepsilon/}$	"go around"	→	*pu̱'à-gīnnígᵃ*	"prostitute"
kɛ̄ŋ$^{\varepsilon/}$	"go"	→	*bùŋ-kɛ̄nnírᵋ*	"moving donkey"
vʊ̄l$^{\varepsilon}$	"swallow"	→	*tì-vʊ̄nnímᵐ*	"oral medication"

The verbs *tàm*^{m} "forget", *zàm*^{m} "cheat, betray", *dàm*^{m} "shake" and *lɛ̀m*^{m} "sip, taste" are *-mm-* stems: in KB their ipfvs are always written *tammɪd zammɪd dammɪd lɛmmɪd*, and they form 3-mora-stem type gerunds: *tàmmʊgↄ zàmmʊgↄ dàmmʊgↄ lɛ̀mmʊgↄ*. The *mm* is probably from **mb*: cf Mooré *zãmbe* "*tricher*", *rãmbe* "*remuer*", *lèmbe* "*goûter*". These verbs assimilate **mbm* → *mm* in the imperative 11.1. Apart from this, stem-final *-mm-* and *-mn-* never assimilate further:

sūmmɪr$^{\varepsilon}$	*sūmma*$^{+}$	*sùm-*	"groundnut"
yīmmír$^{\varepsilon}$	*yīmmá*$^{+}$	*yīm-*	"solitary"
			Mooré *yémbré* "one"

With *-mm- -mn-* clusters from *-*md-* 13.2.1.2.1:

kìm^{m}	"tend flock"	→		*kɔ̀ň̆b-kīm*^{na}	"shepherd"
				kɔ̀ň̆b-kīmmɪb^{a}	
			or	*kɔ̀ň̆b-kīmnɪb*^{a}	
tʊ̀m^{m}	"work"	→		*bʊ̄n-tʊ́mmìr*$^{\varepsilon}$	"useful thing"
				tʊ̄mmɪr$^{\varepsilon}$ DK WK	"useful"
			pl	*tʊ̄mna*$^{+}$ DK	
				tʊ̄mma^{+} WK	
tʊ̀m^{m}	"work"	→		*tʊ̀mmím-tāa*$^{=}$	"co-worker"

Stems in *ll r(r)* completely assimilate the following initial of the noun class suffix *-r*$^{\varepsilon}$. This has led to the sg SF forms of agent nouns from single-aspect verbs in *ll r(r)* being taken as due to the attachment of *r*$^{\varepsilon}$ instead of ^{a}, along with new LFs and analogical plurals in *-a*$^{+}$ 9.3.1. The sg tones of the deverbal adjective in *kʊ̀g-dɛ̄l*$^{l\varepsilon/}$ "chair for leaning on" (not **kʊ̀g-dɛ́l*$^{l\varepsilon}$) are probably analogical.

Single m n forms may be followed by unexpected epenthesis as a strategy to avoid ambiguous SFs in imperfectives. The suffix suppletion used for this purpose in nominals is not possible because there is only one regular imperfective suffix.

3-mora *n*-stems always show epenthesis, but this may reflect underlying gemination of the suffix (see below.)

dìgɪn^{ɛ}	*dìgɪnɪd*^{a}	*dìgɪnɪm*^{a}	"lie down"
dìgɪnʊgɔ			gerund
gɔ̀'ɔn^{ɛ}	*gɔ̀'ɔnɪd*^{a}	*gɔ̀'ɔnɪm*^{a}	"extend neck"

Regular 2-mora stems in *n* show assimilation in the ipfv only:

bùn^{ɛ}	*bùn*^{na}	*bùnɪm*^{a}	"reap"
būnɪbɔ			gerund

3-mora *m*-stems show epenthesis *optionally*:

tɔ̄ɔm$^{m/}$		*tɔ́ɔm*^{ma}	*tɔ̀ɔm*^{ma}	"depart"
	or	*tɔ̄ɔmíd*^{a}		
*tɔ́ɔŋ*ɔ				gerund
or *tɔ̄ɔmʊ́g*ɔ				
kàrɪm^{m}		*kàrɪm*^{m}	*kàrɪm*^{ma}	"read"
	or	*kàrɪmɪd*^{a}		
*kàrʊŋ*ɔ				gerund
or *kàrɪmʊg*ɔ				

In a clear demonstration of epenthesis motivated by the avoidance of ambiguity, both WK and DK use assimilated forms only for clause-final LFs and before the focus particle *nɛ̄*$^{+/}$, and require forms with epenthesis everywhere else:

M̀ pō kárìmmā.	"I'm not reading."
M̀ kárìm nɛ̄.	"I'm reading."
Kà bà kárɪmìd.	"And they were reading."
Kà bà kárìm.	only "And they read."

2-mora *m*-stems regularly assimilate in the imperfective:

tʊ̀m^{m}	*tʊ̀m*^{ma}	*tʊ̀m*^{ma}	"work"
wʊ̀m^{m}	*wʊ̀m*^{ma}	*wʊ̀m*^{ma}	"hear"

Even here, NT/KB may have unassimilated forms to avoid ambiguity:

Lin wusa ka ya tumid, tumi li ...
Lìn wūsa kà yà tʊ̀mɪd, tʊ̀mmī‿ø...
DEM.INAN all and 2PL do:IPFV, do:IMP 2PL.SUB ...
"Everything you do, do it..." (Col 3:23, 1996)

ka nan kpɛn wʊmid ye m bɛɛ li pʊʊgin nannanna la.
kà nán kpɛ̀n wʊ̀mɪd yɛ́ m̀ bɛ́ɛ̰ lì pʊ̄ʊgʊ-n nānná-nā lā.
and still still hear:IPFV that 1SG EXIST 3INAN inside:SG-LOC now ART.
"and are still hearing that I am in it now." (Phil 1:30)

Single *-n-* after a stem-internal epenthetic vowel may represent original **nd*. *Pībɪn*^{nɛ} pl *pībɪna*$^{+}$ "covering" 12.2.2 has single *-n-* for my informants, but Mooré cognate has *-nd-*: *pìbíndgà* "*couvercle*." The Mooré equivalent of the assume-stance suffix *-n-* 13.1.1 is *-nd-*: *zǐ* "*être assis*", *zǐndi* "*s'asseoir*"; *gãe* "*être couché*", *gãandè* "*se coucher*"; *vábè* "*être à plat ventre*", *vábende* "*se mettre à plat ventre*"; *tàbe* "*être collé aux parois de*", *tàbende* "*se coller à*." A geminate origin for the Kusaal *-n-* may explain the fact that the suffix never assimilates further.

Examples of assimilation:

**gg* → *kk*	*gìgɪs*^{ɛ}	"dumb people"	sg	*gìk*^{a}
cf	*kɔ̄lɪs*^{ɛ}	"river"	sg	*kɔ̄lɪg*^{a}
**dd* → *tt*	*bʊ̀d*^{ɛ}	"plant"	ipfv	*bʊ̀t*^{a}
cf	*dʊ̄g*^{ɛ}	"cook"	ipfv	*dʊ̄gʊd*$^{a/}$
**bb*→ *pp*	*sɔ̄b*^{ɛ}	"write"	ger	*sɔ̄p*$^{ɔ/}$
cf	*kpàr*^{ɛ}	"lock"	ger	*kpārɪb*^{ɔ}
**ld* → *nn*	*kɔ̀lʊg*^{ɔ}	"bag"	pl	*kɔ̀n*^{nɛ}
cf	*zūəbʊ́g*^{ɔ}	"hair"	pl	*zūəbíd*^{ɛ}
**mg* → *ŋŋ*	*bʊ̀mɪs*^{ɛ}	"donkeys"	sg	*bʊ̀ŋ*^{a}
cf	*ǹwādɪs*$^{ɛ/}$	"months"	sg	*ǹwādɪg*$^{a/}$
**ng* → *ŋŋ*	*gbàna*$^{+}$	"books"	sg	*gbàu̯ŋ*^{ɔ}
cf	*wābɪd*$^{ɛ/}$	"elephants"	sg	*wābʊg*$^{ɔ/}$
**nr* → *nn*	*tāna*$^{+}$	"earths"	sg	*tān*^{nɛ}
cf	*dìga*$^{+}$	"dwarfs"	sg	*dìgɪr*^{ɛ}
**mr* → *mn*	*dūma*$^{+}$	"knees"	sg	*dūm*^{nɛ}
cf	*nɔ̄bá*$^{+}$	"legs"	sg	*nɔ́bìr*^{ɛ}
**lr* → *ll*	*gɛ̄lá*$^{+}$	"eggs"	sg	*gɛ́l*^{lɛ}
cf	*kūgá*$^{+}$	"stones"	sg	*kūgʊr*$^{ɛ/}$

*nb → mm	sāan$^{a/}$	"stranger"	pl	sáam^{ma}	
cf	nīd$^{a/}$	"person"	pl	nīdɪb$^{a/}$	
*mb → mm	kìm^{m}	"tend flock"	ger	kīm^{mɔ}	
cf	kàd^{ɛ}	"drive away"	ger	kādɪb^{ɔ}	
*ll → ll	Bùl^{lɛ}	"Buli"	cf	Bùlɪs^{ɛ}	"Bulsa"
	Àgɔ̀l^{lɛ}	"Agolle Kusaal"	cf	Àgɔ̀l^{lɛ}	"Agolle area"
*rl → tt	Bāt$^{ɛ/}$	"Bisa language"	cf	Bārɪs$^{ɛ/}$	"Bisa people"
	Yāt$^{ɛ/}$	"Yarsi language"	cf	Yārɪs$^{ɛ/}$	"Yarsi people"
but	Ňwāmpūrɪl$^{ɛ/}$	"Mampruli"	cf	Ňwāmpūrɪs$^{ɛ/}$	"Mamprussi"
*ml → nn	Dàgbān$^{nɛ/}$	"Dagbani"	cf	Dàgbām$^{ma/}$	"Dagomba"
	Yàan^{nɛ}	"Yansi language"	cf	Yàamɪs^{ɛ}	"Yansi people"
but	Kàmbʊ̀nɪr^{ɛ}	"Twi"	cf	Kàmbʊ̀mɪs^{ɛ}	"Ashanti"
*nl → nn	Gʊ̄rín^{nɛ}	"Farefare language"	cf	Gʊ̄rís^{ɛ}	"Farefare people"

6.3 Deletion of *g with vowel fusion

The vowel changes described in this section apply before apocope but after consonant-cluster assimilation and epenthetic-vowel insertion.

Underlying ***g is deleted after a i̯a u̯a aň i̯aň u̯aň** before any vowel, with fusion resulting in glottalised 2-mora vowel sequences:

*agV	→ a'a	*aňgV	→ aň'a
*i̯agV	→ i̯a'a	*i̯aňgV	→ i̯aň'a
*u̯agV	→ ʋ'a (word-final u̯'aa)	*u̯aňgV	→ ʋň'a (word-final u̯ň'aa)

This rule applies later than the assimilation *gg → kk 6.2; thus e.g.

zàk^{a}	"compound"	zà'as^{ɛ}	plural	(g^{a}|s^{ɛ} class)
lāu̯k^{ɔ}	"item of goods"	lā'ad^{ɛ}	plural	(g^{ɔ}|d^{ɛ} class)
yàk^{ɛ}	"unhang"	yà'al^{ɛ}	"hang up"	
pi̯àu̯ňk^{ɔ}	"word"	pi̯àň'ad^{ɛ}	plural	(g^{ɔ}|d^{ɛ} class)
pu̯āk^{a}	"female" (adj)	pʊ̄'as^{ɛ}	plural	(g^{a}|s^{ɛ} class)
bɔ̀k^{ɔ}	"pit"	bʊ̀'ad^{ɛ}	plural	(g^{ɔ}|d^{ɛ} class)

The outcomes are the same if the vowel after *g is an affix vowel:

pi̯āň'^{a}	"speak" pfv	*pi̯āň'ad*$^{a/}$	ipfv	
pu̯'ā^{a}	"woman"	*pū'ab*^{a}	plural	(^{a}|*b*^{a} class)

The sole single-aspect verb form unexpectedly has a fronting diphthong:

kā'e̯$^{+}$ "not be" ← **kagɪ*

The sequences *i̯a'a ʊ'a i̯aň'a ʊň'a* contrast with long *i'a u'a iň'a uň'a*, except when shortened by apocope 2.4.2. However, there is no phonetic difference between the *a'a aň'a* arising from *g deletion and underlying glottalised *a'a aň'a*, as in

dà'a$^{=}$	"market"	*dà'as*^{ɛ}	plural	(*g*^{a}|*s*^{ɛ} class)

Deletion of *g after short vowels is recent historically: such stems in the *r*^{ɛ}|*a*$^{+}$ class may still behave as consonant-final: *bà'ar*^{ɛ} "idol" (Farefare *bàgrɛ̀*), pl *bà'a*$^{+}$ or *bàda*$^{+}$; a glottalised affix vowel is seen only in *pà'* ← **pag* "earlier today"; and LF-final long vowels can be predicted from the SF everywhere except where *i'a u'a* fall together in apocope with *i̯a'a ʊ'a* 2.4.2. Haaf 1967 has *baga* for *bā'a* "diviner" and *winbagr* for *wīn-bá'àr* "altar", alongside *bab* for the plural *bā'ab*^{a} "diviners."

Underlying ****g* is deleted after *aa iə uɵ aaň ɛɛň ɔɔň***, along with their glottalised counterparts, whenever an *affix* vowel *a* or *ɪ* (not an epenthetic vowel or *ʊ*) follows the *g. Vowel fusion then creates three-mora vowel sequences:

**aaga*	→ *aa* 8.1	**aagɪ*	→ *aee*
**iəga*	→ *iaa*	**iəgɪ*	→ *iee*
**uɵga*	→ *uaa*	**uɵgɪ*	→ *uee*

and likewise with the glottalised vowels. (See below for the nasalised equivalents.)

The diphthongs *iaa uaa* arise from deletion of the *g in *g*^{a}|*s*^{ɛ} class singulars:

	bʊ̄ʊg^{a}		"goat"	pl *bʊ̄ʊs*^{ɛ}
but	*bāa*$^{=}$	← **baaga*	"dog"	pl *bāas*^{ɛ}
	sīa^{+}	← **siəga*	"waist"	pl *sīəs*^{ɛ}
	sàbùa^{+}	← **sabuɵga*	"lover"	pl *sàbùɵs*^{ɛ}

The diphthongs *aee iee uee* appear in dual-aspect 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'e^{+}	← **kpi'əgɪ*	"approach"
	kpì'əs^{ɛ}	← **kpi'əsɪ*	"neighbours"
cf	*tɛ̄bɪg*$^{ɛ/}$		"get/make heavy"
	tɛ̄bɪsír^{ɛ}		"heavy"

Many such "fusion verbs" exist, with perfectives in *-ae*$^{+}$ *-ie*$^{+}$ *-ue*$^{+}$ 11.1, e.g.

pāe$^{+/}$	← **paagɪ*	"reach"
dūe$^{+/}$	← **duəgɪ*	"raise, rise"

There are no underlying nasalised *iəň uəň*; instead *ɛɛň ɔɔň* appear 6.1. However, **g* is deleted after nasal *ɛɛň ɔɔň* (unlike their oral equivalents *ɛɛ ɔɔ*) in the same contexts as after *iə uə* (i.e. before an affix vowel *a* or *ɪ*), and the resulting diphthongs coincide in vowel quality with those produced with *iə uə*:

**ããga*	→ *aaň* 8.1	**ããgɪ*	→ *aeeň*
**ɛ̃ɛ̃ga*	→ *iaaň*	**ɛ̃ɛ̃gɪ*	→ *ieeň*
**ɔ̃ɔ̃ga*	→ *uaaň*	**ɔ̃ɔ̃gɪ*	→ *ueeň*

and likewise with the corresponding glottalised vowels.

The rule gives rise to alternations in nouns and adjectives in the *g*^{a}|*s*^{ɛ} class between SF-final *iaň uaň* and word-internal *ɛɛň ɔɔň* before a consonant:

zìň'a^{+}	← **zɛ̃'ɛ̃ga*	"red" *g*^{a}|*s*^{ɛ} class sg
zɛ̀ň'ɛs^{ɛ}	← **zɛ̃'ɛ̃sɪ*	"red" *g*^{a}|*s*^{ɛ} class pl
zɛ̀ň'ɛd^{ɛ}	← **zɛ̃'ɛ̃dɪ*	"red" *g*^{ɔ}|*d*^{ɛ} class pl
dùaň$^{+}$	← **dɔ̃ɔ̃ga*	"dawadawa" sg
dɔ̀ɔňs^{ɛ}	← **dɔ̃ɔ̃sɪ*	"dawadawa" pl
nūa$^{+/}$	← **nɔ̃ɔ̃ga*	"hen"
nɔ̄ɔs$^{ɛ/}$	← **nɔ̃ɔ̃sɪ*	"hens"
Mùa^{+}	← **Mɔ̃ɔ̃ga*	"Mossi person"
Mɔ̀ɔs^{ɛ}	← **Mɔ̃ɔ̃sɪ*	"Mossi people"
Mɔ̀ɔg^{ɔ}	← **Mɔ̃ɔ̃gʊ*	"Mossi country"
Mɔ̀ɔl^{ɛ}	← **Mɔ̃ɔ̃lɪ*	"Mooré language"

In derivation the rule causes alternation between fusion verb forms from **-gɪ*, ending in SF *ieň ueň*, and cognate forms with *ɛɛň ɔɔň*:

nìe^{+}	← **nɛ̃ɛ̃gɪ*	"appear"
nɛ̀ɛl^{ɛ}	← **nɛ̃ɛ̃lɪ*	"reveal"

pūň'e$^{+/}$	← **pɔ̃'ɔ̃gɪ*	"rot"
pɔ̄ň'ɔl$^{ɛ/}$	← **pɔ̃'ɔ̃lɪ*	"cause to rot"
ňyū'e$^{+/}$	← **yɔ̃'ɔ̃gɪ*	"set alight"
ňyɔ̄'ɔs$^{ɛ/}$	← **yɔ̃'ɔ̃sɪ*	"smoke" (noun)
sūeň$^{+/}$	← **sɔ̃ɔ̃gɪ*	"anoint"
sɔ̄ň$^{+}$	← **sɔ̃ɔ̃*	"rub"
zìň'a^{+}	← **zɛ̃'ɛ̃ga*	"red" *g*^{a}|*s*^{ɛ} class sg
zɛ̀ň'og^{ɔ}	← **zɛ̃'ɛ̃gʊ* 6.4	"red" *g*^{ɔ}|*d*^{ɛ} class sg

The fronting effect of **-gɪ* differs from the fronting caused by **-y-* 6.4:

sūň'e$^{+/}$	← **sɔ̃'ɔ̃gɪ*	"become better than" WK
sɔ̄ň'e$^{ya/}$	← **sɔ̃'ɔ̃ya*	"be better than"

When *aa iə uɵ aaň* 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 7.2.1.1.

náaf^{ɔ}	← **nāágfʊ̄*	"cow"	pl *nīigí*$^{+}$	cb *nā'* -
dí'ər^{ɛ}	← **dɪ̄'ágrɪ̄*	"receiving"	cf *dɪ̄'e*$^{+/}$	"get" ← **dɪ̄'əgí*
vúɵr^{ɛ}	← **vūégrɪ̄*	fruit of *vúɵŋ*^{a} tree	pl *vūáa*$^{=}$	

Surface *iəň uɵň* appear in just one context: fusion verbs with nasal vowels introduce *iəň uɵň* into the imperfective, imperative and gerund forms:

	nɛ̀ɛr^{ɛ}		"empty" (← "clear")
but	*nìər*^{ɛ}		gerund of *nìe*$^{+}$ "appear"
	pɔ̄ň'ɔl$^{ɛ/}$	← **pɔ̃'ɔ̃lɪ*	"cause to rot"
but	*púň'ər*^{ɛ}		gerund of *pūň'e*$^{+/}$ "rot"
	pūň'ɵd$^{a/}$		ipfv

This is readily attributable to analogy with verbs with oral vowels:

	pūň'e$^{+/}$	pfv	*pūň'ɵd*$^{a/}$	ipfv	*púň'ər*^{ɛ}	ger	"rot"
cf	*dūe*$^{+/}$	pfv	*dūɵd*$^{a/}$	ipfv	*dúɵr*^{ɛ}	ger	"raise"

However, the gerund vowels are probably original. Imperfectives like *pon'od* appear in texts, but not **pon'or* or **neer* for gerunds like *púň'ər*^{ɛ} "rotting" or *nìər*^{ɛ} "appearing." Gerunds seem unlikely to be subject to levelling when finite forms are not 7.3. Tonal evidence suggests that **g* was never present in the ipfv of fusion verbs

7.3.1: forms like *pon'od pɔ̄ň'ɔd*$^{a/}$ would also reflect this. However, gerund tones show phonologically-determined *loss* of **g*. Historically, **g*-deletion probably followed insertion of an epenthetic vowel between **g* and a following consonant; absorption of this vowel by the preceding *iəň uɵň* may have resulted in sequences which were still distinct from other *iəň uɵň* at the point where those fell together with *ɛɛň ɔɔň.*

6.4 Diphthongisation before **-ya *-gʊ *-kkʊ *-ŋŋʊ*

The vowel changes described in this section apply before apocope but after consonant-cluster assimilation and epenthetic-vowel insertion.

In the LF, vowels are subject to fronting before *y* and to rounding before a following rounded vowel if a velar intervenes.

The affected second morae are always high [i] [ɪ] [u] or [ʊ].

Fronting: short fronting diphthongs result when word-medial -*y*- of a LF would become syllable-closing after a short back vowel as a result of apocope and is instead changed to *e̯* 2.4:

SF	*vʊ̄e̯*	LF	*vʊ̄yá*	"be alive"
SF	*tɔ̄e̯*	LF	*tɔ̄yá*	"be bitter"
SF	*sāe̯ň*	LF	*sāňya*	"blacksmith"
SF	*sɔ̄e̯ň*	LF	*sɔ̄ňya*	"witch"

Before *y*, long vowels undergo fronting of a back second mora to *e* [ɪ]:

SF	*sʊ̄'e*	LF	*sʊ̄'eyá*	"own" *sʊ̄'e*$^{ya/}$
cf	*sʊ̄'ʊlím*^{m}			"property"
SF	*sɔ̄ň'e*	LF	*sɔ̄ň'eyá*	"be better than" *sɔ̄ň'e*$^{ya/}$

Rounding: short unrounded root vowels become diphthongs in *u̯* before LF **kkʊ *ŋŋʊ*:

gbàu̯ŋ^{ɔ}	← **gbaŋŋʊ*	"book"	pl *gbàna*$^{+}$
lāu̯k^{ɔ}	← **lakkʊ*	"goods item"	pl *lā'ad*^{ɛ}
yīu̯ŋ$^{ɔ/}$	← **yɪŋŋʊ*	"single"	pl *yīná*$^{+}$
sàbùa^{+}	← **sabuɵga*	"lover"	pl *sàbùɵs*^{ɛ}

Tense *i* does not become a diphthong in the only case in my materials:

nìn-gbīŋ$^{ɔ/}$	"body"	pl *nìn-gbīná*$^{+}$

The vowel may simply be taken from the alternative singular *nìn-gbīn*$^{ɛ/}$.

Short *i̯a* becomes the short diphthong *i̯au̯*:

bi̯āu̯ňkɔ	← **bi̯ãkkʊ*	"shoulder"	pl *bi̯āň'adᵋ*

Short *u̯a* becomes *ɔ*: ***u̯akkʊ* → *ɔkkʊ***

bɔ̀kɔ	← **bu̯akkʊ*	"pit"	pl *bʊ̀'adᵋ*

Long vowels undergo rounding of a back second mora before LF **gʊ *ŋŋʊ*. The second mora is always high.

	dàadᵋ		"logs"
but	*dàʊgɔ*	← **daagʊ*	"log"
	fɛ̄ň'ɛdᵋ/		"ulcers"
but	*fɛ̄ň'ogɔ/*	← **fɛ̃'ɛ̃gʊ*	"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 [ʊ], giving *io* [iʊ]:

	vīugɔ/	← **viigʊ*	"owl"	pl *vīidᵋ/*
but	*dàbīogɔ*	← **dabiəgʊ*	"coward"	pl *dàbīədᵋ*
	kpīˈoŋɔ	← **kpi'əŋŋʊ*	"strong"	pl *kpīˈəma⁺*

A parallel case with *uu/uʊ* does not occur, because of a rule ***uɵgʊ* → *ɔɔgʊ***:

	Sà'dàbɔ̀ɔgɔ	← **Sa'dabuɵgʊ*	"place of the Sarabose clan"
cf	*Sà'dàbùɵsᵋ*		"Sarabose clan members"
	lām-fɔ́ɔ̀gɔ	← **lam-fuɵgʊ*	"toothless" (*lāmᵐɛ/* "gum" *fùe+* "draw out")

The **epenthetic vowel** *ɪ* is rounded to *ʊ* before LF **-gʊ *-ŋʊ*:

	āaňdɪgᵃ	← **ããdɪga*	"black plum tree"
but	*gàadʊgɔ*	← **gaadɪgʊ*	"(sur)passing" (gerund)
pl	*mālɪma⁺*	← **malɪmaa*	"sacrifices"
but	*mālʊŋɔ*	← **malɪŋŋʊ*	"sacrifice"

This multiplication of diphthongs and epenthetic vowels might be avoided by ascribing phonemic labialisation to word-final velars and positing abstract word-final /w/ or /j/ segments. However, there is no phonetic basis for such a contrast in

velars, and word-final [j] or [w] do not behave as consonants: words like *dāu̯* "man" are followed by [ʔ] before pause in statements, just like words ending in short vowels 4.4. It is preferable to make word-internal fronting and rounding rules precede apocope 2.1. (Cf "Canadian Raising" in American English dialects which also show neutralisation 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.)

6.5 Vowel length constraints

See also on *CVV ~ CVC* root alternations 6.1.1.1; in particular, note that unglottalised long vowels never occur before *y*.

Word-internally, long vowels are shortened before *k t p*:

gàad^{ɛ}	"pass"	*gàt*^{a}	"pass" ipfv
tɛ̄ɛg$^{ɛ/}$	"drag" ILK	*tɛ̄k*$^{ɛ/}$	"pull" (**tɛɛkkɪ*)

Hausa loanwords show this to be phonological, not morphophonemic:

àtìu̯k^{ɔ}	"sea"	←	*tèeku*	"sea"
kɔ́tù$^{+}$	"court"	←	*kootù*	"court" (← English)

3-mora vowel sequences arise by vowel fusion 6.3 or by liaison before the pronoun ^{o} 8.2.1. They are reduced by apocope to 2-mora diphthongs in the SF. 3-mora diphthongs mostly occur word-finally in LFs, but can appear in SFs:

vūáa$^{=}$	←	**vuɵgaa*	"fruits of the *vúɵŋ*^{a} tree"

A 3-mora monophthong appears with apocope-blocking in *mà'aa* "only" (but LF *mà'anɛ̄* 6.6); everywhere else, 3-mora monophthongs reduce to two morae 8.1.

Before liaison, word-final 3-mora diphthongs are reduced to two morae and then monophthongised; they may diphthongise again before $^{o\ ya}$ *ya*$^{+}$ *yà*.

Short *i u* may appear where long vowels might be expected. *Zūg*$^{ɔ/}$ "head" is the sole case where non-glottalised *CV~CVV* roots show a short allomorph before **g* 6.1.1.1 (cf Farefare *zúugó id*.) *Sūňf*$^{ɔ/}$ "heart" pl *sūňyá*$^{+}$ is the only instance of short *uň* not attributable to apocope 4.3. *Nīf*$^{ɔ/}$ "eye" is the only case where **nC* → *C* after a root vowel which remains short 6.2. *Bùgúm*^{m} "fire" has the tonemes that would be regular for **bùugúm*^{m}. *Dūnɪya*$^{+}$ "world" corresponds to Hausa *duuniyàa* and *tīlás*^{ɛ} "necessity" to Hausa *tiilàs*. However, long *ii uu* occur in many words, and there seems to be no single regular shortening process involved.

6.6 Apocope-blocking

Certain full words have citation forms without apocope. The form is like a LF, without the lowering of postconsonantal final *ɪ ʊ* to *ɛ ɔ* seen before prosodic clitics. Words with apocope-blocking ending in SF M toneme have LF-final H 7.1.

This is a derivational feature seen in many adverbs and quantifiers (including number words), and as a downtoning measure with adjectives 16.11.1.2:

bɛ̀dʊgʊ̄	"a lot"	$g^{ɔ}\|d^{ɛ}$	class sg
sʊ̀ŋā	"well"	$g^{a}\|s^{ɛ}$	class sg
yīnní	"one"	$r^{ɛ}\|a^{+}$	class sg
ànāasí	"four"	$g^{a}\|s^{ɛ}$	class pl
pāmm	"a lot"	m^{m}	class

A number of nouns ending in **-***ɪ*$^{+}$ or **-***ʊ*$^{+}$ 9.5 also display apocope-blocking.

Words of one underlying mora also do not show apocope, e.g *yā*$^{+/}$ "houses", (SF *yā* LF *yáa*) and numerous enclitic particles.

Words with apocope-blocking may display final extra-long simple vowels: *mà'aa* "only." They change final -*mʊ* to **-***mm*: *pāmm* "a lot."

Apocope-blocked words make secondary LFs before prosodic clitics by prolonging a short final vowel. Compare:

	Lì à nɛ̄ dɔ́ɔ̀g.	"It's a hut."
	Lì kā' dɔ́ɔgɔ̄.	"It's not a hut."
with	*Lì à nɛ̄ bɛ́dʊgʊ̄.*	"It's a lot."
	Lì kā' bɛ́dʊgʊ́ʊ.	"It's not a lot."

Before prosodic clitics which neutralise preceding length distinctions, the final vowels of such LFs contrast in quality alone with *ɛ ɔ* 8.1.

Forms not ending in a short vowel add -*nɛ* to make the secondary LF:

pāmm SF *pāmnɛ́* LF	"a lot"	*mà'aa* SF *mà'anɛ̄* LF	"only"
gʊ̀llɪm^{nɛ}	"only"	*kɔ̀tàa*^{nɛ}	"at all"

The LF of *ňyāe*$^{nɛ/}$ "brightly, clearly" 17.4 is *ňyāenɛ́* [j̃ãĩnɛ̃].

Cf also *mɛ̀* DK KT SB NT *mɛ̀n* WK; clause-finally (all sources) *mɛ̀n*^{ɛ} "also, too."

7 Word tonal structure

7.1 Tone Patterns

There are great constraints on the free occurrence of tonemes within words. Nominals show only three basic distinct overall patterns (labelled H, L and O), and verbs only two (H and LO.) Compounds have more tonal possibilities, being *phrases* composed of words with partly independent tones 8.4.

The distribution of tonemes on a word, prior to any effects of external tone sandhi or tone overlay, is specified by a **Tone Pattern**. Regularities in derivation establish that roots themselves have identifiable tone patterns, which may be altered by derivational suffixes.

Synchronically, Tone Patterns are suprasegmental features of word *stems*, allocating tonemes mora-by-mora over the segmental structure of each complete word belonging to a flexional paradigm, with the precise instantiation changing as the segmental form changes. Allocation precedes apocope, and furthermore precedes the application of segmental rules which delete morae (reduction of consonant clusters to single consonants 6.2 and deletion of **g* 6.3) and which disrupt the surface distribution of tonemes 7.2.1.1. For example, these two Pattern H nouns show different tonemes in the singular:

sīiňfɔ/ sg	*sīiňsɛ/* pl	*sīň-* cb	"bee"
píɪňfɔ	*pīɪní⁺*	*pīɪn-*	"genet"

The difference is due to the fact that "bee" has a 2-mora *CVV* stem *sīiň-*, whereas "genet" has a 3-mora *CVVC* stem *pīɪn-*, and in the singular has lost a mora from simplification of the consonant cluster **nf* to *f*.

A single paradigm only shows more than one Tone Pattern in the case of agent nouns which drop the derivational suffix *-d-* in the sg and cb; as agent nouns of Pattern LO verbs are Pattern O if they contain *-d-* and L otherwise, this produces a tonal alternation:

pɔ̀'ʊsᵃ	*pɔ̄'ʊsɪdɪbᵃ*	*pɔ̀'ʊs-* "worshipper"

Only with 2-mora Pattern H and O stems are the SF tonemes alone insufficient to predict LF-final tonemes:

O	*Lì à nɛ̄ kʊ̄k.*	"It's a chair."
O	*Lì kā' kʊ̄ka.*	"It's not a chair."
H	*Lì à nɛ̄ dʊ̄k.*	"It's a cooking pot."
H	*Lì kā' dʊ̄kɔ́.*	"It's not a cooking pot."

With SFs like *kūk* "chair" and *dūk* "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 *náafᵓ* "cow" versus *nú'ùgᵓ* "hand", but this is simply due to tautosyllabic delinking 5.2.1. However, if the surface distribution of LF tonemes were adopted as a less abstract substitute for suprasegmental Tone Patterns, the alternation of the all-M sg/pl with the all-L cb in Pattern O 7.2.3 would still need simply to be declared part of the Pattern.

Synchronically, intrinsic LF-final tonemes are underspecified whenever the last stem toneme is L or H. For descriptive convenience, LF-final intrinsic tonemes are taken as

M	after H and L
M	in nouns and verbs of Tone Patterns O/LO whenever the stem is all-M
H	after M in all other cases

Words with apocope-blocking 6.6 with SFs ending in M toneme change to final H in the LF:

SF *yā*	LF *yáa*	"houses"	*yā*$^{+/}$
SF *bɛ̀dʊgʊ̄*	LF *bɛ̀dʊgʊ́ʊ*	"a lot"	*bɛ̀dʊgʊ̄*$^{+/}$

Superscript notation writes *yā*$^{+/}$ *bɛ̀dʊgʊ̄*$^{+/}$ by the usual convention 2.4.1.
The only exception among free words is *kɔ̀bɪgā*$^{=}$ "one hundred."
Three basic Tone Patterns are distinguished in nominals:

Pattern H	initial M or H
Pattern L	initial L
Pattern O	all-M in sg/pl; all-L in cb

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 of Buli correspond systematically to these, showing respectively H, L and mid tone stems:

nááb	"cow"	cf Kusaal *náafᵓ*	*id*
tììb	"tree"	cf Kusaal *tìɪgᵃ*	*id*
būūk	"goat"	cf Kusaal *bʊ̄ʊgᵃ*	*id*

In the other Western Oti-Volta languages, Pattern O shows a regular alternation between all-H free forms and all-L cbs; in Buli, between all-mid free forms and all-L cbs, tonally identical to the cbs of the Buli Pattern L.

Akanlig-Pare and Kenstowicz 2002 regard Mooré Pattern O stems as intrinsically tonally unmarked, copying the H tone (= Kusaal M) of a flexional suffix but otherwise defaulting to all-L. Olawsky 1999 takes Dagbani Pattern O stems as intrinsically toneless, but he follows Anttila and Bodomo (on Dagaare) in attributing the change to all-H to *stress*. This is not workable in Kusaal 2.3, and even in Dagbani, stressed verb forms often have all-L tonemes. The change to all-M in Pattern O is absent only in cbs and non-irrealis verb forms. The tone-copying proposal gains support from the facts that cbs and perfectives are the only full word types not followed by M spreading when ending in L or H, that final morae of non-irrealis perfectives without tone overlay never show M before liaison and that M-final cbs are followed by L spreading. Pattern LO *imperfective* forms may historically always have been Pattern L rather than O 7.3 12.1.

However, derivational suffixes frequently produce Pattern O stems when added to Pattern L root or stems, which is difficult to reconcile with an analysis of Pattern O stems as intrinsically toneless. The appearance of H tonemes on the third morae of four-mora Pattern L stems 7.2.2 suggests that Pattern L has an underlying non-initial M[4] which becomes L or H or is deleted altogether by internal tone sandhi in surface forms; Pattern O is in contrast intrinsically all-L. For descriptive purposes it is not necessary to attribute underlying tonemes as such to derivational suffixes: Tone Patterns can simply be described in terms of their surface tonemes, with derivational suffixes classified by the Patterns they produce.

7.2 Nominals

Prefixed nominals are tonally distinctive only in that *cbs* with M prefixes always have H on the root; sg and pl follow normal patterns. L prefixes do not affect stem tonemes at all 7.2.4. Prefixes are ignored in counting stem morae below.

The tones of compounds are determined by external tone sandhi 8.3 8.4.

Noun and adjective examples will be given in the order sg, pl, cb 9.1. The cb cannot occur phrase-finally and is therefore always affected by apocope.

Quantifiers and adverbs have the same segmental and tonal structure as nouns and adjectives, though often with the addition of apocope-blocking 6.6.

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4) Toende Kusaal shows word-internal H after L in words where Agolle does not, such as *zìlím* "*langue*", Agolle SF *zìlım* versus the verb *sìbìg* "*punir*" (Niggli, "La phonologie du Kusaal" pp 134ff), but this is probably leftward docking of a following H tone left floating by apocope 8.3 rather than a survival of an earlier stem tone pattern; cf SF *bùŋ́* LF *bùŋá* "*âne*", Agolle LF *bùŋā*.

7.2.1 Pattern H

Regular Pattern H displays H on 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. This H falls on a third mora if it exists and is vocalic; if not, H falls on the second mora, prior to tautosyllabic delinking. Cbs have M tonemes up until any third vocalic mora, which carries H.

vʊ̄r$^{ɛ/}$	*vʊ̄yá*$^{+}$	*vʊ̄r-*	"alive"
yīr$^{ɛ/}$	*yā*$^{+/}$	*yī-*	"house"
fūug$^{ɔ/}$	*fūud*$^{ɛ/}$	*fū-*	"shirt, clothes"
dʊ̄k$^{ɔ/}$	*dʊ̄gʊd*$^{ɛ/}$	*dʊ̄g-*	"cooking pot"
nīd$^{a/}$	*nīdɪb*$^{a/}$	*nīn-*	"person"
nīf$^{ɔ/}$	*nīní*$^{+}$	*nīn-* or *nīf-*	"eye"
kūgʊr$^{ɛ/}$	*kūgá*$^{+}$	*kūg-*	"stone
gɔ̄t$^{a/}$	*gɔ̄tíb*^{a} /tt/	*gɔ̄t-*	"seer, prophet"
sābɪlíg^{a}	*sābɪlís*^{ɛ}	*sābɪl-*	"black"
yʊ̄gʊ́m^{mɛ}	*yʊ̄gʊmá*$^{+}$	*yʊ̄gʊm-*	"camel
sābíl^{lɛ}	*sābɪlá*$^{+}$	*sābɪl-*	"black"
dɪ̄ˈəs$^{a/}$	*dɪ̄ˈəsídìb*^{a}	*dɪ̄ˈəs-*	"receiver"
sūgʊríd^{a}	*sūgʊrídìb*^{a}	*sūgʊríd-*	"forgiver, forbearer"
kʊ̄ˈalíŋ^{a}	*kʊ̄ˈalís*^{ɛ}	*kʊ̄ˈalíŋ-*	traditional smock

By tautosyllabic delinking, MH on a long vowel becomes single H:

***sú'ɐŋ*^{a}** /ŋŋ/	*sū'ɐmís*^{ɛ}	*sū'ɐŋ-*	"rabbit"
sāan$^{a/}$	***sáam*^{ma}**	*sāan-*	"stranger, guest"
***sáannìm*^{m}**			"strangerhood"

Tautosyllabic delinking applies *after* apocope. Where LFs end in long vowels or diphthongs, or in *-mm* (where the second *m* was historically syllabic but is now consonantal) the SF forms are regular, but if the LF final mora would have carried H toneme by the usual rules, the H appears at the beginning of the final *syllable* 5.2.1. Superscript notation still writes the acute tone mark at the end 2.4.1:

nūa$^{+/}$	SF *nūa*	LF *nūáa*	"hen"
dāam$^{m/}$	SF *dāam*	LF *dáamm*	"millet beer"
vʊ̄m$^{m/}$	SF *vʊ̄m*	LF *vʊ́mm*	"life"
tāu̯ŏ$^{+/}$	SF *tāu̯ŏ*	LF *táʊŏ*	"opposite-sex sibling"

7.2.1.1 Tonal effects of deleted morae

Pattern H forms which have lost an underlying mora may display the H toneme shifted to the left of its expected position. There are two groups of such words.

Some words have H on the second mora, when following *-r-* representing **-rr-*:

ňyīrífᵓ	*ňyīrí⁺*		"egusi seed"
tīntɔ̄ňrígᵃ 7.2.4	*tīntɔ̄ňrísᵋ*	*tīntɔ́ňr-*	"mole" (animal)

Many words have a long root vowel followed by a mora which has been deleted either by reduction of a consonant cluster to a single consonant by assimilation 6.2 or by deletion of **g* when no affix vowel follows 6.3. Tautosyllabic delinking 5.2.1 then always results in one H toneme applying to both morae of the long vowel.

níisᵋ	← **nīínsī*	(beside *nīimísᵋ*)	"birds" (sg *níiŋᵃ* /ŋŋ/)
píɩňfᵓ	← **pīínfʊ̄*	(cf pl *pīɩní⁺*)	"genet"
náafᵓ	← **nāágfʊ̄*	(cf pl *nīigí⁺*)	"cow"
wáafᵓ	← **wāágfʊ̄*	(cf pl *wīigí⁺*)	"snake"
yáabᵃ	← **yāágbā*		"grandparent"
vúɵrᵋ	← **vūɵ́grī*		fruit of the *vúɵŋᵃ* tree

Here belong all regular gerunds in *-rᵋ* formed from Pattern H fusion verbs 11.1 which have phonologically-deleted **g* in the perfective:

	náarᵋ	← **nāágrī*	"end"
from	*nāe⁺/*	← **nāagí*	"finish"
	dí'ərᵋ	← **dī'ə́grī*	"receiving"
from	*dī'e⁺/*	← **dī'əgí*	"get"
	púň'ɵrᵋ	← **pɔ̃'ɔ̃́grī*	"rotting"
from	*pūň'e⁺/*	← **pɔ̃'ɔ̃gí*	"rot"

Fusion verbs show evidence of **g* only in perfectives and gerunds; in imperfectives and in derived agent nouns **g* is absent:

nāadᵃ/	"finish" ipfv
nāadᵃ/	"finisher"

7.2.1.2 Subpattern HL

Subpattern HL represents stems with intrinsic initial ML. Few words belong here, but several are very common. Sg/pl forms with consonant-initial flexions show root-initial H falling on a *short* vowel, or on a long vowel with L on the second mora in the SF; otherwise Subpattern HL coincides with regular Pattern H.

*nú'ùg*ↄ	*nú'ùs*ɛ	*nū'-*	"hand, arm"
*à-gáùňg*ↄ	*à-gáàňd*ɛ	*à-gāň-*	"pied crow"
*nɔ́bìr*ɛ	*nɔ̄bá*+	*nɔ̄b-*	"foot, leg"
gɛ́l|ɛ	*gɛ̄lá*+	*gɛ̄l-*	"egg"
*gbɛ́ɛ̀ňm*m	no pl	*gbɛ̄ň-*	"sleep"
*kísʊ̀g*ↄ	*kīsá*+	*kīs-*	"hateful, taboo" (adj)
*áňsìb*a	*āňs-nám*a	*āňs-*	"mother's brother"

Here belong the irregularly formed gerunds

*sɔ́ňsìg*a	"conversing"
*gɔ́sìg*a	"looking"
*kìkírʊ̀g*ↄ	"hurrying" (L prefix)

Olawsky treats words like Dagbani *gállì* "egg" (Kusaal *gɛ́l*\|ɛ) as regular Pattern H, and the equivalent of Kusaal 2-mora Pattern H stems as a separate tone class.

Several HL words have probably lost a stem mora historically: *-s-* *-r-* can represent older *-ss-* *-rr-* 3.2, and cf Mooré *gãoobgó* "pied crow." *Nú'ùg*ↄ "hand" has ↄ\|ɛ class cognates in Nawdm *núʔú* pl *níʔí* and Gurmanche *nùu* pl *nìi*; Kusaal has probably added further class suffixes to the original sg/pl forms.

7.2.2 Pattern L

Pattern L comprises all nouns and adjectives beginning with L in sg/pl. All tonemes are L, except on third or fourth morae when followed by stem-internal *-*m-* (including cases where *-*mg-* has assimilated to *-ŋŋ-*), which carry H.

*sʊ̀'ʊg*a	*sʊ̀'ʊs*ɛ	*sʊ̀'-*	"knife"
*zàk*a	*zà'as*ɛ	*zà'-*	"dwelling-compound"
*dìgɪr*ɛ	*dìga*+	*dìg-*	"dwarf"
*mɔ̀lɪf*ↄ	*mɔ̀lɪ*+	*mɔ̀l-*	"gazelle"
*kʊ̀'ɵm*m	no pl	*kʊ̰'à-*	"water"
mà+	*mà nám*a	*mà-*	"mother"
*mɛ̀ɛŋ*a	*mɛ̀ɛmɪs*ɛ	*mɛ̀ɛŋ-*	"turtle"
*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"
àn̆rʊŋ^{ↄ}	*àn̆rɪma*$^{+}$	*àn̆rʊŋ-*	"boat"
kàrʊŋ^{ↄ} or *kàrɪmʊg*^{ↄ}			"reading" (gerund)
zùlʊŋ^{ↄ}	*zùlɪma*$^{+}$	*zùlʊŋ-*	"deep"
yàlʊŋ^{ↄ}	*yàlɪma*$^{+}$	*yàlʊŋ-*	"wide"
zìlɪm^{mɛ}	*zìlɪma*$^{+}$	*zìlɪm-*	"tongue"
sàal^{a} (cf 7.3)	*sàalɪb*^{a}	*sàal-*	"human"
nↄŋɪd^{a}			"lover"
sìilíŋ^{a}	*sìilímìs*^{ɛ}		
	sìilís^{ɛ}		
	sìilímà$^{+}$	*sìilíŋ-*	"proverb"
zàaǎnsʊ́ŋ^{ↄ}	*zàaǎnsímà*$^{+}$	*zàaǎnsʊ́ŋ-*	"dream"
nↄŋɪlím^{m}		*nↄŋɪlím-*	"love"
nↄŋɪdím-tāa$^{=}$	13.2.1.4		"fellow lover" WK
sʊ̀ŋɪdím-tāa$^{=}$			"fellow-helper"
dàalím^{m}	*dàalímìs*^{ɛ}	*dàalím-*	"male sex organs"
pʊ̀'alím^{m}	*pʊ̀'alímìs*^{ɛ}	*pʊ̀'alím-*	"female sex organs"
bì'isím^{m}			"milk"

Nouns which are not *m*-stems do not show H before the class suffix *m*^{m}:

bↄ̀ↄdɪm^{m}	no pl	*bↄ̀ↄdɪm-* 9.2.2	"will"
zↄ̀tɪm^{m}	no pl		"fear"
dàalɪm^{m}	no pl		"maleness"
pʊ̀'alɪm^{m}	no pl		"femininity"

Tonally exceptional in showing H before stem *m* on the *second* mora is

bùgʊ́m^{m}	no pl	*bùgʊ́m-* or *bùgʊ̄m-*	"fire"

These forms in *-mís*^{ɛ} perhaps derive from **-mɪmsɪ*:

no sg	*tàdɪmís*^{ɛ}	"weakness"
no sg	*bùdɪmís*^{ɛ}	"confusion"

7.2.3 Pattern O

Pattern O shows M throughout in sg/pl forms and L throughout in the cb.

bʊ̄ʊg^{a}	*bʊ̄ʊs*^{ɛ}	*bʊ̀-*	"goat"
tān^{nɛ}	*tāna*$^{+}$	*tàn-*	"earth"
sīd^{a}	*sīdɪb*^{a}	*sìd-*	"husband"
pu̱'ā^{a}	*pʊ̄'ab*^{a}	*pu̱'à-*	"woman, wife"
sā'ab^{ɔ}	no pl	*sà'-*	"millet porridge"
gbīgɪm^{nɛ}	*gbīgɪma*$^{+}$	*gbìgɪm-*	"lion"
ňwāaŋ^{a}	*ňwāamɪs*^{ɛ}	*ňwàaŋ-*	"monkey"
mɛ̄ɛd^{a}	*mɛ̄ɛdɪb*^{a}	*mɛ̀ɛd-*	"builder"
si̱ākɪd^{a}	*si̱ākɪdɪb*^{a}	*si̱àkɪd-*	"believer"
bʊ̄tɪŋ^{a}	*bʊ̄tɪɪs*^{ɛ}	*bʊ̀tɪŋ-*	"cup"
mɛ̄ɛdɪŋ^{a}	*mɛ̄ɛdɪs*^{ɛ}	*mɛ̀ɛdɪŋ-*	"building tool"

Agent nouns of the types which have *-d-* only in the plural when derived from from Pattern LO verbs are tonally heteroclite, consistently showing Pattern L sg and Pattern O pl (the cb would have had L tonemes in either case) 7.5:

pʊ̀'ʊs^{a}	*pʊ̄'ʊsɪdɪb*^{a}	*pʊ̀'ʊs-*	"worshipper"
kʊ̀ʊs^{a}	*kʊ̄ʊsɪdɪb*^{a}	*kʊ̀ʊs-*	"seller"

Pattern O nouns and adjectives 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.

Pattern O all-M LFs become all-L at the end of questions 8.1:

Lì kā' gbígìmmɛɛ?	"Isn't it a lion?"

Certain Pattern O words show **LF-final H** instead of the expected M toneme before prosodic clitics, but not before liaison words. For WK this occurs when the LF has > 3 *vocalic* morae and ends in *-VCV,* where *C* is a *single* consonant (i.e. not *ŋ*):

yūgʊdɪr$^{ɛ/}$	*yūgʊda*$^{+}$	*yùgʊd-*	"hedgehog"
ňwāaŋ^{a}	*ňwāamɪs*$^{ɛ/}$	*ňwàaŋ-*	"monkey"
bāŋɪd^{a}	*bāŋɪdɪb*$^{a/}$	*bàŋɪd-*	"wise man"
kpārɪdɪŋ^{a}	*kpārɪdɪs*$^{ɛ/}$	*kpàrɪdɪŋ-*	"thing for locking"

It also occurs with LFs with three vocalic morae ending in *-mmV*, and with LFs of two vocalic morae ending in *-mm* (which is derived historically from **-mmʊ*):

gbīgɪm$^{mɛ/}$	*gbīgɪma*$^{+}$	*gbìgɪm-*	"lion"
zɔ̄ɔm$^{mɛ/}$	*zɔ̄ɔma*$^{+}$	*zɔ̀ɔm-*	"fugitive"
tādɪm$^{m/}$	*tādɪmɪs*$^{ɛ/}$	*tàdɪm-*	"weak person"

For some speakers, words of this type also have alternative forms with the final H in questions, alongside those displaying the usual change to all-L:

Lì à nɛ̄ gbīgɪmmɛ́ɛ?	"Is it a lion?" WK only; rejected by DK
Lì à nɛ̄ gbígìmmɛɛ?	"Is it a lion?" both WK and DK

7.2.4 Noun prefixes

On noun prefixes generally see 14. Tonally they are either M or L.
L noun prefixes do not affect the rest of the tone pattern of the prefixed word:

H	*dàyūug*$^{ɔ/}$	*dàyūud*$^{ɛ/}$	*dàyū-*	"rat"
HL	*Bʊ̀sáŋ*^{a}	*Bʊ̀sáàn̆s*^{ɛ}	*Bʊ̀sāŋ-*	"Bisa person"
L	*kʊ̀kpàrɪg*^{a}	*kʊ̀kpàrɪs*^{ɛ}	*kʊ̀kpàr-*	"palm tree"
O	*dàkīig*^{a}	*dàkīis*^{ɛ}	*dàkì-*	"sib-in-law via wife"

M toneme noun 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*$^{ɔ/}$	*zīnzāná*$^{+}$	*zīnzáu̯ŋ-*	"bat"
H	*Ňwāmpūrɪg*$^{a/}$	*Ňwāmpūrɪs*$^{ɛ/}$	*Ňwāmpúr-*	"Mamprussi person"
H	*gʊ̄mpʊ̄zɛ̄r*$^{ɛ/}$	*gʊ̄mpʊ̄zɛ̄yá*$^{+}$	*gʊ̄mpʊ̄zɛ́r-*	"duck"
H	*tīntɔ̄ňrígᵃ*	*tīntɔ̄ňrísᵋ*	*tīntɔ́ňr-*	"mole" 7.2.1.1
H	*pīpīrɪg*$^{a/}$	*pīpīrɪs*$^{ɛ/}$	*pīpír-*	"desert"
H	*bālɛ̄rʊg*$^{ɔ/}$	*bālɛ̄rɪd*$^{ɛ/}$	*bālɛ́r-*	"ugly person"
O	*fʊ̄fʊ̄m*^{mɛ}	*fʊ̄fʊ̄ma*$^{+}$	*fʊ̄fʊ́m-*	"envy; stye in the eye"
L	*sāmán*^{nɛ}	*sāmánà*$^{+}$	*sāmán-*	"courtyard"

One or two compounds behave tonally as if the first element were a prefix, with neutralisation of stem tonemes in the cb alone. All examples found involve cbs as premodifiers rather than heads, with cbs originally of the form *CV-*:

O	*zūg-kʊ̄gʊr*$^{ɛ/}$	*zūg-kʊ̄ga*$^{+}$	*zūg-kʊ́g-*	"pillow" 9.2.2
O	*kā-wɛ̄nnɪr*$^{ɛ/}$	*kā-wɛ̄nna*$^{+}$	*kā-wɛ́n-*	"corn"
H	*pʊ̄kpāad*$^{a/}$	*pʊ̄kpāadíb*^{a}	*pʊ̄kpá-*	"farmer" 14.1.4

7.3 Verbs

Verbs show just two Tone Patterns:

Pattern H	initial M or H
Pattern LO	L throughout in the indicative and imperative moods M throughout in the irrealis mood

Dual-aspect verbs have three finite forms 11.1. The *-mᵃ* imperative is found only (and always) with tone overlay 19.6.1.1 so it is unnecessary to treat it further here; perfective and imperfective forms will be cited in that order. Single-aspect verbs have one form, which is stative or dynamic imperfective as a lexical matter.

The Tone Patterns of all regular deverbal nominals are predictable 7.5.

Verbs show levelling of variant subpatterns in Pattern H and conflation of Patterns O and L. This was probably driven by regular falling together of the tone patterns in most perfectives, where Pattern O stems do not change to all-M 7.1, and a historical origin for dynamic imperfectives in a flexion *-a* added to a stem with a *derivational *d* or **y* suffix which produced Pattern L stems from both Pattern L and Pattern O forms 7.5. There has been extensive tonal levelling, extending also to gerunds. Tonally anomalous 2-mora stem gerunds survive with Subpattern HL and with Pattern L 12.2.1.1: segmental and tonal levelling correlate in the two gerunds of *kīrᵋ* "hurry, tremble": *kìkírùgɔ* and *kīrɪbɔ/*.

7.3.1 Pattern H

Pattern H 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, prior to tautosyllabic delinking 5.2.1; however, 2-mora perfectives carry MM. The form before interrogative clitics confirms the pattern, because it becomes LL like all other all-M sequences in this context:

Ò pō gɔ̄sɛ.	"She didn't look"
Ò pō gɔ́sɛ̀ɛ?	"Didn't she look?"
Ò pō dʊ̄gɛ.	"She didn't cook."
Ò pō dʊ́gɛ̀ɛ?	"Didn't she cook?"

The final mora carries H before liaison words, probably from the same imposition of underlying L as in Pattern LO verbs 8.2.2:

Kà ò dʊ̄gí lī	"And she cooked it."

Unlike nouns, verbs show no anomalous patterns due to mora deletion (see on fusion verbs below), and no Subpattern HL.

Examples for Pattern H:

ňyɛ̄$^{+}$	*ňyɛ̄t*$^{a/}$	"see"
kʊ̄$^{+}$	*kʊ̄ʊd*$^{a/}$	"kill"
dʊ̄g^{ɛ}	*dʊ̄gʊd*$^{a/}$	"cook"
pi̯āňˈa^{a}	*pi̯āňˈad*$^{a/}$	"speak", "praise"
kūl^{ɛ}	*kūn*$^{na/}$	"go home"
yādɪg$^{ɛ/}$	*yādɪgíd*^{a}	"scatter"
mɔ̄ɔl$^{ɛ/}$	*mɔ́ɔn*^{na}	"proclaim"
dīgɪl$^{ɛ/}$	*dīgín*^{na}	"lay down"
nɔ̄k$^{ɛ/}$ /kk/	*nɔ̄kíd*^{a} /kk/	"take"
lāŋ́m^{m} /ŋŋ/	*lāŋ́m*^{ma} /ŋŋ/	"wander searching"
	vʊ̄e̯$^{a/}$	"be alive"
	dīgɪ$^{ya/}$	"be lying down"
	tīˈi$^{ya/}$	"be leaning" (objects)
	zāňl$^{la/}$	"be holding"

As with nominals 7.2.1, tautosyllabic delinking results in MH on a long vowel becoming single H; again, LFs ending in long vowels or diphthongs or *-mm* where the LF final *mora* would have carried H toneme by the usual rules show H at the beginning of the final *syllable* 5.2.1:

tɔ̄ɔm$^{m/}$ ***tɔ́ɔm***^{ma} or *tɔ̄ɔmíd*^{a} "disappear"
SF *tɔ̄ɔm* LF ***tɔ́ɔmm***

pāe$^{+/}$ "reach"
SF *pāe* LF ***pāée***

For the anomalous tonemes of e.g. *wāˈam*$^{ma/}$ "be long,tall" see 12.1.
Fusion verbs show no sign of **g* in the imperfective tonally:

pāe$^{+/}$	*pāad*$^{a/}$	not **páad*^{a}	"reach"
dīˈe$^{+/}$	*dīˈəd*$^{a/}$	not **díˈəd*^{a}	"get"
pūňˈe$^{+/}$	*pūňˈəd*$^{a/}$	not **púňˈəd*^{a}	"rot" WK

Contrast the corresponding gerunds in *-r*^{ɛ}: *páar*^{ɛ} *díˈər*^{ɛ} *púňˈər*^{ɛ}.

7.3.2 Pattern LO

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

bʊ̀dᵋ	*bʊ̀tᵃ*	"plant"
dì⁺	*dìtᵃ*	"eat"
mɛ̀⁺	*mɛ̀ɛdᵃ*	"build"
zàbᵋ	*zàbɪdᵃ*	"fight, hurt"
bʊ̀ɵlᵋ	*bʊ̀ɵnⁿᵃ*	"call"
bɔ̀dɪgᵋ	*bɔ̀dɪgɪdᵃ*	"get lost, lose"
nìŋᵋ	*nìŋɪdᵃ*	"do"
màalᵋ	*màanⁿᵃ*	"sacrifice"
dìgɪnᵋ	*dìgɪnɪdᵃ*	"lie down"
wàŋɪmᵐ	*wàŋɪmᵐᵃ*	"waste away"
sìilɪmᵐ	*sìilɪmᵐᵃ*	"cite proverbs"
zàaňsɪmᵐ	*zàaňsɪmᵐᵃ*	"dream"
	zìň'iʲᵃ	"be sitting down"
	tàbɪʲᵃ	"be stuck to"
	tɛ̀ňrᵃ	"remember"
	vɛ̀nⁿᵃ	"be beautiful"

In the irrealis, as with nominal Pattern O, the last toneme of the LF is M:

	Ò nà bɔ̄dɪg.	"He'll get lost."
	Ò nà vɛ̄n.	"She'll be beautiful."
	Ò kʊ̀ zābɛ.	"She won't fight."
	Ò kʊ̀ bɔ̄dɪgɛ.	"He won't get lost."
	Ò kʊ̀ bɔ̄dɪgɪda.	"She won't be getting lost."
	Ò kʊ̀ būɵnna.	"She won't be calling."
	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 zābɪdɪnɛ́.	"He wouldn't have been fighting."
	Ò kʊ̀ sīilɪmm.	"She won't cite proverbs" WK
but	*Ò kʊ̀ lāŋímm.*	"She won't wander about searching (*lāŋímᵐ*)."

Such forms are always followed by M spreading:

Ò nà zāb ná'àb lā.	"He'll fight the chief."
Ò nà gɔ̄s ná'àb lā.	"He'll look at the chief."

The LF with the enclitic pronoun º can here show either M or H (all WK):

	Ò kù zāb·ó-o.	"He won't fight him."
or	*Ò kù zāb·o-o.*	"He won't fight him."
	Ò kù kād·ó-o.	"He won't drive him away."
or	*Ò kù kād·o-o.*	"He won't drive him away."

In questions, clause-final M…M become L…L just as with Pattern O nominals:

M̀ ná bɔ̀dɪgɛɛ?	"Will I get lost?"

7.4 Particles

Some particles have the segmental and tonal structure of nouns.

Proclitic liaison words all have a single mora with a fixed-L toneme 8.3.1. Catenator-*n* is toneless and transparent to M spreading. Liaison enclitics carry H after a host-final M toneme and M otherwise; this M becomes H in the LF 8.2.2.

Enclitic particles with the Short Form *CV* which are *not* liaison words have three possible Tone Patterns, corresponding to the H, L and O Patterns of nominals. Most are Pattern H, like the article *lā*$^{+/}$. Pattern L are *ňwà*$^{+}$ "this" and *sà*$^{+}$ "hence, ago"; Pattern O is the independent-perfective marker *yā*$^{+}$ 19.6.2.1.

Pattern H enclitics change the M to H in the LF (compare the words with apocope-blocking 7.1.) Before the negative prosodic clitic 8.1 the Pattern H LFs thus end in H, while the Pattern O clitic ends in M, and before the two interrogative prosodic clitics 8.1, Pattern O becomes all-L. Thus with *nɛ̄*$^{+/}$ and *yā*$^{+}$:

Lì bɔ̀dɪg nɛ̄.	"It's lost."
Lì bɔ̀dɪg nɛ́ɛ?	"Is it lost?"
Lì bɔ̀dɪg yā.	"It's got lost."
Lì bɔ̀dɪg yàa?	"Has it got lost?"

Ka o ba' nɛ o ma pʊ baŋ ye o kpɛlim yaa.
Kà ò bā' né ò mà pū báŋ yé ò kpɛ̀lɪm yāa $^{+}$*ø.*
and 3AN father:SG with 3AN mother:SG NEG.IND realise that 3AN remain PFV NEG.
"His father and mother did not realise that he had remained." (Lk 2:43)

7.5 Tone in derivation

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

It is exceptional for forms derived from H roots to show L, O or LO Patterns, or vice versa, but this happens systematically in the derivation of stative verbs from adjectives 12.1 and of assume-stance verbs from stance verbs 13.1.1.

The word *gīŋɩlím*^{m} "shortness" is derived from the Pattern O adjective *gīŋ*^{a} "short"; it is the only potential five-mora-stem Pattern O word in my data, so this may be the regular toneme assignment in such cases. Cf however *gīiňlím*^{m} *id*.

Roots showing Subpattern HL in nouns and adjectives fall together with regular Pattern H in all other derived or cognate words:

áňsìb^{a}	"maternal uncle"	*āňsíŋ*^{a}	"sister's child"
kísùg^{ɔ}	"hateful"	*kīs*$^{a/}$	"hate"
gɔ́sìg^{a}	"looking"	*gɔ̄s*^{ɛ}	"look"

After O/L roots derivational suffixes themselves differ in tonal behaviour, some producing Pattern L stems and others Pattern O. The Tone Pattern is determined entirely by the *last* derivational suffix, unless this is **m* as a second suffix. Pattern O roots can give rise to Pattern L stems, and *vice versa*:

bīig^{a}	"child"	*bìilím*^{m}	"childhood"	(*-l-*)
nà'ab^{a}	"chief"	*nā'am*^{m}	"chiefship"	(*-m-*)

Most derivational suffixes added to O/L roots produce Pattern L/LO stems. No stem with **g *l *s* or **b* as a final derivational suffix is Pattern O.

All segmentally regular gerunds have predictable Tone Patterns; most segmentally irregular gerunds formed from root verbs are tonally regular.

from Pattern H verbs	Pattern H
from Pattern LO verbs	
2-mora stem perfective	Pattern O
otherwise	Pattern L

dʊ̄g^{ɛ}	"cook"	→	*dʊ̄gʊb*$^{ɔ/}$
nɔ̄k$^{ɛ/}$	"take"	→	*nɔ̄kír*^{ɛ}
dīgɩl$^{ɛ/}$	"lay down"	→	*dīgɩlʊ́g*^{ɔ}

mɛ̀$^{+}$	"build"	→	*mɛ̄ɛbɔ*	
		→	*mɛ̀ɛdím-tāa*$^{=}$	"fellow-builder"
sʊ̀ŋ^{ɛ}	"help"	→	*sʊ̀ŋɪr*^{ɛ}	
dìgɪn^{ɛ}	"lie down"	→	*dìgɪnʊg*^{ɔ}	
zàaǎnsɪm^{m}	"dream"	→	*zàaǎnsʊ́ŋ*^{ɔ}	

The regular assignment of 3- and 4-mora stem Pattern LO verb gerunds to Pattern L can be explained by the fact that the great majority of such stems have a Pattern-L-deriving suffix; others would follow their analogy.

Imperfective gerunds 13.2.1.4 with **d* from Pattern LO verbs are Pattern L, as in *bɔ̀ɔdɪm*^{m} "will" and *mɛ̀ɛdím-tāa*$^{=}$ "fellow-builder." This **d* may historically be identifiable with the *d* of the synchronic imperfective flexion -*d*^{a}, if this originated as a derivational Pattern-L-deriving suffix before an imperfective ending -*a*; this would have contributed to the merger of Patterns O and L in verbs.

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

from Pattern H verbs	Pattern H
from Pattern LO verbs	
containing derivational -*d*-	Pattern O
otherwise	Pattern L

The suffix **d* in these formations is Pattern-O-deriving: *bɔ̄ɔdɪr*^{ɛ} "desirable", *mɛ̄ɛdɪŋ*^{a} "building implement." Stems where this **d* is absent (not just assimilated into a cluster as -*mn*- or -*nn*-) are Pattern L, with a change of Tone Pattern possible even within a single noun paradigm 7.2.3.

There is little evidence for change of Tone Pattern alone, without any segmental stem alteration, as a derivational process, but a possible case might be *gbāu̯ŋ*$^{ɔ/}$ "skin", "book" DK, *gbàu̯ŋ*^{ɔ} "book" WK.

8 External sandhi

Kusaal shows a range of intricate external sandhi phenomena, comprising not only segmental contact phenomena 8.5, but also tone sandhi of two types, one which applies across phrase boundaries 8.3 and one limited to certain NP and AdvP constructions 8.4, and several processes related to apocope 2.4, with its complete suppression before certain "prosodic clitics", which have zero segmental form themselves 8.1, and partial suppression before several other particles and pronouns ("liaison words") 8.2, some of which also have no segmental form of their own in most contexts and are detectable only by the vowel quality and/or tonal changes they induce at the end of the preceding LF. In interlinear glosses prosodic clitics are written as $^{+}$*ø*, and liaison word without segmental form are written ‿*ø*.

Sandhi between proclitic words and following hosts often differs from that between word-forms capable of ending a phrase and following dependents, including enclitics which are not liaison words. Finite verb forms here align with *proclitics*. Proclitics and verbs ending in a fronting diphthong monophthongise phrase-internally, but this does not happen with noun singulars, even before the article *lā*$^{+/}$:

sāe̯ň lā	"the blacksmith"	
sàň-kàŋā	"this blacksmith"	
Ò sʊ̀'ʊ lɔ́r.	"She owns a lorry."	*sʊ̄'e*$^{ya/}$ "own"
Lì nàa nɛ̄.	"It is finished."	*nāe*$^{+/}$ "finish"

In tone sandhi verb perfectives also resemble proclitics. Toende Kusaal perfectives behave like proclitics with respect to word-final stop devoicing 3.1 fn.

8.1 Prosodic clitics

All four prosodic clitics[5] cause lowering of short LF-final *ɪ ʊ* to *ɛ ɔ* respectively, which are realised slightly closer in this case than as root vowels.

Before prosodic clitics, and in forms with apocope-blocking, final -*mɪ* and -*mʊ* become -*mm* whenever the *m* is not geminated. The final *m* was presumably once syllabic, but the current realisation of -*mm* is [m:].

5) The concept of prosodic "clitics" is also useful for describing complex clause structures 21.1. Mooré has the clause-final particle *yé* after negative VPs, and segmental vocative and interrogative clitics are also common in West Africa. For clitic-like elements cross-linguistically which lack segmental form see Spencer and Luís 2012: 5.5.1 on Tongan "definitive accent."

tìɪm^{m}	"medicine"	SF *tìɪm*	LF *tīɪmm*	← **tìɪmʊ̄*
dāam$^{m/}$	"millet beer"	SF *dāam*	LF *dáamm*	← **dāamʊ́*
vʊ̄m$^{m/}$	"life"	SF *vʊ̄m*	LF *vʊ́mm*	← **vʊ̄mmʊ́*

Word-final *iə uɐ* diphthongise to *ia ua* before prosodic clitics 4.2.

None of these changes occur before liaison 8.2.

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:

	sīa^{+}	"waist"	SF *sīa*	LF *sīaa*	← **sīəga*
but	*dà'a*$^{=}$	"market"	SF *dà'a*	LF *dā'a*	← **dà'agā*
	bāa$^{=}$	"dog"	SF *bāa*	LF *bāa*	← **bāaga*

kʊ̄·ó$^{=}$ "kill him" ← *kʊ̄*$^{+}$ "kill" + ^{o} "him/her" SF/LF [kʰʊː]

The **negative prosodic clitic** appears at the end of a clause containing a negated or negative verb 19.5. Superscript notation 2.4.1 represents LFs as they appear before the negative prosodic clitic, both segmentally and tonally.

Lì à nɛ̄ nɔ́bìr. "It's a leg."
3INAN COP FOC leg:SG.

Lì kā' nɔ́bɪrɛ̄ $^{+}$*ø.* "It's not a leg."
3INAN NEG.BE leg:SG NEG.

Lì à nɛ̄ dʊ̄k. "It's a cooking pot."
3INAN COP FOC pot:SG.

Lì kā' dʊ̄kɔ́ $^{+}$*ø.* "It's not a pot."
3INAN NEG.BE pot:SG NEG.

Unlike short *ɪ ʊ*, long final *ɪɪ ʊʊ* are not lowered:

Bà à nɛ̄ mɔ́lì. "They are gazelles."
3PL COP FOC gazelle:PL.

Bà kā' mɔ́līɪ $^{+}$*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. The audio NT version sometimes shows a change of final H tone to falling (found also with some Hausa speakers, Jaggar p18.)

M̀ bīisɛ +ø! "My children!"
1SG child:PL VOC!

Pu'aa, bɔ ka fʊ kaasida?
Pu̱'āa +ø, bɔ́ kà fʊ̀ kāasídà +ø?
Woman:SG VOC, what and 2SG cry:IPFV CQ?
"Woman, why are you crying?" (Jn 20:13)

This is not a vocative noun form, but a particle following the entire NP:

dau onɛ an yadda niŋida
dāu̱ ɔ́nì àn̆ yàddā-níŋìdā +ø
man:SG REL.SG COP faith-doer:SG VOC
"You man, who are a believer!" (1 Cor 7:16)

Two **interrogative prosodic clitics** end questions. Final vowel length distinctions are neutralised to short in content questions, long in polar questions:

Lì à nɛ̄ nɔ́bìr. "It's a leg (*nɔ́bɪrᴱ*)."
3INAN COP FOC leg:SG.

Ànɔ́'ɔnì‿ø ñyɛ̄ nɔ́bɪrɛ̀ +ø? "Who saw a leg?"
Who CAT see leg:SG CQ?

Lì à nɛ̄ nɔ́bɪrɛ̀ɛ +ø? "Is it a leg?"
3INAN COP FOC leg:SG PQ?

Lì à nɛ̄ dʊ̄k. "It's a cooking pot (*dʊ̄kᴐ/*)."
Ànɔ́'ɔnì ñyɛ̄ dʊ̄kɔ́? "Who saw a pot?"
Lì à nɛ̄ dʊ̄kɔ́ɔ̀? "Is it a pot?"

Lì à nɛ̄ kʊ̄k. "It's a chair (*kʊ̄kᵃ*)."
Ànɔ́'ɔnì ñyɛ̄ kʊ́kà? "Who saw a chair?"
Lì à nɛ̄ kʊ́kàa? "Is it a chair?"

Lì à nɛ̄ gbīgɪm.	"It's a lion (*gbīgɪm*^{nɛ})."
Ànɔ́'ɔnì ňyɛ̄ gbígìmnɛ?	"Who saw a lion?"
Lì à nɛ̄ gbígìmnɛɛ?	"Is it a lion?"

Length neutralisation results in a five-way *a ɛ ɔ ɪ ʊ* contrast in LF-final vowels by quality alone in this context:

Ànɔ́'ɔnì ňyɛ̄ kʊ́kà?	"Who saw a chair(*kʊ̄k*^{a})?"
Ànɔ́'ɔnì ňyɛ̄ yīrɛ́?	"Who saw a house(*yīr*$^{ɛ/}$)?"
Ànɔ́'ɔnì ňyɛ̄ dɔ́ɔgɔ̀?	"Who saw a hut (*dɔ̀ɔg*^{ɔ})?"
Ànɔ́'ɔnì ňyɛ̄ mɔ́lì?	"Who saw gazelles(*mɔ̀lɪ*$^{+}$)?"
Ànɔ́'ɔnì ňyɛ̄ bɛ́dʊgʊ́?	"Who saw a lot (*bɛ̀dʊgʊ̄*$^{+/}$)?"

The two interrogative prosodic clitics induce a tonal change in the preceding LF. Kusaal is cross-linguistically unusual[6] in signalling questions with a final *falling intonation*. All questions, polar or content, end with a L or H toneme.

Word-final M changes to L. Words with all-M tonemes change to all-L. This is an actual change of tonemes, not just a matter of intonation; the new L tonemes are subject to M spreading 8.3. 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** 5.1.

Ànɔ́'ɔnì‿ø ňyɛ́ bà bìiga $^{+}$*ø?*
Who CAT see 3PL child:SG CQ?
"Who saw their child (*bīig*^{a})?"

Ànɔ́'ɔnì ňyɛ̄ bíigà?	"Who saw a child?" tonally identical to
Ànɔ́'ɔnì ňyɛ̄ sʊ́'ʊgà?	"Who saw a knife (*sʊ̀'ʊg*^{a})?"
Fʊ̀ bɔ́ɔ̀d bɔ́?	"What (*bɔ̄*$^{+}$) do you want?"
Ànɔ́'ɔnì ňyɛ̄ zu̱éyà?	"Who saw hills (*zu̱ēya*$^{+}$)?"

Similarly with Pattern LO verbs in the irrealis mood:

Ḿ ná bɔ̄dɪg.	"I will get lost."
Ḿ ná bɔ̀dɪgɛɛ?	"Will I get lost?"

6) This is not uncommon in West Africa: cf Jaggar pp513, 525 on Hausa. Hausa also shows raising of the pitch of the last H tone preceding the fall in polar questions.

With 2-mora stem Pattern H verb perfectives:

Ò pū gɔ̄sɛ.	"She didn't look"
Ò pū gɔ́sɛ̀ɛ?	"Didn't she look?"
Ò pū dʊ̄gɛ.	"She didn't cook."
Ò pū dʊ́gɛ̀ɛ?	"Didn't she cook?"

8.1.1 Long Forms in clause adjuncts

Clause adjuncts are not followed by M spreading, indicating that they form separate phrases. Some single words always end in a LF, and occasional examples occur with *yà*'-clauses:

Kikirig ya'a mor ***buude****, fun tis o ka o lebig o moogin.*
Kìkīrıg yá' mɔ̄r bʊ̄vdɛ, fʊ̄n tís·ò‿ø kà ò lɛ̀bıg ò mɔ̄ɔgʊ-n.
Fairy:SG if have innocence, 2SG.CNTR give 3AN.OB and 3AN return 3AN grass:SG-LOC.
"When a fairy is right agree so that it will go back to the bush." (KSS p38)

Fù ná kūl bɛ̄og. "You'll go home tomorrow."
2SG IRR go.home tomorrow.

but *Bɛ̄ogɔ́ fù ná kūl.* "You're going home tomorrow." SB
Tomorrow 2SG IRR go.home.

No form which is capable of being a VP or NP constituent displays this feature.

The LF form is like that seen before the negative prosodic clitic. In KB, all examples written *bɛogʊ* precede liaison; clause adjuncts with a final vowel are always written *bɛogɔ*. Similarly, KB consistently shows final *-ʊ* in the apocope-blocked word 6.6 *bɛdegʊ bèdʊgʊ̄*$^{+/}$ "a lot", but just as consistently has final *-ɔ* in *bɔzugɔ bɔ̄ zúgɔ̄* "because", *dinzugɔ dìn zúgɔ̄* "therefore", *alazugɔ àlá zùgɔ̄* "therefore."

Ka o kaas bɛdegʊ. "And he wept greatly." (Genesis 27:38)
Kà ò kāas bɛ́dʊgʊ̄.
And 3AN weep great:ADV.

bɔzugɔ ba zi' onɛ tʊmi m la naa.
bɔ̄ zúgɔ̄, bà zī' ɔ́nì tʊ̀mı‿m lā náa $^{+}$*ø.*
because 3PL NEG.KNOW REL.AN send 1SG.OB ART hither NEG.
"Because they do not know him who sent me here." (Jn 15:21)

8.2 Liaison

Liaison words prevent apocope applying to the preceding word, which retains its final affix vowel in downranked form with loss of quality contrasts. The vowel preceding liaison is not epenthetic and occurs where epenthesis does not:

	dùm^{m}	"bite"		
		+ suffix -*b*^{ɔ}	→ *dūm*^{mɔ}	gerund "biting"
but		+ *ba*$^{+}$ "them"	→ *dùmɪ bā*	"bite them"

Words which have not undergone apocope, such as the clause linker particles *kà* and *yɛ̄*, do not change before liaison.

Enclitic liaison words are invariably preceded by liaison.

They comprise two sets:

Position 1:		
Locative	*n*^{ɛ}	17.3
Discontinuous-past	*n*^{ɛ}	24.1.1
Postposed 2pl subject pronoun	^{ya}	22.1.3

The locative enclitic attaches directly to noun words; the discontinuous-past marker and the enclitic 2pl subject pronoun attach directly to verb words.

In this grammar, the Position 1 type words are hyphenated to the preceding host word, except with the enclitic 2pl subject when it is completely deleted by apocope.

Position 2:		
all bound object pronouns		16.3.1

	Singular	Plural
1st	*m*^{a}	*tɪ*$^{+}$
2nd	*f*^{ɔ}	*ya*$^{+}$
3rd animate	^{o} [ʊ]	*ba*$^{+}$
3rd inanimate	*lɪ*$^{+}$	

These pronouns either attach directly to a verb word or after either of the Position 1 clitics, discontinuous-past *n*^{ɛ} or 2pl subject ^{ya}. They are written as separate words, except with the 3sg animate pronoun, which is altogether deleted by apocope; the preceding host-final rounded vowel mora is written ·*o* 1.3.

Non-enclitic liaison words comprise

proclitic personal pronouns	*m̀ fù ò lì tì yà bà*	16.3.1
personifier clitic	*à*/*ǹ*	16.6
ànɔ́'ɔ̀n$^{\varepsilon}$ "who?"		16.3.4
nominaliser	*ǹ*	25
catenator	*n*	23.1
words with number prefixes	*à bà bù*	14.3
words with manner-adverb prefix	*à*	14.2

Liaison is not invariable before these words, except with with personal pronouns immediately preceded by a verb within the same verb phrase:

Tì gɔ̀sí‿ bà bīis.	"We looked at their children."
1PL look.at 3PL child:PL.	(Liaison before *bà* "their")

Older written materials show liaison more widely before non-enclitics, though always within a phrase.

If the host word LF ends in a short vowel, this is downranked to *ɪ* by default.

LFs ending in *-mm* behave as *-mV* before liaison.

LF-final *-iə -uɵ* remain as such before liaison, not becoming *-ia -ua* 4.2.

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 8.5.2.

The liaison words ^{o} ^{ya} *ya*$^{+}$ *yà* and words beginning with the number prefix *à* subsequently cause new quality changes in the mora preceding liaison.

Examples with host LFs ending in short vowels:

kʊ̄k^{a}	"chair"	+ *n*$^{\varepsilon}$	"at, in"	→	*kʊ̄kɪ-n*$^{\varepsilon/}$
dʊ̄k$^{\text{ɔ/}}$	"pot"	+ *n*$^{\varepsilon}$	"at, in"	→	*dʊ̄kí-n*$^{\varepsilon}$
bɔ̀ɔd^{a}	"want"	+ *tɪ*$^{+}$	"us"	→	*bɔ̀ɔdī tí*$^{+}$
pʊ̄ʊg^{a}	"inside"	+ *n*$^{\varepsilon}$	"at"	→	*pʊ̄ʊgʊ-n*$^{\varepsilon/}$
pɔ̄ɔg$^{\text{ɔ/}}$	"field"	+ *n*$^{\varepsilon}$	"at"	→	*pɔ̄ɔgʊ́-n*$^{\varepsilon}$
yàʊg^{ɔ}	"grave"	+ *n*$^{\varepsilon}$	"at"	→	*yàʊgʊ̄-n*$^{\varepsilon/}$

Bà bɔ̀ɔdī m.	"They love me."
Bà pʊ̄ bɔ́ɔdī má.	"They don't love me."
Bà bɔ̀ɔdī lí.	"They want it."
Bà pʊ̄ bɔ́ɔdī líɪ.	"They don't want it."

LFs ending in *-mm*:

tʊ̀m^{m}	"send"	+ *tɪ*$^{+}$	"us"	→	*tʊ̀mɪ tī*$^{+/}$
dāam$^{m/}$	"beer"	+ *n*^{ɛ}	"at, in"	→	*dāamín*^{ɛ}
kʊ̀'ɵm^{m}	"water"	+ *n*^{ɛ}	"in"	→	*kʊ̀'ɵmī-n*$^{ɛ/}$

LFs ending in long vowels:

dà'a$^{=}$	"market"	+ *n*^{ɛ}	"at, in"	→	*dā'an*$^{ɛ/}$ 2.4.1

Kà bà kʊ́ʊ m.	"And they killed me." (*kʊ̄*$^{+}$ "kill")
Kà bà pʊ̄ kʊ́ʊ mā.	"And they didn't kill me."
Kà bà kʊ́ʊ bā.	"And they killed them."
Kà bà pʊ̄ kʊ́ʊ báa.	"And they didn't kill them."
Kà bà kíə lī.	"And they cut it." (*kɟà*$^{+}$ "cut")
Kà bà pʊ̄ kíə líɪ.	"And they didn't cut it."
Kà bà ňyɛ́ɛ m.	"And they saw me." (*ňyɛ̄*$^{+}$ "see")
Kà bà pʊ̄ ňyɛ́ɛ mā.	"And they didn't see me."

Reduction of 3-mora diphthongs to 2-mora long vowels:

pāe$^{+/}$	"reach"	+ *tɪ*$^{+}$	"us"	→	*páa tī*$^{+/}$
pīe$^{+/}$	"wash"	+ *tɪ*$^{+}$	"us"	→	*pía tī*$^{+/}$
dūe$^{+/}$	"raise"	+ *tɪ*$^{+}$	"us"	→	*dúɵ tī*$^{+/}$

Single-aspect 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 2.4.2):

sʊ̄'e$^{ya/}$	"own"	+ *lɪ*$^{+}$	"it"	→	*sʊ́'ʊ lī*$^{+/}$
vʊ̄e̯$^{a/}$	"live"	+ *n*^{ɛ}	dp	→	*vʊ̄ʊ-n*$^{ɛ/}$

Four liaison words are themselves reduced by apocope to segmental zero, and the only sign of their presence as SFs is the preceding liaison, with any associated changes to the vowel quality and toneme of the mora before liaison. This is invariably the case with the 3sg animate object pronoun ^{o} [ʊ] "him/her" and the enclitic 2pl subject pronoun ^{ya}:

	bɔ̀ɔd^{a}	"want"	+ ^{o}	"him/her"	→	*bɔ̀ɔd·ó-o* (SF *bɔ̀ɔd·ō*)
SF	*gɔ̀sɪmī‿*	*ø*		"look ye!"		Traditional: *gosimi*
LF	*gɔ̀sɪmī‿*	*yá* 22.1.3				Traditional: *gosimiya*

Nominaliser-*ǹ* 25 combines with a preceding pronoun subject to produce a special set of pronouns 16.3.1, but for my informants it is segmental zero in all other contexts; its presence remains apparent in the change of pre-liaison M tonemes to H. Older texts frequently show *n* and/or liaison, but even texts which use *n* nearly always omit it after words with SFs ending in nasal consonants. In KB, *n* (without liaison) occurs mostly after foreign proper names. Texts confirm that the particle is a liaison word, with LF geminate consonants kept before the affix vowel:

ya zuobid wʊsa ***kalli*** *an si'em*
yà zūɵbíd wūsa kállì‿ ø àň sī'əm
2PL hair:PL all number:SG NZ COP INDF.ADV
"how much the number of all your hairs is" (Lk 12:7)

After pause, all sources realise catenator-*n* 23.1 22.3.1 as a syllabic nasal assimilated to the position of the following consonant. Elsewhere, WK has liaison before a particle with no segmental realisation, written *ø* in interlinear glossing:

Kà ò zɔ́ɔ‿ ø kɛ̄ŋ nā. "And he came running"
And 3AN run CAT come hither.

Bɔ̄ɔ‿ ø lá *⁺ø?* "What's that?"
What CAT that CQ?

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

Realisations with neither *n* nor liaison also occur, particularly after verbs often used as "auxiliaries"; some preverbs probably originated in this way. This is significantly more frequent in NT/KB after words ending in *-m -n -l* or in vowels.

Written materials confirm that catenator-*n* is a liaison word by showing LF geminate consonants preserved before the affix vowel, e.g.

tʊʊm kanɛ ka m ***tʊmmi*** *tisid Wina'am la.*
tʊ̀ʊm-kànɪ kà m̀ tʊ́mmī‿ø tísìd Wínà'am lā
work-REL.SG and 1SG work:IPFV CAT give:IPFV God ART
"The work which I do for God" (Rom 15:17)

8.2.1 Vowel quality changes

Fronting of the second mora of a LF-final long vowel occurs before the 2pl object pronoun *ya*$^{+}$, exactly as word-internally before *y* 6.4 with any back mora becoming *e* [ɪ] but no change to front morae:

	Bà bɔ̀ɔdī yá.		"They love you."
	Kà bà ňyɛ́ɛ yā.		"And they saw you (pl)." (*ňyɛ̄*$^{+}$ "see")
but	*Kà bà kʊ́e yā.*	[kʰʊɪja]	"And they killed you (pl)." (*kʊ̄*$^{+}$ "kill")
	Kà bà kíe yā.	[kʰiɪja]	"And they cut you (pl)." (*kị̀à*$^{+}$ "cut")

This secondarily recreates fronting diphthongs in cases like

	Kà bà páa bā.	"And they reached them." (*pāe*$^{+/}$ "reach")
but	*Kà bà páe yā.*	"And they reached you (pl)."

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

	Kà bà kíə f.	"And they cut you (sg)."
or	*Kà bà kío f.*	
	Kà bà ňyɛ́ɛ f.	"And they saw you (sg)."
or	*Kà bà ňyɛ́o f.*	
	Kà bà páa f.	"And they reached you (sg)."
or	*Kà bà páʊ f.*	
	M̀ gbáň'a f.	"I've grabbed you (sg)."
or	*M̀ gbáň'ʊ f.*	

Rounded forms are invariable in the 1996 NT version; 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 *fᵖ*|*ɪ*$^{+}$ class singular suffix.

The 3sg animate object pronoun ^{o} [ʊ] "him/her" and the enclitic 2pl subject pronoun ^{ya}, both of which lose their entire segmental form in their SFs, share the property that they completely override the vowel quality of the pre-liaison mora, creating **secondary diphthongs** 4.5.

Before ᵒ the preceding mora becomes *·o* 1.3.1 [ʊ], always lax. In the LF the pre-liaison mora fuses with the [ʊ] of the LF of the pronoun itself create a long vowel [ʊː], written *·o-o*:

bɔ̀ɔdā	"wants"	+ ᵒ	"him/her"	→	*bɔ̀ɔd·ó-o*	(SF *bɔ̀ɔd·ō*)
tùmᵐ	"send"	+ ᵒ	"him/her"	→	*tùm·ó-o*	(SF *tùm·ō*)
kīa	"cut"	+ ᵒ	"him/her"	→	*kì·ō-o*	(SF *kì·o*)
ňyɛ̄ɛ	"see"	+ ᵒ	"him/her"	→	*ňyɛ̄·ó-o*	(SF *ňyɛ́·o*)

*Fù bɔ́ɔd·ō‿**ø**.* "You love her." [fʊbɔːdʊ]
2SG want 3AN.OB.

*Fù pū bɔ́ɔd·ó-**o*** ⁺*ø.* "You don't love her." [fʊpʰʊbɔːdʊː]
2SG NEG.IND want-3AN.OB NEG.

*Fù ňyɛ́·o‿**ø**.* "You've seen her." [fʊjɛ̃ʊ̃]
2SG see 3AN.OB.

*Fù pū ňyɛ̄·ó-**o*** ⁺*ø.* "You've not seen her." [fʊpʰʊjɛ̃ʊ̃ː]
2SG NEG.IND see-3AN.OB NEG.

zū⁺	"steal"	+ ᵒ	"him/her"	→	*zū·ó*⁻ᵒ	SF [zuʊ]	LF [zuʊː]
ňyɛ̄⁺	"see"	+ ᵒ	"him/her"	→	*ňyɛ̄·ó*⁻ᵒ	SF [j̃ɛ̃ʊ]	LF [j̃ɛ̃ʊː]
dì⁺	"eat"	+ ᵒ	"him/her"	→	*dì·o*⁻ᵒ	SF [dɪʊ]	LF [dɪʊː]
kị̀à⁺	"cut"	+ ᵒ	"him/her"	→	*kì·o*⁻ᵒ	SF [kʰiʊ]	LF [kʰiʊː]

pāe⁺/	"reach"	+ ᵒ	"him/her"	→	*pā·ó*⁻ᵒ
pīe⁺/	"wash"	+ ᵒ	"him/her"	→	*pī·ó*⁻ᵒ
dūe⁺/	"raise"	+ ᵒ	"him/her"	→	*dū·ó*⁻ᵒ
àe̯ňᵃ	"be"	+ ᵒ	"him/her"	→	*àň·o*⁻ᵒ

Mane a o. "I am he." (Jn 18:5, 1976)
Mānɪ‿ ø áň·o‿ø.
1SG.CNTR CAT COP 3AN.OB.

Before ʸᵃ the preceding mora becomes lax [ɪ], usually written *e* as normal after another vowel symbol.

	gɔ̀sɪm	"look!"	
SF	*gɔ̀sɪmī‿ **ø***	"look ye!"	Traditional: *gosimi*
LF	*gɔ̀sɪmī‿ **yá***	22.1.3	Traditional: *gosimiya*

In many cases this has the same outcome as word-internal fronting before *y* 6.4 and before the 2pl object pronoun *ya*$^{+}$, but replacement also affects front vowels:

	kʊ̄$^{+}$	"kill"	+ ya	"ye"	→	*kʊ̄e*$^{\text{-ya/}}$	[kʰʊɪ]
	kị̀à$^{+}$	"cut"	+ ya	"ye"	→	*kīē*$^{\text{-ya/}}$	[kʰiɪ]
	pāe$^{+/}$	"reach"	+ ya	"ye"	→	*pāe*$^{\text{-ya/}}$	
	pīe$^{+/}$	"wash"	+ ya	"ye"	→	*pīe*$^{\text{-ya/}}$	
	dūe$^{+/}$	"raise"	+ ya	"ye"	→	*dūe*$^{\text{-ya/}}$	
but	*bɛ̀*$^{+}$	"be"	+ ya	"ye"	→	*bɛ̄e*$^{\text{-ya/}}$	[bɛɪ] written *bei*

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 *ànɔ́'ɔ̀n*^{ɛ} "who?", the manner-adverb prefix *à-* and the personifier-clitic allomorph *à-* the LF-final vowel is *ɪ* (*ʊ* after a velar preceded by a rounded vowel):

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

Fusion verbs 11.1 show forms in final *e* [ɪ] in these cases, instead of the monophthongs *aa iə uɵ* usual before another word in the VP 8.5.2:

... [n] loo Abaa zuur	"... tying Dog's tail" 16.6 KSS p20
... n lɔ́ɔ‿À-Bāa zʊ́ʊ̀r	
...CAT tie PERS-dog:SG tail:SG	
but *ka ba gban'e Adayuug*	"and they seized Rat" KSS p20
kà bà gbáň'e‿À-Dàyūug	
and 3PL seize PERS-rat:SG	

However, the verb *àe̯ňᵃ* "be something" always appears as *àaň*, not *àeň*.

Ka fʊ aan anɔ'ɔnɛ?	"And who are you?" (Jn 1:19)
Kà fʊ̀ áaň ànɔ́'ɔnɛ̀ ⁺ø?	
And 2SG COP who CQ?	

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

M̀ mɔ́r nɛ̄ bīisá‿ àtáñ'. "I have three children."
1SG have FOC child:PL NUM:three.

Pɛ̀ɛdá‿ 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 *-á à-* to *á-* with the number prefix (effectively just treating it as having an ordinary L toneme susceptible to M spreading):

Nū'-bíbìs 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.

gɔ̀sɪmí lá or *gɔ̀sɪm álá* "Keep on looking!"

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

Bà gɔ̀sú‿ ò bīig. "They've looked at her child."
3PL look:at 3AN child:SG.

All my written sources, the NT, literacy materials and ILK, consistently show *-i* (i.e. *-ɪ* [ɪ]), which is presumably the original older form.

The number prefix *a-* originated as **ŋa-*, the old *r*$^{\varepsilon}$|*a*$^{+}$ class pl agreement 14.3. Original word-internal **ŋ* has disappeared completely throughout Western Oti-Volta (synchronic non-initial *ŋ* being always from **mg* or **ng* → *ŋŋ*), whereas word-medial *y w* survive in many contexts. Initial **ŋ* preceding unstressed vowels may likewise have disappeared early. Sandhi effects may outlive the 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*, but expressing this in terms of underlying synchronic phonological distinctions would be methodologically suspect in view of the absolute neutralisation involved (Kiparsky 1982.)

8.2.2 Toneme changes

Liaison enclitics themselves carry H toneme after host-final M toneme and M after L or H. The M becomes H before prosodic clitics:

	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 fɔ́.*	"I don't love you."
	Kà m̀ pū zábì báa.	"And I didn't fight them."
cf	*Kà m̀ pū zábì fɔ̄.*	"And I didn't fight you."
	Ànɔ́'ɔnì kʊ́ʊ bá?	"Who has killed them?" SF *kʊ́ʊ bā*

The locative enclitic *n*$^{\varepsilon}$ does not alter the preceding toneme:

pʊ̄ʊg^{a}	"inside"	+ *n*$^{\varepsilon}$	"at"	→ *pʊ̄ʊgʊ-n*$^{\varepsilon/}$	
bīig^{a}	"child"	+ *n*$^{\varepsilon}$	"at"	→ *bīigɪ-n*$^{\varepsilon/}$	WK
mʊ̀'ar$^{\varepsilon}$	"dam, lake"	+ *n*$^{\varepsilon}$	"at"	→ *mʊ̀'arī-n*$^{\varepsilon/}$	
pɔ̄ɔg$^{ɔ/}$	"field"	+ *n*$^{\varepsilon}$	"at"	→ *pɔ̄ɔgʊ́-n*$^{\varepsilon}$	
yàad$^{\varepsilon}$	"graves"	+ *n*$^{\varepsilon}$	"at"	→ *yàadī-n*$^{\varepsilon/}$	WK
kʊ̄ʊdíb^{a}	"killers"	+ *n*$^{\varepsilon}$	"at"	→ *kʊ̄ʊdíbī-n*$^{\varepsilon/}$	WK
dà'a$^{=}$	"market"	+ *n*$^{\varepsilon}$	"at"	→ *dā'a-n*$^{\varepsilon/}$ for *dà'ā-n*$^{\varepsilon/}$ 5.2.1	

Note that in *dūk lā púʊgʊ̄-n*$^{\varepsilon}$ "inside the pot", *pʊ̄ʊg*^{a} "inside" shows the normal LF-final M after L/H despite being changed by L spreading 8.4.

Discontinuous-past *n*$^{\varepsilon}$ and the postposed 2pl ^{ya} both impose M tone on the preceding LF-final mora, regardless of its intrinsic toneme:

	dʊ̄g$^{\varepsilon}$	"cook"	+ *n*$^{\varepsilon}$	dp	→ *dʊ̄gʊ-n*$^{\varepsilon/}$	
	bɔ̀dɪg$^{\varepsilon}$	"lose"	+ *n*$^{\varepsilon}$	dp	→ *bɔ̀dɪgī-n*$^{\varepsilon/}$	
	yādɪg$^{\varepsilon/}$	"scatter"	+ *n*$^{\varepsilon}$	dp	→ *yādɪgɪ-n*$^{\varepsilon/}$	
ipfv	*kʊ̄ʊd*$^{a/}$	"kill"	+ *n*$^{\varepsilon}$	dp	→ *kʊ̄ʊdɪ-n*$^{\varepsilon/}$	
ipfv	*yādɪgíd*^{a}	"scatter"	+ *n*$^{\varepsilon}$	dp	→ *yādɪgídī-n*$^{\varepsilon/}$	
	mɛ̀$^{+}$	"build"	+ *n*$^{\varepsilon}$	dp	→ *mɛ̄ɛ-n*$^{\varepsilon/}$ for *mɛ̀ɛ̄-n*$^{\varepsilon/}$ 5.2.1	

Dā dɔ̄llɪ‿ yá $^{+}$*ø!* "Follow ye not!"
NEG.IMP follow 2PL.SUB NEG!

Indicative perfectives without independency-marking tone overlay 19.6.1.1 change LF-final LM → LL and MM → MH before enclitic object pronouns

bɔ̀dɪgᵋ	"lose"	+ *mᵃ*	"me"	→ *bɔ̀dɪgɪ mᵃ*
dìᐩ	"eat"	+ *lɪᐩ*	"it"	→ *dìɪ līᐩ/*
yādɪgᵋ/	"scatter"	+ *mᵃ*	"me"	→ *yādɪgí mᵃ*
dʊ̄gᵋ	"cook"	+ *lɪᐩ*	"it"	→ *dʊ̄gí līᐩ/*
gɔ̄sᵋ	"look"	+ ᵒ	"him/her"	→ *gɔ̄s·óᵒ*
kʊ̄ᐩ	"kill"	+ *mᵃ*	"me"	→ *kʊ́ʊ mᵃ* for *kʊ̄ʊ́ mᵃ* 5.2.1

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

pāeᐩ/	"reach"	+ *mᵃ*	"me"	→ *páa mᵃ*
dīˈeᐩ/	"get"	+ *baᐩ*	"them"	→ *díˈə bāᐩ/*

After all other verb forms, object pronouns do not alter the host tonemes:

zàbɪdᵃ	"fights"	+ *mᵃ*	"me"	→ *zàbɪdī mᵃ/*
dìtᵃ	"eats"	+ *lɪᐩ*	"it"	→ *dìtī líᐩ*
yādɪgídᵃ	"scatters"	+ *baᐩ*	"them"	→ *yādɪgídī báᐩ*
kʊ̄ʊdᵃ/	"kills"	+ *mᵃ*	"me"	→ *kʊ̄ʊdí mᵃ*
sʊ̄ˈeʸᵃ/	"own"	+ *lɪᐩ*	"it"	→ *sʊ́ˈʊ līᐩ/*

The sequence *·o-o* resulting from the LF of the 3sg animate pronoun ᵒ fusing with the vowel before liaison is subject to tautosyllabic delinking 5.2.1:

M̀ bɔ́ɔd·ō.		"I love him/her."
M̀ pʊ̄ bɔ́ɔd·ó-o. (←*·ō-ó*)		"I don't love him/her."
Kà bà kʊ́·o.	[kʰʊː]	"And they killed him."
Kà bà pʊ̄ kʊ́·o.	8.1	"And they didn't kill him."
Kà bà kí·o.		"And they cut him."
Kà bà pʊ̄ kí·ō-o.		"And they didn't cut him."
Kà bà ňyɛ́·o.		"And they saw her."
Kà bà pʊ̄ ňyɛ̄·ó-o.		"And they didn't see her."

Irrealis mood forms of Pattern LO verbs:

	Ò nà bɔ̄dɪgɪ m.	"He will lose me."
	Ò kù bɔ̄dɪgɪ má.	"He will not lose me."
	Ò nà bɔ̄dɪgɪ bá.	"She will lose them."
	Ò kù bɔ̄dɪgɪ báa.	"She won't lose them."
	Ò kù bɔ̄dɪgɪdɪ má.	"He won't be losing me."
	Ò kù zābɪdɪ má.	"He won't be fighting me."
	Ò kù zāb·ó-o.	"He won't fight him."
or	*Ò kù zāb·o-o.*	"He won't fight him."

Irrealis Pattern LO and indicative Pattern H thus contrast before object pronouns 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 8.3.1 except for catenator-*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.

Perfectives without tone overlay:

Kà tì díɪ‿ bà dīɪb. "And we ate their food."
And 1PL eat 3PL food.

Kà ò bɔ́dɪgì‿ bà bùmɪs. "And he lost their donkeys."
And 3AN lose 3PL donkey:PL.

Kà ò dūgí‿ bà dīɪb. "And he cooked their food."
And 3AN cook 3PL food.

Imperfective without tone overlay:

Kà bà dìtī‿ bá. "And they were eating them."
And 3PL eat:PFV 3PL.OB.

but *Kà bà dìtí‿ bà dīɪb.* "And they were eating their food." (ML → HL)
And 3PL eat:IPFV 3PL food.

Noun LFs before fixed-L liaison words end in H toneme as expected; I could not elicit such forms reliably from informants, but examples appear in the audio NT:

bane na yel Zugsobi ba tuuma a si'em la
*bànı nà yɛ̄l Zūg-**sɔ́bɪ́*** *bà tʊ̄ʊmá‿ø àn̆ sɪ̄'əm lā*
REL.PL IRR say head-one:SG 3PL deed:PL NZ COP INDF.ADV ART
"Those who will tell the Lord how their deeds are." (Heb 13:17, 1996)

Before the fixed-L toneme 8.3.1 of nominaliser-*ǹ* a final M tone becomes H. For my informants this is the only sign of the presence of the particle, except when it is combined in the special form of the preceding subject pronouns.

Dāu̯ lā záb ná'àb lā. "The man has fought the chief."
man:SG ART fight chief:SG ART

Dāu̯ lā gɔ́s ná'àb lā. "The man has looked at the chief."
man:SG ART look.at chief:SG ART

but *dāu̯ **lá**‿ø zàb nà'ab lā* "the man having fought the chief"
man:SG ART NZ fight chief:SG ART

*dāu̯ **lá**‿ø gɔ̄s ná'àb lā*
man:SG ART NZ look.at chief:SG ART
"the man having looked at the chief"

Before catenator-*n* the final toneme of a modified LF is M after M toneme and L otherwise. M spreading follows whenever the *preceding* word would induce it 8.3.

M̀ nɔ́k sʊ́'ʊgʊ̀‿ø kᵢ̯á nīm lā.
1SG pick.up knife:SG CAT cut meat:SG ART.
"I cut the meat with a knife."

amaa o kena ye o tʊm tisi ba
àmáa ò kɛ̄ nā yɛ́ ò tʊ́m‿ø tɪ̀sɪ‿bā
but 3AN come hither that 3AN work CAT give 3PL.OB
"but he came to serve them" (Mt 20:28)

8.2.3 The pronoun ya before liaison

The pronoun ya adopts the allomorph *-ní-* before liaison, both before pronoun objects and before *àlá*+ "thus" 19.4. The pronoun was historically **ɲa*, which regularly became **yã* with subsequent loss of emic nasalisation, as always with affix vowels. When the *-a* is deleted by apocope, *y* is also deleted. When followed by a liaison word, the vowel *a* was not deleted but became *ɪ*, before which *ɲ* became *n-*. (Cf also *nìŋ*ɛ "do" = Toende Kusaal *ẽŋ*, locative *n*ɛ ~ *nī*+/ = Toende *-ɪ*, *nìe*+ "appear" = Toende *yẽe*, *nīŋ*a "body"= Mooré *yĩnga*.)

Dā dɔ̄llɪ‿ yá +ø! "Follow ye not!"
NEG.IMP follow 2PL.SUB NEG!

Dì'əmī‿ ø! "Receive ye!"
receive:IMP 2PL.SUB!

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

Dì'əmī-n·ó‿ ø! "Receive ye her!"
receive:IMP-2PL.SUB 3AN.OB.

Sidiba, nɔngimini ya pu'ab.
Sīdɪba +ø, nɔ̀ŋɪmī-ní‿ yà pū'ab.
Husband:PL VOC, love:IMP-2PL.SUB 2PL wife:PL.
"Husbands, love your wives!" (Eph 5:25)

Biisɛ, siakimini ya du'adib nɔya.
Bīisɛ +ø, sɪ̰àkɪmī-ní‿ yà dū'adɪb nɔ́yà.
Child:PL VOC, agree:IMP-2PL.SUB 2PL parent:PL mouth:PL.
"Children, obey your parents." (Eph 6:1)

Dìgī-ní‿ àlá! "Keep ye on lying down!"
Be.lying-2PL.SUB ADV:thus!

Dì'əmī-ní‿ àlá! "keep ye on receiving!"
receive:IMP-2PL.SUB ADV:thus!

Dì'əmī-ní lá /dì'əmī-n álá! "keep ye on receiving!"

8.3 M spreading

Most words other than proclitics ending in L or H tonemes cause an initial L toneme in a following word to change to H toneme. If the L toneme is "fixed" 8.3.1 a preceding M toneme must become H instead 5.1. M spreading follows

all words, clitic or free, ending in M toneme
all other words which are not proclitic *except*
Verb perfectives without independency-marking tone overlay 19.6.1.1
Certain words affected by L spreading 8.4
Words ending in an affix vowel with H toneme
bound subject pronouns 19.6.1.2 (including ellipted subjects 21.2.2)
ò lì bà *except* preceding independency marking
m̀ fù tì yà *except* preceding independency marking after *yɛ̄*

Catenator-*n* is transparent to M spreading 8.2.2.

The number and manner-adverb prefixes *à-* 14.2 14.3 are followed by M spreading to the stem, probably reflecting an origin as class agreement flexions.

M spreading crosses phrase boundaries if there is no intervening pause, but it does not occur after clause adjuncts 21.2.1.

Bà tìs ná'àb lā búŋ.
3PL give chief:SG ART donkey:SG.
"They gave the chief a donkey (*bùŋ*^{a})."

Bà ňwɛ̀' ná'àb lā súŋā. "They beat the chief well (*sùŋā*$^{+/}$)."
3PL beat chief:SG ART good:ADV.

Raising is absent after words ending in an affix vowel with H toneme:

M̀ dìga lú yā. "My dwarfs have fallen down."
1SG dwarf:PL fall PFV.

but *M̀ yūgʊmá lù yā.* "My camels have fallen down."
1SG camel:PL fall PFV.

M spreading examples, with *zàb*^{ɛ} "fight" *gɔ̄s*^{ɛ} "look at" *nà'ab*^{a} "chief":

Kà-clause, without independency-marking tone overlay; all subject pronouns are followed by raising; perfectives are followed by raising only if ending in M:

Kà m̀ záb nà'ab lā.	"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."

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

M̀ záb 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."

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

Ò gɔ̀sī bá bɛ́dʊgʊ̄.	"She looked at them a lot."	(*ba* object)
Ò gɔ̀sí bà bɛ̀dʊgʊ̄.	"She looked at a lot of them."	(*bà* possessive)

After proclitics ending in M toneme this is transparent tone spreading, H representing ML on a single mora 5.1. Clitic pronouns have fixed-L tonemes for my informants even when followed by M spreading, but in such cases ILK and Niggli's materials show them carrying M tonemes, which can be taken as having given rise to floating M tonemes in current Agolle. To account for M spreading after SFs ending in H or L, floating tonemes can similarly be invoked, historically arising from the tonemes of affix vowels deleted by apocope. Although this is implied by the adoption of the term "M spreading", from a purely descriptive point of view such floating tonemes are simply an indirect way of labelling the conditions under which the process occurs, which are largely determined by syntactic rôle rather than word structure. Words with segmentally identical L-final sg and cb forms like *mà* "mother" *zu̱à* "friend" *du̱'átà* "doctor" and *lànnɪg* "squirrel" 9.2.2 show M spreading after the sg but not the cb. The Pattern LO bare-stem single-aspect verbs *bɛ̀*$^{+}$ and *nɔ̀ŋ*$^{\varepsilon}$ are followed by M spreading, unlike Pattern LO perfectives. *Lɛ̀ɛ* "but" is followed by M spreading when affected by independency marking, but it is not a verb, has no flexion, and has not undergone apocope.

8.3.1 Fixed L tonemes

Certain words carry an initial/sole L toneme which is never subject to M spreading. These fixed-L words comprise all non-enclitic liaison words 8.2 except for catenator-*n*, which is toneless, along with the linker particle *kà* "and":

proclitic personal pronouns	*m̀ fù ò lì tì yà bà*
personifier clitic	*à-/ǹ-*
ànɔ́'ɔ̀nᵋ "who?"	
nominaliser	*ǹ*
all words with number prefixes	*à- bà- bù-*
manner-adverb prefix	*à-*
linker particle	*kà*

Initial *à-* in loanwords may be treated as fixed-L by analogy 15.1.

If there is no intervening pause, a preceding M toneme must become H:

Bà kùʋdī‿ bá. "They kill them."
3PL kill:IPFV 3PL.OB.

but *Bà **kùʋdí**‿bà bʊ̄ʋs.* "They kill their goats."
3PL kill:IPFV 3PL goat:PL.

*Lì à **nɛ́** à-dàalʊ́ŋ.* "It's a stork"
3INAN COP FOC PERS-stork:SG.

ba diib n yit na'ateŋ la na zug
*bà **díɩb** ǹ yīt ná'-tɛ̄ŋ lā nā zúg*
3PL food NZ emerge:IPFV king-land:SG ART hither upon
"because their food came from the king's land" (Acts 12:20, 1996)

wuu saa naani iank ya nya'aŋ n ti paae ya tuona la.
*wʊ̄ʋ **sáa**‿ ø nāanɩ i̯áňk yà ňyá'aŋ n tí páe‿ yà tùɵna lā*
like rain:SG NZ then jump 2PL behind CAT after reach 2PL before.ADV ART
"like when lightning leaps from East to West" (Mt 24:27, 1996)

8.4 L spreading

L spreading takes place exclusively within NPs and AdvPs. It occurs after any free form as a pre-dependent, with the exception of the contrastive personal pronouns (like *mān* "my"); it also occurs after any cb ending in M toneme, whether as modifier or head. Historically, L spreading after cbs may have arisen from a final L toneme like that imposed on verb perfectives 8.2.2; this might explain its absence after some 1-mora forms 7.2.4. After free pre-dependents, it may reflect an old associative L toneme.

L spreading affects only the one following word, which may be a cb.

Words beginning with M or H tonemes change all tonemes to L[7].

Pattern L words are completely unaffected.

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

Examples with a cb as head:

*bɔ̀-pìəlɪg*ᵃ	"white goat"	*bɔ̀-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"

Cb as premodifier (*nɔ̄ɔr*ᵋ/ "mouth", *dīˈəs*ᵃ/ "receiver" pl *dīˈəsídìb*ᵃ):

	*nɔ̄-díˈàs*ᵃ	"chief's interpreter"
pl	*nɔ̄-díˈəsìdɪb*ᵃ	

No L spreading after personal pronouns:

m̀ bīig	"my child" (*bīig*ᵃ)
m̀ tìɪg	"my tree" (*tìɪg*ᵃ)
mān bīig	"my child"
mān tíìg	"my tree"
m̀ gbīgɪm	"my lion" (*gbīgɪm*ⁿᵋ)
m̀ yūgúm	"my camel" (*yūgúm*ⁿᵋ)

L spreading after words which do not also induce M spreading:

m̀ bi̱ēyá bìis	"my elder same-sex siblings' children (*bīis*ᵋ)"
m̀ bi̱ēyá fùud	"my elder same-sex siblings' clothes (*fūud*ᵋ/)"

7) Unfortunately I did not think to check how words with M prefixes behave with L spreading. e.g *dāu̱ lā* ?*tíntɔ̀ňríg*/*tíntɔ̀ňrɪg*/*tíntɔ̄ňríg* "the man's mole (*tīntɔ̄ňríg*ᵃ)."

L spreading after free noun phrases also followed by M spreading:

dāu̱ bîig	"a man's child" (cf *dàu̱-bīig*ª "male child")
dāu̱ tíìg	"a man's tree"
nà'ab bîig	"a chief's child"
dāu̱ lā gbígìm	"the man's lion"
dāu̱ lā yʊ́gʊ̀m	"the man's camel"

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

Bà tìs á'àb lā bîig.	"They've given (it) to the chief's child."
3PL give chief:SG ART child:SG.	(L spreading applied to *bīig*ª "child")
Bà tìs á'àb lā bīig.	"They've given the chief a child."
3PL give chief:SG ART child:SG.	(No L spreading applied to *bīig*ª)

It occurs regardless of the meaning or rôle of the preceding dependent:

mɔ̄ɔgʊ-n wábʊ̀g lā	"the wild (in-the-bush) elephant (*wābʊg*ɔ/)"

After *heads*, L spreading only occurs with cb heads, not free forms:

	kūg-yínnì	"one stone" with *yínnì* as adjective 16.4.2.1
but	*kūgʊr yīnní*	"one stone"
	wābʊg lā	"the elephant"
	wābɪs pīiga	"ten elephants"
	wābɪs pīiga lā	"the ten elephants"

The final element of a compound induces following M spreading in accordance with the usual rules 8.3 regardless of whether it has been subject to L spreading, so that M spreading appears everywhere except after words ending in a affix vowel with H toneme and cbs ending in L or H:

bʊ̀-wɔ̄k	"tall goat"
nɔ̄-wɔ́k	"tall hen"
bʊ̀-wɔ̄k-píəlìg	"tall white goat"
bʊ̀-wɔ̄k-páalìg	"tall new goat"
nɔ̄-wɔ́k-pìəlɪg	"tall white hen"
nɔ̄-wɔ́k-pāalíg	"tall new hen"

bʊ̀-wɔ̄k dílɪ̀b	"a tall goat's food"	
nɔ̄-wɔ́k dílɪ̀b	"a tall hen's food"	(*dīɪb*ↄ "food")

A word with only one or two tonemes, affected by both M *and* L spreading after a free pre-dependent is not itself followed by M spreading.

The final vowel mora of a word affected by L spreading always has M toneme before the locative enclitic *n*ᵋ:

	dāu̯ lā pɔ́ɔgʊ̄-n	"in the man's field (*pɔ̄ɔg*ↄ/)"
	dāu̯ lā púʊgʊ̄-n	"inside the man" (*pʊ̄ʊg*ª "inside")
like	*dāu̯ lā dɔ́ɔgʊ̄-n*	"in the man's hut (*dɔ̀ɔg*ↄ)"

Examples, using the frames "the man's (*dāu̯ lā*) X has got lost (*bɔ̀dɪg yā*)" and "my elder same-sex siblings' (*m̀ bi̯ēyá*) X has got lost":

Pattern L, not subject to L spreading:

*bʊ̀ŋ*ª	"donkey"	*Dāu̯ lā bʊ́ŋ bɔ́dìg yā.*
*àn̆rʊŋ*ↄ	"boat"	*Dāu̯ lā án̆rʊ̀ŋ bɔ́dìg yā.*
*dɔ̀ɔg*ↄ	"house"	*Dāu̯ lā dɔ́ɔ̀g bɔ́dìg yā.*

Pattern HO nouns appear unchanged after L and M spreading, and by analogy have unchanged following tone sandhi; words like *náaf*ↄ "cow" fluctuate:

*à-gáʊ̀n̆g*ↄ	"pied crow"	*Dāu̯ lā gáʊ̀n̆g bɔ́dìg yā.*
*náaf*ↄ	"cow"	*Dāu̯ lā nàaf bɔ́dìg yā* or *Dāu̯ lā náàf bɔ̀dɪg yā.*

Pattern H and O nouns, affected by L spreading:

*wābʊg*ↄ/	"elephant"	*Dāu̯ lā wábʊ̀g bɔ̀dɪg yā.*	
*pɔ̄ɔg*ↄ/	"field"	*Dāu̯ lā pɔ́ɔ̀g bɔ̀dɪg yā.*	
*bāŋ*ª	"ring"	*Dāu̯ lā báŋ bɔ̀dɪg yā.*	
*pʊ̄ʊg*ª	"inside"	*Dāu̯ lā púʊ̀g bɔ̀dɪg yā.*	
but *wābʊg*ↄ/	"elephant"	*M̀ bi̯ēyá wàbʊg bɔ́dìg yā.*	no M spreading
*bāŋ*ª	"ring"	*M̀ bi̯ēyá bàŋ bɔ́dìg yā.*	no M spreading
*yūgʊdɪr*ᵋ	"hedgehog"	*M̀ bi̯ēyá yùgʊdɪr bɔ́dìg yā.*	no M spreading
*yūgʊdɪr*ᵋ	"hedgehog"	*Dāu̯ lā yúgʊdìr bɔ́dìg yā.*	three tonemes

L spreading applies sequentially, reflecting the substructure of NPs and AdvPs.

When L spreading affects the first component of an existing compound, the second component retains any effects of prior L and M spreading even though the first element no longer ends in M toneme:

	bʊ̀-pìəlıg	"white goat"
	bʊ̀-pāalíg	"new goat"
	nɔ̄-píəlìg	"white hen"
	nɔ̄-páalìg	"new hen"
	dāu̯ lā bʊ́-pìəlıg	"the man's white goat"
	dāu̯ lā bʊ́-pāalíg	"the man's new goat"
	dāu̯ lā nɔ́-píəlìg	"the man's white hen"
	dāu̯ lā nɔ́-páalìg	"the man's new hen"
but	*dʊ̄g-káŋā*	"this pot" (*dʊ̄kɔ/* cb *dʊ̄g-* "pot")
	[*sālıma dʊ́g-*]*kàŋā*	"this [golden pot]"

The order of applications of L spreading may also be revealed by the absence of M spreading after some words affected by L spreading (see above.) Thus

[*fūug dɔ́ɔ̀g*]	"tent" (*fūugɔ/* "cloth", *dɔ̀ɔgɔ* "house")
pʊ̀ˈʊsʊg [*fúùg dɔ́ɔ̀g*]	(not *[*pʊ̀ˈʊsʊg fúùg*] *dɔ̀ɔg*)
	"tabernacle" (*pʊ̀ˈʊsʊgɔ* "worship")

Lì kāˈ [[[*dāu̯ lā bîig*] *bìər*] *náàf*] *zʊ̀ʊrɛ̄*.
"It's not the man's child's elder-same-sex-sibling's cow's tail." WK
(*bīigᵃ* "child" *bīərᵋ/* "elder sib of same sex" *náafɔ* "cow" *zʊ̄ʊrᵋ* "tail")

8.5 Segmental contact phenomena

8.5.1 Consonants

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"	[bi:sa]
	zàam ňwá	"this evening"	[za:ma]
but	*pu̯ˈā ňwá*	"this woman" (e.g. as vocative)	[pʰʊ̯a̯wã]

The initial *l* of the definite article *lā*$^{+/}$ assimilates totally to a preceding word-final *-r*, and [r:] simplifies to [r]:

yīr lā	"the house"	[jira]
pʊ̀kɔ̀ɔ̌nr lā	"the widow"	[pʰʊ̀kʰɔ̃:ra]

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

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

Bà kpìid nɛ́.	"They're dying."	[ba k͡pi:dɛ]
M̀ zɔ́t nɛ́.	"I'm afraid."	[m̩ zɔt:ɛ]
M̀ mɔ́r nɛ́ bīisá àyí.	"I have two children with me."	[m̩ mɔrɛ bi:sa:ji]
Lì pɛ̀'ɛl nɛ́.	"It's full."	[lɪ pʰɛ̰:l:ɛ]
Lì sàǹ'am nɛ́.	"It's spoilt."	[lɪ sã̰:m:ɛ]

Other accounts of Kusaal have taken this as a "progressive flexion" *-dɛ/tɛ*.

Final nasal consonants of proclitics, cbs and noun prefixes assimilate to the place of articulation of a following consonant, as does syllabic *ǹ* but *not m̀*:

dànkɔ̀ŋ	"measles"	[daŋkʰɔŋ]
nīn-bámmā	"these people"	[nimbam:a]
nàm zī'	"still not know"	[nanzɪ̰]
Ǹ-Bīl	Mbillah (personal name)	[m̩bil]
but *M̀ nɔ́ŋ͡ī f.*	"I love you."	[m̩nɔŋɪf]

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

8.5.2 Vowels

Word-final short vowels denasalise before a clitic with initial *n* or *m*:

àwá nā	"like this here" (*àǹwá* "like this")
kɛ̄ nā	"come hither" (*kɛ̄ǹ*$^{+}$ "come")

Some unstressed *CVǹ-* elements lose nasalisation even when the following consonant is not a nasal. Thus with compounds of *sūǹfɔ*$^{/}$ "heart" like *sū-málɪsìm*^{m} "joy", *sūǹ-kpíˈòŋ*^{ɔ} "boldness", *sūǹ-pɛ́ɛ̀n*^{nɛ} "anger" the 1996 NT and older sources write *sumalism sukpi'oŋ/sukpi'euŋ supeen*, reflecting the bleaching and phonological simplification which has created noun prefixes from some original cbs 14.1.4. KB restores the nasalisation in writing: *sʊnkpi'euŋ* "boldness", *sʊnpɛɛn* "anger."

With *àe̯ň*^{a} "be something/somehow" there is loss of nasalisation before the focus particle *nɛ̄*$^{+/}$ (for the loss of the *e̯* see below):

	M̀ á nɛ̄ dāu̯.	"I'm a man."
but	*Lì àň súŋā.*	"It's fine."

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

Combining forms, and verb forms which are not VP-final, may not end in fronting diphthongs unless the next word begins with *y*. Otherwise, the fronting diphthongs are replaced by the corresponding monophthongs 4.2:

ae̯	→ *a*			*oe̯*	→ *o*	*ʊe̯*	→ *ʊ*
ae	→ *aa*					*ʊe*	→ *ʊʊ*
		ie	→ *iə*			*ue*	→ *uɵ*

sāe̯ň	"blacksmith"	
sāe̯ň lā	"the blacksmith"	
but *sàň-kàŋā*	"this blacksmith"	

Ò sʊ̀'ʊ lɔ́r.	"She owns a lorry."	*sʊ̄'e*$^{ya/}$	"own"
Lì àň súŋā.	"It's good."	*àe̯ň*^{a}	"be something"

Ti ya'a vʊe, ti vʊnɛ tis Zugsɔb la.
Tì yá' vʊ̄e̯, tì vʊ́ nɛ̄‿ø tís Zūg-sɔ́b lā.
1PL if be.alive, 1PL be.alive FOC CAT give head-one:SG ART.
"If we live, we live to the Lord." (Rom 14:8): (*vʊ̄e̯*$^{a/}$ "be alive")

Ɛ̀ňrɪgɪm‿ ø pāa dṵ'átà.
Shift.along:IMP CAT reach doctor:SG.
"Shift along up to the doctor." (*pāe*$^{+/}$ "reach")

Lì nàa nɛ̄.	"It is finished."	*nāe*$^{+/}$ "finish"
Dúɵ wɛ̄lá?	"[You] arose how?" 29	*dūe*$^{+/}$ "arise"

See also the examples with fusion verb perfectives before liaison 8.2.
The verb *kā'e̯*$^{+}$ "not be/not have" loses *e̯* before complements but not adjuncts:

Ò kā' bīiga $^{+}$*ø.*	"She is not a child."	
3AN NEG.BE child:SG NEG.		

Dāu̯ lā kā' dɔ́ɔgʊ̄-n láa +*ø.*
Man:SG ART NEG.BE room:SG-LOC ART NEG.
"The man's not in the room." (*dɔ̀ɔgʊ̄-n lā* as complement)

but *Sɔ' kae na nyaŋi dɔl zugdaannam ayi'...*
Sɔ̄' kā'e‿ø ná ñyāŋɪ‿ø dɔ̄l zūg-dáàn-nàm àyí ...
INDF.AN NEG.BE CAT IRR prevail CAT follow head-owner:PL NUM:two ...
"Nobody can serve two masters." (Mt 6:24)

Dāu̯ kā'e̯ dɔ́ɔgʊ̄-n láa +*ø.*
Man:SG NEG.BE room:SG-LOC ART NEG.
"There's no man in the room." (*dɔ̀ɔgʊ̄-n lā* as adjunct)

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

voen	= *vʊ̄ʊn*	"would live" (Gal 3:21, 1996)
Kristo da faaɛn ti	= *Kristo dá fāaň tí*	"Christ saved us." (Gal 5:1)
m wa'e ne	= *m̀ wá'a nɛ̄.*	"I'm going" ILK

Àe̯ň[a] "be something" is always written *aa* before liaison; this might reflect lack of stress 2.3, but it seems more likely that the rarity of phrase-final *àe̯ň*[a] 20.2 has prevented the analogical introduction of phrase-final spelling phrase-medially. Many other cases involve *fāeň*[+/] "save", perhaps written *faaenn* specifically to distinguish the forms from those of *fāň*[+] "grab, rob"; the 1996 NT has two instances of the certainly spurious *faaenm* for imperative *faanm*. (See also 15.1 on *faangid* "saviour", *faangir* "salvation.") Clearcut errors like *Noŋilim pu naae da* (1 Cor 13:8, 1996 NT) for KB *Nɔŋilim pʊ naada* "Love does not come to an end" confirm that the orthographic tradition has encompassed the writing of fronting diphthongs for undoubted monophthongs.

Morphology

9 Noun flexion

9.1 Noun classes

Nouns inflect for singular and plural by adding noun class suffixes to the stem; the bare stem is used as a combining form (cb) in composition with a following nominal. This is a regular and frequent occurrence, being for example the regular method of construing a noun with a following adjective or demonstrative. The cb is always subject to apocope, as it can never appear clause-finally or before liaison. Archaisms like the place name *Wìdɪ-ňyá'aŋ*^{a} "Woriyanga" (*wìd-ňyá'aŋ*^{a} "mare") and *nwadibil* (Mt 2:2, 1996) for *ňwād-bíl*^{a} "star" (KB *nwadbil*) suggest that consonant-final cbs once ended in an epenthetic vowel, but this is no longer the case.

In the paradigms, noun forms are cited as sg, pl and cb in order.

Each noun class suffix has a basic singular, plural or non-count meaning. Count nouns pair a singular and a plural suffix. Five pairings account for the majority of count nouns: these are labelled using superscript notation forms of the suffixes, as the $^{a}|b^{a}$, $g^{a}|s^{\varepsilon}$, $g^{ɔ}|d^{\varepsilon}$, $r^{\varepsilon}|a^{+}$ and $f^{ɔ}|ɪ^{+}$ **noun classes**. Two unpaired non-count suffixes $-b^{ɔ}$ $-m^{m}$ form two more noun classes mostly containing mass nouns.

The noun classes were once grammatical genders, with separate 3rd person pronouns and agreement of adjectives and numerals. Kusaal, like Dagbani and Mooré, now has a natural gender system opposing persons and non-persons, with pronouns based respectively on the original $^{a}|b^{a}$ and $r^{\varepsilon}|a^{+}$ classes 16.2.2. A few isolated remnants of agreement will be pointed out as they occur.

Apocope of final vowels can leave expected morphological forms ambiguous, close to or identical with another form from the paradigm or from another word. Ambiguity may be avoided by substitution of a different flexional suffix for that expected for the class (cf Inkelas, 3.1 "Suppletive Allomorphy.") This has become *regular* in the case of class $g^{ɔ}|d^{\varepsilon}$ stems ending in *m n* following a short vowel, which always use the plural suffix $-a^{+}$ instead of $-d^{\varepsilon}$, as do all gerunds in this class. Adjectives avoid potentially ambiguous suffixes altogether 10.

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

The classes are thus as follows:

ᵃ|*b*ᵃ *b*ᵃ (sg)	*sīd*ᵃ *nà'ab*ᵃ	*sīdɪb*ᵃ *nà'-nàm*ᵃ	*sìd-* *nà'-*	"husband" "chief"
*g*ᵃ|*s*ᵋ	*bʊ̄ʊg*ᵃ	*bʊ̄ʊs*ᵋ	*bʊ̀-*	"goat"
*g*ɔ|*d*ᵋ	*dɔ̀ɔg*ɔ *bū'ɵsʊ́g*ɔ	*dɔ̀ɔd*ᵋ *bū'ɵsá*⁺	*dɔ̀-* *bū'ɵs-*	"hut" "question"
*r*ᵋ|*a*⁺ *l*ᵋ	*nɔ̄ɔr*ᵋ/ *Kʊ̄sáàl*ᵋ	*nɔ̄yá*⁺	*nɔ̄-*	"mouth" "Kusaal"
*f*ɔ|*ɪ*⁺	*mɔ̀lɪf*ɔ	*mɔ̀lɪ*⁺	*mɔ̀l-*	"gazelle"
*b*ɔ	*sā'ab*ɔ		*sà'-*	"porridge"
*m*ᵐ	*tìɪm*ᵐ		*tì-*	"medicine"

The SF of a sg class suffix has been reinterpreted as the SF of a different class suffix in some cases, with corresponding remodelling of LFs, and sometimes with new plurals corresponding to the reinterpreted sg suffix; stems in *m* with long root vowels in the ᵃ|*b*ᵃ class avoid the plural suffix *b*ᵃ; some *g*ᵃ|*s*ᵋ class nouns with human reference have alternative plurals with *b*ᵃ; countable nouns in the *m*ᵐ class form plurals with *-a*⁺ or *-s*ᵋ or *nàm*ᵃ; and the small *f*ɔ|*ɪ*⁺ class has some members with *f*ɔ|*ɪ*⁺ suffixes in only one number. The sg suffix *-l*ᵃ is found only in the irregular adjective *bīl*ᵃ "little" 10. Few other cases of irregular sg/pl pairing occur; examples are

*pɛ̄'og*ɔ/	*pɛ̄'ɛs*ᵋ/		*pɛ̄'-*	"sheep"
*gbɛ̀'og*ɔ	*gbɛ̀'ɛd*ᵋ *gbɛ̀da*⁺		*gbɛ̀'-*	"forehead"
*bi̯āu̯ňk*ɔ	*bi̯āň'ad*ᵋ *bi̯āň'ada*⁺	WK SB	*bi̯àň'-*	"shoulder"

The sg SF is usually enough to identify the noun class correctly, given whether the word has human reference. Where it is not, there is often vacillation between classes, suggesting that speakers actually do use these criteria to determine class membership; compare too the assignment of loanwords to noun classes 9.6.

Nouns with sg SF ending in a long monophthong, or in an unrounded vowel mora followed by a velar, belong to *g*ᵃ|*s*ᵋ; all nouns ending in a rounding diphthong followed by a velar belong to *g*ɔ|*d*ᵋ, as do most ending in a long rounded monophthong followed by a velar, but a few are *g*ᵃ|*s*ᵋ.

All nouns in SF *-f* belong to *f*ɔ|*ɪ*⁺.

Human-reference nouns otherwise default to ᵃ|*b*ᵃ, except for stems ending in a long vowel, which have been transferred to *r*ᵋ|*a*⁺ in Agolle Kusaal. Exceptional are *nàyīig*ᵃ "thief" (ᵃ|*b*ᵃ) *bā'a*⁼ "traditional diviner" (ᵃ|*b*ᵃ) *zɔ̄ɔm*ⁿᵋ "fugitive" (*r*ᵋ|*a*⁺). The *b*ᵃ-singular subclass contains most human-reference nouns in sg SF *-b*, and also *sàam*ᵐᵃ "father", *dìəm*ᵐᵃ "man's parent-in-law", *dàyáam*ᵐᵃ "woman's parent-in-law."

Perfective gerunds in SF *-m* belong to *b*ɔ; otherwise, mass nouns in *-m* belong to the *m*ᵐ class, and in *-b* or *-p* to the *b*ɔ class.

Names of languages belong to the *l*ᵋ subclass of *r*ᵋ|*a*⁺.

Non-human-reference count nouns ending in *l n r* belong to the *r*ᵋ|*a*⁺ class, as do those ending in *m* apart from a few *m*ᵐ class count nouns like *yām*ᵐ/ "gall, common sense, gall bladder", *pūum*ᵐ/ "flower", *dàalím*ᵐ "male sex organs", *pù'alím*ᵐ "female sex organs." *Pīim*ᵐ/ "arrow" is a relic of a lost ɔ|ᵋ class.

9.1.1 Noun class and meaning

As with almost all noun class systems, there are correlations between class membership and meaning, though with frequent exceptions. This association of class and meaning can be exploited to change the significance of a stem 12.3.

The ᵃ|*b*ᵃ class has exclusively human-reference membership, though many nouns referring to people belong to other classes. There is a subclass of nouns for elders and other important people which use the plural *b*ᵃ as singular.

The *g*ᵃ|*s*ᵋ class has general membership but notably includes the great majority of tree names 30.5, many larger animals, and tools. Almost all ethnic group names belong to ᵃ|*b*ᵃ or *g*ᵃ|*s*ᵋ (*Zàngbɛ̀og*ɔ "Hausa" and *Nàsāara*⁺ "European" are the only exceptions in my materials); the place inhabited by the group has sg *-g*ɔ 30.4.

The *g*ɔ|*d*ᵋ and *r*ᵋ|*a*⁺ classes are the default non-human countable classes. They include all names of fruits, and most names of body parts 30.6. Human-reference nouns in *g*ɔ|*d*ᵋ seem to be pejorative (*bālɛ̄rʊg*ɔ/ "ugly person", *dàbīog*ɔ "coward", *zɔ̄lʊg*ɔ/ "fool.") Some original ᵃ|*b*ᵃ class nouns have been reallocated to *r*ᵋ|*a*⁺ for phonological reasons e.g. *bīər*ᵋ/ "elder same-sex sibling."

The *l*ᵋ subclass includes all names of languages.

The small *f*ɔ|*ɪ*⁺ class includes two groups: animals, and small round things. It contains all names of seeds. No *f*ɔ|*ɪ*⁺ noun refers to people.

The *b*ɔ class has only two members in my own materials that are not gerunds: *sā'ab*ɔ "millet porridge, TZ" and *tāňp*ɔ "war." There is also a word *ki'ib*ɔ "soap" in written materials; WK uses the Mampruli loanword *kīibʊ́*⁺ cb *kīib-* instead.

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

Deverbal nouns have predictable class membership: agent nouns belong to ᵃ|*b*ᵃ, instrument nouns to *g*ᵃ|*s*ᵋ, and gerunds take *g*ɔ *r*ᵋ *b*ɔ or *m*ᵐ by rule 12.2.1.1.

9.2 Stem levelling

9.2.1 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.

Length changes in *CV~CVV* root-stems are levelled on the sg when it has the suffix *-gᵃ* or *-gᵓ*, and some *rᵋ|a⁺* singulars may have short vowels by analogy with plurals 6.1.1.1.

Quality changes between singular and plural stem forms occur in the *gᵃ|sᵋ* class as a result of the merger of nasalised *iəň uөň* with *ɛɛň ɔɔň* 6.3:

nūa⁺/	"hen"	*nɔ̄ɔsᵋ/*	"hens"

Such alternations are never levelled. However, the distribution of *oral iə uө* versus *ɛɛ ɔɔ* is different between the *gᵃ|sᵋ* and the *gᵓ|dᵋ* classes. There are no stems in final *uө* before singular *gᵓ* and very few stems with *iə*: *dàbīogᵓ* "coward" (pl *dàbīədᵋ*) and *kpīˈoŋᵓ* "strong" (pl *kpīˈəma⁺*.) There is an actual stem alternation before *gᵃ|sᵋ* and *gᵓ|dᵋ* suffixes in

bīˈa⁺	*bīˈəsᵋ*	*bi̯àˈ-*	"bad"
bɛ̄ˈogᵓ	*bɛ̄ˈɛdᵋ*	*bɛ̀ˈ-*	

Bīˈəmᵐ "enemy" is derived from the same root with derivational **m* 13.2.2. The alternation is most likely due to a rule **iəgʊ → ɛɛgʊ*, parallel to **uөgʊ → ɔɔgʊ* 6.4, with the plural vowels remodelled on the sg; cf *lām-fɔ́ɔ̀gᵓ* (← **lam-fuөgʊ*: *lāmᵐᵋ/* "gum" *fùe+* "draw out") pl *lām-fɔ́ɔ̀dᵋ* "toothless." The vowel of *dàbīogᵓ* "coward" is perhaps reintroduced from *dàbīəmᵐ* "fear." The formally-plural *zùөdᵋ* "friendship" seems to be the only example for *-uөdᵋ*; significantly, there is no sg with *gᵓ*.

Levelling may account for the lack of any clear pattern in the *CVVC~CVC* root alternation in flexion 6.1.1.2; when length alternations do occur, it is plurals and cbs that have short-vowel allomorphs, which may have been the original rule.

9.2.2 Combining forms

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

nīfᵓ/	*nīníˊ⁺*	*nīn-*	or *nīf-*	"eye"
zìňˈa⁺	*zɛ̀ňˈɛsᵋ*	*zi̯àňˈ-*	or *zɛ̀ňˈ-*	"red" (adjective)

wɔ̄k$^{ɔ/}$	*wā'ad*$^{ɛ/}$	*wā'-*	or *wɔ̄k-*	"long, tall" (adjective)
tāňp^{ɔ}		*tàňp-*		"war" 6.1.1.1
zūg$^{ɔ/}$	*zūt*$^{ɛ/}$	*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"
zúkʊ́ká	*zùkʊ́k*	*zūg-kʊ̄gʊr*^{ɛ}	"pillow"

Zūg-sɔ́b^{a} "Lord" is very frequently read *Zū-sɔ́b*^{a} in the audio version of the NT. The cb *zūg-* sometimes behaves tonally like a noun prefix 7.2.4.

The "regular" cb of *nīf*$^{ɔ/}$ "eye" is *nīn-*, but as a head it appears as *nīf-*:

nīf-káŋā	"this eye"

Nīn- still predominates as a premodifier: *nīn-dáa*$^{=}$ "face", *nīn-tám*^{m} "tears", *nīn-gɔ́tìs*^{ɛ} "spectacles." *Gbàu̯ŋ*^{ɔ} "letter, book" now has the cb *gbàu̯ŋ-*, but the "regular" cb *gbàn-* still occurred as a generic complement in the 1976 NT e.g. *gbanmi'id gbàn-mī'id* "scribe" ("book-knower") where later versions have *gbauŋmi'id.* Similarly, the 1976 NT *ziŋgban'ad zīm-gbáň'àd* "fisherman" has been replaced by KB *ziiŋgban'ad.*

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

zīnzāu̯ŋ$^{ɔ/}$	*zīnzānáˆ*	*zīnzáu̯ŋ-*	"bat"
àňrʊŋ^{ɔ}	*àňrɪmaˆ*	*àňrʊŋ-*	"boat"

So too with *CV*-stems in the *r*^{ɛ}|*a*$^{+}$ class:

gbɛ̄r$^{ɛ/}$	*gbɛ̄yáˆ*	*gbɛ̄r-*		"thigh"
kʊ̀kɔ̄r$^{ɛ/}$	*kʊ̀kɔ̄yáˆ*	*kʊ̀kɔ̄r-*		"voice"
			(but *kʊ̀kɔ̄-títā'ar*	"loud voice" NT)

Vʊ̄m$^{m/}$ cb *vʊ̄m-* "life", *kūm*^{m} cb *kùm-* "death" are probably actual *CVm-* stems.

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

no sg	*kīˆ*$^{/}$	*kī-* or *kā-*	"cereal, millet"
lā'af^{ɔ}	*līgɪdɪˆ*	*là'-* or *lìg-*	"cowrie" pl "money"

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

dāu̯$^{+}$	*dāp*^{a}	*dàu̯-* sg *dàp-* pl	"man, male person"
tāu̯ŏ$^{+/}$	*tāŏp*$^{a/}$	*tāu̯ŏ-* sg *tāŏp*-pl	"sib of opposite sex"

Disambiguation is clearly involved with some longer remodelled cbs:

kɔ̀lʊgɔ	*kɔ̀n*^{nɛ}	*kɔ̀lʊg-*	"bag"
lànnɪg^{a}	*lànnɪs*^{ɛ}	*lànnɪg-*	"squirrel"

kɔ̀lʊg-kàŋā	"this bag"	cf cb *kɔ̀l-* from	*kɔ̄lɪg*^{a} "river"
lànnɪg-pìəlɪg	"white squirrel"	cf cb *làn-* from	*lān*^{nɛ} "testicle"

Remodelling of cbs after sg/pl forms never affects tones, revealing that cases where a sg/pl seems to precede an adjective or modifier pronoun in fact show cbs:

dàu̯-sʊ̀ŋ	"good man"	cf *dāu̯*	"man"
dàp-sʊ̀ma	"good men"	cf *dāp*	"men"

Remodelled cbs are traditionally written as separate words; as the orthography does not mark tone, this can lead to ambiguous forms. e.g. *yamug bipuŋ* (Acts 16:16, 1976) for *yàmmʊg-bī-púŋ* "slave girl" not *yàmmʊg bí-púŋ* "slave's girl" 16.11.1.5.

9.3 Noun paradigms

For tones see 7.2. Combining forms are frequently remodelled segmentally after the singular 9.2.2, regularly so with stems in *m* and *n*.

By default, sg and pl class suffixes simply attach after a stem-final epenthetic vowel or root vowel. Complications arise from consonant assimilation instead of epenthesis, rounding of stem-final vowels before singulars in *-gɔ -kɔ -ŋɔ*, deletion of the **g* of the sg suffix *g*^{a} after *aa iə uɐ aaŏ ɛɛŏ ɔɔŏ*, and the combination of root-vowel-final stems with the flexions ^{a}, *ɪ*$^{+}$ and *a*$^{+}$ 6.1.1.1.

9.3.1 ^{a}|*b*^{a} class

Most stems ending in consonants straightforwardly show *-*^{a} in the sg:

sīd^{a}	*sīdɪb*^{a}	*sɪ̀d-*	"husband"
sàal^{a}	*sàalɪb*^{a}	*sàal-*	"human being"
kpāad$^{a/}$	*kpāadíb*^{a}	*kpāad-*	"farmer"
kpɪ̄kpīn$^{na/}$	*kpɪ̄kpīnníb*^{a}	*kpɪ̄kpín-*	"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
nīd[a/]	*nīdɪb*[a/]	*nīn-* irreg	"person"

Most deverbal agent nouns are completely regular:

kʊ̄ʊd[a/]	*kʊ̄ʊdíb*[a]	*kʊ̄ʊd-*	"killer"

Agent nouns from 3-mora stems in *s* regularly drop the *d* formant in sg and cb, which can result in "tonal heteroclites" 7.2.3. Many also have *nàm*[a] plurals 9.4.

kùɵs[a]	*kūɵsɪdɪb*[a]	*kùɵs-*	"seller"
pʊ̀'ʊs[a]	*pʊ̄'ʊsɪdɪb*[a]	*pʊ̀'ʊs-*	"worshipper"
dì'əs[a]	*dī'əsɪdɪb*[a]	*dì'əs-*	"receiver"
tʊ̀'as-tʊ̀'as[a]	*tʊ̀'as-tʊ̄'asɪdɪb*[a]	*tʊ̀'as-tʊ̀'as-*	"talker"
sīgɪs[a/]	*sīgɪsídìb*[a]	*sīgɪs-*	"lowerer"
dìɪs[a]	*dìɪs-nàm*[a]	*dìɪs-*	"glutton"

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

sɔ̀s[a]	*sɔ̄sɪdɪb*[a]	*sɔ̀s-*	"beggar"	
tìs[a]	*tīsɪdɪb*[a]	*tìs-*	"giver"	WK
kīs[a/] or *kīsɪd*[a/]	*kīsɪdíb*[a]	*kīsɪd-* (only)	"hater"	

These may be original 3-mora stem verbs with **ss* → *s*. There are also

zàb-zàb[a]	*zàb-zàb-nàm*[a]	*zàb-zàb-*	"warrior"
	zàb-zābɪdɪb[a]		
gbān-záb[a]	*gbān-záb-nàm*[a]	*gbān-záb-*	"leatherbeater"
ňwī-tɛ́k[a]	*ňwī-tɛ́kìdɪb*[a]		"rope-puller"

Exceptionally, consonant assimilation of **md* does not appear in the plural in

	pu̱'à-sāň'am[ma]	*pu̱'à-sāň'amɪdɪb*[a]	*pu̱'à-sàň'am-*	"adulterer"
(cf	*yʊ̄ʊm-yʊ́'ʊ̀m*[na]	*yʊ̄ʊm-yʊ́'ʊ̀mnɪb*[a]	*yʊ̄ʊm-yʊ́'ʊ̀m-*	"singer")

Stems ending in vowels in this class are problematic because of the vowel-initial sg suffix. There is no single systematic rule for the outcome.

Four highly irregular nouns end in diphthongs in the sg 2.4.2:

dāu̯$^{+}$		*dāp*^{a}	*dàu̯-*, *dàp-* 6.1.1.1	"man" (*vir*)
tāu̯ǎ$^{+/}$		*tāǎp*$^{a/}$	*tāu̯ǎ-*, *tāǎp-*	"sib of opposite sex"
sāe̯ǎ$^{+}$	WK	*sāaǎb*^{a}	*sàǎ-*	"blacksmith"
sāe̯ǎ^{a}	DK			
sɔ̄e̯ǎ$^{+}$	WK	*sɔ̄ɔǎb*^{a}	*sɔ̀ǎ-*	"witch"
sɔ̄e̯ǎ^{a}	DK			

There are also the two original **g*-stems

pu̯'ā^{a} ← **pu̯aga*	*pū'ab*^{a}	*pu̯'à-*	"woman, wife"
bā'a$^{=}$ ← **ba'aga*	*bā'ab*^{a}	*bà'a-*	"traditional diviner"

Some *CVV* stems introduce *-d-* in some forms but not others:

wìɪd^{a}	*wìɪb*^{a}	*wìɪd-*	"hunter"
sɔ̄ǎ'ɔd$^{a/}$	*sɔ̄ǎ'ɔb*$^{a/}$	*sɔ̄ǎ'ɔd-*	agent noun of *sɔ̄ǎ'e*$^{+/}$ "be better than"
pūkpāad$^{a/}$	*pūkpāadíb*^{a}	*pūkpá-*	"farmer" (but *kpāad*$^{a/}$ *id* is regular)

Sg final *-ʊ* is dropped elsewhere in the paradigm of

pītʊ́$^{+}$	*pītíb*^{a}	*pīt-*	"younger sibling of same sex"

Sàam-pīt$^{a/}$ "father's younger brother" and *bì-pīt*$^{a/}$ "younger child" are regular.

Another solution to the difficulty of adding sg ^{a} to stems ending in a long vowel is to use the suffix *r*^{ɛ} instead; related languages, including Toende Kusaal, keep *-b*^{a} plural forms, but in Agolle Kusaal such words have acquired *-a*$^{+}$ plurals and passed over completely into the *r*^{ɛ}|*a*$^{+}$ class:

pʊ̀kɔ̀ɔǎr^{ɛ}	*pʊ̀kɔ̀ǎya*$^{+}$	"widow"
pɔ́kɔ́ót	*pɔkɔ̃p*	Toende *id*
pɔkɔ̃orɛ	*pɔkɔ̃pa*	Farefare *id*
dà-kɔ̀ɔǎr^{ɛ}	*dà-kɔ̀ǎya*$^{+}$	"bachelor"
dákɔ́ot	*dakɔ̃p*	Toende *id*
dàkɔ̃orɛ̀	*dakɔ̃pa*	Farefare *id*

This transfer explains several human-reference nouns found in *r*ᵋ|*a*⁺, e.g. *bīər*ᵋ/ "elder sibling of the same sex", *pɔ̀ň'ɔr*ᵋ "cripple", *ňyɛ̄'ɛr*ᵋ/ "next-younger sibling" (but Toende sg *yɛ̃̄'et* pl *yɛ̃̄ra id*.)

Stems in *l n r* following a *short* root vowel show LF -*ɛ* with *l* and *n* geminated. This represents remodelling based on the SF, which could be the outcome of adding either -ᵃ or -*r*ᵋ. If the SF could *not* result from attachment of sg -*r*ᵋ, as with stems in *nn mm mn* 6.2, nouns with *b*ᵃ plurals always have sg -ᵃ.

The assimilation **nb* → *mm* takes place in the plural:

*Dàgbān*ⁿᵋ/	*Dàgbām*ᵐᵃ/	*Dàgbān-*	"Dagomba person"
*Bìn*ⁿᵋ	*Bìm*ᵐᵃ	*Bìn-*	"Moba person"
*Kʊ̀tān*ⁿᵋ/	*Kʊ̀tām*ᵐᵃ/	*Kʊ̀tān-*	member of EW's clan
*Mɔ̄r*ᵋ/	*Mɔ́ɔm*ᵐᵃ *irreg*	*Mɔ̄r-*	"Muslim"

Agent nouns from single-aspect verbs with stems in *-ll* or *-r(r)* not only show alternative -*ɛ* LF sg forms but also have analogical plurals in -*a*⁺ alongside -*b*ᵃ.

	*ňyà'an-dɔ̀l*ˡᵃ	*ňyà'an-dɔ̀llɪb*ᵃ	*ňyà'an-dɔ̀l-*	"disciple" NT
	*ňyā'an-dɔ́l*ˡᵋ	*ňyā'an-dɔ́llà*⁺	*ňyā'an-dɔ́l-*	*id* WK
	*gbàn-zāňl*ˡᵃ/	*gbàn-zāňllíb*ᵃ	*gbàn-zāňl-*	"one with a book in hand" KT WK
	*bʊ̀-zāňl*ˡᵃ/	*bʊ̀-zāňllíb*ᵃ	*bʊ̀-zāňl-*	"goat-carrier" WK
or	*bʊ̀-zāňl*ˡᵋ/	*bʊ̀-zāňllá*⁺		
	*gbàn-mɔ̄r*ᵃ/	*gbàn-mɔ̄ríb*ᵃ	*gbàn-mɔ̄r-*	"book-owner" DK
	*gbàn-tār*ᵃ/	*gbàn-tāríb*ᵃ	*gbàn-tār-*	*id* DK
	*bʊ̀-mɔ̄r*ᵃ/	*bʊ̀-mɔ̄ríb*ᵃ	*bʊ̀-mɔ̄r-*	"goat-owner" WK
or	*bʊ̀-mɔ̄r*ᵋ/	*bʊ̀-mɔ̄rá*⁺		

WK specifically rejected all interpretations as head + deverbal adjective.

Stems in *VVn-* undergo consonant assimilation in the pl: **nb* → *mm*:

*sāan*ᵃ/	*sáam*ᵐᵃ	*sāan-*	"guest, stranger"

Stems in *VVm-* have sg -*m*ᵐ instead of -*m*ᵃ. The assimilation **mb* → *mm* would cause SF sg and pl to coincide at least segmentally; this is avoided by using pl *s*ᵋ or by pluralising with *nàm*ᵃ 9.4:

*kpī'im*ᵐ/	*kpī'imís*ᵋ	*kpī'im-*	"dead person, corpse"
*zū'ɵm*ᵐ/	*zū'amís*ᵋ	*zū'ɵm-*	"blind person"
*tādɪm*ᵐ/	*tādɪmɪs*ᵋ	*tàdɪm-*	"weak person"
	*tàdɪm-nàm*ᵃ		

In two words WK accepted -*b*ᵃ pl forms as LFs but not SFs, demonstrating that avoidance of ambiguity drives the variations:

*kpɛ̄ɛ̌m*ᵐ	*kpɛ̄ɛ̌mma*	LF only	
	*kpɛ̀ɛ̌m-nàm*ᵃ	*kpɛ̀ɛ̌m-*	"elder"
*bī̍əm*ᵐ	*bī̍əmma*	LF only	
	*bì̍əm-nàm*ᵃ	*bì̍əm-*	"enemy"

9.3.1.1 *b*ᵃ singular

A subclass of nouns referring to older/important people has -*b*ᵃ in the sg, and makes the plural with *nàm*ᵃ 9.4:

*nà̍ab*ᵃ	*nà̍-nàm*ᵃ	*nà̍-*	"chief"
*yáab*ᵃ (**yāágbā*)	*yāa-nám*ᵃ	*yāa-*	"grandparent"
*pʊ̀gʊdɪb*ᵃ	*pʊ̀gʊd-nàm*ᵃ	*pʊ̀gʊd-*	"father's sister"
*áñsɪ̀b*ᵃ	*āñs-nám*ᵃ	*āñs-*	"mother's brother"

With **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"

9.3.2 *g*ᵃ|*s*ᵋ class

Straightforward examples include:

*bʊ̄ʊg*ᵃ	*bʊ̄ʊs*ᵋ	*bʊ̀-*	"goat"
*tɛ̀̍ɛg*ᵃ	*tɛ̀̍ɛs*ᵋ	*tɛ̀̍-*	"baobab"
*tɪ̀ɪg*ᵃ	*tɪ̀ɪs*ᵋ	*tɪ̀-*	"tree"
*ñ̌wādɪg*ᵃ/	*ñ̌wādɪs*ᵋ/	*ñ̌wād-*	"moon, month"
*lɔ̄dɪg*ᵃ/	*lɔ̄dɪs*ᵋ/	*lɔ̄d-*	"corner"
*āañ̌dɪg*ᵃ	*āañ̌dɪs*ᵋ	*àañ̌d-*	"Vitex doniana"
*bʊ̀-dɪ̀bɪg*ᵃ	*bʊ̀-dɪ̀bɪs*ᵋ	*bʊ̀-dɪ̀b-*	"male kid"
*kpɪ̀ibɪg*ᵃ	*kpɪ̀ibɪs*ᵋ	*kpɪ̀ib-*	"orphan"
*yàmmɪg*ᵃ	*yàmmɪs*ᵋ	*yàm-*	"slave"
*kɔ̄lɪg*ᵃ	*kɔ̄lɪs*ᵋ	*kɔ̀l-*	"river"
*kpʊ̀kpàrɪg*ᵃ	*kpʊ̀kpàrɪs*ᵋ	*kpʊ̀kpàr-*	"palm tree"
*pūsɪg*ᵃ/	*pūsɪs*ᵋ/	*pūs-*	"tamarind"

*zɔ̄ɔg*ᵃ	*zɔ̄ɔs*ᵋ	"run, race"
*bʊ̄dɪg*ᵃ		"planting"

Root-stems in *Caa Ciə Cuɐ* delete the **g* of the sg suffix *-g*ᵃ 6.3:

bāa⁼ 8.1	*bāas*ᵋ	*bà-*	"dog"
sīa⁺	*sīəs*ᵋ	*sia̰-*	"waist"
sàbùa⁺	*sàbʊɐs*ᵋ	*sàbʊa̰-*	"lover, girlfriend"

Nasal *iaň uaň* here alternates with *ɛɛň ɔɔň*:

zìň'a⁺	*zɛ̀ň'ɛs*ᵋ	*zia̰àň'-* or *zɛ̀ň'-*	"red" (adjective)
nū'-íň'a⁺	*nū'-ɛ́ň'ɛ̀s*ᵋ	*nū'-ɛ́ň'-*	"fingernail"
Mùa⁺	*Mɔ̀ɔs*ᵋ	*Mɔ̀-*	"Mossi person"
nūa⁺/	*nɔ̄ɔs*ᵋ/	*nɔ̄-*	"hen"

Stems in **CVg-* display consonant assimilation in the sg via **gg* → *kk*:

*gìk*ᵃ	*gìgɪs*ᵋ	*gìg-*	"dumb person"
*kʊ̄k*ᵃ	*kʊ̄gʊs*ᵋ	*kʊ̀g-*	"chair"

**Cag-* **Cia̰g-* **Cua̰g-* delete **g* when there is no assimilation 6.3:

*zàk*ᵃ	*zà'as*ᵋ	*zà'-*	"compound"
*pua̰āk*ᵃ	*pʊ̄'as*ᵋ	*pua̰'à-*	"female" (adjective)

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* → *ⁿs* 6.2 whereas -**ms-* remains with 2-mora-stems, but is frequently assimilated in longer stems. There are, however, no unequivocal three- or four-mora *n*-stems in this class in any case.

*bāŋ*ᵃ	*bāaňs*ᵋ	*bàŋ-*	"ring, chain, fetter"
*tɛ̄ŋ*ᵃ	*tɛ̄ɛňs*ᵋ	*tɛ̀ŋ-*	"land"
*pàŋ*ᵃ	*pàaňs*ᵋ	*pàŋ-*	"power"
*bʊ̀ŋ*ᵃ	*bʊ̀mɪs*ᵋ	*bʊ̀ŋ-*	"donkey"
*nāŋ*ᵃ	*nāmɪs*ᵋ	*nàŋ-*	"scorpion"
*sú'ɵŋ*ᵃ	*sū'ɵmís*ᵋ	*sū'ɵŋ-*	"rabbit"
*ňwāaŋ*ᵃ	*ňwāamɪs*ᵋ	*ňwàaŋ-*	"monkey"
*níiŋ*ᵃ	*níis*ᵋ	*nīiŋ-*	"bird"
	*nīimís*ᵋ		

*kʊ̀lɪŋ*ᵃ	*kʊ̀lɪs*ᵋ *kʊ̀lɪmɪs*ᵋ	*kʊ̀lɪŋ-*	"door"
*kʊ̄'alíŋ*ᵃ	*kʊ̄'alís*ᵋ *kʊ̄'alímɪ̀s*ᵋ	*kʊ̄'alíŋ-*	sleeveless traditional smock

So too with all deverbal instrument nouns:

*mɛ̄ɛdɪŋ*ᵃ	*mɛ̄ɛdɪs*ᵋ *mɛ̄ɛdɪmɪs*ᵋ	*mɛ̀ɛdɪŋ-*	"building tool"
*pīəsíŋ*ᵃ	*pīəsís*ᵋ *pīəsímɪ̀s*ᵋ	*pīəsíŋ-*	"sponge" ← *pīe*⁺/ "wash (self)"

Various irregular stem alternations are seen in

*bīig*ᵃ	*bīis*ᵋ	*bī-* or *bì-*	"child"
*bɛ̀rɪŋ*ᵃ	*bɛ̀rɪgɪs*ᵋ		a plant used for fibre
tàmpūa⁺	*tàmpɔ̄ɔs*ᵋ	*tàmpɔ̀-*	"housefly" DK (no *ň*)
*bʊ̄tɪŋ*ᵃ	*bʊ̄tɪɪs*ᵋ	*bʊ̀tɪŋ-*	"cup" 2.3

Very irregular in both flexion and phonology is

sāŋá⁺	*sānsá*⁺ [saŋsa]	*sān-*	"time"

These human-reference nouns have alternative plurals with the suffix -*b*ᵃ:

*dàsāŋ*ᵃ	*dàsām*ᵐᵃ or *dàsāaňs*ᵋ	*dàsàŋ-*	"young man"
*Yàaŋ*ᵃ	*Yàam*ᵐᵃ or *Yàamɪs*ᵋ/*Yàaňs*ᵋ	*Yàaŋ-*	"Yanga, Yansi person"
Sà'dàbùa⁺	*Sà'dàbʊ̀ɵb*ᵃ or *Sà'dàbʊ̀ɵs*ᵋ		clan name 30.4

Several *s*ᵋ-plural stems with rounded vowels have sg *g*ɔ for the expected *g*ᵃ. WK avoids the change to -*g*ɔ with human-reference nouns.

	*kūug*ᵃ/	*kūus*ᵋ/	*kū-*	"mouse"
or	*kūug*ɔ/			
	*sʊ̀'ʊg*ᵃ	*sʊ̀'ʊs*ᵋ	*sʊ̀'-*	"knife"
or	*sʊ̀'ʊg*ɔ			
	*nú'ùg*ɔ	*nú'ùs*ᵋ	*nū'-*	"hand"

	*zʊ̀nzɔ̀ŋ*ª	*zʊ̀nzɔ̀ɔ̌ns*ᵋ	*zʊ̀nzɔ̀ŋ-*	"blind person"
or	*zʊ̀nzɔ̀ŋ*ᵓ			
	*tɛ̀ŋ-zʊ̀ŋ*ᵓ	*tɛ̀ŋ-zʊ̀ʊ̌ns*ᵋ		"foreign land"
but		*pi̯àǎ'-zʊ̀na*⁺		"foreign language"
	*yʊ́'ʊŋ*ᵓ	*yʊ̄'ʊmís*ᵋ	*yʊ̄'ʊŋ-*	"night"
	*zʊ̀ʊǔǎg*ᵓ	*zʊ̀ʊǔǎns*ᵋ	*zʊ̀ǔǎ-*	"vulture"
		or *zʊ̀ʊǔǎd*ᵋ		

Compare Mampruli *nuuwa* pl *nuusi* "hand", *suuwa* pl *suusi* "knife", *kuuwa* pl *kuusi* "mouse", *zuuwa* pl *zuusi* "vulture" (but *yuŋŋu* pl *yunsi* "night.")

In *yàmmʊg* "slave" the epenthetic vowel before the flexion has been rounded by the *-m-* and the resulting SF reinterpreted as ending in *g*ᵓ:

	*yàmmʊg*ª WK	*yàmmɪs*ᵋ	*yàm-*	"slave"
or	*yàmmʊg*ᵓ			

Some original *g*ᵓ|*d*ᵋ nouns have substituted pl *-s*ᵋ for *-d*ᵋ instead of *-a*⁺ 9.3.3:

	*à-dàalʊ́ŋ*ᵓ	*à-dàalís*ᵋ WK *à-dàalímìs*ᵋ	*à-dàalʊ́ŋ-*	"stork"
	*sɪ̄'úŋ*ᵓ	*sɪ̄'imís*ᵋ	*sɪ̄'uŋ-*	a kind of big dish
cf	*dìɪsʊ́ŋ*ᵓ	*dìɪsís*ᵋ *dìɪsímà*⁺	*dìɪsʊ́ŋ-*	"spoon"

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

*wīlɪsʊ́ŋ*ᵓ	*wīlɪmís*ᵋ	*wīlɪsʊ́ŋ-*	a kind of snail
*yālɪsʊ́ŋ*ᵓ	*yālɪmís*ᵋ	*yālɪsʊ́ŋ-*	"quail"

9.3.3 *g*ᵓ|*d*ᵋ class

All stems in *m n* following a short vowel use *a*⁺ instead of *d*ᵋ for the plural suffix, as do all gerunds.

Before the sg *-g*ᵓ *-k*ᵓ *-ŋ*ᵓ stem-final vowels are rounded, changing epenthetic vowels to *ʊ* and creating rounding diphthongs from root vowels 6.4.

dàʊgᵓ	*dàadᵋ*	*dà-*	"piece of wood"
fɛ̄ǎ'ogᵓ/	*fɛ̄ǎ'ɛdᵋ/*	*fɛ̄ǎ'-*	"ulcer"
vīugᵓ/	*vīidᵋ/*	*vī-*	"owl"
vāʊǔǎgᵓ/	*vāaǎdᵋ/*	*vāǎ-*	"leaf"
mɔ̄ɔgᵓ	*mɔ̄ɔdᵋ*	*mɔ̀-*	"grass, bush"

*dɔ̀ndɔ̀ug*ↄ	*dɔ̀ndɔ̀ud*ɛ	*dɔ̀ndɔ̀-*	"cobra"
*dàbīog*ↄ	*dàbīəd*ɛ	*dàbi̯à-*	"coward"
	*zɔ̀əd*ɛ		"friendship"
*wābʊg*ↄ/	*wābɪd*ɛ/	*wāb-*	"elephant"
*zūəbʊ́g*ↄ	*zūəbʊ́d*ɛ	*zūəb-*	"(human head) hair"
*bālɛ̄rʊg*ↄ/	*bālɛ̄rɪd*ɛ/	*bālɛ́r-*	"ugly person"
or	*bālɛ̄rɪs*ɛ/		
*bɛ̄sʊg*ↄ	*bɛ̄sɪd*ɛ	*bɛ̀s-*	kind of pot
*Dɛ̀nnʊg*ↄ			Denugu (place name)

Some stems ending in root vowels have plurals of the form *CVt*ɛ 6.1.1.1:

*dɔ̀ɔg*ↄ	*dɔ̀ɔd*ɛ or *dɔ̀t*ɛ	*dɔ̀-*	"hut, room; clan"

So too *pɔ̄ɔg*ↄ/ "farm, field", *fūug*ↄ/ "clothing, shirt." The sg has a short vowel in

*zūg*ↄ/	*zūt*ɛ/	*zū-* or *zūg-*	"head"

**Cag-* **Ci̯ag-* **Cu̯ag-* stems 6.3 show sg *-k*ↄ, and *u̯a* becomes *ɔ* before *-k*ↄ 6.4:

*bɔ̀k*ↄ	*bʊ̀'ad*ɛ	*bu̯'à-*	"hole, pit"
*lɔ̀k*ↄ	*lʊ̀'ad*ɛ	*lu̯'à-*	"quiver (for arrows)"
*lāu̯k*ↄ	*lā'ad*ɛ	*là'-*	"(item of) goods"
*bi̯āŭ̯ňk*ↄ	*bi̯āň'ad*ɛ WK	*bi̯àň'-*	"shoulder"
	bi̯āň'ada+ SB		

Stems in *CVd* show *-t-* in the pl 6.2 via **dd* → *tt*:

*ùdʊg*ↄ	*ùt*ɛ	*ùd-*	"(piece of) chaff"
*gādʊg*ↄ/	*gāt*ɛ/	*gād-*	"bed" (Hausa *gadoo*)

Stems in *CVg* develop *kk* in the singular via **gg* → *kk*:

*dʊ̄k*ↄ/	*dʊ̄gʊd*ɛ/	*dʊ̄g-*	"cooking pot"
	*dʊ̄gʊb dʊ́t*ɛ		"cooking pots" SB

Stems in *l* develop the cluster *nn* in the pl via **ld* → *nn*:

*yɔ̄lʊg*ↄ/	*yɔ̄n*nɛ/	*yɔ̄l-*	"sack; 200 cedis"
*zɔ̄lʊg*ↄ/	*zɔ̄n*nɛ/	*zɔ̄l-*	"fool"
*sìlʊg*ↄ	*sìn*nɛ or *sìlɪs*ɛ	*sìl-*	"hawk"

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

làngáʊŋ$^{\supset}$	*làngāamá*$^{+}$	*làngāʊŋ-*	"crab"
	or *làngáam*$^{m\varepsilon}$		

So too *màngāúŋ*$^{\supset}$ "crab", the plural-only *sūǹ-pɛ́ɛ̀n*$^{n\varepsilon}$ "anger" and perhaps the placename *Tɛ̀mpáan*$^{n\varepsilon}$ "Tempane" 30.3.

All stems in *n m* following a short vowel use the plural suffix *a*$^{+}$ instead of *d*$^{\varepsilon}$.

They show *-ŋ-* in the sg, via **ng* → *ŋŋ* and **mg* → *ŋŋ*, and normally use the sg segmental (but not tonal) form as cb 9.2.2.

gbàu̯ŋ$^{\supset}$	*gbàna*$^{+}$	*gbàn-* or *gbàu̯ŋ-*	"letter, book"
zīnzāu̯ŋ$^{\supset/}$	*zīnzāná*$^{+}$	*zīnzáu̯ŋ-*	"bat"
àn̆rʊŋ$^{\supset}$	*àn̆rɪma*$^{+}$	*àn̆rʊŋ-*	"boat"
mālʊŋ$^{\supset}$	*mālɪma*$^{+}$	*màlʊŋ-*	"sacrifice"

The expected *u̯*-glide is absent in the sg and cb of

nìn-gbīŋ$^{\supset/}$	*nìn-gbīná*$^{+}$	*nìn-gbīŋ-*	"body"

This may represent the influence of the alternate sg form *nìn-gbīn*$^{n\varepsilon/}$. The formal plural *nìn-gbīná*$^{+}$ is often used for singular "body."

All regular gerunds of 3-mora- and 4-mora-stem dual-aspect verbs belong to this noun class except for those with stems ending in velars and fusion verbs, which have the singular suffix *r*$^{\varepsilon}$ 12.2.1.1.

gàadʊg$^{\supset}$	←	*gàad*$^{\varepsilon}$	"(sur)pass"
lìəbʊg$^{\supset}$	←	*lìəb*$^{\varepsilon}$	"become"
dīgɪlúg$^{\supset}$	←	*dīgɪl*$^{\varepsilon/}$	"lay down"
yāarúg$^{\supset}$	←	*yāar*$^{\varepsilon/}$	"scatter"
sīgɪsúg$^{\supset}$	←	*sīgɪs*$^{\varepsilon/}$	"lower"

Only stems in *-s-* and *-sɪm-* have plurals, always with *-a*$^{+}$:

bū'ɵsúg$^{\supset}$	*bū'ɵsá*$^{+}$	*bū'ɵs-*	"question"
zàaǹsúŋ$^{\supset}$	*zàaǹsímà*$^{+}$	*zàaǹsúŋ-*	"dream"

Gerunds of 3-mora *n*-stem verbs never assimilate **ng* → *ŋŋ* 6.2:

dìgɪnʊgↄ	←	*dìgɪn*$^{\varepsilon}$	"lie down"
zìn̆'inʊgↄ	←	*zìn̆'in*$^{\varepsilon}$	"sit down"

Gerunds of 3-mora *m*-stems may optionally not assimilate **mg* → *ŋŋ*:

tɔ́ɔŋↄ	←	*tɔ̄ɔm*$^{m/}$	"depart, disappear"
or *tɔ̄ɔmʊ́gↄ*			
sàn̆'ʊŋↄ	←	*sàn̆'am*^{m}	"destroy"
or *sàn̆'amʊgↄ*			
kàrʊŋↄ	←	*kàrɪm*^{m}	"read"
or *kàrɪmʊgↄ*			

Gerunds of 4-mora *m*-stems always assimilate:

zàaǹsʊ́ŋↄ	←	*zàaǹsɪm*^{m}	"dream"

9.3.4 *r*$^{\varepsilon}$|*a*$^{+}$ class

Straightforward examples include:

kūgʊr$^{\varepsilon/}$	*kūgá*$^{+}$	*kūg-*	"stone"
dìgɪr$^{\varepsilon}$	*dìga*$^{+}$	*dìg-*	"dwarf"
bʊ̄gʊr$^{\varepsilon}$	*bʊ̄ga*$^{+}$	*bʊ̀g-*	"abode of a *wīn*$^{n\varepsilon}$ (spirit, god)"
bàlàŋɪr$^{\varepsilon}$	*bàlàŋa*$^{+}$	*bàlàŋ-*	"hat"
yūgʊdɪr$^{\varepsilon}$	*yūgʊda*$^{+}$	*yùgʊd-*	"hedgehog"
pu̱'à-sādɪr$^{\varepsilon/}$	*pu̱'à-sādá*$^{+}$	*pu̱'à-sād-*	"young woman"
nɔ́bìr$^{\varepsilon}$	*nɔ̄bá*$^{+}$	*nɔ̄b-*	"leg"
līɪbɪr$^{\varepsilon}$	*līɪba*$^{+}$	*lìɪb-*	"twin"
sɔ̄nnɪr$^{\varepsilon}$	*sɔ̄nna*$^{+}$	*sɔ̀n-*	"inner compound wall"
sāngʊ́nnìr$^{\varepsilon}$	*sāngʊ́nnà*$^{+}$	*sāngʊ́n-*	"millipede"
bì'isɪr$^{\varepsilon}$	*bì'isa*$^{+}$	*bì'is-*	"woman's breast"
sūmmɪr$^{\varepsilon}$	*sūmma*$^{+}$	*sùm-*	"groundnut"
yīmmír$^{\varepsilon}$	*yīmmá*$^{+}$	*yīm-*	"solitary" (adjective)

All gerunds of 3-mora stem verbs in *-k*$^{\varepsilon}$ *-g*$^{\varepsilon}$ *-ŋ*$^{\varepsilon}$ belong to this class:

yùugʊr$^{\varepsilon}$	"delay"
nɔ̄kír$^{\varepsilon}$	"taking"
nìŋɪr$^{\varepsilon}$	"doing"

For the allomorphism in *CVV* root-stems before the plural *-a*$^{+}$ see 6.1.1.1.
Unglottalised vowel stems:

zʊ̄vr^{ɛ}	*zʊ̄ya*$^{+}$	*zʊ̀-*	"tail"
bīər$^{ɛ/}$	*bi̯ēyá*$^{+}$	*bi̯ā-*	"elder same-sex sib"
zūʊr^{ɛ}	*zu̯ēya*$^{+}$	*zu̯à-*	"hill"
nɔ̄ɔr$^{ɛ/}$	*nɔ̄yá*$^{+}$	*nɔ̄-*	"mouth"
yɔ̀ɔr^{ɛ}	*yɔ̀ya*$^{+}$	*yɔ̀-*	"soldier ant"

Glottalised vowel stems:

yʊ̄'ʊr$^{ɛ/}$	*yʊ̄dá*$^{+}$	*yʊ̄'-*	"name"
tītā'ar^{ɛ}	*tītāda*$^{+}$	*tītá'-*	"big" (adjective)
pɔ̀ň'ɔr^{ɛ}	*pɔ̀ňda*$^{+}$	*pɔ̀ň'-*	"cripple"
ňyɛ̄'ɛr$^{ɛ/}$	*ňyɛ̄dá*$^{+}$	*ňyɛ̄'-*	"next-younger sibling"
pʊ̀-tɛ̀ň'ɛr^{ɛ}	*pʊ̀-tɛ̀ňda*$^{+}$	*pʊ̀-tɛ̀ň'-*	"mind"
yū'ʊr^{ɛ}	*yu̯āda*$^{+}$	*yù'ʊr-* 9.2.2	"penis"

Stems in **Cag-* **Ci̯ag-* **Cu̯ag-* 6.3 may have forms made by analogy with these original glottalised-vowel stems, instead of or alongside forms with vowel fusion:

bà'ar^{ɛ}	*bà'a*$^{+}$ or *bàda*$^{+}$	*bà'-*	"idol" (Farefare *bàgrɛ̀*)
ňyā'ar^{ɛ}	*ňyā'a*$^{+}$	*ňyà'-*	"root" (← **ɲɛg-*)
si̯à'ar^{ɛ}	*si̯à'a*$^{+}$	*si̯à'-*	"forest"
bi̯āň'ar$^{ɛ/}$	*bi̯áň'a*$^{+}$	*bi̯āň'-*	"wet mud, riverbed"
mʊ̀'ar^{ɛ}	*mu̯'àa*$^{+}$	*mu̯'à-*	"reservoir, dam"
	or *mʊ̀'ada*$^{+}$		
zànkʊ̀'ar^{ɛ}	*zànku̯'àa*$^{+}$	*zànku̯'à-*	"jackal"
	or *zànkʊ̀'ada*$^{+}$		
kʊ̀ndʊ̀'ar^{ɛ}	*kʊ̀ndu̯'àa*$^{+}$	*kʊ̀ndu̯'à-*	"barren woman"
	or *kʊ̀ndʊ̀'ada*$^{+}$		

So too, despite the derivation from *dà'*$^{+}$ "buy", where the glottalisation is not derived from **g*:

kì-dà'ar^{ɛ}	*kì-dà'ada*$^{+}$ WK	"bought-in millet"

Stems in deleted **g* after a long vowel include

vúʊr^{ɛ}	*vūáa*$^{=}$	*vūʊ-*	"fruit of *vúʊŋ*^{a} tree"

and all fusion verb gerunds 11.1 like

gbáň'ar$^{\varepsilon}$	←	*gbāň'e*$^{+/}$	"grab"
dí'ər$^{\varepsilon}$	←	*dī'e*$^{+/}$	"get"
dúʊər$^{\varepsilon}$	←	*dūe*$^{+/}$	"rise"

Some root-stems show *CV* with a short vowel before the *r*$^{\varepsilon}$|*a*$^{+}$ sg 9.2.1. They regularly use the segmental form of the sg for cb.

gbɛ̄r$^{\varepsilon/}$	*gbɛ̄yá*$^{+}$	*gbɛ̄r-*	"thigh"
kʊ̀kɔ̄r$^{\varepsilon/}$	*kʊ̀kɔ̄yá*$^{+}$	*kʊ̀kɔ̄r-*	"voice"

Similarly *kpàkʊ̄r*$^{\varepsilon/}$ "tortoise" *gāňr*$^{\varepsilon/}$ "ebony fruit" *gʊ̄mpʊ̄zɛ̄r*$^{\varepsilon/}$ "duck" *ňyɔ̀-vʊ̄r*$^{\varepsilon/}$ "life".

2-mora stem verbs make gerunds in -*r*$^{\varepsilon}$ instead of - *b*^{ɔ} after a noun cb:

nɔ̄-lɔ́ɔ̀r$^{\varepsilon}$	"fasting" ("mouth-tying")
fū-yɛ́ɛ̀r$^{\varepsilon}$	"shirt-wearing"

These set expressions show shortening of the vowel, but this is not productive:

nā'-lɔ́r$^{\varepsilon}$	"place in the compound for tying up cows"
wɪ̀d-lɔ̄r$^{\varepsilon/}$	"place in the compound for tying up horses"

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 3.2.

kʊ̀kpàr$^{\varepsilon}$	*kʊ̀kpàra*$^{+}$	*kʊ̀kpàr-*	"palm fruit"
Ňwād-dár$^{\varepsilon}$			"Venus"
tān$^{n\varepsilon}$	*tāna*$^{+}$	*tàn-*	"earth"
kpān$^{n\varepsilon}$	*kpāna*$^{+}$	*kpàn-*	"spear"
má'an$^{n\varepsilon}$	*mā'aná*$^{+}$	*mā'an-*	"okra"
pībɪn$^{n\varepsilon}$	*pībɪna*$^{+}$	*pìbɪn-*	"covering"
dūm$^{n\varepsilon}$	*dūma*$^{+}$	*dùm-*	"knee"
zɔ̄ɔm$^{n\varepsilon}$	*zɔ̄ɔma*$^{+}$	*zɔ̀ɔm-*	"fugitive"
yʊ̀ʊm$^{n\varepsilon}$	*yʊ̀ma*$^{+}$	*yʊ̀ʊm-*	"year" 6.1.1.2
gbīgɪm$^{n\varepsilon}$	*gbīgɪma*$^{+}$	*gbìgɪm-*	"lion"
yʊ̄gʊ́m$^{n\varepsilon}$	*yʊ̄gʊmá*$^{+}$	*yʊ̄gʊm-*	"camel"
gɛ́l$^{l\varepsilon}$	*gɛ̄lá*$^{+}$	*gɛ̄l-*	"egg"
ílɪ́l$^{l\varepsilon}$	*īlɪlá*$^{+}$	*īlɪl-*	"horn"

With unusual sandhi in the sg, and presumably analogical levelling

ňwān^{nɛ} SB	*ňwāna*$^{+}$ NT	*ňwàn-/ňwàm-*	"calabash"
ňwām^{mɛ} WK	*ňwāma*$^{+}$ SB WK NT		

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

dāar^{ɛ}	*dābá*$^{+}$	*dà-*	"day"

These two *r*^{ɛ}|*a*$^{+}$ class words probably have 1-mora stems:

[Mampruli *zari*]	*zā*$^{+/}$	*zā-*	"millet"
yīr$^{ɛ/}$	*yā*$^{+/}$	*yī-*	"house"

Yīr$^{ɛ/}$ also has the irregular locative forms sg *yín*^{nɛ} pl *yáan*^{ɛ} 17.3.

9.3.4.1 *l*^{ɛ} singular

Language names 30.4 all belong to a *r*^{ɛ}|*a*$^{+}$ subclass partly formed with the suffix -*l*^{ɛ}. The suffix is always -*l*^{ɛ} after stems ending in a root vowel:

Language		Speakers	
Kʊ̄sáàl^{ɛ}	Kusaal	*Kʊ̄sáàs*^{ɛ}	Kusaasi
Bʊ̀sáàňl^{ɛ}	Bisa	*Bʊ̀sáàňs*^{ɛ}	Bisa
Mɔ̀ɔl^{ɛ}	Mooré	*Mɔ̀ɔs*^{ɛ}	Mossi
Sìmīil^{ɛ}	Fulfulde	*Sìmīis*^{ɛ}	Fulɓe
Zàngbɛ̀ɛl^{ɛ}	Hausa	*Zàngbɛ̀ɛd*^{ɛ}	Hausa
Nàsāal^{ɛ}	English/French	*Nàsàa-nàm*^{a}	Europeans

After stems ending in a consonant other than -*r*- the suffix is either replaced by *r*^{ɛ}, or assimilates to the stem final in a way which is indistinguishable from *r*^{ɛ}:

Nàbɪr^{ɛ}	Nabit	*Nàbɪdɪb*^{a}	Nabdema
Tʊ̀ɒnnɪr^{ɛ}	Toende Kusaal	*Tʊ̀ɒn*^{nɛ}	Toende area
Dàgbān$^{nɛ/}$	Dagbani	*Dàgbām*$^{ma/}$	Dagomba
Bìn^{nɛ}	Moba	*Bìm*^{ma}	Moba
Yàan^{nɛ}	Yansi	*Yàaňs*^{ɛ}	Yansi
Gʊ̄rín^{nɛ}	Farefare	*Gʊ̄rís*^{ɛ}	Farefare
Tàlɪn^{nɛ}	Talni	*Tàlɪs*^{ɛ}	Tallensi
Bʊ̀l^{lɛ}	Buli	*Bʊ̀lɪs*^{ɛ}	Bulsa
Àgɔ̀l^{lɛ}	Agolle Kusaal	*Àgɔ̀l*^{lɛ}	Agolle area

However, stems in *-r-* show the distinctive assimilation **rl* → *tt* 6.2:

Yāt$^{ɛ/}$	Yarsi	*Yārɪs*$^{ɛ/}$	Yarsi
Bāt$^{ɛ/}$	Bisa	*Bārɪs*$^{ɛ/}$	Bisa

Unexpected epenthesis occurs in:

Kàmbʊ̀nɪr^{ɛ}	Twi	*Kàmbʊ̀mɪs*^{ɛ}	Ashanti
Ňwāmpūrɪl$^{ɛ/}$	Mampruli	*Ňwāmpūrɪs*$^{ɛ/}$	Mamprussi

9.3.5 *fᵓ|ɪ*$^{+}$ class

The plural *-ɪ*$^{+}$ causes the stem vowels *aa iə ɛɛ* to undergo "umlaut" to *ii*. Straightforward examples for the *fᵓ|ɪ*$^{+}$ class are

mɔ̀lɪfᵓ	*mɔ̀lɪ*$^{+}$	*mɔ̀l-*	"gazelle"
bīilífᵓ	*bīilí*$^{+}$	*bīil-*	"seed"
ňyīrífᵓ	*ňyīrí*$^{+}$	*ňyīr-*	"egusi"
zūrífᵓ	*zūrí*$^{+}$	*zūr-*	"dawadawa seed"
bʊ̄n-bʊ́ʊdìfᵓ			"plant"

Two 1-mora stem *fᵓ|ɪ*$^{+}$ 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 *muiifu* pl *mùí id*.

Two words have stems in **Caag-* with deletion of **g* 6.3:

náafᵓ	*nīigí*$^{+}$	*nā'-* 6.1.1.2	"cow"
wáafᵓ	*wīigí*$^{+}$	*wā'-*	"snake"

Stems in *-n-* show consonant assimilation in the sg with **nf* → *ɔ̃̃f* 6.2:

nīfᵓ$^{/}$	*nīní*$^{+}$	*nīn-* or *nīf-*	"eye"
píɪňfᵓ	*pīɪní*$^{+}$	*pīɪn-*	"genet"
kíiňfᵓ	*kīiní*$^{+}$		"millet seed"
zʊ́ʊňfᵓ	*zʊ̄ʊní*$^{+}$		"dawadawa seed"

The sg is probably remodelled after an umlauted pl (cf *má'an*^{nɛ} "okra") in

míif^{ↄ}	*mīiní*$^{+}$	"okra seed"

In two words stem *-d-* is lost in the sg:

wìəf^{ↄ}	*wìdɪ*$^{+}$	*wɪ̀d-*	"horse"
lā'af^{ↄ}	*līgɪdɪ*$^{+}$	*là'-* or *lìg-*	"cowrie" pl "money"

Some words only have *f*^{ↄ}|*ɪ*$^{+}$ 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"
wālɪg^{a}	*wālɪs*^{ɛ}	*wàl-*	a kind of gazelle
	or *wālí*$^{+}$ tones *sic* WK		
sībɪg$^{a/}$	*sībí*$^{+}$	*sīb-*	a kind of termite
sīiňf$^{ↄ/}$	*sīiňs*$^{ɛ/}$	*sīň-*	"bee"
or *sīiňg*$^{a/}$			
sūňf$^{ↄ/}$	*sūňyá*$^{+}$	*sūň-*	"heart"
or *sūuňr*$^{ɛ/}$			

One such word also irregularly deletes the final stem consonant of the cb:

kpā'ʊ́ŋ^{ↄ}	*kpī̱iní*$^{+}$	*kpā'-*	"guinea fowl"

9.3.6 *b*^{ↄ} class

In my materials there are only two *b*^{ↄ} class nouns which are not gerunds:

sā'ab^{ↄ}	*sà'-*	"millet porridge, TZ"
tāňp^{ↄ}	*tàňp-*	"war" 6.1.1.1

Written sources also have *ki'ib*^{ↄ}, probably *kī'ɪb*$^{ↄ/}$ "soap", cf Toende *kí'ɪp*.
Al regular gerunds from 2-mora-stem dual-aspect verbs belong here:

kʊ̄ʊb$^{ↄ/}$	←	*kʊ̄*$^{+}$	"kill"
dʊ̄gʊb$^{ↄ/}$	←	*dʊ̄g*^{ɛ}	"cook"
dʊ̄'ab^{ↄ}	←	*dʊ̰'à*^{a}	"bear, beget"
kādɪb^{ↄ}	←	*kàd*^{ɛ}	"drive away"

*pīlɪb*ɔ	←	*pìl*ɛ	"cover"
*kpārɪb*ɔ	←	*kpàr*ɛ	"lock"
*bāsɪb*ɔ	←	*bàs*ɛ	"abandon, go away"

Stems in *b* show -*p*- via **bb* → *pp*

*sɔ̄p*ɔ/	←	*sɔ̄b*ɛ	"write"
*lɔ̄p*ɔ/	←	*lɔ̄b*ɛ	"throw stones at"

Stems in *m* show the consonant assimilation **mb* → *mm*

*kīm*mɔ	←	*kìm*m	"tend a flock/herd"
*wʊ̄m*mɔ	←	*wʊ̀m*m	"hear"

Stems in *n* do not assimilate, however (cf 3-mora *n*-stem gerunds 9.3.3)

*būnɪb*ɔ	←	*bùn*ɛ	"reap"

*Yīs*ɛ "make go/come out" has the expected gerund *yīsɪb*ɔ/; the alternate form *yīis*ɛ/ has *yīisíb*ɔ, the only 3-mora stem in the *b*ɔ class.

9.3.7 *m*m class

Countable nouns in *m*m class form plurals with -*a*+ or -*s*ɛ, or use *nàm*ᵃ 9.4. Straightforward forms include:

*dāam*m/	*dā-*	"millet beer, pito"
*zīɪm*m/	*zī-*	"blood"
*kù'ɵm*m	*kʊ̱'à-*	"water"
*mɛ̀lɪgɪm*m		"dew"
*kʊ̄dɪm*m		"olden days"
dū'unímm	*dū'un-*	"urine"
*zàam*m	*zà-*	"evening"
*dàalɪm*m		"masculinity"
*pʊ̀'alɪm*m		"femininity"
*yàarɪm*m	*yàar-*	"salt"
zāaňsímm	*zāaňs-*	"soup"

The few words with short stem vowels all use the segmental form of the sg for the cb, and are probably *m*-stems:

vūm$^{m/}$		*vūm-*	"life"
kūm^{m}		*kùm-*	"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 7.2.2.

bùgúm^{m}		*bùgúm-* or *bùgūm-*	"fire"
pūum$^{m/}$		*pūum-*	"flowers, flora"
bìilím^{m}			"childhood"
bì'ísím^{m}			"milk"
dàalím^{m}	*dàalímìs*^{ɛ}	*dàalím-*	"male sex organs"
pù'alím^{m}	*pù'alímìs*^{ɛ}	*pù'alím-*	"female sex organs"
pīim$^{m/}$	*pīmá*$^{+}$	*pīm-*	"arrow" 6.1.1.2

Pīim$^{m/}$ "arrow" is a remnant of an old ɔ|^{ɛ} class, preserved in e.g. the Gurma languages and Nawdm: cf Nawdm *fí:mú* "arrow", plural *fí:mí*.

9.4 *Nàm*^{a} plurals

The word *nàm*^{a} can pluralise words which do not make a plural through the class system. It appears as the NP head, with a noun premodifier appearing as cb if it is a count noun and as sg or pl if it is a mass noun 16.10. It is not a suffix.

Plurals with *nàm*^{a} are made for nouns where the pl stem differs from the sg, or the regular pl would be ambiguous 9.3.1; nouns using *-b*^{a} as sg 9.3.1.1; nouns with a bare stem as sg; loanwords; pronouns without distinctive pl forms, like *ànɔ́'ɔ̀n*^{ɛ} "who" when asking for a plural answer or *nɛ̄'*$^{+/}$ inanimate "this" in older materials 16.2.1; plural forms with singular meanings; mass nouns used with count meanings; quantifiers as noun-phrase heads 16.4.1; and forms with the personifier clitic 16.6.

Examples:

mà$^{+}$	*mà nám*^{a}	*mà-*	"mother"
	(tone *sic*, as if uncompounded)		
bā'$^{+/}$	*bā'-nám*^{a}	*bā'-*	"father"
zu̱à$^{+}$	*zu̱à-nàm*^{a}	*zu̱à-*	"friend"
bùrkìn^{a}	*bùrkìn-nàm*^{a}	*bùrkìn-*	"honourable person"
kɛ̀ɛkɛ̀$^{+}$	*kɛ̀ɛkɛ̀-nàm*^{a}	*kɛ̀ɛkɛ̀-*	"bicycle"
dāan^{a}	*dàan-nàm*^{a}	*dàan-*	"owner of ..."
tīráàn^{a}	*tīráàn-nàm*^{a}	*tīráàn-*	"neighbour, peer"

*dà-pʊ̄vdá nàm*ᵃ	"crosses"
*kūt nám*ᵃ	"nails"; sg also "iron"
*bɛ̀ˈɛd nám*ᵃ	"evils"
*bùgʊ́m nám*ᵃ	"fires, lights"
*sāˈab nám*ᵃ	"portions of porridge"
*dāam nám*ᵃ	"beers"

9.5 Nouns with apocope-blocking

A number of nouns ending in *-ɪ*⁺ or *-ʊ*⁺ display apocope-blocking 6.6:

būudɪ⁺	*bùud-*	"tribe"
nàˈasɪ⁺		"honour"
kābɪrí⁺		"entry permission"
sūgʊrʊ́⁺		"forbearance"
pīinɪ⁺	*pìin-*	"gift"

Such nouns include loanwords from languages without apocope, like the Mampruli loan *kīibʊ́*⁺ "soap" 15.1. Cognates of *būudɪ*⁺ show that the *-dɪ* is the equivalent of the *d*ᵋ pl suffix: Mooré *búudu* "*famille, espèce*" sg *búugu*. *Nàˈasɪ*⁺ may similarly represent *s*ᵋ pl. *Kābɪrí*⁺ and *sūgʊrʊ́*⁺ may show the equivalent of *r*ᵋ sg, with *kābɪr*ᵋ/ "ask for admission" and *sūgʊr*ᵋ/ "forbear" as back-formations 13.1.4. With *pīinɪ*⁺ cf Mampruli *piini id*; Mampruli also has *r*ᵋ|*a*⁺ type sg *piinni* pl *piina*, but Dagbani *pini* shows that single *n* is original, because Dagbani preserves long vowels in originally closed syllables. The form may be a remnant of a noun class obsolete in Western Oti-Volta. The *ii* is probably umlauted from *aa*, as in *f*ᵓ|*ɪ*⁺ class plurals: cf Gurmanch *paabu* "gift."

9.6 Loanwords

Loanwords adopt noun classes by analogy 9.1 or make *nàm*ᵃ plurals 9.4:

*g*ᵃ|*s*ᵋ:	*àrazàk*ᵃ	*àrazà'as*ᵋ	*àrazà'-*	"riches" Hausa *arzìkii*
	*màl̰jāk*ᵃ/	*màl̰jā'as*ᵋ/	*màl̰jā'-*	"angel" DK (Arabic)
*g*ɔ|*d*ᵋ:	*gādʊg*ɔ/	*gāt*ᵋ/	*gād-*	"bed" Hausa *gadoo*
	*lɔ̀mbɔ̀'ɔg*ɔ	*lɔ̀mbɔ̀'ɔd*ᵋ	*lɔ̀mbɔ̀'-*	"garden" Hausa *làmbuu*
*r*ᵋ|*a*⁺:	*lɔ́r*ᵋ	*lɔ́yà*⁺ tones *sic*	*lɔ́r-*	"car, lorry"
		or *lɔ́ɔm*ᵐᵃ		cf *Mɔ̄r*ᵋ 9.3.1
	*àlɔ́pìr*ᵋ	*àlɔ́pìya*⁺		"aeroplane" SB
	*wādɪr*ᵋ/	*wādá*⁺	*wād-*	pl "customs, law" (English "order")
	gādʊ⁺	*gādʊ-nám*ᵃ	*gādʊ-*	"bed" WK
	kɛ̀ɛkɛ̀⁺	*kɛ̀ɛkɛ̀-nàm*ᵃ	*kɛ̀ɛkɛ̀-*	"bicycle" Hausa *kèekè*
	dāká⁺	*dāká-nàm*ᵃ	*dāká-*	"box" Hausa *àdakàa*
	*tɛ́ɛbʊ̀l*ᵋ	*tɛ́ɛbʊ̀l-nàm*ᵃ	*tɛ́ɛbʊ̀l-*	"table"
	Nàsāara⁺	*Nàsàar-nàm*ᵃ	*Nàsàar-*	"white person,
		or *Nàsàa-nàm*ᵃ	*Nàsàa-*	European" 30.4; cf Hausa *Nàsaara*

Loanwords ending in L or H toneme distinguish sg from cb by the fact that M spreading only follows the sg, conforming to the usual rule 8.3:

dʊ̰'átà ná'àb	"a doctor's chief"
dʊ̰'átà-nà'ab	"a doctor-chief, doctor who is a chief"

Some all-M loanwords change final M to H in the cb on the analogy of Kusaal nouns with M toneme noun prefixes 7.2.4:

dūnɪya⁺	"world" (Arabic دنيا *dunya:*)
dūnɪyá-kàŋā	"this world"

10 Adjective flexion

Unlike nouns, most Kusaal adjectives show suffixes from more than one noun class. This reflects the prehistory of the language, in which noun classes triggered agreement and adjectives took the suffix of the head noun, which preceded as a combining form, effectively infixing the adjective stem between the noun stem and its suffix. Like most Western Oti-Volta languages, Kusaal has lost the agreement system, but adjectives commonly remain extant with suffixes from more than one class, now usually in free variation. Thus from *bʊ̄ʊg*^{a} "goat":

bʊ̀-pìəlɪg^{a}	*bʊ̀-pìəlɪs*^{ɛ}	*bʊ̀-pìəl-*	(*g*^{a}|*s*^{ɛ})	"white goat"
bʊ̀-pìəl$^{\|ɛ}$	*bʊ̀-pìəla*$^{+}$	*bʊ̀-pìəl-*	(*r*^{ɛ}|*a*$^{+}$)	*id*

A few traces of agreement remain, accounting for all cases with *m*^{m} 16.11.1.1. There is also some preference for *g*^{a}|*s*^{ɛ} suffixes for human reference: *nīn-sábɪlìs*^{ɛ} "Africans", where *nīn-sábɪlà*$^{+}$ is accepted by informants but is much less common, and *Zo̱à-wìis*^{ɛ} "Red Zoose" (clan), where the adjective does not normally use pl *s*^{ɛ}. The suffixes ^{a}|*b*^{a} and *f*^{ɔ}|*ɪ*$^{+}$ appear only in set expressions; *b*^{ɔ} never occurs at all.

WK claims a meaning difference in intensity in gradable adjectives with sg suffixes of different classes, consistently ranking them *g*^{a} *r*^{ɛ} *g*^{ɔ} in decreasing order, so that *fū-píəlɪg* "white shirt" is whiter than *fū-píəl id*. However, DK specifically denied any difference of meaning.

Class suffixes are avoided when their combination with stem finals would give rise to unclear or ambiguous SFs. The availability of alternatives from three classes permits avoidance much more freely than with nouns 9.1. A further major constraint is that only two adjectives show suffixes from both the *g*^{a}|*s*^{ɛ} and *g*^{ɔ}|*d*^{ɛ} classes:

zìňˈa^{+}	*zɛ̀ňˈɛs*^{ɛ}	*zɛ̀ňˈ-*	"red"
zɛ̀ňˈog^{ɔ}	*zɛ̀ňˈɛd*^{ɛ} or *zɛ̀ňda*$^{+}$		
bīˈa^{+}	*bīˈəs*^{ɛ}	*bi̯à'-*	"bad"
bɛ̄ˈog^{ɔ}	*bɛ̄ˈɛd*^{ɛ}	*bɛ̀'-*	
also *bɛ̄ˈɛd*^{ɛ} sg	*bɛ̀ˈɛd-nàm*^{a} pl		

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

wàbɪg^{a}	*wàbɪs*^{ɛ}	*wàb-*	"lame"
wàbɪr^{ɛ}	*wàba*$^{+}$		

vɛ̀nnɪg^{a}	*vɛ̀nnɪs*^{ɛ}	*vɛ̀n-*	"beautiful"
vɛ̀nnɪr^{ɛ} rare	*vɛ̀nna*$^{+}$		
vɛ̀ňllɪg^{a}	*vɛ̀ňllɪs*^{ɛ}		"beautiful"
	vɛ̀ňlla^{+}		
sābɪlíg^{a}	*sābɪlís*^{ɛ}	*sābɪl-*	"black"
sābíl$^{|ɛ}$	*sābɪlá*$^{+}$		

Similar are *wɛ̄nnɪr*^{ɛ} "resembling" *pāalíg*^{a} "new" *záal*$^{|ɛ}$ "empty" *bàaňlɪg*^{a} "slim" *pìəlɪg*^{a} "white."

Sg *r*^{ɛ} is not used with *g*^{a}-type stems in *m n*:

dɛ̄ɛŋ^{a}	*dɛ̄ɛňs*^{ɛ}		"first"
	dɛ̄ɛmɪs^{ɛ}	*dɛ̀ɛŋ-*	
	dɛ̄ɛna^{+}		

Pl *s*^{ɛ} is not used with 2-mora stems in *m n*, or with any stems in *s d*:

gīŋ^{a}	*gīma*$^{+}$	*gìŋ-*	"short"
bʊ̄gʊsíg^{a}		*bʊ̄gʊs-*	"soft"
bʊ̄gʊsír^{ɛ}	*bʊ̄gʊsá*$^{+}$		
pɔ̀ɔdɪg^{a}		*pɔ̀ɔd-*	"few, small"
pɔ̀ɔdɪr^{ɛ}	*pɔ̀ɔda*$^{+}$		

Similarly *mā'asír*^{ɛ} "cold, wet" *mālɪsír*^{ɛ} "sweet" *tɛ̄bɪsír*^{ɛ} "heavy" *lābɪsír*^{ɛ} "wide."

Adjectives of the *g*^{ɔ}-type only show pl *d*^{ɛ} in a few 2-mora stems ending in vowels or plosives:

nɛ̀og^{ɔ}	*nɛ̀ɛd*^{ɛ}	*nɛ̀-*	"empty"
nɛ̀ɛr^{ɛ}	*nɛ̀ya*$^{+}$		
wìug^{ɔ}	*wìid*^{ɛ}	*wì-*	"red"
wìir^{ɛ}	*wìya*$^{+}$		
wɔ̄k$^{ɔ/}$	*wā'ad*$^{ɛ/}$	*wā'-* or *wɔ̄k-*	"long, tall"
wā'ar$^{ɛ/}$ rare	*wā'á*$^{+}$		

kʊ̄dʊgɔ	*kʊ̄tᵋ* rare	*kʊ̀d-*	"old"
kʊ̄dɪrᵋ	*kʊ̄da⁺*		
bɛ̀dʊgɔ		*bɛ̀d-*	"great"
bɛ̀dɪrᵋ rare	*bɛ̀da⁺*		
tītā'ʊgɔ rare	*tītāda⁺*	*tītá'-*	"big"
tītā'arᵋ			

Adjectives of the *gɔ*-type with stems in *l m n r s* do not use sg *rᵋ*, and accordingly end up with sg *gɔ* pl *a⁺* only:

sʊ̀ŋɔ	*sʊ̀ma⁺*	*sʊ̀ŋ-*	"good"
kísʊ̀gɔ	*kīsá⁺*	*kīs-*	"hateful, taboo"
dà-zɛ̄mmʊ́gɔ	*dà-zɛ̄mmá⁺*	*dà-zɛ̄m-*	"equal piece of wood"
tʊ̄vlʊ́gɔ	*tʊ̄vlá⁺*	*tʊ̄vl-*	"hot"
lāllʊ́gɔ	*lāllá⁺*	*lāl-*	"distant"
mì'isʊgɔ	*mì'isa⁺*	*mì'is-*	"sour"
wàu̯ŋɔ	*wàna⁺*	*wàu̯ŋ-*	"wasted, thin"
kpī'oŋɔ	*kpī'əma⁺*	*kpì'oŋ-*	"hard, strong"
zʊ̀lʊŋɔ	*zʊ̀lɪma⁺*	*zʊ̀lʊŋ-*	"deep"
yī-pɔ́ňrʊ̀gɔ	*yī-pɔ́ňrà⁺*		"nearby house"

Similarly *yàlʊŋɔ* "wide" *ňyālʊ́ŋɔ* "wonderful" *yɛ̄l-nárʊ̀ŋɔ* "necessary thing."

Resultative adjectives derived with *-lɪm-* 13.2.1.2.2 belong here. KT (but not WK) also has forms without *-m-* in both sg and pl:

kpʊ̀ilʊ́ŋɔ	*kpʊ̀ilímà⁺*	*kpʊ̀ilʊ́ŋ-*	"dead"		WK
nīn-kpʊ́ilʊ̀gɔ	*nīn-kpʊ́ilʊ̀ma⁺*		"dead person"		KT
gɛ̄ɛňlʊ́ŋɔ	*gɛ̄ɛňlímà⁺*	*gɛ̄ɛňlʊ́ŋ-*	"tired"		WK
nīn-gɛ́ɛňlʊ̀gɔ	*nīn-gɛ́ɛňlʊ̀ma⁺*		"tired person"		KT
pɛ̀'ɛlʊ́ŋɔ	*pɛ̀'ɛlímà⁺*	*pɛ̀'ɛlʊ́ŋ-*	"full"	WK	KT
	dʊ̄g-pɛ́'ɛlà⁺		"full pots"		KT

Dynamic adjectives are derived with *d* 13.2.1.2.1, but the *d* is often assimilated or dropped, so not all dynamic adjectives are *d*-stems. They are *gᵃ*-type for WK, but *gɔ*-type for KT. In either case, the pl suffix is always *a⁺*, as expected:

kʊ̄vdírᵋ	*kʊ̄vdá⁺*	*kʊ̄vd-*	"murderous;
kʊ̄vdígᵃ WK			liable to be killed"
kʊ̄vdʊ́gɔ KT			

tʊ̄mmɪr^{ɛ}	*tʊ̄mma*$^{+}$ WK *tʊ̄mna*$^{+}$ KT	*tʊ̀m-*	"working, helpful"
sīnnír^{ɛ} rare *sīnníg*^{a}	*sīnná*$^{+}$	*sīn-*	"silent"
mɔ̄r$^{ɛ/}$	*mɔ̄rá*$^{+}$	*mɔ̄r-*	"having"
kʊ̀g-dɛ̄l$^{lɛ/}$	*kʊ̀g-dɛ̄llá*$^{+}$		"chair for leaning on"

Stems in *g k ŋ* do not use the sg suffixes *g*^{a} *g*^{ɔ}:

bʊ̄n-tʊ́lɪgìr^{ɛ}	*bʊ̄n-tʊ́lɪgà*$^{+}$		"heating thing"
ňwī-tɛ́kìr^{ɛ}	*ňwī-tɛ́kà*$^{+}$	*ňwī-tɛ́k-*	"pulling-rope"
bʊ̄n-sʊ́ŋìr^{ɛ}	*bʊ̄n-sʊ́ŋà*$^{+}$		"helpful thing"

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

nīn-pʊ́'alìŋ^{a}	*nīn-pʊ́'alìma*$^{+}$		"harmful person"
nīn-záaňsʊ̀ŋ^{ɔ}	*nīn-záaňsà*$^{+}$		"dreamy person"

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

vʊ̄r$^{ɛ/}$	*vʊ̄yá*$^{+}$	*vʊ̄r-*	"alive"
dāʊg^{ɔ}	*dāad*^{ɛ}	*dà-*	"male"
tɔ̄ɔg^{ɔ}	*tɔ̄ɔd*^{ɛ}	*tɔ̀-*	"bitter"
pu̱āk^{a}	*pʊ̄'as*^{ɛ}	*pu̱'à-*	"female" (human)
ňyá'aŋ^{a}	*ňyá'as*^{ɛ} or *ňyā'amís*^{ɛ}	*ňyā'aŋ-*	"female" (animal)
ňyɛ̀ɛsíŋ^{a}	*ňyɛ̀ɛnsís*^{ɛ}	*ňyɛ̀ɛsíŋ-*	"self-confident"

and similarly *vɛ̀ňllíŋ*^{a} "beautiful" *mālɪsíŋ*^{a} "pleasant" *lāllíŋ*^{a} "distant."

bīl^{a}	*bībɪs*^{ɛ}	*bìl-* or *bì-*	"little"

The sg flexion *-la* is found more widely in other Western Oti-Volta languages, where it has a diminutive sense: thus Farefare (Niggli) *níílá* "chick", *pììlà* "lamb", *bùdíblá* "boy", *púglá* "girl", *kíílá* "young guinea fowl"; Mooré *bìríblá* "boy", *bìpúglá* "girl." The plural stem *bib-* is reduplicated.

11 Verb flexion

Though written solid with the verb in traditional orthography, discontinuous-past *n*ᵋ 24.1.1 and the 2pl subject ʸᵃ 19.7.3 are not flexions but liaison enclitics.

Some 90% of verbs are **dual-aspect**, distinguishing perfective and imperfective morphologically; these verbs are dynamic, and express activities, accomplishments or achievements. The stem form is used for perfective aspect, and the imperfective adds a flexional suffix **-***d*ᵃ. Dual-aspect verbs also use a suffix **-***m*ᵃ to mark imperative mood whenever the verb carries the independency-marking tone overlay 19.6.2.2.

The remaining 10% of verbs are **single-aspect**, with just one finite form, which is either dynamic imperfective or stative imperfective as a lexical matter in each case. Stative verbs further divide into agentive **relational verbs**, which can be used in direct commands, form agent nouns and mostly take obligatory complements, and non-agentive **adjectival verbs**.

Adjectival verbs usually consist simply of the corresponding adjective stem followed by a flexion *-*a* 12.1.

Five relational verbs consist of bare stems with no suffix, but they are distinct from perfectives in both syntax and tone sandhi.

The remaining single-aspect verbs show a suffix -*y*ᵃ. Deverbal nominals appear without the **y* formant in cases where it has not undergone assimilation to a preceding root-final consonant, but where assimilation occurs after *n l r* the resulting cluster (reduced to a single consonant with *rr*) is carried over into the deverbal derivatives. Here *nn* consistently behaves exactly like *nn* derived from **nd*, but *ll r(r)* are subject to further assimilation just like *l r* 6.2.

11.1 Dual-aspect verbs

Perfective, imperfective and **-***m*ᵃ imperative are cited in order.

Straightforward examples include:

kū⁺	*kūʊd*ᵃ/	*kʊ̀ʊm*ᵃ	"kill"
kpɛ̀ň'⁺	*kpɛ̀ň*'*ɛd*ᵃ	*kpɛ̀ň*'*ɛm*ᵃ	"enter"
kn̂à⁺	*kìəd*ᵃ	*kìəm*ᵃ	"cut"
kn̂ā⁺	*kūɵd*ᵃ/	*kùɵm*ᵃ	"hoe"
gɔ̀ň⁺	*gɔ̀ɔň̀d*ᵃ	*gɔ̀ɔň̀m*ᵃ	"hunt"
*dūg*ᵋ	*dūgʊd*ᵃ/	*dʊ̀gʊm*ᵃ	"cook"
*yùug*ᵋ	*yùugɪd*ᵃ	*yùugɪm*ᵃ	"delay, get late"
*yādɪg*ᵋ/	*yādɪgíd*ᵃ	*yàdɪgɪm*ᵃ	"scatter"
pn̂āň'ᵃ	*pn̂āň*'*ad*ᵃ/	*pn̂àň*'*am*ᵃ	"speak; praise"
dn̂'*à*ᵃ	*dʊ̀*'*ad*ᵃ	*dʊ̀*'*am*ᵃ	"bear, beget"

nɔ̄k$^{ɛ/}$	*nɔ̄kíd*^{a}	*nɔ̀kɪm*^{a}	"take"
gāŋ$^{ɛ/}$	*gāŋíd*^{a}	*gàŋɪm*^{a}	"choose"
kpɛ̀'ŋ^{ɛ}	*kpɛ̀'ŋɪd*^{a}	*kpɛ̀'ŋɪm*^{a}	"strengthen"
kpàr^{ɛ}	*kpàrɪd*^{a}	*kpàrɪm*^{a}	"lock"
sūgʊr$^{ɛ/}$	*sūgʊríd*^{a}	*sùgʊrɪm*^{a}	"forgive"
bàs^{ɛ}	*bàsɪd*^{a}	*bàsɪm*^{a}	"go/send away"
sīgɪs$^{ɛ/}$	*sīgɪsíd*^{a}	*sìgɪsɪm*^{a}	"lower"

Some root-stems ending in a vowel show a *CV-* allomorph in both imperfective and imperative, with *-t-* for *-d-* 6.1.1.1:

dì$^{+}$	*dìt*^{a}	*dìm*^{a}	"eat"
ňyɛ̄$^{+}$	*ňyɛ̄t*$^{a/}$	*ňyɛ̀m*^{a}	"see"

and so also *lì*$^{+}$, *lù*$^{+}$ "fall" *dū*$^{+}$ "go up" *yī*$^{+}$ "go/come out" *zɔ̀*$^{+}$ "run, fear."

Stems in *-d-* show *-t-* in the ipfv via **dd* → *tt*:

bʊ̀d^{ɛ}	*bʊ̀t*^{a}	*bʊ̀dɪm*^{a}	"plant"
gàad^{ɛ}	*gàt*^{a} 6.5	*gàadɪm*^{a}	"pass, surpass"

Stems in *l* generate a cluster in the ipfv via **ld* → *nn* 6.2:

vʊ̄l^{ɛ}	*vʊ̄n*$^{na/}$	*vʊ̀lɪm*^{a}	"swallow"
màal^{ɛ}	*màan*^{na}	*màalɪm*^{a}	"make; sacrifice"
dīgɪl$^{ɛ/}$	*dīgín*^{na}	*dìgɪlɪm*^{a}	"lay down"

Only 2-mora *b*-stems assimilate **bm* → *mm*:

lɛ̀b^{ɛ}	*lɛ̀bɪd*^{a}	*lɛ̀m*^{ma}	"return"
sɔ̄b^{ɛ}	*sɔ̄bɪd*$^{a/}$	*sɔ̀m*^{ma}	"write"
lìəb^{ɛ}	*lìəbɪd*^{a}	*lìəbɪm*^{a}	"become"
ɛ̄ɛňb$^{ɛ/}$	*ɛ̄ɛňbíd*^{a}	*ɛ̀ɛňbɪm*^{a}	"lay a foundation"

Only 2-mora *n*-stems show **nd* → *nn*; only *kɛ̄ŋ*$^{ɛ/}$ (below) shows **nm* → *mm*:

bùn^{ɛ}	*bùn*^{na}	*bùnɪm*^{a}	"reap"
mɔ̄n^{ɛ}	*mɔ̄n*$^{na/}$	*mɔ̀nɪm*^{a}	"make porridge"
gɔ̀'ɔn^{ɛ}	*gɔ̀'ɔnɪd*^{a}	*gɔ̀'ɔnɪm*^{a}	"extend neck"
dìgɪn^{ɛ}	*dìgɪnɪd*^{a}	*dìgɪnɪm*^{a}	"lie down"

The *nn*-stem *sùn*^{ɛ} does not assimilate at all:

sùn^{nɛ}	*sùnnɪd*^{a}	*sùnnɪm*^{a}	"bow head"

4-mora *m*-stems always assimilate **md* → *mn*, *mm*, while 3-mora *m*-stems assimilate optionally; 2-mora stems regularly assimilate, but the NT/KB sometimes have unassimilated forms to avoid ambiguity 6.2.

sìilɪm^{m}	*sìilɪm*^{ma}	*sìilɪm*^{ma}	"quote proverbs"
lāŋ́m^{m}	*lāŋ́m*^{ma}	*làŋɪm*^{ma}	"wander searching"
kàrɪm^{m}	*kàrɪm*^{m}	*kàrɪm*^{ma}	"read"
	or *kàrɪmɪd*^{a}		
tɔ̄ɔm$^{m/}$	*tɔ́ɔm*^{ma}	*tɔ̀ɔm*^{ma}	"depart"
	or *tɔ̄ɔmíd*^{a}		
tʊ̀m^{m}	*tʊ̀m*^{ma}	*tʊ̀m*^{ma}	"work"
wʊ̀m^{m}	*wʊ̀m*^{ma}	*wʊ̀m*^{ma}	"hear"
kɪ̀m^{m}	*kɪ̀m*^{ma}	*kɪ̀m*^{ma}	"tend flock/herd"
dʊ̀m^{m}	*dʊ̀m*^{ma}	*dʊ̀m*^{ma}	"bite"

Stems in -*mm*- (← **mb*) only assimilate in the imperative:

tàm^{m}	*tàmmɪd*^{a}	*tàm*^{ma}	"forget"
zàm^{m}	*zàmmɪd*^{a}	*zàm*^{ma}	"cheat, betray"
dàm^{m}	*dàmmɪd*^{a}	*dàm*^{ma}	"shake"
lɛ̀m^{m}	*lɛ̀mmɪd*^{a}	*lɛ̀m*^{ma}	"sip, taste"

Fusion verbs show deleted **g* after *aa iə uɵ aaŭ ɛɛŭ ɔɔŭ* 6.3. **G*-deletion appears only in the perfective and gerund; elsewhere **g* is absent, not deleted (for the tonal implications see 7.3.1.) For the perfective forms before liaison see see 8.2.

fāeŭ$^{+/}$	*fāaŭd*$^{a/}$	*fàaŭm*^{a}	"save"
dīˈe$^{+/}$	*dīˈəd*$^{a/}$	*dìˈəm*^{a}	"get, receive"
dūe$^{+/}$	*dūɵd*$^{a/}$	*dùɵm*^{a}	"rise, raise"
pūŭˈe$^{+/}$	*pūŭˈɵd*$^{a/}$	*pùŭˈɵm*^{a}	"rot" WK

Irregular dual-aspect verbs are few; I list all that I have encountered below.

Most irregularities involve a derivational suffix in the perfective which is dropped in the imperfective. This is probably a survival of older patterns: outside the Western group, Oti-Volta languages often drop perfective derivational suffixes when forming imperfectives. Again, other suffixes are frequently deleted before

derivational *d*, and the Western Oti-Volta imperfective may have arisen by adding imperfective -*a* to a stem derived with -*d*.

gɔ̄s^{ɛ}	*gɔ̄sɪd*$^{a/}$	*gɔ̀sɪm*^{a}	"look"
	or *gɔ̄t*$^{a/}$	*gɔ̀m*^{a}	
tìs^{ɛ}	*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^{ɛ}	*yɛ̀t*^{a}	*yɛ̀lɪm*^{a}	"say"
wìk^{ɛ}	*wìid*^{a} 6.1.1.1	*wìkɪm*^{a}	"fetch water"
i̯āňk$^{ɛ/}$	*i̯āň'ad*$^{a/}$	*i̯àňkɪm*^{a}	"leap, fly"
gīlɪg$^{ɛ/}$	*gīn*$^{na/}$	*gìlɪgɪm*^{a}	"go around"
kɛ̄ŋ$^{ɛ/}$	*kɛ̄n*$^{na/}$	*kɛ̀m*^{a}	"go"
dɛ̀lɪm^{m}	[*dɛ̄l*$^{la/}$]	*dɛ̀lɪm*^{ma}	"lean (of a person)"

Dɛ̀lɪm^{m} is used as inchoative to *dɛ̄l*$^{la/}$ "be leaning (of a person)"; compare *gʊ̀l*^{ɛ} ipfv *gʊ̀n*^{na} "suspend" beside the stance verb *gʊ̀l*^{la} "be hanging."

Only two dual-aspect verbs are irregular in the actual flexional suffixes taken:

kɛ̄$^{+}$	*kɛ̄t*$^{a/}$	*kɛ̀l*^{a}	"let, allow"
kɛ̄ň$^{+}$	*kɛ̄n*$^{a/}$	*kɛ̀m*^{a}	"come"

11.2 Single-aspect verbs

11.2.1 Dynamic

Dynamic single-aspect verbs distinguish progressive/habitual senses with focus-*nɛ̄*$^{+/}$ like dual-aspect verb imperfectives. Like dual-aspect verbs, they make gerunds usable in the immediate-future construction with *bɔ̀ɔd*^{a} "want" 19.3.4, and form agent nouns, dynamic adjectives and instrument nouns, generally with the same derivational -*d* as dual-aspect verbs 13.2.1.

Most dynamic single-aspect verbs are **stance verbs**.

īgɪ$^{ya/}$		"be kneeling"	*dīgɪ*$^{ya/}$		"be lying down"
vābɪ$^{ya/}$		"be prone"	*làbɪ*^{ya}		"crouch in hiding"
tàbɪ^{ya}		"be stuck to"	*zì'e*^{ya}		"be standing still"
zìň'i^{ya}		"be sitting"	*tī'i*$^{ya/}$		"be leaning (object)"
dɛ̄l$^{la/}$		"be leaning (person)"	*sùr*^{a}		"have head bowed"
gɔ̄'e$^{ya/}$	WK	"have neck extended"	*gʊ̀l*^{la}		"be hanging"
gɔ̄r$^{a/}$	DK	"have neck extended"	*gɔ̄l*$^{la/}$	KT	"have neck extended"

Derived assume-stance verbs 13.1.1 do not express a change of state and cannot be used as resultatives, and stance verbs cannot form resultative adjectives.

For some informants, stance verb roots also occur with the ipfv suffix -*d*^{a}, here confined to habitual meaning; other informants use the ipfv of the derived assume-stance verb instead:

	Ò zìňˈi nɛ̄.	"She's sitting down." WK KT
	Ò pō zíňˈidā.	"She doesn't sit down" WK
but	*Ò pō zíňˈinìdā.*	"She doesn't sit down." KT
	Ò zìňˈi nɛ̄.	"She's sitting down."
	Ò pō zíňˈidā.	"She doesn't sit down" WK
but	*Ò pō zíňˈinìdā.*	"She doesn't sit down." KT
	Ò vàbı nɛ̄.	"He's lying prone."
	Ò pō vābıdá.	"He doesn't lie prone." WK
but	*Ò pō vábınìdā.*	"He doesn't lie prone." KT
	Ò dìgı nɛ̄.	"She's lying down."
	Ò pō dīgıdá.	"She doesn't lie down" WK
	Lì zìˈə nɛ̄.	"It's standing up."
	Lì pō zíˈıdā.	"It (a defective tripod) doesn't stand up." WK
	Lì tìˈi nɛ̄.	"It's leaning against something."
	Lì tìˈid.	"It can be leant against something." WK
	Lì pō tīˈiyá.	"It's not leaning against something."
	Lì pō tīˈidá.	"It's not for leaning against something." WK

Non-stance dynamic single-aspect verbs include

wàˈe^{ya}	"travel to"	*sīn*$^{na/}$	"be silent"
dɔ̄l$^{la/}$	"accompany"	*zāňl*$^{la/}$	"carry in one's hands"
gūr$^{a/}$	"guard"	*tɛ̀ňr*^{a}	"remember"

They do not have distinct continuous and habitual forms:

Ò sìn.	"She's silent."
Ò sìn nɛ̄.	"She's keeping silent."
Ò zàňl nɛ̄ kɔ́lʊ̀g.	"He's holding a bag."

Ò zàňl kɔ́lʊ̀g.	"He holds a bag."
Ò pʊ̄ zāňllá.	"He isn't holding/doesn't hold it."

The same verb form is also used in inchoative senses:

Sìn!	"Be quiet!"
Dɔ̀llī m.	"Follow me!"

Kà bà sīn.	"And they fell silent."
And 3PL be.silent.	

11.2.2 Stative

Stative single-aspect verbs divide syntactically into agentive **relational** verbs that can be used in direct commands, and non-agentive **adjectival** verbs. Agentive verbs have derived agent nouns 13.2.1.1. The negative relational verbs *kā'e̯*$^{+}$ and *zī'*$^{+}$ cannot be used in direct commands but *zī'*$^{+}$ has an agent noun. Apart from those taking locative complements, relational verbs are obligatory transitives 19.8.1. They include

àe̯ňᵃ	"be something/somehow"		
mɔ̄rᵃ/	"have"	*tārᵃ/*	"have"
sʊ̄'eʸᵃ/	"own"	*sɔ̄ňʼeʸᵃ/*	"be better than"
nɛ̄nⁿᵃ/	"envy"	*kīsᵃ/*	"hate"

Five relational verbs consist of base stems with no suffix.

mī'$^{+}$	"know"	*zī'*$^{+}$	"not know"
bɛ̀$^{+}$	"be somewhere, exist"	*kā'e̯*$^{+}$	"not be" (← **kagɪ*)
nɔ̀ŋ^{ɛ}	"love"		

Nɔ̀ŋ^{ɛ} is unique among single-aspect verbs in possessing a *m*^{ᵃ}-imperative, *nɔ̀ŋɪm*^{ᵃ}, used when the verb word carries the tone overlay of independency marking.

Unlike perfectives, these bare-stem forms are never followed by particle *yā*$^{+}$ 19.6.2.1, and the Pattern LO verbs *bɛ̀*$^{+}$ and *nɔ̀ŋ*^{ɛ} have M tone before liaision enclitic pronouns and are followed by M spreading even when not subject to the tone overlay of independency marking 8.3.

	M̀ nɔ́ŋ.	"I love him." (e.g. in reply to a question) WK
not	**M̀ nɔ́ŋ yā*	specifically stated to be impossible by WK

Kà ò nɔ́ŋī f. "And she loves you."

Mit ka Zugsob tumtum a one noŋ zaba.
Mìt kà Zūg-sɔ́b tʊ́m-tʊ̄m á ɔ́nì nɔ̀ŋ zábāa +*ø.*
NEG.LET.IMP and head-one:SG work-worker:SG COP REL.AN love conflict:PL NEG.
"Let not a servant of the Lord be someone who loves fights." (2 Tim 2:24, 1996)

The agent noun *nɔ̀ŋɪd*[a] has Pattern L instead of the expected O. It is the only Pattern L 4-mora stem which is not a *m*-stem and does not show H on the 3rd mora.

Ò nɔ̀ŋɪd kā'e. "Nobody loves him." WK
("His lover does not exist.")

Some dual-aspect verb imperfectives have become independent statives: *bɔ̀ɔd*[a] "want", *zɔ̀t*[a] "fear."

Adjectival verbs express predicative adjectival meanings. Cognate adjectives are primary, not deverbal, and show a characteristic Tone Pattern correspondence with their verbs: see the list at 12.1. *Dùr*[a] "be many" and *kàr*[a] "be few" have no associated adjectives..

A few adjectival verbs take complements:

zɛ̄m[ma/]	"be equal to"	*kpɛ̄ɛ̆m*[ma/]	"be older than"
lāl[la/]	"be far from"	*pɔ̀ɲ̆r*[a]	"be near to"
nār[a/]	"be necessary"	*wɛ̄n*[na/]	"resemble"

The verb *nār*[a/] has a related adjective *nàrʊŋ*ɔ "necessary" (??tone) but the verb is probably primary; it is much commoner than the adjective. The verb *tūɲ̆'e* "be able" occurs almost exclusively as a stative auxiliary verb in *n*-catenation 23.2.1; it has no extant Long Form in my materials, and no cognate nominal forms.

12 Stem conversion

12.1 Deadjectival stative verbs

Many stative single-aspect verbs are deadjectival, or derived from quasi-adjectival human-reference nouns. Typically the nominal stem appears unchanged before the imperfective ending -*a*, but there is a characteristic **shift of Tone Pattern**, with Pattern L adjectives corresponding to Pattern LO verbs but with Pattern H and Pattern O adjectives both corresponding to Pattern H verbs. Historically, the all-M pattern of verbs corresponding to Pattern O adjectives may simply have represented Pattern O, but if so it has been completely assimilated to Pattern H synchronically, and the LF-final toneme is always H.

L	*vɛ̀nnɪgᵃ*	"beautiful"	*vɛ̀nⁿᵃ*	"be beautiful"
	vɛ̀ňllɪgᵃ	"beautiful"	*vɛ̀ňlˡᵃ*	"be beautiful"
	zùlʊŋɔ	"deep"	*zùlɪmᵐᵃ*	"be deep"
	pɔ̀ɔdɪgᵃ	"small"	*pɔ̀ɔdᵃ*	"be few, small"
	mì'ɪsʊgɔ	"sour"	*mì'ɪsᵃ*	"be sour"
	sʊ̀ŋɔ	"good"	*sʊ̀mᵐᵃ*	"be good"
	yàlʊŋɔ	"wide"	*yàlɪmᵐᵃ*	"be wide"
H	*bʊ̄gʊsír*ᵋ	"soft"	*bʊ̄gʊsᵃ/*	"be soft"
	vʊ̄rᵋ/	"alive"	*vʊ̄e̱ᵃ/*	"be alive" 6.1.1.1
	zɛ̄mmʊ́gɔ	"equal"	*zɛ̄mᵐᵃ/*	"be equal"
	mā'asírᵋ	"cool"	*mā'asᵃ/*	"be cool"
	tɛ̄bɪsírᵋ	"heavy"	*tɛ̄bɪsᵃ/*	"be heavy"
	mālɪsírᵋ	"sweet"	*mālɪsᵃ/*	"be sweet"
	lābɪsírᵋ	"wide"	*lābɪsᵃ/*	"be wide"
O	*tɔ̄ɔgɔ*	"bitter"	*tɔ̄e̱ᵃ/*	"be bitter" 6.1.1.1
	gīŋᵃ	"short"	*gīmᵐᵃ/*	"be short"
	kpīˀoŋɔ	"strong"	*kpīˀəmᵐᵃ/*	"be strong"
	kpɛ̄ɛňmᵐ	"elder"	*kpɛ̄ɛňmᵐᵃ/*	"be older than"
	wɛ̄nnɪrᵋ	"resembling"	*wɛ̄nⁿᵃ/*	"resemble"
	tādɪmᵐ/	"weak person"	*tàdɪmᵐᵃ*	"be weak"

The gemination of -*m*- in LF -*mma* after a *long* vowel is secondary. It is not found with all informants, and Tone Pattern H 3-mora-stem verbs have the tonemes which would be expected *without* gemination:

kpīˈəm$^{ma/}$	not	**kpíˈəm*^{ma}	"be strong, hard" WK
wāˈam$^{ma/}$	not	**wáˈam*^{ma}	"be long, tall" KT WK

The Dagbani cognate *kpema* of *kpīˈəm*$^{ma/}$ also confirms an original single *-m-*: Dagbani preserves long vowels always and only in originally closed syllables. (Dagbani *maani* sg *mana* pl = Kusaal *máˈan*^{nɛ} sg *māˈaná*$^{+}$ pl "okra.")

Stem changes occur in

tʊ̄ʊlʊ́g^{ɔ}	"hot"	*tʊ̄l*$^{la/}$	"be hot"
ňyɛ̀ɛsíŋ^{a}	"self-confident"	*ňyɛ̀ɛs*^{a}	"be self-confident"
wɔ̄k$^{ɔ/}$	"long, tall"	*wāˈam*$^{ma/}$	"be long, tall"

The gemination of *-m-* in the LF of *wāˈam*$^{ma/}$ is once again secondary.

Adjectival verbs do not normally have gerunds; associated abstract nouns are derived from the adjectives, not the verbs 12.3. An exception is the gerund *wɛ̄nním*^{m} of *wɛ̄n*$^{na/}$ "resemble", which is shown to be deverbal by the Tone Pattern contrast with the adjective *wɛ̄nnɪr*^{ɛ} "resembling" 13.2.1.4.

12.2 Nouns from verbs

12.2.1 Perfective 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 from dual-aspect and most stance verbs are formed by adding noun class suffixes to the verb stem. Gerunds from other single-aspect verbs are based on derived stems 13.2.1.4. Abstract nouns associated with adjectival verbs are not regarded as gerunds, although they show some syntactic resemblances 16.10.2.1.

Gerunds may be used as abstract *count* nouns describing particular instances of the activity of the verb, and may then have plurals 16.2.1.

The Tone Patterns of all regularly formed gerunds are predictable 7.5.

12.2.1.1 From dual-aspect verbs

Dual-aspect verbs freely form gerunds by adding the following class suffixes to the stem. The choice after 3-mora stems reflects avoidance of suffixes which would give rise to opaque forms, with the usual *-gᵓ* replaced by *-rᵋ* after stems ending in underlying **g*.

2-mora stems	*-bᵓ*	but *-rᵋ* as final element of a compound
3-mora stems in **g*		
[surface *-gᵋ -kᵋ -ŋᵋ -ae⁺ -ie⁺ -ue⁺*]	*-rᵋ*	
all others	*-gᵓ*	

Gerunds differ in flexion from other substantives in frequently resisting the assimilations *mg → ŋŋ *ng → ŋŋ 6.2. They rarely shorten a *CVV-* stem before *-rᵋ*. 4-mora stems in *-sɪm -lɪm* follow the rule and use *-gᵓ*:

sìilɪmᵐ	"cite proverbs"	*sìilʊ́ŋᵓ*	*gerund*
zàaǎnsɪmᵐ	"dream"	*zàaǎnsʊ́ŋᵓ*	

but stems in *-gɪm* drop the *-m-* and use *-rᵋ*:

wàŋɪmᵐ	"waste away"	*wàŋɪrᵋ*
lāŋíᵐ	"wander"	*lāŋírᵋ*
zàkɪmᵐ	"itch"	*zàkɪrᵋ*

For examples of regular gerunds see under Noun Flexion 9.3.3 9.3.4 9.3.6.
2-mora stems regularly use *-rᵋ* not *bᵓ* in compounds; see 16.10.1.

pu̯'à-dīɪrᵋ	"marriage"
nīn-kʊ́ʊ̀rᵋ	"murder"
dā-núùrᵋ	"beer-drinking"
mɔ̀-pīlˡᵋ	"grass roof"
fū-yɛ́ɛ̀rᵋ	"shirt-wearing" WK

Irregular perfective gerunds are rare with stems of three or four morae. A few have plural-as-singular forms 16.2.1; the verb *yīisᵋ/* "make go/come out" has *yīisíbᵓ*, like the alternate form *yīsᵋ* with regular *yīsɪbᵓ/*. However, almost 20% of 2-mora-stem verbs in KED use suffixes other than *bᵓ*. Most irregular 2-mora stem verbs have regular gerunds:

tìsᵋ	"give"	*tīsɪbᵓ*
kɛ̄⁺	"let"	*kɛ̄ɛbᵓ/*
gʊ̀lᵋ	"suspend"	*gʊ̄lɪbᵓ*

Few segmentally irregular gerunds are also tonally irregular. However, forms with the suffix *-gᵓ* are Pattern L from Pattern LO verbs unless there are variants with *gᵃ* or *sᵋ* showing that the word really belongs to *gᵃ|sᵋ* with LF remodelling 9.3.2.

A high proportion of 2-mora stem verbs with irregular gerunds have stems ending in *m* or *b*; the regular formation with *-bᵓ* has probably been avoided because it would create ambiguous SFs 9.1.

All of these examples occur in the *bɔ̀ɔdᵃ* "want" + gerund construction 19.3.4.

lì$^{+}$	"fall"	*līig*^{a}
zī$^{+}$	"carry on head"	*zīid*$^{ɛ/}$
bɛ̀ň'$^{+}$	"fall ill"	*bɛ̄ň'ɛs*^{ɛ}
kɛ̄ň$^{+}$	"come"	*kɛ̄n*$^{nɛ/}$
zɔ̀$^{+}$	"run"	*zūa*$^{+}$ also *zɔ̄ɔg*^{ɔ}
vū$^{+}$	"make noise"	*vūug*$^{ɔ/}$
pi̱āň'^{a}	"speak"	*pi̱àu̱ňk*^{ɔ}
bʊ̀d^{ɛ}	"plant"	*bʊ̄dɪg*^{a} also *bʊ̄dʊg*^{ɔ}
yɛ̀l^{ɛ}	"say, tell"	*yɛ̀lʊg*^{ɔ} (cf Mooré *yèele*; ?? **yiə* → *yɛ*)
kūl^{ɛ}	"go home"	*kūlɪg*$^{a/}$ also *kūlʊg*$^{ɔ/}$
tàňs^{ɛ}	"shout"	*tàňsʊg*^{ɔ}
sɔ̄ňs^{ɛ}	"converse"	*sɔ́ňsìg*^{a}
gɔ̄s^{ɛ}	"look"	*gɔ́sìg*^{a}
sɔ̀s^{ɛ}	"pray, beg"	*sɔ̄sɪg*^{a}
kīr^{ɛ}	"hurry"	*kìkírʊ̀g*^{ɔ} or *kīrɪb*$^{ɔ/}$
lɛ̀b^{ɛ}	"return"	*lɛ̄bɪg*^{a}
tɛ̀b^{ɛ}	"carry in both hands"	*tɛ̄bɪg*^{a}
kàňb^{ɛ}	"scorch"	*kāňbɪr*^{ɛ}
ɔ̀ňb^{ɛ}	"chew"	*ɔ̄ňbɪr*^{ɛ}
lūb^{ɛ}	"buck"	*lūbɪr*$^{ɛ/}$
zàb^{ɛ}	"fight"	*zàbɪr*^{ɛ}
tɛ̀ňb^{ɛ}	"tremble"	*tɛ̀ňbʊg*^{ɔ}
tʊ̀m^{m}	"work"	*tʊ̄ʊma*$^{+}$
tʊ̀m^{m}	"send"	*tìtʊ̄mɪs*^{ɛ}
wʊ̀m^{m}	"hear"	*wʊ̄m*^{mɔ} or *wʊ̀mmʊg*^{ɔ} 13.2.1.4

12.2.1.2 From stance verbs

Stance verbs mostly form perfective gerunds, adding class suffixes to the root and following the same tone pattern allocation rules as dual-aspect verbs 7.5. They are idiosyncratic with regard to the class suffix selected, however.

zìň'i^{ya}	"be sitting"	*zīň'ig*^{a}	also "place", regular *g*^{a}|*s*^{ɛ} class		
zì'e^{ya}	"be standing"	*zī'a*$^{+}$	KED	*zī'əg*^{a} (very irreg 6.3)	DK KT
dīgɪ$^{ya/}$	"be lying"	*dīk*$^{a/}$	KT	*dīgɪr*$^{ɛ/}$	WK
īgɪ$^{ya/}$	"be kneeling"	*īk*$^{a/}$	KT	*īgɪr*$^{ɛ/}$	WK
vābɪ$^{ya/}$	"be lying prone"	*vāp*$^{ɔ/}$	KT	*vābɪr*$^{ɛ/}$	WK
tī'i$^{ya/}$	"be leaning"	*tī'ib*$^{ɔ/}$	(of an object)		
gʊ̀l^{la}	"be hanging"	*gʊ̄lɪb*^{ɔ}			

Pɔ̀ňr^{a} "be near" similarly has the gerund *pɔ̄ňrɪb*^{ɔ} .

Gerunds from other single-aspect verbs are of the imperfective type, as is the gerund of the stance verb *dɛ̄l*$^{\text{la/}}$ "be leaning" 13.2.1.4.

12.2.2 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.

ɛ̄ɛ̌nbír^{ɛ}	"(physical) foundation"	*ɛ̄ɛ̌nbʊ́g*^{ↄ}	"laying a foundation"
dʊ̄k$^{\text{ↄ/}}$	"cooking pot"	*dʊ̄gʊb*$^{\text{ↄ/}}$	"cooking"
dà'a$^{=}$	"market"	*dā'ab*^{ↄ}	"buying"
kʊ̄k^{a}	"chair"	*kʊ̄gʊb*^{ↄ}	"resting on something"
zūg-kʊ̄gʊr^{ɛ}	"pillow"		
sụ̄ak$^{\text{a/}}$	"hiding place"	*sʊ̄'ab*$^{\text{ↄ/}}$	"hiding"
sɔ̄bɪr$^{\text{ɛ/}}$	"piece of writing"	*sɔ̄p*$^{\text{ↄ/}}$	"writing, orthography"
kūt^{ɛ}	"iron, nail" 16.2.1	*kūdʊb*^{ↄ}	"working iron"
kùɵsɪm^{m}	"merchandise"	*kùɵsʊg*^{ↄ}	"selling"
pɛ̀bɪsɪm^{m}	"wind"	*pɛ̀bɪsʊg*^{ↄ}	"blowing of the wind; wind"

The forms *vābɪr*$^{\text{ɛ/}}$ *lābɪr*$^{\text{ɛ/}}$ *dīgɪr*$^{\text{ɛ/}}$ *īgɪr*$^{\text{ɛ/}}$ used by WK as gerunds of stance verbs 12.2.1.2 are used by KT as concrete nouns meaning "place for lying prone" etc, contrasting for him with gerunds *vāp*$^{\text{ↄ/}}$ etc.

Three concrete deverbal nouns, from *pìbɪl*^{ɛ} "cover", *zàǹbɪl*^{ɛ} "tattoo", *màal*^{ɛ} "sacrifice" show single *-n-* in place of *-l-*:

pībɪn^{nɛ}	*pībɪna*$^{+}$	*pìbɪn-*	"covering"
zāǹbɪn^{nɛ}	*zāǹbɪna*$^{+}$	*zàǹbɪn-*	"tattoo" (NT "sign")
māan^{nɛ}	*māana*$^{+}$	*màan-*	"sacrifice"

Although my informants definitely had single *-n-* in these words, this may be a secondary simplification of **nn*; compare Mooré *pìbíndgà* "*couvercle*" 6.2. Toende, like Mooré, has Pattern L for these words: *zã̀bín*, *màan*. As *nn* is the regular reflex of **ld*, these forms may be derivatives with **d* in a sense related to its appearance in instrument nouns 13.2.1.3; compare *tūɵdɪr*^{ɛ} "mortar", from *tụ̀à*$^{+}$ "grind in a mortar." The Tone Pattern O is consistent with this.

It is exceptional for regularly formed gerunds to acquire concrete meaning, but a clearcut example is *dīɪb*^{ↄ} "food."

12.3 Nominals from nominals

The partial association of noun class and meaning 9.1.1 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*ᵋ classes, their languages, which belong to the **-***l*ᵋ subclass of *r*ᵋ|*a*⁺ 9.3.4.1 and the associated place, which has the suffix **-***g*ɔ 30.4.

A further example of sg **-***g*ɔ deriving associated place names is:

*wɛ̀ɛd*ᵃ	"hunter"	*wɛ̀og*ɔ	"deep bush"

The suffix -*d*ᵋ is found with some names of liquids which are not *m*ᵐ class 16.2.1; hence also

*sīiňf*ɔ/	"bee"	*sīiňd*ᵋ/	"honey"

Names of trees are almost all *g*ᵃ|*s*ᵋ class, while their fruits belong to either the *r*ᵋ|*a*⁺ or the *g*ɔ|*d*ᵋ class 30.5.

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*ɔ. When there is an associated adjectival verb, these abstracts bear a somewhat analogous relationship to the verb as gerunds do to other verbs, and can, for example, be preceded by combining forms in senses resembling generic complements before gerunds 16.10.2.1. However, such abstract nouns cannot be used in the immediate future construction with *bɔ̀ɔd*ᵃ "want" 12.2.1, and unlike imperfective gerunds 13.2.1.4, which show the expected Tone Patterns for gerunds, they show the same tone pattern as the adjective.

Examples of adjectives with corresponding abstract nouns:

*vūr*ᵋ/	"alive"	*vūm*ᵐ/	"life"
*sʊ̀ŋ*ɔ	"good"	*sʊ̀m*ᵐ	"goodness"
*pɔ̀ɔdɪg*ᵃ	"few"	*pɔ̀ɔdɪm*ᵐ	"scarcity"
*vɛ̀nnɪg*ᵃ	"beautiful"	*vɛ̀nnɪm*ᵐ	"beauty"
*vɛ̀ňllɪg*ᵃ	"beautiful"	*vɛ̀ňllɪm*ᵐ	"beauty"
*bʊ̄gʊsír*ᵋ	"soft"	*bʊ̄gʊsím*ᵐ	"softness"
*tɛ̄bɪsír*ᵋ	"heavy"	*tɛ̄bɪsím*ᵐ	"weight"
*mā'asír*ᵋ	"cool, wet"	*mā'asím*ᵐ	"coolness, damp"
*mālɪsír*ᵋ	"sweet"	*mālɪsím*ᵐ	"sweetness"
*lābɪsír*ᵋ	"wide"	*lābɪsím*ᵐ	"width"
*ňyɛ̀ɛsíŋ*ᵃ	"self-confident"	*ňyɛ̀ɛsɪm*ᵐ	"self-confidence"
*pìəlɪg*ᵃ	"white"	*pìəlɪm*ᵐ	"brightness"

tītā'ar^{ɛ}	"big"	*tītā'am*^{m}	"multitude"
kʊ̄dʊg^{ↄ}	"old"	*kʊ̄dɪm*^{m}	"old times"
lāllʊ́g^{ↄ}	"far"	*lāllʊ́g*^{ↄ}	"distance"
kpḭ̄oŋ^{ↄ}	"strong, hard"	*kpḭ̄oŋ*^{ↄ}	"hardness, strength"
yàlʊŋ^{ↄ}	"wide"	*yàlʊŋ*^{ↄ}	"width"
mì'ɪsʊg^{ↄ}	"sour"	*mì'ɪsʊg*^{ↄ}	"sourness"
tɔ̄ɔg^{ↄ}	"bitter"	*tɔ̄ɔg*^{ↄ}	"bitterness"
zùlʊŋ^{ↄ}	"deep"	*zùlʊŋ*^{ↄ}	"depth"
tʊ̄ʊlʊ́g^{ↄ}	"hot"	*tʊ̄ʊlʊ́g*^{ↄ} or *tʊ̄llɪ́m*^{m}	"heat"
zɛ̄mmʊ́g^{ↄ}	"equal"	*zɛ̄mmʊ́g*^{ↄ}	"equality"

Some nouns referring to people form similarly derived abstract nouns:

gbáňyà'a$^{=}$	"lazy person"	*gbáňyà'am*^{m}	"laziness"
dàmà'a$^{=}$	"liar"	*dàmà'am*^{m}	"lying"
sāan$^{a/}$	"guest"	*sāʊ́ŋ*^{ↄ}	"hospitality"
kpɛ̄ɛňm^{m}	"elder"	*kpɛ̄oňŋ*^{ↄ}	"eldership"
sɔ̄e̯ň^{a}	"witch"	*sɔ̄ɔňg*^{ↄ}	"witchcraft"
zu̯à$^{+}$	"friend"	*zùɵd*^{ɛ}	"friendship"

Human-reference noun stems also form abstract *m*^{m} class derivatives with the derivational suffix **-***lɪm* 13.2.2.

The *m*^{m} class suffix with adjective stems often creates manner adverbs:

pāalíg^{a}	"new"	*pāalím*^{m}	"recently"
bāaňlíg^{a}	"quiet"	*bāaňlím*^{m}	"quietly"
záal^{lɛ}	"empty"	*zāalím*^{m}	"emptily"
nɛ̀ɛr^{ɛ}	"empty"	*nɛ̀ɛm*^{m}	"for free"

Several adjective stems form manner-adverbs with an ending ***-ga***$^{+}$, i.e *g*^{a}|*s*^{ɛ} class sg along with apocope-blocking 6.6:

sʊ̀ŋā$^{+/}$	"well; very much"
mā'asígā$^{+/}$	"coolly"
tʊ̄ʊlígā$^{+/}$	"hotly"
gīŋa^{+}	"shortly"
bʊ̄gʊsígā$^{+/}$	"softly"
sàalíŋā$^{+/}$	"smoothly"
ňyɛ̀ɛsíŋā$^{+/}$	"self-confidently"

Cf also *yīigá*$^{+}$ "firstly" 16.4.2.3.

13 Derivational suffixes

The statement of underlying full word structure made in 6 implies that roots are only of the shapes *CV(V)(C)*, so that any stem consonant which does not immediately follow the root vowel is not part of the root; neither is any consonant following a *long* root vowel unless the root shows *CVC~CVVC* allomorphy.

For simplicity, all such consonants will be called "derivational suffixes", though there may not always be parallel stems lacking the suffix or with different suffixes. Nevertheless, many such consonants are clearly identifiable as derivational. Regular highly productive suffixing processes derive agent nouns, deverbal adjectives and instrument nouns from verbs, and there are several less systematic processes deriving nominals from other nominals. Cognate stems make it possible to recognise many suffixes involved in verb derivation from roots; there are clear patterns, but no completely consistent correlations of suffix and meaning.

The derivational suffixes are *g s n l d m*, along with *b* and *r* in just a handful of words. The suffix *n* may represent historical **ld* 6.2.

g s n b r never follow another derivational suffix. *g* and *s* cause a preceding *CVVC* to become *CVC*, and a preceding oral ɔɔ to become glottalised.

l follows another suffix only as part of the combination *lm*.

d is very productive in the formation of deverbal nouns and adjectives; it often deletes a preceding suffix or is itself deleted. It does not derive verb stems.

No stem has more than three derivational suffixes, or more than five morae apart from prefixes. All four-mora verb stems have *m* as the second suffix, and all five-mora stems are formed with *lm*.

The rules for consonant assimilation differ slightly from the rules operative in flexion, probably because they are less subject to analogical remodelling.

For Tone Patterns in derivation see 7.5.

13.1 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 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 *CVVCm* only occurs as *CVV* root + *sɪm* or *lɪm*, never *CVVC* root + *m*. Some adjectival verbs have stems which include a derivational suffix seen in the corresponding adjective.

13.1.1 Assume-stance verbs

Stance verbs have derived dual-aspect verbs in -*n*$^{\varepsilon}$ 6.2 signifying "assume the stance" and in -*l*$^{\varepsilon}$ "make assume the stance"; all the -*n*$^{\varepsilon}$ verbs are Pattern LO regardless, but the -*l*$^{\varepsilon}$ verbs have the same Pattern as the base stance verb.

	Stance verb		Assume-stance	Make-assume-stance
	dīgɪ$^{\text{ya/}}$	be lying	*dìgɪn*$^{\varepsilon}$	*dīgɪl*$^{\varepsilon/}$
	vābɪ$^{\text{ya/}}$	be lying prone	*vàbɪn*$^{\varepsilon}$	*vābɪl*$^{\varepsilon/}$
	īgɪ$^{\text{ya/}}$	be kneeling	*ìgɪn*$^{\varepsilon}$	*īgɪl*$^{\varepsilon/}$
	làbɪ^{ya}	be crouching hidden	*làbɪn*$^{\varepsilon}$	*làbɪl*$^{\varepsilon}$
	zìǐ'i^{ya}	be sitting	*zìǐ'in*$^{\varepsilon}$	*zìǐ'il*$^{\varepsilon}$
	zì'e^{ya}	be standing	*zì'ən*$^{\varepsilon}$	*zì'əl*$^{\varepsilon}$
	tī'i$^{\text{ya/}}$	be leaning (of thing)	*tì'in*$^{\varepsilon}$	*tī'il*$^{\varepsilon/}$
WK	*gɔ̄'e*$^{\text{ya/}}$	be looking up	*gɔ̀'ɔn*$^{\varepsilon}$	
	sùr^{a}	have bowed head	*sùn*^{nε}	*sùn*^{nε} *sic*
	-	cover oneself	*lìgɪn*$^{\varepsilon}$	*lìgɪl*$^{\varepsilon}$
	-	perch (of bird)	*zùən*$^{\varepsilon}$	*zùəl*$^{\varepsilon}$
	-	perch (of bird)	*yà'an*$^{\varepsilon}$	*yà'al*$^{\varepsilon}$

The resultative perfective 19.2.1 of *zùe+* is used for "be perching":

Níiŋ lā zúə nɛ̄. "The bird is perching." KT
Bird:SG ART perch FOC.

Other derivational relationships involving stance verbs are seen in

gùl^{la}	be suspended	*gùl*$^{\varepsilon}$	*gùl*$^{\varepsilon}$
tàbɪ^{ya}	be stuck to	*tàb*$^{\varepsilon}$	*tàbɪl*$^{\varepsilon}$
dɛ̄l$^{\text{la/}}$	"be leaning" (person)	*dɛ̀lɪm*^{m}	

13.1.2 Causatives

-***s***- is a common causative suffix:

kpɛ̀ǐ'$^{+}$	"enter"	*kpɛ̀ǐ'ɛs*$^{\varepsilon}$	"make enter"
nìe^{+}	"appear"	*nɛ̀ɛs*$^{\varepsilon}$	"reveal"
yī$^{+}$	"go/come out"	*yīis*$^{\varepsilon/}$ or *yīs*$^{\varepsilon}$	"make go/come out"
dì$^{+}$	"eat"	*dìɪs*$^{\varepsilon}$	"feed"
nū$^{+}$	"drink"	*nūlɪs*$^{\varepsilon/}$	"make drink"; also *nūlɪg*$^{\varepsilon/}$
sīg$^{\varepsilon}$	"go down"	*sīgɪs*$^{\varepsilon/}$	"lower"
lɛ̀b$^{\varepsilon}$	"return"	*lɛ̀bɪs*$^{\varepsilon}$	"make return; answer"

*mụ'à*ᵃ	"suck" (of a baby)	*mù'as*ᵋ	"give to suck"
[Mooré *tá*	"arrive"]	*tā'as*ᵋ/	"help to travel, walk"
*zɛ̄m*ᵐᵃ/	"be equal"	*zɛ̄'mɪs*ᵋ/	"make equal"
*kpìig*ᵋ	"go out (fire)"	*kpìis*ᵋ	"quench"

-***l***- has been seen above as the causative suffix for stance verb roots. It is also found with other roots with location-related meanings:

*ňyá'aŋ*ᵃ	"behind"	*ňyā'al*ᵋ/	"leave behind"
*gɛ̄og*ɔ	"space between legs"	*gɛ̄ɛl*ᵋ/	"put between legs" Tones *sic*
*līk*ᵃ	"darkness"	*lìgɪl*ᵋ	"cover up"
bāň'⁺	"ride"	*bāň'al*ᵋ/	"put on a horse/bicycle etc"
gū'⁺	"guard"	*gū'ul*ᵋ/	"set someone on guard"
yɛ̀⁺	"dress oneself"	*yɛ̀ɛl*ᵋ	"dress another person"

Verbs derived with -*g***-** from nominal roots are usually patientive ambitransitives but may have separate causatives in -*l*- :

mā'e⁺/	"get cool"	*mā'al*ᵋ/	"make cool"
pūň'e⁺/	"rot"	*pɔ̄ň'ɔl*ᵋ/	"cause to rot"
nìe⁺	"appear"	*nɛ̀ɛl*ᵋ	"reveal"
mā'e⁺/	"get cool, wet"	*mā'al*ᵋ/	"make cool, wet"
*wʊ̄'ʊg*ᵋ/	"get wet"	*wʊ̄'ʊl*ᵋ/	"make wet"

There is no obvious reason for the choice of suffix in

*zàb*ᵋ	"fight"	*zàbɪl*ᵋ	"cause to fight"
*dụ'à*ᵃ	"bear, beget"	*dù'al*ᵋ	"make interest (of a loan)"

-***g***- forms causatives in a few verbs:

*dɔ̄l*ˡᵃ/	"accompany"	*dɔ̄lɪg*ᵋ/	"make accompany"
*gɔ̄r*ᵃ/	"look up" DK	*gɔ̄dɪg*ᵋ/	"make look up" DK
*tɛ̀ňr*ᵃ	"remember"	*tìeň*⁺	"bring to mind, remind"
*yùul*ᵋ	"swing" intransitive	*yùlɪg*ᵋ	"swing" transitive
kɔ̀⁺	"break" intransitive	*kɔ̀'ɔg*ᵋ	"break" ambitransitive
nū⁺	"drink"	*nūlɪg*ᵋ/	"make drink"; also *nūlɪs*ᵋ/

13.1.3 Reverse action

-***g***- attached to dynamic verbal roots implies reversal:

yɛ̀$^{+}$	"dress oneself"	*yɛ̀ɛg*^{ɛ}	"undress oneself"
pìd^{ɛ}	"put (hat etc) on"	*pìdɪg*^{ɛ}	"take (hat etc) off"
pìl^{ɛ}	"cover"	*pìlɪg*^{ɛ}	"uncover"
lɔ̄$^{+}$	"tie up"	*lɔ̄dɪg*$^{ɛ/}$	"untie"
yɔ̀$^{+}$	"close"	*yɔ̀'ɔg*^{ɛ}	"open"
ɛ̀ňd^{ɛ}	"block up"	*ɛ̀ňdɪg*^{ɛ}	"unblock"
yà'al^{ɛ}	"hang up"	*yàk*^{ɛ}	"unhang"
pà'al^{ɛ}	"put on top"	*pàk*^{ɛ}	"take off top"
pìbɪl^{ɛ}	"cover up"	*pìbɪg*^{ɛ}	"uncover"
tàbɪ^{ya}	"be stuck to"	*tàbɪg*^{ɛ}	"unstick, get unstuck"
là'as^{ɛ}	"gather together"	*lāk*$^{ɛ/}$	"open" (eye, book); tone *sic*
		cf *lákè*	(Mooré) "un-stick together"

Possibly a reversal sense also underlies

lìəb^{ɛ}	"become"	*lɛ̀bɪg*^{ɛ}	"turn over"
fāň$^{+}$	"rob, snatch"	*fāeň*$^{+/}$	"save" ?? for "snatch back"

Reversive -*g*- is a peculiarity of the Western group within Oti-Volta; the other groups show alveolar suffixes: Konkomba *pì:*^{n} "close" *pì:rì* "open", Moba *lwo* "close" *lwot* "open", Byali *byá* "close" *byērə́* "open", Nawdm *rów* "has closed" *rɔd* "open." Proto-Bantu had *-ʊl-* and *-ʊk-*, perhaps respectively transitive and intransitive. An alveolar variant may have been disfavoured in Western Oti-Volta because of the adoption of *-da* as the regular dynamic imperfective flexion.

13.1.4 Plural action

-***s***- may have a plural action sense:

kɔ̀$^{+}$	"break"	*kɔ̀'ɔs*^{ɛ}	"break several times"
tɔ̀ň$^{+}$	"shoot"	*tɔ̀ň'ɔs*^{ɛ}	"hunt"
pìəb^{ɛ}	"blow (flute etc)"	*pɛ̀bɪs*^{ɛ}	"blow (wind)"
làbɪ^{ya}	"crouch in hiding"	*làbɪs*^{ɛ}	"walk stealthily"
vʊ̄e̱$^{a/}$	"be alive"	*vʊ̄'ʊs*$^{ɛ/}$	"breathe, rest"
i̱āňk$^{ɛ/}$	"fly, jump"	*i̱āň'as*$^{ɛ/}$	"leap, jump repeatedly"
yā'e$^{+/}$	"open mouth"	*yā'as*$^{ɛ/}$	"open repeatedly" WK
dī'e$^{+/}$	"receive"	*dī'əs*$^{ɛ/}$	"receive (many things)"
gū'$^{+}$	"guard"	*gū'us*$^{ɛ/}$	"watch out; guard (many)"

13.1.5 Denominal verbs

-***g***- attached to nominal roots has the meaning "make/become ...":

ňyɔ̄'ɔsᵋ/	"smoke"	*ňyū'eᐩ/*	"set alight"
ňwīigᵃ/	"rope"	*ňwīigᵋ/*	"make a rope"
tādɪmᵐ/	"weak person"	*tàdɪgᵋ*	"become weak"
kpì'aᐩ	"neighbour"	*kpì'eᐩ*	"approach"
zūərᵋ	"hill"	*zùeᐩ*	"get higher, more"
À-Tūlˡᵋ	"Breech-Delivered" 30.2	*tùlɪgᵋ*	"invert"
mā'asírᵋ	"cool, wet"	*mā'eᐩ/*	"get cool, wet"
bʊ̄gʊsírᵋ	"soft"	*bʊ̄kᵋ/*	"soften"
tɛ̄bɪsírᵋ	"heavy"	*tɛ̄bɪgᵋ/*	"get/make heavy"
gīŋᵃ	"short"	*gìŋᵋ*	"scrimp"
kpīˈoŋᵓ	"strong"	*kpɛ̀'ŋᵋ*	"strengthen"
vʊ̄rᵋ/	"alive"	*vʊ̄'ʊgᵋ/*	"make/come alive"
pɔ̀ɔdɪgᵃ	"few"	*pɔ̀'ɔgᵋ*	"diminish; denigrate"
pìəlɪgᵃ	"white"	*pɛ̀lɪgᵋ*	"whiten"
sābɪlígᵃ	"black"	*sɔ̄bɪgᵋ/*	"blacken"
nīn-múaᐩ	"concentration"	*mù'eᐩ*	"redden, become intense"
kʊ̄dʊgᵓ	"old"	*kʊ̀dɪgᵋ*	"shrivel up, dry out, age"
sʊ̀ŋᵓ	"good"	*sʊ̀ŋᵋ*	"help"
tʊ̄ʊlʊ́gᵓ	"hot"	*tʊ̄lɪgᵋ/*	"heat up"
mì'ɪsʊgᵓ	"sour"	*mì'igᵋ*	"turn sour"
zùlʊŋᵓ	"deep"	*zùlɪgᵋ*	"deepen"
lālʊ́gᵓ	"far"	*lālɪgᵋ/*	"get to be far, make far"
màu̯kᵓ	"crumpled up"	*màkᵋ*	"crumple up"
dɛ̄ɛŋᵃ	"first"	*dɛ̀ŋᵋ*	"precede"
nɛ̀ɛrᵋ	"clear, empty"	*nìeᐩ*	"appear"

With the addition of -*m* as a second derivational suffix:

wàu̯ŋᵓ	"wasted"	*wàŋɪmᵐ*	"waste away"

A similar sense is seen with a relational verb root in

sɔ̄ň'eʸᵃ/	"be better than"	*sūň'eᐩ/*	"become better than" WK

-***lɪm***- derives verbs from noun roots, meaning "act as ..." or "make/become ...":

	pu̱'ā^{a}	"woman"		*pù'alɪm*^{m}	"cook"
	pɔ̀ň'ɔr^{ɛ}	"cripple"		*pɔ̀ň'ɔlɪm*^{m}	"cripple, get crippled"
	gìk^{a}	"dumb"		*gìgɪlɪm*^{m}	"become dumb"
	wàbɪr^{ɛ}	"lame"		*wàbɪlɪm*^{m}	"make, go lame"
	gʊ̄'ʊs^{ɛ}	"semi-ripe things"		*gʊ̀'ʊlɪm*^{m}	"become semi-ripe"
	bʊ̄gʊd^{a}	"client of diviner"		*bʊ̀gʊlɪm*^{m}	"cast lots"
			cf	*bʊ̀k*^{ɛ}	"cast lots"

Miscellaneous denominal dual-aspect verbs formed with *s m b* are seen in

	zu̱à$^{+}$	"friend"		*zùʊs*^{ɛ}	"befriend"
	nɛ̄ɛr$^{ɛ/}$	"millstone"		*nɛ̄ɛm*$^{m/}$	"grind with a millstone"
	yā'ad^{ɛ}	"clay"		*yà'ab*^{ɛ}	"mould clay"
cf	*yàge*	(Mooré) "make pottery"			

-*b*- also appears in *tàm*^{m} "forget", *zàm*^{m} "cheat, betray", *dàm*^{m} "shake" and *lɛ̀m*^{m} "sip, taste", where *mm* ← **mb* 6.2, but I have found no cognate words without the suffix.

13.1.6 Miscellaneous cases

-***m***- derives some preverbs from verbs 19.7.2:

	lɛ̀b^{ɛ}	"return"		*lɛ̀m*	"again"
cf	*là'as*^{ɛ}	"gather together"		*là'am*	"together"
	dɛ̀ŋ^{ɛ}	"go first"		*dɛ̀ŋɪm*	"first"
cf	*malig*	(Toende) "do again"		*màlɪgɪm*	"again"

It has no obvious meaning in

	kɔ̀ňs^{ɛ}	"cough"		*kɔ̀ňsɪm*^{m}	"cough"

-***g***- occurs with no clear meaning in

	sɔ̄ň$^{+}$	"rub"		*sūeň*$^{+/}$	"anoint"
	nɔ̄b^{ɛ}	"get fat"		*nɔ̄bɪg*$^{ɛ/}$	"grow" (child, plant)
	nā$^{+}$	"join"		*nāe*$^{+/}$	"finish"; compare Hausa *gamàa* "join, finish"

-***r***- appears in

kāab$^{ɛ/}$ "offer, invite"	*kābɪr*$^{ɛ/}$	"ask for admission"
	cf *kábɪs*	Toende *id*
[no simplex]	*sūgʊr*$^{ɛ/}$	"forbear, be patient with"

Both words appear frequently in pan-regional set formulae 29 and may well be loanwords. They may be back-formations from the nouns *kābɪrí*$^{+}$ and *sūgʊrʊ́*$^{+}$, where *rɪ*/*rʊ* possibly originated in the equivalent of *r*^{ɛ}|*a*$^{+}$ class singular flexions 9.5.

13.2 Nominals

13.2.1 From verbs

The derivational processes described below are very productive; agent noun formation in particular is almost flexional in its regularity and generality, though this is less true of deverbal adjective formation. Deverbal noun and adjective formation generally shows more analogical levelling than derivational processes elsewhere, in keeping with the strong Kusaal tendency to regularity and transparency in verb morphology.

The Tone Patterns of deverbal nouns and adjectives are predictable 7.5.

13.2.1.1 Agent nouns

Agent nouns can be freely made from almost all verbs apart from adjectival verbs. Informants readily supply isolated forms on demand, but in conversation and texts they usually occur as second elements of compounds. All belong to the ^{a}|*b*^{a} class, although those derived from *ll-* or *r(r)*-stem single-aspect verbs may also show *r*^{ɛ}|*a*$^{+}$ class forms 9.3.1. Despite their regularity of formation, agent nouns often develop specialised meanings, as will be seen in the examples. The name "agent noun" is not altogether felicitous; as with English derivatives in "-er", the formation may be found with verbs whose subject is not an agent. Agent nouns can be created from stative verbs usable in direct commands, i.e. from relational but not adjectival verbs 11.2.2.

The formant of agent nouns and dynamic adjectives is the derivational suffix -*d*. It is probably historically related to the -*d*- of the dynamic imperfective flexion -*d*^{a}, but the tonal effects differ, and derivational -*d* shows much less regularity in its mode of attachment; agent nouns show more levelling and regularisation than dynamic adjectives. These variations arise from a tendency to limit stem length, resulting in deletion of either -*d* itself or the suffix preceding it. The absence or presence of the suffix affects the Tone Pattern in forms derived from Pattern LO verbs 7.5.

Most **dual-aspect verbs** have an agent noun with a singular form segmentally identical with the imperfective. For tones see 7.5. If there are alternate forms 11.1, the less "regular" form appears as the agent noun.

kʊ̄$^{+}$	"kill"	*kʊ̄ʊd*$^{a/}$	"killer"
mɛ̀$^{+}$	"build"	*mɛ̄ɛd*^{a}	"builder"
dì$^{+}$	"eat"	*dīt*^{a}	"eater"
gɔ̄s^{ɛ}	"look"	*gɔ̄t*$^{a/}$	"seer, prophet"
dʊ̄g^{ɛ}	"cook"	*dʊ̄gʊd*$^{a/}$	"cook"
dụ̂'à^{a}	"bear, beget"	*dʊ̄'ad*^{a}	"elder relation"
kàd^{ɛ}	"drive away"	*saríyà-kāt*^{a}	"judge" 19.8.1
sɔ̄b^{ɛ}	"write"	*sɔ̄bɪd*$^{a/}$	"writer"
bùn^{ɛ}	"reap"	*būn*^{na}	"reaper"
tʊ̀m^{m}	"work"	*tʊ̀m-tʊ̄m*^{na}	"worker"
kɪ̀m^{m}	"tend flock"	*kɔ̀ňb-kīm*^{na}	"herdsman, shepherd"
kpàr^{ɛ}	"lock"	*kpārɪd*^{a}	"lock-er"
gbīs^{ɛ}	"sleep"	*gbīsɪd*$^{a/}$	"sleeper"
sị̂àk^{ɛ}	"believe"	*sị̂ākɪd*^{a}	"believer"
ị̂āňk$^{ɛ/}$	"jump, fly"	*ị̂āň'ad*$^{a/}$	"flier"
sʊ̀ŋ^{ɛ}	"help"	*sʊ̄ŋɪd*^{a}	"helper"
bàŋ^{ɛ}	"understand"	*bāŋɪd*^{a}	"wise man"
kɛ̄ŋ$^{ɛ/}$	"go"	*kɛ̄n*$^{na/}$	"traveller"
gàad^{ɛ}	"pass"	*tʊ̀ɒn-gāt*^{a}	"leader"
mɔ̄ɔl$^{ɛ/}$	"proclaim"	*mɔ̄ɔl-mɔ́ɔ̀n*^{na}	"proclaimer"
màal^{ɛ}	"sacrifice"	*màal-māan*^{na}	"sacrificer"
pà'al^{ɛ}	"teach"	*pā'an*^{na}	"teacher"
sūgʊr$^{ɛ/}$	"forbear"	*sūgʊríd*^{a}	"forgiver"
yʊ̄'ʊm$^{m/}$	"sing"	*yʊ̄ʊm-yʊ́'ʊ̀m*^{na}	"singer"
		pl *yʊ̄ʊm-yʊ́'ʊ̀mnɪb*^{a}	
sàň'am^{m}	"spoil"	*pụ̂'à-sāň'am*^{na}	"adulterer"
		pl *pụ̂'à-sāň'amɪdɪb*^{a}	

Pattern H fusion verbs 7.3.1 11.1, 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
dī̱e$^{+/}$	"receive"	*dī̱əd*$^{a/}$	"receiver"
ňwà'e^{+}	"cut wood"	*ňwā'ad*^{a}	"woodcutter"
gbāň'e$^{+/}$	"catch"	*zīm-gbáň'àd*^{a}	"fisherman"
pīe$^{+/}$	"wash"	*pīəd*$^{a/}$	"washer"

fāeň$^{+/}$	"save"	*fāaňd*$^{a/}$	"saviour" WK
		faangid	NT/KB 15

3-mora stems in -*s* consistently drop the -*d* in the sg and cb:

sīgɪs$^{ɛ/}$	"lower"	*sīgɪs*$^{a/}$	"lowerer"
		pl *sīgɪsídìb*^{a}	
kùɵs^{ɛ}	"sell"	*kùɵs*^{a}	"seller"
		pl *kūɵsɪdɪb*^{a}	
pὺ'ʊs^{ɛ}	"worship"	*pὺ'ʊs*^{a}	"worshipper"
		pl *pū'ʊsɪdɪb*^{a}	
tὺ'as^{ɛ}	"talk"	*tὺ'as-tὺ'as*^{a}	"talker"
		pl *tὺ'as-tū'asɪdɪb*^{a}	
dī'əs$^{ɛ/}$	"receive"	*nɔ̄-dí'ə̀s*^{a}	"chief's spokesman"
		pl *nɔ̄-dí'əsìdɪb*^{a}	("linguist", see 31)

Some 2-mora stems also irregularly drop the -*d* in the sg and cb:

zàb^{ɛ}	"fight"	*zàb-zàb*^{a}	"warrior"
		gbān-záb^{a}	"leather-worker"
tìs^{ɛ}	"give"	*tìs*^{a}	"giver"
sɔ̀s^{ɛ}	"beg"	*sɔ̀s*^{a}	"beggar"

Stems in -*mm*- (← **mb* 6.2) form reduplicated agent nouns with *nàm*^{a} plurals:

dàm^{m}	"shake"	*dàm-dàm*^{ma}	"shaker"

The *nn*-stem *sùn*^{nɛ} "bow the head" 6.2 has an agent noun stem in -*nn*-, but the tonemes show retention of the -*d*- formant:

sùn^{nɛ}	"bow head"	*sūn*^{na}	"deep thinker, close
		pl *sūnnɪb*^{a}	observer" WK 31
		cb *sùn-*	(cf ipfv *sùnnɪd*^{a})

Agent nouns can only be formed from 3-mora verb stems in -**g*- if the **g* is either deleted or assimilated with the root final consonant as -*k*- or -*ŋ*-:

yādɪg$^{ɛ/}$	"scatter"	*yāt*$^{a/}$	technical term for one participant in a housebuilding ritual

Various irregular formations in my materials include:

tɛ̄k$^{ɛ/}$	"pull"	*ňwī-tɛ́k*^{a}	"rope-puller"
		pl *ňwī-tɛ́kìdɪb*^{a}	
nɔ̀ŋ^{ɛ}	"love"	*nɔ̀ŋɪd*^{a}	"lover"; tones irreg
tì'əb^{ɛ}	"heal"	*tī'əb*^{a}	"healer"; tones irreg; ?noun primary 31

For 4-mora stems: KT has no agent nouns; WK drops the final *-m-* and proceeds as for 3-mora stems:

sìilɪm^{m}	"cite proverbs"	*sīin*^{na}	"speaker of proverbs"
		pl *sīinnɪb*^{a}	
pɔ̀'alɪm^{m}	"harm"	*pɔ̄'an*^{na}	"harmer"
zàaňsɪm^{m}	"dream"	*zàaňs*^{a}	"dreamer"
		pl *zāaňsɪdɪb*^{a}	

Single-aspect verbs with roots ending in vowels or plosives add *-d-*:

zìň'i^{ya}	"be sitting down"	*zīň'id*^{a}	"sitter"
zì'e^{ya}	"be standing still"	*zī'əd*^{a}	"stander"
mī'$^{+}$	"know"	*mī'id*$^{a/}$	"knower"
		gbàn-mī'id$^{a/}$	"scribe" NT ("book-knower")
zī'$^{+}$	"not know"	*zī'ɪd*$^{a/}$	"ignorant person"
sɔ̄'e$^{ya/}$	"own"	*sɔ̄'ɒd*$^{a/}$	"owner"
sɔ̄ň'e$^{ya/}$	"be better than"	*sɔ̄ň'ɔd*$^{a/}$ pl *sɔ̄ň'ɔb*$^{a/}$	9.3.1
dīgɪ$^{ya/}$	"be lying down"	*dīgɪd*$^{a/}$	"lier-down"
īgɪ$^{ya/}$	"be kneeling"	*īgɪd*$^{a/}$	"kneeler"
vābɪ$^{ya/}$	"be lying prone"	*vābɪd*$^{a/}$	"lier prone"
làbɪ^{ya}	"be crouching"	*lābɪd*^{a}	"croucher in hiding"
àe̯ň^{a}	"be something"	*āaňd*^{a}	"someone who continually *is* something" *sic* WK

Stems in *nn ll r(r)* drop *-d* throughout, showing the same stem as the finite verb, with gemination as in the verb. Those in *ll r(r)* may use *r*^{ɛ}|*a*$^{+}$ class suffixes, coinciding in form with dynamic adjectives 9.3.1.

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" (irreg. tone)
		or *ňyà'an-dɔ̀l*^{lɛ}	
zāňl$^{la/}$	"be holding"	*nɔ̄-záňl*^{la}	"holder of hens"
		or *nɔ̄-záňl*^{lɛ}	
dɛ̄l$^{la/}$	"be leaning"	*nīn-dɛ́l*^{la}	"person prone to lean"
mɔ̄r$^{a/}$	"have"	*bù-mɔ̄r*$^{a/}$	"owner of goats"
		or *bù-mɔ̄r*$^{ɛ/}$	
tār$^{a/}$	"have"	*bù-tār*$^{a/}$	"owner of goats"
		or *bù-tār*$^{ɛ/}$	

Variant formations occur in

kīs$^{a/}$	"hate"	*kīs*$^{a/}$ or *kīsɪd*$^{a/}$	"hater"
tɛ̀ňr^{a}	"remember"	*tɛ̄ňrɪd*^{a}	"rememberer"
gūr$^{a/}$	"be on guard"	*gūrɪd*$^{a/}$	"guard"
		zà'-nɔ̄-gúr^{a}	"gatekeeper"

13.2.1.2 Deverbal adjectives

13.2.1.2.1 Dynamic

In principle these adjectives have the same stem as the agent noun but with different class suffixes; however, dynamic adjectives drop the *-d* formant more readily, probably because they are not made as freely as agent nouns and are correspondingly not as far along the axis from derivational to flexional.

The sense may be active or passive, essentially "habitually connected with the verbal action", like the range of meaning of an English gerund as a noun premodifier. It is not usual for a dynamic adjective to have a past passive sense like an English past participle, though examples occur, e.g *sūm-dʊ́gʊdà*$^{+}$ "cooked groundnuts" WK, *ziiŋdʊgida* = *zíiŋ-dʊ́gʊdà*$^{+}$ "cooked fish" (Lk 24:42), beside the more usual sense in *ni'im dʊgida* = *nīm-dʊ́gʊdà*$^{+}$ "meat for cooking" (1 Samuel 2:15.)

When used without a preceding noun cb, dynamic adjective forms have the meaning of agent nouns:

kʊ̄ʊdír^{ɛ} 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^{ɛ}	"woman killer, murderous woman"

Accordingly, deverbal adjectives will be cited with a preceding cb.
With **dual-aspect verbs**:
2-mora stems all retain the **d*.

gɔ̀ň$^{+}$	"hunt"	*pu̱'à-gɔ̄ɔ̀ň-dɪr*^{ɛ}	"prostitute" ("wandering woman")
là'$^{+}$	"laugh"	*pu̱'à-lā'a-dɪr*^{ɛ}	"woman prone to laughter/ woman to be laughed at"
ňyɛ̄$^{+}$	"see"	*bʊ̄n-ňyɛ́-tɪ̀r*^{ɛ}	"visible object"
ku̱ā$^{+}$	"hoe"	*nā'-dá-kʊ̄ə-dír*^{ɛ}	"ox for ploughing"
yɛ̀$^{+}$	"don clothes"	*fū-yɛ́ɛ-dɪ̀r*^{ɛ}	"shirt for wearing" WK
		fū-yɛ́ɛ-dʊ̀g^{ɔ}	KT
kʊ̄$^{+}$	"kill"	*tì-kʊ̄ʊ-dím*^{m}	"poison" ("killing medicine")
du̱'à^{a}	"bear/beget"	*tɛ̀ŋ-dʊ̄'a-dɪg*^{a}	"native land"
dʊ̄g^{ɛ}	"cook"	*sūm-dʊ́gʊ-dà*$^{+}$	"cooked groundnuts" WK
sīg^{ɛ}	"descend"	*yī-sígɪ-dɪ̀r*^{ɛ}	"lodging-house"
su̱'ā^{a}	"hide"	*yɛ̄l-sʊ́'a-dɪ̀r*^{ɛ}	"confidential matter"
ɔ̀ň-b^{ɛ}	"chew"	*bʊ̄n-ɔ́ňbɪ-dà*$^{+}$	"solid food"
bʊ̀n^{ɛ}	"reap"	*bʊ̄n-búnnɪ̀r*^{ɛ}	"thing for reaping"
tʊ̀m^{m}	"work"	*bʊ̄n-tʊ́mmɪ̀r*^{ɛ}	"useful thing"
vʊ̄l^{ɛ}	"swallow"	*tì-vʊ̄nním*^{m}	"oral medication"
gbīs^{ɛ}	"sleep"	*pu̱'à-gbīsɪ-dír*^{ɛ}	"woman always sleeping"

3-mora stems in **g* drop *-d* in all cases except where the **g* derivational suffix is deleted in the imperfective, whether regularly or otherwise 11.1. The dropping of *-d* is thus much more consistent than in agent nouns.

gīlɪg$^{ɛ/}$	"go around"	*pu̱'à-gīnnɪ́g*^{a}	"prostitute"
sūeň$^{+/}$	"anoint"	*kpā-sɔ́ɔ̀ň-dɪ̀m*^{m}	"anointing oil"
tʊ̄lɪg$^{ɛ/}$	"heat up"	*bʊ̄n-tʊ́lɪgɪ̀r*^{ɛ}	"heater, thing for heating"
pɛ̀lɪg^{ɛ}	"whiten"	*bʊ̄n-pɛ́lɪgɪ̀r*^{ɛ}	"whitening thing, whitener"
yādɪg$^{ɛ/}$	"scatter"	*bʊ̄n-yátɪ̀r*^{ɛ}	"scattering thing" (cf *yāt*$^{a/}$)
ja̱ňk$^{ɛ/}$	"fly, jump"	*bʊ̄n-ja̱ň'a-dɪ̀r*^{ɛ}	"flying creature"
pàk^{ɛ}	"surprise"	*yɛ̄l-pákɪ̀r*^{ɛ}	"disaster"
tɛ̄k$^{ɛ/}$	"pull"	*ňwī-tɛ́kɪ̀r*^{ɛ}	"rope for pulling with"
kɛ̄ŋ$^{ɛ/}$	"go"	*bʊ̀ŋ-kɛ̄nnír*^{ɛ}	"donkey that doesn't sit still"
sʊ̀ŋ^{ɛ}	"help"	*bʊ̄n-sʊ́ŋɪ̀r*^{ɛ}	"helpful thing"
nɔ̀ŋ^{ɛ}	"love"	*bì-nɔ̀ŋɪr*^{ɛ}	"beloved child"

3-mora stems in *-m* retain the *-d*, forming the consonant cluster *-mm-*:

sàň'am^{m}	"destroy"	*bù-sāň'ammɪr*^{ɛ}	"scapegoat" WK

3-mora stems in *-s* all drop the *-d*:

pɛ̀lɪs^{ɛ}	"sharpen"	*bʊ̄n-pɛ́lɪsìr*^{ɛ}	"sharpening thing"
kʊ̀ɵs^{ɛ}	"sell"	*bʊ̄n-kʊ́ɵsìr*^{ɛ}	"item for sale"

4-mora stems (all from KT) drop *-d* (whereas agent nouns drop stem-final *-m*):

sìilɪm^{m}	"cite proverbs"	*bʊ̄n-síilʊ́ŋ*^{ɔ}	"thing relating to proverbs"
pʊ̀'alɪm^{m}	"harm"	*nīn-pʊ́'alìŋ*^{a}	"harmful person"
		pu̯'à-pʊ̀'alíŋ^{a}	"harmful woman"
zàaňsɪm^{m}	"dream"	*nīn-záaňsʊ̀ŋ*^{ɔ}	"dreamy person"
		pu̯'à-zàaňsʊ́ŋ^{ɔ}	"dreamy woman"

The adjectives associated with adjectival verbs are not deverbal but primary stative adjectives. Dynamic adjectives from **stance verbs** show the same stem as the agent noun 13.2.1.1:

dīgɪ$^{ya/}$	"be lying"	*bʊ̀ŋ-dīgɪdír*^{ɛ}	"donkey that lies down a lot"
vābɪ$^{ya/}$	"be prone"	*bʊ̀ŋ-vābɪdír*^{ɛ}	"donkey always lying prone"
zìň'i^{ya}	"be sitting"	*kūg-zíň'idìr*^{ɛ}	"stone for sitting on" (i.e. not a *bʊ̄gʊr*^{ɛ} WK)
zāňl$^{la/}$	"be holding"	*nɔ̄-záňl*^{lɛ}	"hen for holding"
dɛ̄l$^{la/}$	"be leaning"	*nīn-dɛ́l*^{lɛ}	"person you can lean on" WK
		kʊ̀g-dɛ̄l$^{lɛ/}$	"chair for leaning on"
gʊ̀l^{la}	"be hanging"	*bʊ̄n-gʊ́l*^{lɛ}	"thing for suspending"

13.2.1.2.2 Resultative

Resultative adjectives are only derived from verbs which can use the perfective form in a resultative sense 19.2.1. Almost all such verbs are either intransitive or patientive ambitransitive 19.8.1, and the adjectives are not passive participles, but express resulting states. There are no resultative adjectives from stance-verb roots meaning e.g. "seated", "standing" or from dual-aspect verbs used passively e.g. "eaten."

It is not clear how far the formation is productive. The formant is *-lɪm-*; it either deletes a preceding derivational suffix or is a formation from roots alone; all examples show *-lɪm* after a *CVV* root. For the flexion see 10.

kpì$^{+}$	"die"	*kpìilʊ́ŋ*^{ɔ}	"dead"
gɛ̄ň$^{+}$	"get tired"	*gɛ̄ɛňlʊ́ŋ*^{ɔ}	"tired"
pɛ̀ˈɛlˀ^{ɛ}	"fill"	*pɛ̀ˈɛlʊ́ŋ*^{ɔ}	"full"
kɔ̀$^{+}$	"break"	*kɔ̀ɔlʊ́ŋ*^{ɔ}	"broken"
yɛ̀$^{+}$	"wear"	*yɛ̀ɛlʊ́ŋ*^{ɔ}	"worn" (of a shirt)
yɔ̀$^{+}$	"close"	*yɔ̀ɔlʊ́ŋ*^{ɔ}	"closed"
pʊ̀ˈalɪm^{m}	"harm"	*pʊ̀ˈalʊ́ŋ*^{ɔ}	"damaged"
àeň$^{+}$	"tear"	*àaňlʊ́ŋ*^{ɔ}	"torn"

13.2.1.3 Instrument nouns

Instrument nouns can be created at will by my informants whenever semantically appropriate from dual-aspect and stance verbs, so long as the derived dynamic 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*^{ɛ} class. In a few cases the meaning overlaps with that of agent nouns.

kʊ̄$^{+}$	"kill"	*kʊ̄ʊdíŋ*^{a}	"thing for killing with"
lɔ̄$^{+}$	"tie"	*sia̰-lɔ̄ɔdíŋ*^{a}	"belt" ("waist-tying thing")
dʊ̄g^{ɛ}	"cook"	*dʊ̄gʊdíŋ*^{a}	"cooking utensil"
sɔ̄b^{ɛ}	"write"	*sɔ̄bɪdíŋ*^{a}	"writing implement"
kpàr^{ɛ}	"lock"	*kpārɪdɪŋ*^{a}	"thing for locking"
ňwàˈe^{+}	"cut wood"	*ňwāˈadɪŋ*^{a}	"axe"
pīe$^{+/}$	"wash self"	*pīədíŋ*^{a}	"thing for washing oneself"
sʊ̀$^{+}$	"bathe"	*sʊ̄ʊdɪŋ*^{a}	"sponge"
gɔ̄s^{ɛ}	"look"	*nīn-gɔ́tɪ̀ŋ*^{a}	"mirror"
		nīn-gɔ́tɪ̀s^{ɛ}	"spectacles" [*nīn-* "eye"]
bʊ̀d^{ɛ}	"plant"	*bʊ̄tɪŋ*^{a} 2.3	"cup" (originally "seed cup")
pīəs$^{ɛ/}$	"clean"	*pīəsíŋ*^{a}	"cleaning implement"
kʊ̀ɵs^{ɛ}	"sell"	*kʊ̄ɵsɪŋ*^{a}	"professional salesperson"
dāˈe$^{+/}$	"push"	*dāˈadíŋ*^{a}	"pusher (person or thing)"
zìňˈi^{ya}	"be sitting"	*zīňˈidɪŋ*^{a}	"thing for sitting on"

13.2.1.4 Imperfective gerunds

Apart from stance verbs, which mostly make perfective gerunds 12.2.1.2, and adjectival verbs, which do not have gerunds at all apart from those verbs which take complements, single-aspect verbs usually make *m*^{m} class gerunds by adding derivational -*m*- to the stem. **Vowel-stems add -*ɪm*-**:

	sʊ̄'e$^{ya/}$	"own"	gerund:	*sʊ̄'ʊlím*^{m} cf *so'olimkan* Mt 12:25, 1996
	mī̍$^{+}$	"know"		*mī̍'ilím*^{m}
	zī'$^{+}$	"not know"		*zī'ɪlím*^{m}
	àe̯ň^{a}	"be something"		*àaňlím*^{m}
	bɛ̀$^{+}$	"be somewhere"		*bèlím*^{m} [short vowel *sic*]
	kā'e̯$^{+}$	"not be"		*kā'alím*^{m}
	mɔ̄r$^{a/}$	"have"		*mɔ̄rím*^{m}
	tār$^{a/}$	"have"		*tārím*^{m}
	nɛ̄n$^{na/}$	"envy"		*nɛ̄nnɪ́m*^{m}
	nār$^{a/}$	"be necessary"		*nārím*^{m}
	wɛ̄n$^{na/}$	"resemble"		*wɛ̄nnɪ́m*^{m} [tones show this is *deverbal*]
	sīn$^{na/}$	"be silent"		*sīnnɪ́m*^{m}
	dɔ̄l$^{la/}$	"accompany"		*dɔ̄llím*^{m}
	zāňl$^{la/}$	"hold in the hand"		*zāňllím*^{m}
	dɛ̄l$^{la/}$	"be leaning (of person)"		*dɛ̄llʊ́g*^{ɔ} or *dɛ̄llím*^{m}
	gūr$^{a/}$	"guard"		*gūrím*^{m}
But	*tɛ̀ňr*^{a}	"remember"		*tɛ̄ňrɪb*^{ɔ}
	kīs$^{a/}$	"hate"		*kísʊ̀g*^{ɔ}

Unlike abstract nouns associated with adjectival verbs, these forms obey the tonal rules for gerund formation, and are Pattern L when derived from Pattern LO verbs; the third-mora L tone confirms that these are in fact *m*-stems 7.2.2.

Dual-aspect verbs with an imperfective which has acquired an independent stative meaning 19.2.2.2 also form imperfective gerunds; however, when formed from Pattern LO verbs they do not show the third-mora H toneme:

bɔ̀ɔdɪm^{m}	"will" (Pattern L, unlike *bɔ̄ɔdɪr*^{ɛ} "desirable")
	contrast the perfective gerund *bɔ̄ɔb*^{ɔ} "seeking"
gɔ̀ɔňdɪm^{m}	"wandering" (*gɔ̀ň*$^{+}$ "hunt")
zɔ̀tɪm^{m}	"fear" [*M̀ zɔ́t nɛ̄* "I'm afraid."]
	contrast *zɔ̄ɔg*^{ɔ} "running"

This probably simply means that the stems do not contain *-m-* and have only three morae; cf the *dàalɪm*^{m} "masculinity", *pʊ̀'alɪm*^{m} "femininity" alongside *dàalím*^{m} "male sex organs", *pʊ̀'alím*^{m} "female sex organs" and *bìilím*^{m} "childhood" 13.2.2, and the variant forms of resultative adjectives which lack the *-m-* of the stem 10.

The gerund *wʊmmʊg* of *wʊ̀m*^{m} "hear" (written *wumug* in pre-2016 orthography, but read with *-mm-* in the 1996 audio NT) is perhaps a formation of this kind, representing **wʊmdʊgɔ*. A number of deverbal abstract nouns from 3-mora verb stems in *-s-* appear in the *m*^{m} class and resemble gerunds in tone. They too are probably imperfective gerund forms: for the dropping of the *-d-* formant compare agent nouns and deverbal adjectives.

pʊ̀'ʊs^{ɛ}	"greet, thank"		*pʊ̀'ʊsɪm*^{m}	"worship"
		or	*pʊ̀'ʊsʊgɔ*	
kʊ̄$^{+}$	"kill"		*nīn-kʊ́ʊsɪ̀m*^{m}	"murderousness"
yɔ̄lɪs$^{ɛ/}$	"untie"		*yɔ̄lɪsím*^{m}	"freedom"

Unequivocal imperfective gerund forms with *-m-* derived from almost all agentive verbs occur as premodifiers of the bound noun

-tāa$^{=}$	*-tāas*^{ɛ}	*-tà-* or *-tā-*	"companion in ..."

The forms used for relational verbs and for other single-aspect verbs with stems in *-ll -nn -r(r)* are identical to their usual imperfective gerunds:

mɪ̄$^{+}$	"know"	*mɪ̄'ilím-tāa*$^{=}$	"partner in knowledge"
zɪ̄'$^{+}$	"not know"	*zɪ̄'ɪlím-tāa*$^{=}$	"partner in ignorance"
bɛ̀$^{+}$	"exist"	*bɛ̀lím-tāa*$^{=}$	"partner in existence" WK
dɔ̄l$^{la/}$	"be with"	*dɔ̄llím-tāa*$^{=}$	"fellow-companion"

For the irregular stative verb *nɔ̀ŋ*^{ɛ} WK has two forms with different nuances:

nɔ̀ŋ^{ɛ}	"love"		*nɔ̀ŋɪlím-tāa*$^{=}$	"fellow liker"
		or	*nɔ̀ŋɪdím-tāa*$^{=}$	"fellow lover"

Forms from dual-aspect verbs are made with *-m-* added to the stem seen in the derived dynamic adjective, but have gerund Tone Patterns:

mɛ̀$^{+}$	"build"	*mɛ̀ɛdím-tāa*$^{=}$	"fellow-builder"
dì$^{+}$	"eat"	*dìtím-tāa*$^{=}$	"messmate"
pʊ̄$^{+}$	"share"	*pʊ̄ʊdím-tāa*$^{=}$	"fellow-sharer"
kpɛ̀ň'$^{+}$	"enter"	*kpɛ̀ň'ɛdím-tāa*$^{=}$	"fellow-resident"

zàb$^{\varepsilon}$	"fight"		*zàbɪdím-tāa*$^{=}$	"enemy"
dʊ̄g$^{\varepsilon}$	"cook"		*dʊ̄gʊdím-tāa*$^{=}$	"fellow-cook"
fāǎ̌$^{+}$	"snatch"		*fāaǎ̌dím-tāa*$^{=}$	"fellow-robber"
tʊ̀m^{m}	"work"		*tʊ̀mmím-tāa*$^{=}$	"co-worker"
pʊ̀ˈʊs$^{\varepsilon}$	"worship"		*pʊ̀ˈʊsím-tāa*$^{=}$	"fellow-worshipper"
dɪ̀ɪs$^{\varepsilon}$	"feed"		*dɪ̀ɪsím-tāa*$^{=}$	"fellow-feeder"
sʊ̀ŋ$^{\varepsilon}$	"help"		*sʊ̀ŋím-tāa*$^{=}$	"fellow-helper"
		or	*sʊ̀ŋɪdím-tāa*$^{=}$	
sà̰k$^{\varepsilon}$	"agree"		*sà̰kím-tāa*$^{=}$	"fellow in agreement"

Stance verbs may use *-dɪm-* or *-lɪm-* or even *-nɪm-*; *-lɪm-* and *-nɪm-* forms may belong rather to the derived assume-stance/make-assume-stance verbs 13.1.1, with deletion of *d* after the 3-mora stems:

īgɪ$^{\mathrm{ya/}}$	"be kneeling"		*īgɪlím-tāa*$^{=}$	"fellow-kneeler"
		or	*īgɪdím-tāa*$^{=}$	"fellow-kneeler" WK
zìǎ̌ˈi^{ya}	"be sitting"		*zìǎ̌ˈilím-tāa*$^{=}$	"fellow-sitter"
		or	*zìǎ̌ˈidím-tāa*$^{=}$	"fellow-sitter" WK
vābɪ$^{\mathrm{ya/}}$	"lie prone"		*vābɪlím-tāa*$^{=}$	"fellow lier-prone"
		or	*vābɪdím-tāa*$^{=}$	"fellow lier-prone" WK
làbɪ^{ya}	"be crouched"		*làbɪlím-tāa*$^{=}$	"fellow croucher in hiding"
zìˈe^{ya}	"be stood"		*zìˈəlím-tāa*$^{=}$	"fellow-stander"
		or	*zìˈədím-tāa*$^{=}$	"fellow-stander" WK
dīgɪ$^{\mathrm{ya/}}$	"be lying"		*dīgɪlím-tāa*$^{=}$	"fellow-lier"
		or	*dìgɪním-tāa*$^{=}$	"fellow-lier" WK

13.2.1.5 Other deverbal nominals

-***s***- appears in a few concrete nouns derived from verbs:

dīgɪ$^{\mathrm{ya/}}$	"be lying down"	*dīgɪsá*$^{+}$	"lairs"
dʊ̄$^{+}$	"go up"	*dʊ̄ʊsá*$^{+}$	"steps"

-m- derives nouns from verbal roots in

zɔ̀$^{+}$	"run"	*zɔ̄ɔm*$^{\mathrm{m}\varepsilon}$	"refugee"
kpì$^{+}$	"die"	*kpī̱ˈim*$^{\mathrm{m/}}$	"corpse"

-***d***- appears as an instrument noun formant instead of the usual *-dɪm-* in

tu̱à$^{+}$	"grind in a mortar"	*tūədɪr*$^{\varepsilon}$	"mortar"

See also on *pībɪn*^{nɛ} "covering" etc, where the *n* may represent **ld* 12.2.2.

-***b***- derives nouns from verbal roots in

kpì$^{+}$	"die"	*kpìibɪg*^{a}	"orphan"
dà'$^{+}$	"buy"	*dà'abɪr*^{ɛ}	"slave"

This -*b* may be connected with the stem of *bīig*^{a} "child"; cf Gurmanche *kpēbígā* "orphan", *kpé* "die", *bígā* "child". *Sàlɪbɪr*^{ɛ} "bridle" is not analysable.

13.2.2 From nominals

-***s***- forms adjectives and cognate adjectival verbs.

mā'e$^{+/}$	"cool down"	*mā'asír*^{ɛ}	"cold, wet"
		mā'as$^{a/}$	"be cold, wet"
bʊ̄k$^{ɛ/}$	"weaken"	*bʊ̄gʊsír*^{ɛ}	"soft"
		bʊ̄gʊs$^{a/}$	"be soft"
tɛ̄bɪg$^{ɛ/}$	"get heavy"	*tɛ̄bɪsír*^{ɛ}	"heavy"
		tɛ̄bɪs$^{a/}$	"be heavy"
mì'ig^{ɛ}	"get sour"	*mì'isʊgɔ*	"sour"
		mì'is^{a}	"be sour"

-***d***- features in a number of nouns with no evident derivational meaning, such as *yūgʊdɪr*^{ɛ} "hedgehog", *lā'af*^{ɔ} "cowrie" pl *līgɪdɪ*$^{+}$ "money", *pʊ̀gʊdɪb*^{a} "father's sister."

-***m***- appears in both concrete nouns, mostly with human reference, and abstracts:

bī̱a^{+}	"bad"	*bī̱əm*^{m}	"enemy"
tàdɪg^{ɛ}	"become weak"	*tādɪm*$^{m/}$	"weak person"
áňsìb^{a}	"mother's brother"	*āňsíŋ*^{a}	"sister's child"
yáab^{a}	"grandparent"	*yáaŋ*^{a}	"grandchild"
**yāágbā*		**yāágmgā*	
vúər^{ɛ}	"red kapok fruit"	*vúəŋ*^{a}	"red kapok"
**vūégrī*		**vūégmgā*	
bì'isɪr^{ɛ}	"breast"	*bì'isím*^{m}	"milk"
nà'ab^{a}	"chief"	*nā'am*^{m}	"chiefship"
zɔ̄lʊgɔ/	"fool"	*zɔ̄lɪmís*^{ɛ}	"foolishness"

Abstract **-*mís*ᵋ** forms seem always to have H toneme; cf *bùdɪmísᵋ* "confusion", where, however, the -*m*- is part of the verb stem *bùdɪmᵐ* "get confused"; cf also

tādɪmᵐ/	"weak person"	*tàdɪmísᵋ*	"weakness"

Added to existing adjectival stems, -*m*- produces no change of meaning:

ňyɛ̀ɛsᵃ	"be self-confident"	*ňyɛ̀ɛsíŋᵃ*	"self-confident"
vɛ̀ňllɪgᵃ	"beautiful"	*vɛ̀ňllíŋᵃ*	"beautiful"
mālɪsígᵃ	"pleasant"	*mālɪsíŋᵃ*	"pleasant"
lāllúgɔ	"distant"	*lāllíŋᵃ*	"distant"
nārᵃ/	"be necessary"	*nàrʊŋɔ*	"necessary"
wɔ̄kɔ/	"long, tall"	*wā'amᵐᵃ/*	"be long, tall"

-*m*- is seen in a good many unanalysable 3-mora nominal stems, such as the nouns *yʊ̄gʊ́mⁿᵋ* "camel" (ultimately from Berber), *gbīgɪmⁿᵋ* "lion", *zìlɪmᵐᵋ* "tongue, *àňrʊŋɔ* "boat", and the adjectives *zùlʊŋɔ* "deep", *ňyālʊ́ŋɔ* "wonderful", *yàlʊŋɔ* "wide."

-***lɪm***- derives abstract nouns from nouns and adjectives. The -*l*- is perhaps the same suffix as in primary adjectives like

sɔ̄bᵋ	"get dark"	*sābɪlígᵃ*	"black"

However, there are no adjectives in -*l*- alongside these abstract nouns; this is true even for abstract nouns derived with -*l*- alone, like

dāu̯⁺	"man"	*dàalɪmᵐ*	"masculinity"
pu̯'āᵃ	"woman"	*pù'alɪmᵐ*	"femininity"

-*lɪm*- is the only derivational suffix before which *CVVC* roots do not become *CVC* 6.1.1.2, and it can follow a preceding derivational suffix, creating five-mora stems.

tītā'alˡᵋ	"proud person"	*tītā'alɪmᵐ*	"pride"
gīŋᵃ	"short"	*gīiňlímᵐ*	"shortness"
wɔ̄kɔ/	"long, tall"	*wā'alímᵐ*	"tallness"
sāanᵃ/	"guest, stranger"	*sáannìmᵐ*	"strangerhood"
tīráànᵃ	"neighbour"	*tīráànnɪmᵐ*	"neighbourliness"
gīŋᵃ	"short"	*gīŋɪlímᵐ*	"shortness"

14 Derivational prefixes

14.1 Nouns and adjectives

Many noun stems, and one or two adjectives and adverbs, have an element preceding the root which is not the combining form of any noun. Such elements will be called **noun prefixes**. No finite verb form has a prefix.

Noun prefixes usually have no identifiable individual meanings. Even where parallel stems without prefixes or with different prefixes exist, there are no regular processes relating the various forms (contrast the manner-adverb prefix *à-* and the number prefixes.) However, noun prefixes are common in particular semantic fields, such as with nouns referring to small animals, reptiles and insects.

Most noun prefixes fall into just a few phonological types, with limited possibilities for vowel distinctions and for tones. Segmentally, they are mostly of the shape *CV(n)*, where *V* shows only the three-way *a ɪ ʊ* vowel distinction of affix vowels; the *ɪ*/*ʊ* distinction itself and realisations as [i] or [u] are predictable 4.7. There is also a complex reduplicated type *CVsɪn* or *CVlɪn*. Stems with noun prefixes usually lack derivational suffixes. Prefixes have either M or L tonemes throughout, and they differ from cbs in their tonal effects on following elements 7.2.4.

The distinction between noun prefixes and combining forms is not absolute, and a few prefixes clearly originated as cbs, sometimes with phonological simplifications. Other prefixes are related to verbal negative particles. Nevertheless, cbs and noun prefixes are distinct in principle, and most cases readily distinguishable in practice. Thus, an element is a combining form if it is part of a noun paradigm, if it ends in a consonant other than a nasal, if it has a vowel other than short *a ɪ ʊ* without glottalisation or contrastive nasalisation, or if it has M toneme and is followed by L spreading affecting singular and plural forms. On the other hand, an element is a noun prefix if it is formed by reduplication of the stem-initial consonant, or if it has M toneme and is not followed by L spreading affecting singular and plural forms.

Complicating the issue are many stems with elements preceding the final root which do not fit into the common segmental prefix patterns, though behaving tonally as prefixes. Most are **loanwords**, but not all: many names of ethnic groups and of Kusaasi clans are of this type 15.

For the personifier clitic as part of some common nouns referring to living creatures see 16.6; it is not a prefix but a proclitic particle.

14.1.1 Reduplication-prefixes

The simplest type of noun prefix copies the initial *C* of the root, followed by a vowel which is *ɪ* by default, but *ʊ* after labials, labiodentals and labiovelars; *ʊ* replaces *ɪ* before root *u*/*ʊ*/*ɔ* and *ɪ* replaces *ʊ* before root *i*/*ɪ*/*ɛ*. No cases occur with voiced stops or voiced fricatives.

kʊ̀kɔ̄r$^{ɛ/}$	"voice"
kʊ̀kɔ̀m^{mɛ}	"leper"
kɪ̀kàŋ^{a}	"fig tree"
kɪ̀kīrɪg$^{a/}$	"tutelary spirit"
k[*p*]*ʊ̀kpàrɪg*^{a}	"palm tree"
kpīkpīn$^{na/}$	"merchant"
kpàkʊ̄r$^{ɛ/}$	"tortoise" (anomalous prefix vowel)
tītā'ar^{ɛ}	"big"
tɪ̀tʊ̄mɪs^{ɛ}	"sending" (*tʊ̀m*^{m} "send")
tàtàl^{lɛ}	"palm of hand"
pīpīrɪg$^{a/}$	"desert"
fʊ̄fʊ̄m^{mɛ}	"envy"; "stye" (believed to result from envy)
sɪ̀sɪ̀'əm^{m}	"wind"
zà-sɪ̀sɔ̄bɪr$^{ɛ/}$	"evening" (*zà-* cb of *zàam*^{m} "evening", *sɔ̄b*^{ɛ} "get dark")
lɪ̀lāalíŋ^{a}	"swallow"
mɪ̀mīilím^{m}	"sweetness"
mɪ̀mīilʊ́g^{ɔ}	*id*

More complex is a similar type with a final nasal consonant; voiced stops and fricatives do occur with this type:

gʊ̀ngʊ̄m^{mɛ}	"kapok material" (*gʊ̀m*^{mɛ} "kapok fruit")
dʊ̀ndʊ̀ug^{ɔ}	"cobra"
dɪ̀ndɛ̄og$^{ɔ/}$	"chameleon"
bɪ̀mbɪ̀m^{mɛ}	"altar"
bʊ̀mbàrɪg^{a}	"ant"
zʊ̀nzɔ̀ŋ^{a}	"blind" (*zū'əm*$^{m/}$ "go/make blind")
zīnzāu̯ŋ$^{ɔ/}$	"bat"
kɪ̀nkàŋ^{a}	"fig"
tīntɔ̄ñríg^{a}	"mole"
pʊ̀mpɔ̄ɔg^{ɔ}	"housefly" (cf *tàmpūa*$^{+}$ *id* 9.3.2)
sīnsáañ$^{=}$	a kind of tiny ant
nɔ̄b-púmpàu̯ŋ^{ɔ}	"foot"

An even more complex type follows the reduplicated *CV* with *-sɪn* or *-lɪn*:

kpìsɪnkpìl^{lɛ}	"fist"
tàsɪntàl^{lɛ}	"palm of hand"
sīlɪnsíùňg^{ɔ}	"spider" pl *sīlɪnsíîňd*^{ɛ}
sīlɪnsíùg^{ɔ}	"ghost" pl *sīlɪnsíîs*^{ɛ}
zīlɪnzíòg^{ɔ}	"unknown" cf *zī*'$^{+}$ "not know"
vòlɪnvùuňl^{lɛ}	"mason wasp"
wàsɪnwàl^{lɛ}	a parasitic gall on trees, called "mistletoe" in local English
nɛ̄sɪnnɛ̄og$^{ɔ/}$	"envious person" cf *nɛ̄n*$^{na/}$ "envy" WK others "centipede" = WK *nà'-nɛ̄sɪnnɛ̄og*$^{ɔ/}$

14.1.2 *Da(n) ba(n) sa(n)*

dàwàlɪg^{a}	"hot, humid period just before the rainy season"
dàyūug$^{ɔ/}$	"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$^{nɛ/}$	"pigeon"
dādúk^{ɔ}	a kind of large pot, cf *dūk*$^{ɔ/}$ "pot"
dàtìu̯ŋ^{ɔ}	"right hand"
dàgɔ̀bɪg^{a}	"left hand"
bānāa$^{=}$	traditional long-sleeved smock
bàlàŋɪr^{ɛ}	"hat"
bàlàar^{ɛ}	"stick, staff"
bālɛ̄rʊg$^{ɔ/}$	"ugly" cf *lɛ̄r*^{ɛ} "get ugly"
bàyɛ̄og$^{ɔ/}$	"betrayer of secrets" cf *yɛ̄ɛs*$^{ɛ/}$ "betray a secret"
sākárʊ̀g^{ɔ}	"fox"
sàbùa^{+}	"lover, girlfriend" ? *bɔ̀ɔd*^{a} "want, love"
sāmán^{nɛ}	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 15:

*dànkɔ̀ŋ*ɔ	"measles"
*sāngʊ́nnìr*ɛ	"millipede"
*zànkʊ̀'ar*ɛ	"jackal"
*Zàngbɛ̀og*ɔ	"Hausa person"
*màngáʊŋ*ɔ	"crab"
*làngáʊŋ*ɔ	"crab"
*nānzū'us*ɛ/	"pepper"

The interesting word *nàyīig*a "thief" is written *na'ayiig* in NT/KB as if it were a compound with the cb *nā'-* "cow", but it has L toneme initially and the vowel is definitely not glottalised 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 an analogical *g*a|*s*ɛ pl *nàyīis*ɛ as well; there is also a derived abstract noun *nàyīigɪm*m "thievery." The Farefare cognate of *nàyīig*a is *nàyìgà*, pl *nayigba* or *nayigsi*; Dagbani has *nayiɣa* pl *nayiɣsi* and also *tayiɣa id*.

14.1.3 *Pʊ̄ kʊ̀(n)*

In some words these prefixes have a negative meaning, and they are then presumably connected with the verb negative particles *pʊ̄ kʊ̀*:

*kʊ̀ndʊ̀'ar*ɛ	"barren woman"; cf *dʊ̰'à*a "bear, beget"
*nīn-pʊ̄-nān*na/	"disrespectful person"; cf *nān*ɛ "love, respect"
*tʊ̀b-pʊ̄-wʊ́mnìb*a	"deaf people" (Rom 11:7) cf *tʊ̀bʊr*ɛ "ear", *wʊ̀m*m "hear."

However, most cases are not analysable:

*kʊ̀ndʊ̀ŋ*a	"jackal"
*gʊ̄mpʊ̄zɛ̄r*ɛ/	"duck"
*dāmpʊ̄sāar*ɛ	"stick"
*bān-kʊ́sɛ́l*lɛ	"lizard" ? first element connected with *bàŋ*a "agama lizard", but the tones are unexpected.

14.1.4 Stranded combining forms

Some original cbs have become partly bleached of their original meaning and/or simplified phonologically, and then detached from their regular paradigms after being ousted by new cbs based on analogy with sg forms 9.2.2.

nìn "body" is accepted by WK as cb of *nīŋ*ᵃ *nīis*ᵋ [= Mooré *yĩnga*] but the word is rare; as a noun prefix cf

*nìn-gbīŋ*ɔ/	"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-kɔ̀ɔ̌nr*ᵋ	"son, bachelor"	cf *àdàkɔ́ǹ'* "one"

compare *pùkɔ̀ɔ̌nr*ᵋ below

pù "woman" cf *pu̯'ā*ᵃ "woman" cb *pu̯'à-*. Identifiable in e.g.

*pùkɔ̀ɔ̌nr*ᵋ	"widow"	
	cf Mooré *pùgkõoré*	"widow"
	with Mooré *pùgsádà*	"young woman"
	= Kusaal *pu̯'à-sādɪr*ᵋ/	

pū- "farm" cf *pɔ̄ɔg*ɔ/ "field, farm", pl *pɔ̄t*ᵋ/, regular cb *pɔ̄-*; Mooré *púʋgò* pl *pútò*
Tonally, this *pū-* behaves as a M prefix, not a cb 7.2.4.

*pūkpāad*ᵃ/	"farmer" (= *kpāad*ᵃ/ *id*)

nà' "chief"(?) appears before a number of nouns signifying animals and insects:

	*nà'-nɛ̄sɪnnɛ̄og*ɔ/	"centipede" WK
cf	*nɛ̄sɪnnɛ̄og*ɔ/	"envious person" WK; others: "centipede"
	*nà'-zɔ̀m*ᵐᵋ	"locust"
	*nà'-dàwān*ⁿᵋ/	"pigeon" = *dàwān*ⁿᵋ/

The "chief" cb perhaps relates to traditional folklore; cf *à-kɔ̄ra-díàm*ᵐᵃ "praying mantis" ("hyena's parent-in-law") and animal and bird names which incorporate the personifier clitic 16.6 like *à-dàalúŋ*ɔ "stork", *à-gáùǹg*ɔ "pied crow", *à-mús*ᵋ "cat."

14.2 Adverbs

The manner-adverb prefix *à-* appears before some stems which are also followed by apocope-blocking 17.4:

àmɛ̄ŋá$^{+}$	"truly"
àsīda^{+}	"truly"
àníŋà$^{+}$	"promptly"

The same prefix is also seen in a number of proadverbs and in the locative *àgɔ́l*^{lɛ} "upwards" 17.3. Forms with this prefix are all liaison words. The prefix is followed by M spreading, like the number prefix, but differs from it in that it does not cause a preceding LF-final vowel mora to appear as *-a* 8.2.1.

14.3 Number words

In all uses, the numbers 2 to 9 begin with an inseparable number prefix. Forms with number prefixes are all liaison words 8.2. Although unprefixed forms are not available for comparison, the number prefixes are probably followed by M spreading to the root of the number word.

The number prefixes represent **fossilised noun class agreement prefixes**. With the collapse of noun-class based grammatical gender 9.1 in favour of a system of natural gender 16.2.2 the old ^{a}|*b*^{a} class agreement pronouns *ò bà* have been generalised for animate while the old *r*^{ɛ}|*a*$^{+}$ class singular pronoun *lì* has been adopted for inanimate gender. In Dagbani, where there has been a very similar change, the inanimate singular pronouns are similarly based on the equivalent of the *r*^{ɛ}|*a*$^{+}$ class, with the old plural pronoun *ŋa* still extant in older materials for inanimate 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 16.4.2.1 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 *-ɪ* 8.2.1:

bīisá‿ àtáň'	"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-*:

Pɛ̀ɛdá‿ àlá	$^{+}$*ø?*	"How many baskets?"
Basket:PL NUM:how.many CQ?		

nìŋı‿ àlá	"did thus"
do ADV:thus	

The expected corresponding number prefix *bà-* is not now found after nouns with animate gender, but is still preserved after personal pronouns:

tì bàtáň'	"we three"
yà bàyɔ́pɔ̀ẹ̱	"you seven"
bà bàyí	"they two"

The forms of the number words 2-9 used for counting 16.4.2.2 represent the old *m*^{m} class agreement, in the "abstract" sense of *m*^{m} 9.1.1:

ǹtáň'	"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 *bù-* appears in various adverbial number words 16.4.2.4. It probably represents either an old *b*^{ɔ} or *m*^{m} class agreement.

àbùyí$^{+}$	"twice"
àbùtáň'$^{+}$	"three times"
àbùnāasí$^{+}$	"four times"
bùpīiga^{+}	"ten times"
nɔ̄ɔrím bùtáň'$^{+}$	"three times"

15 Unsegmentable complex stems

Numerous words in Kusaal (including the very name of the language, *Kʊ̄sáàl*^{ɛ}) have stems which are more complex structurally than the ordinary unprefixed type but are simply unanalysable units. Tonally, they usually resemble forms with noun prefixes, but examples occur with an initial H toneme. Segmentally, they may contain unusual consonant clusters. Most are identifiable as loanwords, but by no means all. Many names of ethnic groups and clans fall into this category.

Examples of such complex stems include

Kʊ̄sáàs^{ɛ}	"Kusaasi"
Ňwāmpūrɪs$^{ɛ/}$	"Mamprussi"
Kʊ̀tām$^{ma/}$	WK's clan
gbáňyà'a$^{=}$	"lazy person" *gonya'am* "idleness" 1976 NT cf Dagbani *gbinyaɣli* "laziness"

15.1 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 9.6. Analogy may also cause the initial *à-* of loanwords like *àrazánà*$^{+}$ "heaven" and *àrazàk*^{a} "riches" to be treated tonally as fixed-L 8.3.1.

Most loanwords were probably borrowed from **Hausa** in the first instance. Hausa loans often stand out prominently as foreign elements by their deviation from the typical structure of Kusaal words, with its limitation of possible vowel contrasts by position within the word and its restrictions on consonant distributions.

Among nouns borrowed from Hausa are

dāká$^{+}$	"box"	← *àdakàa* (← Portuguese *arca*)
gādʊ$^{+}$	"bed"	← *gadoo*
kɛ̀ɛkɛ̀$^{+}$	"bicycle"	← *kèekè*
bákpàe̱$^{+}$	"week"	← *bakwài* (Hausa "seven")

Identifiable verb loanwords are much less common. They are subject to the usual constraints on possible Kusaal verb shapes 13.1:

dàam^{m}	"disturb, trouble"	← *dàamaa*
bʊ̀g^{ɛ}	"get drunk"	← *bùgu;* a Hausa idiom: literally "get thoroughly beaten"

Several function words are loans, probably from Hausa:

àsɛ́ɛ	"except"	← *sai*
kʊ̄ʊ	"or"	← *koo*
báa	"not a…" 27.2	← *bâa*

Loanwords with clear Hausa counterparts do not necessarily originate in Hausa, which is not only a great lender of words to other languages but also a great borrower, and they may not always have been borrowed into Kusaal from Hausa itself. Some such words appear in many languages of the Sahel and Savanna: *hālí*$^{+}$ "until", Hausa *har*, Kikara Songhay *hálì id*, possibly from Arabic حتى *ħatta:* (Heath 2005); *lɔ́mbɔ̀ˈɔgˤ* "garden", Hausa *làmbuu*, Humburi Senni *làmbò* "enclosed vegetable garden"; *làbɪ*^{ya} "be crouching, hiding behind something", Hausa *laɓèe id*, Kikara Songhay *lá:bú* "hide behind or under something." With 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 Hausa loan, it has been remarkably well integrated into the language, with a single-aspect type Long Form in *-ya* 2.4.2 and dual-aspect assume-stance and make-assume-stance derivatives 13.1.1.

Loans from Hausa have travelled far in West Africa, with an entry point into Songhay via the Zarma and Kaado languages of Niger, e.g. Humburi Songhay *tílásò* "duty", Zarma, Kaado *tílàs* ← Hausa *tiilàs*. Accordingly, wide distribution does not in itself rule out Hausa origin or transmission.

Words from **Arabic** are frequent throughout the languages of the Sahel and Savanna; thus, among others:

láafɪ̀ya^{+}	"health"	Hausa	*laafiyàa*	*id*
		Mooré	*làafí*	*id*
		Kikara Songhay	*ʔàlà:fíyà*	*id*
		Arabic	العافية *ʔal-ʕa:fiya(tu)*	
			"(the) wellness"	
àrazàk^{a}	"riches"	Hausa	*arzìkii*	*id*
		Mooré	*àrzɛ́ká*	*id*
		Kikara Songhay	*ʔárzúkù*	"good luck"
		Arabic	الرزق *ʔar-rizq(u)*	
			"(the) livelihood"	
		cf plural	ارزاق *ʔarza:q(un)*	
Tàláatà$^{+}$	"Tuesday"	Hausa	*Tàlaatàa*	
		Arabic	الثلاثاء *ʔaθ-θala:θa:ʔ(i)*	

àrazánà$^{+}$	"heaven"	Hausa	*àljannàa*	"heaven, paradise"
		Mooré	*àrzãnà*	*id*
		Kikara Songhay	*ʔàljánnà*	*id*
		Arabic	الجنة *ʔal-ɟanna(tu)*	"(the) garden, paradise"
yàddā$^{+/}$ *yàdā* WK	"assent"	Hausa	*yàrda*	(verb) "consent"
		Gao Songhay	*yarda/yadda*	*id*
		Kikara Songhay	*yárrɛ̀*	*id*
		probably Arabic	يرضى *yardˁa:*	3sg m ipfv of
			رضى *radˁiy(a)*	"be satisfied"

It is likely that Arabic words have mostly entered Kusaal via Hausa. Usually this is impossible to prove or disprove, but in some cases the Kusaal forms clearly resemble Mooré rather than Hausa; Arabic words have reached Mooré from several West African languages widely used by Muslims, including Dyula and the Songhay languages beside Hausa.

Thus *màlḭ̀āk*$^{a/}$ "angel" (always *malek* in NT versions prior to 2016) is derived from the Arabic ملاك *malʔak(un)*. The vocalism suggests transmission via Mooré *màlɛ́kà* and Toende *màlɛ́k*; the word is usually found in Christian materials, which would be consistent with this pathway (see below.) The forms clearly do not match Hausa *màlaa'ikàa*, which is from the Arabic plural ملائكة *mala:ʔika(tu)*. A similar case in the realm of religion is *Sʊ̄táanà*$^{+}$ "Satan", matching Mooré *Sʊtãana* rather than Hausa *shàiɗân*, which is a learned borrowing of the Arabic شيطان *ʃaytˁa:n(u)*.

Loanwords from **Songhay** languages, probably via Mooré, include *bʊ̀rkìn*^{a} "honest person", Mooré *bʊ̀rkĩ́ná* "free, noble" (as in "Burkina Faso"), Dagbani *bilchina* "free, not slave", Yoruba *bọ̀rọ̀kìnní* "gentleman"; cf Kikara Songhay *bòrkǐn* "noble (caste.)" The word *bàu̯ŋʊ* is used only in *kpɛ̀ň' bàu̯ŋʊ* "get circumcised" (*kpɛ̀ň'*$^{+}$ "enter"), Mooré *kẽ bãongó id*; cf Kikara Songhay *bàŋgù* "pool, spring", *à húró bàŋgù* "he entered the pool", i.e. "he was circumcised" (Trimingham 1959.)

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. Kusaal speakers themselves very often ascribe forms which are not part of their own usage to **Mooré** influence.

One word revealed as a loan by its phonology is *Wínnà'am*^{m} (WK) *Wínà'am*^{m} (always *Wina'am* NT/KB) "God." It is common in Christian materials; the Creator of traditional religion often appears simply as *Wīn*$^{nɛ/}$ in proverbs etc. *Wínnà'am* looks analysable as a compound of *wīn*$^{nɛ/}$ "god" and the stem of *nà'ab*^{a} "chief" or *nā'am*^{m} "chieftaincy", but the tones should then have been **Wīn-ná'àm*, and the prevalence of the form *Wínà'am* with single *-n-* likewise shows that the form is not in fact a

synchronic compound in Agolle Kusaal. The earliest Christian missionary work among the Kusaasi began in Haute Volta (now Burkina Faso), using Mooré materials, but direct borrowing of the corresponding Mooré word *Wẽnnàám* would not account for the glottalised *-aˈa-*; most likely the immediate source of the loan is the **Toende Kusaal** of Haute Volta. Niggli's materials have *Wínāˈam*, with a tonal fall like the Agolle *Wínàˈam*, and always with single *n*: Niggli records consonant gemination in Toende only before the affix vowels of Long Forms.

The word *faangid* "saviour" in the NT/KB is read [fã:g̟ʲɪd] by my informants; preservation of *g* in this position 6.3 is almost completely isolated within Agolle Kusaal; apart from the corresponding gerund *faangir* "salvation", the only other case in my data is the gerund *zīˈəg*^{a} of *zìˈe*^{ya} "be standing" used by DK KT instead of KED *zīˈa*$^{+}$ 12.2.1.2.) The expected agent noun from *fāeň*$^{+/}$ "save" is *fāaňd*$^{a/}$, presumably avoided as identical to the agent noun of *fāň*$^{+}$ "rob, snatch", found in NT/KB as *faand* "robber." WK has the identical agent noun *fāaňd*$^{a/}$ for both verbs, and he specifically confirmed that the word had both meanings in his idiolect.

As with *Wínàˈam*, *faangid* is probably a loan, either from Mooré *fãagdá* "*sauveur*", or from Toende Kusaal, where loss of **g* is consistent word-finally after *all* long vowels (*bíi* "child" = *bīig*^{a}, *bōō* "goat" = *bōʊg*^{a}), but optional elsewhere, with variation between speakers (Niggli, "La phonologie du kusaal"):

páa	"*arriver*" (Agolle *pāe*$^{+}$ "reach")
Õ bʊ paage.	"*Il n'est pas arrivé.*" (Agolle *Ò pū pāée.)*

Niggli's dictionary has both *fãagɪt* and *fãat* for "*sauveur*", with *fãat* also glossed as "*voleur, brigand*."

A more everyday example is WK's *kīibʊ́*$^{+}$ cb *kīib-* "soap." Written sources have *kiˈib*, probably *kīˈɪb*$^{ɔ/}$ = Toende *kíˈɪp*. The length and quality of the vowels clearly identify the source as **Mampruli** *kyiibu*: contrast Farefare *kíˈíbɔ́*, Dagbani *chibo*.

Other words with singulars ending in *-ɪ*$^{+}$ or *-ʊ*$^{+}$ 9.5 like *kābɪrí*$^{+}$ "permission for entry" and *sūgʊrʊ́*$^{+}$ "forbearance" may similarly have originated as loans from other Western Oti-Volta languages.

I have identified few loans from **Twi/Fante** ("Akan"), the major lingua franca of southern Ghana; in part, this surely 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

kɔ̄dʊ́$^{+}$	"banana"	← *kwadu*
sāafɪ$^{+}$(?tones)	"lock, key"	← *safẽ* "key" (← Portuguese *chave*)
bʊ̄rɪyá$^{+}$	"Christmas"	← *bronya* (itself of unclear origin)

A few loans from **English** are found. English differs even more than Hausa from Kusaal in phonological structure, and loanwords which are sufficiently naturalised that they are used by speakers unfamiliar with English have often undergone considerable changes:

àlɔ́pìr^{ɛ}	"aeroplane"	? back-formation from [alɔpɪlɪn] taken as locative *àlɔ́pìrī-n*$^{ɛ/}$
dụ'átà$^{+}$	"doctor"	(cf Dagbani *dɔ́ɣtɛ́ id*)
tɔ́klàe^{+}	"torch"	← "torchlight"
lɔ́r^{ɛ}	"car, lorry"	(often borrowed even in Francophone Africa: cf Mooré *lórè*)

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* 9.6.

Several loanwords of English origin have probably been transmitted via Hausa:

kɔ́tù$^{+}$	"court"	Hausa *kootù*
sɔ́gịà^{a}	"soldier"	Hausa *soojà*
tɛ́ɛbùl^{ɛ}	"table"	Hausa *teebùr*
wādá$^{+}$	"law"	Hausa *oodà* (← English "order") sg *wādɪr*$^{ɛ/}$ cb *wād-* created by back-formation

A clear **French** loan in Agolle Kusaal is *làmpɔ̄* (i.e. *l'impôt*) "tax", as in *làmpɔ̄-dí'às*^{a} "tax gatherer." This word is widespread in northern Ghana (Dagbani *lampoo*), reflecting extensive French influence in the region prior to the British annexation. Another word probably derived from French is *kàsɛ̄t*$^{a/}$ "witness, testimony", Mooré *kàsétò* "testimony, proof", as in *kàsét sébrè* "receipt" ("evidence writing.") The ultimate origin is probably French *cachet* in the sense "seal (of authenticity)", with the Mooré *-t-* perhaps introduced from the corresponding French verb: *il cachète* "he seals." Mooré *kàsétò* and Farefare *kàsétò* have only the abstract sense "testimony"; the adaptation as a ^{a}|*b*^{a} class human-reference noun "witness" seems to be a Kusaal innovation (Agolle and Toende) enabled by the dropping of the final vowel.

There are naturally many more French loans in the Toende Kusaal of Burkina Faso (Niggli 2014.)

Syntax

16 Noun phrases

16.1 Overview

A nominal phrase may be either a noun phrase (NP) or an adverbial phrase (AdvP 17.) A noun phrase has a noun, pronoun or quantifier as head. If present, the **article** *lā*$^{+/}$ occurs last in a NP. (For the sole exception, see 19.10.)

Dependent nominal phrases may precede the head recursively. Some words have specialised rôles as NP heads; otherwise, a specific-reference predependent is a **predeterminer**. With quantifier or pronoun heads the sense is **partitive**; predeterminers of gerunds and similar nouns are subjects; predeterminers of other heads are **possessors**. Generic-reference predependents are either **premodifiers** or **complements** to deverbal noun heads.

As is characteristic of Oti-Volta, **compounding** 16.9 is pervasive in NP structure where most languages use uncompounded constructions. Closeness of syntactic binding is not always reflected in whether the components are compounded or not. Adjectives and postdeterminer pronouns regularly compound with the preceding head; accordingly the combining form is a regular part of the noun paradigm. Generic complements and count-reference premodifiers also compound with the following head.

Quantifier phrases follow NP heads as uncombined postdeterminers.

A nominal phrase may be a relative clause 25.3. No dependents may occur with a relative clause apart from the article or a predeterminer. Nominal phrases may be formed by **coordination** or by **apposition**.

Personal pronouns accept only postdeterminer pronouns as dependents.

16.2 Noun phrase categories

16.2.1 Number

Number is a category only of nouns, pronouns and quantifiers. Agreement is confined to pronouns. VPs show no agreement; plural imperatives are followed by a liaison enclitic subject pronoun 22.1.3. However, in a compound of a noun with a following adjective or postdeterminer pronoun, it is the dependent which inflects to show the number of the head noun cb 16.11.1.

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*ɔ	*zɔ̄ɔs*ɛ		"race"
*bū'ɵsʊ́g*ɔ	*bū'ɵsá*+	*bū'ɵs-*	"question"
*zàaǎnsʊ́ŋ*ɔ	*zàaǎnsímà*+	*zàaǎnsʊ́ŋ-*	"dream"

Typical underived mass nouns belong to the *b*ɔ and *m*m noun classes, which do not have paired sg/pl suffixes, but gerunds of 3-mora stem verbs regularly show sg *r*ɛ or *g*ɔ suffixes 12.2.1.1, and a number of words referring to uncountables or abstracts are formally plural, but construed as singular:

*bāǎ'as*ɛ		*bàǎ'-*	"disease"
*ǎyɔ̄'ɔs*ɛ/		*ǎyɔ̄'-*	"smoke"
*tàdɪmís*ɛ			"weakness"
*zɔ̄lɪmís*ɛ			"foolishness"
*mɛ̄t*ɛ/		*mɛ̄t-* 9.2.2	"pus"
*kūt*ɛ		*kùt-* 9.2.2	"iron"
*zùɵd*ɛ			"friendship"
*bʊ̄ʊd*ɛ			"innocence"
*sīiǎd*ɛ/			"honey"
*nīn-pʊ́ʊ̀d*ɛ			"pus"
*wāad*ɛ/			"cold weather"
*sūǎ-pɛ́ɛ̀n*nɛ			"anger"
*kᵤ̱'à-nūud*ɛ/			"thirst"
sālɪma+		*sàlɪm-*	"gold"
sìda+		*sìd-*	"truth"

*Kūt*ɛ is also "nail"; the original sg *kūdʊg*ɔ appears in the name *À-Kūdʊg*ɔ 30.2. So too with a number of irregularly formed deverbal abstract nouns:

	*gɛ̄ɛǎmís*ɛ	"madness"	←	*gɛ̄ɛǎm*m/	"madden, go mad"
	*bùdɪmís*ɛ	"confusion"	←	*bùdɪm*m	"confuse"
	*tìtʊ̄mɪs*ɛ	"sending"	←	*tʊ̀m*m	"send"
	*zīid*ɛ/	"carrying on head"	←	*zī*+	"carry on head"
	*vūud*ɛ/	"noise"	←	*vū*+	"make a noise"
	*kɛ̄n*nɛ/	"arrival"	←	*kɛ̄ǎ*+	"come"
	*pᵤ̱àǎ'ad*ɛ	"speech"	←	*pᵤ̱āǎ'*a	"speak" (irreg. tones)
[sg	*pᵤ̱àᵤ̱ǎk*ɔ	"word"]			
	dì'əma+	"festival"	←	*dì'əm*m	"play, not be serious"
	tʊ̄ʊma+	"work"	←	*tʊ̀m*m	"work"
[sg	*tʊ̄ʊm*mɛ	"deed"]			

	tɛ̄ň'ɛsá$^{+}$	"thought"	cf	*tɛ̄ň'ɛsá yīnní* (Acts 4:32)	"one thought"

A single object may be referred to by a plural naming its components:

	dà-pʊ̄vdá$^{+}$	*dà-pʊ̄vdá nàm*^{a}	"cross"
cf	*dà-pʊ̄vdír*^{ɛ}	*dà-pʊ̄vdá*$^{+}$	"cross-piece"

A Kusaal plural may just happen to correspond to an English mass noun:

lāu̯k^{ɔ}	*lā'ad*^{ɛ}	*là'-*	"piece of goods"
lā'af^{ɔ}	*līgɪdɪ*$^{+}$	*là'-* or *lìg-*	"cowrie" pl "money"

The count/mass distinction is significant in the choice of quantifiers 16.4.1 and when plurals are formed with *nàm*^{a} 9.4, and it affects the meaning of constructions with preceding NPs as dependents 16.10.

Mass nouns can be used in count senses (as in English): *dāam nám* "beers."

Count nouns can be used in mass senses, where number distinctions are irrelevant 16.10.2.2:

fūug dɔ́ɔ̀g	"tent" (cloth hut): *fūug* "item of clothing, shirt"
dàad bʊ́n-nám	"wooden things": *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 17.4:

Mɔ̀ kɛ́ŋ nɔ̄bá.	"I went on foot." SB
1SG go leg:PL.	WK corrected to *Mɔ̀ kɛ́ŋ nɛ̄ nɔ̄bá* (*nɛ̄* "with")

16.2.2 Gender

Gender is marked only in pronouns. It is natural, distinguishing **animate** from **inanimate**. Not only human beings, but also supernatural beings, "fairies" and the like have "animate" gender. Without a context, my informants all rejected

**Ò à nɛ̄ náaf.*	attempted "It is a cow."
3AN COP FOC COW:SG.	

Nevertheless, the Bible versions and other written materials often do use the animate pronouns for higher animals:

*Bung ya'a bood ye o lubuf, fu po nyeti **o** tubaa.*
Bʊ̀ŋ yá' bɔ̀ɔd yɛ́ ò lūbʊ́‿ f, fʊ̀ pʊ̄ ňyɛ̄tí‿ ò tʊ̀bāa +*ø.*
Donkey:SG if want that 3AN throw.off 2SG.OB, 2SG NEG.IND see:IPFV 3AN ear:PL NEG.
"If a donkey wants to throw you off, you don't see his ears." KSS p44
(i.e. "If there's a will, there's a way.")

*Ka wief ya'a sigi li ni, li zulʊŋ na paae **o** salibir.*
Kà wìəf yá' sīgí‿ lì nī, lì zùlʊŋ ná pāe ò sàlɪbɪr.
And horse:SG if descend 3INAN LOC, 3INAN depth IRR reach 3AN bridle:SG.
"If a horse goes down in it, its depth will reach its bridle." (Rev 14:20)

In stories where animals speak, they are naturally assigned animate gender.
When body parts are metaphorically represented as having opinions in this NT passage, they have animate gender:

*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 yá' yɛ̀lī-n yɛ̄, ɔ́n pʊ̄ áň nú'ùg lā zúg,
Leg:SG if say-DP that 3AN:NZ NEG.IND COP hand:SG ART upon,
ò kā' nín-gbīŋ nɪ́ɪ +*ø, līn kʊ́ ňyāŋɪ-n‿ ø*
3AN NEG.BE body-skin:SG LOC NEG, DEM.INAN NEG.IRR accomplish-DP CAT
kɛ̄ɛ-n kà ò kā' nín-gbīŋ nɪ́ɪ +*ø.*
cause-DP and 3AN 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 animate or inanimate gender:

Ò/Lì à nɛ̄ bí-līa. "He/she/it is a baby."
3AN/3INAN COP FOC child-baby:SG.

Trees, animate in the traditional world view, may also have animate gender:

Tìɪg wɛ́là bìgɪsɪd ɔ́n àň sī'əm.
Tree:SG fruit:PL show:IPFV 3AN:NZ COP INDF.ADV.
"The fruit of a tree shows what ["how"] it is." (Mt 12:33, 1976)

In the 1996 version the gender has been changed to inanimate:

*Tiig wela bigisid **lin** a tisi'a.*
Tìıg wɛ́là bìgısıd lín àň tí-sī'a.
Tree:SG fruit:PL show:IMPF 3INAN:NZ COP tree-INDF.INAN.
"The fruit of the tree shows what tree it is." (Mt 12:33, 1996)

The relevant distinction is thus whether the referent is being regarded as a potential thinking agent or "person"; if a first or second person pronoun could in principle apply, the gender is "animate."

At some points the language makes a clear distinction specifically between human and non-human. It is this distinction which is useful for predicting noun class membership on the basis of a SF 9.1, reflecting the fact that the $^{a}|b^{a}$ class has exclusively human reference. Only human-reference nouns can be used as modifiers after a head cb like adjectives 16.11.1.5; probably only human-reference heads can be used with appositional relative clauses 25.3.3. Cf also *nīn-* (human) and *bʊ̄n-* (non-human) as "dummy" cbs with following adjectives 16.10.4.

There has been a change over the past decades in the **alignment of gender and number**. The current system distinguishes animate/inanimate in the singular with no gender distinction in the plural. In older sources like the 1976 NT, inanimate pronoun forms used as heads, like demonstrative $nɛ̄'^{+/}$, are used indifferently for sg or pl, occasionally with $nàm^{a}$ plurals to avoid ambiguity. However, even the 1976 NT always uses the animate plurals $bàmmā^{+/}$ $bàn^{ɛ}$ $sīəba^{+}$ of the *dependent* pronouns for inanimate, and my informants use the animate plural forms of all pronouns freely for both genders both as dependents and heads:

Bà à nɛ̄ kūgá. "They are stones."
3PL COP FOC stone:PL.

In my informants' unselfconscious utterances there seem to be signs of gender distinctions breaking down altogether:

Nīf-káŋā, ɔ̄n sáň'àm nɛ̄.
Eye-DEM.DEI.SG, 3AN.CNTR spoil FOC.
"This eye, it's spoilt." KT (Overheard)

Ḿ pʊ̄ ňyɛ̄·ó-o $^{+}$ø. "I can't find it [a stethoscope]" (Overheard)
1SG NEG.IND see-3AN.OB NEG.

sālıma lá'àd né ò bʊ̄tıs "gold stuff and (gold) cups" WK
gold item:PL with 3AN cup:PL

Speakers correct the gender to inanimate if their attention is drawn it.

The dummy subject pronoun "it" is always *lì*, never *ò*.

The inanimate sg pronoun subject *lì* is not changed to animate *ò* to agree with an animate complement of *àe̯ňᵃ* "be something":

Li anɛ Zugsɔb la. "It is the Lord." (Jn 21:7)
Lì à nɛ̄ Zūg-sɔ́b lā.
3INAN COP FOC head-one:SG ART.

16.2.3 Person

Person is a category confined to personal pronouns. VPs show no agreement with any argument (on plural commands see 22.1.3.) 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.*
Bʊ̀ŋ yá' bɔ̀ɔd yɛ́ ò lūbʊ́‿ f, fʊ̀ pʊ̄ ňyɛ̄tí‿ ò tʊ̀bāa ⁺ø.
Donkey:SG if want that 3AN throw.off 2SG.OB, 2SG NEG.IND see:IPFV 3AN ear:PL NEG.
"If a donkey wants to throw you off, you don't see his ears." KSS p44

The 3rd Person plural is used as a non-specific "they" for turning passive constructions actively, much as in English:

Bà yɔ̀ɔdī‿ f sʊ́ŋàa ⁺ø?
3PL pay:IPFV 2SG.OB good:ADV PQ?
"Are you well paid?" "Do they [never mentioned] pay you well?" SB

This construction has become grammaticalised so far that in *n-*catenation, the object can be construed as the grammatical subject 23.1, e.g.

Diib wʊsa nari ba di. "All foods may be eaten." (Rom 14:20)
Dīɪb wʊ̄sa nárì‿ ø bà dí.
Food all must CAT 3PL eat.

There are formal means of distinguishing different third persons by the use of pronoun ellipsis 21.2.2 and logophoric use of the free pronouns 26.2.

16.3 Pronouns

16.3.1 Personal

		Proclitic	Enclitic	Free	Subject+*ǹ*
Sg	1st	*m̀*	*m*ᵃ	*mān* SF *mánɛ̄* LF	*mán*
	2nd	*fù*	*f*ᵓ	*fūn* SF *fúnɛ̄* LF	*fún*
	3rd an	*ò*[8] [ʊ]	ᵒ [ʊ]	*ɔ̄n*ᵋ	*ɔ́n*
	3rd inan	*lì* or *dì*	*lɪ*⁺	*līn*ᵋ or *dīn*ᵋ	*lín* or *dín*
Pl	1st	*tì*	*tɪ*⁺	*tīnám*ᵃ [9]	*tīnámì‿ø*
	2nd	*yà*	*ya*⁺	*yānám*ᵃ	*yānámì‿ø*
	3rd	*bà*	*ba*⁺	*bānᵋ*	*bán*

"an"= animate, "inan" = inanimate.

The alternate form *mām* also occurs for 1st sg in any rôle. The clitics are liaison words 8.2. They are always non-contrastive. The proclitics are subjects and NP/AdvP predeterminers, and the enclitics are objects. The "+*ǹ*" forms are used as subjects in *ǹ*-clauses 25.1. The 2pl subject has an enclitic form ʸᵃ used *after* imperatives 22.1.3 with the allomorph *-ní-* before liaison 8.2.3.

For the realisation of 3sg animate ᵒ see 8.2.1. My informants only have *l*- forms for 3sg inanimate; for bound objects, no *d*- forms are extant.

Free forms may be used for cbs before relative pronouns:

Fʊn kanɛ buoli fʊ mɛŋ ... "You who call yourself ... (Rom 2:17)
Fūn-kánì bʊ̀ɵlɪ‿fù mɛ̄ŋ ...
2SG-REL.SG call 2SG self ...

Number is sg/pl; Kusaal has no honorific usages of plural for singular like Mooré. For the interaction of number and gender see 16.2.2.

8) Toende Kusaal has *ʊ̃*. The original form was probably **ŋ͡mʊ*, with later **ŋ͡m* → **ŋ* before the rounded vowel. Cf also the Dagbani free pronoun *ŋuna* = Kusaal *ɔ̄n*ᵋ.
9) Toende has 1pl *tʊn* 2pl *nam* for the free pronouns; the *nam* component of the Agolle forms is presumably the element seen in the pluraliser *nàm*ᵃ 9.4.

16.3.2 Demonstrative

Some forms of the demonstrative pronouns are limited to usage either as NP heads or as postdeterminer pronouns, while other forms may appear in both uses.

Head or postdeterminer pronoun:

	Animate sg	Inanimate sg		Plural
Long	*ɔ̀ŋā*$^{+/}$	*lì nā*$^{+/}$	far	*bàmmā*$^{+/}$
Short	*ɔ̀n*^{ɛ}	*lì n*^{ɛ}	far	*bàn*^{ɛ}

Head only:

Long	*nɛ̄'ŋá*$^{+}$	near	
Short	*nɛ̄'*$^{+/}$	near	*nɛ̄'-nám*^{a} NT

Postdeterminer pronoun only:

Long	*kàŋā*$^{+/}$	*kàŋā*$^{+/}$
Short	*kàn*^{ɛ}	*kàn*^{ɛ}

Note the tone difference in the short series from the free 3rd person pronouns. The postdeterminer-only series is based on an obsolete *g*^{a}|*s*^{ɛ} class pronoun *kà*, parallel to *lì*, originally *r*^{ɛ}|*a*$^{+}$ class. My informants use these forms for animate reference as well as inanimate, but NT prefers *ɔ̀ŋā*$^{+/}$ *ɔ̀n*^{ɛ}.

Postdeterminer pronouns follow a noun cb. Some speakers allow sg and pl noun forms, but these probably have the tones of combining forms 16.8. After quantifiers (other than *àdàkɔ́ň'*), which lack cbs, *kàn*^{ɛ} *kàŋā*$^{+/}$ do not occur, but *kàn*^{ɛ} may follow a free pronoun doing duty for a cb 16.3.1.

Examples after nouns:

dụ̀'átà lā lɔ́r-kàŋā	"this car of the doctor's"
bʊ̀-kàŋā lā	"that goat"

After a quantifier:

bɛ̀dʊgʊ̄ línā	"this multitude"

After a free pronoun form used as a cb:

fʊ̄n-kánì bʊ̀ɵl …	"you who call …"

Postdeterminer pronouns follow any adjectives:

nɔ̄-píə̀l-kàŋā	"this white hen"

The "short" series are used for referents not in view. They also appear as interrogatives in the sense "which?":

Lìnɛ?	"Which one?"
Nīf-kánɛ̀?	"Which eye?"
Nīn-kánɛ̀?	"Which person?"

Much their commonest use is as the basis of **relative pronouns** 25.3.2.

The demonstratives do not distinguish near and far except with sg inanimate heads; "that" can be specified by following the demonstrative with *lā*$^{+/}$ and "this" by a following *ňwà*$^{+}$ (cf French *ça ci*.) This use of *lā*$^{+/}$ as deictic rather than article is enabled by the fact that demonstratives automatically make the NP definite 16.5.

dàu̯-kàŋā sáàm	"this/that man's father"
dàu̯-kàn sáàm	"that (not visible) man's father"
dàu̯-kàŋā lā sáàm	"that man's father"
dàu̯-kàŋā ňwá sáàm	"this man's father"
tɛ̀ŋ-kàn lā ná'àb	"the king of that country" (from a story)
sān-kán lā	"at that time"

16.3.3 Indefinite

	Animate sg	Inanimate sg	Plural
Head or postdeterminer	*sɔ̄'*$^{+}$	*sɪ̄'əl*^{a}	*sīəba*$^{+}$
Postdeterminer only	*sɪ̄'a*$^{+}$	*sɪ̄'a*$^{+}$	

Note that the vowel is *not* glottalised in the plural. For NT WK, but not KT, *sɪ̄'a*$^{+}$ is much commoner than *sɪ̄'əl*^{a} used as a postdeterminer. WK feels that for people *sɪ̄'a*$^{+}$ is pejorative; NT occasionally has *sɔ̄'*$^{+}$ for inanimate: *tɛ̀ŋ-sɔ̄'* "a certain land." For indefinite pronouns in relative clauses see 25.3.1.

The sense is "some, someone, something", "a certain", indefinite but *specific*:

yà bì-sɔ̄'	"a certain child of yours"
2PL child-INDF.AN	

The meaning is often contrastive, "another, a different" (compare Hausa *wani*, which has very similar usage in general to this pronoun, Jaggar p314, Caron pp102ff):

ka man ti ye m sig la, ka sɔ' pʊn dɛŋi sig sa.
kà mán tì yɛ́ m̀ sīg lā,
and 1SG:NZ after say 1SG descend ART,
kà sɔ̄' pʊ́n dɛ̀ŋı̯ ø sīg sá.
and INDF.AN already before CAT descend thither.
"when I'm then about to go down, someone else goes down first." (Jn 5:7)

Mɛɛri onɛ an Magdalen nɛ Mɛɛri sɔ'
Meeri ɔ́nì àn̆ Magdalen nɛ̄ Meeri sɔ̄'
Mary REL.AN COP Magdalen with Mary INDF.AN
"Mary who was Magdalen and another Mary" (Mt 28:1)

Winnig mɔr o mɛŋ vɛnlim, ka nwadig mɛ mɔr vɛnlim si'a.
Wìnnıg mɔ́r ò mɛ̄ŋ vɛ́n̆llìm kà n̆wādıg mɛ́ mɔ̄r vɛ́n̆llìm-sī'a.
Sun:SG have 3AN self beauty and moon:SG also have beauty-INDF.INAN.
"The sun has its own beauty and the moon, too, has another beauty."
(1 Cor 15:41)

M̀ ná tī‿f tí-sī'a.
1SG IRR give 2SG.OB medicine-INDF.INAN.
"I'll give you a different medicine." WK

The indefinite pronouns can be used to introduce new information:

Dàu̯-sɔ̄' *dāa bɛ́ ...* "There was a certain man ..."
Man-INDF.AN TNS EXIST ...

but this is likely to mean "There was another man ..."; it is commoner just to use an indefinite NP 16.5:

Dāu̯ *dāa bɛ́ ...* "Once there was a man ..."
Man:SG TNS EXIST ...

Sɔ̄'/sī'əl mɛ́-kàma means "anyone, anything, everyone, everything":

O niŋid si'el mɛkama sʊ'ʊŋa.
Ò nìŋıd sī'əl mɛ́-kàma súŋā.
3AN do:IPFV INDF.INAN also-whatever good:ADV.
"He does everything well." (Mk 7:37)

In negative clauses the indefinites mean "(not) ... anything", "(not) ... anybody":

Ka so' kudin ku len nyee li ya'asa.
Kà sɔ̄' kʊ̄dɪm kʊ́ lɛ̄m ňyɛ́ɛ‿lī yá'asā +*ø.*
And INDF.AN ever NEG.IRR again see 3INAN.OB again NEG.
"Nobody will ever see it again." (Rev 18:21, 1996)

Sɔ̄' kā'e +*ø.* "There's nobody there."
INDF.AN NEG.BE NEG.

M̀ pʊ̄ yɛ́l sī'əla +*ø.* "I didn't say anything."
1SG NEG.IND say INDF.INAN NEG.

16.3.4 Interrogative

Animate		Inanimate	
*ànɔ́'ɔ̀n*ᵋ	"who?"	*bɔ̄*+	"what?"

Plurals with *nàm*ᵃ may be used if a specifically plural answer is being sought. The initial *à-* of *ànɔ́'ɔ̀n*ᵋ behaves like the manner-adverb prefix in liaison 8.2.1:

... keŋ tisi anɔ'ɔnɛ? "to go to whom?" (1 Samuel 6:20)
... kɛ̄ŋ‿ø tísì‿ànɔ́'ɔnɛ̀ +*ø?*
... go CAT give who CQ?

Bɔ̄+ can be used after a cb as an interrogative determiner "what?":

nā'-bɔ́ "what cow?" WK DK
(not *náaf bɔ́*,
only possible in the sense "What, of a cow's?")
bʊ̀-bɔ̄ "what goat?"
dā-bɔ́ "what beer?"

The compound *bɔ̀-būudɪ*+ "what kind of?" can be used as a postdeterminer:

nā'-bɔ́-būudɪ "what kind of cow?"
dā-bɔ́-būudɪ "what kind of beer?"

Note the idiom:

Fʊ̀ á nɛ̄ bɔ́- bùudɪ +*ø?* "What tribe do you belong to?"
2SG COP FOC what sort CQ?

Bɔ̀- can be used as a premodifier, querying a description: "what sort of ...?"

Fù tʊ́m bɔ́-tʊ̀ʊma ⁺ø? "What kind of work do you do?"
2SG work:IPFV what-work CQ?

Bo yir ka ya na me' n tis mane?
Bɔ̀-yír kà yà ná mɛ̄ n tís mánɛ̀ ⁺ø?
What-house:SG and 2PL IRR build CAT give 1SG.CNTR CQ?
"What kind of house will you build for me?" (Acts 7:49, 1996)

16.3.5 Reciprocal

Tāaba⁺ "one another" appears as *tāab* clause-medially for some speakers. It occurs also as an adjective meaning "fellow-": *ò tʊ̀m-tʊ̀m-tāaba* "his fellow-workers"; the stem also appears in the bound noun *-tāa*⁼ used after imperfective gerunds 13.2.1.4, and with noun prefixes in *nìn-tāa*⁼ "co-wife" and *dàtāa*⁼ "enemy."

Examples of the pronoun use:

Sʊ̀ŋɪmī‿ø tāaba. "Help one another."
Help:IMP 2PL.SUB each.other.

Tì yúùg nɛ̄ tāaba. "It's been a long time." KT
1PL delay with each.other.

Bà dɔ̀l nɛ̄ tāaba. "They went together." (*dɔ̄l*[la/] "accompany")
3PL follow with each.other.

16.4 Quantifiers

16.4.1 Overview

Formally, quantifiers resemble noun sg or pl forms, frequently with apocope-blocking 6.6; most number words are also preceded by number prefixes 14.3.

Quantifiers can be classified as **count** or **mass** 16.2.1, 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 bɛ́dʊgʊ̄	"a lot of people"
	nīdɪb bábɪgā	"many people"
	kù'ʊm bɛ́dʊgʊ̄	"a lot of water"
not	**kù'ʊm bábɪgā*	*"many water"

Mass quantifiers are

bɛ̀dʊgʊ̄$^{+/}$	"a lot"	*pāmm* SF	"a lot" (LF *pāmnɛ́* 6.6)
fīiň$^{=}$	"a little (liquid)"	*bī̍ələ́*$^{+}$	"a little"
wʊ̄ʊ$^{=}$	"all"	*wʊ̄sa*$^{+}$	"all"

Count quantifiers include the number words, and also

bàbɪgā$^{+/}$	"many"	*kàlɪgā*$^{+/}$	"few"
fāaň$^{=}$	"every"	*zāň'a*$^{=}$	"every"
kàm^{a}	"every"		

Kàm^{a} "every" occurs by itself as a quantifier and also before others:

sāŋá kám = *sāŋá kám zāň'a* "all the time"

Quantifiers appear typically as postdeterminers in NPs 16.11.2.2, but like pronouns they may also be heads of NPs, naturally manifesting the category of number:

Pāmm kɛ́ nā.	"Many came."
Bɛ̀dʊgʊ̄ kɛ́ nā.	"Many came."
Bɛ̀dʊgʊ̄ lā kɛ́ nā.	"The crowd came"
Àyí kɛ́ nā.	"Two came."
Àyí lā kɛ́ nā.	"The two came."

Quantifier heads pluralise with *nàm*^{a}:

màl̰īāk-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."

Quantifier heads may be followed by postdeterminer pronouns; as quantifiers have no combining forms, there is no compounding:

nīdɪb bɛ́dʊgʊ̄ bánì kɛ̄ nā lā
person:PL much REL.PL come hither ART
"the crowd of people who have come"

Ka ti ye ti nye diib yaani moogin nwa diis nidib bedego bama nwa?
Kà tì yɛ́ tì ňyɛ̄ dīıb yáa ní mɔ̄ɔgʊ-n ňwá
And 3PL that 3PL find food where LOC grass:SG-LOC this
ø dìıs nīdıb bɛ́dʊgʊ̄ bámā ňwá +*ø?*
CAT feed person:PL many DEM.DEI.PL this CQ?
"Where are we going to find food in this wilderness to feed this crowd of people?" (Mt 15:33, 1996: KB *nimbama nwa wʊsa* "all these people")

All cases where quantifiers are followed by postdeterminer pronouns are probably quantifier-headed phrases, not NPs with quantifiers as dependents.

As with pronoun heads of NPs, there is a contrast between a phrase with a quantifier head and a NP with a quantifier as a dependent 16.11.2.2, and the latter construction is **partitive** 16.10.3.

16.4.2 Number words

The basic number words are quantifiers, but there are associated forms used as adverbs; for "one", there are also forms meaning "first" and "only."

The quantified noun is normally plural, except with *yīnní*$^{+}$, but may be singular with units of measure:

yɔ̄lʊgá àtáň'	"¢600 [cedis]"
	(*yɔ̄lʊg*$^{ɔ/}$ "sack" for £100/¢200; Hausa *jàkaa*.)

16.4.2.1 Quantifiers

The numbers in their core rôle as quantifiers take the forms

1	*yīnní*$^{+}$	10	*pīiga*$^{+}$	100	*kɔ̀bıgā*$^{=}$
2	*àyí*$^{+}$	20	*pīsí*$^{+}$ [pʰisi]	200	*kɔ̀bısí*$^{+}$ [kʰɔbɪsi]
3	*àtáň'*$^{+}$	30	*pīs táň'*$^{+}$	300	*kɔ̀bıs táň'*$^{+}$
4	*ànāasí*$^{+}$	40	*pīs nāasí*$^{+}$	400	*kɔ̀bıs nāasí*$^{+}$
5	*ànū*$^{+}$	50	*pīs nū*$^{+}$	500	*kɔ̀bıs nū*$^{+}$
6	*àyúɵbʊ̀*$^{+}$	60	*pīs yúɵbʊ̀*$^{+}$	600	*kɔ̀bıs yúɵbʊ̀*$^{+}$
7	*àyɔ́pɔ̀e̱*$^{+}$	70	*pīs yɔ́pɔ̀e̱*$^{+}$	700	*kɔ̀bıs yɔ́pɔ̀e̱*$^{+}$
8	*àníi*$^{=}$	80	*pīs níi*$^{=}$	800	*kɔ̀bıs níi*$^{=}$
9	*àwāe̱*$^{+}$	90	*pīs wāe̱*$^{+}$	900	*kɔ̀bıs wāe̱*$^{+}$

The forms for 1, 4, 6, 8, 10, and 100 show apocope-blocking 6.6; the forms for 20 and 200 are not apocope-blocked but are combinations with the stem of *àyí*$^{+}$.

kɔ̀bıgā$^{=}$ has LF like the SF, not **kɔ̀bıgáa*, contrary to the usual rule for forms with apocope-blocking.

"Thousand" is a regular *r*$^{\varepsilon}$|*a*$^{+}$ class noun, *tūsır*$^{\varepsilon/}$: *tūsá àtáň'* "3000." "Half" is *pū-súk*^{a} pl *pū-súgʊ̀s*$^{\varepsilon}$. Other numbers are formed with *nɛ̄* "with, and":

kɔ̀bıs táň' nɛ̄ pīs yúɵbʊ̀ 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 wāe̱ (or *pīi nā yīnní, pīi nā yí ...*)

The clitic *à-* is omitted after *nɛ̄* "with", and sometimes also after focus-*nɛ̄*$^{+/}$:

Lì à nɛ̄ nāasí. / *Lì à né ànāasí.* "They're four."

The forms *àyíŋā*$^{+/}$ *àtáŋā*$^{+/}$ mean "two, three exactly." If I have four children

M̀ mɔ́r bīisá̱ 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* "and", as in *pīi nɛ̄ yíŋā* "twelve exactly." They are exceptional in not permitting focus with the particle *nɛ̄*$^{+/}$ 28.1.2.1.3.

Yīnní$^{+}$ can also be construed with a preceding noun cb:

kūg-yínnì$^{+}$ "one stone" (L spreading 8.4)
cf *kūgʊr yīnní*$^{+}$ "one stone" (no L spreading)

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-* 14.3:

tì bàtáň' "we three"
yà bàyɔ́pɔ̀e̱ "you seven"
bà bàyí "they two"

16.4.2.2 Counting forms

1 to 9 have different forms used in counting, lacking apocope-blocking and using the number prefix *ǹ-* instead of *à-* 14.3.

1	*yɛ́ǒŋ* or *àdàkɔ́ň'*	6	*ǹyúèb*
2	*ǹyí*	7	*ǹpɔ̀e̱* [tone *sic*]
3	*ǹtáň'*	8	*ǹníi*
4	*ǹnāas*	9	*ǹwāe̱*
5	*ǹnū*	continuing *pīiga*, *pīi nɛ̄ yí* as with quantifiers	

Àdàkɔ́ň' can also be used as a quantifier:

bʊ́ʊg àdàkɔ́ň' "one goat"

The reduplicated adverb form *kɔ̄ň'ɔkɔ̄* is used as a postposition 17.6, as in

m̀ kɔ̄ň'ɔkɔ̄ "by myself"

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 twos are four."

16.4.2.3 Adjectives and ordinal constructions

yīmmír^{ɛ} *yīmmá*$^{+}$ *yīm-* "single, alone"

e.g. *bì-yīmmír* "only child"
wāb-yímmìr "solitary elephant"

There are two words meaning "one of a pair": *ňyàu̱k*^{ɔ} pl *ňyà'ad*^{ɛ} is only used for eyes, while *yīu̱ŋ*$^{ɔ/}$ pl *yīná*$^{+}$ is used for other normally paired body parts:

nīf-ňyáu̱k "one eye"
bà-nīf-ňyáu̱k "one-eyed dog"
tʊ̀b-yīu̱ŋ "one ear"
bì-tʊ̀b-yīná "one-eared children"

The only ordinal word is

*dɛ̄ɛŋ*ª	*dɛ̄ɛ̆ns*ᵋ	*dɛ̀ɛŋ-*	"first"
	or *dɛ̄ɛmɪs*ᵋ		
	or *dɛ̄ɛna*⁺		

as in *sɔ̄b-dɛ́ɛ̀ŋ* "first census" (Lk 2:2, 1976.)

"First" can also be expressed by *yīigá*⁺ "firstly" as a predeterminer:

linɛ da an yiiga dabisir
līnɪ‿ ø dá àn̆ yīigá dàbɪsɪr.
3INAN.CNTR CAT TNS COP firstly day:SG.
"That was the first day." (Genesis 1:5)

For other ordinals two constructions occur.
One is to use a periphrasis with *pàas*ᵋ or *pɛ̀'ɛs*ᵋ "add up to":

dàu̯-kànɪ pɛ̀'ɛsa‿ àyí lā
man-REL.SG add.up.to NUM:two ART
"the second man" ("man who has added up to two")

lìnɪ pàasa‿ àtáǹ' lā
REL.INAN add.up.to 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 postdeterminers:

àyí dāan lā	"the second one"
bʊ̄ʊgá àtáǹ' dāan lā	"the third goat"

Yīigá dāan may be used for "first." In "*Kusaal Solima ne Siilima*" p35 ordinal forms used in counting "first, second, third ..." appear without apocope-blocking: *atan'-daan ... ka anaas-daan ... ka nu-daan ... ka yuob-daan ... ka poi-daan ... ka nii-daan ... ka wai-daan ... ka piig-daan*, but my informants use the ordinary quantifier forms in this construction.

16.4.2.4 Adverbs

Multiplicatives (answering *àbʊ̀lá?* "how many-fold?") are expressed

yīmmʊ́$^{+}$	"straight away, at once"
àbʊ̀yí$^{+}$	"twice"
àbʊ̀táň'$^{+}$	"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 *-ɪ* 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 àtáň'$^{+}$	"three times"
or	*nɔ̄ɔrím bʊ̀táň'*$^{+}$	"three times" NT

This *nɔ̄ɔr* is not "mouth" (= Mooré *nóorè*) but corresponds to Mooré *náooré* "times", homophonous with Mooré *náooré* "leg"; cf Toende Kusaal *nɔ̄'ɔ̄t* = Agolle *nɔ́bìr* "leg". Original open and closed *oo* fall together when nasalised 4.2. For the semantics cf Hausa *sàu ukù* "three times" *sau* "foot(print)." Niggli's dictionary gives Toende *nɔ́'ɔt* (tone *sic*) in the sense "*fois*" and even has *nɔba ayi* beside *nɔ'ɔt 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 L spreading on 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	*àtáň' táň'*	30	*pīs táň' táň'*	300	*kɔ̀bɪs táň' táň'*
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	*àyɔ́pɔ̀e̱ pɔ́e̱*	70	*pīs yɔ́pɔ̀e̱ pɔ́e̱*		
8	*àníi níi*	80	*pīs níi níi*		
9	*àwāe̱ wāe̱*	90	*pīs wāe̱ wāe̱*		

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 àyɔ́pɔ̀e̱ pɔ́e̱ "weekly" ("by sevens of days")

16.4.3 Proquantifiers

Quantifiers have corresponding proforms; the *à-* is the *number* prefix, and induces preceding LF-final *-a* not *-ɪ* 8.2.1; contrast proadverbs 17.7.

Demonstrative	Indefinite	Interrogative
àlá$^{+}$	*sɪ̄əm*^{m}	*àlá*$^{+}$
"so much/many"	"some amount"	"how much/many?"

16.5 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 identificational clauses 22.3.1 and after demonstratives 16.3.2.

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 predeterminer 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 19.10.

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:

Wìnnɪg lí yā. "The sun has set."
Sun:SG fall PFV.

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 premodifiers 16.10.2.2):

Nɔŋilim pʊ naada.	"Love does not come to an end." (1 Cor 13:8)
Nɔ̀ŋɪlím pʊ̄ nāadá $^{+}$*ø.*	
Love NEG.IND finish:IPFV NEG.	

Lā$^{+/}$ is not used in vocatives:

Bīiga $^{+}$*ø!*	"Child!"
Child:SG VOC!	

This contrasts with *ňwà*$^{+}$, which is common in vocatives 22.3.4:

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

Ḿ bīig kā'e $^{+}$*ø.*	"I've no child" WK
1SG child:SG NEG.BE NEG.	

and with the complement of *àe̱ňᵃ* "be something" when used ascriptively 20.2:

Ò à nɛ̄ bīig.	"She is a child."
3AN COP FOC child:SG.	

An indefinite NP is only likely to have a *specific* sense in the context of an explicit introductory presentational statement, such as the introduction of a new character in a story 28.4:

Dau da be mori o biribing
Dāu̱ dá bɛ̀◡ø mɔ̄rí◡ò bī-díbìŋ
Man:SG TNS EXIST CAT have 3AN child-boy:SG
"Once there was a man who had a son ..." KSS p35

Anina ka o nyɛ dau ka o yʊ'ʊr buon Aneas.
Àníná kà ò ňyɛ̄ dáu̱ kà ò yʊ̄'ʊr búàn Aneas.
ADV:there and 3AN see man:SG and 3AN name:SG call:IPFV Aeneas.
"There he found a man whose name was Aeneas." (Acts 9:33)

Outside such contexts, a referential indefinite NP is usually *generic*; unlike English "the", *lā*$^{+/}$ is not used with generic reference:

Tʊmtʊm pʊ gat o zugdaana.
Tʊ̀m-tʊ̄m pʊ̄ gát ò zūg-dáanā $^{+}$*ø.*
Work-worker:SG NEG.IND pass:IPFV 3AN head-owner:SG NEG.
"The servant does not surpass his master." (Jn 15:20)

Tiig walaa bigisid lin an tisi'a.
Tìıg wɛ́làa◡ø bìgısıd lín àň tí-sī'a.
Tree:SG fruit:PL CAT show:IPFV 3INAN:NZ COP tree-INDF.INAN.
"It's the fruit of the tree that shows what tree it is." (Mt 12:33)

Kusaas ye ... "The Kusaasi say ..." KSS p16
drawing the moral of a story.

Generic reference core arguments are incompatible with the particle *nɛ̄*$^{+/}$ used in its temporal sense 28.1.2.1.2.

A possessive predetermining NP ending in *lā*$^{+/}$ makes the following head definite, and the head does not itself take the article:

dṵ'átà lā bîig "the doctor's child"
not **dṵ'átà lā bîig lā*

Pronouns and personal names as possessive predeterminers do *not* have this effect; only predeterminers *with the article*, along with demonstrative pronouns, automatically make their NPs definite:

Wínà'am máḷiāk "an angel of God"
Wínà'am máḷiāk lā "the angel of God"

m̀ bīig	"my child" (at first mention)
m̀ bīig lā	"my child" (previously mentioned)

In *Pu'a sɔ' da bɛ mɔr **o bipuŋ** ka kikirig dɔl o. Ka o wʊm Yesu yɛla, ka keŋ igin o tuon. Ka sɔs Yesu ye o kadim kikirig la yis **o biig la** ni.*

Pu̱'à-sɔ̄' *dá bè‿ø* *mɔ́r* *ò* *bī-púŋ* *kà* *kìkīrıg* *dɔ̄ll·ó‿ø.*
Woman-INDF.AN TNS EXIST CAT have 3AN child-girl:SG and fairy:SG follow 3AN.OB.
Kà *ò* *wúm Yesu* *yɛ́là,* *kà* *kɛ̄ŋ‿ø* *ígìn* *ò* *tùɐn.*
And 3AN hear Jesus about, and go CAT kneel.down 3AN in.front.
Kà *sɔ́s Yesu* *yɛ́* *ò* *kàdım* *kíkīrıg* *lā‿ø* *yís* *ò* *bīig* *lā* *ní.*
And beg Jesus that 3AN drive.out:IMP fairy:SG ART CAT expel 3AN 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. Note the idiom at first introduction of a new possessed referent:

Pu'a sɔ' da bɛ mɔr o bipuŋ
Pu̱'à-sɔ̄' *dá bè‿ø* *mɔ́r* *ò* *bī-púŋ*
Woman-INDF.AN TNS EXIST CAT have 3AN child-girl:SG
"There was a woman who had a [literally "her"] daughter..." (Mk 7:25)

Dau da be mori o biribing
Dāu̱ *dá bè‿ ø* *mɔ̄rí‿ò* *bī-díbìŋ*
Man:SG TNS EXIST CAT have 3AN child-boy:SG
"Once there was a man who had a son ..." KSS p35

and *M̀* *bīig* *kā'e* *⁺ø.* "I've no child" WK
1SG child:SG NEG.BE NEG.

M̀ *bīig* *lā* *kā'e* *⁺ø.* "My child's not there" WK
1SG child:SG ART NEG.BE NEG.

further demonstrating that pronoun possessors do not automatically entail definiteness of the head. A postposition with a predeterminer with the article does not become referential, can appear as a NP premodifier 16.10.2.3, and may function for focus purposes as pragmatically non-recoverable 28.1.2.2.

Certain words consistently lack the article after a pronoun possessor even if they are specific old information. This may be a question of uniqueness within a particular context; examples are *bā*'$^{+/}$ and *sàam*^{ma} "father."

The presence of the article itself, not definiteness, causes dropping of the empty particle *nɛ̄* which follows complements of comparisons 18.

For an unambiguously indefinite specific meaning like "some, another", indefinite pronouns are used 16.3.3.

Nā'-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 predeterminer with the article:

dụ'átà lā bí-sɔ̄' "a child of the doctor's"
doctor:SG ART child INDF.AN

The number *yīnní*$^{+}$ "one" is sometimes used to introduce a new referent, but remains a number word, and is not bleached to an indefinite article:

Farisee dim nid yinne da bɛ
Farisee dím nìd yīnní dà bɛ̀ ...
Pharisee individual.PL person:SG one TNS EXIST ...
"There was one man of the Pharisees ..." (Jn 3:1)

cf *Dapa atan' n da be.* "There were once three men." KSS p16
Dāpá‿àtáň' n dá bɛ̀.
Man:PL NUM:three CAT TNS EXIST

16.6 The personifier clitic

Indigenous Kusaasi personal names are always preceded by the personifier clitic, which appears as *À-* by default, but *Ǹ-* before adjective stems, where *Ǹ-* is a syllabic nasal assimilated to the point of articulation of a following consonant. The clitic is a liaison word. The *À-* allomorph, like the manner-adverb prefix *à-*, is preceded by word-final *-ɪ*, not *-a* as with the number prefix.

Personal names do not take the article or modifiers, but may take pre- or postdeterminers. *À-* is deleted after a predeterminer, but *Ǹ-* remains.

Personal names can pluralise with *nàm*ᵃ; such plurals can mean e.g. "more than one person called Awini"; Niggli's Toende Kusaal dictionary also gives the *cum suis* meaning: *Awɪnnam*: "Awin and his people. *Awinne et consort (les Awinne).*"

À-Wīn	"Awini"
tì Wīn	"our Awini"
Ṁ Wīn	"my Awini"
À-Wīn-káŋā	"this Awini"
À-Wīn nám	"Awinis"
Ǹ-Dāʋg	"Ndago"
tì Ǹ-Dāʋg	"our Ndago"

In speech, *À-* is normally also used before foreign names, though the Kusaal Bible versions, unlike the Mooré Bible, use such names without any personifier clitic:

À-Mūusa	"Moses"
À-Yīisa	"Jesus"
À-Sīimɔ́ɔ̀n	"Simon"

For examples of Kusaasi names see 30.2.
NT has some personifications of abstractions: *À-Sàn̆'ʋŋ* "Destruction."
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-dàalʊ́ŋ*ɔ "stork" *à-gáʊ̀n̆g*ɔ "pied crow" *à-kɔ̄ra-díəm*ma "praying mantis" and the loanword *à-mús*ɛ "cat." Thus

à-dàalʊ́ŋ	"a stork"
ṁ/mān dáalʊ́ŋ	"my stork"
1SG/1SG.CNTR stork:SG	
dāu̱ lā dáalʊ́ŋ	"the man's stork"
man:SG ART stork:SG	

Lì à né à-dàalúŋ. "It's a stork"
3INAN COP FOC PERS-stork:SG.

M̀ ňyɛ́ à-dàalúŋ. "I've seen a stork."
1SG see PERS-stork:SG.

The *à-* allomorph is not elided after a predeterminer but is *replaced* by it , as shown by the M spreading affecting the stem. *À-* thus behaves syntactically like a predetermining personal pronoun; it is also *phonologically* similar to a clitic pronoun. This may reflect a historical origin in an indefinite third-person pronoun "someone", perhaps related to the Mooré 3sg pronoun *yẽ~a*.

A further similarity with personal pronouns appears when *verb phrases* are nominalised by the personifier clitic, which then takes the place of a subject pronoun in the sense "someone who ...":

Atʊm sɔ' "Siloam" 19.8.1 (Jn 9:7)
À-tʊ̀m sɔ̄' ("Someone sent someone")
PERS-send INDF.AN

Apʊ-kpɛn'-baŋʊ dim
À-pʊ̄ kpɛ́ň' bàu̯ŋʊ dím
PERS-NEG.IND enter circumcision individual:PL
"the Uncircumcised" (Eph 2:11)

This is common in proverbs and similar set expressions:

À-dāa yɛ́l kā' tílmm $^{+}$*ø.*
PERS-TNS say NEG.HAVE medicine NEG.
"Did-say has no remedy." (No use crying over spilt milk.)

À-ňyɛ̄ nɛ̄ nīf sɔ́ň'ɔ‿ À-wʊ̀m tʊ̀ba.
PERS-see with eye:SG be.better.than PERS-hear ear:PL
"Saw-with-eye beats Heard-with-Ears" (Seeing is believing.)

À-Kīdɪgɪ‿ ø Bū'ɵs "Crossed over and asked"
PERS-cross CAT ask (name of the constellation Orion.)

Apozotyel "Doesn't-fear-trouble", character in KSS p35.
À-Pʊ̄-zɔ́t-yɛ̄l
PERS-NEG.IND-run:IPFV-thing:SG

The expected final LF in this expression, induced by the negative clitic paired with *pū,* is seen only when the name is clause-final:

Apozotyel da ane o saam biig ma'aa.
À-Pū-zɔ́t-yɛ̄l dá à né ò sàam bîig mà'aa.
PERS-NEG.IND-run:IPFV-thing:SG TNS COP FOC 3AN father:SG child:SG only
"Fears-nothing was his father's only child." KSS p35

À- can appear as the predeterminer of the subject of an entire clause, with the meaning "someone whose ...":

Bà kɛ̀n né À-nà kúʊ̀ m̀ nūa yír, kà bà pū kɛ́n
3PL go:IPFV FOC PERS-IRR kill 1SG chicken:SG house:SG and 3PL NEG.IND go:IPFV
À-nɔ̄ɔs bɛ́ yírɛ̄ ⁺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-Tìɪm bɔ́dìg yā
PERS-medicine get.lost PFV
Personal name 30.2, literally "Someone's medicine has got lost."

Nominalisations with *à-* can pluralise with *nàm*[a]:

À-zī'ʊ̀ ø kpí nàm kpîid né kà tɛ́ňbìd.
PERS-NEG.KNOW CAT die PL die:IPFV FOC and tremble:IPFV.
"Those who don't know death, are dying with a struggle." (Proverb)
(i.e "It's a storm in a teacup.")

16.7 Coordination

Coordination is characteristically a feature of NPs, but also occurs with AdvPs.

The particles for "or" are *bɛ̄ɛ* or *kūʊ*. Here the two are synonymous; the only place where they consistently have different senses is in the formation of polar questions 22.1.2. 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 kūʊ dāu̱ lā kūʊ 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 NPs and AdvPs is *nɛ̄*. This *nɛ̄* is fundamentally the same word as the preposition "with" 18; the linker adjuncts *bɛ̄ɛ* and *kʊ̄ʊ* can be used in a parallel way. *Nɛ̄* links nominal words and phrases, but no clauses other than (previously nominalised) *ǹ*-clauses.

Consistent with this analysis, it is not possible to omit coordinating particles in a series of three or more items, or to use *nɛ̄* to join two words with the same referent:

À-Wīn nɛ́ À-Bʊ̄gʊr nɛ́ À-Nà'ab	"Awini, Abugri and Anaba"
dụ́'átà nɛ̄ ná'àb	"a doctor and a chief" (necessarily two different people)

Coordination within NPs is restricted.
In compounds, the only possibility is a coordinated head before an adjective:

Ka m nyɛ saŋgbauŋ nɛ teŋgbaung paal.
Kà m̀ ǹyɛ̄ sáŋ-gbàụ̀ŋ- nɛ̄ tɛ́ŋ-gbàụ̀ŋ-páal
And 1SG see heaven-skin- with earth-skin-new:SG.
"And I saw a new heaven and a new earth." (Rev 21:1)

but	**[bɛ̄ŋíd nɛ̄ kī] kúès*	not possible for "seller of *bɛ̄ŋíd nɛ̄ kī*" (beanleaf-and-millet, a conceptual unity like "fish and chips", "lox and bagels")

Coordinated heads may not share a determiner or an article:

m *ba'abiis nɛ* ***m*** *saamnama*
m̀ bā'-bîs nɛ́ m̀ sàam-nàmā +ø
1SG father-child:PL with 1SG father-PL VOC
"my siblings and [my] fathers!" (Acts 7:2)

pụ́'ā ***lā*** *nɛ̄ dāụ* ***lā***		"the woman and the man"
woman:SG ART with man:SG ART		

Yīigá+ "firstly" 16.10.3 is a modifier "former", rather than a determiner in

yiiga saŋgbauŋ nɛ teŋgbauŋ nɛ atɛuk
yīigá sàŋ-gbàụ̀ŋ nɛ̄ tɛ́ŋ-gbàụ̀ŋ nɛ́ àtìụ̀k
firstly heaven-skin:SG with earth-skin:SG with sea:SG
"the former heaven and earth and sea" (Rev 21:1)

Coordinated heads may share a single modifier, as long as it is not a cb:

Kʊ̄sáàl sɔ́lɪmà nɛ̄ síilímà "Kusaasi stories and proverbs"
Kusaal story:PL with proverb:PL

Kʊ̄sáàs kúèb nɛ̄ yīr "Kusaasi agriculture and housing"
Kusaasi:PL hoeing with house:SG

sālɪma bʊ́tìɪs nɛ̄ dɪ́símà "gold cups and spoons"
gold cup:PL with spoon:PL ("all of them gold", KT)

However, KT WK both agreed that

sālɪma lá'àd nɛ̄ bʊ̄tɪɪs

must mean "gold goods and [not gold] cups", WK offering the correction

sālɪma lá'àd né ò bʊ̄tɪɪs "gold goods and (gold) cups" WK
gold item:PL with 3AN cup:PL

where *ò* refers to *sālɪma*. (See 16.2.2 on the unexpected gender of the pronoun.) The difference from *sālɪma bʊ́tìɪs nɛ̄ dɪ́símà* (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 *sālɪma bʊ́tìɪs nɛ̄* [*sālɪma*] *dɪ́símà* "gold cups and [gold] spoons" (I am grateful to Tony Naden for this suggestion.)

Coordinated dependents are permitted so long as there is no compounding:

o nya'andɔlib pii nɛ yi "his twelve disciples" (Mt 26:20)
ò ňyà'an-dɔ̀llɪb pīi nɛ̄ yí
3AN after-follower:PL ten with two

dụ́'átà nɛ̄ ná'àb lā lɔ́yà "Doctor's and the chief's cars"
doctor:SG with chief:SG ART car:PL

sālɪma nɛ̄ ānzúrɪfà lá'àd "gold and silver goods"
gold with silver item:PL

The last two examples, like their English translations, are ambiguous; they can, but need not, be taken as representing ellipsis of the first of two repeated heads within a coordination of two parallel dependent + head NPs:

	dụ'átà (*lɔ́yà*) *nɛ̄ ná'àb lā lɔ́yà*	"[Doctor's cars] and [the chief's cars]"
	sālıma (*lá'àd*) *nɛ̄ ānzúrıfà lá'àd*	"[gold goods] and [silver goods]"
cf	[*dụ'átà nɛ̄ ná'àb lā*] *lɔ́yà*	"the cars of [Doctor-and-the-chief]"
	[*sālıma nɛ̄ ānzúrıfà*] *lá'àd*	"[gold-and-silver] goods"

Elliptical interpretations are sometimes impossible. As is not possible to coordinate cbs, and *nɛ̄* cannot join NPs with the same reference, this is the case with

	ānzúrıfà nɛ̄ sālıma lá'-māan	"silver- and goldsmith"
	silver with gold item-maker:SG	
cf	**ānzúrıfà lá'- nɛ̄ sālıma lá'-māan*	(impossible)
	ānzúrıfà lá'-māan nɛ̄ sālıma lá'-māan	(necessarily two different people)

16.8 Apposition

For apposition in locative AdvPs see 17.3.

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 fù dí fù bā'-bîg pụ'á Herodiasɛ +*ø.*
3INAN NEG.IND must that 2SG take 2SG father-child:SG wife:SG Herodias NEG.
"It's not right for you to marry your brother's wife Herodias." (Mt 14:4, 1996)

... lebis ye, eenn, o zua Asibigi n kabirid.
... ø lɛ̀bıs yɛ̄, ɛ̄ɛ̌n, ò zụà À-Sībıgı‿ n kābıríd.
...CAT reply that, Yes, 3AN friend:SG PERS-termite:SG CAT ask.admission:IPFV.
"...replying that, Yes, it was his friend Termite asking for admission." KSS p12

The fact that the personifier-clitic allomorph *à-* is not omitted in these cases shows that the relationship is not dependent-head 16.6.

Personal pronouns in apposition use free forms 28.5:

Man Paul [...] *pʊ'ʊsidi ya.* "I, Paul ... greet you." (2 Thess 3:17)
Mān Paul [...] *pʊ́'ʊsìdī‿ yá.*
1SG Paul greet:IPFV 2PL.OB.

Two compounded noun stems with the same referent seem necessarily to have human reference; this is regarded as adjectival use of the second noun 16.11.1.5.

Appositional relative clauses probably must have human reference; again the second element has adjectival function 25.3.3. I have no other examples in NPs where the second component is not a personal name.

Apposition is to be distinguished from cases where a preceding head has no combining form, as with quantifiers, or coordinated structures 16.7, or where the cb has the segmental, but not tonal, form of the singular 9.2.2. 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-sʊ̀ŋ*	"Holy Spirit"

The tonal evidence from similar cases in my informants' speech shows that this reflects segmental remodelling of combining forms, not 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 1996 NT audio version are likewise clearly read as *Sìɪg-sʊ̀ŋ* (or *Síìg-sʊ̀ŋ* with M spreading) or *Sì-sʊ̀ŋ*, not **Sīɪg-sʊ́ŋ*.

SB showed a much greater tendency to produce segmental sg forms before postdeterminer pronouns and even adjectives than my other informants.

16.9 Compounding

Like other Oti-Volta languages, Kusaal shows abundant productive formation of compound nouns. Kusaal compounds fall into two basic types, depending on whether the combining form is the head or a premodifier. Compounding is the regular construction for head nouns with following adjectives and postdeterminer pronouns:

bʊ̄ʊg^{a}	"goat"
bʊ̀-pìəlɪg^{a}	"white goat"
bʊ̀-kàŋā$^{+/}$	"this goat"
bʊ̀-pìəl-kàŋā$^{+/}$	"this white goat"

It is also the normal construction for a generic concrete noun preceding a head as a modifier or as a generic complement to a deverbal noun:

	nà'ab lā wíəf zʊ̄ʊr	"the chief's horse's tail"
but	*nà'ab lā wíd-zʊ̄ʊr*	"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, typically bare stems which have undergone apocope, though analogical remodelling is common, and regular with some stem types 9.2.2. Compounding is so productive that the cb is a regular part of noun and adjective flexion 9.1.

For the tone sandhi rules which affect the component following the combining form see 8.3 8.4. They are not sensitive to whether the cb is head or modifier.

Compounds may have compound components, most often as a result of the addition of an adjective or postdeterminer pronoun to an existing compound, where the binding of the new element is weaker than that within the existing compound:

[*bʊ̀-pìəl-*]*kàŋā*	"this [white goat]"
[*nīn-wɔ́k-*]*pìəlıg*	"white [tall person]"
[*zà'-nɔ̄-*]*píəlì̱g*	"white gate" ("white [compound-mouth]")

A compound may appear as generic complement to a following deverbal noun:

[*zà'-nɔ̄-*]*gúr*	"gate-keeper"
[[*zà'-nɔ̄-*]*gúr-*]*kàŋā*	"this [gate-keeper]"

Kusaal also possesses bahuvrihi adjectives 16.11.1.4 formed by zero-derivation of a noun-adjective compound to an adjective:

nīf-ňyáu̱k	"one eye"
bʊ̀-[*nīf-ňyáu̱k*]	"[one-eyed] goat"
nɔ̄b-wɔ́k	"long leg"
kʊ̀g-[*nɔ̄b-wɔ́k*]	"[long-legged] stool"

The bahuvrihi meaning is also possible when the compound is used as the complement of *àe̱ňᵃ* "be something":

Kʊ̀g-kàŋā á nɛ̄ nɔ̄b-wɔ́k.
Chair-DEM.DEI.SG COP FOC leg-long:SG.
"This chair is long-legged." WK

Adjective combining forms can only be used before another adjective or before a postdeterminer pronoun. If a noun-adjective compound is used as a generic complement it must adopt a sg or pl form:

	fū-zɛ́ňdà kʊ̀ɐs	"seller of red (i.e. dyed) cloth"
not	**fū-zɛ́ň'-kʊ̀ɐs*	

Compounds may contain uncompounded elements within their structure, because regardless of whether compounded or not, **modifiers bind tighter than complements, which bind tighter than determiners**. Generic non-count NPs referring to substances appear as premodifiers within other NPs 16.10.2.2:

sālıma bútìŋ	"gold cup"
ānzúrıfà nɛ̄ sālıma lá'àd	"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 complement than the cb does to a following deverbal noun:

[*ānzúrıfà lá'-*]*māan*	"silversmith" ("[silver goods]-maker")
[*ānzúrıfà nɛ̄ sālıma lá'-*]*māan*	"silver- and goldsmith"

cf	[*fū-zɛ́ňdà*] *kʊ̀ɐs*	"[dyed cloth]-seller" with an adjective postmodifier (see above)

If the cb is itself a premodifier, the the construction is nested, with the cb binding to the following head and the preceding unbound premodifier applying to the whole resulting compound:

sālıma [*zá'-nɔ̄ɔr*]	"golden gate" ("golden [compound-mouth]")
zūgú-n [*níf-gbáu̯ŋ*]	"upper eyelid" ("upper [eye-skin]")

Determiners, whether preceding or following the head, and whether compounded or uncompounded, have the loosest binding:

[*sālıma bútìŋ-*]*kàŋā*	"this [gold cup]"
[[*sālıma lá'-*]*màan-*]*kàŋā*	"this [[gold-item]-maker]"
ò [[*sālıma lá'-*]*māan*]	"her [[gold-item]-maker]"

16.10 Dependents preceding the head

The head of a NP may be preceded by a dependent. Only one is permitted, but the resulting NP may itself recursively serve as the head of a NP with yet another pre-dependent. Cbs come last, and predeterminers precede premodifiers:

Wínà'am [*pʊ́'ʊsʊ̀g* [*fúùg dɔ́ɔ̀g*]]
"tabernacle" (God's [worship [cloth hut]])

Pronoun, pronoun-like, quantifier or deverbal heads lead to the pre-dependent + head construction having specialised meanings 16.10.3. Otherwise, specific-reference predependents are determiners, and generic-reference predependents are either modifiers or complements.

The nature of the pre-dependent determines whether compounding occurs: generic complements of any type must be cbs; generic *count* nouns as premodifiers must be cbs; all other pre-dependents appear uncompounded.

For the rules regarding L spreading after pre-dependents see 8.4.

16.10.1 Complements

If the head is a deverbal noun, it may be preceded by a combining form representing a **generic complement**. The dependent appears as a cb regardless of whether it has count or mass reference.

dā-núùr$^{\varepsilon}$	"beer-drinking"
gɛ̄l-kúès^{a}	"egg-seller"

With **agent nouns** from transitive verbs the cb normally represents an object. Agent nouns from intransitives may have an AdvP or indirect object cb complement. These compounds can be freely coined, and their meanings are generally transparent, but there are many idiomatic set expressions. Examples:

nīn-kʊ́ʊ̀d^{a}	"murderer"
bʊ̀-kʊ̄ʊd$^{a/}$	"goat-killer"
nɔ̄-kʊ́ʊ̀d^{a}	"hen-killer"
pu̱'à-kʊ̄ʊd$^{a/}$	"woman-killer"
nɔ̄-záňl$^{l\varepsilon}$	"holder of hens"
wìd-kùɐs^{a}	"horse-seller"
bʊ̀-kùɐs^{a}	"goat-seller"
sàlɪm-kùɐs^{a}	"gold-seller"
dā-núùd^{a}	"beer-drinker"
zīm-gbáň'àd^{a}	"fisherman" ("fish-catcher")

nɔ̄-díˈàs^{a}	"chief's spokesman" ("command-receiver") (Ghanaian English "linguist")
tàn-mɛ̄ɛd^{a}	"builder" (*tān*^{nɛ} "earth")
làmpɔ̄-díˈàs^{a}	"tax collector" (French *l'impôt*)
gbàn-mīˈid$^{a/}$	"scribe" NT ("book-knower")
pu̯ˈà-sāňˈam^{ma}	"adulterer" ("woman-spoiler")
zàˈ-nɔ̄-gúr^{a}	"gate-keeper" (*zàˈ-nɔ̄ɔr*$^{ɛ/}$ "gate")
dà-kīəd^{a}	"wood-cutter"
kɔ̀ňb-kīm^{na}	"herdsman" (*kɔ̀ňb-* as cb of *bʊ̄n-kɔ́ňbʊ̀g*^{ɔ} "tame animal")
bʊ̀l-sīgɪd$^{a/}$	"well-diver" (*bʊ̀lɪg*^{a} "well")
tʊ̀ən-gāt^{a}	"leader" (*Ò gàad túèn* "He's gone ahead")
ňyàˈan-dɔ̀l^{la}	"disciple" (*ňyáˈaŋ*^{a} "behind") (*dɔ̄l*$^{la/}$ "accompany")
pu̯ˈà-lāˈad^{a}	"laugher at women" WK (*Ò làˈad pʊ̄ˈab* "He laughs at women")

My informants freely create and cite agent nouns in isolation, but it is unusual in practice for agent nouns to appear thus; in my materials only *bāŋɪd*^{a} "wise man", *su̯ākɪd*^{a} "believer", *sʊ̄ŋɪd*^{a} "helper", *fāaňd*$^{a/}$ "robber" "Saviour" occur often. With monosyllabic agent nouns there is often a preceding cognate cb, sometimes an object, but often apparently just a reduplication of the agent noun stem:

màal-māan^{na}	"sacrificer"
zī-zíìd^{a}	"carrier-on-head"
tʊ̀ˈas-tʊ̀ˈas^{a}	"talker"
zàb-zàb^{a}	"warrior" (tone *sic*)
zɔ̀t-zɔ̄t^{a}	"racer, athlete"
tʊ̀m-tʊ̄m^{na}	"worker"

Cbs occur before deverbal **instrument nouns** in object or adverb senses:

su̯à-lɔ̄ɔdíŋ^{a}	"belt" (waist-tying thing)
nīn-gɔ́tɪ̀ŋ^{a}	"mirror" (eye-looking thing)
nīn-gɔ́tɪ̀s^{ɛ}	"spectacles"

If the head is a **gerund**, a cb pre-dependent may represent a subject or complement. For the *-r*^{ɛ} (not *-b*^{ɔ}) suffix of these 2-mora stem gerunds see 12.2.1.1.

If the underlying verb is transitive, a cb pre-dependent cannot be a subject. It is most often an object:

pu̱'à-dīɪr$^{\varepsilon}$	"marriage" (*Ò dì pu̱'ā* "He's married a wife")
nīn-kʊ́ʊ̀r$^{\varepsilon}$	"murder"
dā-núùr$^{\varepsilon}$	"beer-drinking"
Sāmán-píər$^{\varepsilon}$	Traditional New Year ("Courtyard Cleaning")
bùgʊ́m-tɔ̄ɔ̌ǹr$^{\varepsilon}$	Fire Festival ("Fire Throwing")
nɔ̄-lɔ́ɔ̀r$^{\varepsilon}$	"fasting" ("mouth-tying")
nɔ̄-pɔ́ɔ̀r$^{\varepsilon}$	"oath" (*pɔ̄*$^{+}$ "swear")
nɔ̄-náàr$^{\varepsilon}$	"covenant" (*nā*$^{+}$ "join")
nīn-báàl-zɔ̄ɔr$^{\varepsilon}$	"pity" (*Ò zɔ̀t·ō nīn-báalìg.* "He has pity on him")

It may represent an AdvP:

mɔ̀-pīl$^{\text{l}\varepsilon}$	"grass roof" ("covering with grass")
kùm-vʊ̄'ʊgɪ́r$^{\varepsilon}$	"resurrection" (*Ò vʊ̀'ʊg kūmɪn.* "He came alive from death.")

Although many of these are set forms, free creation of nonce-forms is possible:

fū-yɛ́ɛ̀r$^{\varepsilon}$	"shirt-wearing" WK

Cbs as subjects are thus confined to verbs which can be used intransitively:

nɔ̄b-kɔ́ɔ̀r$^{\varepsilon}$	"breaking a leg" (*kɔ̀*$^{+}$ is intransitive)
nū'-mɔ́dɪ̀r$^{\varepsilon}$	"swelling of the hand"
wìn-lī̀ir$^{\varepsilon}$	"sunset" (*Wìnnɪg lí yā.* "The sun has set/fallen.")
sūn̆-sáǹ'ʊ̀ŋ$^{\supset}$	"sorrow" (*Ḿ sūn̆f sáǹ'àm nɛ̄.* "My heart is spoilt" = "I'm sad.")
sūn̆-pɛ́ɛ̀n$^{\text{n}\varepsilon}$	"anger" (*Ḿ sūn̆f pɛ́lìg nɛ̄.* "My heart is white.")

16.10.2 Premodifiers

Modifiers must be generic. They vary in form depending on the nature of the dependent. AdvP premodifiers may contain *constituents* with specific reference, but as AdvPs they do not themselves refer.

16.10.2.1 Count nouns

A count noun as a premodifier must appear as a combining form.

Compounds with a count noun premodifier are freely created, but resemble the compounds seen in other languages more closely than the type with combining form heads preceding adjectives and postdeterminer pronouns. 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 never with postdeterminer pronouns.

Note the contrast between a generic premodifier and a predeterminer in e.g.

bīig fúùg	"a child's shirt" (belonging to some child)
bì-fūug	"a children's shirt" (perhaps a small woman's)
nà'ab lā wíəf zʊ̄ʊr	"the chief's horse's tail" (the chief has a horse)
nà'ab lā wíd-zʊ̄ʊr	"the chief's horse-tail" (the chief may not own a complete horse at all)

Cb premodifiers have a very general quasi-adjectival sense. The resulting compounds are very liable to develop specialised lexical meanings:

wāb-mɔ́ɔgʊ̄-n WK	"in elephant-bush, where there are elephants"
zà'-nɔ̄ɔr	"gate" ("compound-mouth")
mà-bīig	"sibling" ("child by [same] mother")
bā'-bîig	"half-sibling" ("child by [same] father")
tɛ̀ŋ-bīig	"native" ("child of a country")
nàsàa-sìlʊg	"aeroplane" (European hawk) ILK

WK has the exceptional forms

náaf-bì'isím	"cow's milk"
bʊ̄ʊg-bí'isím	"goat's milk"

where the modifier has singular form and tone, but the tone sandhi is that of a compound (note the lack of M spreading after *náaf-*.)

A cb premodifier of a deadjectival abstract noun may have a sense much like a generic complement, but the cb in such cases is a premodifier. Deadjectival nouns are not gerunds <u>12.3</u>, and such constructions are not limited to cases where corresponding adjectival verbs exist; where they do exist, the cb corresponds to the subject rather than a complement.

pʊ̀-pìəlɪm^{m}	"holiness" ("inside-whiteness")
sūn̆-kpí'ɔ̀ŋ^{ɔ}	"boldness" ("heart-strength")
sūn̆-má'asìm^{m}	"joy" ("heart-coolness") (*M̀ sūn̆f má'e yā.* "I'm joyful.")
nìn-tʊ̄llím^{m}	"fever" ("body-heat")
wīn-tɔ́ɔ̀g^{ɔ}	"ill fate" ("fate-bitterness")

16.10.2.2 Non-count NPs

Premodifers may consist of NPs with generic non-count reference. If they have abstract senses, they ascribe a quality to the head:

nā'am kʊ́k	"throne" ("chieftaincy chair")
nā'am sʊ́'ʊlɪ̀m	"kingdom" ("chieftaincy possession")
pʊ̀'ʊsʊg dɔ́ɔ̀g	"temple" ("worship house")
tōlɪgír bʊ́n	"heater" ("heating thing" = *bōn-tʊ́lɪgɪ̀r*$^{\varepsilon}$)
dōgʊb dʊ́t	"cooking pots"
līgɪdɪ tʊ́ʊmà	"expensive work" (*līgɪdɪ*$^{+}$ "money")

Language names may appear as abstract nouns describing an ethnic group:

Kʊ̄sáàl yír nɛ̄ kʊ̄əb	"Kusaasi houses and agriculture"
Nàsāal búgʊ́m	"electricity" ("European fire")

NPs with concrete mass sense express the material of which the head consists. Most often the premodifier is a single noun:

sālɪma bʊ́tɪ̀ŋ	"golden cup"

Count nouns may appear if used in a mass sense 16.2.1:

fūug dɔ́ɔ̀g	"tent" (cloth hut)
dàad bʊ́n-nám	"wooden things" (*dàʊg*^{ɔ} "piece of wood")

NPs formed by coordination may occur in this use:

sālɪma nɛ̄ ānzʊ́rɪfà lá'àd	"gold and silver goods"

Such premodifiers are referential, and can be the antecedents of pronouns:

sālɪma lá'àd nɛ́ ò bʊ̄tɪɪs	"gold goods and [gold] cups" WK 16.7

Contrast the non-referential use of mass nouns as generic complements:

sàlɪm-kʊ̀ɔs	"gold-seller"
dā-núʊ̀d	"beer-drinker"

Cb forms of abstract non-count nouns do sometimes occur as premodifiers:

	*tàňp-sɔ̄b*ª	"warrior"	(*tāňp*ɔ "war")
	*pù-pìəl-sɔ̄b*ª	"holy person"	(Rom 3:10, 1996)
but	*pù-pìəlɪm sɔ́b*ª	"holy person"	(Mt 10:41, 1996)
	pù-pìəl-tʊ̄ʊma⁺	"holy actions"	(Rom 6:13, 1996)
but	*pù-pìəlɪm tʊ́ʊmà*⁺	"holy actions"	(Mt 5:10, 1996)

An interesting case involving a concrete mass noun is the compound *kṵ'à-ňwīig* "current" ("water" + "rope.") This perhaps represents "aquatic rope" in contrast to **kù'ɵm ňwîg* "a rope made of water"; the construction with concrete mass premodifiers may be limited to the specific sense "made of ..."

16.10.2.3 Adverbial phrases

AdvPs as premodifiers may not be proadverbs. All examples in my materials involve either locative AdvPs or phrases with *yɛ̄lá*⁺ "about" 17.6, except before the specialised head *dāan*ª 16.10.4.

dūnɪya ní nìn-gbīŋ	"earthly body"
kɔ̄lʊgʊ-n nɔ́-dáʊ̀g	"crayfish" ("in-the-river cock")
Bɔ̀k dím	"Bawku people"

Ba da mɔr mɔɔgin bʊnkɔnbid nɛ ba buudi, yin bʊnkɔnbid nɛ ba buudi ...
Bà dà mɔ̀r mɔ̄ɔgʊ-n bʊ́n-kɔ́ňbìd né bà būudɪ, yín bʊ́n-kɔ́ňbìd
3PL TNS have bush:SG-LOC thing-hair:PL and 3PL kind, house:SG:LOC thing-hair:PL
né bà būudɪ...
and 3PL kind ...
"They took wild animals with their kind, tame animals with their kind ..." (Gen 7:14)

Kʊ̄sáàs kúèb nɛ̄ yīr yɛ́là gbàu̱ŋ	"A book about Kusaasi houses and agriculture"
dàu̱-kàŋā lā yɛ́là gbàu̱ŋ	"a book about that man" WK

Although the AdvPs in cases like

dàtìu̱ŋ níf	"right eye"
dàgɔ̀bɪg níf	"left eye"
zūgʊ́-n níf-gbáu̱ŋ	"upper eyelid"
tɛ̄ŋɪ-n níf-gbáu̱ŋ	"lower eyelid"

seem to answer "which?" rather than "what kind of?", the possibility of indefinite plurals like *dàtìu̱ŋ níní* "right eyes" or *tɛ̄ŋɪ-n níf-gbánà* "lower eyelids" shows that the construction is modifying, not determining.

Postpositional phrases behave as generic non-count NPs syntactically, and are not made specific by a definite predeterminer. This premodifying use of AdvPs is thus parallel to the similar use of indefinite mass nouns. 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" 17.3; like other postpositions, this is itself non-referential and remains so even though it has a specific predeterminer. Cf locative complements and focus 28.1.2.2.

16.10.3 Predeterminers

The **quantifier** *yīigá*$^{+}$ "firstly" appears as a predeterminer "first" 16.4.2.3, e.g.

linɛ da an yiiga dabisir
līnɪ͡ *ø* *dá àň* *yīigá* *dàbɪsɪr*.
3INAN.CNTR CAT TNS COP firstly day:SG.
"That was the first day." (Genesis 1:5)

Count and/or definite reference NPs as preceding dependents before noun heads are also **determiners**.

If the head itself is a pronoun or quantifier the construction is **partitive**:

nīn-síəbà	"certain people"	*sīəba*	dependent
yà sɔ̄'	"some one among you"	*sɔ̄'*	head
nīdɪb lā síəbà	"certain of the people"	*sīəba*	head
nīdɪb síəbà	"certain ones among people"	*sīəba*	head
nīdɪb bɛ́dʊgʊ̄	"a lot of people"	*bɛ̀dʊgʊ̄*	dependent
nīdɪbá àyí	"two people"	*àyí*	dependent
nīdɪb bɛ́dʊgʊ̄ lā	"the lot of people, the crowd"	*bɛ̀dʊgʊ̄*	dependent
nīdɪbá àyí lā	"the two people"	*àyí*	dependent
nīdɪb lā bɛ́dʊgʊ̄	"a lot of the people"	*bɛ̀dʊgʊ̄*	head
nīdɪb lá àyí	"two of the people"	*àyí*	head

The sense is also partitive if the head is a relative clause with an indefinite pronoun as relative:

Pa'alimi ti nidiba ayi' nwa fʊn gaŋ sɔ'
Pà'alɪmī tí nīdɪbá‿ àyí ňwá fʊ́n gāŋ sɔ̄'
Teach:IMP 1PL.OB person:PL NUM:two this 2SG:NZ choose INDF.AN
"Tell us which of these two people you have chosen" (Acts 1:24)

NP predeterminers before **gerunds** and other abstract nouns describing events or processes are interpreted as **subjects**:

Dāu̯ lā kúlʊ̀g dāa mālɪsí‿ m.
Man:SG ART go.home:GER TNS be.sweet 1SG.OB.
"The man's return home pleased me."

A generic object may also occur as a combining form, and adjunct AdvPs or VP-final particles 19.10 may follow the head:

ninsaalib yadda niŋir Wina'am ni
nīn-sáalʊ̀b yáddā-níŋ̀ɪr Wínà'am 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 àntu̯'à-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)

Ninsaal Biig la lɛbʊg la na
Nīn-sáàl Bîg lā lɛ́bʊ̀g lā nā
Person-smooth:SG Child:SG ART return:GER ART hither
"the return of the Son of Man" (Mt 24:27)

Other deverbal abstract nouns may also be used in this way:

Kristo kum dapuudir zug "Christ's death on the cross" (1 Cor 1:18)
Kristo kúm dá-pʊ̄vdír 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.

The words *mɛ̄ŋ*$^{a/}$ "self", *dāan*^{a} "owner", *sɔ̄b*^{a} "individual" and *bʊ̄n*$^{nɛ/}$ "thing" as heads have specialised senses with dependents (see below.)

In all other cases, predeterminers express **possessors**.

m̀ bīig	"my child"
dāu̯ lā bîg	"the man's child"
dāu̯ lā bíər bīig náàf zʊ̄vr	"the man's elder brother's child's cow's tail"
Kʊ̄sáàs wádà	"customs of the Kusaasi"

Such determiners do *not* automatically make a NP definite even when themselves definite 16.5.

A partitive sense is not possible with noun (as opposed to pronoun) heads:

nīdɪb lā gígìs	"the dumb ones belonging to the people" Not possible as "among the people" WK.

16.10.4 Before *mɛ̄ŋ*[a/] *dāan*[a] *sʊ̄b*[a] *bʊ̄n*[nɛ/]

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** 17.6.)

Mɛ̄ŋ[a/] "self" is used indifferently for sg/pl, always with a predependent:

m̀ mɛ̄ŋ	"myself"
yà mɛ̄ŋ	"yourselves"

nà'ab lā mɛ́ŋ	"the chief himself"
chief:SG ART self	

Bà ňyɛ́ɛ̆ bà mɛ̄ŋ.	"They've seen for themselves."
3PL see 3PL self.	

"Self" forms must be used for complements referring to the clause subject:

M̀ ňwɛ́'ɛ̆m mɛ̄ŋ.	"I hit myself."
1SG hit 1SG self.	

not **M̀ ňwɛ́'ɛ m* or **M̀ ňwɛ́' 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 pʊ piesidi ba nu'us wʊʊ lin nar si'em la ka ditta.
Bà pū pīəsídí‿bà nú'ùs wūʊ lín nār sī'əm lá kà dítā $^{+}$*ø.*
3PL NEG.IND clean:IPFV 3PL hand:PL like 3INAN:NZ be.proper INDF.ADV ART and eat:IPFV NEG.
"They don't wash their hands properly before they eat." (Mt 15:1)

Where ordinary pronouns would be permissible, using *mɛ̄ŋ* implies contrast:

M̀ píə‿m̀ mɛ̄ŋ nú'ùs. "I washed my own hands."
1SG wash 1SG self hand:PL.

Fù mɛ̄ŋ kūʊ bí-lìaa $^{+}$*ø?* "Yourself or the baby?"
2SG self or child-baby:SG CQ? ("Which of you needs the doctor?")

See also 16.11.3 on *amɛ̄ŋá*$^{+}$ "really, truly" as a postmodifier "genuine, real"; cf the adjective *mɛ̄ŋír*^{ɛ} seen in *yɛ̄l-mɛ́ŋìr*^{ɛ} "truth" ("genuine matter.")

Dāan^{a} "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"
bʊ̄ʊg dáàn^{a} "goat owner"
kù'ʊm dáàn^{a} "water owner"
tìəŋ dáàn^{a} "bearded man" Hausa *mài geemùu*
dāam dáàn^{a} "beer owner"
pɔ̄ɔg lā dáàn^{a} "the owner of the field" (Mt 21:40)

Zu-wok daan po gangid bugum.
Zʊ̀-wɔ̄k dáàn pū gáŋìd búgʊ́mm $^{+}$*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

pʊ̀-pìəlɪm dáàn^{a} "holy person"

Even manner-adverbs can be predependents before *dāan*ᵃ:

*bʊ̄gʊsígā dáàn*ᵃ "softly-softly sort of person" WK

See 16.4.2.3 on the use of *dāan*ᵃ with numbers to make ordinal expressions.

sɔ̄bᵃ "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.

Animate	sg	*sɔ̄b*ᵃ
Animate	pl	*dìm*ᵃ
Inanimate	sg/pl	*dìn*ⁿᵋ

With noun or pronoun predependents the meaning is possessive:

mān dínⁿᵋ "my one, mine"
À-Wīn dím "Awini's family"

Fʊ̄n pi̯áň'àd nɛ̄ tīnám dín.
2SG.CNTR speak:IPFV FOC 1PL.CNTR individual.INAN.
("We can't speak your language but ...") "You're speaking ours."

Abstract NPs and AdvPs preceding *sɔ̄b*ᵃ are premodifiers:

*pʊ̀-pìəlɪm sɔ́b*ᵃ
pl *pʊ̀-pìəlɪm dímᵃ* "holy person" (*pʊ̀-pìəlɪm*ᵐ "holiness")

*dūnɪya ní dìn*ⁿᵋ "earthly one" (1 Cor 15:44)
Bɔ̀k dím "Bawku people"

The quantifier *yīigá*⁺ "first" is a predeterminer in

*yīigá sɔ̄b*ᵃ "first (person)" beside *yīig-sɔ́b*ᵃ *id*

Specialised senses may be found with cb premodifiers:

*yī-sɔ́b*ᵃ	"householder"	(*yīrᵋ/* "house")
pl *yī-sɔ́b-nàm*ᵃ		
yī-dímᵃ	"members of the household"	
*nīf-sɔ́b*ᵃ	"miser"	(*nīfᵖ/* "eye")
*tàňp-sɔ̄b*ᵃ	"warrior"	(*tāňpɔ* "war")

*zūg-sɔ́b*ᵃ "boss" NT "Lord" (*zūg*ɔ/ "head")
pl *zūg-sɔ́b-nàm*ᵃ

The expression *ɔ̄n sɔ̄b*ᵃ means "the person we were just talking about."

Bʊ̄nⁿᵋ/ "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*ᵋ|*a*⁺ class plural *bʊ̄ná*⁺, but in placeholder use it is found indifferently as sg and pl, or pluralises with *nàm*ᵃ like inanimate pronouns:

Bʊ̄n-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 *àe̯ňᵃ* "be" 20.2.

Dīıb á nɛ̄ bʊ̄n-sʊ́ŋ. "Food is good." ("Food is a good thing.")
Food COP FOC thing-good:SG.

Some adjectives cannot be used as NP heads at all; *bʊ̄n-* is necessary in:

*bʊ̄n-vʊ́r*ᵋ "living thing"

No adjective cb may be a head, so *bʊ̄n-* is also necessary in:

bʊ̄n-píəl-kàŋā⁺/ "this white one"

Deverbal adjectives with no preceding cb are interpreted as agent nouns, so *bʊ̄n-* marks different meanings in e.g.

*bʊ̄n-kʊ́ʊdìr*ᵋ "thing to do with killing"
but *kʊ̄ʊdír*ᵋ "killer"

Note the idioms

*bʊ̄n-gíŋ*ᵃ "short chap" (informal, humorous)
*bʊ̄n-kʊ́dʊ̀g*ɔ "old man" (the normal expression)
(but *pu̯'à-ňyá'aŋ*ᵃ "old woman")

Bʊ̄n also occurs with abstract and AdvP premodifiers:

tōlɪgír bʊ́n^{nɛ}	"heating thing, heater" = *bōn-tʊ́lɪgìr*^{ɛ}
kù'ɵmī-n bʊ́n^{nɛ}	"water creature"

Bōn is a "thing", tangible or abstract, while *dìn* is purely a semantically empty head, with only number and gender specified:

kù'ɵmī-n dín^{nɛ}	"the (non-human) one in the water, aquatic one"

16.11 Dependents following the head

Dependents follow a head noun in the order adjective(s), quantifier, postdeterminer pronoun or AdvP, article.

It is characteristic of Kusaal and of other Oti-Volta languages that the normal construction with both adjectives and postdeterminer 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 separate combining forms, and cannot be followed by the postdeterminer-only forms *kàn*^{ɛ} *kàŋā*$^{+/}$ of the demonstrative pronouns (cf on apposition 16.8.) For quantifiers as postdeterminers see 16.11.2.2.

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 noun and adjective paradigms, and it is in these cases particularly that cbs remodelled segmentally on the basis of the singular form (or even the plural) 9.2.2 are frequent.

bʊ̄ʊg^{a}	"goat"
bʊ̀-pìəlɪg^{a}	"white goat"
bʊ̀-kàŋā$^{+/}$	"this goat"
bʊ̀-pìəl-kàŋā$^{+/}$	"this white goat"

Compounds with postdeterminer pronouns naturally cannot be lexicalised; compounds with adjectives may develop specialised individual lexical meanings, though much less often than modifier-first compounds.

For my informants WK and DK, a noun preceding a postdeterminer pronoun must appear as a combining form, but SB accepted preceding sg/pl forms. I did not record the tones at that time, and this was probably segmental remodelling of cbs.

16.11.1 Adjectives

Adjectives always follow the head, and do not themselves appear as heads, except to a very limited extent as complements to *àe̯ňᵃ* "be something" 20.2.

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 could sometimes be induced to accept sg + adjective but never produced such forms spontaneously.

bʊ̄ʊgᵃ	"goat"	*bʊ̄ʊsᵋ*	"goats"
bʊ̀-pìəlɪgᵃ	"white goat"	*bʊ̀-pìəlɪsᵋ*	"white goats"
bʊ̀-sʊ̀ŋᵓ	"good goat"	*bʊ̀-sʊ̀maᐩ*	"good goats"
nūaᐩ/	"hen"	*nɔ̄ɔsᵋ/*	"hens"
nɔ̄-píəlɪ̀gᵃ	"white hen"	*nɔ̄-píəlɪ̀sᵋ*	"white hens"
nɔ̄-sʊ́ŋᵓ	"good hen"	*nɔ̄-sʊ́màᐩ*	"good hens"

A second adjective or a postdeterminer pronoun can follow a first adjective, which thus itself appears as a cb:

nīn-wɔ́k-pìəlɪgᵃ	"white tall person"
nɔ̄-píə̀l-kàŋāᐩ/	"this white hen"

However, a noun + adjective compound cannot form a cb to be used as the generic complement of a deverbal noun; a sg/pl form is used instead:

fū-zɛ́ňdà kʊ̀ʊsᵃ	"seller of red (i.e. dyed) cloth"
not **fū-zɛ́ň'-kʊ̀ʊsᵃ*	

i.e. adjective cbs may only precede other adjectives or postdeterminer pronouns.

Compounds with adjectives may develop specialised lexical meanings:

nū'-bílᵃ	"finger" ("small hand")
tì-sābɪlíᵐ	a traditional remedy ("black medicine")

Several names of plant and tree species are formed in this way:

gɔ̀ň'-sābɪlígᵃ	Haaf *gosabliga* "Acacia hockii" ("black thorn")

16.11.1.1 Class agreement

There are isolated set forms showing traces of the old agreement system:

	là'-bīəlíf^{ɔ}	"small coin" NT (*lā'af*^{ɔ} "cowrie")
cf	*bī'əlá*$^{+}$	"a little"
	dà-sī'ər^{ɛ}	"some day; perhaps" (*dāar*^{ɛ} "day")
	dàbɪs-sī'ər^{ɛ}	"some day" (*dàbɪsɪr*^{ɛ} "day")
cf	*sī'a*$^{+}$	"some"
	yɛ̄l-sʊ́m^{mɛ}	"blessing" (*yɛ̄l*$^{lɛ/}$ "matter")
cf	*sʊ̀ŋ*^{ɔ}	"good"
	pu̯'à-pāal$^{a/}$	"bride" (*pu̯'ā*^{a} "wife")
	dà-pāal$^{a/}$	"young man, son" (*dāu̯*$^{+}$ "man")
cf	*pāalíg*^{a}	"new"

The dependents do not normally occur with these class suffixes.

There remains a rule in WK's speech (not DK's) and in written materials requiring *m*^{m} class agreement in adjectives modifying *m*^{m} class mass nouns, and also after *bʊ̄n* "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}	"black medicine", a specific traditional remedy
	tì-vʊ̄nním^{m}	"oral medication" ("swallowing medicine")
	tì-kʊ̄ʊdím^{m}	"poison" ("killing medicine")
	kpāň-sɔ́ɔňdìm^{m}	"anointing oil" (*kpāaňm*$^{m/}$ "oil, grease")
	bʊ̄n-bɔ́ɔdìm^{m}	"desirable thing" (1 Cor 14:1: *nɔ̀ŋɪlím*^{m} "love")
but	*bʊ̄n-bɔ́ɔdìr*^{ɛ}	"desirable thing" (BNY p17: a sheep)
	bʊ̄n-ňyɛ́tìm^{m}	"the visible world"
but	*bʊ̄n-ňyɛ́tìr*^{ɛ}	"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."

16.11.1.2 Downtoning

Adjectives may show apocope-blocking 6.6 as a downtoner (all examples KT):

Lì à nɛ̄ fū-píəlìgā.	"It's a whitish shirt."
Lì à nɛ̄ fū-píəlìgā lā.	"It's the whitish shirt."
Lì à nɛ̄ wíùg.	"It's red."
Lì à nɛ̄ wíugʊ̄.	"It's reddish."
fū-wíugʊ̄ lā	"the reddish shirt"
Lì à nɛ̄ tītā'arı.	"It's biggish."

This seems to be possible only with singular forms.

16.11.1.3 Ideophones

Adjectives cannot themselves take adverbs as modifiers. In e.g.

Lì à nɛ̄ 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 nɛ̄ píəlìg fáss fáss.	"It's very white."
Lì à nɛ̄ sābılíg zím zím.	"It's deep black."
Lì à nɛ̄ zíň'a wím wím.	"It's deep red."

Ideophones are not limited to use with adjectives as complements of *àe̯ňᵃ* "be something/somehow" but occur with adjectives in their normal modifier rôle:

Lì à nɛ̄ fū-zíň'a wím wím.	"It's a deep red shirt."	WK
Ǹ ňyɛ́ fū-zíň'a wím wím.	"I've seen a deep red shirt."	WK
Fū-zíň'a wím wím bɛ́.	"There's a deep red shirt."	WK
Ǹ bɔ́ɔ̀d fū-zíň'a 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 tɔ́lılìlı.	"She's very tall."
Ò à nɛ̄ gīŋ tírıgà.	"She's very short."

Ò wà'am tɔ́lılìlı.	"She's very tall."
Ò gìm nɛ̄ tírıgà.	"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 súŋā pāmm.	"It's very good."
Lì à nɛ̄ bɛ̄'ɛd pāmm.	"It's very bad."
Lì zùlım pāmm.	"It's very deep."
Lì mà'as pāmm.	"It's very damp."

Apart from adjectival verbs, I have found no unequivocal ideophones in use with verbs; thus only

Ò tùm pāmm.	"She's worked hard."
Ò tùm hālí.	"She's worked hard." 28.6
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.

16.11.1.4 Bahuvrihis

The combination noun + adjective may be used as a bahuvrihi adjective itself:

Lì à nɛ̄ nū'-kpíílʊ́ŋ.	"It's a dead hand."
Bīig lā á nɛ̄ nū'-kpíílʊ́ŋ.	"The child is dead-handed."
Ò à nɛ̄ bí-[*nū'-kpíílʊ́ŋ*]*.*	"He's a dead-handed child."

In constructions like *bì-nū'-kpíílʊ́ŋ*ↄ "child with a withered hand" the adjective is modifying the cb immediately preceding it, not *vice versa*. It is not possible to say **bì-nū'-kpîîm*ᵐ, and in such constructions the adjective may even be plural despite singular reference of the whole noun + adjective compound:

	bì-tʊ̀b-kpīda⁺	"deaf child" (*tʊ̀bʊr*ᵋ "ear", *kpì*⁺ "die")
plural	*bì-tʊ̀b-kpīda nám*ᵃ	
or	*bì-tʊ̀b-kpīdɪs*ᵋ	
	*bì-tʊ̀b-lī̱ɪd*ᵋ	"child/children with blocked ears" (*lī̱*⁺ "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:

	*kʊ̀g-nɔ̄b-wɔ́k*ↄ	"long-legged stool"
	*kʊ̀g-nɔ̄b-wá'àd*ᵋ	"long-legged stools"
	*zūg-máu̱k*ↄ	
pl	*zūg-má'àd*ᵋ	"crushed-headed"
	*zʊ̀-wɔ̄k*ↄ/	"long-tailed"
	*nɔ̄b-gíŋ*ᵃ	"short-legged"
	*zū-pɛ́ɛlʊ̀g*ↄ	"bald"; cf *Dau sɔ' **zug** ya'a **pie***
pl	*zū-pɛ́ɛlà*⁺	"If a man has gone bald" (Leviticus 13:40)
	*lām-fɔ́ɔ̀g*ↄ	"toothless" (*lām*ᵐᵋ/ "gum" *fùe+* "draw out")
pl	*lām-fɔ́ɔ̀d*ᵋ	9.2.1

The two adjectives "one of a pair" 16.4.2.3 are often used in bahuvrihis:

*ňyàu̱k*ɔ pl *ňyà'ad*ɛ for eyes:

*nīf-ňyáu̱k*ɔ	"one eye"
*bà-nīf-ňyáu̱k*ɔ	"one-eyed dog"

*yīu̱ŋ*ɔ/ pl *yīná*+ of other paired body parts:

*tʊ̀b-yīu̱ŋ*ɔ/	"one ear"
bì-tʊ̀b-yīná+	"one-eared children"
*nɔ̄b-yíu̱ŋ*ɔ	"one-legged"
*nū'-yíu̱ŋ*ɔ	"one-handed"

16.11.1.5 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	*bʊ̀-sáaŋ*a	"stranger goat"
	*bì-kpī'im*m/	
or	*bì-kpìilʊ́ŋ*ɔ	"dead child"
only	*bʊ̀-kpìilʊ́ŋ*ɔ	"dead goat"
	bì-dāu̱+	
or	*bì-dāʊg*ɔ	"male child"
only	*bʊ̀-dāʊg*ɔ	"male goat"
	*bì-pu̱'ā*a or *bì-pu̱āk*a	"female child"
	*bì-zū'ɵm*m/	
or	*bì-zʊ̀nzɔ̀ŋ*a	"blind child"

The same behaviour is also seen with some agent nouns:

	*pu̱'à-zàaňs*a	"dreamy woman" KT
	*nīn-nɛ́n*na	"envious person"
	*bì-sīn*na/ or *bì-sīnníg*a	"silent child"
only	*bʊ̀-sīnníg*a or *bʊ̀-sīnnʊ́g*ɔ	"silent goat"

However, WK usually reports a contrast between agent nouns/deverbal adjectives with head-second compounds in ᵃ|*b*ᵃ class and head-first compounds in *g*ᵃ|*s*ᵋ or *r*ᵋ|*a*⁺ class, even with derivatives of intransitive verbs:

*pu̱'à-kʊ̄ʊdíg*ᵃ	"murderous woman, murderess"
*pu̱'à-kʊ̄ʊd*ᵃ/	only "killer of women"
*pu̱'à-lā'adıg*ᵃ	"woman given to laughing"
*pu̱'à-lā'ad*ᵃ	"laugher at women"

Nouns (of any class) expressing bodily defects can be used adjectivally:

*bì-zʊ̀nzɔ̀ŋ*ᵃ	"blind child"
*bì-gìk*ᵃ	"dumb child"
*bì-wàbır*ᵋ	"lame child"
*bì-bālɛ̄rʊg*ɔ	"ugly child"
*bì-pɔ̀ň'ɔr*ᵋ	"crippled child"

Other examples include:

	*nàsàa-bīig*ᵃ	"European child"
	*yàmmʊg-bī-púŋ*ᵃ	"girl slave" (written *yamug bipuŋ* Acts 16:16, 1976 9.2.2)
	*yàm-bī-púŋ*ᵃ	"girl slave" (WK's preferred form)
cf	*yàmmʊg bí-púŋ*ᵃ	"slave's girl"
	*bī-púŋ-yàmmʊg*ᵃ	"slave girl"
	*nà'-bīig*ᵃ	"prince" ("royal child" not "boy king")
	*bì-nà'ab*ᵃ	*id*
	*dàu̱-bīig*ᵃ	"male child"
cf	*bì-dāu̱*⁺	*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 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 12.3.

16.11.2 Postdeterminers

16.11.2.1 Pronouns

Demonstrative, indefinite and interrogative pronouns may follow a NP head cb as postdeterminers.

Pronouns naturally also occur as NP heads. Some pronouns have forms used only as heads or only as postdeterminers 16.3.2 16.3.3.

16.11.2.2 Quantifiers

Quantifiers as NP dependents follow the head, except for *yīigá*$^{+}$ "firstly." A head can appear as a cb only with *yīnní*$^{+}$ "one" and in a few fixed expressions 16.4.2.1; elsewhere, quantifiers are not subject to L spreading:

	kūg-yínnì$^{+}$	"one stone"
but	*kūgʊr yīnní*$^{+}$	"one stone"

I do not have any examples of co-occurrence with adjectives; when quantifiers precede postdeterminer pronouns the construction is probably always to be taken as a quantifier head with a predeterminer, not a postdetermining quantifier.

nīdıb bɛ́dʊgʊ̄	"a lot of people"
nīdıb bɛ́dʊgʊ̄ lā	"the lot of people, the crowd"
nīdıbá àyí	"two people"
nīdıbá àyí lā	"the two people"

The head + quantifier postdeterminer construction contrasts in meaning with the *partitive* sense of predeterminer + quantifier head 16.10.3.

Quantifiers as postdeterminers can be coordinated: this is the mechanism for the creation of numbers other than simple digits, tens or hundreds 16.4.2.1.

o nya'andɔlib pii nɛ yi
ò ǹyà'an-dɔ̀llıb pīi nɛ̄ yí
3AN after-follower:PL ten with two
"his twelve disciples" (Mt 26:20)

16.11.3 Adverbial phrases

When an abstract noun with verbal sense has a preceding NP functioning as subject, a following AdvP may occur which represents a complement or adjunct. Such adjuncts may be prepositional phrases, which are not found elsewhere as NP dependents, or VP-final particles. Accordingly, this is best regarded as a clause nominalisation process rather than part of NP structure as such; see further 16.10.3.

Apart from this, the use of AdvPs as postdeterminers is marginal.

The manner-adverb *amɛ̄ŋá* "really, truly" occurs meaning "genuine, real":

Ɔ̄n sɔ̄b á nɛ̄ dụ'átà amɛ̄ŋá lā.
3AN.CNTR individual.AN COP FOC doctor:SG ADV:real:ADV ART
"That one's the real doctor."

It is not clear that manner-adverbs can appear in any other rôle as NP dependents, except preceding the specialised head word *dāan*ª 16.10.4.

My informants supplied

ňwādɪs yúùm lā púʊgʊ̄-n "months in the year" SB
wābʊg mɔ̄ɔgʊ-n lā "the elephant in the bush" WK

but I have not recorded the full context in either case, and it is possible that the examples were extracted or ellipted from clauses such as *Ḿ dāa ňyɛ̄ wābʊg mɔ̄ɔgʊ-n lā* "I saw an elephant in the bush." The 1976 NT at Mk 1:1 has

Lina ane labasuŋ Jesus Christ Wina'am Biig la yela.
Lìnā á nɛ̄ lábà-sʊ̀ŋ Jesus Christ Wínà'am bîig lā yɛ́là.
DEM.DEI.INAN COP FOC news-good:SG Jesus Christ God child:SG ART about.
"This is the good news about Jesus Christ, God's Son."

but the 1996 revision recasts this as

Lina ane Yesu Kiristo one a Wina'am Biig la labasuŋ.
Lìnā á nɛ̄ Yesu Kiristo ɔ́nì à Wínà'am bîig lā lábà-sʊ̀ŋ.
DEM.DEI.INAN COP FOC Yesu Kiristo REL.AN COP God child:SG ART news-good:SG.

17 Adverbial phrases

17.1 Overview

Most adverbs can be categorised as adverbs of time, place or manner.

Adverbial phrases characteristically appear as adjuncts within clauses and VPs. They also appear as arguments of verbs, and (excepting proadverbs) as dependents in NPs 16.10.2.3. AdvPs of time, circumstance or reason appear as postlinker adjuncts 21.2.1 or VP adjuncts 19.9, often *kà*-preposed 28.2; AdvPs of place or manner only appear as VP adjuncts, and can only precede the subject by *kà*-preposing .

Many adverbs are formally identical to nouns. Unequivocally distinctive adverbs include proadverbs, and various types which do not conform to ordinary noun structure.

Many adverbial phrases represent adverbial *uses* of NPs, and have the usual structural possibilities for NPs. Otherwise, the range of structures for AdvPs is more limited. Only specialised *postpositions* can have a NP predeterminer.

Absolute clauses occur as adverbs of time/circumstance 25.2, while relative clauses with pronouns expressing place or manner occur as corresponding types of AdvP. As with NPs, coordination of AdvPs uses the particle *nɛ̄*.

17.2 Time and circumstance

Adverbial phrases expressing **time** may be instantiated by proadverbs 17.7 or by distinctive time adverbs which do not have the structure of nouns, such as

zīná$^{+}$	"today"
sù'ɵs^{a}	"yesterday"
dūnná$^{+}$	"this year"

Some time adverbs resemble nouns in form but lack cb or pl forms, and cannot be referred to by pronouns, or occur with dependents, e.g. *bɛ̄og*^{ɔ} "tomorrow"; *dāar*^{ɛ} "day after tomorrow/day before yesterday" is in the same category but happens to be homophonous with the ordinary noun *dāar*^{ɛ} "day."

However, many time AdvPs are simply NPs with temporal meanings, and no special marking. Such NPs may consist of single nouns, but the possibility of adding dependents distinguishes them from specialised time adverbs; see 30.8 and e.g.

yʊ́'ʊŋ^{ɔ}	"night"
nīntāŋ$^{a/}$	"heat of the day, early afternoon"
úun^{nɛ}	"dry season"

Adverbial phrases expressing **circumstances** are typically absolute clauses; such clauses are also frequently used to express time 25.2.

No formal distinction is made between a point in time and a period over which a state of affairs persists:

Fù ná kūl bɛ̄og. "You'll go home tomorrow."
2SG IRR go.home tomorrow.

Tì kpɛ́lìm ànínā dábɪsà bíˈəlà.
1PL remain ADV:there day:PL few.
"We stayed there a few days."

Time AdvPs can be coordinated:

Bɛ̄ogʊ-n nɛ̄ záàm kà fù ná nīŋ tí-kàŋā.
Morning-LOC with evening and 2SG IRR do medicine-DEM.DEI.SG.
"You'll use this medicine morning and evening."

17.3 Place

Locative adverbs comprise proforms along with Kusaasi place names; other locative AdvPs use the locative particle *nī*$^{+/}$~ *n*^{ɛ}. It is not possible to use a noun other than a place name by itself as a place adverb, unless it has become a postposition 17.6; synchronically such postpositions are separate lexical items, and the process of zero-derivation that created them is no longer productive.

The core adverb of place is thus the locative particle, which has the allomorphs *nī*$^{+/}$ and *n*^{ɛ} along with **zero allomorph** accompanying the "intrinsically locative" forms discussed below; like all postpositions, this is never referential even though it has a predeterminer. This accounts for the availability of all kinds of locative AdvP as NP premodifiers 16.10.2.3 and for the focus behaviour of locatives 28.1.2.2.

The form *nī*$^{+/}$ is used after words ending in a vowel in SF, after pronouns and after loanwords; the liaison enclitic *n*^{ɛ} is used elsewhere:

mʊ̀ˈarī-n	"in a lake"	*yʊ̄dá nì*	"among names"
m̀ nī	"in me"	*mān nī*	"in me"

laˈasʊg dɔɔdin nɛ suoya ni
làˈasʊg dɔ́ɔdī-n nɛ̄ sṵēyá nì
assembly:SG house:PL-LOC with road:PL LOC
"in the synagogues and in the streets" (Mt 6:2)

Yīr$^{ɛ/}$ "house" has the exceptional sg and pl locative forms *yín*^{nɛ} *yáa-n*^{ɛ} which have the particular nuance "home", as in the parting formula

Pʊ̀'ʊsɪm yín. "Greet (those) at home." i.e. "Goodbye."

Note also the locative adverb *yìŋ*^{a} "outside."
The article *lā*$^{+/}$ may precede or follow the locative particle:

mʊ̀'arī-n lā
or *mʊ̀'ar lā ní* "in the lake"

Quantifiers may also follow the locative particle:

m gbana ni wusa "in all my letters" (2 Thess 3:17, 1996)
m̀ gbàna ní wūsa
1SG letter:PL LOC all

The meaning is completely non-specific location: at, in, to, from. The locative particle is attached to nouns which are not place names whenever they are used as complements of verbs expressing motion or location:

Kem Siloam buligini pie fʊ nini.
Kɛ̀m Siloam búlʊgʊ̄-nɪ◡ø píə◡ fʊ̀ nīní.
Go:IMP Siloam well:SG-LOC CAT wash 2SG eye:PL.
"Go to the well of Siloam and wash your eyes." (Jn 9:7)

Ka Sʊntaana kpɛn' Judas [...] *sʊnfʊn.*
Kà Sʊ̄táanà kpɛ́ň' Judas [...] *súňfī-n.*
And Satan enter Judas [...] heart:SG-LOC.
"Satan entered Judas' heart." (Lk 22:3)

Ka Pailet lɛn yi nidibin la na ya'asi yɛli ba ye...
Kà Pailet lɛ́m yī nīdɪbí-n lā nā yá'àsɪ◡ ø yɛ́lì◡ bā yɛ̄...
And Pilate again emerge person:PL-LOC ART hither again CAT say 3PL.OB that ...
"Pilate came out to the people again and said to them ..." (Jn 19:4)

ILK has, transposed into the orthography of this grammar:

Ò bɛ̀ dá'a-n. "He's at market."
Ò bɛ̀ sa̰á'arī-n. "He's at the bush."
Ò bɛ̀ pɔ̄ɔgʊ́-n. "He's at the farm."

Ò bɛ̀ yín.	"He's at home."
Ò bɛ̀ sākulí-n.	"He's at school."
Ò bɛ̀ mɔ̄ɔgʊ-n.	"He's in the grasslands."
Ò bɛ̀ kɔ̄lɪgɪ-n	"He's at the stream."
Ò bɛ̀ tʊ̄ʊmmɪ-n.	"He's at work."

More precise locative meanings are expressed with postpositions, many of which themselves include the locative particle 17.6.

Ò dìgɪl gbáu̯ŋ lā tɛ́ɛbʊ̀l lā zúg.
3AN lay.down book:SG ART table:SG ART upon.
"She's put the book on the table."

Dāu̯ lā bɛ́ nɛ̄ dɔ́-kàŋā lā pʊ́ʊgʊ̄-n.
Man:SG ART EXIST FOC hut-DEM.DEI.SG ART inside:SG-LOC.
"The man is inside that hut."

Kusaasi place names 30.3, many postpositions, and a number of proadverbs 17.7 are "intrinsically locative", here analysed as accompanied by a zero allomorph of the locative particle (see above):

Ò bɛ̀ Bɔ́k.	"He's at Bawku." ILK
Ò bɛ̀ Tɛ́mpáan.	"He's at Tempane." ILK
Ò kɛ̀ŋ Bɔ́k.	"He's gone to Bawku."
Ò dìgɪl gbáu̯ŋ lā tɛ́ɛbʊ̀l lā zúg.	"She's put the book on the table." (above)

*dàtìu̯ŋ*ↄ or *dìtʊ́ŋ*ↄ	"righthand"
*dàgɔ̀bɪg*ª	"lefthand"
*àgɔ́l*ˡᵋ 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."
Fʊ̀ yúùg Bɔ́k kpɛ̄láa?	"Have you been long in Bawku (here)?"
Fʊ̀ 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 *nī*$^{+/}$ or paraphrases like *Jerusalem tɛ́ŋī-n* "in Jerusalem-land."

Proforms used in locative heads of relative clauses are intrinsically locative, and consequently so is the relative clause as a whole 25.3:

Onɛ ken likin zi' on ken si'ela.
Ɔ̀nı kɛ̄n līkı-n zī' ɔ́n kɛ̄n sī'əla $^{+}$*ø.*
REL.AN go:IPFV darkness-LOC NEG.KNOW 3AN:NZ go:IPFV INDF.INAN NEG.
"He who walks in darkness does not know where he is going." (Jn 12:35)

ka mɔri fʊ keŋ zin'ikanɛ ka fʊ pʊ bɔɔda.
kà mɔ̄rí‿fʊ̀‿ ø kɛ̄ŋ zíň'-kànı kà fʊ̀ pʊ̄ bɔ́ɔdā $^{+}$*ø.*
and have 2SG.OB CAT go place-REL.SG and 2SG NEG.IND want NEG.
"and take you where you do not want." (Jn 21:18)

Note the *time* expressions:

bɛ̄og^{ɔ}	"tomorrow"
bɛ̄ogʊ-n$^{ɛ/}$	"morning"
sān-sí'ə-n lā	"at one time, once..." 21.2.1
yīigí-n^{ɛ}	"at first"

Locative AdvPs can be coordinated:

Nyalima na bɛ winnigin nɛ nwadigin nɛ nwadbibisin.
Ňyālımá nà bɛ̄ wínnìgī-n nɛ̄ ňwādıgí-n nɛ̄ ňwād-bíbısī-n.
Wonder:PL IRR EXIST sun:SG-LOC with moon:SG-LOC with moon-small:PL-LOC.
"There will be wonders in the sun, moon and stars." (Lk 21:25)

Reason-why AdvPs are constructed by a metaphorical extension of the sense of the postposition *zūg* "upon" 17.6; similarly for proforms:

àlá zùg^{ɔ}	"therefore"	*bɔ̄ zúg*^{ɔ}	"why?"
dìn zúg^{ɔ}	"therefore"		

17.4 Manner

AdvPs of manner may be instantiated by proforms, and there also are several morphologically distinctive manner-adverb formations. Various NP types can be used as manner AdvPs; like time adverbs, true manner-adverbs do not take dependents.

Distinctive manner-adverbs often show apocope-blocking 6.6. Some have the **manner-adverb prefix** *à-* 14.2 or are derived from adjective stems with the suffixes *m*^{m} or *-ga*$^{+}$ 12.3. Others include

pāalʊ́$^{+}$	"openly"
ňyāe$^{nɛ/}$	"brightly, clearly" written *nyain* 1.3.2

Ňyāe$^{nɛ/}$ shows the characteristic distribution of a manner-adverb rather than a noun, appearing as complement of *àe̯ňa* "be something" and as an adjunct:

Wina'am a su'um nyain.	"God is light." (1 Jn 1:5, 1996)
Wínà'am áň sʊ́m ňyāe.	
God COP good:ABSTR brightly.	

... kɛ ka ti lieb nyain.	"... make us light." (1 Jn 1:7)
... kɛ́ kà tì líəb ňyāe.	
... cause and 1PL become brightly.	

Ka li sid nie nyain.	"And there truly was light." (Genesis 1:3)
Kà lì síd nìe ňyāe.	
And 3INAN truly appear brightly.	

A number of manner-adverbs are formed by **reduplication of roots**.

nà'anā$^{+/}$	"easily"
tɔ̀'ɔtɔ̄$^{+/}$	"straight away" (Mooré *taotao id*)
kɔ̄ň'ɔkɔ̄$^{+}$	"solely, by oneself"

Reduplication of nouns forms a number of **distributive** manner-AdvPs:

dàbɪsɪr dábɪsìr	"day by day"
zīň'ig zíň'ìg	"place by place"

Reduplication of number words is similarly distributive 16.4.2.4.
Reduplication of manner-adverbs themselves is intensifying:

àmɛ̄ŋá mɛ̄ŋá "very truly"
àsídà sídà "very truly"

M̀ wʊ́m Kʊ̄sáàl bī'əlá. "I know Kusaal a little."
1SG hear:IPFV Kusaal slightly.

M̀ wʊ́m bī'əl bī'əl. "I understand a very little."
1SG hear:IPFV little little.

A very common form of manner-AdvP is a relative clause using the proform *sī'əm*^{m} "somehow" as head 25.3.1.

Manner-adverbs resemble generic mass nouns in their syntactic behaviour in several respects. Even count nouns in generic senses may be encountered as AdvPs:

M̀ kɛ́ŋ nɔ̄bá. "I went on foot." SB; WK corrected this to
1SG go leg:PL. *M̀ kɛ́ŋ nɛ̄ nɔ̄bá*, using *nɛ̄* "with."

A prepositional phrase with *nɛ̄* parallels a count plural used adverbially in

À-ňyɛ̄ nɛ̄ nīf sɔ́ň'ɔ‿ À-wʊ̀m tʊ̀ba.
PERS-see with eye:SG be.better.than PERS-hear ear:PL.
"Saw-with-eye beats Heard-with-Ears" (Seeing is believing.)

Mass quantifiers, like abstract mass nouns, are frequently used adverbially:

Ò tʊ̀m bɛ́dʊgʊ̄. "She's worked a lot."
Ò tʊ̀m pāmm. "She's worked a lot."

Wʊ̄sa "all" readily switches from quantifying an object to adverbial use:

Bà gɔ̀sī‿ tí wʊ̄sa. "They've looked at us all." WK
3PL look.at 1PL.OB all. (for: *Bà gɔ̀sí tì wʊ̄sa.* 3PL look.at 1PL all.)

This is not a universal property of quantifiers:

Bà gɔ̀sī tí bɛ́dʊgʊ̄. "They've looked at us a lot." WK
Bà gɔ̀sí tì bɛ̀dʊgʊ̄. "They've looked at a lot of us." WK

Numbers have specific forms for the adverbial meaning "so many times" 16.4.2.4; the other count quantifiers sometimes appear similarly as adverbs:

Bà gɔ̀sī tí bábıgā. "They've looked at us many times." WK
Bà gɔ̀sí tì bàbıgā. "They've looked at many of us." WK

Manner AdvPs can be coordinated: so for example with *sɪ̄ʾəm* clauses 25.3.1.

17.5 AdvPs as verb arguments

The prototypical use of AdvPs is as VP adjuncts; time/circumstance AdvPs also commonly appear as postlinker adjuncts:

Fù dúə wɛ̄lá $^{+}$*ø?* literally "How did you rise?"; morning greeting.
2SG rise how CQ?

Nānná-ná m̀ áň ná'àb. "Now I am a chief." WK
Now-hither 1SG COP chief:SG.

AdvPs also occur as verb arguments. All types can appear as subjects of the verb *àe̯ň*^{a} "be something /somehow" 20.2. Adjectival verbs may also have an AdvP subject, and there are a few examples with other verbs:

Yiŋ venl, ka poogin ka'a su'um.
Yì̀ŋ vɛ́ňl kà pʊ̄vgʊ-n kā' súmm $^{+}$*ø.*
Outside be.beautiful and inside:SG-LOC NEG.BE good:ABSTR NEG.
"Outside is beautiful but inside is not good." (Acts 23:3, 1996)

Kristo da kpii ti yɛla la kɛ ka ti baŋ nɔŋilim an si'em.
Kristo‿ø dà kpì‿ì tì yɛ̄lá lā kɛ́ kà tì báŋ nɔ̀ŋılím‿ø àň sɪ̄ʾəm.
Christ NZ TNS die 1PL about ART cause and 1PL realise love NZ COP INDF.ADV
"Christ dying for us makes us understand what love is like." (1 Jn 3:16)
(absolute clause AdvP 25.2 as subject)

In *Sʊ̀ŋā bɛ́.* "OK it is." WK
Good:ADV EXIST.

sʊ̀ŋā is however used metalinguistically, meaning "the *word* *sʊ̀ŋā*."

Verbs with appropriate meanings frequently take locative AdvPs as complements, rather than as adjuncts 19.8.3.

The verb *àe̯ň*^{a} "be something/somehow" typically has a derived manner-adverb or abstract noun as complement rather than an adjective as NP head 20.2:

Lì à nɛ̄ zāalím.	"It's empty."
Lì à nɛ̄ bʊ̄gʊsígā.	"It's soft."
Lì à súŋā.	"It's good."

Kusaal characteristically uses manner proadverbs as predicative complements in place of pronouns with abstract reference. i.e. the language says "be/do *how*" rather than "be/do *what*."

Dā níŋì‿àláa ⁺ø! "Don't do that!" ("thus")
NEG.IMP do ADV:thus NEG.

Fʊ wʊm ban yɛt si'em laa?
Fù wúm bán yɛ̀t sɪ̄əm láa ⁺ø?
2SG hear:IPFV 3PL:NZ say:IPFV INDF.ADV ART PQ?
"Do you hear what they are saying?" (Mt 21:16)

Tiig wela bigisid on a si'em.
Tìıg wɛ́là bìgısıd ɔ́n àň sɪ̄əm.
Tree:SG fruit:PL show:IPFV 3AN:NZ COP INDF.ADV.
"The fruit of a tree shows what ["how"] it is." (Mt 12:33, 1976)

Relative clauses with the proform *sɪ̄əm*^{m} "somehow" as head are accordingly used after verbs of cognition, reporting and perception, to express the subordinate interrogative sense "say [etc] what ..." 25.3.1.

For the idiom "X *nìŋ wɛ̄lá ...?*" "how can X ...?" see 23.2.1.

17.6 Postpositions

Postpositions are adverbs with a predeterminer 16.10.3. Most are either literally or metaphorically locative. Postpositional phrases are AdvPs and can be preposed with *kà* 28.2 freely, unlike prepositional phrases with *nɛ̄*. Regardless of the definiteness of their predeterminers, postpositions continue to behave syntactically like generic non-count nouns, so that postpositional phrases as NP pre-dependents are modifiers rather than determiners 16.10.2.3.

Postpositions may not be coordinated, but their predeterminers may:

tinam nɛ fʊn sʊʊginɛ?	"between us and you?" (Mt 8:29)

tīnám nɛ̄ fʊ̄n súʊgʊ̄-nɛ́ ⁺ø?
1PL with 2SG between-LOC PQ?

Many postpositions are readily recognisable as special uses of ordinary nouns. Some postpositions are AdvPs including the locative particle.

zūgɔ́ "onto" (*zūgɔ́* "head")

tɛ́ɛbʊ̀l lā zúg "onto the table"

Zūgɔ́ is frequently used metaphorically to express a **reason** "because of ..."

dāu̱ lā zúg "on account of the man"
bɔ̄-zúgɔ̀? "why?" (cf *bɔ̄ zúgɔ̄* "because" 21.2.1)

Mán ňwɛ̀' dāu̱ lā zúg kà police gbáň'a‿m.
1SG:NZ strike man:SG ART upon and police seize 1SG.OB.
"Because I struck the man the police arrested me." 25.2

Although reason-AdvPs are, as here, frequently preposed with *kà*, they may also occur as postlinker adjuncts 21.2.1:

Pian'akanɛ ka m pian' tisi ya la zug, ya anɛ nyain.
Pi̱àň'-kànɪ kà m̀ pi̱āň'‿ø tísì yā lā zúg, yà á nɛ̄ ňyāe.
Word-REL.SG and 1SG speak CAT give 2PL.OB ART upon, 2PL COP FOC brightly.
"Because of the the words I have spoken to you, you are clean." (Jn 15:3)

The set expression *sāa zúgɔ* is used for "sky"; it is intrinsically locative:

Ka kʊkɔr yi saazug na ...
Kà kʊ̀kɔ̄r yī sāa zúg nā ...
And voice emerge rain onto hither
"And a voice came from heaven..." (Jn 12:28)

zūgʊ́-nɛ "on"

tɛ́ɛbʊ̀l lā zúgʊ̄-n "on the table"

tɛ̄ŋɪ́rɛ "under" (*tɛ̄ŋa* "ground")

tɛ́ɛbʊ̀l lā tɛ́ŋ̀ɪr "under the table"

As a locative adverb without a predeterminer:

Gɔ̀sɪm tɛ̄ŋír! "Look down!", more commonly *Gɔ̀sɪm tɛ̄ŋɪ-n!*

pʊ̄vgʊ-n$^{ɛ/}$ "inside" (*pʊ̄vg*^{a} "belly, inside")

dʊ̄k lā pʊ́vgʊ̄-n "in the pot"
ǹwādɪs yʊ́ùm lā pʊ́vgʊ̄-n "months in the year" (metaphorical locative)

bābá$^{+}$ "beside" (pl of *bābɪr*$^{ɛ/}$ "sphere of activity")

m̀ nɔ̄bá bàba "beside my feet"

sìsʊ̀vgʊ̄-n$^{ɛ/}$ "between" (replaced by *sʊ̀vgʊ̄-n*$^{ɛ/}$ in KB)

tīnám nɛ̄ fʊ̄n sísʊ̀vgʊ̄-n "between us and you"

tùɐn^{nɛ} "in front of"

dāká lā túèn "in front of the box"
cf *Gɔ̀sɪm túèn!* "Look to the front", without a predeterminer

gbìn^{nɛ} "at the bottom of" (*gbìn*^{nɛ} "buttock")

zūɐr lā gbín "at the foot of the mountain"

ǹyá'aŋ^{a} "behind; after (time)" (*ǹyá'aŋ*^{a} "back")

lì ǹyá'aŋ^{a} "afterwards" as a postlinker/VP adjunct 21.2.1

Nɛ̄'ŋá ǹyá'àŋ kà ò kūl.
DEM.DEI.INAN after and 3AN go.home.
"After this she went home."

sā'an$^{ɛ/}$ "into/in the presence of", "in the opinion of"

Wínà'am sá'àn "in the sight of God"

Fʊ̀ ná dī̱e tílm pu̱'á-bàmmā lā sá'àn.
2SG IRR receive medicine woman-DEM.DEI.PL ART among.
"You'll get the medicine from where those women are."

yɛ̄lá$^{+}$ "about, concerning" (pl of *yɛ̄l*$^{|ɛ/}$ "matter, affair")

Bà yɛ̀l·ō‿ ø mān yɛ̄lá wūsa.
3PL say 3AN.OB 1SG.CNTR about all
"They told him all about me."

kɔ̄ň'ɔkɔ̄ cf *àdàkɔ́ň'* "one" 16.4.2.2

m̀ kɔ̄ň'ɔkɔ̄ "by myself"

17.7 Proadverbs

Adverbs have corresponding proforms.

	Demonstrative		Indefinite	Interrogative	
Place	*kpɛ̄*$^{+}$	"here"	*zìň'-sī'a*$^{+}$	*yáa nɪ́*$^{+}$	"where?"
	kpɛ̄lá$^{+}$	"there"	"somewhere"	*yáa*	"whither /whence?"
	àní$^{+}$	"there"			
	ànínā$^{+/}$	"there"			
Time	*nānná*$^{+}$	"now"	*sān-sí'a*$^{+}$	*sān-kán*^{ɛ}	"when?"
	nānná-nā$^{+/}$	"now"	"sometime"	*bʊ̄n-dáàr*^{ɛ}	"which day?"
	sān-kán^{ɛ}	"then"		*bɔ̀-wìn*^{nɛ}	"what time of day?"
Manner	*àňwá*$^{+}$	"like this"	*sī'əm*^{m}	*wɛ̄lá*$^{+}$	"how?"
	àwá nā$^{+/}$	"like this"	"somehow"		
	àlá$^{+}$	"like that"			

The indefinites are used in relative clauses 25.3.1.

The *à-* of the "manner" forms is the manner-adverb prefix and is preceded by the LF-final vowel *-ɪ* 8.2.1; contrast proquantifiers 16.4.3.

Proforms expressing reason are formed with the postposition *zūg*$^{ɔ/}$ 17.6: *àlá zùg*^{ɔ} "because of that", *bɔ̄zúgɔ̀?* "why?" (cf *bɔ̄ zúgɔ̄* "because" 21.2.1.)

18 Prepositions

Prepositional phrases function typically as VP adjuncts, less often as complements. They cannot form components of noun phrases directly. Neither prepositions nor their own complements can be coordinated. Except for *nɛ̄* "with", the prepositions are also used as clause adjuncts 21.2.1.

Nɛ̄ is "with" in both accompanying and instrumental senses. The *nɛ̄* "and" which coordinates NPs and AdvPs 16.7 is fundamentally the same word. *Nɛ̄* may only take NPs or AdvPs as complements (including nominalised *ǹ*-clauses.)

WK has forms with bound personal pronouns as complements; note the H toneme on the preposition:

ní m^{a}	*ní tī*$^{+/}$
ní f^{ɔ}	*ní yā*$^{+/}$
n·ó$^{-o}$ [nʊ̃(:)]	*ní bā*$^{+/}$
ní lī$^{+/}$	

The *ne o* of the 1996 NT version is frequently read [nʊ̃] in the audio.

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.

Examples for *nɛ̄*:

Lìgɪním‿fʊ̀ nīf nɛ́ fʊ̀ nú'ùg.
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 with leg:PL.

Dìm nɛ̄ Wīn, dā tʊ́'às nɛ̄ Wīnnɛ́ $^{+}$*ø.*
Eat:IMP with God:SG, NEG.IMP talk with God:SG NEG.
"Eat with God, don't talk with God."
(Proverb. Be grateful for God's generosity and don't complain.)

Kulim nɛ sumbʊgʊsʊm. "Go home in peace." (Mk 5:34)
Kùlɪm nɛ̄ sùmbʊ̄gʊsím.
Go.home:IMP with peace.

[*Bárıkà né fù*] *kɛ̄n kɛ̄n.*
[Blessing with 2SG] arrival arrival.
"Welcome!" (a greeting template 29)

M̀ gɛ́ň' né fù. "I'm angry with you." SB
1SG get.angry:PRV with 2SG.

The compound preposition *là'am nɛ̄* "together with" derives from a *n*-catenation construction 23.2.2:

...mɔr ya'am yinne la'am nɛ tɛn'ɛsa yinne.
... mɔ̄r yā'm yīnní là'am nɛ̄ tɛ̄ň'ɛsá yīnní.
... have.sense one together.with thought one.
"... had one mind together with one thought." (Acts 4:32)

Wʊ̄ʊ means "like." With pronoun complements WK has

wʊ̄ʊ mān LF *mánɛ̄*	*wúʊ tì*
wʊ̄ʊ fʊ̄n LF *fʊ́nɛ̄*	*wúʊ yà*
wʊ̄ʊ ɔ̄n$^{\varepsilon}$	*wúʊ bà*
wúʊ lì	

WK permits phrases introduced by *wʊ̄ʊ* to be preposed with *kà* 28.2, but rejects this construction for *nɛ̄* + NP:

Wʊ̄ʊ búŋ né kà ò zɔ́t.
Like donkey:SG like and 3AN run:IPFV.
"Like a donkey, he runs."

but **Né m̀ nú'ùg kà m̀ sī'ıs.*
With 1SG hand:SG and 1SG touch.
is not possible for "With my hand, I touched it."

The complement is often a *sī'əm* relative clause 25.3.1:

Ò zɔ̀t wʊ̄ʊ búŋ ǹ zɔ̀t sī'əm lā.
3AN run:IPFV like donkey:SG NZ run:IPFV INDF.ADV ART.
"He runs like a donkey runs."

Wʊ̄ʊ occurs often after *wɛ̄n*$^{na/}$ "resemble", introducing its complement; the preposition *nɛ̄* is frequently used instead. In any case, the complement is followed by the empty particle *nɛ̄* whenever it does not already have the article *lā*$^{+/}$, even if it is a pronoun, or is specific:

wʊ̄ʊ mān nɛ̄ "like me"
wʊ̄ʊ bʊ́ŋ nɛ̄ "like a donkey"

Ka o nindaa wenne nintaŋ ne.
Kà ò nīn-dáa wɛ̄n nɛ̄ nīntāŋ nɛ̄.
And 3AN eye-face:SG resemble with sun:SG like.
"His face is like the sun." (Rev 10:1, 1996)

Alazugɔ mɔri ya'am wʊʊ wiigi nɛ...
Àlá zùgɔ̄, mɔ̀rī yā'm wʊ̄ʊ wīigí nɛ̄...
Therefore, have sense like snake:PL like...
"Therefore, be wise as serpents ..." (Mt 10:16)

Wʊ̄ʊ, *wɛ̄n wʊ̄ʊ*, and *wɛ̄n nɛ̄* can also be used for "about" with numbers. The complement is not followed by the redundant *nɛ̄* in this case:

wʊ̄ʊ tūsá àyí "about 2000"
like thousand:PL NUM:two

Wɛ̄n nɛ̄ X and *wɛ̄n wʊ̄ʊ X*, using *wɛ̄n*$^{na/}$ "resemble" in *n*-catenation 23.2.2, behave as unitary prepositional phrases to the extent that the entire sequence *wɛ̄n* + preposition + complement can be preposed with *kà*, or extraposed after the negative prosodic clitic:

Da lo ya nindaase, wenne foosug dim la niŋid si'em la.
Dā lɔ́ yà nīn-dáasɛ̄ $^{+}$*ø, wɛ̄n nɛ̄ fɔ̄ɔsʊ́g dím lá‿ø*
NEG.IMP tie 2PL eye-face:PL NEG, resemble with puff:GER individual.PL ART NZ
nìŋɪd sɪ̄'əm lā.
do:IPFV INDF.ADV ART.
"Don't screw up your faces like the hypocrites do." (Mt 6:16, 1976)

Àsɛ́ɛ$^{=}$ is "except for" (← Hausa *sai*)

àsɛ́ɛ Wínà'am "except for God" (calquing the Twi *gye Nyame*)

For pronoun complements the free forms are used.

Hālí$^{+}$ means "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 *ħatta:* (Heath 2005.)

O daa pʊn anɛ ninkʊʊd hali pin'ilʊgʊn sa.
Ò dāa pún à nɛ̄ nīn-kúùd hālí pīn̆'ilúgū-n sá.
3AN TNS previously COP FOC person-killer:SG even beginning:SG-LOC since.
"He was a murderer from the beginning." (Jn 8:44)

For pronoun complements, the free forms are used.

Hālí$^{+}$ can also appear as a prelinker adjunct and as an emphatic 28.6. As emphatic "even" preceding *nɛ̄* or *là'am nɛ̄* "(together) with" and a *ǹ*-clause complement, it produces the meaning "despite, even though, even as":

Hali la'am nɛ on daa an yɛlsʊm wʊsa daan la, o da lieb nɔŋdaan...
Hālí là'am nɛ̄ ɔ́n dāa áň yɛ̄l-súm wūsa dáàn lā,
Even together with 3AN:NZ TNS COP matter-goodness all owner:SG ART,
ò dà lìəb nɔ̄ŋ-dáàn...
3AN TNS become poverty-owner:SG...
"Despite his having possessed every blessing, he became poor..." (2 Cor 8:9)

Zugsɔb yɛl ye, Hali nɛ man vʊe nwa...
Zūg-sɔ́b yɛ́l yɛ̄, Hālí nɛ̄ mán vʊ̄e̱ ňwá ...
head-one:SG say that even with 1SG:NZ be.alive this ...
"The Lord says: Even as I live .." (Rom 14:11)

hali nɛ man daa sɔbi tisi ya si'em la, m daa pʊ sɔbi li
hālí nɛ̄ mán dāa sɔ̄bı◡ø tísì◡yā sī'əm lā
even with 1SG:NZ TNS write CAT give 2PL.OB INDF.ADV ART
m̀ dāa pʊ̄ sɔ̄bí◡lī ...
1SG TNS NEG.IND write 3INAN.OB ...
"Despite how I wrote to you, I did not write it ..." (2 Cor 7:12)

19 Verb phrases

19.1 Structure

The core of the verb phrase is a verb word along with clitics which, together with verb flexion, mark tense, aspect, mood and polarity. Some verb complements are also enclitic; remaining complements and adjuncts follow in that order, after which VP-final particles may occur.

The VP is subject to independency marking. This is primarily a tone overlay, but there are associated segmental features: the particle *yā*$^{+}$ after phrase-final perfective forms and the dual-aspect verb imperative flexion *-m*^{a} appear only when the tone overlay is present.

The system separates tense, marked by proclitic particles, from aspect, marked by verb flexion. As is common cross-linguistically, future reference is marked by *mood*. Negative markers vary with mood. Mood itself is marked primarily by such preverbal particles, but the flexion *-m*^{a} of dual-aspect verbs is a portmanteau marker of imperative mood, positive polarity and independency.

The VP shows no agreement. Apparent number agreement in imperatives is actually due to the incorporation of the postposed 2nd pl subject pronoun ^{ya}.

Clitic VP particles occur in a fixed order:

	Tense		Mood	Preverb		LE1	LE2
lɛ̀ɛ	*dàa*	*nàm*	*ø* ↔ *pū*	*pʊ̀n*	VERB	*n*^{ɛ}	*m*^{a}
	sàa	*ǹyɛ̄ɛ(tɪ)*	*ø* ↔ *dā*	*lɛ̀m*		^{ya}	*f*^{ɔ}
	ø		*nà* ↔ *kʊ̀*	*tì*			^{o}
	pà'			*kpɛ̀lɪm*			*lɪ*$^{+}$
	sà			*là'am*			*tɪ*$^{+}$
	dāa			*dɛ̀ŋɪm*			*ya*$^{+}$
	dà			*...*			*ba*$^{+}$

ø marks places where the absence of any particle can be contrastive.
The particles in the column "Mood" also mark polarity: positive ↔ negative.
LE1, LE2 are liaison enclitic slots 19.7.3.
For *lɛ̀ɛ* "but" see 19.7.1; for *nàm* "still" and *ǹyɛ̄ɛ(tɪ)* "habitually" see 19.3.2.
Tone Pattern LO verbs have all-M tones in the irrealis mood 7.3.

19.2 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**, with imperfective further subdivided into **dynamic** and **stative**. Dual-aspect verbs distinguish aspects by flexion: the unmarked stem form is perfective, the suffix *-*da* forms a dynamic (not stative) imperfective, and a form with *-*ma* is used for imperative when the verb word itself carries the independency-marking tone overlay 19.6.2.2. Single-aspect verbs have a single form which is either dynamic or stative imperfective as a lexical matter.

Directly following a verb with imperfective aspect, with no words other than liaison enclitics intervening, the **VP focus particle *nɛ̄*$^{+/}$** 28.1.2 may limit the VP time reference or mark a contrast with another time at which the situation expressed by the verb did not obtain; the meaning might be paraphrased "at the time referred to in particular." With dynamic imperfectives this marks a distinction analogous to the difference between English "progressive" (with *nɛ̄*$^{+/}$) and "habitual" (without *nɛ̄*$^{+/}$) aspects. After perfectives which express a change of state in the subject, *nɛ̄*$^{+/}$ typically occurs when there is a **resultative** sense.

The focus particle *nɛ̄*$^{+/}$ may not be used at all in certain syntactic contexts, and may not appear a second time in a temporal sense if it is already present focussing a constituent; the corresponding VP distinctions are then unmarked. The temporal use of *nɛ̄*$^{+/}$ is possible only with VPs having positive polarity and indicative mood; in negative polarity the corresponding meaning differences may occur, but are again unmarked. Passive constructions always have meanings incompatible with the temporal use of *nɛ̄*$^{+/}$. After perfectives the temporal use of *nɛ̄*$^{+/}$ is only possible if the verb expresses a change of state in the subject.

19.2.1 Perfective

The 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. The perfective of verbs which express a change of state in the subject may have a *resultative* meaning. Perfective is the usual aspect found with the irrealis mood to express future events. Nevertheless, in contexts where there is no tense marking, perfective often does have an implication of *completion*, in contrast with the imperfective.

In fact, the perfective often does occur without tense marking, either explicit or implicit from context 19.3.5. 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."
3AN die PFV.

Sāa dāa ní. "It rained." (before yesterday.)
Rain TNS rain.

Sāa pá' nì yā. "It rained." (earlier today.)
Rain TNS rain PFV.

but *Sāa ní yā.* "It has rained."
Rain rain PFV. 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 perfective is appropriate. This resembles the English use of the simple present as an **instantaneous present**:

Ò yɛ̀l yɛ̄ ... "He says ...." (translating for the foreign doctor)
3AN say that ...

Performatives naturally fall into this category:

M̀ pú'ùs yā. "Thankyou", "I thank you."
1SG greet PFV. (cf Hausa *Naa goodèe*, also perfective)

M̀ sa̰ák yā. "I agree."
1SG agree PFV.

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 nū'-bíbɪsá͡ àtáň'.
1SG see hand-small:PL NUM:three.
"I can see three fingers."

Ḿ tɛ́ň'ès kà ... "I think that ..."
1SG think and ...

With verbs which express a change of state in the subject the perfective may have a **resultative** meaning:

Lì bɔ̀dɪg yā . "It's got lost."
3INAN lose PFV.

Lì bɔ̀dɪg nɛ̄ . "It's lost."
3INAN lose FOC.

In this sense, perfectives are typically followed by the particle *nɛ̄*$^{+/}$. The meaning arises from the nature of the verb; the particle has its normal temporal meaning "temporary or contingent; at the time referred to in particular." However, temporal *nɛ̄*$^{+/}$ is not compatible with the perfective aspect in its usual eventive sense, so a perfective followed by temporal *nɛ̄*$^{+/}$ must be taken as resultative.

Ò kpì nɛ̄. "He's dead."
3AN die FOC. (Not temporary, but still contingent.)

Lì sàň'am nɛ̄. "It's spoilt."
3INAN spoil FOC.

Ḿ gɛ́ň nɛ̄. "I'm tired."
1SG get.tired FOC.

Bà kʊ̀dʊg nɛ̄. "They're old."
3PL grow.old FOC.

Ò wàbɪlɪm nɛ̄. "She's lame."
3AN lame FOC.

Lì pɛ̀'ɛl nɛ̄. "It's full."
3INAN fill FOC.

Lì yɔ̀ nɛ̄. "It's closed."
3INAN close FOC.

Ḿ bʊ́g nɛ̄. "I'm drunk."
1SG get.drunk FOC. [calque/borrowing of Hausa *bùgu*]

There is probably always an implication of a prior change of state, though this is not always clear in WK's glosses, e.g.

Ò lèr nɛ̄. "He's ugly."
3AN get.ugly FOC.

Lì pɛ̀lɪg nɛ̄. "It's white."
3INAN whiten FOC.

Lì sɔ̀bɪg nɛ̄. "It's black."
3INAN blacken FOC.

Lì mù'ɵ nɛ̄. "It's red."
3INAN redden FOC.

Most verbs expressing a change of state in the subject are intransitives like *kpì*$^{+}$ "die" or patientive ambitransitives 19.8.1 like *bɔ̀dɪg*^{ɛ} "lose, get lost." The only agentive transitive verbs I have found in this category express putting on clothing:

M̀ yɛ́ fūug. "I've put a shirt on."
1SG put.on shirt:SG.

M̀ yɛ́ nɛ̄ fūug. "I'm wearing a shirt."
1SG put.on FOC shirt:SG.

Only verbs expressing a change of state in the subject can use the perfective in a resultative meaning. After other perfectives, *nɛ̄*$^{+/}$ cannot have a temporal meaning, and must be interpreted as focussing a VP constituent or the entire VP 28.1.2.1.2.

In catenation and in absolute clauses, the choice of perfective over imperfective implies that the event is complete. Consequently, in catenation the order of VPs when the first has perfective aspect is iconic, with constituent order constrained to follow event order 23.1. Thus while English might say: "Two men stood with them, dressed in white", Kusaal must have

Ka dapa ayi' yɛ fupiela zi'e ba san'an.
Kà dāpá‿àyí yɛ́ fū-píəlà‿ ø zì'e bà sā'an.
And man:PL NUM:two dress shirt-white:PL CAT stand 3PL among.
"Two men dressed in white were standing with them." (Acts 1:10)

In contrast, an imperfective may be followed by a perfective:

Ňwādɪsá‿àtáň' kà fù ná mɔ̄r bīig lā n kɛ̄ nā.
Month NUM:three and 2SG IRR have child:SG ART CAT come hither.
"Bring the child here in three months." ("having the child, come here.")

With absolute clauses as postlinker or *kà*-preposed VP adjuncts expressing past "when", the temporal relationship to the main clause is determined by aspect, with a perfective in the absolute clause implying priority and an imperfective simultaneity 25.2. In the same way, narrative generally features series of tense-unmarked sequential clauses 22.2.1 with perfectives describing events strictly in order.

19.2.2 Imperfective

19.2.2.1 Dynamic

The imperfective of dual-aspect verbs is marked by the flexion *-*da* 11.1; it is normally dynamic. The finite form of single-aspect verbs is dynamic imperfective or stative, as a lexical matter in each case 11.2.

The dynamic imperfective can be followed by the particle *nɛ̄*$^{+/}$ in its temporal sense "at the time referred to in particular."

Without *nɛ̄*$^{+/}$, this aspect implies that the subject has a propensity to the achievement, accomplishment or activity expressed by the verb (often called "habitual aspect"):

Ò ɔ̀ňbɪd. "He chews."
3AN chew:IPFV.

Nīdɪb kpíîd. "People die."
Person:PL die:IPFV.

Nīigí ɔ̀ňbɪd mɔ̄ɔd. "Cows eat grass."
Cow:PL chew:IPFV grass:PL.

Ǹ zíň'i. "I sit."
1SG be.sitting.

Ǹ záňl dāká lā. "I carry the box in my hands."
1SG carry.in.hands box:SG ART.

With *nɛ̄*$^{+/}$, the dynamic imperfective typically has a meaning analogous to the English "progressive" or "continuous."

Ò ɔ̀ňbɪd nɛ̄. "He's chewing."
3AN chew:IPFV FOC.

Ǹ zíň'i nɛ̄. "I'm sitting."
1SG be.sitting FOC.

Ǹ záňl nɛ̄ dāká lā.
1SG carry.in.hands FOC box:SG ART.
"I'm carrying the box in my hands."

Nā'-síəbà ɔ́ňbìd nɛ̄ mɔ̄ɔd.
Cow-INDF.PL chew:IPFV FOC grass:PL.
"Some cows are eating grass." cf 28.1.2.1.2

As with the English progressive, the sense with verbs describing events rather than processes is typically "time-limited habitual." The plural subject without the article *lā*$^{+/}$ 16.5 contributes to making this the natural interpretation in

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

19.2.2.2 Stative

The finite form of a **single-aspect verb** may have stative aspect as a lexical matter 11.2.

Ò gìm. "She's short."
3AN be.short.

Lì zùlɪm. "It's deep."
3INAN be.deep.

Ǹ mɔ́r pu̱'ā. "I have a wife."
1SG have wife:SG.

Ǹ bɔ́ɔdī‿f. "I love you."
1SG want 2SG.OB.

In English, "stative" verbs characteristically do not use the progressive aspect: "I have a car", not *"I am having a car." Kusaal stative verbs similarly do not usually appear with the particle *nɛ̄*$^{+/}$ in its temporal sense:

M̀ mɔ́r lɔ́r. "I have a car."
1SG have car:SG.
not **M̀ mɔ́r nɛ̄ lɔ́r.*

Stative verbs express abiding/intrinsic relationships or predicative adjectival senses, and by default if the particle *nɛ̄*$^{+/}$ follows such a verb it is interpreted as *focussing* either a VP constituent or the VP as a whole; *nɛ̄*$^{+/}$ can only be temporal if there is an explicit time reference in the clause itself 28.1.2.1.2 or if the following constituent does not permit focussing with *nɛ̄*$^{+/}$ 28.1.2.1.3.

Some dual-aspect verb imperfectives have acquired the meaning and syntax of statives, e.g. *bɔ̀ɔd*^{a} "want, like" (*bɔ̀*$^{+}$ "seek"), *zɔ̀t*^{a} "fear; experience emotion" 19.8.1 (*zɔ̀*$^{+}$ "run.")

19.3 Tense

19.3.1 Preverbal tense particles

Tense particles come first in the VP, preceded only by *lɛ̀ɛ* "but." They are mutually exclusive. They comprise

dàa	"day after tomorrow"
sàa	"tomorrow"
ø	present, or implicit tense 19.3.5
pà'	"earlier today"
sà	"yesterday"
dāa	before yesterday
dà	before the time marked by *dāa*

The day begins at sunrise. Thus the common morning greeting

Fù sá gbìs wɛ̄lá $^{+}$*ø?* "How did you sleep yesterday?" i.e."last night"
2SG TNS sleep how CQ?

Future tense markers normally require irrealis mood, but imperative is possible if a main clause has been ellipted before a subordinate clause of purpose:

Ò sáa zàb nà'ab lā. "Let him fight the chief tomorrow."
3AN TNS fight chief:SG ART.

The tense particle *dāa* means "before yesterday" but can be used freely for even remote past. The NT has numerous parallel passages where the same events

are narrated in one passage with *dāa* and in another with *dà*, but when both markers occur, *dà* always expresses time prior to *dāa*. (For other "pluperfects", cf tense marking in content clauses 26.2, and in *ǹ*-clauses within narrative 22.2.1.)

19.3.2 Auxiliary tense particles

Two particles may occur in the slot following tense particles but preceding polarity/mood particles.

Nàm means "still" or with a negative "yet":

Tìɪm lā nám bɛ̀ɛ +*ø?* "Is there any medicine left?"
Medicine ART still EXIST PQ? ("Does the medicine still exist?")

dunia ***nam pʊ*** *pin'il la*
dūnɪyá‿ø nàm pū pīn̆'il lā
world:SG NZ still NEG.IND begin ART
"before the world began" (Mt 25:34) ("The world having not yet begun.")

Ǹ nám zī'‿ ø ǹyɛ̄ gbīgɪmnɛ +*ø.*
1SG still NEG.KNOW CAT see lion:SG NEG.
"I've never seen a lion." SB (see 23.2 on *n*-catenation idioms)

Ǹyɛ̄ɛ or *ǹyɛ̄ɛ tí* (KT *ɛ̄ɛn̆ tí*, NT *nyii ti*, KB *ɛɛnti*) means "habitually." The main verb is naturally imperfective.

Ò ǹyɛ̄ɛ zábìd ná'àb lā.
3AN usually fight:IPFV chief:SG ART.
"He's accustomed to fight the chief." WK

Ò ǹyɛ̄ɛ gɔ̄sɪd ná'àb lā.
3AN usually look.at:IPFV chief:SG ART.
"He's accustomed to look at the chief." WK

Ò dāa ǹyɛ̄ɛ zábìd ná'àb lā.
3AN TNS usually fight:IPFV chief:SG ART.
"He was accustomed to fight the chief." WK

Ò ɛ̄ɛn̆ tí zàbɪd nɛ̄ ná'àb lā.
3AN usually fight:IPFV FOC chief:SG ART.
"He's accustomed to fight the chief." KT

Ò ɛ̄ɛ̀ň tí zìň'i kpɛ̄lá. "She's accustomed to sit there." KT
3AN usually be.sitting there.

Ò ɛ̄ɛ̀ň tí dīgɪ kpɛ̄lá. "She's accustomed to lie there." KT
3AN usually be.lying there.

*Ti **ɛɛnti pʊ** sɔbid dinɛ ka ya na karim ka kʊ nyaŋi gban'e li gbinnɛ.*
Tì ɛ̄ɛ̀ň tí pʊ̄ sɔ̄bɪd díníì kà yà ná kārím kà kú ňyāŋɪ◡ø
1PL usually NEG.IND write:IPFV REL.INAN and 2PL IRR read and NEG.IRR prevail CAT
gbáň'e lì gbìnnɛ̄ ⁺ø.
grab 3INAN base:SG NEG.
"We do not write what you will read and not be able to grasp the meanig of." (2 Cor 1:13)

19.3.3 Discontinuous past

My informants use the **discontinuous-past** marker *n*$^{\varepsilon}$ to make an earlier-today past with indicative meaning:

Ǹ ɔ́ňbɪdī-n sūmma. "I was eating groundnuts."
1SG chew:IPFV-DP groundnut:PL.

This implies "and now I'm not", a sort of anti-current-relevance. Such a "discontinuous" past is proposed for many languages (especially in West Africa) in Plungian and van der Auwera 2006. The clitic *n*$^{\varepsilon}$ fulfils the authors' criteria well as a typical manifestation of discontinuous past, unlike the preverbal tense particles, which are not "idle" (in their term) but *required*, except in quite well defined syntactic circumstances 19.3.5. They note (5.2) that discontinuous-past markers often acquire attenuative, hypothetical or counterfactual senses, and in Kusaal this is much the commonest function of *n*$^{\varepsilon}$ 24.1.1.

19.3.4 Periphrastic future constructions

Kusaal does not use tense-unmarked indicative imperfectives for immediate future (like English "I'm going home.") The common expression at leave-taking

Ǹ kúl yā. equivalent in usage to "I'm going home now."
1SG go.home PFV.

instead uses a perfective verb form as an instantaneous present 19.2.1.

There are two periphrastic indicative constructions for "to be about to ...":

(a) *bɔ̀ɔ̀dᵃ* "want" + gerund. The subject need not be animate.

Tìɪg lā bɔ́ɔ̀d līig. "The tree is about to fall."
Tree:SG ART want fall:GER.

Yʊ'ʊŋ bɔɔd gaadʊg, ka bɛog bɔɔd nier.
Yʊ́'ʊŋ bɔ́ɔ̀d gáadʊ̀g kà bɛ̄og bɔ́ɔ̀d níə̀r.
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 from dual-aspect and dynamic single-aspect verbs, which can be interpreted as expressing an event or process.

(b) using the construction subject + *yɛ̄*-purpose clause. This construction does require an animate subject. (Cf ellipse of a verb before *yɛ̄*-content clauses 26.2.)

M̀ yɛ́ m̀ kụ̄ā sūmma. "I'm going to hoe groundnuts."
1SG that 1SG hoe groundnut:PL.

M̀ yɛ́ m̀ kị̄á nīm. "I'm going to cut meat"
1SG that 1SG cut meat:SG.

19.3.5 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 *ø*.

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:

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

Nīdɪb kpîd. "People die."
Person:PL die:IPFV.

M̀ zíñ'i nɛ̄. "I'm sitting down."
1SG be.sitting FOC.

Ò gìm. "She's short."
3AN be.short.

Ṁ mɔ́r pu̱'ā. "I have a wife."
1SG have wife:SG.

In isolation, it it is not possible to construe expressions like these as past. With perfective aspect, similarly, the sense without an explicit context must be resultative present, perfective-present or instantaneous present 19.2.1:

Ò kpì nɛ̄. "She's dead."
3AN die FOC.

Ò kpì yā. "She's died."
3AN die PFV.

Ò yɛ̀l yɛ̄ ... "He says ...." (translating for the foreign doctor)
3AN say that ...

Ṁ pʉ́'ʊ̀s yā. "(I) thank you." cf Hausa *Naa goodèe*.
1SG greet PFV.

Ṁ si̱ák yā. "I agree."
1SG agree PFV.

Ṁ ňyɛ́ nū'-bíbɪsá‿ àtáň'. "I can see three fingers."
1SG see hand-small:PL NUM:three.

Ṁ tɛ́ň'ɛ̀s kà ... "I think that ..."
1SG think and ...

Tense-markers can, however, be omitted if there is another time reference in the clause itself, such as a time adverb, or with the irrealis mood, or with the today-past usage of discontinuous-past *nᵋ*:

Ṁ sá zàb ná'àb lā sú'ɛ̀s.
1SG TNS fight chief:SG ART yesterday.
and *Ṁ záb ná'àb lā sú'ɛ̀s.*
1SG fight chief:SG ART yesterday.
both acceptable as "I fought the chief yesterday."

Fù sáa nà kūl.
2SG TNS IRR go.home.
and *Fù sáa nà kūl bɛ̄og.*
2SG TNS IRR go.home tomorrow.
and *Fù nà kūl bɛ̄og.*
2SG IRR go.home tomorrow.
... all acceptable for "You'll go home tomorrow."

cf *Fù ná kūl.* "You will go home."
2SG IRR go.home (later today, tomorrow, next week ...)

M̀ pá' ɔ́ňbɪdī-n sūmma.
1SG TNS chew:IPFV-DP groundnut:PL.
and *M̀ ɔ́ňbɪdī-n sūmma.*
1SG chew:IPFV-DP groundnut:PL.
"I was eating groundnuts earlier today."
(today-past sense of discontinuous-past *n*$^{\varepsilon}$)

Systematic meaningful omission of past tense markers occurs in the sequential clauses characteristic of narrative. In narrative clauses with 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 22.2.1.

19.4 Mood

There are three moods: indicative, imperative and irrealis. The distinction among them is in itself quite straightforward, but the *marking* of mood involves portmanteau morphs which also express polarity, and in the case of the imperative, independency as well.

Indicative is the unmarked mood. It uses the negative particle *pʊ̄*. It is used for statements and questions about the present and past, and timeless events and states. It can express immediate future in periphrastic constructions 19.3.4. It is used instead of the irrealis in clauses with *yà'* "if", though with some exceptions in negative polarity 24.1. It is the only mood which permits the use of the particle *nɛ̄*$^{+/}$ with temporal meaning.

Imperative mood is negated by *dā*. With dual-aspect verbs carrying the independency-marking tone overlay it shows a special inflection *-m*^{a} 19.6.2.2 but otherwise the verb word coincides in form with the indicative.

Ò vʊ̀l tíìm kà ò nɔ́bìr pʊ̄ zábɛ̄ $^{+}$*ø.*
3AN swallow medicine and 3AN leg:SG NEG.IND fight NEG.
"She took medicine and her leg didn't hurt." WK

Ò vʊ̀l tíìm kà ò nɔ́bìr dā zábɛ̄ $^{+}$*ø.*
3AN swallow medicine and 3AN leg:SG NEG.IMP fight NEG.
"She took medicine so her leg wouldn't hurt." WK

The *-m*^{a} imperative of dual-aspect verbs is perfective by default:

Kɔ̀ňsɪm! "Cough!"

Imperatives without independency-marking tone overlay make perfective/imperfective distinctions in the usual way by verb flexion:

Dā kɔ́ňsɛ̄ $^{+}$*ø!* "Don't cough!"
NEG.IMP cough 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)

Whether or not it carries the distinctive *-m*^{a}, imperative mood is followed by the enclitic 2pl subject pronoun ^{ya} in direct commands to several people 22.1.3.

The particle *nɛ*$^{+/}$ cannot appear in its temporal sense with the imperative, but *àlá* "thus" after imperatives imposes continuous/progressive meaning:

Dìm! "Eat!"
Dìmí àlá! "Carry on eating!"

Informants contract the *-í-à-* in these forms to either *-í-* or *-á-* [dɪmɪla] [dɪmala]

Dìmī-ní‿ àlá! "Keep ye on eating!" [dɪmɪnɪla] [dɪmɪnala]
Eat:IMP-2PL.SUB ADV:thus!

Kʊ̀ɵsɪmī-ní‿ àlá kī n tísɪdī‿ bá.
Sell:IMP-2PL.SUB ADV:thus millet CAT give:IPFV 3PL.OB.
"Keep ye on selling millet to them."

Single-aspect verbs used as imperatives frequently add *àlá*:

Dìgí àlá! "Keep on lying down!" [dɪgɪla] [dɪgala]
Zì'é àlá! text *zi'ela* "Be still!" (Jesus to the storm, Mk 4:39, 1976)

Dìgī-ní‿ àlá! "Keep (ye) on lying down." [dɪgɪnɪla] [dɪgɪnala]
Be.lying.down-2PL.SUB ADV:thus!

Āa-ní‿ àlá bāaňlím! "Be (ye) quiet!"
COP-2PL.SUB ADV:thus quiet:ABSTR!

Bɛ̄e-ní‿ àlá ànínā! "Be ye there!"
EXIST-2PL.SUB ADV:thus ADV:there!

Imperative mood is used in direct commands and prohibitions and in subordinate clauses expressing purpose. Imperative mood also follows another imperative in catenation.

Gɔ̀sɪm! "Look!"
Look:IMP!

Gɔ̀sɪmī‿ø! "Look ye!"
Look:IMP 2PL.SUB!

Dā gɔ̄sɛ ⁺ø! "Don't look!"
NEG.IMP look NEG!

Kɛ̀l kà ò gɔ̄s! "Let her look!"
Cause:IMP and 3AN look!

Kɛ̀m nā n gɔ̄s! "Come and look!"
Come:IMP hither CAT look!

Dɔ̀l! "Follow!"
Follow!

Dɔ̀llī‿ ø! "Follow ye!"
Follow 2PL.SUB!

Dɔ̀llī‿ m! "Follow me!"
Follow 1SG.OB!

Dɔ̀llī-nḯ m! "Follow ye me!"
Follow-2PL.SUB 1SG.OB!

Mɔ̀r nīn-báalìg! "Have pity!"
Have eye-pity!

Irrealis mood expresses future statements and questions and has the preverbal mood markers *nà* (positive) *kù* (negative.) Tone Pattern LO verbs show a tone perturbation to all-M tonemes in this mood 7.3.

The irrealis mood distinguishes aspects by verb flexion like the indicative, but temporal *nɛ̄*$^{+/}$ cannot occur. Perfective aspect occurs much more often than imperfective. Irrealis mood with past tense markers is contrary-to-fact, not future-in-the-past: see 24.1 for its use in conditionals.

Ò dāa ná zāb ná'àb lā. "He would have fought the chief" (but didn't)
3AN TNS IRR fight chief:SG ART.

19.5 Polarity

VP negation markers are preverbal particles which combine this function with mood marking. They appear after tense markers but before preverbs. The negation markers induce the appearance of a clause final negative prosodic clitic which causes the clause-final word to appear in Long Form 8.1; on the position of the clitic see further 27.1. Four negative verbs 19.5.1 are equivalent to negative particle + positive verb: *mìt* "let not ...", *zī*'$^{+}$ "not know", *kā*'*ẹ*$^{+}$ "not be/have", *kà'asɪgɛ̄* "not exist."

Temporal use of *nɛ̄*$^{+/}$ is not compatible with negative polarity 28.1.2.1.2.

Indicative mood is negated by *pū* (for some speakers *bū*, as in Toende Kusaal.) Imperative is negated by *dā*; conversely, forms which are negated by *dā* are imperative. Irrealis is negated by *kù*, which *replaces* the positive irrealis marker *nà*. Younger speakers sometimes use *kù* for *pū*, but none of my informants accepts this.

Ò zàb ná'àb lā. "He's fought the chief."
3AN fight chief:SG ART.

Ò pū záb nà'ab láa $^{+}$*ø.* "He hasn't fought the chief."
3AN NEG.IND fight chief:SG ART NEG.

Zàm ná'àb lā! "Fight the chief!"
Fight:IMP chief:SG ART!

Dā záb nà'ab láa $^{+}$*ø!* "Don't fight the chief!"
NEG.IMP fight chief:SG ART NEG!

Ò nà zāb ná'àb lā. "He'll fight the chief."
3AN IRR fight chief:SG ART.

Ò kù zāb ná'àb láa $^{+}$*ø.* "He won't fight the chief."
3AN NEG.IRR fight chief:SG ART NEG.

19.5.1 Negative verbs

Four verbs are equivalent to negative particle + verb. They do not carry the independency tone overlay 19.6.1.1. Negative prosodic clitics appear as usual.

Mìt (always imperative) "see that it doesn't happen that ..." 23.3. In address to several people the postposed 2pl subject enclitic ^{ya} may or may not occur: *mìtī*.

Mit ka ya maal ya tuumsuma nidib tuon ye ba gosi.
Mìt kà yà máàl yà tʊ̀ʊm-sʊ̀ma nīdɪb túɛ̀n yɛ́ bà gɔ̄sɛ $^{+}$*ø.*
NEG.LET.IMP and 2PL do 2PL deed-good:PL person:PL before that 3PL look.at NEG.
"See that you don't do your good deeds in front of people so they'll look at you." (Mt 6:1, 1996)

KB has invariant *mid* without a following negative clitic: *Mid ka ya maali ya tʊʊm sʊma nidib tuon ye ba gɔs.*

Mìt also appears with a NP object in the sense "beware of ..."; no final negative clitic appears in this case:

Miti ziri nodi'esidib bane kene ya sa'an na la.
Mìtī‿ ø zīrí nɔ̀-dí'əsìdɪb bánì kɛ̄nní‿ yà sā'an nā lā.
Beware 2PL.SUB lie mouth-receiver:PL REL.PL come:IPFV 2PL among hither ART.
"Beware of false prophets who come among you." (Mt 7:15, 1996)

Zī'$^{+}$ "not know" normally replaces negative particle + *mī'*. A clause-final LF ***zi'isigɛ*** also appears in KB, NT (e.g. Lk 12:40); cf *kà'asɪgɛ̄* below.

Bʊ̀ŋ-bāň'ad zī' yɛ̄ tɛ̄ŋ tʊ́llā $^{+}$*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)

Instances of *mī'* with negative particles do occur:

M̀ biig Solomon anɛ dasaŋ , ka pʊ miˈ wʊʊ lin nar siˈem.
M̀ bīig Solomon á nɛ̄ dá-sāŋ, kà pʊ̄ mīˈi
1SG child:SG Solomon FOC COP young.man:SG, and NEG.IND know
wʊ̄ʊ lín nār sīˈəmm +*ø.*
how 3INAN:NZ be.proper INDF.ADV NEG.
"My son Solomon is young, and does not know how things ought to be."
(1 Chronicles 22:5)

Kāˈe̱ + "not be, not have" appears as *kāˈ* before a complement 8.5.2. It is the negative to both "be" verbs, *àe̱ň*[a] "be something/somehow" and *bɛ̀*+ "be somewhere, exist" and also to *mɔ́r*[a/] "have." **Pʊ̄ bɛ́* is not found, but *pʊ̄ mɔ́r* is quite common; *pʊ̄ áe̱ň* is rare but can be found in contrastive contexts 20.2.

Examples:

Dāu̱ lā kāˈ náˈabā +*ø.* "The man isn't a chief."
Man:SG ART NEG.BE chief:SG NEG.

Dāu̱ lā kāˈ bīiga +*ø.* "The man hasn't got a child."
Man:SG ART NEG.HAVE child:SG NEG.

Pu̱ˈā lā mɔ́r bīig àmáa dāu̱ lā kāˈe +*ø.*
Woman:SG ART have child:SG but man:SG ART NEG.HAVE NEG.
"The woman has a child but the man hasn't."

Dāu̱ lā kāˈe +*ø.* "The man isn't there."
Man:SG ART NEG.BE NEG.

Dāu̱ kāˈe̱ dɔ́ɔgʊ̄-n láa +*ø.* "There's no man in the room."
Man:SG NEG.BE room:SG-LOC ART NEG.

Dāu̱ lā kāˈ dɔ́ɔgʊ̄-n láa +*ø.* "The man is not in the room."
Man:SG ART NEG.BE room:SG-LOC ART NEG.

Kàˈasɪgɛ̄ (LF always, as the word only appears clause finally) "not exist"

Ò bīig káˈasɪ̀gɛ̄ +*ø.* "She has no child."
3AN child NEG.EXIST NEG.

19.6 Independency marking

The VP of a main clause 22 or content clause 26.2 is marked as independent. The marking is absent in all subordinate clause types other than content clauses. It is also absent in all clauses introduced by *kà* other than content clauses, regardless of whether they are subordinate or coordinate 21.1. The marker is primarily a tone overlay, but has associated segmental manifestations.

19.6.1 Tonal Features

19.6.1.1 Tone overlay

The independency-marking tone overlay is manifested only on VPs with positive polarity and indicative or imperative mood. It affects only the *first* word in the VP capable of carrying it: first the preverbal particle *lɛ̀ɛ* "but", next any preverb, then the verb itself. Preverbal particles which have intrinsic M tonemes (past tense marker *dāa*, auxiliary tense marker *ǹyɛ̄ɛ*) not only remain M themselves but also prevent the overlay from applying to any subsequent words.

The overlay otherwise changes all tonemes in the affected word to L if they were not L already. Affected words, regardless of their intrinsic tones, are always followed by M spreading, and show M toneme on the final vowel mora before liaison (changed as usual to H before liaison words beginning with a fixed-L toneme 8.3.1.)

Intrinsic tones after *kà* (with *zàb*^{ɛ} "fight" *gɔ̄s*^{ɛ} "look at" *nà'ab*^{a} "chief"):

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."

Intrinsic tones with preverbal particles having intrinsic M tonemes:

Ò dāa záb nà'ab lā.	"He didn't fight the chief."
Ò dāa gɔ̄s ná'àb lā.	"He didn't look at the chief."

Intrinsic tones with negative polarity:

Ò pū záb nà'ab láa.	"He hasn't fought the chief."
Ò pū gɔ̄s ná'àb 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'e̯*$^{+}$ "not be, not have" and *zī'*$^{+}$ "not know":

Dāu̯ lā kā' ná'abā $^{+}$*ø.* "The man isn't a chief."
Man:SG ART NEG.BE chief:SG NEG.

Intrinsic tones in subordinate clauses, without independency marking:

Ò yá' zàb nà'ab lā. "If he fights the chief."
Ò yá' gɔ̄s ná'àb lā. "If he looks at the chief."
Ɔ́n zàb nà'ab lā. "He having fought the chief"
Ɔ́n gɔ̄s ná'àb lā. "He having looked at the chief."

Tone overlay manifesting independency marking in main clauses:

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."
Ò sà zàb ná'àb lā. "He fought the chief yesterday."
Ò sà gɔ̀s ná'àb lā. "He looked at the chief yesterday."

Tone overlay in content clauses, which have independency marking 26.2:

Bʊ̀ŋ-bāň'ad zī' yɛ̄ tɛ̄ŋ tʊ́llā $^{+}$*ø.*
Donkey-rider:SG NEG.KNOW that ground:SG be.hot NEG.
"The donkey-rider doesn't know the ground is hot."
(*Tɛ̄ŋ tʊ́l.* "The ground is hot." *tʊ̄l*$^{la/}$ "be hot")

Bà yɛ̀l yɛ́ ò zàb ná'àb lā.
3PL say that 3AN fight chief:SG ART.
"They say he's fought the chief."

Examples for the M of the final host mora before liaison, using the verbs *bɔ̀dɪgᵋ* "lose", *yādɪgᵋ/* "scatter" and the clitics *mᵃ* "me" *ba*$^{+}$ "them":
Intrinsic tones:

bɔ̀dɪgɪ mᵃ	*bɔ̀dɪgɪdī mᵃ/* (ipfv)	*bɔ̀dɪgɪ bā*$^{+/}$
yādɪgí mᵃ	*yādɪgídī mᵃ/* (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 8.3.1: contrast

Bà kʊ̀ʊdī‿ bá. "They kill them."
3PL kill:IPFV 3PL.OB.

with *Bà kʊ̀ʊdí‿bà bʊ̄ʊs.* "They kill their goats."
3PL kill:IPFV 3PL goat:PL.

and *Bà gɔ̀s·ō‿ ø.* "They looked at her."
3PL look.at 3AN.OB.

with *Bà gɔ̀sʊ́‿ ò bīig.* "They looked at her child."
3PL look.at 3AN child:SG.

with ML necessarily changed to HL before the fixed-L proclitic pronouns.

19.6.1.2 Absent M spreading after subject pronouns

Bound pronoun subjects are normally followed by M spreading despite their own fixed L tonemes 8.3.

However, the *third* persons *ò lì bà* are never followed by M spreading when the following VP has independency marking.

Examples with *zàb*^{ɛ} "fight" *gɔ̄s*^{ɛ} "look at" *nà'ab*^{a} "chief":
Without independency marking (sequential clause 22.2.1):

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 M spreading before a VP with independency marking, *unless* they are immediately preceded by *yɛ̄* "that" (here introducing a content clause 26.2):

Ò tɛ̀ň'ɛs kà ***ò zàb*** *ná'àb lā.*
3AN think and 3AN fight chief:SG ART.
"He thinks he's fought the chief." WK

Ò tɛ̀ň'ɛs kà ***m̀ záb*** *ná'àb lā.*
3AN think and 1SG fight chief:SG ART.
"He thinks I've fought the chief."

but *Ò yɛ̀l yɛ́* ***ò zàb*** *ná'àb lā.*
3AN say that 3AN fight chief:SG ART.
"He says he's fought the chief."

and *Ò yɛ̀l* ***yɛ́ m̀ zàb*** *ná'àb lā.*
3AN say that 1SG fight chief:SG ART.
"He says I've fought the chief."

Absence of M spreading after bound subject pronouns is independent of tone overlay and is still seen when tone overlay is absent, e.g. when the VP has irrealis mood, or there is a preverbal particle carrying a M toneme:

Ò kù *zāb ná'àb láa* *⁺ø.*
3AN NEG.IRR fight chief:SG ART NEG.
"He will not fight the chief."

Ò lɛ̀ɛ *dāa záb nà'ab lā.*
3AN but TNS fight chief:SG ART.
"But he did fight the chief."

Ò yɛ̀l ***yɛ́ m̀ nà*** *zāb ná'àb lā.*
3AN say that 1SG IRR fight chief:SG ART.
"He says I'll fight the chief."

19.6.2 Segmental features

There are two segmental features of independency marking. They occur when and only when the verb word itself has undergone *tone* overlay, and are therefore absent whenever the verb is preceded by the particle *lɛ̀ɛ* "but", a preverb, or any particle with M toneme. Similarly, they are absent when the VP has irrealis mood or negative polarity. Verbs which have intrinsic L tonemes have unchanged stem tonemes after overlay, but these segmental features and the following M spreading reveal its presence.

19.6.2.1 Perfective *yā*$^{+}$

Any perfective verb form carrying the independency-marking tone overlay which would otherwise be phrase-final is followed by the enclitic particle *yā*$^{+}$. NT usually writes this particle as *-eya*, but informants show no trace of liaison, and KB writes *ya* solid with a preceding ordinary perfective SF.

This particle is tonally unique among enclitic particles bearing M toneme as being Pattern O: when the LF occurs in questions, the toneme is L not H 7.4.

Lì bɔ̀dɪg yā. "It's got lost."
3INAN get.lost PFV.

Lì bɔ̀dɪg yàa $^{+}$*ø?* "Has it got lost?"
3INAN get.lost PFV PQ?

The phrase-final constraint on the appearance of *yā*$^{+}$ may show that a final element has been extraposed 28.3:

Ya yidigya bɛdegʊ. "You are very much mistaken." (Mk 12:27)
Yà yídìg yā bɛ́dʊgʊ̄.
2PL go.astray PFV much.

Ḿ pʊ́'ʊ̀s yā bɛ́dʊgʊ̄. "Thank you very much."
1SG greet PFV much.

Further examples:

Sāa ní yā. "It has rained."
Rain:SG rain PFV.

Ò zàb yā. "She's fought."
3AN fight PFV.

Ò gɔ̀s yā. "She's looked."
3AN look PFV.

Ò sà zàb yā. "She fought (yesterday.)"
3AN TNS fight PFV.

Ḿ tɛ́ñ'ɛ̀s kà lì lù yā. "I think it's fallen down." (content clause)
1SG think and 3INAN fall PFV.

But *Ò zàbī‿m.* "He's fought me." (not final)
3AN fight 1SG.OB.

Ò gɔ̀sī‿m. "He's looked at me." (not final)
3AN look.at 1SG.OB.

Sāa dāa ní. "It rained." (M preverbal particle)
Rain:SG TNS rain.

Ò dāa záb. "He fought." (M preverbal particle)
3AN TNS fight.

Ò nà zāb. "She'll fight." (irrealis mood)
3AN IRR fight.

Kà ò záb. "And he fought." (no independency marking)
And 3AN fight.

Kà ò gɔ̄s. "And he looked." (no independency marking)
And 3AN look.

Ò pū zábɛ̄ ⁺ø. "He's not fought." (negative polarity)
3AN NEG.IND fight NEG.

Ò pū gɔ̄sɛ ⁺ø. "He's not looked." (negative polarity)
3AN NEG.IND look NEG.

Ò gìm. "She's short." (stative)
Ò mì'. "She knows." (stative)
Ò nɔ̀ŋ. "She loves him." (stative)

19.6.2.2 Imperative -*mᵃ*

Imperatives of dual-aspect verbs carrying the independency-marking tone overlay adopt the flexion -*mᵃ* 11.1.

Gɔ̀sɪm! "Look!"

Gɔ̀sɪmī‿m! "Look at me!"
Look:IMP 1SG.OB!

Gɔ̀sīm. "Look at me!" vowel absorbed 3

Gɔ̀sɪmí‿fù nú'ùg! "Look at your hand!"
Look:IMP 2SG hand:SG!

Gɔ̀sím fù nú'ùg! *id* with *ɪ*-vowel absorbed

Dì'əm! "Receive!"

Dì'əmī‿ ø! "Receive ye!"
Receive:IMP 2PL.SUB!

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

Dì'əmī-n·ó‿ ø! "Receive ye her!"
Receive:IMP-2PL.SUB 3AN.OB!

Dì'əmī-ní‿ àlá! "Keep ye on receiving!" 19.4
Receive:IMP-2PL.SUB ADV:thus!

But *Dā gɔ̄sɛ ⁺ø!* "Don't look!" (negative polarity)
NEG.IMP look NEG!

Kɛ̀l kà ò gɔ̄s! "Let her look!"
Cause:IMP and 3AN look! (No independency marking: subordinate)

Kɛ̀m nā n gɔ̄s! "Come and look!"
Come:IMP hither CAT look! (No independency marking: subordinate)

Dɔ̀llī‿ m! "Follow me!" (single-aspect verb)
Follow 1SG.OB!

Dɔ̀llī-ní‿ m! "Follow ye me!"
Follow-2PL.SUB 1SG.OB! (*-ní-* for *-ya* *ɲa before liaison 8.2.3)

19.7 Clitics bound to the verb

Clitic subject pronouns 16.3.1 are bound to the verb, to the extent that they are involved in the tonal manifestations of independency marking 19.6.1.2.

19.7.1 *Lɛ̀ɛ* "but"

lɛ̀ɛ "but" precedes even tense particles, but like a preverb, and unlike a post-subject particle 21.2.3, it prevents the independency-marking tone overlay from falling on the verb, and is then itself followed by M spreading:

Kà ò lɛ́ɛ dāa záb nà'ab lā.
And 3AN but TNS fight chief:SG ART.
"But he fought the chief."

Ka man pian'ad la lee ku gaade.
Kà m̀ pi̯àň'ad lā lɛ́ɛ kʊ̀ gāadɛ +*ø.*
And 1SG speech ART but NEG.IRR pass NEG.
"But my words will not pass away. (Mt 24:35, 1996)

Bà lɛ̀ɛ záb nà'ab lā. "But they've fought the chief." WK
3PL but fight chief:SG ART.

Kà bà lɛ́ɛ zàb nà'ab lā. "But they've fought the chief." WK
And 3PL but fight chief:SG ART.

Lɛ̀ɛ záb nà'ab lā! "But fight the chief!" WK
But fight chief:SG ART!

NT has the *-m*ᵃ-imperative, suggesting tone overlay on the verb, in

Lee iemini o na'am so'olim la...
Lɛ̀ɛ ìəmī-ní‿ ò nā'am sʊ́'ʊlìm lā...
But seek:IMP-2PL.SUB 3AN kingship possession ART...
"But seek ye his kingdom ..." (Lk 12:31, 1976)

WK does not accept this, and he corrected e.g.

*Lɛ̀ɛ gɔ́sìm ná'àb lā! attempted: "But look at the chief!"
But look.at:IMP chief:SG ART!

to Lɛ̀ɛ gɔ̄s ná'àb lā.
But look.at chief:SG ART.

19.7.2 Preverbs

Preverbs follow all other preverbal particles. All carry the independency-marking tone overlay in place of the following main verb (cf *lɛ̀ɛ* "but" 19.7.1.) Those derived from verbs show a suffix *-m-* 13.1.4.

pòn "previously, already"

Ò pòn záb nà'ab lā. "He's already fought the chief."
3AN already fight chief:SG ART.

Kà ò pón zàb nà'ab lā.
And 3AN already fight chief:SG ART.
"And he's already fought the chief."

lɛ̀m "again" (cf *lɛ̀b*ɛ "return")

Ò lɛ̀m záb nà'ab lā. "He's fought the chief again"
3AN again fight chief:SG ART.

Kà ò lɛ́m zàb nà'ab lā. "And he's fought the chief again."
And 3AN again fight chief:SG ART.

Ò pō̄ lɛ́m zàb nà'ab láa +ø.
3AN NEG.IND again fight chief:SG ART NEG.
"He hasn't fought the chief again."

Ò nà lɛ̄m záb nà'ab lā. "He'll fight the chief again."
3AN IRR again fight chief:SG ART.

M̀ nīf lɛ́m zábìd nɛ̄. "My eye is hurting again."
1SG eye:SG again fight FOC.

Ka so' kudin ku len nyee li ya'asa.
Kà sɔ̄' kʊ̄dɪm kʊ́ lɛ̄m ňyɛ́ɛ‿lī yá'asā +*ø.*
And INDF.AN ever NEG.IRR again see 3INAN.OB again NEG.
"Nobody will ever see it again." (Rev 18:21, 1996)

kpɛ̀lɪm "still" with a following imperfective; "immediately afterwards" before a perfective (compare Latin *continuo* "immediately.") It occurs also as a main verb "remain, still be." KB has the reduced form ***kpɛ̀n***.

Ka o kpelim zu'om.
Kà ò kpɛ́lìm zū'ɵm.
And 3AN immediately go.blind.
"Immediately he went blind." (Acts 13:11, 1996: KB *Ka o kpɛn zu'om.*)

m biig Josef nan kpɛn vʊe.
m̀ bīig Josef nán kpɛ̀n vʊ̄e̯.
1SG child:SG Joseph still still be.alive.
"My child Joseph is still alive." (Genesis 45:28)

là'am "together" (cf *là'as*ᵋ "gather"); as a main verb *là'am*ᵐ is "associate with."

ka nidib wʊsa da la'am kpi nɛ o.
kà nīdɪb wʊ̄sa dá là'am kpì nɛ́ ò.
and person:PL all TNS together die with 3AN.
"so all people died together with him." (2 Cor 5:14)

dɛ̀ŋɪm "beforehand" (cf *dɛ̀ŋ*ᵋ "go, do first": *m̀ dɛ́ŋī f* "I've got there before you." *Dɛ̀ŋ*ᵋ is used with the same meaning in *n*-catenation 23.2.)

Pin'ilʊgʊn sa ka Pian'ad la da pʊn dɛŋim bɛ.
Pīň'ilʊ́gʊ̄-n sá kà Pi̯àň'ad lā dá pʊ̀n dɛ̀ŋɪm bɛ̀.
Beginning:SG-LOC hence and word:SG ART TNS already beforehand EXIST.
"In the beginning, the Word already existed beforehand." (Jn 1:1)

màlɪgɪm "again" (cf Toende Kusaal *malig* "do again")

Amaa man pian'ad la kʊ maligim gaadɛ.
Àmáa m̀ pi̯àň'ad lā kʊ́ mālɪgɪm gáadɛ̄ +*ø.*
But 1SG speech ART NEG.IRR again pass NEG.
"But my words will not pass away. (Mt 24:35)

tì "after" occurs often in *n*-catenation; for *hālí tì pāa ...* "up until" see 21.2.1.

If the next following VP in the same clause or series of coordinated clauses is perfective, there is disturbance of the usual iconic alignment of VPs with event order 19.2.1, with *tì* corresponding to English "before."

hali ka Herod ti kpi. "Until Herod had died." (Mt 2:15)
hālí kà Herod tí kpì.
Until and Herod after die.

Kɛ̀m‿ø tí ñyɛ̄ dụ̱'átà. "Go to see the doctor." SB
Go:IMP CAT after see doctor:SG.

Bɛogʊ ti nied la ka ba gaad!
Bɛ̄ogʊ́‿ø tì nìəd lá kà bà gáàd.
Morning NZ after appear:IPFV ART and 3PL pass.
"Before morning appears they have passed!" (Isaiah 17:14)

19.7.3 Liaison enclitics

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 verb may have two successive liaison enclitics.

The first slot may be occupied by one of the two clitics ^{ya} "2pl subject of direct command" 22.1.3 or discontinuous-past *n*^{ɛ} 24.1.1; there are no circumstances in which they might occur together. The two clitics are tonally alike, changing the toneme of the last preceding host vowel mora to M, and themselves having 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 both non-contrastive direct and indirect object pronouns without ellipsis are expressed by *n*-catenation using *tìs*^{ɛ} "give" 23.2.

19.8 Complements

"Complement" will be used below to describe all verb core arguments other than the subject. Complements may be NPs, AdvPs, prepositional phrases or clauses.

Verbs vary in the kind of complement they take and in whether the complements are obligatory; the matter is complicated in Kusaal by the fact that "obligatory" complements in fact need not be explicitly present: if they are absent, the gap then represents an anaphoric pronoun.

NP and AdvP complements can be classified as direct and indirect objects, as predicative complements, or as locative complements.

19.8.1 Transitivity and objects

Indirect objects precede direct, and objects precede other complements, except in cases of extraposition due to weight 28.3. A clitic pronoun before a noun object therefore cannot be the direct object:

*Ǹ dāa tísì‿lī náˈàb lā.
1SG TNS give 3INAN.OB 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. Transitive verbs vary in whether they require a direct object/complement:

da ku nidaa, da zuuda
dā kū nīdá ⁺ø, dā zūudá ⁺ø...
NEG.IMP kill person:SG NEG, NEG.IMP steal:IPFV NEG...
"Do not kill [a person] ... do not steal ..." (Lk 18:20, 1996)

Obligatorily Transitive verbs may appear without any expressed object, but in such cases the meaning is necessarily **anaphoric**:

Ò pū zámm ⁺ø. "She didn't cheat him/her."
3AN NEG.IND cheat NEG.

Transitive single-aspect verbs which do not take locative complements are all obligatory transitives. Thus with *àe̯ň*ᵃ "be something/somehow":

Mānı‿ø áň dụˈátà àmáa fūn pū áňyā ⁺ø.
1SG.CNTR CAT COP doctor:SG but 2SG.CNTR NEG.IND COP NEG.
"I'm a doctor but you aren't."

Mānı‿ø áň dụˈátà kà fūn mɛ́n áe̯ň.
1SG.CNTR CAT COP doctor:SG and 2SG.CNTR also COP.
"I'm a doctor and you are too."

Particular cases of null anaphora appear with direct objects preposed with *kà* 28.2 25.3.2 based on adnominal *kà*-catenation 23.3.

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 gbāu̱ŋ láa ⁺ø?* "Do you have the letter?"
2SG have letter:SG ART PQ?

A. *Ɛ̄ɛ̌ň, m̀ mɔ́r.* "Yes, I have it."
Yes, 1SG have.

Q. *Fù bɔ́ɔd·ó-o ⁺ø?* "Do you love her?"
2SG want-3AN.OB PQ?

A. *Áyìı, 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

banɛ zuud nidibi gban'ad
bànı zūud nīdıbı͡ ø gbāň'ad
REL.PL steal:IPFV person:PL CAT seize:IPFV
"those who steal people by force" (1 Tim 1:10)

onɛ daa zuud "he who used to steal" (Eph 4:28)
ɔ̀nı daa zūud
REL.AN TNS steal:IPFV

Some verbs only take objects of a very limited type, often expressed with a "cognate accusative" noun formed from the same stem. They may be obligatorily transitive or agentive ambitransitive:

Fù tʊ́m bɔ́-tʊ̀ʊma ⁺ø? "What work do you do?"
2SG work:IPFV what-work CQ?

Ka ya ninkʊda zaansim zaansima.
Kà yà nīn-kʊ́dà zàaňsım záaňsímà.
And 2PL person-old:PL dream:IPFV dream:PL.
"And your old people dream dreams." (Acts 2:17)

Patientive ambitransitive verbs can appear transitively with an expressed object, but if there is no object they are normally interpreted as intransitive, with the object of the transitive appearing as the subject. Examples include

yɔ̀$^{+}$	"close"	*nāe*$^{+/}$	"finish"
zà'mɪs^{ɛ}	"learn/teach"	*nā'mɪs*$^{ɛ/}$	"suffer/make suffer"
bɔ̀dɪg^{ɛ}	"lose, get lost"	*bàs*^{ɛ}	"go/send away"
dūe$^{+/}$	"raise/rise"	*mā'e*$^{+/}$	"get cool"

Many, though not all, patientive ambitransitive verbs express a change of state and can use the perfective form in a resultative sense 19.2.1:

M̀ náa tʊ̄ʊma lā. "I've finished the work."
1SG finish work ART.

Tʊ̄ʊma lā náa nɛ̄. "The work is finished."
Work ART finish FOC.

Almost any verb can potentially take an indirect object expressing benefit, interest etc (this could lead to ambiguity in principle):

Ò dʊ̀gʊ̄‿m. "He cooked (for) me."
3AN cook 1SG.OB.

Lì màlɪsī‿m. "I like it." ("It's sweet for me.")
3INAN be.sweet 1SG.OB.

Àláafʊ̀ bɛ́ɛ‿bá. "They are well." ("Health exists for them.")
Health EXIST 3PL.OB.

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*^{ɛ} "give" is the prototypical example, along with causatives from transitive verbs like *dìɪs*^{ɛ} "feed" *nūlʊs*$^{ɛ/}$ "give to drink."

M̀ tís ná'àb lā dāká. "I've given the chief a box."
1SG give chief:SG ART box:SG.

M̀ tís ná'àb lā. "I've given it to the chief."
1SG give chief:SG ART.

**M̀ tís dāká.* impossible as "I've given him a box", which is
M̀ tís·ō‿ø dāká.
1SG give 3AN.OB box:SG.

Dā tís·ò‿ø sī'əla ⁺ø. "Don't give her anything!"
NEG.IMP give 3AN.OB INDF.INAN NEG.

Dā tísɛ̄ ⁺ø! "Don't give it to her!"
NEG.IMP give NEG.

Mˋ tís yā. "I've given it to him."
1SG give PFV.

Certain verbs take a fixed direct object as a set idiom after an indirect object which expresses the functional object, e.g. *kàd* X *sàríyà* "judge X", *mɔ̄r* X *nīn-báalìg* or *zɔ̀* X *nīn-báalìg* "have pity on X", *nìŋ* X *yàddā* "believe X, believe in X", *zɔ̀* X *dàbīəm* "fear X", *sɨ̰àk* X *nɔ̄ɔr* "obey X", *ǒwɛ̀'* X *nú'ùg* "make an agreement with X."

Wina'am na kad nidib poten'esua'ada saria.
Wínà'am ná kād nīdıb pú-tɛ̀ǒ'-sʊ̄'adá sàríyà.
God IRR drive person:PL inside-mind-secret:PL judgment.
"God will judge people's secret thoughts." (Rom 2:16, 1996)

Ò zɔ̀t·ō‿ ø nīn-báalìg. "She has pity on him."
3AN feel:IPFV 3AN.OB eye-pity.

Bà zɔ̀t·ō‿ø dábīəm. "They are afraid of him."
3PL feel:IPFV 3AN.OB fear.

Bà nìŋ·ō‿ø yáddā. "They believed her."
3PL do 3AN.OB assent.

Ò ǒwɛ̀' ná'àb lā nú'ùg. "He made an agreement with the king."
3AN strike king:SG ART hand:SG.

19.8.1.1 Passives

For passive meaning expressed by an empty *bà* "they" as subject see 16.2.3.

Transitive verbs expressing a change of state are usually patientive ambitransitives, and thus appear in the same form whether the argument which changes state is subject or object. It is also possible for other transitive verbs, whether obligatory transitives or agentive ambitransitives like *nū*⁺ "drink", to be used passively with no formal change:

M̀ nú dāam lā. "I've drunk the beer."
1SG drink beer ART.

Dāam lā nú yā. "The beer has got drunk."
Beer ART drink PFV.

It is not possible to express an agent with passives.
Indirect objects cannot become passive subjects:

Dāká lā tís yā. "The box was given."
Box:SG ART give PFV.

but **Nà'ab lā tís yā.* not possible in sense "The chief was given (it.)"
Chief:SG ART give PFV.

Stative verbs cannot be used as passives. Even with dynamic verbs, **passives can only express punctual events** 28.1.2.1.2.

The verb *sɔ̄bᵋ* "write" is a specialised usage of *sɔ̄bᵋ* "make/go dark", and is patientive ambitransitive. It can form a resultative; the imperfective *sɔ̄bɪdᵃ/* seems to accept intransitive use only when some adverbial modification is present.

Gbàu̱ŋ lā sɔ́b yā. "The letter has been written."
Letter:SG ART write PFV.

Gbàu̱ŋ lā sɔ́b nɛ̄. "The letter is written."
Letter:SG ART write FOC.

Gbàna sɔ́bìd zīná. "Letters get written today." WK
Letter:PL write:IPFV today.

Gbàu̱ŋ lā sɔ́bìd súŋā. "The letter is writing well (i.e. easily.)" WK
Letter:SG ART write:IPFV good:ADV.

19.8.1.2 Middle use of intransitives

The assume-stance verbs 13.1.1, rather than the make-assume-stance series, are often used transitively for parts of one's own body:

Lìgɪním‿fù nīf nɛ́ fù nú'ùg.
Cover:IMP 2SG eye:SG with 2SG hand:SG.
"Cover your eye with your hand."

Thus *Dìgɪním‿ fù nú'ùg.* "Put your hand down." is commoner than
Lie.down:IMP 2SG hand:SG.

Dìgɪlím‿ fù nú'ùg. "Put your hand down."
Lay.down:IMP 2SG hand:SG.

Similarly *nìe*$^{+}$ "appear" is usually intransitive, corresponding to transitive *nèɛlᵋ* "reveal", but *nìe*$^{+}$ is much more frequent than *nèɛlᵋ* before *ò mɛ̄ŋᵃ/* "him/herself" etc.

Ka o nie o mɛŋ Jemes san'an ...
Kà ò níe ò mɛ̄ŋ Jemes sá'àn ...
And 3AN appear 3AN self James among ...
And he revealed himself to James (1 Cor 15:7)

19.8.2 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:

Kɛl ka m liebi fʊ tʊmtʊm yinne.
Kɛ̀l kà m̀ líəbì‿ fù tùm-tʊ̄m yīnní.
Cause:IMP and 1SG become 2SG work-worker:SG one.
"Make me [become] one of your servants" (Lk 15:19); dynamic *lìəbᵋ*

M̀ á né fù tùm-tʊ̄m. "I am your servant."; stative *àe̱ňᵃ*
1SG COP FOC 2SG work-worker:SG.

Àe̱ňᵃ "be something/somehow" takes a predicative complement, and typically has a derived manner-adverb or abstract noun as complement rather than an adjective as NP head 20.2.

Some transitive verbs may have a predicative complement after the direct object. With verbs are used in the relevant senses, this complement is compulsory.

The verb *pʊ̀dᵋ* "name, dub" has as first object a NP with the head *yʊ̄'ʊrᵋ/* "name", and the name itself as second object; this may be introduced by *yɛ̄* "that."

Ka fʊ na pʊd o yʊ'ʊr ye Yesu.
Kà fʊ̀ ná púd ò yʊ̄'ʊr yɛ̄ Yesu.
And 2SG IRR dub 3AN name:SG that Jesus.
"And you will call him Jesus." (Mt 1:21)

Ka o pʊd biig la yʊ'ʊr Yesu.
Kà ò púd bīig lā yʊ́'ʊ̀r Yesu.
And 3AN dub child:SG ART name:SG Jesus.
"And he called the child Jesus. " (Mt 1:25)

The verb *bʊ̀ɵlᴱ* "call, call out, summon" can be used in the ipfv with an object expressing the person and the name as a complement, again often introduced by *yɛ̄*:

on ka ba buon ye Pita la
ɔ̀n kà bà búɵ̀n yɛ̄ Pita lā
REL.AN and 3PL call:IPFV that Peter ART
"who was called Peter" (Mt 10:2)

The verb is often used passively with *yʊ̄'ʊrᴱ/* "name" as subject and the name itself as complement:

dau sɔ' ka o yʊ'ʊr buon Joon.
dàu̱-sɔ́' kà ò yʊ̄'ʊr búɵ̀n Joon.
man-INDF.AN and 3AN name:SG call:IPFV John.
"a man [habitually 28.1.2.1.2] called John." (Jn 1:6)

MàalᴱE "make" is used with object and resultative predicative complement in

Ka o maal o meŋ nintita'ar.
Kà ò máàl ò mɛ̄ŋ nīn-títā'ar.
And 3AN make 3AN self person-great:SG.
"He made himself out to be a great man." (Acts 8:9. 1976)

The 1996 NT version has instead

Ka o du'osi o meŋ ye o ane nintita'ar.
Kà ò dū'ɵsí‿ò mɛ̄ŋ yɛ́ ò à nɛ̄ nīn-títā'ar.
And 3AN elevate 3AN self that 3AN COP FOC person-great:SG.
"He made himself up that he was a great man."

A *kà*-catenation 23.3 can appear as a resultative predicate.

19.8.3 Locatives

Locative AdvPs 17.3 occur as complements after verbs of position and movement. Some verbs *require* a locative complement, and its absence is anaphoric.

M̀ yí Bɔ̀k. "I left Bawku."
1SG emerge Bawku.

M̀ yí yā. "I've left [there]."
1SG emerge PFV.

Others do not; so with single-aspect verbs which take locative complements, and also e.g. *kɛ̄ŋ*$^{ɛ/}$ "go, walk" *dìgɪn*^{ɛ} "lie down" *dīgɪl*$^{ɛ/}$ "lay down":

...ka pʊ tun'e kenna..
...kà pū tūň'e‿ ø kɛ̄nná $^{+}$*ø.*
...and NEG.IND be.able CAT go:IPFV NEG.
"who couldn't walk." (Acts 14:8)

but *Ò kɛ̀ŋ Bɔ́k.* "She's gone to Bawku."
3AN go Bawku.

Ò dìgɪn yā. "He's lain down."
3AN lie.down PFV.

but *Dìgɪnɪm kpɛ̄!* "Lie down here!"
Lie.down:IMP here!

Ò dìgɪl gbáu̯ŋ lā. "She's put the book down."
3AN lay.down book:SG ART.

but *Ò dìgɪl gbáu̯ŋ lā tɛ́ɛbʊ̀l lā zúg.*
3AN lay.down book:SG ART table:SG ART upon.
"She's put the book on the table."

Wínà'am bɛ́. "God exists."
God EXIST.

Àláafʊ̀ bɛ́·o‿ ø. "He's well." ("Health exists for him.")
Health EXIST 3AN.OB. Indirect object but no complement.

but *Dāu̱ lā bɛ́ nɛ̄ dɔ́-kàŋā lā púʋgʊ̄-n.*
Man:SG ART EXIST FOC hut-DEM.DEI.SG ART inside:SG-LOC.
"The man is inside that hut."

19.8.4 Prepositional phrases

Wɛ̄n$^{na/}$ "resemble" usually takes a phrase introduced by *nɛ̄* or *wʊ̄ʋ* 18.

Ka o nindaa wenne nintaŋ ne.
Kà ò nīn-dáa wɛ̄n nɛ̄ nīntāŋ nɛ̄.
And 3AN eye-face:SG resemble with sun:SG like.
"His face is like the sun." (Rev 10:1, 1996)

Lāl$^{la/}$ "be far" usually takes a phrase introduced by *nɛ̄*:

Amaa o pʊ lal nɛ tii.
Àmáa ò pʊ̄ lāl né tīı $^{+}$*ø.*
But 3SG NEG.IND be.far with 1PL NEG.
"But he is not far from us." (Acts 17:27)

Dɔ̄l$^{la/}$ "accompany" with the preposition *nɛ̄* means "be in accordance with":

Li dɔlnɛ lin sɔb Wina'am gbauŋʊn si'em la ye ...
Lì dɔ̀l nɛ̄ lín sɔ̄b Wínà'am gbáu̱ŋʊ̄-n sī'əm lā yɛ̄ ...
3INAN follow with 3INAN:NZ write God book:SG-LOC INDF.ADV ART that ...
"This is in accordance with what is written in God's book ..." (1 Cor 2:16)

The preposition *nɛ̄* can be distinguished from focus-*nɛ̄*$^{+/}$ 28.1.2 by contexts where focus is prohibited. *Yī*$^{+}$ "emerge" does not take a prepositional phrase:

Ḿ yí nɛ̄ Bɔ́k. "I come from Bawku." SB
1SG emerge FOC Bawku.

Yadda niŋir yitnɛ labaar la wʊmmʊg ni.
Yàddā-níŋ̀ır yít nɛ̄ lábāar lā wʊ́mmʊ̀g ní.
Assent-doing emerge:IPFV FOC news ART hearing LOC.
"Faith comes from hearing the news." (Rom 10:17)

but *Meeri one yi Magdala* "Mary who came from Magdala"
Meeri ɔ́nì yī Magdala (Mk 16:9, 1996)
Mary REL.AN emerge Magdala

19.8.5 Clauses

Certain verbs require a following subordinate clause introduced by *kà* or *yɛ̄*. 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*-catenation, while if *nār*$^{a/}$ appears without a purpose clause there is a necessarily anaphoric sense; *mìt* appears with a NP object in the sense "beware of..." 19.5.1.

The verb *bɔ̀ɔ̀d*^{a} "want, love" takes a 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 purpose-clause complement to express "waiting for an event."

Verbs of cognition, reporting, and perception have as complement a content clause, a relative clause with *sɪ̄ʼəm*, or a postpositional AdvP with *yɛ̄lá* "about." Most such verbs have an anaphoric sense without such an object.

The verb *àe̯ň*^{a} "be something/somehow", which is uniquely flexible in the variety of different types of argument it may appear with, may take a content clause introduced by *yɛ̄* as a complement too 20.2.

19.9 Adjuncts

Adjuncts of all types occur as the last element in the VP. Several VP adjuncts may occur together. Clause-final adjuncts are always taken as VP adjuncts in this grammar, while clause-level adjuncts must precede the subject 21.2.1.

VP adjuncts may be AdvPs, prepositional phrases, or subordinate clauses.

Bà dìt nɛ̄ sā'ab dɔ́-kàŋā lā púʊgū-n.
3PL eat:IPFV FOC porridge hut-DEM.DEI.SG ART inside:SG-LOC.
"They're eating porridge in that hut."

A subordinate clause after a verb is most often a complement:

Fʊ̀ bɔ́ɔ̀d bɔ́ $^{+}$ø? "What do you want?"
2SG want what CQ?

Mɪ̀ bɔ́ɔ̀d yɛ́ fʊ̀ kūl. "I want you to go home."
1SG want that 2SG go.home.

Content clauses 26.2 are always complements:

Bʊ̀ŋ-bāň'ad zɪ̄' yɛ̄ tɛ̄ŋ tʊ́llā $^{+}$ø.
Donkey-rider:SG NEG.KNOW that ground:SG be.hot NEG.
"The donkey-rider doesn't know the ground is hot."

19.10 Verb-phrase-final particles

For the independent-perfective marker *yā*$^{+}$ see 19.6.2.1.

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 *kɛŋ*$^{ɛ/}$ "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 kú'ə̀m náa $^{+}$*ø?* "Shall I bring water?" SB
1SG have water hither PQ?

Bùgʊ́m lā yít yáa ní ná $^{+}$*ø?*
Fire ART emerge:IPFV where LOC hither CQ?
"Where is the light coming from?"

Fù yí yáa ní ná $^{+}$*ø?*
2SG emerge where LOC hither CQ?
"Where have you come from?" WK

Sà$^{+}$ is often used temporally, for "since" or "ago":

Fu na baŋ li nya'aŋ sa.
Fù ná báŋ lì ňyá'aŋ sá.
2SG IRR realise 3INAN behind since.
"You will come to understand afterwards." (Jn 13:7, 1976)

Lazarus pʊn bɛ yaʊgʊn la daba anaasi sa.
Lazarus pʊ́n bɛ̀ yáʊgʊ̄-n lā dābá‿ànāasí sà.
Lazarus previously EXIST grave:SG-LOC ART day:PL NUM:four since.
"Lazarus had already been in the grave four days." (Jn 11:17)

The particles are VP-final, not clause-final:

Kɛ̀m nā n gɔ̄s. "Come and look!" SB
Come:IMP hither CAT look.

Man ya'a pʊ kɛɛn na tu'asini ba ...
Mān yá' pʊ̄ kɛ̄ɛ-n nā‿ ø tʊ́'asī-ní‿bā...
1SG.CNTR if NEG.IND come-DP hither CAT talk-DP 3PL.OB...
"If I had not come to talk to them ..." (Jn 15:22)

Nā$^{+/}$ and *sà*$^{+}$ often follow any article *lā*$^{+/}$ ending an *ǹ*-clause containing them:

ba diib n yit na'ateŋ la na zug
bà dīɪb ǹ yīt ná'-tɛ̄ŋ lā nā zúg
3PL food NZ emerge:IPFV king-land:SG ART hither upon
"because their food came from the king's land" (Acts 12:20, 1996)

Closely parallel constructions may show either *nā lā* or *lā nā*:

ňwādɪg-kánì kɛ̄n ***nā lā***
month REL.SG come:IPFV hither ART
"next month" SB

dunia kanɛ ken ***la na***
dūnɪyá-kànɪ kɛ̄n lā nā
world-REL.SG come:IPFV ART hither
"the world which is coming" (Lk 20:35)

M diib anɛ ye m tʊm onɛ tʊmi m ***la na*** *bɔɔdim naae.*
Ḿ dīɪb á nɛ̄ yɛ́ m̀ túm ɔ̀nɪ tʊ̀mɪ‿m lā nā bɔ́ɔdɪ̀m‿ø nāe.
1SG food COP FOC that 1SG work REL.AN send 1SG.OB ART hither will CAT finish.
My food is that I do the will of him who sent me completely. (Jn 4:34)

ti tʊm onɛ tʊm man ***na la*** *tʊʊma.*
tì túm ɔ̀nɪ tʊ̀m mān nā lā tʊ̄ʊma
1PL work REL.AN send 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 associated article:

Nidib la daa gur Zakaria yiib na.
Nīdɪb lā dāa gūr Zakaria yîb nā.
Person:PL ART TNS watch Zechariah emerge:GER hither.
"The people were watching for Zechariah's coming out." (Lk 1:21)

Ninsaal Biig la lɛbʊg la na
Nīn-sáàl Bîg lā lɛ́bʊ̀g lā nā
Person-smooth:SG Child:SG ART return:GER ART hither
"the return of the Son of Man" (Mt 24:27)

20 The verbs "to be"

20.1 *Bɛ̀*$^{+}$ "be somewhere, exist"

Bɛ̀$^{+}$ is followed by M spreading even when not carrying the independency-marking tone overlay; it is formally as well as semantically imperfective.

With no locative *bɛ̀*$^{+}$ means simply "exist":

Wínà'am bɛ́. "God exists."
God EXIST. (Calque of the West African Pidgin *God dey*, implying "It'll all work out in the end.")

Àláafù bɛ́·o‿ø. "She's well." ("Health exists for her.")
Health EXIST 3AN.OB.

Wāad bɛ́. "It's cold."
Cold.weather EXIST.

Before a locative, *bɛ̀*$^{+}$ means "be located in a place" when the locative is focussed or foregrounded 28.1, but "exist in a place" otherwise:

Mam bene moogin. "I'm in the bush." BNY p8
Mām bɛ́ nɛ̄ mɔ̄ɔgʊ-n.
1SG.CNTR EXIST FOC grass:SG-LOC.

Moogin ka mam bɛ. "I'm in the bush." BNY p10
Mɔ̄ɔgʊ́-n kà mām bɛ́.
Grass:SG-LOC and 1SG.CNTR EXIST.

Dāu̯ lā bɛ́ nɛ̄ dɔ́-kàŋā lā púʊgʊ̄-n.
Man:SG ART EXIST FOC hut-DEM.DEI.SG ART inside:SG-LOC.
"The man is inside that hut." (Reply to "Where is that man?")

Dàu̯-sɔ̄' bɛ́ dɔ́-kàŋā lā púʊgʊ̄-n.
Man-INDF.AN EXIST hut-DEM.DEI.SG ART inside:SG-LOC.
"There's a certain man in that hut."

Bɛ̀$^{+}$ is common in presentational constructions 28.4.

For the corresponding negative *kā'e̯*$^{+}$ see 19.5.1. **pʊ̄ bɛ́* is not used.

Bɛ̀$^{+}$ plays a rôle analogous to a "passive" to *mɔ̄r*$^{a/}$ "have" in constructions like:

M̀ bīig bɛ́. "I have a child."; equivalent to
1SG child:SG EXIST.

M̀ mɔ́r bīig.
1SG have child:SG.

M̀ bīig kā'e ⁺ø. "I have no child."; equivalent to
1SG child:SG NEG.BE NEG.

M̀ kā' bīiga ⁺ø.
1SG NEG.HAVE child:SG NEG.

Bɛ̀⁺ can be used in direct commands:

Bɛ́ɛ̑ ànínā. "Be (i.e. stay) there!" SB
EXIST ADV:there.

Bɛ̄e-nɪ́̑ àlá ànínā. "Be ye there!" [bɛ:nala anina]
EXIST-2PL.SUB ADV:thus ADV:there.

20.2 *Àe̯ň*ᵃ "be something/somehow"

The *e̯* of the SF of *àe̯ň*ᵃ is always lost except on the rare occurrence of the word phrase-finally 8.5.2.

Ò à nɛ̄ bīig. "She is a child."
3AN COP FOC child:SG.

Lì àň sʊ́ŋā. "It's good."
3INAN COP good:ADV.

but *Mānɪ̑ ø áň dʊ̯'átà kà fʊ̄n mɛ́n áe̯ň.*
1SG.CNTR CAT COP doctor:SG and 2SG.CNTR also COP.
"I'm a doctor and you are too."

The usual negative uses the negative verb *kā'e̯*⁺ "not be":

M̀ kā' dʊ̯'átāa ⁺ø. "I'm not a doctor."
1SG NEG.BE doctor:SG NEG.

However, *pʊ̄ áe̯ň* can occur, for example in contrasts:

Mānɩ‿ ø áň du̯'átà àmáa fʊ̄n pʊ̄ áňyā +*ø .*
1SG.CNTR CAT COP doctor:SG but 2SG.CNTR NEG.IND COP NEG.
"I'm a doctor but you aren't."

Àe̯ňa can be used in direct commands:

Àň bāaňlím! "Be quiet!"
COP quiet:ABSTR!

Āa-nɩ́‿ àlá bāaňlím! "Be (ye) quiet!"
COP-2PL.SUB ADV:thus quiet:ABSTR!

As with English copular clauses, the sense may be ascriptive or specifying (cf CGEL p266.) If it is **ascriptive**, the complement is non-referring, and normally focussed with *nɛ̄*+/ 28.1.2.2 if permitted 28.1.2.1.1 28.1.2.1.3:

Ò à nɛ̄ bīig. "She is a child."
3AN COP FOC child:SG.

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

In **specifying** constructions focus frequently falls on the subject, which usually then has *n*-focus 28.1.1:

Manɛ an kɔnbkem sʊŋ la.
Mānɩ‿ ø áň kɔ́ňb-kìm-sʊ̀ŋ lā.
1SG.CNTR CAT COP animal-tender-good:SG ART.
"I am the good shepherd." (Jn 10:11)

Mane a o. "I am he." (Jn 18:5, 1976)
Mānɩ‿ ø áň·o‿ø.
1SG.CNTR CAT COP 3AN.OB.

Nɔbibisi a mam disuŋ.
Nɔ̄-bíbɩsì‿ ø áň mām dɩ́-sʊ̀ŋ.
Hen-small:PL CAT COP 1SG.CNTR food-good:SG.
"Chicks are my favourite food." BNY p13

Nɛ'ɛŋa an Yesu [...] *yaanam yɛla.*
Nɛ̄'ŋá àň Yesu [...] *yáa-nám yɛ́là.*
DEM.DEI.INAN COP Jesus [...] ancestor-PL about.
"This is the account of Jesus' ancestors." (Mt 1:1)

When the complement of *àe̯ňᵃ* is definite, the construction is usually specifying, with the subject in focus:

M̀ á nɛ̄ du̯'átà. "I'm a doctor." ("What do you do?")
1SG COP FOC doctor:SG. Ascriptive.

but *Mānı‿ ø áň du̯'átà lā.* "I'm the doctor." ("Which one is the doctor?")
1SG.CNTR CAT COP doctor:SG ART. Specifying.

However, definite complements may be in focus as "pragmatically non-recoverable" because of their internal structure or other factors: see 28.1.2.2.

Àe̯ňᵃ 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 17.5:

Zīná a nɛ̄ dá'a. "Today [time] is market."
Today COP FOC market:SG.

Yiŋ venl, ka poogin ka'a su'um.
Yìŋ vɛ́ňl kà pūʊgʊ-n kā' sʊ́mm $^{+}$*ø.*
Outside be.beautiful and inside:SG-LOC NEG.BE good:ABSTR NEG.
"Outside is beautiful but inside [place] is not good." (Acts 23:3, 1996)

Man noŋi ya si'em la ane bedego.
Mán nɔ̀ŋı‿ yā sī'əm lā á nɛ̄ bɛ́dʊgʊ̄.
1SG:NZ love 2PL.OB INDF.ADV ART COP FOC much.
"How much I love you [manner], is a lot." (2 Cor 7:3, 1976)

Àe̯ňᵃ 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 16.11.1.3.

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."

Most adjectives do not permit this. All examples in my materials involve adjectives without corresponding adjectival verbs, or having human reference (cf the adjectival use of human-reference nouns 16.11.1.5.) More often, compounds with *nīn-* "person" or *bʊ̄n-* "thing" + adjective 16.10.4 are used:

Ò à nɛ̄ nīn-sʊ́ŋ. "She's a good person."
3AN COP FOC person-good:SG.

Dīɩb á nɛ̄ bʊ̄n-sʊ́ŋ. "Food is a good thing."
Food COP FOC thing-good:SG.

Even adjectives which may appear without a noun head cannot do so before a postdeterminer pronoun; thus only

Lì à nɛ̄ bʊ̄n-píə̀l-kàŋā. "It is this white one."

Àe̯ňᵃ often takes a manner-adverb or deadjectival abstract noun as complement. Such constructions are ascriptive, and use *nɛ̄*$^{+/}$ where syntactically permissible:

Lì à nɛ̄ ná'anā. "It's easy."
3INAN COP FOC easily.

Lì à nɛ̄ zāalím. "It's empty."
3INAN COP FOC empty:ABSTR.

Lì à nɛ̄ bʊ̄gʊsígā. "It's soft."
3INAN COP FOC soft:ADV.

Lì àň sʊ́ŋā. "It's good." 28.1.2.1.3
3INAN COP good:ADV.

Possible complements of *àe̯ňᵃ* also include circumstance-AdvPs 25.2 and even content clauses:

M diib anɛ ye m tʊm onɛ tʊmi m la na bɔɔdim naae.
M̀ dīɩb á nɛ̄ yɛ́ m̀ tʊ́m ɔ̀nɩ tʊ̀mɩ‿m lā nā bɔ́ɔdìm‿ø nāe.
1SG food COP FOC that 1SG work REL.AN send 1SG.OB ART hither will CAT finish.
My food is that I do the will of him who sent me completely. (Jn 4:34)

21 Clauses

Typical clauses consist of a subject NP followed by a VP. Clause-linker particles and clause adjuncts may precede the subject position; post-subject particles may intervene between NP and VP.

21.1 Clause types

Criteria for describing a clause as **main** or **subordinate** do not always neatly align. **Independency marking** of VPs 19.6 in principle marks a clause as non-subordinate, but the matter is complicated by **downranking** of main clauses to function as subordinate content clauses without internal alteration, and by the fact that main clauses preceded by the linker particle *kà* "and" in its *coordination* function always lack independency marking. Historically, *kà* was perhaps once consistently subordinating; its coordinating function may have arisen by **insubordination**, "the conventionalised main-clause use of what, on prima facie grounds, appear to be formally subordinate clauses" Evans 2009.

Three types of clause subordination can be distinguished: **nominalisation**, **catenation**, and **complementisation**.

	independency-marked	not independency-marked
main	main without *kà* 22	*kà* coordinated main 22.2 (*kà* sequential 22.2.1)
complementised	*yɛ̄*/*kà* content 26.2	*yɛ̄*/*kà* purpose 26.1
catenated		*n*/*kà* catenation 23
nominalised		*ǹ* absolute/relative 25 *yà'* conditional 24.1

Main and content clauses can be statements, questions or commands. *Kà*-preposing is found only in these clause types and in relative clauses with initial antecedents 25.3.2. Only (non-sequential) main clauses and content clauses may lack VPs altogether.

Clause types marked by the post-subject particles *ǹ* and *yà'* are nominalised. They are unproblematically subordinate, and always lack independency marking. They differ from catenated and purpose clauses in having independent tense marking. *Yà'*-clauses and *sādɪgím*-clauses only appear as postlinker clause adjuncts, do not participate in NP or VP formation, and cannot be coordinated. Otherwise, *ǹ*-clauses are coordinated with *nɛ̄* like other AdvPs and NPs, whereas all other clauses are coordinated with *kà*:

... paˈali ba [*on daa nyɛ Zugsɔb la suorin,* ***ka*** *o pianˈ tis o siˈem*],
nɛ [*Saul n mɔɔl Yesu yɛla nɛ sʊnkpiˈeuŋ Damaskus teŋin siˈem.*]
... pá'alì‿bā ɔ́n dāa ňyɛ̄ Zūg-sɔ́b lā sūərí-n, kà ò
... teach 3PL.OB 3AN:NZ TNS see head-one:SG ART road:SG-LOC and 3AN
pi̱ā̌ňˈ‿ø tís·ò‿ø sīˈəm, nɛ̄ Saul n mɔ̄ɔl Yesu yɛ́là
speak CAT give 3AN.OB INDF.ADV with Saul NZ proclaim Jesus about
nɛ̄ sūň-kpíˈòŋ Damaskus tɛ́ŋī-n sīˈəm.
with heart-strength Damascus land:SG-LOC INDF.ADV
"informing them how he had seen the Lord on the road and He had spoken to him, and how Saul had preached boldly about Jesus in Damascus." (Acts 9:27)

Catenated clauses lack their own subjects when introduced by the particle *n*, and frequently resemble serial verb constructions, but show a greater range of potential structures and functions. Catenated clauses introduced by *kà* have their own subjects. Catenated clauses are clearly subordinate and always lack independency marking and tense marking. Catenation involves a more intimate union between the main and subordinate clauses than complementisation; in particular, catenated clauses are part of their main clauses for focus purposes, and the main clause is frequently semantically subordinate to the catenated clause.

Complementised clauses are introduced by *yɛ̄* "that", or less often *kà*, following any catenated clauses. They fall into two groups. **Purpose** clauses lack independency marking and have VPs with imperative mood; they show tense marking only if the main clause is ellipted.

M̀ pū bɔ́ɔ̀d ***yɛ́*** *fù kɛ̄ŋ Bɔ́kɔ̄* ⁺*ø.*
1SG NEG.IND want that 2SG go Bawku NEG.
"I don't want you to go to Bawku."

On the other hand, **content** clauses 26.2 are downranked main clauses, with both independency marking and the full range of possible main clause structures. They function as complements of verbs of cognition, reporting, and perception:

Ka o baˈ nɛ o ma pʊ baŋ ***ye*** *o kpɛlim yaa.*
Kà ò bā' né ò mà pū báŋ yɛ́ ò kpèlım yāa ⁺*ø.*
and 3AN father:SG with 3AN mother:SG NEG.IND realise that 3AN remain PFV NEG.
"His father and mother did not realise that he had remained." (Lk 2:43)

In coordinating main clauses, *kà* is never followed by independency marking. The **sequential clauses** of narrative are a distinct subtype 22.2.1.

A clause must be subordinate if it precedes clause-final elements belonging to the preceding clause, such as negative prosodic clitics 27.1:

ka pʊ nar ***ka*** *ba buolim ye* ***Tʊmtʊmma***
kà pū nár kà bà búəlì‿m yɛ̄ Tʊ́m-tʊ̄mma +*ø.*
and NEG.IND must and 3PL call 1SG.OB that work-worker:SG NEG.
"and (I) ought not to be called an apostle" (1 Cor 15:9)

The structure can be obscured by extraposition 28.3. Even a catenated clause after *kɛ̄*+ "cause" is unexpectedly placed after the VP-final perfective marker *yā*+ in

Amaa Wina'am kɛya ka ya an nɔɔr yinne nɛ Yesu Kristo.
Àmáa Wínà'am kɛ́ yá kà yà áň nɔ̄ɔr yīnní nɛ̄ Yesu Kristo.
But God cause PFV and 2PL COP mouth:SG one with Jesus Christ.
"But God has caused you to be in agreement with Jesus Christ." (1 Cor 1:30)

Any type of subordinate clause can be embedded, potentially recursively, in any other, with the exception that complementised clauses cannot be embedded in a clause with a following catenated clause.

A catenated clause embedded in a content clause in a purpose clause:

M pʊ bɔɔd [*ye fʊ ti yɛl bɛog daar* [*ye fʊnɛ kɛ* [*ka mam Abram lieb bʊmmɔra.*]]]
Ǹ pū bɔ́ɔ̀d yɛ́ fʊ̀ tí yɛ̀l bɛ̄og dāar yɛ̄ fʊ̄nɪ‿ ø
1SG NEG.IND want that 2SG after say tomorrow day.after.tomorrow that 2SG.CNTR CAT
kɛ́ kà mām Abram líəb bʊ̄n-mɔ́rā +*ø.*
cause and 1SG Abram become thing-haver:SG NEG.
"I do not want you afterwards some day saying that it was you who made me, Abram, rich."(Gen 14:23)

A content clause within an absolute nominalised clause:

[*ban mi'* [*ye biig la kpinɛ la*]] *zug*
bán mī' yɛ̄ bīig lā kpí nɛ̄ lā zúg
3PL:NZ know that child:SG ART die FOC ART upon
"because they knew that the child was dead" (Lk 8:53)

A *n*-catenated clause within a relative nominalised clause:

[*Paul n sob gbauŋ si'a* [*n tis Efesus dim la*]] *nwa.*
Paul ǹ sɔ̄b gbáu̱ŋ-sī'a n tís Efesus dím lā‿ø ňwá.
Paul NZ write book-INDF.INAN CAT give Ephesus individual.PL ART CAT this.
"This is the letter Paul wrote to the Ephesians." (1996 NT heading)

21.2 Structure

Except in special circumstances, clauses require a subject NP, which is followed by a VP, with any post-subject particles 21.2.3 intervening.

The **clause-linker particles** *kà* "and" and *yɛ̄* "that" are placed before the subject (which may itself be ellipted after *kà*.) Clause-level adjuncts may precede, follow, or occupy the clause-linker position.

While *yɛ̄* is invariably subordinating, *kà* may be coordinating or subordinating. The gloss "and" is merely conventional; *kà* is used in a great variety of constructions with meanings that vary considerably 23.3 22.2 26 28.2.

Kusaal is strictly SVO; deviations not achieved by *kà*-preposing always represent extraposition 28.3. Indirect objects precede direct, and objects precede other complements. VP adjuncts follow complements.

Emphatics 28.6 are clause-level particles which follow top-level NPs or AdvPs.

Main clauses and content clauses have similar structures. Both display independency marking on the first VP 19.6, and have structural possibilities not permitted to other clauses. They may also lack VPs altogether 22.3.

21.2.1 Clause adjuncts

Clause-level adjuncts precede the subject position. They fall into three groups: prelinker adjuncts, linker adjuncts and postlinker adjuncts, which respectively precede, occupy, or follow the clause linker position.

Besides the clause-linker particles *kà* "and" and *yɛ̄* "that" themselves, English conjunctions largely correspond to linker adjuncts and prelinker adjuncts.

Linker adjuncts do not occur along with linker particles at all. They include

kʊ̄ʊ	"or" (← Hausa)
bɛ̄ɛ	"or"
dìn zúgɔ̄	"therefore"
lìn zúgɔ̄	"therefore"
àlá zùgɔ̄	"thus"
bɔ̄ zúgɔ̄	"because"

Bɔ̄ zúgɔ̄, stigmatised as an Anglicism in ILK, is in fact freely used in NT/KB for "because."

Police gbáňˈa‿m bɔ̄ zúgɔ́ m̀ ňwɛ́ˈ dāu̱ lā.
Police seize 1SG.OB because 1SG hit man:SG ART.
"The police arrested me because I hit the man." (ILK)

It also appears after an absolute clause, just like the postposition *zūgɔ́* alone.

Prelinker adjuncts may precede but never follow linker particles.

àmáa	"but" (cf Arabic امّا *ʔamma:* "as for")
hālí	"until" (cf Arabic حتى *ħatta:*); preposition 18
àsɛ́ɛ	"unless" (cf Hausa *sai*); preposition
àlá zùg	"thus"

KB has no examples of *kà àmáa* to 365 of *àmáa kà*, one of *kà àsɛ́ɛ* to 247 of *àsɛ́ɛ kà* and 436 examples of *hālí kà* but none of *kà hālí* as a clause adjunct. The orders are thus almost without exception as in

Ka sieba la' o. ***Amaa ka*** *sieba yɛl ye ...*
Kà sīəba lá'·o‿ ø. *Àmáa kà sīəba yɛ́l yɛ̄ ...*
And INDF.PL laugh 3AN.OB. But and INDF.PL say that...
"Some laughed at him, but others said..." (Acts 17:32)

Prelinker adjuncts precede *yɛ̄*, both as linker and "resumptive" *yɛ̄* 26.2.1:

Wina'am daa pʊ gaŋi ti ye ti tʊm dian'ad tʊʊma, ***amaa ye*** *ti bɛ nyain.*
Wínà'am dāa pū gāŋí‿ tī yɛ́ tì tʊ́m dị̄ā'ad tʊ́ʊmà ⁺ø,
God TNS NEG.IND choose 1PL.OB that 1PL work dirt work NEG,
àmáa yɛ́ tì bɛ́ ňyāe.
but that 1PL EXIST brightly.
"God did not choose us so that we would do the work of impurity, but so that we would be in cleanliness." (1 Thess 4:7)

Postlinker adjuncts follow any clause-linker particle or other clause adjunct but precede all other clause constituents, including *kà*-preposed elements:

Amaa ***on sadigim kpi la****, bɔ ka m lɛm lɔɔd nɔɔr ya'asɛ?*
Àmáa ɔ́n sādɪgím kpí lā, bɔ́ kà m̀ lɛ́m
But 3AN:NZ since die ART, what and 1SG again
lɔ̄ɔd nɔ̄ɔr yá'asɛ̀ ⁺ø ⁺ø*?*
tie:IPFV mouth:SG again NEG CQ?
"But since he has died, why should I still be fasting?" (2 Samuel 12:23)

Certain categories of constituent occur *exclusively* as postlinker adjuncts: *yà*'-clauses "if/when ..." 24.1, *sādɪgím*-clauses 25.2, *bɛ̄ogɔ́* "tomorrow" and *dāa-sí'ɛrɛ̄* "perhaps." When *yà*'-clauses or *sādɪgím*-clauses appear after main clauses, this represents extraposition 28.3.

In addition, AdvPs referring to time, circumstance or reason may be either be used as postlinker adjuncts or as VP adjuncts. All VP adjunct AdvPs, including also those referring to place or manner, may be placed before the clause subject by *kà-* preposing 28.2. This means that AdvPs referring to time, circumstance or reason can potentially occur before the subject alone, preceded by *kà*, followed by *kà*, or both preceded and followed by *kà*, whereas other types of AdvP *must* be followed by *kà* when they appear before the subject. Thus

Nānná-ná m̀ áň ná'àb. "Now I am a chief."
Now-hither 1SG COP chief:SG.

is grammatical, but **Mɔ̄ɔgú-n mām bɛ́* was corrected by WK to

Mɔ̄ɔgú-n kà mām bɛ́. "I'm in the bush."
Grass:SG-LOC and 1SG.CNTR EXIST.

(Cf English VP-oriented and clause-oriented AdvP adjuncts, CGEL pp575f.)

Any AdvPs or clauses expressing time, circumstances, or reason may appear as postlinker adjuncts, including absolute clauses, *dìn zúg* "therefore" *lìn zúg* "therefore", *lì ňyá'aŋ*ª "afterwards", *lín à sī'əm lā* "as things stand", *àsīda* "truly."

In KB *nannanna nānná-nā*$^{+/}$ "now", and *dìn zúg* and *lìn zúg* "therefore" without final *-ɔ̄* appear with the following distributions:

	X alone	*kà* X	X *kà*	*kà* X *kà*
nānná-nā	394	23	16	4
dìn zúg	154	8	99	15
lìn zúg	29	3	43	20

Thus while *nānná-nā* is much more often used as a clause adjunct than not, *dìn zúg* and *lìn zúg* are very often treated as *kà*-preposed VP adjuncts. This state of affairs has probably arisen through originally VP-only *dìn zúg* and *lìn zúg* encroaching on the function of the corresponding linker adjuncts *dìn zúgɔ̄* and *lìn zúgɔ̄*.

Bɔ̄ zúg, without final *-ɔ̄*, appears in KB only in the *kà*-preposed form *bɔ̄ zúg kà ...?* "why ...?"

Bɔzug ka li aan ala? "Why is it so?" (Haggai 1:9)
Bɔ̄ zúg kà lì áaň àlá $^{+}$*ø?*
What on and 3INAN COP thus CQ?

WK generally uses *nānná-nā*$^{+/}$ "now" as a clause adjunct but *requires kà* after *kà nānná-nā*, suggesting that that for him *nānná-nā*$^{+/}$ is normally a *prelinker* adjunct:

Kà *nānná-ná* ***kà*** *m̀ áň ná'àb.* "And now I am a chief."
And now-hither and 1SG COP chief:SG. Rejected by WK without the second *kà*

Clause adjuncts are with few exceptions found only in main and content clauses. Despite the semantics, the position of the negative prosodic clitic shows that the *kà*-clauses are not subordinate in e.g.

O pʊ yɛɛd ***fuugɔ****, hali ka li yuug.*
Ò pū yɛ́ɛ̀d fūugɔ́ ⁺ø, hālí kà lì yúùg.
3AN NEG.IND wear:IPFV shirt:SG NEG, even and 3INAN take.long.
"He had not worn clothes for a long time." (Lk 8:27)

M kʊ basif ka fʊ ***kengɛ*** *asɛɛ ka fʊ ningi m zug bareka.*
Ǹ kú bāsí‿f kà fʊ̀ kɛ̄ŋɛ́ ⁺ø àsɛ́ɛ kà fʊ̀ níŋì‿m̀ zūg bárɪkà.
1SG NEG.IRR leave 2SG.OB and 2SG go NEG unless and 2SG do 1SG head:SG blessing.
"I will not let you go unless you bless me." (Genesis 32:26)

However, *hālí* can be a prelinker adjunct before a *n*-catenated clause:

Ti nwa'ae li hali paae Nofa.
Tì ňwá'a‿lī hālí‿ø pāe Nofa.
1PL strike 3INAN.OB until CAT reach Nophah.
"We struck them as far as Nophah." (Numbers 21:30)

...ka keŋ iee yinne kanɛ bɔdig la hali ti nyɛɛ o?
...kà kɛ̄ŋ‿ø i̱á yīnní-kànɪ bɔ̀dɪg lā hālí‿ø tì ňyɛ̄·ó-o ⁺ø?
...and go CAT seek one-REL.SG get.lost ART until CAT after see-3AN.OB CQ?
"... and go and look for the one which is lost until he finds it?" (Lk 15:4)

Wʊ̄ʊ "like" 18 can be a linker adjunct before a content clause:

ka tuumbe'ed ***ku*** *len so'e ti wuu ti aa li* ***yamugo****.*
kà tʊ̀ʊm-bɛ̄'ɛd kú lɛ̄m sʊ́'ʊ‿tī wʊ̄ʊ tì áaň‿lì yàmmʊgɔ̄ ⁺ø.
and work-bad:PL NEG.IRR again own 1PL.OB like 1PL COP 3INAN slave:SG NEG.
"and that sin will not again own us as if we were its slave." (Rom 6:6, 1996)

*M pian'adi tisidi ya wʊʊ ya a****nɛ*** *m biis nɛ.*
Ǹ pi̱áň'adī‿ø tísɪ̀dī‿ yá wʊ̄ʊ yà á né m̀ bīis nɛ̄.
1SG speak:IPFV CAT give:IPFV 2PL.OB like 2PL COP FOC 1SG child:PL like.
"I talk to you as if you were my children." (2 Cor 6:13)

21.2.2 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 tʊ̀l. "It [weather] is hot."
3INAN be.hot.

Lì àň sʊ́ŋā. "It's good."
3INAN COP good:ADV. Contrast Mooré *yaa sõama*, with no pronoun.

Lì nàr kà fʊ̀ kūl. "It's necessary for you to go home."
3INAN must and 2SG go.home.

The dummy pronoun is always *lì*, never *ò*. It may be omitted in *yà*'-clauses:

Ya'a ka'anɛ alaa, m naan kʊ yɛlinɛ ya ye ...
Yà' kā'a-ní‿àlá, m̀ nāan kʊ́ yɛ̄lɪ-ní‿yā yɛ̄ ...
If NEG.BE-DP ADV:thus, 1SG then NEG.IRR say-DP 2PL.OB that...
"If it were not so, I would not have told you that ..." (Jn 14:2)

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. Any M spreading after the pronoun remains 8.3. Pronouns after *kà* introducing a content clause are not subject to deletion, and *kà*-catenation typically involves a change of subject, so this deletion is characteristic of coordinating *kà*, especially narrative.

A non-deleted subject pronoun after *kà* thus usually signals a change of subject. A conversation may be reported simply by *Kà ò yɛ́l ... kà ò yɛ́l ...* with each *ò* marking a switch of speaker.

Kusaal strictly requires pronouns to refer to the last grammatically possible antecedent; with blurring of gender agreement 16.3.1 this can mean any antecedent of the same number, and can trump semantic appropriateness, e.g.

Pʊ̱'ā lā dá' dāká kà kɛ̄ŋ Bɔ́k.
Woman:SG ART buy box:SG and go Bawku.
"The woman bought a box and went to Bawku." WK

but *Pʊ̱'ā lā dá' dāká kà ò kɛ̄ŋ Bɔ́k.*
Woman:SG ART buy box:SG and 3AN go Bawku.
"The woman bought a box and it went to Bawku." WK

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 absolute clause:

Ban wʊm nɛ'ɛŋa la ka sin.
Bán wʊ̀m nɛ̄'ŋá lá kà sīn.
3PL:NZ hear DEM.DEI.INAN ART and be.silent.
"After they heard this they fell silent." (Acts 11:18)

See 22.1.3 for omission and movement of subject pronouns in commands.

Elsewhere, absence of subject pronouns is due to *informal* ellipsis 21.3; such structures are "corrected" when informants' attention is drawn to them. M spreading after the pronoun again remains:

Náe yàa ⁺ø? "[Have you] finished?"
Finish PFV PQ?

21.2.3 Post-subject particles

Two particles marking nominalised subordinate clause types follow the subject: *yà'* "if" 24.1 and nominaliser-*ǹ* 25; *sādɪgím* "since" follows *ǹ* 25.2. Other particles found after the clause subject are

sɪ̀d "truly"

Ò sɪ̀d dāa á nɛ̄ ná'àb. "Truly, he was a chief." WK
3AN truly TNS COP FOC chief:SG.

kʊ̄lɪm or ***kʊ̄dɪm*** "always" (← Hausa) is most often found with negatives:

Ka so' kudin ku len nyee li ya'asa.
Kà sɔ̄' kʊ̄dɪm kú lɛ̄m ňyɛ́ɛ̰ lī yá'asā ⁺ø.
And INDF.AN ever NEG.IRR again see 3INAN.OB again NEG.
"Nobody will ever see it again." (Rev 18:21, 1996)

ňyāan or ***nāan*** 24.1.2 "next, afterwards"

Ka Yesu tans nɛ kʊkɔtita'ar ka nyaan kpi.
Kà Yesu táňs nɛ̄ kʊ́kɔ̄-títā'ar kà ňyāan kpí.
And Jesus shout with voice-great:SG and next die.
"Jesus cried out with a loud voice and then died." (Mt 27:50)

pà' tì "perhaps":

Onɛ pa'ati an Kristo la bɛɛ?
Ɔ̄nɩ‿ ø pá' tì àň Kristo lā bɛ́ɛ +*ø?*
3AN.CNTR CAT perhaps COP Christ ART or PQ?
"Perhaps he is the Christ?" (Jn 4:29)

yʊ̄'ʊn "then, next"

Manoa yʊ'ʊn da baŋ ye o anɛ Zugsɔb maliak.
Manoa yʊ̄'ʊn dá bàŋ yɛ́ ò à nɛ̄ Zūg-sɔ́b máli̯āk.
Manoah then TNS realise that 3AN COP FOC head-one:SG angel:SG.
"Then Manoah realised that he was an angel of the Lord." (Judges 13:12)

21.3 Ellipsis

Informal ellipsis is liable to be declared incorrect by speakers if their attention is drawn to it; it does not affect meaning. More systematic ellipsis may imply anaphora or avoid repetition, as after *kà* (see above), with VP complements 19.8.1, coordination within NPs 16.7, implicit tense marking 19.3.5, or omission of *nɛ̄*+/ in replies to questions 28.1.2.1.2. Ellipsis can become fully formalised, as with *yɛ̀l* before *yɛ̄* 26.2, questions with *kʊ́ʊ*+ or *bɛ́ɛ*+ 22.1.2, indirect commands 26.1 26.2.1, *kà*-preposing and *n*-focus 28.1.1 28.2 or *hālí*+ as a stand-alone intensifier 28.6.

Clause-level clitics, but not phrase-level, can be left standing alone by ellipsis:

Wina'am tisid ... ka mɛ tisid ...
Wínà'am tísìd ... kà mɛ́ tɩsɩd ...
God give:IPVF ... and also give:IPFV ...
"God gives ... and [God] also gives ..." (1 Cor 15:38); emphatic *mɛ̀* 28.6

Ellipsis of repeated elements in clause coordination is common, e.g.

Dāu̯ lā ňyɛ́ bī-díbìŋ kʊ̄ʊ bī-pʊ́ŋàa +*ø?*
Man:SG ART see child-boy:SG or child-girl:SG PQ?
"Did the man see a boy or a girl?"

When purpose clauses are coordinated, the *yɛ̄* of *kà yɛ̄* can be ellipted:

M̀ bɔ́ɔ̀d yɛ̄ dāu̯ lā kɛ̄ŋ dá'a-n, kà pu̯'ā lā dʊ̄g dīɩb.
1SG want that man:SG ART go market:SG-LOC, and woman:SG ART cook food.
"I want the man to go to market and the woman to cook food." WK

22 Main clauses

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 26.2. Both clause types display independency marking on the first VP 19.6. They can show focussing with *ǹ*, clefting, and *kà-* preposing 28. Unlike subordinate clauses, they may lack VPs altogether.

22.1 Main clause types

Declarative main clauses are the unmarked default.

22.1.1 Content questions

Content questions (except those with *lìa* 22.3.2) contain an interrogative pronoun; the final word of the question appears as a LF with a tone perturbation due to the following content-question prosodic clitic 8.1.

The focus particle *nɛ̄*$^{+/}$ may not be used in content questions, either in constituent-focus or temporal senses 28.1.2.1.1.

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 28.1.1 when syntactically possible:

Fù bɔ́ɔ̀d bɔ́ $^{+}$ø?	"What do you want?"
2SG want what CQ?	
Fù bɔ́ɔ̀d línɛ̀ $^{+}$ø?	"Which do you want?"
2SG want DEM.INAN CQ?	
Ànɔ́'ɔnì‿ø ňyɛ̄ bíigà $^{+}$ø?	"Who has seen a child?"
Who CAT see child:SG CQ?	
Ànɔ́'ɔ̀n bīigı‿ø ňwá $^{+}$ø?	"Whose child is this?"
Who child:SG CAT this CQ?	
Dāu̯ lā ňyɛ́ ànɔ́'ɔnɛ̀ $^{+}$ø?	"Whom did the man see?"
Man:SG ART see who CQ?	

Interrogatives other than subjects are very often *kà*-preposed 28.2:

Ànɔ́'ɔ̀n kà dāu̯ lā ňyɛ́ɛ +*ø?*
Who and man:SG ART see CQ?
"Whom did the man see?"

Preposing is obligatorily so in the case of *bɔ̄ zúg*, "why?" 21.2.1 and *bɔ̄* when used in the same sense:

Bɔ́ kà fù kúmmà +*ø?* "Why are you crying?"
What and 2SG weep:IPFV CQ?

22.1.2 Polar questions

Polar questions are of two types. One is exactly like a statement but with final LF and tone changes due to the polar-question prosodic clitic; in this case the neutralisation of LF-final vowel length is to long 8.1. There are no restrictions on focus-*nɛ̄*+/. The answer expected is *ɛ̄ɛňɛ* 22.3.4.

Dāu̯ lā ňyɛ́ bíigàa +*ø?* "Has the man seen a child?"
Man:SG ART see child:SG PQ?

Bà kʊ̀ʊd nɛ̄ búʊsɛ̀ɛ +*ø?* "Are they killing goats?"
3PL kill:IPFV FOC goat:PL PQ?

Ǹ á nɛ̄ dáʊ̀ʊ +*ø?* "Am I a man?"
1SG COP FOC man:SG PQ?

Fù pɔ̄ wúmmàa +*ø* +*ø?* "Don't you understand?"
2SG NEG.IND hear:IPFV NEG PQ? (expects *ɛ̄ɛňɛ*, here "no")

The second type of polar question follows the ordinary statement form with either *bɛ́ɛ* "or" (expecting disagreement, with *áyìɪ*) or *kúʊ* "or" (expecting agreement, with *ɛ̄ɛňɛ*.) NT rarely uses *kʊ̄ʊ* in this way.

Dāu̯ lā ňyɛ́ bīig kúʊ +*ø?*
Man:SG ART see child:SG or PQ?
"Has the man seen a child?" (I expect so.)

Dāu̯ lā ňyɛ́ bīig bɛ́ɛ +*ø?*
Man:SG ART see child:SG or PQ?
"Has the man seen a child?" (I expect not.)

22.1.3 Commands

For indirect commands, see 26.1 26.2.1.

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 ^{ya}; for the realisation of ^{ya} see 8.2.1 8.2.3. Thus

Fù gɔ́s bĩig lā. "You (sg) have looked at the child."
2SG look.at child:SG ART.

Yà gɔ́s bĩig lā. "You (pl) have looked at the child."
2PL look.at child:SG ART.

but *Gɔ̀sɪm bĩig lā!* "Look (sg) at the child!"
Look.at:IMP child:SG ART!

Gɔ̀sɪmī‿ ø bĩig lā! "Look (pl) at the child!"
Look.at:IMP 2PL.SUB child:SG ART!

Gɔ̀sɪm tɛ̄ŋɪ-n! "Look (sg) down!"
Look:IMP ground:SG-LOC!

Gɔ̀sɪmī‿ø tɛ̄ŋɪ-n! "Look (pl) down!"
Look:IMP 2PL.SUB ground:SG-LOC!

Dā gɔ̄s tɛ̄ŋɪ-nɛ́ ⁺ø! "Don't (sg) look down!"
NEG.IMP look ground:SG-LOC NEG!

Dā gɔ̄sɪ‿ø tɛ̄ŋɪ-nɛ́ ⁺ø!
NEG.IMP look 2PL.SUB ground:SG-LOC NEG!
"Don't (pl) look down!"

Dā gɔ̄sɛ ⁺ø! "Don't (sg) look."
NEG.IMP look NEG!

Dā gɔ̄sɪ‿yá ⁺ø! "Don't (pl) look."
NEG.IMP look 2PL.SUB NEG!

Pronouns remain in place after *yà*'-clauses 24.1:

Fʊ ya'a mɔr pu'a, fʊn da mɔɔd ye fʊ bas oo.
Fʊ̀ yá' mɔ̄r pu̱'ā, fʊ̄n dā mɔ̄ɔd yɛ́ fʊ̀ bás·ō-o +ø.
2SG if have wife:SG, 2SG NEG.IMP struggle:IPFV that 2SG abandon-3AN.OB NEG.
"If you have a wife, don't try to leave her." (1 Cor 7:27)

They also remain in quoted direct commands within indirect speech 26.2.1, even when the addressee is the same as in the original utterance:

Ò yɛ̀l yɛ́ bà gɔ̀sɪm tɛ̄ŋɪ-n.
3AN say that 3PL look:IMP ground:SG-LOC.
"She said to them: Look down!" WK

Ò yɛ̀l yɛ́ fʊ̀ gɔ̀sɪm tɛ̄ŋɪ-n.
3AN say that 2SG look:IMP ground:SG-LOC.
"She said to you SG: Look down!"

Ò yɛ̀l yɛ́ yà gɔ̀sɪm tɛ̄ŋɪ-n.
3AN say that 2PL look:IMP ground:SG-LOC.
"She said to you PL: Look down!"

Some speakers still keep the enclitic ya after the verb even when there is a pronoun subject before it:

Ò yɛ̀l yɛ́ bà gɔ̀sɪmī‿ø tɛ̄ŋɪ-n.
3AN say that 3PL look:IMP 2PL.SUB ground:SG-LOC.
"He said to them: Look down!" WK

In catenation, where WK does not repeat ya in VPs after the first:

Kɛ̀mī‿ ø nā n gɔ̄s!
Come:IMP 2PL.SUB hither CAT look!
"Come (ye) and look!"

such speakers have e.g.

Kɛ̀mī‿ ø nā n gɔ̄sɪ‿ø!
Come:IMP 2PL.SUB hither CAT look 2PL.SUB!
"Come (ye) and look!"

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:

Gɔ̀sɪmā!	"Look!"
Gɔ̀sɪmīyá!	"Look! (plural)

22.2 Coordinated main clauses

In coordinating function *kà* always introduces a clause *without* independency marking on the VP 21.1.

Coordinated main clauses agree in type as declarative, interrogative or imperative. They are coordinated with *kà* "and", *kʊ̄ʊ* "or", *bɛ̄ɛ* "or". *Kʊ̄ʊ* and *bɛ̄ɛ* are linker adjuncts; they are synonymous in this use.

Coordinating statements outside of narrative, *kà* has much the same sense as English "and", though *kà … lɛ̀ɛ* means "but" 19.7.1.

Coordination of direct commands:

Pʊ̀'ʊsɪm À-Wīn, kà pʊ́'ʊ̀s À-Bʊ̄gʊr.
Greet:IMP PERS-Awini, and greet PERS-Abugri.
"Greet Awini, and greet Abugri."

Coordination of questions:

Fʊ̀ bʊ́g nɛ́ɛ ⁺ø? Bɛ̄ɛ fʊ̀ gɛ́ɛ̀ňm yā kʊ́ʊ ⁺ø?
2SG get.drunk FOC PQ? Or 2SG go.mad PFV or PQ?
"Are you drunk? Or have you gone mad?"

22.2.1 Sequential clauses

Kusaal narrative joins clause after clause with *kà*, corresponding to *zero* in English. Within narrative, main clauses *without* *kà* show tense marking overwhelmingly more often than not, unless the clause contains an explicit time expression (which may be an absolute clause, see below); a rough count of the narrative portions of the first 12 chapters of Acts in the 1996 NT version shows over a fivefold excess of tense-marked over unmarked forms. 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. Kusaal narrative favours long sequences of such **sequential *kà*-clauses** with perfective aspect without tense marking, which carry on the sequence of events narrated in order.

The fact that it is specifically the presence of the clause linker *kà* which licenses the dropping of tense marking in main clauses in narrative justifies setting

up sequential clauses as a distinct main clause subtype. If tense marking could simply be omitted in narrative when it was deducible from context, this would not explain why omission requires a preceding *kà* in the absence of an explicit time expression. Further evidence for a distinct clause type arises from the fact that my informants consistently refused to accept a resultative interpretation of a perfective followed by the particle *nɛ̄*$^{+/}$ when presented in an isolated *kà*-clause without tense marking. Such clauses were always interpreted as expressing events, with the particle *nɛ̄*$^{+/}$ necessarily marking constituent focus:

Lì bɔ̀dɪg nɛ̄. 3INAN get.lost FOC.	"It's lost."
Kà lì bɔ́dìg nɛ̄. And 3INAN get.lost FOC.	Rejected by WK as ill-formed; accepted after some thought by DK, explaining the expression as contradicting "someone hid it" - contrastive VP focus
Bà kʊ̀dɪg nɛ̄. 3PL get.old FOC.	"They're old."
Kà bà kʊ́dìg nɛ̄. And 3PL get.old FOC.	"And they're old." Rejected by WK; accepted by DK with the gloss "You're saying they're old when he promised to give you new ones" - contrastive VP focus

With any tense marker, such isolated *kà*-clauses were no longer taken as sequential and *nɛ̄*$^{+/}$ was readily taken as temporal by both WK and DK:

Kà lì dāa bɔ́dìg nɛ̄. And 3INAN TNS get.lost FOC.	"And it was lost."
Kà bà sá kʊ̀dɪg nɛ̄. *Kà bà dāa kʊ́dìg nɛ̄.* *Kà bà dá kʊ̀dɪg nɛ̄.*	all acceptable as "and they were old."

It is not unusual 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, Caron pp171ff.)

Examples of tense-marking disrupting the narrative flow:

*Ka Yesu **daa** an yʊma pii nɛ ayi' la, ka ba keŋ malʊŋ la wʊʊ ban ɛɛnti niŋid si'em la. Ka malʊŋ la dabisa naae la, ka ba lɛbidi kun. Ka Yesu kpɛlim Jerusalem teŋin ka o ba' nɛ o ma pʊ baŋ ye o kpɛlim yaa. Ba **daa** tɛn'ɛs ye o dɔlnɛ ba teŋ dim la, ka keŋ ...*

Kà Yesu‿ø dáa áň yúmà pīi né àyí lā, kà bà kɛ̄ŋ málʊ̀ŋ
And Jesus NZ TNS COP year:PL ten with NUM:two ART, and 3PL go sacrifice:SG
lā wʊ̄ʊ bán ɛ̄ɛň tí nìŋɪd sī'əm lā. Kà màlʊŋ lā dábɪsà‿ø
ART like 3PL:NZ usually do:IPFV INDF.ADV ART. And sacrifice:SG ART day:PL NZ
nāe lā, kà bà lɛ́bɪdì‿ ø kūn. Kà Yesu kpɛ́lìm Jerusalem
finish ART, and 3PL return:IPFV CAT go.home:IPFV. And Jesus remain Jerusalem
tɛ́ŋī-n kà ò bā' né ò mà pʊ̄ báŋ yɛ́ ò kpɛ̀lɪm
land:SG-LOC and 3AN father:SG with 3AN mother:SG NEG.IND realise that 3AN remain
yāa +ø. Bà dāa tɛ̄ň'ɛs yɛ́ ò dɔ̀l né bà tɛ̀ŋ-dìm lā, kà kɛ̄ŋ...
PFV NEG. 3PL TNS think that 3AN accompany FOC 3PL land-person.PL ART, and go...

"When Jesus **was** twelve years old, they went to Jerusalem to sacrifice as they were accustomed to. When the days of sacrifice were over, they were going home, but Jesus remained behind in Jerusalem, and his father and mother didn't realise that he had stayed. They **thought** that he was accompanying their fellow-countrymen. And they went ..." (Lk 2:42-44)

In the genealogy of Jesus in Luke 3:23ff, which moves backwards in time, there are dozens of consecutive examples in the 1996 version 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 *dụ́'á* Y "and X begat Y."
and X beget 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** anɛ Uria pu'a. Ka Solomon du'a Rehoboam.*

Kà Jese dụ́'á ná'àb David. Kà David dụ́'á Solomon. Ò mà
And Jesse beget king:SG David. And David beget Solomon. 3AN mother:SG
dá à nɛ̄ Uria pụ́'á. Kà Solomon dụ́'á Rehoboam...
TNS COP FOC Uriah wife:SG. And Solomon beget Rehoboam...

"And Jesse begat King David. And David begat Solomon. His mother **was** Uriah's wife. And Solomon begat Rehoboam..." (Mt 1:6-7)

Very long series of coordinated "asides" do sometimes drop tense marking; in KB the genealogy of Jesus in Lk 3:23ff shows *ka X saam da anɛ Y* at the beginning of paragraphs in the text, but *ka X saam an Y* otherwise.

In texts, dynamic imperfectives appear without temporal *nɛ̄*$^{+/}$ in sequential clauses to express several instances of an event:

Ka on kpɛn' la, o yɛli ba ye [...]*. Ka ba* ***la'ad*** *o.*
Kà ɔ́n kpɛ̀ň' lā, ò yɛ́lì‿bā yɛ̄ [...]*. Kà bà lá'ad·ō‿ ø.*
And 3AN:NZ enter ART, 3AN say 3PL.OB that ... and 3PL laugh:IPFV 3AN.OB.
"After he came in, he said to them [...]. But they **laughed** at him." (Mk 5:39-40)

Ǹ-clauses normally mark tense independently, but within sequential clauses they mark tense relative to the narrative timeline:

C̄n dāa ňyɛ̄t súŋā ɔ́n dāa áň bí-līa láa $^{+}$*ø?*
3AN.CNTR TNS see:IPFV good:ADV 3AN:NZ TNS COP child-baby:SG ART PQ?
"Did he see well when he was a baby?"

but *Ka Pita yʊ'ʊn tiɛn Yesu n sa yɛl si'el la ye ...*
Kà Pita yʊ̄'ʊn tíeň Yesu n sà yɛ̀l sī'əl lā yɛ̄ ...
And Peter then remember Jesus NZ TNS say INDF.INAN ART that ...
"And Peter then remembered what Jesus had said the day before..." (Mt 26:75)

Most clauses without tense marking in narrative show initial *kà*, but some begin with absolute clauses *followed* by *kà*. In Mark, Luke, and Acts 1-14 (1976) these patterns of tense marking appear with absolute clauses before subjects:

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 the *ǹ*-clauses is expected, as they mark tense relative to the narrative timeline. Absent marking in A-*kà*-B type *main* clauses shows that even tense-unmarked absolute clauses licence implicit tense marking 19.3.5. Implicit marking similarly licenses the use *nɛ̄*$^{+/}$ to mark a continuous imperfective in e.g.

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 CAT go. And 3PL:NZ 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.)

A tense-marked interruption in the narrative flow may itself contain clauses coordinated with *kà*; the tense marker of the first such clause is not repeated, but the following *kà*-clauses are not sequential and accordingly can have any aspect:

Ba da pu mor biiga, bozugo Elizabet ***da*** *ane kundu'ar, ka babayi la wusa me* ***kudigne****.*
Bà dà pū mɔ̄r bīiga $^{+}$*ø, bɔ̄zúgɔ̄ Elizabet dá à nɛ̄*
3PL TNS NEG.IND have child:SG NEG, because Elizabeth TNS COP FOC
kʊ́ndʊ̀'ar kà bà bàyí lā wʊ̄sa mɛ́ kʊ̀dɪg nɛ̄.
barren.woman:SG and 3PL NUM:two ART all also get.old FOC.
"They had no child, because Elizabeth was barren and they were both old."
(Lk 1:7, 1996; no *nɛ* in the KB *ka babayi' la wʊsa mɛ kʊdig hali.*)

Tense marking is not affected by clause adjuncts 21.2.1 or by the "resumptive" *yɛ̄* of indirect speech 26.2.1. If *kà* is absent, just as with clauses without clause adjuncts, tense marking is very much commoner than its absence; if *kà* is present, tense marking is absent unless the clause marks an interruption in the narrative flow.

Amaa *ba* ***da*** *zɔt o nɛ dabiem, ban da pʊ niŋ o yadda ye o sid anɛ nya'andɔl la zug.* ***Amaa ka*** *Barnabas zaŋ Saul n mɔr o keŋ ...*
Àmáa bà dà zɔ̀t·ō‿ø nɛ̄ dábīəm, bán dà pū níŋ·ò‿ø
But 3PL TNS fear:IPFV 3AN.OB FOC fear, 3PL:NZ TNS NEG.IND do 3AN.OB
yáddā yɛ́ ò sɪ̀d à nɛ̄ ňyá'àn-dɔ̀l lā zúg. Àmáa kà Barnabas
faith that 3AN truly COP FOC after-follower:SG ART upon. But and Barnabas
záŋ Saul n mɔ̄r·ó‿ø ø kɛ̄ŋ ...
take Saul CAT have 3AN.OB CAT go ...
"But they were afraid of him, because they did not believe that he was really a disciple. But Barnabas brought Saul ..." (Acts 9:26-27)

22.3 Verbless clauses

22.3.1 Identificational clauses

Verbless identificational clauses have the form NP + catenator-*n* + deictic particle; the NP may be an interrogative pronoun.

Kʊ̀lɪŋɪ͡ ø lā.	"That is a door."
Door:SG CAT that.	
Kʊ̀lɪŋɪ͡ ø wá nā.	"This here is a door."
Door:SG CAT this hither.	
Bɛ̄ogʊ͡ ø lā.	"See you tomorrow" ("That's tomorrow.")
Tomorrow CAT that.	
Bɔ̄ɔ͡ ø lá ⁺ø?	"What's that?"
What CAT that CQ?	
Ňwāamɪs͡ ø ňwá!	"Monkeys!" [w̃ã:mɪsa]
Monkey:PL CAT this!	(From a passenger in my car, on suddenly catching sight of some.)

Identificational clauses may append clauses by catenation 23.

Anɔ'ɔn nwaa yisid nidib tʊʊmbɛ'ɛdi basida?
Ànɔ́'ɔ̀n͡ø ňwáa͡ø yīsɪd nīdɪb tʊ́ʊ̀m-bɛ̄'ɛdɪ͡ø básɪdà ⁺ø?
Who CAT this CAT expel:IPFV person:PL deed-bad:PL CAT throw.out:IPFV CQ?
"Who is this who drives people's sins out?" (Lk 7:49)

Yɛl bɔɔ nwa ka Wina'am kɛ ka li paae ti?
Yɛ̄l-bɔ́ɔ͡ ø ňwá kà Wínà'am kɛ́ kà lì páa͡ tì ⁺ø?
Matter-what CAT this and God cause and 3INAN arrive 1PL.OB CQ?
"What is this that God has made to come to us?" (Genesis 42:28)

Interestingly, verbless clauses can be embedded in verbal clauses:

Ya ningid bɔɔ nwa?
Yà níŋ̀ìd bɔ́ɔ͡ø ňwá ⁺ø?
2PL do:IPFV what CAT this CQ?
"What is this you are doing?" (Nehemiah 2:19)

Fʊ maal bɔɔ la tis mam?
Fù máàl bɔ́ɔ͡ ø lā͡ ø tís màm ⁺ø?
2SG make what CAT that CAT give me CQ?
"What is this that you have done to me?" (Numbers 23:11)

22.3.2 *Lìa*-clauses

X + *lìa* means "where is X?" Although I often heard *lìa* in spontaneous conversation in the 1990's, no examples appear in the 1996 or 2016 Bible versions.

Fù mà lā lía ⁺ø?
2SG mother:SG ART be.where CQ?
"Where is your mother?" (WK to a child in the outpatient clinic.)

Ka awai la dia [*sic*]*?* "But where are the nine?" (Lk 17:17, 1976)
Kà àwāe̱ lā lía ⁺ø?
And NUM:nine ART be.where CQ?

22.3.3 Vocatives

Vocative phrases usually either precede a main clause, or stand alone. They take the form of NPs followed by the vocative prosodic clitic 8.1:

Ǹ bīiga ⁺ø! "My child!"
1SG child:SG VOC!

Ǹ pu̱'ā né m̀ bīisɛ ⁺ø!
1SG wife:SG with 1SG child:PL VOC!
"My wife and my children!"

Ǹ dìəmmā ⁺ø, bɔ́ kà fù kúəsìda ⁺ø?
1SG parent.in.law:SG VOC, what and 2SG sell:IPFV CQ?
"Madam 30.1, what are you selling?"

Vocative phrases do not take the article *lā*$^{+/}$, but often end in *ňwà* "this":

Bīis ňwá!	"Children!"	[biːsa]	8.5.1
Pu̱'ā ňwá!	"Woman!"	[pʰʊ̱a̱wã]	
Zɔ̄n ňwá	"Fools!"	[zɔnːa]	

22.3.4 Particles as clauses

Some particles occur characteristically as complete utterances. Some are onomatopoeic; others are widely shared among local languages.

Tɔ̀.	"OK." (= Hausa *tôo*)
Báp.	"Wallop!"
Ǹfá!	"Well done!"

"Yes" is *ɛ̄ɛ̌ǹ*; "No" is *áyìɪ*. 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?"
3INAN finish FOC PQ?	
ɛ̄ɛ̌ǹ.	"Yes."
Áyìɪ.	"No"
Lì pū nāée $^{+}$*ø* $^{+}$*ø?*	"Isn't it finished?"
3INAN NEG.IND finish NEG PQ?	
ɛ̄ɛ̌ǹ.	"No."
Áyìɪ.	"Yes."

23 Catenated clauses

23.1 Overview

A clause may be followed by one or more VPs, each introduced by catenator-*n*; for the realisation of this particle see 8.2. Complements, VP adjuncts, and even other clauses introduced by *kà* may be incorporated within such chains.

*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 máḷi̱āk dāa kɛ̄ŋ n yɔ́'ɔ̀g sārıgá dɔ́ɔ̀g
But and head-one:SG angel:SG TNS go CAT open prison:SG house:SG
zá'-nɔ̄ɔr lā yū'ʊŋ-kán, n mɔ̄rí‿bā n yīis yíŋ.
compound-mouth:SG ART night-DEM.SG, CAT have 3PL.OB CAT extract outside.
"But an angel of the Lord came and opened the gate of the prison **that night** and took them outside ..." (Acts 5:19, 1996)

*Ka dau so' due n zi'e la'asug la nidib sisoogin, n a Parisee nid **ka o yu'ur buon Gamaliel**, n a one pa'an Wina'am wada la yela, ka lem a yu'ur daan nidib sa'an.*
Kà dàu̱-sɔ̄' dūe n zí'e lá'asʊ̀g lā nīdıb sísʊ̀ʊgʊ̄-n, n áň
And man-INDF.AN rise CAT stand assembly:SG ART person:PL among-LOC, CAT COP
Parisee níd kà ò yū'ʊr búɛ̀n Gamaliel, n áň ɔ́nì pà'an
Pharisee person:SG and 3AN name:SG call:IPFV Gamaliel, CAT COP REL.AN teach:IPFV
Wínà'am wádà lā yɛ́là, kà lɛ́m àň yʊ̄'ʊr dáàn nīdıb sá'àn.
God law ART about, and again COP name:SG owner:SG person:PL among.
"A man stood up in the assembly, a Pharisee **called Gamaliel**, a teacher of God's law and also reputable among the people." (Acts 5:34, 1976)

Toende Kusaal (like Dagaare, Bodomo 1997) has *zero* throughout corresponding to catenator-*n*, but most other Western Oti-Volta languages show *n*, at least in slow speech. In languages with the zero realisation, these structures have usually been regarded as serial verb constructions, and many uses of catenation are indeed closely parallel to uncontroversial serial verb constructions in other languages. For example, substitution of *kà* for catenator-*n* makes it impossible to interpret "auxiliary" verbs in the specialised senses associated with *n*-catenation:

M̀ záŋí‿ m̀ nú'ugʊ̀‿ø sī'ıs dāká lā.
1SG pick.up 1SG hand:SG CAT touch box:SG ART.
"I touched the box with my hand."

?? *M̀ záŋí m̀ nú'ùg kà sī'ɪs dāká lā.*
"I picked up my hand and touched the box."

M̀ dāa kúès bʊ̀ŋʊ◡ ø tís dụ́'átà.
1SG TNS sell donkey:SG CAT give doctor:SG.
"I sold a donkey to the doctor."

?? *M̀ dāa kúès bʊ̀ŋ kà tís dụ́'átà.*
"I sold a donkey and gave it to the doctor."

However, *n*-catenation shows much greater flexibility than typical serial verb constructions, and in particular VPs can be catenated to verbless clauses 22.3.1:

Anɔ'ɔn nwaa yisid nidib tʊʊmbɛ'ɛdi basida?
Ànɔ́'ɔ̀n◡ø ǹwáa◡ø yīsɪd nīdɪb tʊ́ʊ̀m-bɛ̄'ɛdɪ◡ø básɪdà +ø?
Who CAT this CAT expel:IPFV person:PL deed-bad:PL CAT throw.out:IPFV CQ?
"Who is this who drives people's sins out?" (Lk 7:49)

Catenator-*n* thus attaches a VP to the preceding clause, not VP. In fact, the catenated VP itself will be considered to be a *clause*, which shares its subject with the main clause. This analysis is supported by the existence of clearly parallel constructions using *kà* in place of catenator-*n* 23.3. Catenation is a closer relationship than complementisation; mood and aspect are mostly determined by the first VP, and the catenation behaves as one unit with regard to focus 28.1.2.1.1.

There are similarities with "catenative" constructions in English. CGEL pp1176ff reanalyses many traditional auxiliary verbs as taking non-finite clauses (with or without their own subjects) as "catenative complements." There is evidence for catenator-*n* originating as a non-finite marker. Olawsky's describes the Dagbani structure *n*+verb as an "infinitive", presumably meaning that it is used as the citation form, though he gives no examples of usage. Both Niggli and Zongo describe the same construction in Mooré as an *infinitif*, and Canu, who calls it the "*état neutre*" (p272), confirms that it is used in citation and in one-word answers to questions (p175) and in constructions like *ēm dátā ndī* "*je désire manger*." Moreover, catenator-*n* may be historically related to nominaliser-*ǹ* 25; the particles differ tonally, and in Toende Kusaal they are even distinct segmentally: nominaliser-*ǹ* is *ne*, whereas catenator-*n* is *ø*. However, this might be attributed to the effect of a preceding subject NP, in a way analogous to L spreading in NP structure 8.4.

Normally only the first VP carries tense and polarity particles, which apply to the entire catenation, but (especially in *n*-catenation) each retains discontinuous-past *n*$^{\varepsilon}$, and while initial irrealis mood marking applies to the whole chain, a VP following

an indicative may be in the irrealis, in which case it will be marked itself. The preverb *tì* is often found with non-initial VPs in *n*-catenation.

Catenation seems always to involve semantic subordination; the equivalent in translation in European languages would often be a participle modifying the main verb subject. However, it may be the *first* component which is semantically subordinate; many verbs have characteristic subordinate "auxiliary" rôles in *n*-catenation, and whether they precede or follow the "main" verb depends on their own semantics. Moreover, in catenation the order of events, if they are not simultaneous, must always be mirrored in the order of the VPs 19.2.1.

Common *n*-catenation patterns with verbs without specialised rôles are (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 CAT eat:IPFV and drink:IPFV...
"And the Son of Man comes eating and drinking ..." (Mt 11:19)

(b) perfective VP expressing prior event + main VP

Ka dapa ayi' yɛ fupiela zi'e ba san'an.
Kà dāpá‿àyí yɛ́ fū-píəlà‿ ø zì'e bà sā'an.
And man:PL NUM:two dress shirt-white:PL CAT stand 3PL among.
"Two men dressed in white were standing with them." (Acts 1:10)

(c) main VP + perfective VP in irrealis or imperative mood, expressing purpose. The preverb *tì* is commonly seen in the second VP.

Amaa m pʊ mɔr antu'a zugʊ o yɛla na sɔbi tis na'atita'ar laa.
Àmáa m̀ pʊ̄ mɔ̄r ántù'a zúgʊ́‿ò yɛ̄lá‿ø nà sɔ̄bɪ‿ø tís
But 1SG NEG.IND have case:SG upon 3AN about CAT IRR write CAT give
ná'-tītā'ar láa +ø.
king-great:SG ART NEG.
"But I have no case about him to write to the Emperor." (Acts 25:26)

Kɛ̀m‿ ø tí ǹyɛ̄ dụ́'átà. "Go and see the doctor."
Go:IMP CAT after see doctor:SG.

Man ya'a pʊ kɛɛn na tu'asini ba ...
Mān yá' pʊ̄ kɛ̄ɛ-n nā‿ ø tʊ́'asī-ní‿bā...
1SG.CNTR if NEG.IND come-DP hither CAT talk-DP 3PL.OB...
"If I had not come to talk to them ..." (Jn 15:22): Note DP on both verbs.

(d) *Hālí*+ "until" can precede *n*-catenated clauses as a prelinker adjunct 21.2.1.

Catenated VPs can be coordinated with *kà* "and":

ka keŋ ... n ian'asid ka pian'ad n du'osid Wina'am yu'ur su'uŋa.
kà kɛ̄ŋ ... n i̯āň'asíd kà pi̯āň'ad n dū'ɵsíd Wínà'am yύ'ὺr sύŋā.
and go ... CAT leap:IPFV and praise:IPFV CAT elevate:IPFV God name:SG good:ADV.
"and went ... leaping and praising the name of God greatly." (Acts 3:8, 1996)

Sogia so' kae' n tum ka yood o meŋa.
Sɔ́gi̯à-sɔ̄' kā'e n tύm kà yɔ̄ɔd ò mɛ̄ŋá +*ø.*
Soldier-INDF.AN NEG.BE CAT work:IPFV and pay:IPFV 3AN self NEG.
"No soldier works and pays for himself." (1 Cor 9:7, 1976)

23.2 Auxiliary verbs in *n*-catenation

Certain verbs have characteristic specialised meanings in *n*-catenation. Dual-aspect verbs agree in aspect with the main VP verb.

23.2.1 Preceding the main VP

bɛ̀+ "exist, be somewhere" + *ànínā* "there" + imperfective "be in the process of ..."

Ò bɛ̀ ànínā n ňwɛ́'ɛ̀d bīig lā.
3AN EXIST ADV: there CAT beat:IPFV child:SG ART.
"He's currently beating the child."

àe̯ňa "be something/somehow" can be used in foregrounding by clefting 28.1.1:

Li anɛ o sidi sʊ'oe li.
Lì á nɛ́ ò sīdɪ‿ ø sύ'ʊ‿lī.
3INAN COP FOC 3AN husband:SG CAT own 3INAN.OB.
"It's her husband who owns it." (1 Cor 7:4)

mī'+ "know", ***zī'***+ "not know": *nàm mī' n* + perfective "always have X-ed", *nàm zī' n* + perfective "never have X-ed"

Makir banɛ buudi paadi ya la nan mi' paae sieba mɛn.
Mākír bànɪ būudɪ pāadí‿ yā lā nám mī' ‿ø pāe sīəba mɛ́n.
Testing REL.PL sort reach:IPFV 2PL.OB ART still know CAT reach INDF.PL also.
"Trials of the kind that have reached you have always reached others too." (1 Cor 10:13)

M̀ nám zī'‿ ø ňyɛ̄ gbīgɪmnɛ $^{+}$*ø.*
1SG still NEG.KNOW CAT see lion:SG NEG.
"I've never seen a lion." SB

zàŋ$^{\varepsilon}$ and ***nɔ̄k***$^{\varepsilon/}$ "pick up, take" with object "using" (of a literal object as instrument)

M̀ nɔ́k sʊ́'ʊgʊ̀‿ø kịá nīm lā.
1SG pick.up knife:SG CAT cut meat:SG ART.
"I cut the meat with a knife."

M̀ záŋí‿ m̀ nú'ugʊ̀‿ø sī'ɪs dāká lā.
1SG pick.up 1SG hand:SG CAT touch box:SG ART.
"I touched the box with my hand."

mɔ̄r$^{a/}$ "have" + object "bringing" with motion verbs:

Dābá‿àyɔ́pɔ̀ẹ̀ kà fʊ̀ mɔ̄r·ó‿ø‿ ø kɛ̄ nā.
Day:PL NUM:seven and 2SG have 3AN.OB CAT come hither.
"Bring her here in a week." WK

dɔ̄l$^{la/}$ "accompany in subordinate rôle, attend"

Bà dɔ̀ll·ō‿ø‿ ø kɛ̄ŋ Bɔ́k. "They went to Bawku with him."
3PL follow 3AN.OB CAT go Bawku.

Beginning verbs naturally precede:

Ka Pita pin'ili pa'ali ba ...
Kà Pita pīň'il‿ø pá'alì‿ bā ...
And Peter begin CAT teach 3PL.OB ...
"Peter began to tell them." (Acts 11:4)

Tì dɛ́ŋì‿ ø tís·ò‿ø lɔ́r.
1PL precede CAT give 3AN.OB car.
"We previously gave him a car." (*dɛ̀ŋ*$^{\varepsilon}$ "do/go first")

Ka dau sɔ' duoe zi'en la'asʊg la sʊʊgin ...
Kà dàụ-sɔ̄' dūe‿ø zí'èn là'asʊg lā súʊgʊ̄-n ...
And man-INDF.AN rise CAT stand.up assembly ART among-LOC ...
"And a man (having risen) stood up in the synagogue ..." (Acts 5:34)

"**Come**" and "**go**" can be used similarly as initiators:

M̀ kɛ́ŋì‿ø pīə nú'ùs. "I went and washed my hands."
1SG go CAT wash hand:PL.

***sụ̱'ā*[a]** "conceal" is used in this construction for "secretly":

Ka Na'ab Herod su'a buol baŋidib la ...
Kà Nà'ab Herod sụ̱'ā‿ ø búèl bāŋɪdɪb lā ...
And king:SG Herod conceal CAT ask understander:PL ART...
"Herod secretly called for the wise men ..." (Mt 2:7)

***nìŋ wālá*[+]** literally "do how?" is used in catenation for "how can ...?" (see also 23.3):

Ninsaal na niŋ wala an pʊpiel Wina'am tuonnɛ? Ninsaal biig na niŋ wala pʊ mɔr taal Wina'am tuonnɛ?
Nīn-sáàl ná nīŋ wālá‿ø àň pʊ́-pìəl Wínà'am túènnɛ [+]*ø?*
Person-smooth:SG IRR do how CAT COP inside-white:SG God before CQ?
Nīn-sáàl bîig nà nīŋ wālá‿ø pʊ̄ mɔ̄r táàl
Person-smooth:SG child:SG IRR do how CAT NEG.IND have fault:SG
Wínà'am túènnɛ [+]*ø?*
God before CQ?
"How can a human being be pure before God? How can the child of a human being not have sin before God?"(Job 25:4)

***ňyāŋ*[ɛ/]** means "overcome" as a main verb:

Ka m nyaŋ dunia. "I have overcome the world." (Jn 16:33)
Kà m̀ ňyāŋ dūnɪya.
And 1SG overcome world:SG.

As a *n*-catenation auxiliary it means "carry out successfully, prevail in":

M̀ pʊ̄ ňyāŋɪ‿ø záb nà'ab láa [+]*ø.*
1SG NEG.IND prevail CAT fight chief:SG ART NEG.
"I wasn't able to fight the chief."

Unlike English "can", *ňyāŋ*[ɛ/] expresses events and not states. Thus, to express present ability or inability, the auxiliary is in the irrealis mood; if the main verb is imperfective the auxiliary is imperfective too.

M̀ kú ňyāŋı◡ø záb nà'ab láa +ø.
1SG NEG.IRR prevail CAT fight chief:SG ART NEG.
"I can't fight the chief." ("I won't succeed in fighting the chief.")

wad line nyaŋedin ketin ka nidib voen,
wād-línì ňyāŋídī-n◡ ø kɛ̄tí-n kà nīdıb vūʊ-n
law-REL.INAN prevail:IPFV-DP CAT cause:IPFV-DP and person:PL be.alive-DP.
"a law which could make people live." (Gal 3:21, 1996)

tūň'e means "be able"; it is a stative single-aspect verb. As a main verb

ba daa tis ka li zemisi ba paŋi na tun'e si'em
bà dāa tís kà lì zɛ̄mísì◡ bà pàŋı◡ ø nà tūň'e sī'əm
3PL TNS give and 3INAN become.equal 3PL strength NZ IRR be.able INDF.ADV
"They gave as much as their strength would permit" (2 Cor 8:3)

Because of the stative meaning, when *tūň'e* is used as a *n*-catenation auxiliary both indicative and irrealis moods can express present ability or inability.

ka li kʊ tun'e su'a.
kà lì kú tūň'e◡ ø sụ'āa +ø.
and 3INAN NEG.IRR be.able CAT hide NEG.
"which cannot be hidden" (Mt 5:14)

Ya na tun'e zin' teŋin la nɛ ti.
Yà ná tūň'e◡ ø zíň'i tɛ̄ŋı-n lā né tì.
2PL IRR be.able CAT be.sitting land:SG-LOC ART with 1PL.
"You can dwell in the land with us." (Genesis 34:10)

Fʊ tun'e nyɛt si'ela?
Fù túň'e◡ ø ňyɛ̄t sí'əlàa +ø?
2SG be.able CAT see:IPFV INDF.INAN PQ?
"Can you see anything?" (Mk 8:23)

O pʊ tun'e pian'ada.
Ò pū tūň'e◡ ø pi̱āň'adá +ø.
3AN NEG.IND be.able CAT speak:IPFV NEG.
"He could not speak." (Lk 1:22)

With *ňyāŋ*$^{ɛ/}$ as the main verb in the sense "overcome":

bozugo ba ku tun'e nyaŋe ba meŋa.
bɔ̄ zúgɔ̄ bà kù tūň'e‿ ø ňyāŋí‿ bà mɛ̄ŋá $^{+}$*ø.*
because 3PL NEG.IRR be.able CAT control 3PL self NEG.
"because they cannot control themselves." (1 Cor 7:5, 1996)

23.2.2 Following the main VP

tìs^{ɛ} "give" is used for "to, for"; the meaning may have nothing to do with "giving", and is simply a way of adding an indirect object. This can be used to put an indirect object after a direct, or to have both direct and indirect bound pronoun objects.

Fu pu ma' n tis ninsaala, amaa fu ma' n tis ne Wina'am Siig Suŋ.
Fù pū má' n tìs nīn-sáalā $^{+}$*ø, àmáa fù mà'*
2SG NEG.IND lie CAT give person-smooth:SG NEG but 2SG lie
n tís nɛ̄ Wínà'am Sí-sùŋ..
CAT give FOC God Spirit-good:SG.
"You have not lied to a human being; rather, you have lied to God's Holy Spirit." (Acts 5:4, 1996)

M̀ dāa kúès bùŋʊ‿ ø tís dụ'átà.
1SG TNS sell donkey:SG CAT give doctor:SG.
"I sold a donkey to the doctor."

gàad^{ɛ} "pass, surpass" can be used in comparisons:

Isaac kárìm‿ ø gát John.
Isaac read:IPFV CAT pass:IPFV John.
"Isaac reads better than John." SB

À-Wīn gím‿ ø gát À-Būgʊr.
PERS-Awini be.short CAT pass:IPFV PERS-Abugri.
"Awini is shorter than Abugri." SB

Fʊ sid nɔŋ mam gat bamaa?
Fù síd nɔ̀ŋ mām‿ø gát bámmáa $^{+}$*ø?*
2SG truly love 1SG CAT pass:IPFV DEM.DEI.PL PQ?
"Do you really love me more than these?" (Jn 21:15)

gàlɪsᵋ "get to be too much" (*Sāa gálìs yā* "There's too much rain"):

Ò dì n gálìs. "She's eaten too much."
3AN eat CAT exceed.

Dā kárìm gbánà◡ø gálɪsìdā +ø.
NEG.IMP read:IPFV book:PL CAT exceed:IPFV NEG.
"Don't read books too much."

bàsᵋ "send/go away" is used for "away, off, out":

Anɔ'ɔn nwaa yisid nidib tʊʊmbɛ'ɛdi basida?
Ànɔ́'ɔ̀n◡ø ǹwáa◡ø yīsɪd nīdɪb tʊ́ʊ̀m-bɛ̄'ɛdɪ◡ø básɪdà +ø?
Who CAT this CAT expel:IPFV person:PL deed-bad:PL CAT throw.out:IPFV CQ?
"Who is this who drives people's sins out?" (Lk 7:49)

Ending verbs naturally follow the main VP:

Ò dìɪ◡ø nāe. "He's finished eating."
3AN eat CAT finish.

Ò dìɪ◡ø tíg. "She's eaten to satiety."
3AN eat CAT become.satiated.

Motion verbs occur in *n*-catenation with meanings like local prepositions e.g.

Ò kàt kíkīr-bɛ́'èd-nàm n yīisíd nīdɪb.
3AN drive:IPFV fairy-bad-PL CAT expel:IPFV person:PL.
"He drives evil spirits out of people."

Ɛ̀ǹrɪgɪm◡ ø páa◡m. "Shift along up to me." (*pāe*$^{+/}$ "reach")
Shift.along:IMP CAT reach 1SG.OB.

Jesus ban'ad buŋ n kpen'ed Jerusalem
Jesus◡ø bāǹ'ad búŋ n kpɛ́ǹ'èd Jerusalem
Jesus NZ ride:IPFV donkey:SG CAT enter:IPFV Jerusalem
"Jesus riding a donkey into Jerusalem" (picture caption, NT 1976)

wɛ̄n$^{\text{na/}}$ "be like" is very common in *n*-catenation. *Wɛ̄n*$^{\text{na/}}$ + complement sequences are often treated like prepositional phrases 18. As a main verb:

Ka o nindaa wenne nintaŋ ne.
Kà ò nīn-dáa wɛ̄n nɛ̄ nīntāŋ nɛ̄.
And 3AN eye-face:SG resemble with sun:SG like.
"His face is like the sun." (Rev 10:1, 1996: KB *Ka o nindaa nwɛnɛ winnig nɛ*)

Wɛ̄n$^{na/}$ takes a prepositional phrase with *wūʊ* "like" or *nɛ̄* "with" as complement. Any object without the article *lā*$^{+/}$, even a pronoun or proper name, must be followed by a meaningless *nɛ̄*. Before numbers and measurements *wɛ̄n*$^{na/}$ means "about, approximately"; numbers appearing alone are not followed by *nɛ̄*:

Li anɛ wʊʊ maila ayi' nɛ.
Lì à nɛ̄ wūʊ maila àyí nɛ̄.
3INAN COP FOC like mile NUM:two like.
"It's about two miles." (Jn 11:18)

but *ka ba kal an wʊʊ kɔbiga nɛ pisi.*
kà bà kāl áñ wūʊ kɔ́bɪgā nɛ̄ pīsí.
and 3PL number:SG COP like hundred with twenty
"and their number was about 120." (Acts 1:15)

là'am^{m} "together" is also found as a preverb 19.7.2 and in the compound preposition *là'am nɛ̄* "together with" 18. As a main verb it means "associate with":

... ye labasuŋ moolug la ket ka buudi wusa la'amid ne taaba pudugid Wina'am piini.
... yɛ̄ lábà-sʊ̀ŋ mɔ́ɔlʊ̀g lā kɛ́t kà būudɪ wūsa lá'amɪ̀d
... that news-good:SG proclamation ART cause:IPFV and tribe all gather:IPFV
nɛ̄ tāaba‿ ø pūdɪgɪd Wínà'am píinì.
with each.other CAT share:IPFV God gift.
"....that the proclamation of the good news is making every tribe gather with one another to share God's gifts." (Eph 3:6, 1996)

yà'as^{ɛ} or ***yà'as***^{a} "again" usually lacks *n* and has effectively become an adverb, preposable with *kà* 28.2. ILK glosses the word as "repeat", but I have no example of its use as a main verb.

Ya'as ka m gos ... "Again I looked ..." (Rev 5:11, 1976)
Yà'as kà m̀ gɔ̄s ...
Again and 1SG look ...

23.3 *Kà*-catenation

Certain constructions with a clause introduced by *kà* have clear affinities with catenation using *n*. They never have alternate forms with the linker *yɛ̄*. With few exceptions, they either have different subject from the preceding clause or differ in polarity. They resemble *n*-catenation in that they have the aspect and mood of the preceding VP.

Kɛ̄$^{+}$ "let, leave off" is used with *kà*-catenation in the sense "let, cause that." The subject of the catenation cannot be the same as the main clause subject (in the whole KB, the only counterexample is Titus 2:7 *kɛl ka fʊ mɛŋ an zanbinnɛ tisi ba* "Let you yourself be a sign to them", where the pronoun *fʊ* is formally a predeterminer.) The mood of the catenation matches the VP containing *kɛ̄*$^{+}$, though imperative often replaces irrealis mood.

*Li da kɛ ka ba **pʊ** nyaŋi kʊʊ o.*
Lì dà kɛ̀ kà bà pʊ̄ ňyāŋı◡ ø kʊ́·o◡ø $^{+}$ø.
3INAN TNS cause and 3PL NEG.IND prevail CAT kill 3AN.OB NEG.
"This caused them not to be able to kill him." (2 Kings 11:2)

*Ba kʊdim niŋidi lin ye li kɛ ka ba **da** nyɛ Kristo kum dapuudir namisʊg laa.*
Bà kʊ̄dım níŋ̀dī◡lí yɛ́ lì kɛ́ kà bà dā ňyɛ̄ Kristo kúm
3PL ever do:IPFV 3INAN.OB that 3INAN cause and 3PL NEG.IMP see Christ death
dà-pʊ̄ʊdír námısʊ̀g láa $^{+}$ø.
wood-cross:SG suffering ART NEG.
"They have always been doing this so that they will not experience the suffering of the cross of the death of Christ." (Gal 6:12)

*dinɛ **na** kɛ ka ba **da** kpi'ilim.*
Dīnı◡ ø ná kɛ́ kà bà dā kpī'ılímm $^{+}$ø.
3INAN.CNTR CAT IRR cause and 3PL NEG.IMP finish NEG.
"That will cause them not to come to an end." (Genesis 6:20)

After *kɛ́ɛ-n kà*, with discontinuous-past *n*^{ɛ}, the catenated clause generally had *n*^{ɛ} in the 1976 Bible, but this is no longer invariable. Aspect usually matches:

Ka li anɛ wada la kɛt ka tʊʊmbɛ'ɛd nyɛt paŋ.
Kà lì à né wādá lā◡ø kɛ́t kà tʊ̀ʊm-bɛ̄'ɛd ňyɛ̄t páŋ.
And 3INAN COP FOC law ART CAT cause:IPFV and deed-bad see:IPFV power:SG.
"It is the law which makes sin find power." (1 Cor 15:56)

The irregular imperative *kɛ̀lᵃ*, followed by a *kà*-clause with imperative mood, creates a way of expressing indirect commands, including first and third persons:

Kɛ̀l kà ò gɔ̄s tɛ̄ŋɪ-n.
Cause:IMP and 3AN look ground:SG-LOC.
"Let him look down."

Dā kɛ́ kà dàbīəm bɛ́ɛ ⁺ø!
NEG.IMP cause and fear EXIST NEG.
"Don't be afraid." ("Let fear not exist.")

Kɛ̀l [or *Kɛ̀lí‿ ø*] *kà tì pú'ʊ̀s Wínà'am.*
Cause:IMP cause:IMP 2PL.SUB and 1PL greet God.
"Let us praise God."

Kɛ̀l kà ... is often ellipted informally, leaving the lack of independency marking as the only sign that the clause is an indirect command:

Ǹ gɔ́s nīf lā. "I've looked at the eye."
1SG look.at eye:SG ART. Independency marked: tone overlay on *gɔ́s*

but *Ǹ gɔ̄s nīf lā.* "Let me look at the eye." (Overheard in clinic)
1SG look.at eye:SG ART. No tone overlay on *gɔ̄s*

Ǹ dígɪnɛ̀ɛ ⁺ø? "Am I to lie down?" (Overheard in clinic)
1SG lie.down PQ? No independency imperative *-mᵃ*

Ò záb nà'ab lā. "He should fight the chief."
3AN fight chief:SG ART. M spreading after *ò*, not *záb* 19.6.1.2

Mìt is a defective verb used only in the imperative 19.5.1. Much its most common use is with *kà*-catenation as "see that it doesn't happen that ...". In this sense it never appears with the 2pl subject enclitic ʸᵃ, suggesting that it is impersonal.

Mid ka ya maali ya tʋʋm sʊma nidib tuon ye ba gɔs.
Mìt kà yà máalì‿ yà tʊ̀ʊm-sʊ̀ma nīdɪb túèn yɛ́ bà gɔ̄s.
NEG.LET.IMP and 2PL make 2PL deed-good:PL person:PL front that 3PL look.at.
"Don't do your good deeds in front of people so they'll look." (Mt 6:1)

X *nìŋ wɛ̄lá n...?* "how can X ...?" has an impersonal variant using a dummy subject in the main clause and the effective subject in *kà*-catenation.

Li niŋ wala ka o an David yaaŋa?
Lì nìŋ wɛ̄lá kà ò áň David yáàŋa ⁺*ø?*
3INAN do how and 3AN COP David descendant:SG CQ?
"How can he be David's descendant?" (Mt 22:45)

Where there is no change of subject, *n*-catenation is overwhelmingly more common (152/160 in KB) but a few cases of the personal type do appear with *kà*:

M na niŋ wala ka nyɛ faangirɛ?
Ǹ ná nīŋ wɛ̄lá kà ňyɛ̄ fāaňgírɛ̀ ⁺*ø?*
1SG IRR do how and find salvation CQ?
"How can I find salvation?" (Acts 16:30)

Kà usually replaces *n* when there is a change of polarity in catenation:

Ka dau daa zin'i Listra ni ka pu tun'e kenna.
Kà dāu̱ dāa zíň'i Listra ní kà pʊ̄ tūň'e‿ ø kɛ̄nná ⁺*ø.*
And man:SG TNS sit Lystra LOC and NEG.IND be.able CAT go:IPFV NEG.
"There was a man in Lystra who could not walk." (Acts 14:8, 1996)

Ka Joon kena lɔɔd nɔɔr ka pʊ nuud daam
Kà Joon kɛ̄ nā‿ ø lɔ̄ɔd nɔ̄ɔr kà pʊ̄ nūud dáamm ⁺*ø.*
And John come hither CAT tie:IPFV mouth:SG and NEG.IND drink:IPFV beer NEG.
"John came, fasting and not drinking beer." (Mt 11:18)

Change from positive to negative can nevertheless occur with *n*:

Ya sieba bɛ kpɛla kʊ kpii ...
Yà sīəba bɛ́ kpɛ̄lá‿ø kʊ́ kpīi ⁺*ø ...*
2PL INDF.PL EXIST here CAT NEG.IRR die NEG
There are some of you here who will not die ..." (Lk 9:27)

An **adnominal** *kà*-catenated clause follows, usually directly, a NP anchor other than the main clause subject, and contains a pronoun referring to it, which is ellipted if it is an object 19.8.1. The sense resembles a non-restrictive relative clause:

Anina ka o nyɛ dau ka o yʊ'ʊr buon Aneas.
Àníná kà ò ňyɛ̄ dáu̱ kà ò yʊ̄'ʊr búèn Aneas.
ADV:there and 3AN see man:SG and 3AN name:SG call:IPFV Aeneas.
"There he found a man whose name was Aeneas." (Acts 9:33)

Li anɛ ya taaba banɛ pʊ'ʊsid Wina'am ka li nar ka ya kad saria.
Lì à nɛ́ yà tāaba bánì pʊ̀'ʊsɪd Wínà'am kà lì nár
3INAN COP FOC 2PL fellow REL.PL greet:IPFV God and 3INAN must
kà yà kád sàríyà.
and 2PL drive judgment.
"It is your fellow-worshippers of God whom you must judge." (1 Cor 5:12)

If the main clause is a verbless identificational clause 22.3.1, the NP of the main clause can be the anchor:

Yɛl bɔɔ nwa ka Wina'am kɛ ka li paae ti?
Yɛ̄l-bɔ́ɔ‿ ø ňwá kà Wínà'am kɛ́ kà lì páa‿ tì +ø?
Matter-what CAT this and God cause and 3INAN arrive 1PL.OB CQ?
"What is this that God has made to come to us?" (Genesis 42:28)

Adnominal *kà*-catenation is the basis of *kà*-clefting and *kà*-preposing 28.2.

The subject of the catenated clause does not normally refer to the anchor; if it does, the *kà*-catenation is a resultative predicate 19.8.2:

...ka la'am maan gigis ka ba wum ka pia'ad.
...kà lá'àm màan gígìs kà bà wʊ́m kà pi̯āň'ad.
...and together make:IPFV dumb:PL and 3PL hear:IPFV and speak:IPFV.
"...and even makes the dumb hear and speak." (Mk 7:37, 1976)

With *ňyɛ̄*+ "see", this construction has the predicative sense "see *as*":

M̀ dāa ňyɛ̄ dāu̯ lá kà ò áň ná'àb.
1SG TNS see man:SG ART and 3AN COP chief:SG.
"I saw the man as a chief." KT: not possible as "who was a chief"

M̀ dāa pʊ̄ ňyɛ̄ dāu̯ lá kà ò áň ná'abā +ø.
1SG TNS NEG.IND see man:SG ART and 3AN COP chief:SG NEG.
"I didn't see the man as a chief." KT

As expected, KT rejected constructions with tense marking in the *kà*-catenation. He also rejected focus-*nɛ̄*+/ in the catenated clause:

**M̀ dāa pʊ̄ ňyɛ̄ dāu̯ lá kà ò á nɛ̄ ná'abā +ø.*
1SG TNS NEG.IND see man:SG ART and 3AN COP FOC chief:SG NEG.

24 Conditional clauses

24.1 Overview

Conditional clauses have a subordinate *yà'*-clause protasis before the subject of the main apodosis clause. *Yà'*-clauses cannot be coordinated with each other, though they may contain coordinated subclauses, and a main clause may contain more than one *yà'*-clause:

Fù yá' bɔ̀ɔd, m̀ yá' lɛ̀b nā, m̀ ná yɔ́ɔ͡ f.
2SG if want, 1SG if return hither, 1SG IRR pay 2SG.OB.
"If you want, when I return, I will pay you."

Ya'-clauses are postlinker adjuncts, following all other clause adjuncts.

There must be a non-zero subject after a *yà'*-clause; even direct commands do not, as usual, delete the 2nd person subject pronoun; my informants use a free pronoun in this context, as does the KB version in

Fu ya'a mɔr pu'a, fun da mɔɔd ye fu bas oo.
Fù yá' mɔ̄r pu̱'ā, fūn dā mɔ̄ɔd yɛ́ fù bás·ō-o ⁺*ø.*
2SG if have wife:SG, 2SG NEG.IMP struggle:IPFV that 2SG abandon-3AN.OB NEG.
"If you have a wife, don't try to leave her." (1 Cor 7:27)

Other sources permit bound pronouns:

Bùŋ yá' bɔ̀ɔd yɛ́ ò lūbú͡ f, fù pū ǹ̆yɛ̄tí͡ ò tùbāa ⁺*ø.*
Donkey:SG if want that 3AN throw.off 2SG.OB, 2SG NEG.IND see:IPFV 3AN ear:PL NEG.
"If a donkey wants to throw you off, you don't see his ears." KSS p44

The main clause can be of any type, including a command, as above, or a question; it may have elements preposed with *kà* 28.2:

Fù yá' gɔ̄s kpɛ̄lá, bɔ́ kà fù ǹ̆yɛ̄tá ⁺*ø?*
2SG if look here, what and 2SG see:IPFV CQ?
"If you look here, what do you see?"

Yà'-clauses express tense independently of the main clause. Indicative mood, not irrealis, is used for future meaning, but WK accepts negation with *kù* instead of *pū* when the sense is future; so too NT

So' ya'a ku tum, on da dii.
Sɔ̄' yá' kʊ̀ tʊ̄m, ɔ̄n dā díɪ +ø.
INDF.AN if NEG.IRR work, 3AN.CNTR NEG.IMP eat NEG.
"If anybody will not work, let him not eat." (2 Thess 3:10, 1976)

Occasionally, the *yà'*-clause appears clause-finally because of extraposition due to weight 28.3, 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
Lì nāanɪ sɔ̄ň'ɔ-n, bà yá' nɔ̄kɪ-n nɛ̄ɛr-títā'arɪ‿ ø lɔ̄ɔ-n‿ø kɔ́lī-n
3INAN then be.better-DP 3PL if take-DP millstone-big:SG CAT tie-DP CAT collar-DP
ɔ̄n nín-gɔ̀ɔr kà záŋ·ò‿ø‿ ø lɔ̄bɪ‿ ø bás kɔ̄lʊgʊ-n
3AN.CNTR body-neck:SG and take 3AN.OB CAT throw CAT abandon river:SG-LOC
"It would have been better if they had fastened a big millstone round his neck and thrown him into the river ..." (Lk 17:2, 1996)

Dinzug li naan a su'um ba ya'a pu du'an dau kaŋaa.
Dìn-zúg lì nāan áň sʊ́m bà yá' pʊ̄ dʊ́'ā-n dáu̱-kàŋáa +ø.
Thus 3INAN then COP good:ABSTR 3PL if NEG.IND bear-DP man-DEM.DEI.SG NEG.
"So it would have been better for that man not to have been born."
(Mk 14:21, 1996)

24.1.1 Discontinuous-past *nᵋ*

Discontinuous-past *nᵋ* can attach to any verb form in indicative or irrealis mood; it is not compatible with the imperative. In *n*-catenation, if *nᵋ* is found in the first VP it is usually repeated in all 23.1.

Although it can appear as a discontinuous today-past 19.3.3, in much its commonest function the particle has a meaning analogous to the modal remoteness expressed by the use of the English preterite in non-temporal usage (CGEL pp148ff.) It expresses a hypothetical or unlikely state of affairs; if it is accompanied by the post-subject particle *nāan(ɪ)*, the sense is contrary-to-fact. It appears most often in *yà'*-clauses, but occurs both with and without *nāan(ɪ)* in other main and subordinate clause types.

In main clauses, *nᵋ* without *nāan(ɪ)* is most often seen in *bɔ̀ɔdī-n* "might wish":

m pa'ati nye ka ya pu wenne wuu man boodin ye ya aan si'em laa.
m̀ pá' tì ňyɛ́ kà yà pū̀ wɛ̄n nɛ̄
1SG perhaps see and 2PL NEG.IND resemble with
wū̀ʊ mán bɔ̀ɔdī-n yɛ́ yà áa-n sī̀əm láa +*ø.*
like 1SG:NZ want-DP that 2PL COP-DP INDF.ADV ART NEG.
"I will perhaps find you not as I might have wished."(2 Cor 12:20, 1996)

Man bɔɔdin nɛ yanamɛ naan aan ma'asiga bɛɛ yanamɛ naan aan tʊʊliga.
Mān bɔ́ɔdī-n nɛ̄ yānámì◡ø nāan áa-n mā'asígā bɛ̄ɛ
1SG.CNTR want-DP that 2PL NZ then COP-DP cold:ADV or
yānámì◡ø nāan áa-n tū̀ʊlígā.
2PL NZ then COP-DP hot:ADV.
"I might have wished you had been cold or you had been hot." (Rev 3:15)

24.1.2 *Nāan(ɪ)* "in that case"

The post-subject particle *nāan(ɪ)* is distinct from *ňyāan* "next, afterwards, then", but *nāan* (never *nāanɪ*) occurs commonly in the same sense as *ňyāan*. Thus in the parallel NT passages from the 1996 version:

Fu na ki'is noor atan' ye, fu zi' ma, ka noraug nyaan kaas.
Fʊ̀ ná kī'ɪs nɔ́ɔr àtáň' yɛ́ fʊ̀ zí'ɪ◡ mā +*ø,*
2SG IRR deny occasion:SG NUM:three that 2SG NEG.KNOW 1SG.OB NEG,
kà nɔ̄-dáʊ̀g ňyāan kāas.
and hen-male:SG next cry.
"You will deny three times that you know me before the cock crows."
(Mt 26:75, 1996)

Fu na ki'is man noor atan' ka noraug naan kaas noor ayi.
Fʊ̀ ná kī'ɪs mān nɔ́ɔr àtáň' kà nɔ̄-dáʊ̀g
2SG IRR deny 1SG.CNTR occasion:SG NUM:three and hen-male:SG
nāan kāas nɔ́ɔr àyí.
next cry occasion:SG NUM:two.
"You will deny me three times before the cock crows twice."
(Mk 14:30, 1996: KB *nyaan*)

The particle *ňyāan* is probably a form of *ňyá'aŋ*ᵃ "behind, after" with loss of glottalisation and assimilation of the final nasal because of its proclitic status. The particle *nāan(ɪ)* itself seems to have a core locative and logical sense "be(ing) there/thus, in that case."

There are examples in NT/KB of *nāan(ı)* used as an auxiliary verb with its own locative complement in *n*-catenation:

M nye ka Sutaana naane arazana ni n lu wenne saa yiti iank si'em la.
Ḿ ňyɛ́ kà Sūtáanà nāaní◡ ø àrazánà ní n lù◡ø wɛ̄n nɛ̄
1SG see and Satan be.there CAT sky LOC CAT fall CAT resemble FOC
sáa◡ ø yītı◡ ø ¡āňk sī'əm lā.
rain:SG NZ emerge:IPFV CAT leap INDF.ADV ART.
"I saw Satan in heaven fall like lightning." (Lk 10:18, 1996)

dap banɛ gur ye ba zugdaan naan pu'adiir di'ema zin'igin kul na
dàp-bànı gūr yɛ́ bà zūg-dáàn nāan pu̱'á-dīır dí'əmà
man-REL.PL wait that 3PL head-owner:SG be.there wife-taking:SG feast:PL
zíň'igī-n◡ ø kūl nā
place:SG-LOC CAT go.home hither.
"men who are waiting for their lord at a wedding feast to return ..." (Lk 12:36)

yinni piiga wusa puugin ka li naan o yaab Abraham nu'usin
yīnní pīiga wūsa pʊ́ʊgʊ́-n kà lì nāan ò yáab Abraham
one ten all inside:SG-LOC and 3INAN be.there 3AN ancestor:SG Abraham
nú'usī-n
hand:PL-LOC
"the tithe which was in his ancestor Abraham's hands" (Heb 7:9, 1996)

Ka nwadbibis na naan agɔla lit teŋin na.
Kà ňwād-bíbìs ná nāan àgɔ́là◡ ø lít tɛ̄ŋı-n nā.
And moon-small:PL IRR be.there ADV:above CAT fall:IPFV ground:SG-LOC hither.
"And the stars [being] above will fall to earth." (Mk 13:25)

The form *nāanı* evidently originated in *nāan* followed by catenator-*n*, but I will omit CAT in the interlinear glossing henceforward.

Most cases of modal *nāan(ı)* appear in the apodoses of conditional clauses. It does not occur in protasis *yà'*-clauses. In main clauses *nāan(ı)* without discontinuous-past *n*$^{\varepsilon}$ is most often a by-form of *ňyāan* as described above; otherwise the meaning is "in that case, matters being thus." Examples of *nāan(ı)* in subordinate clauses are uncommon in KB, which usually simply shows the irrealis marker *nà* where older versions have *nāan*.

Nāan(ı) without *n*$^{\varepsilon}$ may be effectively equivalent to *yà'* "if/when."

Ka so' naam mori [*sic*] *pe'is kobuga ka yinni bodige?*
Kà sɔ̄' nāan mɔ̄r pɛ̄'ɛs kɔ́bɪgá kà yīnní bɔ̀dɪgɛ ⁺*ø?*
And INDF.AN then have sheep:PL hundred and one get.lost PQ?
"If someone had a hundred sheep and one got lost?" (Mt 18:12 1976)

Li an sʊm ye dau yinne naan kpi nidib la yɛla gaad ...
Lì àň sʊ́m yɛ̄ dāu̯ yīnní nāan kpí nīdɪb lā yɛ́là‿ø gàad ...
3INAN COP good that man:SG one then die person:PL ART about CAT pass ...
"It is better if one man should die for the people than ..." (Jn 11:50)

Fun naani tum be'ed ka ba sigis uf ne kpisiŋkpil ka fu sin ka mor suguru, li su'um a bo?
Fʊ́n nāanɪ tʊ́m bɛ̄'ɛd kà bà sīgɪsʊ́‿ f nɛ̄ kpísìnkpìl
2SG:NZ then do bad and 3PL put.down 2SG.OB with fist:SG
kà fʊ̀ sín kà mɔ̄r sūgʊrʊ́, lì sʊ̀m áň bɔ́ ⁺*ø?*
and 2SG be.silent and have forbearance, 3INAN good:ABSTR COP what CQ?
"If you do evil and they down you with fists and you are silent and forbear, what is the good of it?" (1 Pet 2:20, 1996)

Niŋgbiŋ naan be ka siig kae' ka li a zaalim la, ala men ...
Nìn-gbíŋ‿ ø nāan bɛ́ kà sīɪg kā'e kà lì áň zāalím lā,
Body-skin:SG NZ then EXIST and spirit:SG NEG.BE and 3INAN COP empty:ABSTR ART,
àlá mɛ̀n ...
ADV:thus also...
"As a body with no spirit is empty, so too ..." (Jas 2:26, 1996)

Amaa da ke ka ya so' namisid tuum bamanaminee, on naani a ninkuud ...
Àmáa dā kɛ́ kà yà sɔ̄' nā'mɪsíd tʊ́ʊ̀m-bàmmā námī-nɛ́ ⁺*ø,*
But NEG.IMP cause and 2PL INDF.AN suffer:IPFV deed-DEM.DEI.PL PL-LOC NEG,
ɔ́n nāanɪ áň nīn-kʊ́ʊ̀d ...
3AN:NZ 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, 1996)

Noŋir lem kae' gaad nidi naan kpi o zuanam zugo.
Nɔ̀ŋɪr lɛ́m kā'e‿ø gáàd nīdí‿ ø nāan kpí ò zʊ̀à-nàm zúgɔ̄ ⁺*ø.*
Love again NEG.BE CAT pass person:SG NZ then die 3AN friend-PL upon NEG.
"There is no love greater than if a person dies for his friends." (Jn 15:13, 1996)

Ba wenne zunzoŋ naani ve'ed zunzoŋ ne.
Bà wɛ̄n nɛ̄ zúnzɔ̀ŋ◡ ø nāanı vɛ̄'ɛd zúnzɔ̀ŋ nɛ̄.
3PL resemble with blind.person:SG NZ then lead:IPFV blind.person:SG like.
"They are like when a blind person leads a blind person." (Mt 15:14, 1996)

wuu kunduna naan lusi ba meŋ ne pe'es gbana n kpen' pe'esin.
wūu kúndùna◡ø nāan lūsí◡bà mɛ̄ŋ nɛ̄ pɛ̄'ɛs gbánà n kpɛ̀ň' pɛ̄'ɛsí-n.
like jackal:PL NZ then wrap 3PL self with sheep:PL skin:PL CAT enter sheep:PL-LOC.
"Like when jackals wrap themselves in sheepskins to go among sheep." (Mt 7:15, 1996)

When *nāan(ı)* is accompanied by discontinuous-past *n*$^{\varepsilon}$ the meaning is contrary-to-fact, as in conditional clauses:

Ka m bood ye li naani pun niŋin sa.
Kà m̀ bɔ́ɔ̀d yɛ́ lì nāanı pún nìŋī-n sá.
And 1SG want that 3INAN then already do-DP hence.
"I wish it had happened already." (Lk 12:49, 1976)

Li su'm ka fu daa naan zaŋin m ligidi n su'an banki ni.
Lì sʊ̀'m kà fʊ̀ dāa nāan záŋí-n◡ m̀ līgıdı n sʊ̄'a-n bánkì ní.
3INAN be.good and 2SG TNS then take-DP 1SG money CAT hide-DP bank:SG LOC.
"You should have put my money in the bank." (Mt 25:27, 1976)

M daa pu bood ye nimbane naan tisini m sumalisim la keen ka m moren susa'aŋa.
M̀ dāa pū bɔ́ɔ̀d yɛ̄ nīn-bánì nāan tísī-ní◡ m
1SG TNS NEG.IND want that person-REL.PL then give-DP 1SG.OB
sū-málısìm lā kɛ̄ɛ-n kà m̀ mɔ̄rı-n sū-sáň'àŋā ⁺ø.
heart-sweetness ART cause-DP and 1SG have-DP heart-spoiling NEG.
"I did not want those who should have given me joy to give me sorrow." (2 Cor 2:3, 1996)

Hale baa m meŋi naani moren suekane na keen ka m nwe' nyo'og ne saalib yela laa.
Hālí báa m̀ mɛ̄ŋí◡ ø nāanı mɔ̄rı-n sụ̄ā-kánì nà kɛ̄ɛ-n
Even not 1SG self NZ then have-DP way-REL.SG IRR cause-DP
kà m̀ ňwɛ́' ňyɔ̄'ɔg nɛ̄ sáalìb yɛ́là láa ⁺ø.
and 1SG beat chest:SG with human:PL about ART NEG.
"Although I myself might have had reason to boast in human terms." (Phil 3:4, 1996)

24.2 Open

Conditional clauses without discontinuous-past *nᵋ* or *nāan(ı)* express "if", and also "when" with a main clause with present or future reference. With main clauses with past reference, *yà'* is only used for conditionals; for the meaning "when", an absolute clause with time reference is used as a postlinker or VP adjunct 25.2. In a *yà'*-clause, indicative mood is consistently used instead of irrealis in positive polarity, and usually though not invariably in the negative.

Nid ya'a tʊm tʊʊma, o di'ed yɔɔd.
Nīd yá' tʊ̀m tʊ̄ʊma, ò dì'əd yɔ̄ɔd.
Person:SG if work:IPFV work, 3AN receive:IPFV pay.
"If a person works, he gets pay." (Rom 4:4)

Ka Kristo ya'a da pʊ vʊ'ʊg kuminɛ, alaa ti labasʊŋ la mɔɔlʊg la anɛ zaalim.
Kà Kristo yá' dà pʊ̄ vʊ̄'ʊg kūmı-nɛ́ ⁺ø, àláa‿ tì làba-sʊ̀ŋ
And Christ if TNS NEG.IND come.alive death-LOC NEG, ADV:thus 1PL news-good:SG
lā mɔ́ɔlʊ̀g lā á nɛ̄ zāalím.
ART proclamation ART COP FOC empty:ABSTR.
"If Christ did not rise from death, our preaching is empty." (1 Cor 15:14)

Bɛog ya'a nie fʊ na wʊm o pian'ad.
Bɛ̄og yá' nìe, fʊ̀ ná wʊ́m ò pi̱àn̆'ad.
Tomorrow if appear, 2SG IRR hear 3AN speech.
"When tomorrow comes, you will hear his words." (Acts 25:22)

Cf Hausa *ìdan gàrii yaa waayèe zaa mù tàfi* "When dawn comes we'll go." (Jaggar p608), where *ìdan* is likewise "if/when."

Fʊ̀ yá' si̱àk, tì ná dīgılí‿ f.
2SG if agree, 1PL IRR lay.down 2SG.OB.
"If you agree, we'll put you to bed. [i.e. admit you to hospital]"

Bʊ̄n-píəlìg bɛ́ fʊ̀ nīf lā púʊgʊ̄-n. Fʊ̀ yá' bɔ̀ɔd, tì ná
Thing-white:SG EXIST 2SG eye:SG ART inside:SG-LOC. 2SG if want, 1PL IRR
yīis, kà fʊ̀ ná ňyɛ̄ sʊ́ŋā yá'às.
extract, and 2SG IRR see 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."

Negative polarity with non-past reference in the *yà'*-clause:

M ya'a pʊ keŋɛ, Sʊŋid la kʊ kɛɛn ya ni naa.
M̀ yá' pʊ̄ kɛ̄ŋɛ́ ⁺ø, sʊ̄ŋɪd lā kʊ́ kɛ́ɛn̆‿yà nī náa ⁺ø.
1SG if NEG.IND go NEG, helper:SG ART NEG.IRR come 2PL LOC hither NEG.
"If I do not go, the Helper will not come here to you." (Jn 16:7)

So' ya'a ku tum, on da dii.
Sɔ̄' yá' kʊ̀ tʊ̄m, ɔ̄n dā dɪ́ɪ ⁺ø.
INDF.AN if NEG.IRR work, 3AN.CNTR NEG.IMP eat NEG.
"If anybody will not work, let him not eat." (2 Thess 3:10, 1976)

24.3 Hypothetical

If discontinuous-past *nᵋ* occurs in the *yà'*-clause and the main clause does not have *nāan(ɪ)*, the meaning is hypothetical. The main clause has irrealis mood; in the 1976 NT, but not later Bible versions, it also has *nᵋ*.

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.
Nɔ́bɪ̀r yá' yɛ̀lī-n yɛ̄, ɔ́n pʊ̄ áñ nú'ùg lā zúg,
Leg:SG if say-DP that 3AN:NZ NEG.IND COP hand:SG ART upon,
ò kā' nín-gbīŋ nɪ́ɪ ⁺ø, līn kʊ́ ñyāŋɪ-n‿ ø
3AN NEG.BE body-skin:SG LOC NEG, DEM.INAN NEG.IRR accomplish-DP CAT
kɛ̄ɛ-n kà ò kā' nín-gbīŋ nɪ́ɪ ⁺ø.
cause-DP and 3AN NEG.BE body-skin:SG LOC NEG.
"If the leg said, because it is not a hand, it is not in the body, that would not cause it not to be in the body." (1 Cor 12:15, 1976)

2016: *Nɔbir ya'a yɛlin ye, "Man ka' nu'ug la zug, m ka' niŋbiŋ la nii," lin kʊ nyaŋi kɛ ka o ka' niŋgbiŋ la nii.*

The later versions sometimes simply use open conditionals with irrealis mood in the main clause in this sense.

Wief ya'a sigin li ni, li zuluŋ na paaen o salabir.
Wìəf yá' sīgí-n lì nī, lì zùlʊŋ ná páa-n ò sàlɪbɪr.
Horse:SG if descend-DP 3INAN LOC, 3INAN depth IRR reach-DP 3AN bridle:SG.
"If a horse went down in it, its depth would reach its bridle." (Rev 14:20, 1976)

2016: *Ka wief ya'a sigi li ni, li zulʊŋ na paae o salibir.*

24.4 Contrary-to-fact

If the main clause has *nāan(ı)*, there is a contrary-to-fact implication. Both main and *yà'*-clause have discontinuous-past *n*$^{\varepsilon}$:

Man ya'a pʊ kɛɛn na tu'asini ba, ba naan kʊ mɔrin taalɛ.
Mān yá' pʊ̄ kɛ̄ɛ-n nā‿ ø tʊ́'asī-ní‿bā, bà nāan kʊ́
1SG.CNTR if NEG.IND come-DP hither CAT talk-DP 3PL.OB, 3PL then NEG.IRR
mɔ̄rı-n táàllɛ̄ ⁺ø.
have-DP fault:SG NEG.
"If I had not come to speak to them, they would not have been guilty."
(Jn 15:22)

Ba ya'a daa mi'inɛ li, ba naan kʊ kpa'an Zugsɔb onɛ an na'atita'ar la dapuudir zugɔ.
Bà yá' dāa mī'i-ní‿ lī, bà nāan kʊ́ kpā'a-n Zūg-sɔ́b ɔ́nì
3PL if TNS know-DP 3INAN.OB, 3PL then NEG.IRR fasten-DP head-one:SG REL:AN
àň ná'-tītā'ar lā dá-pʊ̄ʊdá zùgɔ̄ ⁺ø.
COP king-great:SG ART wood-cross:SG upon NEG.
"If they had known it, they would not have fastened the Lord, who was a great king, to a cross." (1 Cor 2:8)

Ya ya'a mi'in linɛ na tisi ya sumbʊgʊsʊm zina nwa, li naan aan sʊ'ʊm!
Yà yá' mī'i-n línì nà tīsı‿yá súmbʊ̄gʊsím zīná ňwá,
2PL if know-DP REL.INAN IRR give 2PL.OB peace today this,
lì nāan āa-n súm!
3INAN then COP-DP good:ABSTR.
"If you had known this day what would have brought you peace, that would have been good." (Lk 19:42)

Li ya'a aane m meŋ gaŋir ka m tummin tuum kaŋa, m naani di'edin nyood.
Lì yá' āa-ní‿m̀ mɛ̄ŋ gáŋìr kà m̀ tʊ́mmī-n tʊ́ùm-kàŋā,
3INAN if COP-DP 1SG self choice and 1SG work:IPFV-DP work-DEM.DEI.SG,
m̀ nāanı dī'ədı-n ňyɔ̄ɔd.
1SG then receive:IPFV-DP pay.
"If it had been my own choice that I did this work, I would have been getting pay." (1 Cor 9:17, 1976)

Ya'a ka'anɛ alaa, m naan kʊ yɛlinɛ ya ye ...
Yà' kā'a-ní◡àlá, m̀ nāan kʊ́ yɛ̄lɪ-ní◡yā yɛ̄ ...
If NEG.BE-DP ADV:thus, 1SG then NEG.IRR say-DP 2PL.OB that...
"If it were not so, I would not have told you that ..." (Jn 14:2)

Contrary-to-fact conditions in the past are also sometimes marked by combining the irrealis mood with preverbal past tense markers in the main clause; the *yà'*-clause has *n*^{ɛ} as usual:

Bɔzugɔ Josua ya'a da tisini ba vʊ'ʊsʊm zin'ig, Wina'am da kʊ lɛm pian' dabis-si'a yɛla ya'asɛ.
Bɔ̄ zúgɔ̄ Josua yá' dà tìsī-ní◡bā vʊ̄'ʊsím zíň'ìg, Wínà'am dá kʊ̀
Because Joshua if TNS give-DP 3PL.OB resting place:SG, God TNS NEG.IRR
lɛ̄m pi̯āň' dábìs-sī'a yɛ́là yà'asɛ̄ $^{+}$*ø.*
again speak day-INDF.INAN about again NEG.
"For if Joshua had given them a resting place, God would not subsequently have spoken of a certain day." (Heb 4:8)

Similarly, without a *yà'*-clause:

Ò dāa ná zāb ná'àb lā.
3AN TNS IRR fight chief:SG ART.
"He would have fought the chief" (but didn't)
WK confirmed this meaning, as against "He was going to fight the chief."

25 *Ǹ*-clauses

25.1 Overview

Kusaal transforms complete clauses into AdvPs or NPs by inserting the post-subject particle *ǹ*. (For the realisation of the particle, see 8.2.) The *ǹ* by itself is a nominaliser, which turns the original clause "X" into an "absolute" clause signifying "it being the fact that X." *Ǹ*-clauses also form the basis of Kusaal relative clauses, though in the commonest type the nominaliser has fused with a preceding demonstrative pronoun to create what is synchronically simply a relative pronoun.

Nominaliser-*ǹ* may be historically related to catenator-*n* 23.1.

All types of *ǹ*-clause have independent tense marking (but relative to the narrative timeline within a series of sequential clauses 22.2.1.)

They cannot use the imperative mood; irrealis appears instead:

Yanamɛ na mɔr sam si'a anɛ ye ya nɔŋ taaba.
Yānámì‿ø nà mɔ̄r sām-sí'a á nɛ̄ yɛ́ yà nɔ́ŋ tāaba.
2PL NZ IRR have debt-INDF.INAN 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 contain focus particles, but relative pronouns are often preposed with *kà* 25.3.2. *Ǹ*-clauses cannot take modifiers or postdeterminers, but can participate as predeterminers in forming larger NPs or AdvPs, and may have predeterminers of their own 16.10.3.

Absolute *ǹ*-clauses almost always take the article *lā*$^{+/}$; the function of the article after relative clauses is similar to its usage elsewhere 16.5. Absence of the article after a relative clause does duty for what with nouns is expressed by indefinite postdeterminer pronouns.

Ɔ̄n sɔ̄b á nɛ̄ dáu̯-kànɪ sà kɛ̄ nā sú'ès lā.
3AN.CNTR individual.SG COP FOC man-REL.SG TNS come hither yesterday ART
"That one's the man who came yesterday."

Dàp-bànɪ bɔ̀ɔd yɛ́ bà ňyɛ́ɛ‿f kɛ́ nā.
Man-REL.PL want that 3PL see 2SG.OB come hither
"Some men who want to see you have come."

onɛ du'a nɛ Siig "someone born of the Spirit" (Jn 3:8)
ɔ̀nɪ dṵ'à nɛ̄ Sīɪg
REL.AN bear with spirit:SG

onɛ tʊmi m la na "he who sent me hither" (Mk 9:37)
ɔ̀nɪ tʊ̀mɪ‿m lā nā (*ɔ̀nɪ* = REL.AN; contrast *ɔ́n* 3SG:NZ)
REL.AN send 1SG.OB ART hither

The article 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 belonging to the *ǹ*-clause 19.10.

If the *ǹ*-clause has a negative VP, it only shows a final LF if the *ǹ*-clause is itself clause-final in the superordinate clause:

Nīn-bánì pū dít ná kpī.
Person-REL.PL NEG.IND eat:IPFV IRR die.
"People who don't eat will die." WK

Ǹ ňyɛ́ nīn-bánì pū dítā $^{+}$*ø.*
1SG see person-REL.PL NEG.IND eat:IPFV NEG.
"I've seen some people who don't eat."

25.2 Absolute clauses

Ǹ-clauses which do not contain relative pronouns or determiners as heads are **absolute clauses** meaning "it being the fact that X", where "X" is the original clause:

Dāu̱ lā dāa záb nà'ab lā.
Man:SG ART TNS fight chief:SG ART
"The man fought the chief."

dāu̱ lá‿ø dāa záb nà'ab lā
Man:SG ART NZ TNS fight chief:SG ART
"the man having fought the chief"

The most characteristic use of absolute clauses is as AdvPs of time or circumstance. They are the usual way of expressing past "when", used as postlinker adjuncts 21.2.1 or as VP adjuncts, generally preposed with *kà* 28.2. Kusaal is stricter than English in requiring constituent order to reflect event order (cf catenation 23.1), so the VP-final adjunct position is usually confined to cases where the absolute clause expresses a state of affairs rather than a single event:

Ɔ̄n dāa ňyɛ̄t súŋā, ɔ́n dāa áň bí-līa láa $^{+}$*ø?*
3AN.CNTR TNS see:IPFV good:ADV, 3AN:NZ TNS COP child-baby:SG ART PQ?
"Did she see well when she was a baby?"

Tense markers in an absolute clause are the same as in the main clause; the main clause markers may be omitted if the absolute clause precedes. It is thus not possible to manipulate the time relationship with tense particles; instead, this is determined by aspect, with a perfective in the absolute clause implying a prior event and imperfective a simultaneous one, setting the temporal scene for the main clause.

Ka ban dit la, Yesu yɛli ba ...
Kà bán dìt lā, Yesu yɛ́lì‿bā ...
And 3PL:NZ eat:IPFV ART, Jesus say 3PL.OB
"As they were eating, Jesus said to them ..." (Mt 26:21)

Ka ban yi la, ka Zugsob malek nie o meŋ ...
Kà bán yī lā, kà Zūg-sɔ́b máli̯āk níe ò mɛ̄ŋ ...
And 3PL:NZ emerge ART and head-one:SG angel:SG appear 3AN self
"After they had left, an angel of the Lord showed himself ..." (Mt 2:13, 1996)

Like other AdvPs, absolute clauses have limited use as verb arguments, most often as the complement of *àe̯ňᵃ* "be", though occasionally as subjects:

Kristo da kpii ti yɛla la kɛ ka ti baŋ nɔŋilim an si'em.
Kristo‿ø dà kpìi‿tì yɛ̄lá lā kɛ́ kà tì báŋ nɔ̀ŋɪlím‿ø àň sī'əm.
Christ NZ TNS die 1PL about ART cause and 1PL realise love NZ COP INDF.ADV
"Christ dying for us makes us understand what love is like." (1 Jn 3:16)

Dine kɛ ka m a saalbiis zua la anɛ
mam pu sa'amidi ba la'ad ka mɛ pu diti ba ki la.
Dìnɪ kɛ́ kà m̀ áň sáàl-bīis zu̯á lā á nɛ̄ mán
REL.SG cause and 1SG COP smooth-child:PL friend:SG ART COP FOC 1SG:NZ
pʊ̄ sáň'amìdí‿bà lā'ad kà mɛ́ pʊ̄ 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

Absolute clauses are not used as objects of verbs of perception or communication; either relative clauses with indefinite pronouns as relatives or content clauses 26.2 appear in this function.

Absolute clauses with *sādɪgím* "since, because" immediately following nominaliser-*ǹ* occur as postlinker adjuncts expressing "reason why":

Tinamɛ sagidim aan o biis la, ti da tɛn'ɛs ...
Tīnámì‿ø sādıgím áaň‿ò bīis lā, tì dā tɛ̄ň'ɛs ...
1PL NZ since COP 3AN child:PL ART, 1PL NEG.IMP think ...
"Since we are his children, we should not think ..." (Acts 17:29)

Amaa on sadigim kpi la, bɔ ka m lɛm lɔɔd nɔɔr ya'asɛ?
Àmáa ɔ́n sādıgím kpí lā, bɔ́ kà m̀ lɛ́m
But 3AN:NZ since die ART, what and 1SG again
lɔ̄ɔd nɔ̄ɔr yá'asɛ̀ ⁺ø ⁺ø?
tie:IPFV mouth:SG again NEG CQ?
"But since he has died, why should I still be fasting?" (2 Samuel 12:23)

For absolute clauses with post-subject *nāan(ı)* see 24.1.2.

Absolute clauses occur after *hālí nɛ̄* or *hālí là'am nɛ̄* "although, even as" 18, and *hālí n tì pāa ...*"up until the time when ..." 21.2.1.

Before the postposition *zūgɔ/* "on account of", or *bɔ̄ zúgɔ̄* "because", absolute 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 lá'às tāaba n dɛ́ŋì‿ ø ňyɛ̄ Blestus ɔ́nì àň ná'àb Herod
And 3PL gather each.other CAT do.first CAT see Blastus REL.AN COP king:SG Herod
sāmán-nà'ab lā n máàl sūɵr yɛ́ ò ňwɛ́' nà'ab nú'ùg,
courtyard-chief:SG ART CAT make way:SG that 3AN strike king:SG hand:SG,
bà dīıb ǹ yīt ná'-tɛ̄ŋ lā nā zúg.
3PL food NZ emerge:IPFV king-country:SG ART hither upon
"They gathered together after first seeing Blastus, king Herod's chamberlain, to get him to make an agreement with the king, because their food came from the king's land." (Acts 12:20, 1996)

When they contain perfective forms, such absolute clauses may as usual need to be preposed with *kà* 28.2 to match the word order to event order 19.2.1:

Mán ňwɛ̀' dāu̱ lā zúg kà police gbáň'a‿m.
1SG:NZ strike man:SG ART upon and police seize 1SG.OB.
"Because I struck the man the police arrested me."

It is commoner for causation to be simply implied by an absolute clause as postlinker adjunct or *kà*-preposed VP adjunct, or by a sequential clause:

Mán ǹwɛ̀' dāu̱ lā, kà police gbáǹ'a‿m.
1SG:NZ strike man:SG ART and police seize 1SG.OB.
"I having struck the man, the police arrested me."

M̀ ǹwɛ́' dāu̱ lā, kà police gbáǹ'a‿m.
1SG strike man:SG ART and police seize 1SG.OB.
"I struck the man and the police arrested me."

Yɛ̄lá$^{+}$ "concerning" appears after absolute clauses in NT section headings:

Jesus n kpen' Jerusalem la yela
Jesus ǹ kpɛ̀ǹ' Jerusalem lā yɛ́là
Jesus NZ enter Jerusalem ART about
"[about] Jesus entering into Jerusalem."

However, the NT uses absolute clauses alone as picture captions:

Ban meed yir "A house being built"
Bán mɛ̀ɛd yīr
3PL:NZ build:IPFV house:SG

25.3 Relative clauses

Relative clauses are usually restrictive in meaning, except when the construction is appositional. (Compare adnominal *kà*-catenation, used typically with a non-restrictive relative meaning 23.3.)

Structurally, Kusaal relative clauses are of two distinct types: those which use relative pronouns, and those which use indefinite pronouns in the rôle of relatives. The relative clause subject is followed by *ǹ* in the indefinite-pronoun type; diachronically, the unitary relative pronouns have arisen from fusion of a clause-initial short demonstrative pronoun with a following *ǹ*.

A relative clause introduced by a relative pronoun may contain indefinite pronouns with their normal meaning, and a relative clause with an indefinite pronoun as relative may contain other indefinite pronouns in their normal function so long as they precede the pronoun which appears with the relative meaning. Short demonstrative pronouns are never relatives when non-initial, and long demonstratives are never relatives at all:

*Wina'am onɛ gaad **si'el** wʊsa la*
Wínà'am ɔ́nì gàad sī'əl wʊ̄sa lā
God REL.AN pass INDF.INAN all ART
"God who surpasses everything." (Lk 1:35)

*wʊʊ baŋi gban'ad **si'el** si'em la*
wʊ̄ʊ bāŋí‿ ø gbāň'ad sī'əl sī'əm lā
like trap:SG NZ seize:IPFV INDF.INAN INDF.ADV ART
"like a trap seizes something" (Lk 21:35)

*O pa'al nɛ'ɛnam nyain tis sɔ' wʊsa on vʊ'ʊg nin**kan** kumin la zug.*
Ò pà'al nɛ̄'-nám ñyāe‿ ø tís sɔ̄' wʊ̄sa ɔ́n vʊ̄'ʊg nīn-kán
3AN show DEM.INAN-PL clearly CAT give INDF.AN all 3AN:NZ revive person-DEM.SG
kʊ̄mɪ-n lā zúg.
death-LOC ART upon.
"He has shown this clearly to everyone because he has raised that person from death." (Acts 17:31)

*o na tʊm tʊʊmnyalima gaad dau **kaŋa** tʊm si'el laa?*
ò nà tʊ̄m tʊ́ʊ̀m-ňyālɪmá‿ ø gàad dàu̱-kàŋá‿ ø tʊ̀m sī'əl láa +ø?
3AN IRR work work-grand:PL CAT pass man-DEM.DEI.SG NZ work INDF.INAN ART PQ?
"Will he do miracles greater than this man has?" (Jn 7:31)

25.3.1 With indefinite pronouns

Relative clauses using indefinite pronouns as relatives are **internally headed**. The pronoun may occur as a head, functioning as the clause antecedent, or as a postdeterminer pronoun after a cb which is then the clause antecedent; in either case it remains *in situ* within the relative clause. The pronoun is thus followed not only by the article belonging to the whole clause, but by any adverbial elements and catenated clauses:

*ye Wina'am nodi'esidib n daa yel **si'el** n sob Wina'am gbauŋin la, ane ameŋa.*
yɛ̄ Wínà'am nɔ́-dí'ə̀sɪdɪb n dāa yɛ́l sī'əl n sɔ̄b
That God mouth-receiver:PL NZ TNS say INDF.INAN CAT write
Wínà'am gbáu̱ŋʊ̄-n lā á né àmɛ̄ŋá.
God book:SG-LOC ART COP FOC truly.
"So that what God's prophets said and wrote in God's book is true."
(Mt 26:56, 1996)

The indefinite pronoun or noun-pronoun compound usually follows the verb directly, but this is not invariable:

... fɒn yɛlim fɒn niŋ li siˈel.
... fɔ̄n yɛ́lìm fɒ́n nìŋì‿lī sīˈəl.
... 2SG.CNTR say:IMP 2SG:NZ do 3INAN INDF.INAN.
"... that you say where you have put it." (Jn 20:15)

Instead of analysing these clauses as internally headed, one might try to take such trailing elements as modifying the relative clause; however, this cannot explain cases where the pronoun appears in a subordinate clause within the relative clause, or is a predeterminer within a NP or AdvP (see below.)

The antecedent of a relative clause using an indefinite pronoun is most often a direct object:

*Ɔ́n yɛ̀l **sīˈəl** lā kāˈ sídāa* ⁺*ø.*
3AN:NZ say INDF.INAN ART NEG.BE truth NEG.
"**What** he says is not true" SB

*on gaŋ **dau sɔ**ˈ la*
ɔ́n gāŋ dáu̱-sɔ̄ˈ lā
3AN:NZ choose man-INDF.AN ART
"**the man** whom he has chosen" (Numbers 16:5)

*M miˈ man gaŋ **sieba** la.*
M̀ míˈ mán gāŋ sīəba lā.
1SG know 1SG:NZ choose INDF.PL ART.
"I know **those** whom I have chosen." (Jn 13:18)

*Ka ban tɒm **sɔ**ˈ la kɒ gaad onɛ tɒm o la.*
Kà bán tɒ̀m sɔ̄ˈ lā kɒ́ gāad ɔ́nì tɒ̀m·o‿ø láa ⁺*ø.*
And 3PL:NZ send INDF.AN ART NEG.IRR surpass REL.AN send 3AN.OB ART NEG.
"**One** who was sent does not surpass the one who sent him." (Jn 13:16)

*Paul n sob **gbauŋ siˈa** n tis Efesus dim la*
Paul ǹ sɔ̄b gbáu̱ŋ-sīˈa n tís Efesus dím lā
Paul NZ write letter- INDF.INAN CAT give Ephesus individual.PL ART
"**the letter** which Paul wrote to the Ephesians" (NT heading)

*Man mi' **si'el** nan anɛ bi'ela.*
Mán mī' sī'əl nān á nɛ̄ bī'əlá.
1SG:NZ know INDF.INAN now COP FOC small.ADV
"**What** I know now is small." (1 Cor 13:12)

The head can be part of a subordinate clause within the relative clause, or it can be a predeterminer in a NP or AdvP:

*Fʊn bɔɔd ye fʊ kʊ **dau sɔ'** la ya'a kpi...*
Fʊ́n bɔ̀ɔd yɛ́ fʊ̀ kʊ̄ dáu̱-sɔ̄' lā yá' kpì...
2SG:NZ want that 2SG kill man-INDF.AN ART if die...
"If the man **whom** you are seeking to kill dies ..." (2 Samuel 17:3)

*ya na baŋ man yɛl ye m an **sɔ'** la.*
yà ná bāŋ mán yɛ̀l yɛ́ m̀ àn̆ sɔ̄' lā.
2PL IRR understand 1SG:NZ say that 1SG COP INDF.AN ART.
"you will understand **who** I say that I am." (Jn 8:28)

*Gɔsim ye fʊ na baŋ la'abama an **sɔ'** bʊnnɛɛ?*
Gɔ̀sɪm yɛ́ fʊ̀ ná bāŋ lá'-bàmmá‿ø àn̆ sɔ̄' bʊ́nnɛ̀ɛ ⁺ø?
Look:IMP that 2SG IRR understand item-DEM.DEI.PL NZ COP INDF.AN thing:SG PQ?
"Can you see if you can find out **whose** property these things are?"
(Genesis 38:25)

*Alaa mam mɛ kʊ yɛli ya mam nyɛ nɔɔr la **sɔ'** san'anɛ.*
Àláa mām mɛ́ kʊ̀ yɛ̄lɪ‿yá mán n̆yɛ̄ nɔ̄ɔr lā sɔ̄' sá'anɛ̄ ⁺ø.
Thus 1SG.CNTR also NEG.IRR say 2PL.OB 1SG:NZ see mouth:SG ART INDF.AN among NEG.
"Thus I too will not tell you from **whom** I derived the authority." (Mt 21:27)

*M na tʊmi m Ba' zi'el nɔɔr **sɔ'** yɛla la tisi ya*
M̀ ná tʊ̄mí‿m̀ Bá'‿ ø zì'əl nɔ̄ɔr sɔ̄' yɛ́là‿ø tísì‿yā.
1SG IRR send 1SG father:SG NZ stand mouth:SG INDF.AN about CAT give 2PL.OB.
"I will send **whom** my Father made a promise about to you." (Lk 24:49)

Indefinite pronouns as relatives may be omitted before ordinal expressions:

*ka fʊn gban'e **ziiŋ si'a yiiga** la, fʊn ya'am o nɔɔr ...*
kà fʊ́n gbān̆'e zīŋ-sí'a yīigá lā, fʊ̄n yá'àm ò nɔ̄ɔr ...
and 2SG:NZ catch fish-INDF.INAN firstly ART, 2SG.CNTR open:IMP 3AN mouth:SG
"and the first fish you catch, open its mouth..."(Mt 17:27)

but *Paul n sob **gbauŋ yiiga daan** n tis Korint dim la nwa.*
Paul ǹ sɔ̄b gbáu̱ŋ yīigá dāan n tís Korint dím lā◡ø ňwá.
Paul NZ write letter:SG firstly owner:SG CAT give Corinth one.PL ART CAT this.
"This is **the first letter** which Paul wrote to the Corinthians." (NT heading)

In most relative clauses using indefinite pronouns the pronoun is itself the head of the clause. It then usually keeps the indefinite-specific sense of indefinite pronouns in other contexts (the main exceptions are a sequence in Rev 2-3 of *man nye so' la* "the one I saw.") In the 1996 NT, out of 33 examples of *sɔ̄'*$^{+}$ used in this way, 20 involve constructions where the relative clause is the complement of a verb of cognition, reporting, or perception. Relative clauses with indefinite pronouns as relatives are strongly preferred in clauses which correspond to what CGEL calls "subordinate interrogative clauses" (pp1070ff, pp972ff), and may be obligatory when such a clause follows a verb as its complement and the pronoun is not the subject of the subordinate clause. Such cases account for the great majority of relative clauses with uncompounded indefinite pronouns.

Examples from the 1996 NT and KB:

o naan baŋin po'a kane si'is o la a so'
ò nāan báŋī-n pu̱'á-kànì sī'ɪs·ó◡ø lá◡ø àň sɔ̄'.
3AN then realise-DP woman-REL.SG touch 3AN.OB ART NZ COP INDF.AN.
"He would know **what** [kind of] woman it is who touched him" (Lk 7:39, 1996)

m na pa'ali ya on wen so'.
m̀ ná pā'alı◡yá ɔ́n wɛ̄n sɔ̄'.
1SG IRR teach 2PL.OB 3AN:NZ resemble INDF.AN.
"I will teach you **what** he is like." (Lk 6:47, 1996)

M mi' fun a so'. "I know **who** you are." (Lk 4:34, 1996)
M̀ mí' fún àň sɔ̄'.
1SG know 2SG:NZ COP INDF.AN

David da tʊm sɔ' ye o bu'osi baŋ pu'a la an sɔ'.
David dá tʊ̀m sɔ̄' yɛ́ ò bū'ɵsɪ◡ø báŋ pu̱'ā lá◡ø àň sɔ̄'.
David TNS send INDF.AN that 3AN ask CAT understand woman:SG ART NZ COP INDF.AN.
"David sent someone to ask and find out **who** the woman was." (2 Samuel 11:3)

... baŋi ba yaanamɛ an sieba
... báŋì◡ bà yāa-námì◡ø àň sīəba
... understand 3PL ancestor-PL NZ COP INDF.PL
"... discover **who** their ancestors were." (Ezra 2:61)

Relative clauses headed by *sɪ̄ˈəl*^{a} account for most occurrences of *sɪ̄ˈəl*^{a} in the 1996 NT. Again, most cases (75 out of 130 in Matthew, Mark, Luke and John in the 1995 NT) show either *sɪ̄ˈəl*^{a} or the entire relative clause (or both) as the complement of a verb of cognition, reporting, or perception:

Mam mi' si'el ane ye, m daa ane zu'om ka yu'un nyet.
Mán mɪ̄ˈ sɪ̄ˈəl á nɛ̄ yɛ̄, m̀ dāa á nɛ̄ zū'ɵm, kà yʊ̄'ʊn ňyɛ̄t.
1SG:NZ know INDF.INAN COP FOC that, 1SG TNS COP FOC blind:SG, and after see:IPFV.
"What I know is, that I was blind and now I see." (Jn 9:25, 1996)

Kem yeli Joon yanam wum ka nye si'el.
Kɛ̀m‿ø yɛ̄lɪ‿ø Joon yānám‿ø wùm kà ňyɛ̄ sɪ̄ˈəl.
Go:IMP CAT say 2PL.SUB John 2PL NZ hear and see INDF.INAN.
"Go and tell John what you have heard and seen." (Mt 11:4, 1996)

Ya baŋ man niŋ si'el laa?
Yà báŋ mán nìŋ sɪ̄ˈəl láa $^{+}$*ø?*
2PL understand 1SG:NZ do INDF.INAN ART CQ?
"Do you understand what I have done?" (Jn 13:12, 1996)

Of the remaining 55 examples, 22 have *sɪ̄ˈəl*^{a} in a locative meaning "where, whither"; neither the pronoun nor the relative clause have the locative particle:

Bozugo ya araza'ase be si'el la, ya potenda me bene anina.
Bɔ̄ zúgɔ́ yà àrazà'así‿ø bɛ̀ sɪ̄ˈəl lā, yà pʊ̀-tɛ̀ňda mɛ́ bɛ̀ nɛ́ àní nā.
Because 2PL treasure NZ EXIST INDF.INAN ART, 2PL mind:PL too EXIST FOC there.
"For where your treasure is, your mind is too." (Mt 6:21, 1996)

One keŋ likin zi' on ken si'ela.
Ɔ̀nɪ kɛ̄ŋ līkɪ-n zɪ̄' ɔ́n kɛ̄n sɪ̄ˈəla $^{+}$*ø.*
REL.AN go darkness-LOC NEG.KNOW 3AN:NZ go:IPFV INDF.INAN NEG.
"He who walks in darkness does not know where he is going." (Jn 12:35, 1996)

In the remaining 33 examples, *sɪ̄ˈəl*^{a} consistently has an abstract uncountable meaning, often shading into "whatever":

Ka o niŋ on tun'e si'el.
Kà ò níŋ ɔ́n tūňˈe sɪ̄ˈəl.
And 3AN do 3AN:NZ be.able INDF.INAN.
"She has done what she could."(Mk 14:8,1996)

In 14 of these cases it is followed by *wūsa*$^{+}$ "all":

M na tis uf fun bood si'el wusa.
Ḿ ná tīsɪ͡f fún bɔ̀ɔd sɪ̄əl wūsa.
1SG IRR give 2SG.OB 2SG:NZ want INDF.INAN all.
"I will give you anything you want." (Mk 6:23, 1996)

Sɪ̄əm^{m}, the form of the indefinite pronoun system with the mass *m*^{m} class suffix, appears in adverbial use as "somehow." As Kusaal frequently uses manner-adverbs as predicative complements 17.5, relative clauses with *sɪ̄əm* are, once again, common as objects of verbs of cognition, reporting, and perception:

Kristo da kpii ti yɛla la kɛ ka ti baŋ nɔŋilim an si'em.
Kristo͡ø dà kpìi͡ tì yɛ̄lá lā kɛ́ kà tì báŋ nɔ̀ŋɪlím͡ø àň sɪ̄əm.
Christ NZ TNS die 1PL about ART cause and 1PL realise love NZ COP INDF.ADV
"Christ dying for us makes us understand what love is like." (1 Jn 3:16)

The article *lā*$^{+/}$ has its usual function with *sɪ̄əm*-relative clauses:

Ḿ mí' mán nà nīŋ sɪ̄əm. "I know what to do."
1SG know 1SG:NZ IRR do INDF.ADV.

Ḿ mí' mán nà nīŋ sɪ̄əm lā.
1SG know 1SG:NZ IRR do INDF.ADV ART.
"I know what I'm to do" (WK: "You explained the plan earlier; this is my reply when you ask if I remember it")

In the 1976 NT almost all relative clauses with *sɪ̄əm* and past tense marking have *lā*$^{+/}$; 75% lacking *lā*$^{+/}$ have irrealis mood. Cf the two standing expressions

ɔ́n bɔ̀ɔd sɪ̄əm "as he wishes"
3AN:NZ want INDF.ADV

lɪ́n àň sɪ̄əm lā "as things are"
3INAN:NZ COP INDF.ADV ART

Yɛ̀l^{ɛ} "say, tell" tends to take a *sɪ̄əm*-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 sɪ̄əm lā.
3PL say 3AN.OB 3PL:NZ do INDF.ADV ART
"They told him what they'd done"

Bà nà yɛ̄lɩ‿f fún nà nīŋ sɪ̄əm.
3PL IRR tell 2SG.OB 2SG:NZ IRR do INDF.ADV.
"They'll tell you what to do."

Pà'alᵋ "teach, inform", surprisingly, takes a relative clause object without *lā*:

Bà pà'al·ō‿ø bán nìŋ sɪ̄əm.
3PL inform 3AN.OB 3PL:NZ do INDF.ADV.
"They informed him of what they'd done."

Verbs of other types also take *sɪ̄əm*-clauses as complements.
Gàadᵋ "pass, surpass" is used with a *sɪ̄əm*-clause for comparing actions:

Mam tʊm bɛdegʊ gaad ban tʊm si'em la.
Mām tʊ́m bɛ́dʊgʊ̄‿ø gáàd bán tʊ̀m sɪ̄əm lā.
1SG.CNTR work much CAT pass 3PL:NZ work INDF.ADV ART
"I've worked much harder than (how) they have." (2 Cor 11:23)

Gbāň'eᴴ/ "catch" is used with a *sɪ̄əm*-clause for "decide what to do":

M̀ gbáň'e mán nà nīŋ sɪ̄əm.
1SG seize 1SG:NZ IRR do INDF.ADV.
"I've decided what to do."

With verbs of doing, a *sɪ̄əm*-relative clause can be a manner-adverb:

Bà nìŋ ɔ́n yɛ̀lɩ‿bā sɪ̄əm lā.
3PL do 3AN:NZ tell 3PL.OB INDF.ADV ART.
"They did as he'd told them."

Like other AdvPs, *sɪ̄əm*-relative clauses can be verb subjects:

Man noŋi ya si'em la ane bedego.
Mán nɔ̀ŋɩ‿yā sɪ̄əm lā á nɛ̄ bɛ́dʊgʊ̄.
1SG:NZ love 2PL.OB INDF.ADV ART COP FOC much.
"How much I love you, is a lot." (2 Cor 7:3, 1976)

Sɪ̄ˈəm-relative clauses occur often as objects of *wʊ̄ʊ* "like", *wɛ̄n*$^{na/}$ "resemble"

...ka ya na kɛ ka nidib dɔl man wʊʊ ziiŋgbaˈadibi gbanˈad zimi siˈem la.
...kà yà ná kɛ́ kà nīdɪb dɔ̄l mān wʊ̄ʊ zīiŋ-gbáňˈadɪ̀b‿ø
...and 3PL IRR cause and person:PL follow 1SG.CNTR like fish-catcher:PL NZ
gbāňˈad zīmí sɪ̄ˈəm lā.
catch:IPFV fish:PL INDF.ADV ART
"... you will make people follow me like fishermen catch fish." (Mt 4:19)

Hālí (*làˈam*) *nɛ̄* "although" can take a *sɪ̄ˈəm*-relative clause in the sense "despite how..." 18.

Relative clauses with an indefinite pronoun as a postdeterminer are comparatively uncommon. Only one case occurs in the 1996 NT with *sɔ̄*ˈ$^{+}$ or *sɪ̄əba*$^{+}$, though KB has several examples; *sɪ̄ˈa*$^{+}$ is commoner, but in the great majority of cases follows a cb expressing a place or time. However, when indefinite pronouns do appear after cbs as relatives, they are not limited to indefinite-specific senses:

Nidib la da wum Yesu n tum ***tuum sieba*** *...*
Nīdɪb lā dá wʊ̀m Yesu n tʊ̀m tʊ̀ʊm-sɪ̄əba ...
Person:PL ART TNS hear Jesus NZ work work-INDF.PL ...
"The people heard of the deeds that Jesus had performed... " (Mk 3:7, 1996)

Ban da kʊ ***ninsieba*** *da kaˈ biˈelaa.*
Bán dà kʊ̄ nīn-sɪ́əbà dá kāˈ bɪ̄ˈəláa $^{+}$*ø.*
3PL:NZ TNS kill person-INDF.PL TNS NEG.BE few NEG.
"Those they had killed were not few." (1 Samuel 4:10)

ka ban nɛ ban tʊm ***ninsieba*** *la dɔl taaba keŋ Davidˈan...*
kà bān nɛ̄ bán tʊ̀m nīn-sɪ́əbà lā dɔ̄l tāaba‿ ø
and 3PL.CNTR with 3PL:NZ send person-INDF.PL ART accompany each.other CAT
kɛ̄ŋ Davidˈàn...
go David among ...
"They and those whom had been sent went together with David" (1 Sam 25:42)

Kem tʊˈʊs Samaria naˈabi tʊm ***ninsieba*** *la na ...*
Kɛ̀m‿ø tʊ̄ˈʊs Samaria náˈabɪ́‿ø tʊ̀m nīn-sɪ́əbà lā nā ...
Go:IMP CAT greet Samaria king:SG NZ send person-INDF.PL ART hither ...
"Go and greet the men sent by the king of Samaria ..." (2 Kings 1:3)

Ka bugum n dit ***teŋtita'ar si'a*** *la nyo'os dut ne agol saŋa dine ka' benne.*
Kà bùgúm‿n dìt tɛ́ŋ-tītá'-sī'a lā ǹyɔ́'ɔ̀s dùt né
And fire NZ eat:IPFV land-big-INDF.INAN ART smoke ascend:IPFV FOC
àgɔ́l sāŋá dìnɪ kā' bɛ̄nnɛ +*ø.*
ADV:upwards time:SG REL.INAN 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 teŋ tita'ar* "the great city of Babylon" (Rev 18:21, 1996)

ka fun gban'e ***ziŋ si'a*** *yiiga la, fun ya'ami o noor*
kà fún gbāǹ'e zīm-sí'a yīigá lā, fūn yá'amí‿ò nɔ̄ɔr.
And 2SG:NZ grab fish-INDF.INAN firstly ART, 2SG.CNTR open:IMP 3AN mouth:SG.
"The first fish that you catch, open its mouth ..." (Mt 17:27, 1996)

Nannanna, yaname daa sob ***gbauŋ si'a*** *la ka m ye m sob lebisi ya.*
Nānná-nā, yānámì‿ø dāa sɔ̄b gbáu̱ŋ-sī'a lá kà m̀ yɛ́
Now, 2PL NZ TNS write letter-INDF.INAN ART and 1SG that
m̀ sɔ̄b‿ø lɛ́bìsì‿yā.
1SG write CAT answer 2PL.OB.
"Now, it's the letter you wrote that I'm going to write back to you about." (1 Cor 7:1, 1996)

... li pu nar ye m zaŋ Zugsob la tisi m ***paŋ si'a*** *la n tum ne sutoogo.*
... lì pū nār yɛ́ m̀ záŋ Zūg-sɔ́b lá‿ø tìsì‿m
... 3INAN NEG.IND be.necessary that 1SG pick.up Head-one:SG ART NZ give 1SG.OB
páŋ-sī'a lā n túm nɛ̄ sūǹ-tɔ́ɔgɔ̄ +*ø.*
power-INDF.INAN ART CAT work with heart-bitterness NEG.
"... it's not necessary that I use the power which the Lord gave me in acting with harshness." (2 Cor 13:10, 1996)

Yaname na mor ***sam si'a*** *ane ye ya noŋ taaba.*
Yānámì‿ø nà mɔ̄r sām-sí'a á nɛ̄ yɛ́ yà nɔ́ŋ tāaba.
2PL NZ IRR have debt-INDF.INAN COP FOC that 2PL love each.other
"**Any debt** which you are to have is to love each other." (Rom 13:8, 1996)

Cases of the "subordinate interrogative clause" type also occur:

Tiig wela bigisid lin a ***tisi'a****.*
Tìıg wɛ́là‿ ø bìgısıd lín àǹ tí-sī'a.
Tree:SG fruit:PL CAT show:IMPF 3INAN:NZ COP tree-INDF.INAN.
"It's the fruit of the tree that shows **what tree** it is." (Mt 12:33, 1996)

Of 56 relative clauses with *sɪ̄ˈa*$^{+}$ in the 1996 NT, 33 involve cbs of nouns referring to places:

M Zugsoba, ti zi' fun ken ***zin'isi'a*** *la.*
Ǹ Zūg-sɔ́bā $^{+}$*ø, tì zī' fún kɛ̄n zíň'-sɪ̄ˈa láa* $^{+}$*ø.*
1SG Head-one:SG VOC, 1PL NEG.KNOW 2SG:NZ go:IPFV place-INDF.INAN ART NEG.
"My Lord, we don't know where you are going." (Jn 14:5, 1996)

Ka bugum nie on be ***doog si'a*** *la ni.*
Kà bùgúm níe ɔ́n bɛ̀ dɔ́-sɪ̄ˈa lā ní.
And fire appear 3SG:NZ EXIST room-INDF.INAN ART LOC.
"And fire illuminated the room where he was." (Acts 12:7, 1996)

Nine cases out of the remaining 23 involve *sān-sɪ́ˈa*$^{+}$ "sometime", e.g.

Abraham da nan kae' ***saŋsi'a*** *la, ka man pun be.*
Abraham dá nàm kā'e̱ sān-sɪ́ˈa lā, kà mān pún bɛ̀.
Abraham TNS still NEG.BE time-INDF.INAN ART, and 1SG.CNTR already EXIST.
"When Abraham still did not exist, I already existed." (Jn 8:58, 1996)

25.3.2 With relative pronouns

The commonest type of relative clause begins with a relative pronoun or an NP with a relative pronoun as a postdeterminer. In origin, these pronouns are short demonstrative pronouns followed by *ǹ*. When the head is the subject of the relative clause, this produces the forms *ɔ̀nɪ kànɪ lɪ̀nɪ bànɪ* (always written *onɛ kanɛ linɛ banɛ* in KB) where the final *-ɪ* is due to liaison before the nominaliser, which is itself invariably realised *ø* in this case.

Ǹ ňyɛ́ dáu̱-kànɪ‿ø zàb nà'ab lā.
1SG see man-DEM.SG NZ fight chief:SG ART
"I saw the man who fought the chief."

When the pronoun is not the subject of the relative clause, but is either another constituent preposed by *kà,* or belongs to a predeterminer of the subject, one might expect the *ǹ* to be absent and the pronoun to have the normal SF form. This indeed the case for WK, and commonly in the older NT versions too:

bàn kà nà'ab lā záb lā
DEM.PL and chief:SG ART fight ART
"those whom the chief fought"

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)

on buudi ka Jew dim kis
ɔ̀n būudí kà Jew dím kīs
DEM.AN tribe:SG and Jew individual.PL hate
"whose tribe the Jews hate" (Lk 10:33, 1996)

However, frequently even in older written materials, and almost invariably in KB, the pre-liaison forms are generalised to these cases too:

gbauŋ kanɛ ka dau la sɔb la
for *gbàu̯ŋ-kàn kà dāu̯ lā sɔ̄b lā*
letter-REL.SG and man:SG ART write ART
"the letter which the man has written"

In *dau **kanɛ** yadda **niŋiri** pʊ zu'oe*
dàu̯-kànɪ yàddā-níŋ̀ɪrɪ͡ ø pʊ̄ zú'e lā
man-REL.SG assent-doing:SG NZ NEG.IND become.great ART
"a man whose faith is not great..." (Mt 14:31)

the nominaliser occurs after the actual relative clause subject.

In view of all this, it seems best to regard the forms *ɔ̀nɪ kànɪ lìnɪ bànɪ* synchronically as subordinating relative pronouns rather than demonstrative + nominaliser combinations, and where sources use the historically expected forms *ɔ̀n kàn lìn bàn* in heads of relative clauses they will be regarded as allomorphs of the relative pronouns in that context. Accordingly, elsewhere I will write e.g.

M̀ ňyɛ́ dáu̯-kànɪ zàb nà'ab lā.
1SG see man-REL.SG fight chief:SG ART
"I saw the man who fought the chief."

bàn(ɪ) kà nà'ab lā záb lā
REL.PL and chief:SG ART fight ART
"those whom the chief fought."

Toende Kusaal shows the same development. Nominaliser-*ǹ* is *ne* in Toende; thus Abubakari 2011 (using her orthography):

*N sa nye buraa **kanne** da da'a gbana la.*
"I saw the man who bought the book."

*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."

As a cb is a word, not a word fragment, and compounded forms are not necessarily bound tighter than uncompounded forms syntactically 16.9, there is no need to regard the pronoun-initial type of relative clause as internally-headed.

If the antecedent is the subject within a relative clause, or a premodifier of the subject, a relative pronoun must be used:

***bànɩ** zàb nà'ab lā* "**those** who fought the chief"
REL.PL fight chief:SG ART

*Ǹ ňyɛ́ **dáu̱-kànɩ** zàb nà'ab lā.*
1SG see man-REL.SG fight chief:SG ART
"I saw **the man who** fought the chief."

***nimbanɛ** yʊda sɔb Pɛbil la gbauŋʊn linɛ an nyɔvʊpaal dim gbauŋ la*
nīn-bánì yʊ̄dá sɔ̄b Pɛ̄'-bíl lā gbáu̱ŋʊ̄-n lɪ́nì
person-REL.PL name:PL write Lamb:SG ART book:SG-LOC REL.INAN
àň ňyɔ́-vʊ̄-páàl dɪ́m gbáu̱ŋ lā
COP breath-alive-new:SG individual.PL book:SG ART
"**those whose** names are written in the Lamb's book of new life" (Rev 21:27)

A relative pronoun can also relativise a complement or adjunct, or an antecedent extracted from a prepositional phrase or from a subordinate clause. The antecedent is preposed with *kà* and a resumptive pronoun is placed in any gap left by extraction, or for an indirect object, and occasionally for a human-reference direct object. *Kà*-preposing has no foregrounding sense in this context.

Kà-preposed relative pronouns are commoner than indefinite pronouns used as relatives, except when the clause corresponds to an English subordinate interrogative clause, or expresses time, place or manner 25.3.1.

Gbauŋ kane ka Jerusalem kpeenmnam daa sob la nwa.
Gbàu̱ŋ-kànı kà Jerusalem kpɛ́ɛ̀ňm-nàm dāa sɔ̄b lā‿ø ňwá.
Letter-REL.SG and Jerusalem elder-PL TNS write ART CAT this.
"This is the letter that the elders of Jerusalem wrote." (Acts 15:23, 1996)

m antu'a linɛ [1996 *lin*] *ka ba mɔr na*
m̀ àntù'a lìnı kà bà mɔ̄r nā
1SG case REL.INAN and 3PL have hither
"the charge they are bringing against me" (Acts 25:11)

yɛltɔɔd ayɔpɔi banɛ ka maliaknama ayɔpɔi mɔr la
yɛ̄l-tɔ́ɔ̀d àyɔ́pɔ̀e̱ bánì kà màl̩iāk-námá‿àyɔ́pɔ̀e̱ mɔ̄r lā
matter-bitter:PL NUM:seven REL.PL and angel-PL NUM:seven have ART
"the seven plagues which the seven angels have" (Rev 15:8)

niŋkanɛ [1996 *niŋkan*] *ka ba gban'e* ***o*** *la*
nīn-kánì kà bà gbáň'·o‿ø lā
person-REL.SG and 3PL seize 3AN.OB ART
"a person **whom** they have seized" (Acts 25:16) (human VP object)

Onɛ *ka ba tis* ***o*** *ka li zu'oe, ba mɛ mɔr pʊtɛn'ɛr ye o na lɛbis linɛ zu'oe.*
Ɔ̀nı kà bà tís·ò‿ø kà lì zú'e, bà mɛ̀ mɔ̀r
REL.AN and 3PL give 3AN.OB and 3INAN become.much, 3PL also have
pú-tɛ̀ň'ɛr yɛ́ ò nà lɛ̄bıs línì zù'e.
inside-mind:SG that 3AN IRR return REL.INAN become.much.
"**Whom** they have given much **to**, they expect he will return much." (Lk 12:48)

Búraa sõ dāa bɛ̃ ànīa, ***ôn*** *kà mān né****ōn*** *dāa túm lā.*
Bū̀rá-sɔ̄' dāa bɛ́ ànínā, ɔ̀n kà mān nɛ̄ ɔ̄n dāa túm lā.
Man-INDF.AN TNS EXIST ADV:there, REL.AN and 1SG with 3AN TNS work:IPFV ART.
"There was a man there **whom** I used to work **with**." ILK

ninkanɛ *ka Na'ab Aretus kɛ ka* ***o*** *sʊ'oe Damaskus la*
nīn-kánì kà nà'ab Aretus kɛ́ kà ò sʊ̄'e Damaskus lā
person-REL.SG and king:SG Aretus cause and 3AN own Damascus ART
"the person **whom** King Aretus had caused to possess Damascus" (2 Cor 11:32)

nimbanɛ *ka ya tɛn'ɛs ye* ***ba*** *anɛ tuongatib la*
nīn-bánì kà yà tɛ̄ň'ɛs yé bà à nɛ̄ túèn-gātíb lā
person-REL.PL and 2PL think that 3PL COP FOC ahead-passer:PL ART
"those **whom** you consider to be leaders" (Gal 2:6)

linɛ [1996 *lin*] *ka Kristo bɔɔd ye ti pian' la*
lìnɪ kà Kristo bɔ́ɔ̀d yɛ́ tì pi̱āň' lā
REL.INAN and Christ want that 1PL speak ART
"**what** Christ wishes us to say" (2 Cor 12:19)

If the antecedent is a predeterminer in an NP which is not the subject, that entire NP is *kà*-preposed, but obviously no resumptive pronoun is needed:

*Samaritan nid (****on*** *buudi ka Jew dim kis)*
Samaritan níd, ɔ̀n būudí kà Jew dím kīs
Samaritan person:SG REL.AN tribe:SG and Jew individual.PL hate
"a Samaritan, **whose** tribe the Jews hate" (Lk 10:33, 1996)

bikanɛ [1996 *biig kan*] *pʊʊg ka o mɔr la*
bì-kànɪ pʊ́ʊ̀g kà ò mɔ̄r lā
child-REL.SG belly:SG and 3AN have ART
"the child **which** she is pregnant with [whose belly she has]" (Mt 1:20)

Relative clauses with locative reference do not take the locative *nī*$^{+/}$:

yikan ka mam Paul be la yidaan
yī-kán kà mām Paul bɛ́ lā yí-dáàn
house-REL.SG and 1SG.CNTR Paul EXIST ART house-owner:SG
"the owner of the house where I, Paul, am" (Rom 16:23, 1976)

25.3.3 Uncompounded antecedents

Written materials frequently show a human-reference NP followed by a relative clause introduced by *onɛ* or *banɛ*. Before *onɛ*, the preceding word is never a cb, and with human-reference heads (as elsewhere 16.8 16.11.1.5) the construction is **appositional**. Unequivocally appositional cases are usually non-restrictive:

o sid onɛ da bɛ nɛ o la
ò sīd ɔ́nì dà bɛ̀ né ò lā
3AN husband:SG REL.AN TNS EXIST with 3AN ART
"her husband, who was there with her" (Genesis 3:6)

In KB, appositional relative *onɛ* most often occurs after proper names.

Relative pronouns cannot be compounded with coordinate structures, demonstratives, quantifiers or locatives; such cases are not confined to human-reference, and are simply parallel in usage to compounded constructions:

Mam Paul nɛ Timoti banɛ *an Yesu Kristo tʊmtʊmnib la sɔbid gbauŋ kaŋa*
Mām Paul nɛ̄ Timoti bánì àň Yesu Kristo tʊ́m-tʊ̄mníb
1SG.CNTR Paul with Timothy REL.PL COP Jesus Christ work-worker:PL
lā sɔ̄bɪd gbáu̱ŋ-kàŋā...
ART write:IPFV letter-DEM.DEI.SG ...
"I, Paul, and Timothy, servants of Jesus Christ, are writing this letter." (Phil 1:1)

kokor kaŋa lini *yi arazana ni la na*
kʊ̀kɔ̄r-káŋā línì yí àrazánà ní lā nā
voice-DEM.DEI.SG REL.INAN emerge sky:SG LOC ART hither
"this voice which came from heaven" (2 Pet 1:18, 1976)

sanlima laas ***ayɔpɔi linɛ*** *ka Wina'am onɛ bɛ* ***saŋa linɛ*** *ka' bɛn la sʊnpɛɛn pɛ'ɛli ba la*
sālɪma láàs àyɔ́pɔ̀e̱ línì kà Wínà'am ɔ́nì bɛ̀
gold vessel:PL NUM:seven REL.INAN and God REL.AN EXIST
sāŋá lìnɪ kā' bɛn lā súň-pɛ́ɛ̀n pɛ́'ɛlì‿bā lā
time:SG REL.INAN NEG.HAVE end:SG ART heart-whiteness fill 3PL.OB ART
"the seven gold bowls filled with the anger of God who exists for time without end" (Rev 15:7)

nimbanɛ yʊda sɔb Pɛbil la ***gbauŋʊn linɛ*** *an nyɔvʊpaal dim gbauŋ la*
nīn-bánì yʊ̄dá sɔ̄b Pɛ̄'-bíl lā gbáu̱ŋʊ̄-n línì
person-REL.PL name:PL write Lamb:SG ART book:SG-LOC REL.INAN
àň ňyɔ́-vʊ̄-páàl dím gbáu̱ŋ lā
COP breath-alive-new:SG individual.PL book:SG ART
"those whose names are written in the Lamb's book of those with new life" (Rev 21:27)

Ka Yesu keŋ ***Nazaret****, ban da ugus o* ***teŋ si'a*** *la.*
Kà Yesu kɛ̄ŋ Nazaret bán dà ūgʊs·ó‿ø tɛ̀ŋ-sɪ̄'a lā.
And Jesus go Nazareth 3PL:NZ TNS raise 3AN.OB land-INDF.INAN ART.
"And Jesus went to Nazareth, where he was raised." (Lk 4:16)

26 Complementised clauses

Complementised clauses are usually introduced by the clause linker *yɛ̄*. Both types may appear with *kà* instead, but usually much less often, and never exclusively; constructions which only permit *kà* and never *yɛ̄* must be coordination or catenation. Complementised clauses follow any catenated clauses. Complementised clauses can be coordinated with *kà*:

ka lin anɛ ***ye*** *fʊ kʊ maali ti bɛ'ɛdɛ nwɛnɛ tinamɛ daa pʊ maalif bɛ'ɛd si'em la asɛɛ sʊ'ʊm ma'aa,* ***ka ye*** *fʊ yim nɛ sumbʊgʊsʊm la.*
kà līn á nɛ̄ yɛ́ fʊ̀ kʊ̀ māalí‿tì bɛ̄'ɛdɪ‿ø wɛ̄n nɛ̄
and 3INAN.CNTR COP FOC that 2SG NEG.IRR make 1PL bad CAT resemble with
tīnámì‿ø dāa pʊ̄ máalì‿f bɛ̄'ɛd sī'əm lá àsɛ́ɛ sʊ̀m má'àa,
1PL NZ TNS NEG.IND make 2SG.OB bad INDF.ADV ART except good only
kà yɛ́ fʊ̀ yīm nɛ̄ súmbʊ̄gʊsím lā.
and that 2SG emerge:IMP with peace ART.
"Which is that you will not do us harm, as we did not do you harm but only good, and that you will depart in peace." (Genesis 26:29)

26.1 Purpose clauses

Purpose clauses lack independency marking and have imperative mood. As there is no *-mᵃ* flexion with dual-aspect verbs, the imperative is apparent only in the use of *dā* as the negation particle. The term "purpose clause" is convenient but such clauses are also used as complements of verbs expressing necessity and permission, and elsewhere the "purpose" sense can be very attenuated.

Purpose clauses may be VP adjuncts:

Bà tìs·ō‿ø kú'ɵ̀m yɛ́ ò nū.
3PL give 3AN.OB water that 3AN drink.
"They gave him water to drink. ("So that he might drink it.")

M̀ ná tī‿f tíìm yɛ́ fʊ̀ nīf dā zábɛ̄ ⁺ø.
1SG IRR give 2SG.OB medicine that 2SG eye:SG NEG.IMP fight NEG.
"I'll give you medicine so your eye won't hurt."

Ò vʊ̀l tíìm kà ò nɔ́bìr dā zábɛ̄ ⁺ø.
3AN swallow medicine and 3AN leg:SG NEG.IMP fight NEG.
"She took medicine so her leg wouldn't hurt." WK

An "attenuated" example is

Ka ba gban'e ba kpɛn'ɛs sanrega ni ye bɛog nie.
Kà bà gbáň'a‿bā‿ ø kpɛ́ň'ès sārıgá nì yɛ̄ bɛ̄og níe.
And 3PL seize 3PL.OB CAT put.in prison:SG LOC that morning appear.
"They seized them and put them in prison until tomorrow came." (Acts 4:3)

Purpose clauses appear as complements of particular verbs, e.g *bɔ̀ɔ́d*[a] "want"; or *yɛ̀l*[ɛ] "tell"; after these verbs the particle is nearly always *yɛ̄*. Negative raising occurs with *bɔ̀ɔ́d*[a] but not with *yɛ̀l*[ɛ].

Ḿ bɔ́ɔ̀d yɛ́ ò kūl. "I want her to go home."
1SG want that 3AN go.home.

Ḿ pū bɔ́ɔ̀d yɛ́ m̀ kūlɛ [+]*ø.*
1SG NEG.IND want that 1SG go.home NEG.
"I don't want [me] to go home."

Ḿ yɛ́lī‿f yɛ́ fù dā kūlɛ [+]*ø.*
1SG tell 2SG.OB that 2SG NEG.IMP go.home NEG.
"I've told you not to go home."

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 introduced by *yɛ̄*, again with an attenuated sense:

Nidib la daa gur Zakaria yiib na.
Nīdıb lā dāa gūr Zakaria yîib nā.
Person:PL ART TNS watch Zechariah emerge:GER hither.
The people were watching for Zechariah's coming out. (Lk 1:21)

... gur ye pu'a la du'a ka o ɔnb biig la.
... gūr yɛ̄ pu̱'ā lā du̱'á kà ò ɔ́ňb bīig lā.
watch that woman:SG ART bear and 3AN eat child:SG ART.
"...waiting for the woman to give birth so he could devour her child." (Rev 12:4)

Purpose-clause complements follow expressions of **necessity** or **permission** such as *nār*[a/] "be obliged to" (negated "be obliged not to"); *mɔ̄r sūər* "be allowed to"; *lì à* [*nɛ̄*] *tīlás* "it is necessary":

Fù pū nār yɛ́ fù níŋ àláa +*ø.*
2SG NEG.IND must that 2SG do ADV:thus NEG.
"You're not allowed to do that."

Lì nàr yɛ́/kà fù kūl. "You must go home."
3INAN must that/and 2SG go.home.

In KB there are 258 examples of *nar ye* to 45 of *nar ka*.

Yà mɔ́r sūər yɛ́ yà kūl. "You may go home."
2PL have way:SG that 2PL go.home.

Sūər bɛ́ yɛ́/kà tì kūl. "We may go home."
Way:SG EXIST that/and 1PL go.home. (" There's a way that we go home.")

Li anɛ tilas ye m keŋ Jerusalem.
Lì à nɛ̄ tīlás yɛ́ m̀ kɛ̄ŋ Jerusalem.
3INAN COP FOC necessity that 1SG go Jerusalem.
"I must go to Jerusalem." (Mt 16:21, 1996)

Li ane tilas ka m niŋid ala.
Lì à nɛ̄ tīlás kà m̀ níŋ̀id àlá.
3INAN COP FOC necessity and 1SG do:IPFV ADV:thus.
"I must do that." (1 Cor 9:16, 1996); there are no examples *kà* with in KB

Nār[a/] is occasionally used in a personal construction "deserve that":

babayi' la nar ye ba kʊʊ ba
bà bàyí lā nár yɛ́ bà kúʊ͡bā
3PL NUM:two ART must that 3PL kill 3PL.OB
"both of them must be killed" (Leviticus 20:12)

Anɔ'ɔnɛ nar ka na nyaŋi lak titabir la ...
Ànɔ́'ɔnì͡ø nár kà ná ňyāŋɪ͡ø lāk tītābɪr lā ...?
Who CAT must and IRR prevail CAT unstick glue ART ...?
"Who is worthy to open the seal ...?" (Rev 5:2)

26.2 Content clauses

Complementised clauses with independency marking 19.6 on the VP are content clauses. They are downranked main clauses, and show all the structural features possible for main clauses. They occur very frequently representing passages of indirect speech, but are also found much more generally after verbs of cognition, reporting, and perception.

Verbs taking content clauses as complements include, for example *yɛ̀l*$^{\varepsilon}$ "say", *wʊ̀m*^{m} "hear", *ňyɛ̄*$^{+}$ "see", *tɛ̄ň'ɛs*$^{\varepsilon/}$ "think", *mī*$^{+}$ "know", *bàŋ*$^{\varepsilon}$ "come to know", *pà'al*$^{\varepsilon}$ "teach, show", *kàrɪm*^{m} "read", *zī'*$^{+}$ "not know" and *s̰ìàk*$^{\varepsilon}$ "agree":

*ban mi' ye biig la kpi**nɛ** la zug*
bán mī' yɛ̄ bīig lā kpí nɛ̄ lā zúg
3PL:NZ know that child:SG ART die FOC ART upon
"because they knew that the child was dead" (Lk 8:53): focus-*nɛ̄*$^{+/}$

Bʊ̀ŋ-bāň'ad zī' 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."
Tone overlay: *Tɛ̄ŋ túl.* "Ground is hot." cf *tʊ̄l*$^{la/}$"be hot"

*Fʊnɛ siak ye **fʊ ya'a ti kae**, o na zin'ini fʊ na'am gbauŋ la zugɔɔ?*
Fʊ̄nɪ‿ ø s̰iák yɛ́ fʊ̀ yá' tì kā'e̱, ò nà zīň'iní‿ fʊ̀ nā'am
2SG.CNTR CAT agree that 2SG if after NEG.BE, 3AN IRR sit 2SG chieftaincy
gbáu̱ŋ lā zúgɔ́ɔ $^{+}$*ø?*
skin:SG ART upon PQ?
"Did *you* agree that when you are no more, he will sit on your throne?"
(1 Kings 1:24): postlinker adjunct

Absolute clauses 25.2 cannot be used as objects of such verbs, but another possibility apart from content clauses is NP + *yɛ̄lá* "about" 17.6.

Except in indirect speech 26.2.1, content clauses are usually declarative. There are exceptions, possibly characteristic of verbs of opinion and judgment:

Ya tɛnɛs ka m aan anɔ'ɔnɛ?
Yà tɛ́ň'ès kà m̀ áaň ànɔ́'ɔ̀nɛ $^{+}$*ø?*
2PL think and 1SG COP who CQ?
"Who do you think I am?" (Acts 13:25)

WK usually has *yɛ̄* before content clauses, but prefers *kà* after *tɛ̄ň'ɛs*$^{\varepsilon/}$ "think." KB has 219 examples of *tɛnɛs ye* to 31 of *tɛnɛs ka* and shows *kà* after other verbs too:

Ya pʊn wʊm ka ba da yɛl ye...
Yà pún wùm kà bà dá yɛ̀l yɛ̄ ...
2PL previously hear and 3PL TNS say that...
"You previously heard that they had said ..." (Mt 5:43)

Kà + content clause is the only context where *kà* is followed by independency marking, and where *kà* does not delete a following subject pronoun with the same reference as the preceding subject:

Ḿ tɛ́ñ'ès kà m̀ lú yā. "I think I've fallen" WK
1SG think and 1SG fall PFV.

There are a few examples in KB of *nɛ* for *yɛ yɛ̄* "that" (cf Mampruli *ni id*):

Man bɔɔdin nɛ yanamɛ naan aan ma'asiga bɛɛ yanamɛ naan aan tʊʊliga.
Mān bɔ́ɔdī-n nɛ̄ yānámì◡ø nāan áa-n mā'asígā bɛ̄ɛ
1SG.CNTR want-DP that 2PL NZ then COP-DP cold:ADV or
yānámì◡ø nāan áa-n tʊ̄ʊlígā.
2PL NZ then COP-DP hot:ADV.
"I might wish you had been cold or you had been hot." (Rev 3:15)

The verb *yɛ̀l* is frequently ellipted before *yɛ̄*:

Ka Zugsɔb la ye ... "And the Lord said: ..." (Genesis 18:28)
Kà Zūg-sɔ́b lā yɛ̄ ...
And head-one:SG ART that ...

Pronouns are changed throughout in the content clause to reflect its setting, on the same basis as in English "indirect speech." The free 3rd person pronouns have **logophoric** sense. In contexts where bound pronouns could have occurred instead (i.e. they are contrastive 28.5) they replace 1st persons of the original utterance:

*Festus tans Paul ye **o** geem ne ... ka Paul lebis ye **on** pu geem.*
Festus táñs Paul yɛ́ ò gɛ̀ɛ̆m nɛ̄ ... kà Paul lɛ́bìs
Festus shout Paul that 3AN go.mad FOC ... and Paul reply
yɛ̄ ɔ̄n pʊ̄ gɛ́ɛ̆mm ⁺ø.
that 3AN.CNTR NEG.IND go.mad NEG.
"Festus shouted to Paul that he [Paul] was mad ...
Paul replied that he [Paul] was not mad." (Acts 26:24-25, 1976)

Bound 3rd persons may also have this sense, but the free pronouns are much commoner as subjects. Thus "He₁ said he₁ would kill them." is usually

Ò yèl yɛ̄ ɔ̄n ná kʊ́ʊ͡ bā.
3AN say that 3AN.CNTR IRR kill 3PL.OB.

It is possible to say *Ò yèl yɛ́ ò nà kʊ́ʊ bā*, but this is much more likely to mean "He₁ said he₂ would kill them."

Tense and mood marking is always the same as in the equivalent main clause. Pluperfect and future-in-the-past meanings may result:

Ò dāa yɛ́l yɛ́ bà dāa kūl.
3AN TNS say that 3PL TNS go.home.
"She said that they had gone home."

Tì dāa tɛ̄ň'ɛs yɛ́ ò nà zāb ná'àb lā.
1PL TNS think that 3AN IRR fight chief:SG ART.
"We thought he was going to fight the chief."

26.2.1 Direct and indirect speech

After a speech-verb *yɛ̄* may introduce the words of the direct speech itself, unaltered except for "resumptive" *yɛ̄* at intervals (see below.) This is uncommon in the older texts, and in the 1976 NT mostly confined to direct utterances of Jesus. Usually 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, and free personal pronouns used logophorically. All other features of the original main clauses, including tense marking and independency marking, are unchanged. Such passages of indirect speech may be kept up for very long stretches; the 1976 NT version has examples extending over several pages. Later Bible versions consistently replace all indirect speech with direct.

Indirect speech freely includes direct questions and direct commands.

Ka Peter bu'os o ye, Ananias, ye bo ka o ke ka Sutaana kpen' o suunrin...
Kà Peter bū'ɵs·ó͡ ø yɛ̄ Ananias, yɛ̄ bɔ́ kà ò kɛ́ kà Sūtáanà
And Peter ask 3AN.OB that Ananias, that what and 3AN cause and Satan
kpɛ̀ň' ò sūuňrí-n ... ⁺*ø?*
enter 3AN heart:SG-LOC ... CQ?
"Peter asked him: Ananias, why did you let Satan enter your heart ...?"
(Acts 5:3, 1976)

In quoted direct commands the usual deletion of a 2nd sg subject and change of 2pl subject to enclitic ya does not occur, even if the addressee is the same as in the original utterance and the pronoun remains 2nd person. Some speakers keep the enclitic ya after the verb even when there is a preceding pronoun subject 22.1.3.

Quoting gives an alternative to purpose clauses 26.1 for expressing indirect commands; again, the main clause and linker may be ellipted 21.3 informally:

[*M̀ yɛ́l yɛ́*] *ò gɔ̀sɪm tɛ̄ŋɪ-n.*
1SG say that 3AN look:IMP ground:SG-LOC.
"[I said] she should look down."

[*M̀ tɛ́ň'ɛ̀s kà*] *tì pʊ́'ʊsìm Wínà'am.*
1SG think and 1PL greet:IMP God.
"[I think] we should praise God."

A main clause with no VP can also appear in indirect speech 22.3.4:

Ò yɛ̀l yɛ̄ báp. "She said *Bap*!"
3AN say that Bap.

Pronouns are changed even within a vocative:

Ka m wum Wina'am kokor ka li yi arazana ni na ye,
***o** nidiba, ye ba yimi teng la ni na.*
Kà m̀ wʊ́m Wínà'am kʊ́kɔ́r kà lì yī áràzánà ní nā yɛ̄,
And 1SG hear God voice:SG and 3INAN emerge heaven LOC hither that
ò nīdɪbá +*ø, yɛ́ bà yìmī‿ ø tɛ̄ŋ lā ní nā.*
3AN person:PL VOC, that 3PL emerge:IMP 2PL.SUB land:SG ART LOC hither.
"And I heard God's voice coming from heaven, saying
'**My** people, come out of the land!'" (Rev 18:4, 1976)

Passages of direct or indirect speech longer than two or three clauses insert **resumptive *yɛ̄*** at intervals of roughly every third clause, after any prelinker adjuncts but before clause-linker *kà* (this is the only origin for *yɛ̄ kà* beside ellipsis 21.3.)

*amaa **ye** ba yaanam da pu bood ye ba siak o noore*
àmáa yɛ́ bà yāa-nám dá pʊ̄ bɔ́ɔ̀d yɛ́ bà si̯ák·ò‿ø nɔ̄ɔrɛ́ +*ø.*
but that 3PL ancestor-PL TNS NEG.IND want that 3PL agree 3AN.OB mouth:SG NEG
"But their ancestors did not want to obey him" (Acts 7:39, 1976)

Ye ka *Paul yel ye o bood ye o kpelim sarega ni.*
Yɛ́ kà Paul yɛ́l yɛ́ ò bɔ̀ɔd yɛ́ ò kpɛ́lìm sārɪgá nì.
That and Paul say that 3AN want that 3AN remain prison:SG LOC.
"But Paul said he wanted to remain in prison...(Acts 25:21, 1976)

Amaa ***ye ka*** *on yeli ba ye ...*
Àmáa yɛ́ kà ɔ̄n yɛ́lì‿bā yɛ̄...
But that and 3AN.CNTR say 3PL.OB that...
"But he [the speaker] had said to them ..." (Acts 25:16, 1976)

Alazug ***ye ka*** *on ke ka ba mor o ba sa'an na ...*
Àlá zùg yɛ́ kà ɔ̄n kɛ́ kà bà mɔ̄r·ó‿ø bà sā'an nā ...
Thus that and 3AN.CNTR let and 3PL have 3AN.OB 3PL before hither...
"So he [the speaker] had made them bring him [Paul] into their presence..." (Acts 25:26, 1976)

Resumptive *yɛ̄* may be placed between a postlinker adjunct and the subject, or between a vocative NP and the following clause:

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 né ò pù-pìəlɪm
And now-hither that 3AN do 3PL.OB God with 3AN inside-whiteness
pi̯áň'àd lā nú'usī-n...
speech ART hand:PL-LOC...
"And now he committed them to God and the words of his holiness.."
(Acts 20:32, 1976)

O zuanam ne o saamnama, ***ye*** *ba kelisim.*
Ò zu̯à-nàm né ò sàam-nàmā $^{+}$*ø, yɛ́ bà kɛ̀lɪsɪm!*
3AN friend-PL with 3AN father-PL VOC that 3PL listen:IMP!
"His friends and his fathers should listen." (Acts 7:2, 1976)

27 Negation

27.1 Clauses

Negation of clauses is achieved by using a negative particle in the VP, *pū* for indicative, *dā* for imperative, *kù* for irrealis r*eplacing* the positive marker *nà* 19.5, along with a clause-final negative prosodic clitic 8.1:

Ti ***pʊ*** *bɔɔd ye dau kaŋa aan ti* ***na'aba****.*
Tì pū bɔ́ɔ̀d yɛ̄ dáu̱-kàŋā áaň tì nà'abā ⁺*ø.*
1PL NEG.IND want that man-DEM.DEI.SG COP 1PL king:SG NEG.
"We don't want this man to be our king." (Lk 19:14)

Dìm nɛ̄ Wīn, ***dā*** *tʊ́'às nɛ̄* ***Wīnnɛ́*** ⁺*ø.*
Eat:IMP with God:SG, NEG.IMP talk with God:SG NEG.
"Eat with God, don't talk with God."

Amaa man pian'ad la ***kʊ*** *maligim* ***gaadɛ****.*
Àmáa m̀ pi̱àň'ad lā kʊ́ mālɪgɪm gáadɛ̄ ⁺*ø.*
But 1SG speech ART NEG.IRR again pass NEG.
"But my words will not pass away. (Mt 24:35)

The negative prosodic clitic appears at the end of the clause containing the negated verb, passing over all subordinate clauses:

Ti ***pʊ*** *bɔɔd ye dau kaŋa aan ti* ***na'aba****.*
Tì pū bɔ́ɔ̀d yɛ̄ dáu̱-kàŋā áaň tì nà'abā ⁺*ø.*
1PL NEG.IND want that man-DEM.DEI.SG COP 1PL king:SG NEG.
"We don't want this man to be our king." (Lk 19:14)

There are no unequivocal examples in my materials of a negative clitic placed before a subordinate clause to exclude it from the scope of a negation. In

Ka li ***pʊ yuugɛ*** *ka o pu'a mɛ kena.*
Kà lì pū yúugɛ̄ ⁺*ø, kà ò pu̱'ā mɛ́ kɛ̄ nā.*
And 3INAN NEG.IND delay NEG, and 3AN wife:SG also come hither.
"Not much later, his wife came too." (Acts 5:7)

the *kà*-clause can be taken as a sequential clause rather than subordinate, and in

*Nidib be ka **pu** tum **si'ela** ye ba a popielim dim...*
Nīdıb bɛ́ kà pū́ tʊ́m sī'əla ⁺ø yɛ́ bà áň pʊ́-pìəlım
person:PL EXIST and NEG.IND work:IPFV INDF.INAN NEG that 3PL COP inside-whiteness
dím ...
"There are people who haven't done anything that they become blessed" (Rom 4:5, 1976); revised completely in the 1996 version.

the adjunct *yɛ̄*-clause has probably been extraposed.

The negative clitic is dropped after *ǹ*-clauses containing a negative unless they are themselves clause final in the main clause, and before the article *lā*$^{+/}$:

*m bi'emnam banɛ **pʊ** bɔɔd ye m an na'abi sʊ'oe ba la*
m̀ bì'əm-nàm bánì pū́ bɔ́ɔ̀d yɛ́ m̀ áň ná'abì◡ø sʊ́'ʊ◡ bā lā
1SG enemy-PL REL.PL NEG.IND want that 1SG COP king:SG CAT own 3PL.OB ART
"my enemies who do not want me to be king over them" (Lk 19:27)

Clauses with *yà'* "if" keep their own negative clitics:

*Ba ya'a **pʊ** niŋ **si'ela**, o pʊ'ʊsim dɔɔg la na lieb zaalim.*
Bà yá' pū́ níŋ sī'əla ⁺ø, ò pʊ̀'ʊsım dɔ́ɔ̀g lā ná līəb zāalím.
3PL if NEG.IND do INDF.INAN NEG 3AN worship house:SG ART IRR become empty:ABSTR.
"If they don't do anything, her temple will become of no account." (Acts 19:27)

Apparent exceptions in the NT probably all involve *yà'*-clauses ending in words with final vowels or final *-m*, and do in fact end with a negative clitic.

Negative raising, a poorly understood phenomenon cross-linguistically, seems to operate in Kusaal in a way generally analogous to English. It takes place with complement clauses after verbs expressing opinions or judgments:

Li pu nar ye fu di fu ba'abiig po'a Herodiase.
Lì pū́ nār yɛ́ fʊ̀ dí fʊ̀ bā'-bîig pʊ̰'á Herodiasɛ ⁺ø.
3INAN NEG.IND must that 2SG take 2SG father-child:SG wife:SG Herodias NEG.
"It's not right for you to marry your brother's wife Herodias." (Mt 14:4, 1996)

Ti pʊ bɔɔd ye dau kaŋa aan ti na'aba.
Tì pū́ bɔ́ɔ̀d yɛ̄ dáʊ̰-kàŋā áaň tì nà'abā ⁺ø.
1PL NEG.IND want that man-DEM.DEI.SG COP 1PL king:SG NEG.
"We don't want this man to be our king." (Lk 19:14)

mam pʊ tɛn'ɛs ye o na kɛligi m pian'adɛ.
Mām pū̀ tɛ̄ň'ɛs yɛ́ ò nà kɛ̄lɪgí‿m̀ pi̱àň'ad ⁺*ø.*
1SG NEG.IND think that 3AN IRR listen 1SG word:PL NEG.
"I do not think that he will listen to my words." (Job 9:16)

It does not occur with verbs of knowing or informing:

linzug ka ti baŋ ye o pʊ yi Wina'am san'an naa.
Lìn-zúg kà tì báŋ yɛ́ ò pū̀ yī Wínà'am sá'àn náa ⁺*ø.*
Therefore and 1PL realise that 3AN NEG.IND emerge God with hither NEG.
"Therefore we realise he has not come from God." (Jn 9:16)

ka o lɛɛ pʊ baŋ ye li anɛ onɛ.
kà ò lɛ́ɛ pū̀ báŋ yɛ́ lì à nɛ̄ ɔ̄nɛ ⁺*ø.*
And 3AN but NEG.IND realise that 3INAN COP FOC 3AN.CNTR NEG.
"but she didn't realise it was him." (Jn 20:14)

27.2 Constituents

Clefting is the usual way of achieving constituent negation, using the patterns

Lì kā' X *kà ...* /*Lì kā'* X *n ...* "It's not X that ..."
X *ká'e̱ kà ...* /X *kā'e̱ n ...* "There's no X that ..."

Sɔ' kae na nyaŋi dɔl zugdaannam ayi'...
Sɔ̄' kā'e‿ø ná ňyāŋɪ‿ø dɔ̄l zūg-dáàn-nàm àyí ...
INDF.AN NEG.BE CAT IRR prevail CAT follow head-owner:PL NUM:two ...
"Nobody can serve two masters." (Mt 6:24)

Sogia so' kae' n tum ka yood o meŋa.
Sɔ́gi̱à-sɔ̄' kā'e n tʊ́m kà yɔ̄ɔd ò mɛ̄ŋá ⁺*ø.*
Soldier-INDF.AN NEG.BE CAT work:IPFV and pay:IPFV 3AN self NEG.
"No soldier works and pays for himself." (1 Cor 9:7, 1976)

Di lɛn ka' fʊn yɛl si'el la zug, ka ti niŋ o yadda.
Lì lɛ̀m kā' fʊ́n yɛ̀l sɪ̄'əl lā zúg kà tì níŋ·ò‿ø yáddáa ⁺*ø.*
3INAN again NEG.BE 2SG:NZ say INDF.INAN ART upon and 1PL do 3AN.OB assent NEG.
"It is no longer because of what you said that we believe in him." (Jn 4:42)

The particle *báa* (Hausa *bâa* "not exist") appears in *báa bɪ̄'əlá*$^{+}$ "not at all", *báa yīnní*$^{+}$ "not one", which are both used with a negative VP. *Báa yīnní*$^{+}$ can be used as a NP head, or as a postdependent.

Da tʊmi sɪ'el baa bɪ'elaa.
Dā tʊ́mī◡ø sɪ̄'əl báa bɪ̄'əláa $^{+}$*ø.*
NEG.IMP work 2PL.SUB INDF.INAN at.all NEG.
"Do no work at all." (Leviticus 23:31)

Amaa ba pʊ nyaŋi nyɛ linɛ tu'al baa yinne.
Àmáa bà pū ňyāŋɪ◡ø ňyɛ̄ línì tʊ̀'al [$^{+}$ø] *báa yīnní.*
But 3PL NEG.IND prevail CAT find REL.INAN condemn [NEG] not one.
"But they couldn't find anything condemning, not one thing." (Mt 26:60)

Ka nid baa yinne pʊ yɛl ye on mɔr sɪ'el la, onɛ sʊ'oe lii.
Kà nīd báa yīnní pū yɛ́l yɛ̄ ɔ́n mɔ̄r
and person:SG not one NEG.IND say that 3AN:NZ have
sɪ̄'əl lā, ɔ̄nɪ◡ ø sʊ́'ʊ◡ líɪ $^{+}$*ø.*
INDF.INAN ART 3AN.CNTR CAT own 3INAN.OB NEG.
"Not one person said that what he had, *he* owned." (Acts 4:32)

Fʊ du'adib baa yinne kae ka o yʊ'ʊr buon alaa.
Fʊ̀ dʊ̄'adɪb báa yīnní kā'é kà ò yʊ̄'ʊr búèn àláa $^{+}$*ø.*
2SG relative:PL not one NEG.BE and 3AN name:SG call:IPFV ADV:thus NEG.
"Not one of your relatives is named thus." (Lk 1:61)

Relative clauses can be used for constituent negation:

Da mɔr nɔɔr yinne nɛ banɛ ka' yadda niŋidib la ye ya niŋ sɪ'ela.
Dā mɔ̄r nɔ̄ɔr yīnní nɛ̄ bánì kā' yáddā-níŋìdɪb lā
NEG.IMP have mouth:SG one with REL.PL NEG.BE assent-doer:PL ART
yɛ́ yà níŋ sɪ̄'əla $^{+}$*ø.*
that 2PL do INDF.INAN NEG.
"Do not agree with those who are not believers to do anything." (2 Cor 6:14)

28 Information packaging

28.1 Focus

As a starting point, I adopt the formulation from Lambrecht 1994: "[Focus] is the UNPREDICTABLE or pragmatically NON-RECOVERABLE element in an utterance. The focus is what makes the utterance into an assertion."

A distinction is made between **ordinary** and **contrastive focus**.

Separate from the notion of focus is the concept of **foregrounding**, the usual function of it-clefting in English; as pointed out in CGEL p1424, foregrounded elements in English need not be focussed.

Two syntactic devices in Kusaal relate to focus: subject focussing with catenator-*n*, and the use of the particle *nɛ̄*$^{+/}$. Clefting constructions with the clause linker *kà* and corresponding ellipted types relate to foregrounding rather than focus, or are motivated simply by ordering constraints.

Main clauses without any special syntactic marking of focus have ordinary focus on the predicate by default.

The usage of the **article** *lā*$^{+/}$ 16.5 interacts with the focus mechanisms described below.

28.1.1 Subject focus with catenator-*n*

N-clefting uses a *n*-catenation in the sense of a relative clause with the subject as antecedent, after a main clause with *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 mɛ pʊ sʊˈoe o mɛŋ niŋgbinaa. Li anɛ o puˈa sʊˈoe li.*
> *Kà dāu̯ mɛ́ pʊ̄ sʊ́ˈʊ ò mɛ̄ŋ nín-gbīnáa* $^{+}$*ø.*
> And man:SG also NEG.IND own 3AN self body-skin:PL NEG.
> *Lì á né ò pu̯ˈā‿ø sʊ́ˈʊ‿lī.*
> 3INAN COP FOC 3AN wife CAT own 3INAN.OB.
> "And a husband, too, does not own his own body. It is his wife who owns it."
> (1 Cor 7:4)

Like it-clefting in English (CGEL p1416) the construction has an implicature of exhaustiveness and exclusiveness: it is the wife (only), not the husband, who is the owner.

The main clause may be a verbless identificational clause 22.3.1:

Anɔ'ɔn nwaa yisid nidib tʊʊmbɛ'ɛdi basida?
Ànɔ́'ɔ̀n◡ø ǹwáa◡ø yīsɪd nīdɪb tʊ́ʊ̀m-bɛ̄'ɛdɪ◡ø básɪdà +ø?
Who CAT this CAT expel:IPFV person:PL deed-bad:PL CAT throw.out:IPFV CQ?
"Who is this who drives people's sins out?" (Lk 7:49)

N-focus presumably arose from *n*-clefting by ellipsis. The focussed element stands first, with the rest of the clause introduced by *n*, phonologically identical to catenator-*n*. The clause lacks independency marking but has independent tense marking; compare tense marking in ellipted indirect commands 19.3.1.

The meaning of this construction is *focus* rather than foregrounding:

Wáafʊ̀◡ ø dúm·ō◡ø. "A snake bit him." WK
Snake:SG CAT bite 3AN.OB.

would be a felicitous reply to "What's happened?" as well as "Did a dog bite him?"

Focus rather than foregrounding is demonstrated by the fact that **interrogative pronouns as subjects are always *n*-focussed**. As a subject *ànɔ́'ɔ̀n* "who" thus always appears as *ànɔ́'ɔn n* [anɲ:nɪ] (always NT *ano'one*, KB *anɔ'ɔnɛ*.)

Ànɔ́'ɔnì◡ø kābɪrídà +ø?
Who CAT ask.for.entry:IPFV CQ?
"Who is asking permission to enter?"

Clauses containing interrogative pronouns may not contain focus-*nɛ̄*$^{+/}$, an incompatibility which is most readily explained by analysing interrogative pronouns as intrinsically focussed, though this is only syntactically manifested when they are subjects.

Furthermore, the focus particle *nɛ̄*$^{+/}$ in all its rôles is excluded from clauses which are *n*-focussed, with the corresponding VP temporal distinctions present but unmarked, as in other cases of formal exclusion of the marker 28.1.2.1.1:

M̀ zūgʊ◡ø zábìd. "My head is hurting."
1SG head CAT fight:IPFV. (Reply to "Where is the pain?")

cf *M̀ zūg lā pʊ́'alìm nɛ̄.* "My head is hurting."
1SG head ART damage:IPFV FOC. (Reply to "What's the matter with you?")

Accordingly, the ellipted construction with catenator-*n* after the subject represents focus, filling the gap caused by the fact that a clause subject cannot be focussed with *nɛ̄*$^{+/}$ 28.1.2.

28.1.2 VP constituent and VP focus with *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 18; on distinguishing constituent-focus *nɛ̄*$^{+/}$ from the preposition see 19.8.4.

Greater difficulty arises over the distinction from the *nɛ̄*$^{+/}$ which is enclitic on the verb 19.2, and which actually represents a specialised use of the same particle for *temporal* focus. The temporal marker is subject to the same formal constraints on appearance as the constituent-focus marker, and *nɛ̄*$^{+/}$ cannot appear twice in a clause in both constitutent- and temporal-focus senses. The *temporal* sense normally prevails wherever semantically and formally possible; otherwise, the particle is interpreted as constituent focus. When temporal *nɛ̄*$^{+/}$ is excluded only by formal constraints, the different temporal meanings still appear but are unmarked.

28.1.2.1 Restrictions

28.1.2.1.1 Where *nɛ̄*$^{+/}$ cannot appear at all

Nɛ̄$^{+/}$ cannot appear in either constituent-focus or temporal sense

(a) if the subject has *n*-focus
(b) in nominalised clauses
(c) in content questions

***Nɛ̄*$^{+/}$ may only occur *once* in a clause or series of catenated clauses:**

Fu pu ma' n tis ninsaala, amaa fu ma' n tis ***ne*** *Wina'am Siig Suŋ.*
Fù pū má' n tìs nīn-sáalā $^{+}$*ø, àmáa fù mà'*
2SG NEG.IND lie CAT give person-smooth:SG NEG but 2SG lie
n tís nɛ̄ Wínà'am Sí-sùŋ..
CAT give FOC God Spirit-good:SG.
"You have not lied to a human being, but you have lied to the Holy Spirit."
(Acts 5:4, 1996)

When *nɛ̄*$^{+/}$ marks constituent focus, VP temporal distinctions are unmarked. This constraint reveals that temporal *nɛ̄*$^{+/}$ is a specialised use of focus-*nɛ̄*$^{+/}$.

Examples of exclusion of *nɛ̄*$^{+/}$:
Exclusion with *N*-focussing of the subject:

M̀ zūgʊ‿ø zábìd. "My head is hurting/hurts." (No temporal *nɛ̄*$^{+/}$)
1SG head CAT fight:IPFV. Reply to "Where is the pain?"

Ànʼɔnì‿ø dít sáʼabɔ̀ $^{+}$ø?
Who CAT eat:IPFV porridge CQ?
"Who eats/is eating millet porridge?" (No temporal *nɛ̄*$^{+/}$)

Exclusion of *nɛ̄*$^{+/}$ in nominalised clauses:

Ò dāa á nɛ̄ bīig. "She was a child."
3AN TNS COP FOC child:SG.

but *ɔ́n àǹ bīig lā zúg* "because she's a child"
3AN:NZ COP child:SG ART upon

M̀ yí nɛ̄ Bɔ́k. "I come from Bawku." SB
1SG emerge FOC Bawku.

but *Meeri one yi Magdala* "Mary who came from Magdala"
Meeri ɔ́nì yī Magdala (Mk 16:9, 1996)
Mary REL.AN emerge Magdala

Focus-*nɛ̄*$^{+/}$ can occur in complementised clauses, including purpose clauses:

*Pian'am ka m bɔɔd ye fʊ nyɛ**nɛ** bʊʊd.*
Pi̱àǹʼam kà m̀ bɔ́ɔ̀d yɛ́ fʊ̀ ǹyɛ̄ nɛ̄ bʊ̄ʊd.
Speak:IMP and 1SG want that 2SG see FOC innocence.
"Speak, for I want you to be vindicated." (Job 33:32)

Exclusion of *nɛ̄*$^{+/}$ in content questions: temporal *nɛ̄*$^{+/}$:

Bɔ́ kà fʊ̀ kʊ́mmà $^{+}$ø? "Why are you crying?"
What and 2SG cry:IPFV CQ?

Fʊ̀ níŋ̀ìd bɔ́ $^{+}$ø? "What are you doing?"
2SG do:IPFV what CQ?

Fʊ̀ wáʼe yáa $^{+}$ø? "Where are you going?"
2SG go where CQ?

Bùgúm lā yít yáa ní ná $^{+}$*ø?*
Fire ART emerge:IPFV where LOC hither CQ?
"Where is the light coming from?" SB

Exclusion of *nɛ̄*$^{+/}$ in content questions: constituent-focus *nɛ̄*$^{+/}$:

Ǹ á nɛ̄ dāu̯. "I am a man."
1SG COP FOC man:SG.

but *Mām áň bɔ́* $^{+}$*ø?* "What am I?"
1SG.CNTR COP what CQ?

Fù áaň‿ànɔ́'ɔnɛ̀ $^{+}$*ø?* "Who are you?"
2SG COP who CQ?

Fù bɔ́ɔ̀d bɔ́ $^{+}$*ø?* "What do you want?"
2SG want what CQ?

but *Fù bɔ́ɔ̀d nɛ̄ bɔ́* $^{+}$*ø?* "What do you want it with?"
2SG want with what CQ? *Nɛ̄ must* be interpreted as preposition (WK)

28.1.2.1.2 Where *nɛ̄*$^{+/}$ cannot be temporal

There is potential ambiguity between *nɛ̄*$^{+/}$ as marking constituent focus or as temporal. The default interpretation is temporal, but this may be ruled out by the position of the particle, incompatibility of mood or polarity, passive use of the verb, impossibility of a resultative reading of a perfective, the absence of an explicit time marker with stative verbs, or the fact that the subject has generic status.

Temporal use of *nɛ̄*$^{+/}$ requires that it follow the verb word directly, with at most liaison enclitics intervening; if not, the relevant temporal distinctions are unmarked:

Ò kùɵsɪdī‿bá nɛ̄. "She's selling them."
3AN sell:IPFV 3PL.OB FOC.

Ò kùɵsɪd nɛ̄ sūmma lā. "She is selling the groundnuts."
3AN sell:IPFV FOC groundnut:PL ART.

but *Ò kùɵsɪd sūmma lā nɛ̄.*
3AN sell:IPFV groundnut:PL ART FOC.
"She *sells/is selling* the groundnuts." (VP focussed: "They're not free.")

Nɛ̄$^{+/}$ may only be used temporally if the VP has positive polarity; if not, the relevant temporal distinctions are again unmarked:

	Ò zàbɪd. 3AN fight:IPFV.	"He fights."
	Ò zàbɪd nɛ̄. 3AN fight:IPFV FOC.	"He's fighting."
but	*Ò pɔ̄ zábɪdā* $^{+}$*ø.* 3AN NEG.IND fight:IPFV NEG.	"He's not fighting"/"He doesn't fight."

The VP must have indicative mood for temporal use of *nɛ̄*$^{+/}$. It is not clear if the relevant distinctions actually occur in the irrealis; in direct commands a following *àlá* "thus" imposes a continuous/progressive imperfective sense on the verb 19.4, but temporal use of *nɛ̄*$^{+/}$ is not possible.

Passive constructions 19.8.1.1 may only express punctual events, and are thus limited to perfective aspect and to dynamic imperfective in the propensity/habitual sense. Accordingly, the particle *nɛ̄*$^{+/}$ cannot be interpreted temporally with passives.

	Dāam lā núùd. Beer ART drink:IPFV.	"The beer gets drunk." WK
	Dāam núùd zīná. Beer drink:IPFV today.	"Beer gets drunk today." WK
but	*Dāam lā núùd nɛ̄.* Beer ART drink:IPFV FOC.	Only "The beer is for drinking." WK ("Not for throwing away.") not "The beer is being drunk."
	**Dāam núùd nɛ̄.*	rejected by WK altogether

Contrast the intransitive use of patientive ambitransitive verbs expressing changes of state:

	Ǹ yɔ́ɔ̀d nɛ̄ kúlìŋ lā. 1SG close:IPFV FOC door:SG ART.	"I'm closing the door."
	Kʊ̀lɪŋ lā yɔ́ɔ̀d nɛ̄. Door:SG ART close:IPFV FOC.	"The door is closing."

Lì mà'ad nɛ̄. "It is getting cool" (ipfv of *mā'e*$^{+/}$ "get cool")
3INAN get.cool:IPFV FOC.

A perfective form can only be interpreted as resultative if it expresses a change of state in the subject.

M̀ dá' nɛ̄ bʊ́ŋ. "I've bought a *donkey*."
1SG buy FOC donkey:SG. ("What have you bought?" Focus on complement)

Assume-stance verbs do not express a change of state in the subject, because stance verbs are not stative 11.2.1. Accordingly, the perfective of an assume-stance verb cannot accept a resultative reading:

Ò dìgɪn nɛ̄. "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."
3AN lie.down FOC.

With stative verbs, temporal *nɛ̄*$^{+/}$ may only occur if there is an explicit time expression in the immediate context. If not, *nɛ̄*$^{+/}$ must be interpreted as focussing the VP or a constituent:

Ò gìm. "She's short."
3AN be.short.

but *Ò gìm nɛ̄.* "He's *short*." ("I was expecting someone taller.")
3AN be.short FOC.

M̀ mɔ́r pu̱'ā. "I have a wife."
1SG have wife:SG.

but *M̀ mɔ́r nɛ̄ pu̱'ā.* "I have a woman."
1SG have FOC woman:SG. (not "wife": implies an irregular liaison, WK)

Stative verbs can be constrained to a temporary stative meaning if there is an explicit time-limiting constituent present in the clause: this may, however, be as little as a tense marker. (This requirement for an *explicit* marker of time in the clause to licence temporal *nɛ̄*$^{+/}$ may be partly an artefact of acceptability judgments based on short isolated clauses.) The meaning is limitation of the state described by the verb to a particular time period, with a clear implication of contrast between the time referred to and other times when the state was not in effect:

Lì vɛ̀n nɛ̄. "It's *beautiful*." (Focus on the verb.)
3INAN be.beautiful FOC.

but *Nānnánā, lì vɛ̀n nɛ̄.*
Now, 3INAN be.beautiful FOC.
"Just now, it's beautiful."

Sān-kán lā, lì dāa zúlɪm nɛ̄.
Time-DEM.SG ART, 3INAN TNS be.deep FOC.
"At that time, it was deep."

Mù'ar lā dāa zúlìm nɛ̄. "The lake *was* deep."
Lake:SG ART TNS be.deep FOC. (Implying, "Now it's shallow." WK)

Lì dāa vɛ́n nɛ̄. "It *was* beautiful."
3INAN TNS be.beautiful FOC. WK: "I gave you a cup, and it was OK then, but you've spoiled it."

Lì dāa bʊ̄gʊs nɛ̄. "It *was* soft." ("Now it isn't.")
3INAN TNS be.soft FOC.

Temporal interpretation of *nɛ̄*$^{+/}$ is also forced when the following constituent does not permit focussing with *nɛ̄*$^{+/}$ 28.1.2.1.3.

A generic subject is not semantically compatible with the temporal use of *nɛ̄*$^{+/}$:

Nīigí ɔ̀ǹbɪd nɛ̄ mɔ̄ɔd. "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 explicitly specific-indefinite "some cows") but the specific sense is only likely in the context of explicit introduction of a new discourse element 16.5. By context, pronoun subjects also can be generic or specific:

Bà ɔ̀ǹbɪd nɛ̄ mɔ̄ɔd. "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 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.
Kʊ̀kɔ̀ma dá zàb tāabá à-sɔ̄ň'e bī'ələ́ yɛ̀la.
Leper:PL TNS fight each.other PERS-better.than slightly about.
"Lepers once fought each other about who was a bit better." KSS p40

The particle *nɛ̄*$^{+/}$ in its temporal sense is omitted in replying to polar questions or responding to questions by repeating the verb. This probably simply represents the cross-linguistically common phenomenon of ellipsis in declarative replies to questions.

A:	*Gɔ̀sɪm!*	"Look!"
B:	*Mɨ̀ gɔ́sìd!*	"I'm looking!"
A:	*Fʊ̀ gɔ́sìd nɛ́ɛ?*	"Are you looking?"
B:	*Mɨ̀ gɔ́sìd!*	"I'm looking!"

28.1.2.1.3 Words which *nɛ̄*$^{+/}$ cannot focus

Certain words do not prevent focus-*nɛ̄*$^{+/}$ from being used in the clause (unlike interrogative proforms 28.1.2.1.1), but cannot themselves be focussed with *nɛ̄*$^{+/}$. Words which behave like this include *sʊ̀ŋā*$^{+/}$ "good", *sʊ̀m*^{m} "good", *bɛ̄'ɛd*^{ɛ} "bad" *sìda*$^{+}$ "truth" when used as adverbs, and the "two, three exactly" quantifier forms *àyíŋā*$^{+/}$ *àtáŋā*$^{+/}$ 16.4.2.1. AdvPs formed by coordinating such words and NPs with these quantifiers as dependents share the same property.

Lì àň sʊ́ŋā. "It's good."
3INAN COP good:ADV.

Lì àň bɛ̄'ɛd. "It's bad."
3INAN COP bad:ABSTR.

Lì àň sídà. "It's true."
3INAN COP truth.

[*ye ka*] *o sariakadib a sum ne sida.*
ò sàríyà-kādɪb áň sʊ́m nɛ̄ sídà.
3AN law-drive COP good:ABSTR with truth.
"His judgments are good and true. (Rev 19:2, 1976)

If *nɛ̄*$^{+/}$ does occur before such constituents it must be interpreted temporally, limitating the state described to a particular time period, even with stative verbs and even if there is no explicit time marker in the clause (cf 28.1.2.1.2):

M̀ mɔ́r bīisá‿ àtáŋā.
1SG have child:PL NUM:three.exactly.
"I've got exactly three 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."

Lì dāa áň súŋā. "It was good." WK
3INAN TNS COP good:ADV.

Lì dāa á nɛ̄ súŋā. "At the time, it was good." WK
3INAN TNS COP FOC good:ADV.

Lì à nɛ̄ súŋā. "It's good." ("Now; it wasn't before." WK)
3INAN COP FOC good:ADV.

Emphatics 28.6 do not behave in this way:

bɔzugɔ o anɛ fʊ biig mɛn.
bɔ̄ zúgɔ́ ò à né fʊ̀ bīig mɛ́n.
Because 3AN COP FOC 2SG child:SG also.
"Because he is your child too." (Genesis 21:13)

28.1.2.2 VP constituent focus

The use of *nɛ̄*$^{+/}$ to focus a VP constituent, as opposed to the entire VP, is possible only in statements and polar questions. The temporal sense of *nɛ̄*$^{+/}$ must be impossible and the constituent in question must permit *nɛ̄*$^{+/}$-focus.

Focus on an **indefinite object** represents it as "unpredictable or pragmatically non-recoverable" information, as for example in supplying an answer to a content question; this is **ordinary** focus:

M̀ dá' búŋ. "I've bought a donkey."
1SG buy donkey:SG. ("What have you done?")

M̀ dá' nɛ̄ búŋ. "I've bought a *donkey*."
1SG buy FOC donkey:SG. ("What have you bought?")

Nīigí ɔ̀ňbɪd nɛ̄ mɔ̄ɔd. "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 pɔ̄ dá' bʊ̀ŋā $^{+}$*ø.* "I haven't bought a donkey."
1SG NEG.IND buy donkey:SG NEG.

M̀ pɔ̄ dá' nɛ̄ bʊ́ŋā $^{+}$*ø.* "I haven't bought a *donkey*."
1SG NEG.IND buy FOC donkey NEG. ("I bought something else.")

Definite objects/predicative complements normally have old-information status, making the ordinary-focus sense of "unpredictable or pragmatically non-recoverable" unlikely; hence *nɛ̄*$^{+/}$ before a definite object is usually temporal:

Nīigí lā ɔ́ňbìd nɛ̄ mɔ̄ɔd lā.
Cow:PL ART chew:IPFV FOC grass:PL ART.
"The cows are eating the grass."

Nā'-síəbà ɔ́ňbìd nɛ̄ mɔ̄ɔd lā.
Cow-INDF.PL chew:IPFV FOC grass:PL ART.
"Some cows are eating the grass."

If focus does occur with old-information arguments, it is **contrastive**.

*Linɛ ka ba'amaannib maannɛ tisid bada la, ba maannɛ tisid**nɛ** kikiris, ka pʊ maannɛ tisid Wina'am.*
Lìnɪ kà bà'-māannɪb máànnɪ◡ ø tísìd bádà lā, bà màannɪ◡
REL.INAN and idol-sacrificer:PL sacrifice:IPFV CAT give:IPFV idol:PL ART 3PL sacrifice:IPFV
ø tísìd nɛ̄ kíkīrɪs kà pɔ̄ máànnɪ◡ ø tísìd Wínā'amm $^{+}$*ø.*
CAT give:IPFV FOC fairy:PL and NEG.IND sacrifice:IPFV CAT give:IPFV God NEG.
"That which idol-worshippers sacrifice to an idol, they sacrifice to *demons* and they don't sacrifice to God." (1 Cor 10:20)

*Fu pu ma' n tis ninsaala, amaa fu ma' n tis **ne** Wina'am Siig Suŋ.*
Fʊ̀ pɔ̄ má' n tɪ̀s nīn-sáalā $^{+}$*ø, àmáa fʊ̀ mà'*
2SG NEG.IND lie CAT give person-smooth:SG NEG but 2SG lie
n tís nɛ̄ Wínà'am Sí-sʊ̀ŋ..
CAT give FOC God Spirit-good:SG.
"You have not lied to a human being, but to *the Holy Spirit*." (Acts 5:4, 1996)

The predicative complement of *àe̱ň*[a] "be something/somehow" in its ascriptive sense 20.2 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."
3AN COP FOC child:SG.

Ò dāa á nɛ̄ bīig. "She was a child."
3AN TNS COP FOC child:SG.

Ò à nɛ̄ nīn-sʊ́ŋ. "She's a good person."
3AN COP FOC human-good:SG.

Dīɪb á nɛ̄ bʊ̄n-sʊ́ŋ. "Food is a good thing."
Food COP FOC thing-good:SG.

Ò à nɛ̄ bāaň̄lím. "She is quiet."
3AN COP FOC quiet:ABSTR.

Lì à nɛ̄ zāalím. "It's empty."
3INAN COP FOC empty:ABSTR.

Lì à nɛ̄ bʊ̄gʊsígā. "It's soft."
3INAN 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 dí'əmìd nɛ̄ dúaň gbínnī-n. Bà zà'mɪsɪd nɛ̄
Child:PL ART play:IPFV FOC dawadawa:SG base:SG-LOC. 3PL learn:IPFV FOC
bʊ̄la wá'àb. Bà à né À-Pām bîs.
shoot:PL dance:SG. 3PL COP FOC PERS-Apam child:PL.
"The children are playing under a dawadawa tree. They are learning the dance of the young shoots. They are Apam's children." KKY p6
(The father Apam has already been mentioned, as have the children, but the fact that the children belong to Apam is new.)

Ka bʊmbʊʊda banɛ lu gɔn'ɔs sʊʊgin la anɛ banɛ wʊm pian'ad la, ka...
Kà bʊ̄n-bʊ́ʊdà bànɪ lù gɔ̀ǹ'ɔs sʊ́ʊgʊ̄-n lā á nɛ̄
And thing-planting:PL REL.PL fall thorn:PL among-LOC ART COP FOC
bánì wʊ̀m pi̱àǹ'ad lā, kà
REL.PL hear speech ART, and...
"And the seeds which fell among thorns are those who heard the word, but..." (Lk 8:14)

In this context proper names are non-referential (cf CGEL p402):

O yʊ'ʊr na anɛ Joon. "His name will be John." (Lk 1:60)
Ò yʊ̄'ʊr ná ā nɛ̄ Joon.
3AN name:SG IRR COP FOC John.

As with objects, when the complement falls under the scope of the negative (here with the negative verb *kā'e̱*$^{+}$ "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 du̱'átà. "I'm a doctor."
1SG COP FOC doctor:SG.

M̀ kā' du̱'átāa $^{+}$*ø.* "I'm not a doctor."
1SG NEG.BE doctor:SG NEG.

M̀ kā' nɛ̄ du̱'átāa $^{+}$*ø.* "I'm not a *doctor*." ("I'm a lab assistant.")
1SG NEG.BE FOC doctor:SG NEG.

Focus on a **locative complement** 19.8.3 typically involves a definite predeterminer of a locative postposition or an old-information place name, but the fact that a referent is at a known place is often new information resulting in **ordinary** focus on the locative. The locative particle (with its zero allomorph for Kusaal place names 17.3) is not referential even with a predeterminer (cf 16.10.2.3):

Dāu̱ lā bɛ́ nɛ̄ dɔ́-kàŋā lā pʊ́ʊgʊ̄-n.
Man:SG ART EXIST FOC hut-DEM.DEI.SG ART inside-LOC.
"The man is inside that hut." (Reply to "Where is that man?")

Mam bene moogin. "I'm in the bush." BNY p8
Mām bɛ́ nɛ̄ mɔ̄gʊ-n.
1SG.CNTR EXIST FOC grass:SG-LOC.

M̀ yí nɛ̄ Bɔ́k. "I come from Bawku." SB
1SG emerge FOC Bawku.

Yadda niŋir yitnɛ labaar la wʊmmʊg ni.
Yàddā-níŋìr yít nɛ̄ lábāar lā wʊ́mmʊ̀g 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 the locative is an adjunct:

Dàu̯-sɔ̄' bɛ́ dɔ́-kàŋā lā pʊ́ʊgʊ̄-n.
Man-INDF.AN EXIST hut-DEM.DEI.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 sā'ab nɛ̄ záàm. "We eat millet porridge *in the evening*."
1PL eat:IPFV porridge FOC evening. ("When do you eat porridge?")

28.1.2.3 VP focus

Focus on the VP as a whole is always contrastive, because non-contrastive focus on the VP is the default unmarked case. It uses VP-final *nɛ̄*$^{+/}$. It can occur not only with statements and polar questions but also with direct commands, which do not permit focus on a VP constituent. For *nɛ̄*$^{+/}$ to mark focus, temporal interpretation must be impossible.

Temporal sense ruled out by the position of *nɛ̄*$^{+/}$:

Ò kʊ̀ɵsɪd sūmma lā nɛ̄. "She *sells*/is *selling* the groundnuts."
3AN sell:IPFV groundnut:PL ART FOC. ("They're not free.")

Temporal sense ruled out by mood:

Gɔ̀sɪm nɛ̄. "*Look*!" ("Don't *touch*." WK)
Look:IMP FOC.

Stative verbs without an explicit time indicator:

Ò gìm nɛ̄. "He's *short*." ("I was expecting someone taller.")
3AN be.short FOC.

Lì zùlım nɛ̄. "It's *deep*."
3INAN be.deep FOC.

Ǹ bɔ́ɔdī‿f nɛ̄. "I really *love* you." WK
1SG want 2SG.OB FOC.

Passives:

Dāam lā núùd nɛ̄. "The beer is for *drinking*."
Beer ART drink:IPFV FOC. ("Not washing with!")

Lì mà'an nɛ̄. "It gets *cooled*." (ipfv of *mā'al*$^{+/}$ "make cool")
3INAN get.cool:IPFV FOC. ("Not heated!")

Dāká lā záňl nɛ̄. "The box gets carried *in the hands*."
Box:SG ART carry.in.hands FOC. ("Not on your head.")

Dāká lā zîid nɛ̄. "The box is for carrying *on the head*."
Box:SG ART carry.on.head:IPFV FOC. ("Not carrying in the hands.")

Perfectives which cannot be interpreted as resultative:

Ò dìgıl nɛ̄. "He's *laid it down*." ("I thought he'd pick it up.")
3AN lay.down FOC.

Kà lì bɔ́dìg nɛ̄. "It's *lost*."
And 3INAN get.lost FOC. Contradicting "someone hid it." 22.2.1

Ò dìgın nɛ̄. "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."
3AN lie.down FOC.

An idiomatic use (marking a euphemism) is seen in

Ò zì'ən nɛ̄. "She's pregnant." (Not "She has stood still.")
3AN stand.still FOC.

28.2 Clefting and preposing with *kà*

Kà-clefting arises from constructions with adnominal *kà*-catenation 23.3 just as with *n*-clefting from *n*-catenation. Again, there is an implicature of exhaustiveness and exclusiveness.

The preposed element may be extracted from a subordinate clause:

Li anɛ ya taaba banɛ pʊ'ʊsid Wina'am ka li nar ka ya kad saria.
Lì à né yà tāaba bánì pʊ̀'ʊsɪd Wínà'am kà lì nár
3INAN COP FOC 2PL fellow REL.PL greet:IPFV God and 3INAN must
kà yà kád sàríyà.
and 2PL drive judgment.
"It is your fellow-worshippers of God whom you must judge." (1 Cor 5:12)

Again, the main clause may be a verbless identificational clause 22.3.1:

Ɔ̄nɪ◡ ø lá kà fʊ̀ dāa ňyɛ̄t.
3AN.CNTR CAT that and 2SG TNS see:IPFV.
"This is he whom you saw." WK

Ànɔ́'ɔnì◡ ø ňwá kà tì ňyɛ̄tá ⁺ø?
Who CAT this and 1PL see:IPFV CQ?
"Who is this that we can see?"

Bɔ̄ɔ◡ ø lá kà m̀ ňyɛ̄tá ⁺ø?
What CAT that and 1SG see:IPFV CQ?
"What is that that I can see?"

Once again, there is a construction with ellipse of all the main clause except the NP. Independent tense marking is possible in the ellipted structure, as with *n*-focus. Preposed direct objects leave a null-anaphora gap 19.8.1.

Asɛɛ linɛ an bɛ'ɛd ma'aa ka m na tun'e niŋ.
Àsɛ́ɛ línì àň bɛ̄'ɛd má'àa kà m̀ ná tūň'e◡ ø níŋ.
Only REL.INAN COP bad only and 1SG IRR be.able CAT do.
"It's only that which is bad that I can do." (Rom 7:21)

Bɔ́ kà fʊ̀ kúɵsìda ⁺ø? "What are you selling?"
What and 2SG sell:IPFV CQ?

The effect of *kà*-preposing remains *foregrounding*, not focus. It is compatible both with *n*-focus and with the occurrence of the focus particle *nɛ̄*$^{+/}$:

Dinzug ka mam Paul n be sarega ni Yesu Kiristo zug yanam buudbane ka' Jew dim la yela.
Dìn-zúg kà mām Paul n bɛ́ sārıgá nì Yesu Kiristo zúg yānám
That-upon and 1SG.CNTR Paul CAT EXIST prison:SG LOC Jesus Christ upon 2PL.CNTR
búùd-bànı kā' Jew dím lā yɛ́là.
tribe-REL.PL 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, 1996)

Bī'əl bī'ál kà kɔ̄lıg pɛ́'èl nɛ̄.
Little little and river:SG get.full FOC.
"Little by little, and a river is full." (Proverb)

Kà-foregrounding of VP objects containing interrogative pronouns is very common. There is no syntactic movement rule for interrogative pronouns/proforms:

Bùgúm lā yít yáa nί ná $^{+}$*ø?*
Fire ART emerge:IPFV where LOC hither CQ?
"Where is the light coming from?" SB

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?"

Bɔ́ kà... is by far the most frequent way of rendering "Why?", and usually has this meaning, but foregrounding of *bɔ̄* in the normal sense "What?" also occurs:

Bɔ ka ti na niŋɛ? "What are we going to do?" (Acts 21:22)
Bɔ́ kà tì ná nìŋɛ $^{+}$*ø?*
What and 1PL IRR do CQ?

Other queried NP objects in content questions are often preposed with *kà*:

Nū'-bíbısá‿ àlá kà fù ňyɛ̄tá $^{+}$*ø?*
Hand-small:PL NUM:how.many and 2SG see:IPFV CQ?
"How many fingers can you see?" SB

Kà-preposing can also be used to extract an interrogative pronoun from a prepositional phrase; the original position must be filled by an anaphoric pronoun:

Ka anɔ'ɔnam ka Wina'am sʊnf da pɛlig nɛ ba yʊma piisnaasi la?
Kà ànɔ́'ɔ̀n-nàm kà Wínà'am súňf dá pɛ̀lıg né bà
And who-PL and God heart:SG TNS whiten with 3PL
yʊ̀ma pīs nāasí lá $^{+}$*ø?*
year:PL forty ART CQ?
"And who was God angry with for forty years?" (Heb 3:17)

As interrogative pronouns are intrinsically focussed, these constructions, like other cases of preposing with *kà*, are best regarded as foregrounding, not focus.

Preposing the complement of a single-aspect verb is uncommon, and interrogative pronouns in such cases usually remain *in situ*, probably necessarily so in the case of *à̰ň*^{a} "be something":

Niŋgbiŋ bɔ buudi ka ba na ti mɔra?
nìn-gbīŋ bɔ́-būudí kà bà ná tī mɔ̄rá $^{+}$*ø?*
Body-skin:SG what-sort and 3PL IRR afterwards have CQ?
"What kind of body will they have?" (1 Cor 15:35)

but *Fʊ̀ bɔ́ɔ̀d bɔ́* $^{+}$*ø?* "What do you want?"
2SG want what CQ?

Mām áň bɔ́ $^{+}$*ø?* "What am I?"
1SG.CNTR COP what CQ?

Kà fʊ̀ áaň‿ànɔ́'ɔnɛ̀ $^{+}$*ø?* "Then who are you?"
And 2SG COP who CQ?

VP adjuncts are often preposed with *kà*; there is probably a contrast between foregrounding with *kà* and focussing with *nɛ̄*$^{+/}$:

Ňwādısá‿àtáň' kà fʊ̀ ná lɛ̄b nā.
Month:PL NUM:three and 2SG IRR return hither.
"You're to come back in three months."
Instructions: not a reply to a question; excludes any other time.

Tì dít sā'ab 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 an adnominal *kà*-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 *wʊ̄ʊ* "like" + object:

Wʊ̄ʊ bʊ́ŋ nɛ́ kà ò zɔ́t.
Like donkey:SG like and 3AN run:IPFV.
"It's like a donkey that he runs."

**Nɛ́ m̀ nú'ùg kà m̀ sī'ɪs.*
*With 1SG hand:SG and 1SG touch.
attempted for "With my hand, I touched it."

Kà-preposing is often simply a means of bringing a constituent before the clause subject with **no implication of foregrounding** at all. Purely formal *kà*-preposing is a feature of many relative clauses 25.3.2. Manner, place and reason adjuncts can *only* precede the subject by *kà*-preposing, and absolute clauses in adjuncts must often precede the main clause subject so that constituent order parallels event order 25.2:

Mán ňwɛ̀' dāu̯ lā zúg kà police gbáň'a‿m.
1SG:NZ hit man:SG ART upon and police seize 1SG.OB.
"Because I hit the man, the police caught me." ILK

28.3 Extraposition

A NP or AdvP placed after a distinctively phrase-final verb form must have been extraposed. The commonest cases involve manner-adverbs, where the effect seems to be to intensify the adverb:

Ya yidigya bɛdegʊ. "You are very much mistaken." (Mk 12:27)
Yà yídìg yā bɛ́dʊgʊ̄.
2PL go.astray PFV much.

M̀ pύ'ὺs yā bɛ́dʊgʊ̄. "Thank you very much."
1SG greet PFV much.

Objects, other than pronouns, can be extraposed; the sense seems to be that the extraposed element is contrary to expectation:

Ò ňyɛ̀ yā ná'àb lā. "He's seen the chief." ("of all people!")
3AN see PFV chief:SG ART.

Ò dà' yā múi̯. "She's bought rice." ("of all things!")
3AN buy PFV rice.

Contrast the effects of focussing with *nɛ̄*+/, and foregrounding by *kà*-clefting:

Ò dà' nɛ̄ múi̯. "She's bought rice."
3AN buy FOC rice. (reply to "What did she buy?")

Lì à nɛ̄ múi̯ kà ò dá'. "It's rice that she's bought." ("not millet.")
3INAN COP FOC rice and 3AN buy.

Leftward extraposition of objects and complements on the basis of **weight**, without clefting or *kà*-preposing, occurs in e.g.

Wilkanɛ bɛɛ m ni ka pʊ wanna, m Ba' nwaadi li nɛ [*sic*: 1996 *n*] *basid.*
Wìl-kànɪ bɛ̀ɛ‿m̀ ní kà pʊ̄ wɛ́nnā +*ø,*
Branch-REL.SG EXIST 1SG LOC and NEG.IND bear.fruit:IPVF NEG.
m̀ Bā' ňwá'adɪ̄‿lí n básìd.
1SG father:SG cut:IPFV 3INAN.OB CAT throw.out:IPFV.
"A branch which is in me and does not bear fruit, my father cuts out."
(Jn 15:2)

Onɛ ka ba tis o ka li zu'oe, ba mɛ mɔr pʊtɛn'ɛr ye o na lɛbis linɛ zu'oe.
Ɔ̀nɪ kà bà tís·ò‿ø kà lì zú'e, bà mɛ̀ mɔ̀r
REL.AN and 3PL give 3AN.OB and 3INAN become.much, 3PL also have
pύ-tɛ̀ň'ɛr yɛ́ ò nà lɛ̄bɪs línì zù'e.
inside-mind:SG that 3AN IRR return REL.INAN become.much.
"Whom they have given much to, they expect he will return much."(Lk 12:48)

A heavy indirect object is extraposed to follow the object in

Mam Paul ... tisid gboŋ kaŋa Wina'am nidib bane a sida dim ka a yinni ne Jesus Christ Efesus teŋin la.
Mām Paul ... tísìd gbáu̱ŋ-kàŋā Wínà'am nídìb bànı àň
1SG.CNTR Paul ... give:IPFV book-DEM.DEI.SG God person:PL REL.PL COP
sídà dím kà áň yīnní nɛ̄ Jesus Christ Efesus tɛ́ŋī-n 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; KB *...gbauŋ kaŋa tisid Wina'am...*)

28.4 Presentational constructions

A number of constructions are employed to introduce new entities into discourse. The NPs referring to the entities are indefinite; it is in this context that absence of the article *lā*$^{+/}$ typically reflects an indefinite but *specific* rather than generic reference 16.5. The NP head may (but need not) be followed by an indefinite postdeterminer pronoun or postdetermining number.

The verb *bɛ̀*$^{+}$ "be somewhere/exist" is frequent in presentational clauses, often with a following *n*-catenation 23 or adnominal *kà*-catenation 23.3.

Dau da be mori o po'a yimmir
Dāu̱ dá bɛ̀‿ø mɔ̄rí‿ò pu̱'à-yīmmír
Man:SG TNS EXIST CAT have 3AN wife-single:SG
"There was a man who had one wife." KSS p26

Pu'a sɔ' da bɛ mɔr o bipuŋ ka kikirig dɔl o.
Kà pu̱'à-sɔ̄' dá bɛ̀‿ø mɔ̄r ò bī-púŋ kà kìkīrıg dɔ̄ll·ó‿ø.
And woman-INDF.AN TNS EXIST CAT have 3AN child-girl:SG and fairy:SG follow 3AN.OB.
"There was a woman whose daughter was oppressed by a devil." (Mk 7:25)

Dapa atan' n da be. "There were once three men." KSS p16
Dāpá‿àtáň' n dá bɛ̀.
Man:PL NUM:three CAT 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 dāu̱ dāa zíň'i Listra ní kà pū tūň'e‿ ø kɛ̄nná $^{+}$*ø.*
And man:SG TNS sit Lystra LOC and NEG.IND be.able CAT go:IPFV NEG.
"There was a man in Lystra who could not walk." (Acts 14:8, 1996)

Anina ka o nyɛ dau ka o yʊ'ʊr buon Aneas.
Àníná kà ò ňyɛ̄ dáu̱ kà ò yʊ̄'ʊr búèn Aneas.
ADV: there and 3AN see man:SG and 3AN name:SG call:IPFV Aeneas.
"There he found a man whose name was Aeneas." (Acts 9:33)

28.5 Free and bound personal pronouns

There are environments in which only free pronoun *forms* are possible, and in which the forms are simply allomorphs of the bound pronouns:

Isolation:	*Mánɛ̀?*	"Me?"
Apposition:	*mān Paul*	"I, Paul"
Coordination:	*tīnám nɛ̄ fūn*	"us and you"
Before relative pronouns:	*fūn-kánì ...*	"you, who ..."

and for some speakers, the 2nd persons before direct commands after a *yà'*-clause 24. In other contexts, the choice of a free pronoun over bound implies *contrast*. For the special case of **logophoric** use see 26.2.

A personal pronoun which is focussed must be contrastive; conversely, contrastive pronouns are normally focussed where possible:

Manɛ an kɔnbkem sʊŋ la.
Mānı‿ ø áň kɔ́ňb-kìm-sʊ̀ŋ lā.
1SG.CNTR CAT COP animal-tender-good:SG ART.
"I am the good shepherd." (Jn 10:11)

But *Li nar ka on dʊ ka man sie.*
Lì nàr kà ɔ̄n dū, kà mān sīe.
3INAN must and 3AN.CNTR rise, and 1SG.CNTR lower.
"He must increase and I must decrease." (Jn 3:30)

Contrastive pronouns can be subjects of *ǹ*-clauses 16.3.1:

*wuu man**e** a si'em la.* "as I am." (1 Cor 7:7, 1996)
*wʊ̄ʊ **mánì**‿ ø àň sī'əm lā.*
like 1SG.CNTR NZ COP INDF.ADV ART.

28.6 Emphatics

I have borrowed the term "emphatic" from Jeffrey Heath's Songhay grammars (e.g. Heath 2005 pp202ff.) The category corresponds quite well to CGEL's "Focussing Modifiers" in English (pp586ff); however, this "focus" is not "informational focus" of the kind discussed in 28.1 but "scopal focus", the semantic element which the particle applies to: this need not be the syntactic head of the NP, and is not necessarily the informational focus of the clause.

Emphatics relate a NP or AdvP to the discourse context. Apart from *hālí*$^{+}$, they occur after top-level NPs or AdvPs within clauses, and share with *pāmm* SF *pāmné* LF "a lot" and *ňyāe*$^{nɛ/}$ "brightly, clearly" the unusual morphological feature of forming the LF by adding -*nɛ* to the SF 6.6.

mɛ̀ DK KT SB NT *mɛ̀n* WK; clause finally (all sources) *mɛ̀n*^{ɛ} "also, too"

bɔzugɔ o anɛ fʊ biig mɛn.
bɔ̄ zúgɔ́ ò à né fʊ̀ bīig mén.
Because 3AN COP FOC 2SG child:SG also.
"Because he is your child too." (Genesis 21:13)

O pu'a mɛ kena. "His wife also came." (Acts 5:7)
Ò pu̯'ā mé kɛ̀ nā.
3AN wife:SG also come hither.

The particle may follow *kà* + ellipted subject pronoun 21.3.

mà'aa (LF *mà'anɛ̄*) "only"

Asɛɛ linɛ an bɛ'ɛd ma'aa ka m na tun'e niŋ.
Àsɛ́ɛ línì àň bɛ̄'ɛd má'àa kà m̀ ná tūň'e‿ ø níŋ.
Only REL.INAN COP bad only and 1SG IRR be.able CAT do.
"It's only that which is bad that I can do." (Rom 7:21)
(*Kà*-foregrounding of the NP, which also implies exclusiveness 28.2.)

gùllɪm^{nɛ} "only"

M̀ níŋī‿lí m̀ gùllɪm. "I did it myself alone."
1SG do 3INAN.OB 1SG only

kɔ̀tàa^{nɛ} "at all"

Áyìı kɔ̀tàa. "Not at all."

hālí$^{+}$ in addition to its many other rôles 18 can be used as an emphatic, *preceding* a NP or AdvP with the meaning "even":

Hali tʊʊmbɛ'ɛd dim niŋid ala.
Hālí tʊ̀ʊm-bɛ̄'ɛd dím níŋìd àlá.
Even deed-bad:PL individual:PL do:IPFV ADV:thus.
"Even sinners do that." (Lk 6:33)

Before a manner-adverb it effectively means "very":

Lì tɔ̀e̱ hālí bɛ́dʊgʊ̄. "It's very difficult."
3INAN be.bitter until much.

The adverb itself may be ellipted:

Lì tɔ̀e̱ hālí. "It's very difficult."

Hālí in this sense may be preposed with *kà* 28.2:

Hali ka nidib mɔr ban'adnam na.
Hālí kà nīdıb mɔ̄r báň'àd-nàm nā.
Even and person:PL have sick.person-PL hither.
"People even brought the sick" (Acts 5:15)

Hālí báa is also used for "even" before a NP:

Hali baa lampɔdi'esidib mɛ niŋid ala.
Hālí báa làmpɔ̄-dí'əsìdıb mɛ́ nìŋıd àlá.
Even tax-receiver:PL also do:IPFV ADV:thus.
"Even tax-collectors do that." (Mt 5:46)

Hali baa bama wʊsa ya'a na zɔ ka basif, man kʊ basi fɔ.
Hālí báa bàmmā wʊ̄sa yá' nà zɔ́ kà básì‿ f,
Even DEM.DEI.PL all if IRR run and abandon 2SG.OB,
mān kʊ́ bāsı‿ fɔ́ ⁺ø.
1SG.CNTR NEG.IRR abandon 2SG.OB NEG.
"If even they all run away and leave you, *I* will not leave you." (Mt 26:33)

Lexicon

29 Greetings and other formulae

(a) Enquiries after health.

Gbís wɛ̄lá?	"How did you sleep?" 21.2.2
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?"
Yú'ʊŋ á wɛ̄lá?	"How is the evening?" literally "night"
Fù yī-dímàa?	"[How are] your household?"
Nìn-gbīnáa?	"[How is your] body?" i.e. "How are you?"
Fù sìdaa?	"[How is your] husband?"
Pu̱'ā nɛ̄ bíisɛ̀ɛ?	"[How are your] wife and children?"

... and so on, often at great length.

Replies:

Àláafù bɛ́.	literally "There is health."
	(Also a general purpose greeting itself.)
Àláafù bɛ́·o.	... for him/her.
Àláafù bɛ́ɛ bá.	... for them.

(b) Blessings

These follow the pattern

Bárɪkà nɛ́ fù ...	"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."
	Tʊ̄ʊma!	
or	*Tʊ̄ʊma tʊ̄ʊma!*	literally "(Blessing on your) work!"
		Interpreted to include practically anything
		which could be regarded as work, and hence
		probably the commonest daytime greeting.

Nɛ̄ sɔ́ǹsɪgā.	"(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*$^{nɛ/}$ (spiritual essence, personal *genius*)
Nɛ́ fù bʊ̄rɪyá-sʊ̀ŋ.	"Merry Christmas." (*bʊ̄rɪyá*$^{+}$ ← **bʊrʊ̃ya* ← Twi/Fante *bronya*, of unclear ultimate origin)
Nɛ́ fù yʊ̀ʊm-pāalíg.	"Happy New Year."

(c) Prayers. Reply *Àmí!* "Amen!"

Wīn ná lɛ̄bɪsɪ f nɛ̄ láafɪ̀ya.	"Safe journey!" literally "[I pray that] God will bring you back in health."
Wīn ná sʊ̄ŋɪ f.	"God will help you." Generally a formula expressing thanks.
Wīn ná tā'así f.	"Safe journey!" ("God will help you travel.")

(d) Statements of fact and commands. Reply *Tɔ̀* "OK", or as appropriate.

Bɛ̄ogʊ lā.	"See you tomorrow!" ("That's tomorrow.")
Àtínì dáarì lā.	"See you on Monday."
Gbìsɪm sʊ́ŋā.	"Sleep well."
Kpɛ̀lɪmī sʊ́m.	"Remain (ye) well." Said by departing person to those remaining.
Pʊ̀'ʊsɪm yín.	"Greet (those) at home." i.e. "Goodbye." reply *Tɔ̀* "OK", or *Bà nà wʊ̄m* "They will hear."

(e) Miscellaneous formulae

M̀ pʊ́'ʊ̀s yā.	"Thankyou." reply *Tɔ̀*, or *Pʊ̀'ʊsʊg kā'e.* "No thanks (sc. needed.)"
M̀ pʊ́'ʊ̀s yā bɛ́dʊgʊ̄.	"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.

Kābɪr kābɪrí!	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 sūgʊrʊ́.	"Please forgive me."
Ḿ bɛ́lìm nɛ̄.	"I beg you." Not "please"; Kusaasi etiquette does not demand a spoken equivalent of the English "please."
X *lábāar á wɛ̄lá?*	"What is the news of X?" A common initial reply is *Dīɪb má'àa.* "Only food." i.e. "good"
Ḿ mɔ̄r kú'ə̀m náa?	literally "Shall I bring water?" Traditional first words to guest. Reply for "No, thank you" is *Kù'ɵm á sʊ́m.* ("Water is good.")
Wīn yɛ́l sídà.	"Bless you!" (after a sneeze.) Literally "God speaks truth"; WK explained: "If you sneeze, it means someone elsewhere is praising you."
Fù wʊ́m Kʊ̄sáalɛ̀ɛ?	"Do you understand [literally "hear"] Kusaal?"
Ɛ̄ɛ̌ň, m̀ wʊ́m.	"Yes, I do."
Áyìı, m̀ pʊ̄ wʊ́mmā.	"No, I don't."

30 Structured semantic fields

30.1 Kinship terms

Pervading the whole system of Kusaal kinship terms is the importance of birth order among same-sex siblings, and its irrelevance between siblings of opposite sex. 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 *bā*$^{'+/}$
Father's elder brother		*sàam-kpɛ̄ɛ̆m*^{m}
Father's younger brother		*sàam-pīt*$^{a/}$
Father's sister		*pùgʊdɪb*^{a}

My		
Mother	is my	*mà*$^{+}$
Mother's elder sister or senior co-wife		*mà-kpɛ̄ɛ̆m*^{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	*áñsìb*^{a}

I am my mother's brother's *āñsíŋ*^{a}; to all the other relatives above I am *bīig*^{a} "child" or specifically *dà-kɔ̀ɔ̆ñr*^{ɛ} "son" or *pʊ̱'à-yùa*$^{+}$ "daughter." Although the Kusaasi are not matrilineal, the mother's brother is felt to be a particularly close relation with a traditionally benevolent rôle towards his sister's child.

There are no special terms for aunts or uncles by marriage.

My			
Grandparent	is my	*yáab*^{a}	Sex can be specified as
		♂ *yāa-dáʊ̱*$^{+}$	♀ *yāa-pʊ̱'á*^{a}
Grandchild		*yáaŋ*^{a}	

These words are also used for ancestor/descendant.

My	
Elder sibling of my own sex is my	*bīər*$^{ɛ/}$
Younger sibling of my own sex is my	*pītú*$^{+}$
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-pu̯'á*^{a} or simply *pu̯'ā*^{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 in polite address to an unrelated person of opposite sex and similar or greater age to oneself but not old enough to be called *m̀ mà* "my mother" or *m̀ bā'* "my father." Parents-in-law are greatly respected, but with siblings-in-law there is a traditional reciprocal joking relationship; certain whole ethnic groups are said to bear this relationship to each other, called "playmate" in local English. At *Bùgúm-tɔ̄ɔ̀ňr*^{ɛ}, 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 *pu̯'ā*^{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*^{ɛ}, "co-wives." "Fiancée" is *pu̯'à-ɛ̄líŋ*^{a}.

30.2 Personal names

See Haaf pp87ff for a detailed account of Kusaasi personal naming practices.

Personal names are preceded by the personifier clitic, which appears as *À-* by default but *Ǹ-* before adjective stems, where *Ǹ-* is a syllabic nasal assimilated to the point of articulation of a following consonant 16.6. Most names are based on common nouns, but a few are based on adjectives, and some on whole VPs, or even clauses.

On the form in which Kusaal personal and place names appear in English-language contexts see 1.3.3.

The 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 few personal names account for a large proportion of all individuals; *À-Wīn* and *À-Bōgʊr* are especially common male names. Identification of particular individuals often requires further enquiries about kindred or residence.

Many names allude to a guardian spirit (*sīgɪrᵋ/*) assigned to a newborn child through the father's consultation with a diviner (*bā'aᵌ*); this may be the *wīnⁿᵋ/* 1.1 of an ancestor, or of a spiritually powerful tree:

À-Wīnⁿᵋ/	Awini	*wīnⁿᵋ/*	person with a *sīgɪrᵋ/* from father's side of the family
À-Bōgʊrᵋ	Abugri	*bōgʊrᵋ*	person with a *sīgɪrᵋ/* from mother's side of the family
À-Tìɪgᵃ	Atiga	*tìɪgᵃ*	"tree", as *sīgɪrᵋ/*
À-Kūdʊgᵓ	Akudugu	*kūdʊgᵓ*	"piece of iron" (sc. as a marker on a tree-*sīgɪrᵋ/*); displaced as a common noun by the pl-as-sg *kūtᵋ*

A younger sibling of *À-Wīnⁿᵋ/* with the same *sīgɪrᵋ/* is called *À-Wīn-bílᵃ* "Awimbillah", of *À-Kūdʊgᵓ*, *À-Kud-bīlᵃ* "Akudibillah" etc. Names for girls may follow the pattern *À-Wīn-pu̱ákᵃ* "Awimpoaka."

Other names refer to birth circumstances:

À-Nà'abᵃ	Anaba	*nà'abᵃ*	"chief" but in the sense "afterbirth" (because a chief leaves his house after his retainers)
À-Fūugᵓ/	Afugu	*fūugᵓ/*	Name for sole survivor of twins "clothing" for child born with a caul
À-Tūlˡᵋ	Atuli	*tùlɪgᵋ*	"invert" for breech-delivered child

A whole clause is seen as a birth-circumstance personal name in

À-Tìım bɔ́dìg yā	"The medicine has got lost."

Many names relate to customs intended to break a cycle of stillbirths. One such custom is the apotropaic practice of throwing away the dead child or just burying it in a pot to avoid attracting malevolent spiritual attention; the next surviving child may then be called e.g.

À-Tàmpʊ̄ʊrᵋ	Tampuri	*tàmpʊ̄ʊrᵋ*	"ashpit, rubbish tip"
À-Dʊ̄kɔ/	Aruk	*dʊ̄kɔ/*	"pot"

Another strategy is pretended adoption by an outsider, resulting in names like *Jambeedu* "Fulani", or

À-Sāanᵃ/	Asana	*sāanᵃ/*	"guest, stranger"
À-Sāan-dʊ́⁺	Sandow	*sāanᵃ/*	"guest" + *dāu̯⁺* "man"
À-Zàngbɛ̀ogɔ	Azangbego	*Zàngbɛ̀ogɔ*	"Hausa person"
À-Nàsà-pu̯ākᵃ	Anasapoaka		"European woman"; also a birth-circumstance name: "child delivered by a European midwife"

Names based on adjectives:

Ǹ-Dāʋgɔ	Ndago	*dāʋgɔ*	"male"
Ǹ-Pu̯ākᵃ	Mpoaka	*pu̯ākᵃ*	"female"
Ǹ-Bīlᵃ	Mbillah	*bīlᵃ*	"little"

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 name *Amɔryam*, perhaps an adaptation of the Arabic مريم *Maryam(u)* "Mary" as *À-Mɔ̄r Yā'm* "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."

30.3 Places

For the form in which Kusaal personal and place names appear in English-language contexts see 1.3.3.

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^{ɔ}	Bawku	"pit, geographical depression"
Kʊ̄k$^{a/}$	Koka	"mahogany tree"
Kʊ̀kpàrɪg^{a}	Kokpariga	"palm tree"
Tɛ̀mpáan^{nɛ}	Tempane	perhaps "new villages"
Mu̱'à-nɔ̄ɔr$^{ɛ/}$	Mogonori	"lakeside" ("lake-mouth")
Bàs-yɔ̄n$^{nɛ/}$	Basyonde	"abandon sacks" ?reason for name
Kūgʊr$^{ɛ/}$	Kugri	"stone"
Bʊ̄gʊr^{ɛ}	Bugri	*bʊ̄gʊr*^{ɛ}, object housing a *wīn*$^{nɛ/}$ "spirit"
Wìdì-ňyá'aŋ^{a}	Woriyanga	archaic for *wìd-ňyá'aŋ*^{a} "mare"
Bì-nà'ab^{a}	Binaba	"prince"
Gàarʊ$^{+}$	Garu	Hausa *gàaruu* "wall around a town or compound"
Wìid-nà'ab^{a}	Widinaba	"chief of the clan *Wìid*^{a}"
Pūsɪg$^{a/}$	Pusiga	"tamarind"
Tīl$^{lɛ/}$	Tilli	"tree trunk" cf Toende Kusaal *tíl id* (Hasiyatu Abubakari, p.c.)
Dɛ̀nnʊg^{ɔ}	Denugu	No known meaning
Pùlɪma Kú'ɛ̀m^{m}	Pulimakom	"water by *pùlɪma*$^{+}$ (grass sp)"
Wìdāan^{a}	Widana	for *Wìd-dāan*^{a} "Horse-Owner", title of a chief's *nɔ̄-dɪ́'ɔ̀s*^{a} "linguist" 31. Usual informal name for Pulimakom, as the seat of this particular linguist.

Mì'isɪgᵃ	Missiga	Explained locally as from "mission" i.e. the Assemblies of God mission around which the village grew; perhaps influenced by *mì'isʊgɔ* "dunking" (not in my materials, but cf Toende *mi'isʊk* "baptism", KED *mi'is* "duck someone")
Sā-bílᵃ	Zebilla	"small grass"?
Sā-píəlìgᵃ	Sapeliga	"*Isoberlinia Doka*" ("white grass")
Kɔ̀l-tā'amísᵋ	Kultamse	"dog almonds" ("river shea trees")

WK thought that the first component of the names *Sā-bílᵃ* and *Sā-píəlìgᵃ* 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* (Dagomba Plant Names Blench 2006) used for binding materials together to make mats and traps, and presumably also brooms. Compounds need not have the literal sense of the components 16.11.1 16.10.2.1, 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-píəlìgᵃ*. The report also lists *ta-anga* "Butyrospermum parkii" (Kusaal *tá'aŋᵃ*), and *kulta-anga* "Andira inermis", so *kɔ̀l-tá'aŋᵃ* is probably this "dog almond."

Kʊ̀lʊgʊ́ŋɔ	Kulungungu	?? *kɔ̀l-gʊ̀ŋᵃ* "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.*"

Àgɔ̀lˡᵋ	Agolle	the Kusaasi area east of the White Volta; cf *àgɔ́lˡᵋ* "upwards"; for the H toneme see 8.3.
Tʊ̀ənⁿᵋ	Toende	Kusaasi area west of the White Volta; cf *tʊ̀ənⁿᵋ* "in front", "West"

For points of the compass, WK gave as accepted terms

N	*Bārʊgɔ/*	"Bisa country"
E	*Ňyá'aŋᵃ*	"behind"
S	*Zu̱ēya⁺*	"hills" (i.e. the Gambaga Escarpment)
W	*Tùɵnⁿᵋ*	"in front"

reflecting the traditional Kusaasi West-facing orientation. For "South" and "North", KB has respectively *ya-dagɔbʊg yà dàgɔ̀bɪgᵃ* "your left hand" and *ya-datiuŋ yà dàtì u̱ŋɔ* "your right hand." KB similarly has *ya-nya'aŋ* "East", *ya-tuona* "West."

Words referring to ethnic groups and clans consistently have place names formed from the same stem with the suffix *-gɔ*. These can be nonce-formations and need not necessarily refer to any established political entity or permanent settlement:

Kʊ̀tāu̱ŋɔ/	any place inhabited by the clan *Kʊ̀tāmᵐᵃ/*
Kʊ̄sáʊ̀gɔ	"Kusaasiland"
Mɔ̀ɔgɔ	"Mossi country"
	(*Mɔ̀ɔg Ná'àbᵃ* "Moro Naba, King of the Mossi")

Places outside *Kʊ̄sáʊ̀gɔ* generally do not have Kusaal names (an exception is *Sānkáàňsᵋ* "Sankanse" in Burkina Faso.) For "Accra" the Twi-derived name *Ankara* is usual. Niggli's dictionary has Toende *Wa'arʊk* for "Ouagadougou", but I could not elicit any Agolle equivalent. The form looks like **Wā'adʊ́gɔ* "Place of the Dancers (*wā'adíbᵃ*)", but the Mooré name *Waogdgo* apparently does not have a transparent meaning for Mooré speakers, and its true etymology is uncertain.

There seems to be no Agolle Kusaal proper name for the White Volta river, which is simply *kɔ̄lʊgᵃ* "river"; presumably this is simply because it is the only real river within *Kʊ̄sáʊ̀gɔ*.

30.4 Ethnic groups and clans

Names for the group belong to the ᵃ|*b*ᵃ or *g*ᵃ|*s*ᵋ classes (apart from *Zàngbɛ̀og*ɔ "Hausa" and *Nàsāara*⁺ "European") and their language to the *l*ᵋ subclass of *r*ᵋ|*a*⁺. The place they inhabit has the suffix -*g*ɔ.

Ethnic gp sg	Ethnic gp pl	Language	Place	
Kūsáa⁼	*Kūsáàs*ᵋ	*Kūsáàl*ᵋ	*Kūsáùg*ɔ	Kusaasi
*Ňwāmpūrɪg*ᵃ/	*Ňwāmpūrɪs*ᵋ/	*Ňwāmpūrɪl*ᵋ/	*Ňwāmpūrʊg*ɔ/	Mamprussi
*Bārɪg*ᵃ/	*Bārɪs*ᵋ/	*Bāt*ᵋ/	*Bārʊg*ɔ/	Bisa
Mùa⁺	*Mɔ̀ɔs*ᵋ	*Mɔ̀ɔl*ᵋ	*Mɔ̀ɔg*ɔ	Mossi
*Dàgbān*ⁿᵋ/	*Dàgbām*ᵐᵃ/	*Dàgbān*ⁿᵋ/	*Dàgbāu̯ŋ*ɔ/	Dagomba
*Bìn*ⁿᵋ	*Bìm*ᵐᵃ	*Bìn*ⁿᵋ	*Bìu̯ŋ*ɔ	Moba
*Sìmīig*ᵃ	*Sìmīis*ᵋ	*Sìmīil*ᵋ	*Sìmīug*ɔ	Fulɓe
*Yàaŋ*ᵃ	*Yàaňs*ᵋ	*Yàan*ⁿᵋ		Yansi
*Gʊ̄rínŋ*ᵃ	*Gʊ̄rís*ᵋ	*Gʊ̄rín*ⁿᵋ		Farefare
*Yārɪg*ᵃ/	*Yārɪs*ᵋ/	*Yāt*ᵋ/		Yarsi
*Zàngbèog*ɔ	*Zàngbɛ̀ɛd*ᵋ	*Zàngbɛ̀ɛl*ᵋ		Hausa
*Bùlɪg*ᵃ	*Bùlɪs*ᵋ	*Bùl*ˡᵋ		Bulsa
*Tàlɪŋ*ᵃ	*Tàlɪs*ᵋ	*Tàlɪn*ⁿᵋ		Tallensi
*Nàbɪd*ᵃ	*Nàbɪdɪb*ᵃ	*Nàbɪr*ᵋ		Nabdema
*Bʊ̀sáŋ*ᵃ	*Bʊ̀sáàňs*ᵋ	*Bʊ̀sáàňl*ᵋ		Bisa
Nàsāara⁺	*Nàsàa-nàm*ᵃ	*Nàsāal*ᵋ		European
*Kàmbʊ̀ŋ*ᵃ	*Kàmbʊ̀mɪs*ᵋ	*Kàmbʊ̀nɪr*ᵋ		Ashanti

*Bārɪs*ᵋ/ is "Bisa" generally, not just the Bareka; *Bìm*ᵐᵃ similarly is "Moba" in general, and not only the Bemba (WK.)

Note

*Tʊ̀ɵn*ⁿᵋ	"Toende area"
*Tʊ̀ɵnnɪr*ᵋ	"Toende dialect of Kusaal"
*Àgɔ̀l*ˡᵋ	"Agolle area"
*Àgɔ̀l*ˡᵋ	"Agolle dialect of Kusaal"
Ò pi̯àň'ad Àgɔ̀l.	"She speaks Agolle Kusaal."
3AN speak:IPFV Agolle.	

Kusaasi clan names include, among many others:

Singular	Plural	Place	
Kʊ̀tān$^{nɛ/}$	*Kʊ̀tām*$^{ma/}$	*Kʊ̀tāu̯ŋ*$^{ɔ/}$	WK's clan
Zʊ̀a^{+}	*Zʊ̀ɵs*^{ɛ}		
	Zu̯à-sābɪlís^{ɛ}		subclans
	Zu̯à-wʊ̀ib^{a}		
	or *Zu̯à-wʊ̀is*^{ɛ}		
Wʊ̀id^{a}	*Wʊ̀id-nam*^{a}	*Wʊ̀idʊg*^{ɔ}	
Nàbɪd^{a}	*Nàbɪdɪb*^{a}	*Nàbɪdʊg*^{ɔ}	
Gɔ̀ɔg^{a}	*Gɔ̀ɔs*^{ɛ}	*Gɔ̀ɔg*^{ɔ}	
Sà'dàbùa^{+}	*Sà'dàbùɵs*^{ɛ} *-bùɵb*^{a}	*Sà'dàbɔ̀ɔg*^{ɔ}	
	Nà'dàm^{ma}	*Nà'dau̯ŋ*^{ɔ}	
	Gʊ̀m-dʊ̀m^{a}	*Gʊ̀m*^{mɛ}	

Nàbɪd^{a} as a clan name is different from the ethnic group "Nabdema" (WK.)

30.5 Trees and fruits

Tree names are almost all *g*^{a}|*s*^{ɛ} class, like *tʊ̀ɪg*^{a} "tree"; their fruits belong to classes *r*^{ɛ}|*a*$^{+}$ or *g*^{ɔ}|*d*^{ɛ}.

Tree sg	Tree pl	Fruit sg	Fruit pl	
āaňdɪg^{a}	*āaňdɪs*^{ɛ}	*āaňdɪr*^{ɛ}	*āaňda*$^{+}$	Vitex doniana
dʊ̀aň$^{+}$	*dɔ̀ɔňs*^{ɛ}	*dɔ̀ɔňg*^{ɔ}	*dɔ̀ɔňd*^{ɛ}	dawadawa
gāaň$^{=/}$	*gāaňs*$^{ɛ/}$	*gāňr*$^{ɛ/}$	*gāňyá*$^{+}$	Nigerian ebony
gʊ̀ŋ^{a}	*gʊ̀mɪs*^{ɛ}	*gʊ̀m*^{mɛ}	*gʊ̀ma*$^{+}$	kapok
kʊ̀kàŋ^{a}	*kʊ̀kàmɪs*^{ɛ}	*kʊ̀kàm*^{mɛ}	*kʊ̀kàma*$^{+}$	fig tree
kpʊ̀kpàrɪg^{a}	*kpʊ̀kpàrɪs*^{ɛ}	*kpʊ̀kpàr*^{ɛ}	*kpʊ̀kpàra*$^{+}$	palm
líˈəŋ^{a}	*līˈəmís*^{ɛ}	*líˈəm*^{mɛ}	*līˈəmá*$^{+}$	Ximenia americana
pūsɪg$^{a/}$	*pūsɪs*$^{ɛ/}$	*pūsɪr*$^{ɛ/}$	*pūsá*$^{+}$	tamarind
sīsíbʊ̀g^{a}	*sīsíbʊ̀s*^{ɛ}	*sīsíbʊ̀r*^{ɛ}	*sīsíbà*$^{+}$	neem
tá'aŋ^{a}	*tā'amís*^{ɛ}	*tá'am*^{mɛ}	*tā'amá*$^{+}$	shea butter
tɛ̀'ɛg^{a}	*tɛ̀'ɛs*^{ɛ}	*tɛ̀'og*^{ɔ}	*tɛ̀'ɛd*^{ɛ}	baobab
vúɵŋ^{a}	*vūɵmís*^{ɛ}	*vúɵr*^{ɛ}	*vūáa*$^{=}$	red kapok

The stems for "red kapok" and its fruit are slightly different: tree **vuɵgm-* fruit **vuɵg-*

30.6 Body parts

Most human and animal body parts belong to the classes $r^{\varepsilon}|a^{+}$ and $g^{\mathrm{ɔ}}|d^{\varepsilon}$:

bi̱ā-u̱ňk^{ɔ}	"shoulder"	*bīən*^{nɛ}	"shin"
bì'isɪr$^{\varepsilon}$	"woman's breast"	*dūm*^{mɛ}	"knee"
gbā-u̱ŋ$^{\mathrm{ɔ/}}$	"animal skin; lip, eyelid"	*gbɛ̄r*$^{\varepsilon/}$	"thigh"
gbɛ̀'og^{ɔ}	"forehead"	*gbìn*^{nɛ}	"buttock"
gbìn-vɔ̀ɔňr$^{\varepsilon}$	"anus"	*gʊ̄ʊr*$^{\varepsilon}$	"ridge of back"
íɪl^{lɛ}	"horn"	*kɔ̄bɪr*$^{\varepsilon}$	"bone"
kɔ̄ňbʊg^{ɔ}	"hair"	*kpɛ̄ňdɪr*$^{\varepsilon/}$	"cheek"
kpìsukpìl^{lɛ}	"fist"	*lām*$^{\mathrm{mɛ/}}$	"gum"
lān^{nɛ}	"testicle"	*lʊ̄gʊr*$^{\varepsilon}$	"organ, member"
nìn-gbīŋ$^{\mathrm{ɔ/}}$	"human skin, body"	*nìn-gɔ̀ɔr*$^{\varepsilon}$	"neck"
nɔ́bʊ̀r$^{\varepsilon}$	"leg"	*nɔ̄b-pʊ́mpàu̱ŋ*^{ɔ}	"foot"
nɔ̄ɔr$^{\varepsilon/}$	"mouth"	*ňyīn*$^{\mathrm{nɛ/}}$	"tooth"
ňyɔ̄ɔd$^{\varepsilon}$	"intestines"	*ňyɔ̄'ɔg*$^{\mathrm{ɔ/}}$	"chest"
ňyɔ̄ɔr$^{\varepsilon}$	"nose"	*pɛ̀n*^{nɛ}	"vagina"
pʊ̄ʊr$^{\varepsilon/}$	"stomach"	*sɔ̄ɔňr*$^{\varepsilon}$	"liver"
tàsɪntàl^{lɛ}	"palm"	*tàtàl*^{lɛ}	"palm"
tìəŋ-gʊ̄ʊr$^{\varepsilon}$	"chin"	*tʊ̀b-kpìr*$^{\varepsilon}$	"half of jaw"
tʊ̀bʊr$^{\varepsilon}$	"ear"	*yìər*$^{\varepsilon}$	"jaw"
yū'ər$^{\varepsilon}$	"penis"	*zàňl*^{lɛ}	"umbilicus"
zìlɪm^{mɛ}	"tongue"	*zūg*$^{\mathrm{ɔ/}}$	"head"
zūəbʊ́g^{ɔ}	"human head hair"	*zʊ̄ʊr*$^{\varepsilon}$	"tail"

There are significant exceptions, however:
$g^{\mathrm{a}}|s^{\varepsilon}$ class:

nú'ùg^{ɔ}	"hand"	perhaps as the prototypical tool.
nū'-bíl^{a}	"finger"	but *nū'-dáʊ̀g*^{ɔ} "thumb"
nū'-íňˈa^{+}	"fingernail"	*nɔ̄b-bíl*^{a} "toe"
nɔ̄b-íňˈa^{+}	"toenail"	*sīa*$^{+}$ "waist"
ňyáˈaŋ^{a}	"back"	*tìəŋ*^{a} "beard"

$f^{\mathrm{ɔ}}|ɪ^{+}$ class:

nīf$^{\mathrm{ɔ/}}$	"eye"	as a "small round thing"?
si̱à-nīf$^{\mathrm{ɔ/}}$	"kidney"	as a compound of "eye"
sūňf$^{\mathrm{ɔ/}}$	"heart"	beside *sūuňr*$^{\varepsilon/}$ $r^{\varepsilon}|a^{+}$ class

30.7 Colours

Kusaal, like many local languages, has a basic three-colour system:

*zɛ̀ň'og*ɔ	"red"	covering all reddish shades
*sābɪlíg*ª	"black"	covering all darker shades of colour
*pìəlɪg*ª	"white"	covering all lighter shades of colour

*Wìug*ɔ "red" is synonymous with *zɛ̀ň'og*ɔ. Kusaal has many more or less standardised expressions for colour (e.g. *wʊ̄ʊ 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.

30.8 Time

Answers to *bɔ̀-wìn*ⁿɛ "what time of day?"

*bɛ̄ogʊ-n*ɛ/	"morning"	*àsùbá*⁺	"dawn" (← Arabic)
*bɛ̀kɛ̀kɛ̀oňg*ɔ	"very early morning"	*zàam*ᵐ	"evening"
*wìn-līir*ɛ	"sunset"	*yʊ́'ʊŋ*ɔ	"night"
*wìn-kɔ̀ɔňr*ɛ	"sunset"	*nīntāŋ*ª/	"heat of the day, early afternoon"

*Wìn*ⁿɛ "time of day" (cf *wìnnɪg*ª "sun"), always with a predeterminer.
There are no traditional expressions for clock time; NT/KB adapts from Hausa:

kɛ́rɪfà àtáň'	"three o'clock"	Hausa:	*ƙarfèe ukù*

The deictic particle *ňwà* "this" is commonly attached to time words:

zàam ňwá	"this evening"	[za:ma]	
yʊ́'ʊŋ ňwá	"tonight"	[yʊ̟:ŋ:a]	8.5.1

The day begins at sunrise.
Answers to *bʊ̄n-dáàr*ɛ "which day?":

zīná⁺	"today"	*sù'ɵs*ª	"yesterday"
*bɛ̄og*ɔ	"tomorrow"	*dāar*ɛ	"day after tomorrow/ day before yesterday"

Weekday names are of Arabic origin, the seven-day week being a Muslim importation. The traditional "week" is a three day market cycle, differing from village to village and carrying on regardless of any weekdays or festivals. Many older speakers do not use weeks at all, but count in days instead.

Àláasìd dáàr$^{\varepsilon}$	"Sunday"	*Àtínì dáàr*$^{\varepsilon}$	"Monday"
Àtàláatà dáàr$^{\varepsilon}$	"Tuesday"	*Àlárıbà dáàr*$^{\varepsilon}$	"Wednesday"
Àlàmíisì dáàr$^{\varepsilon}$	"Thursday"	*À(r)zúmà dáàr*$^{\varepsilon}$	"Friday"
Àsíbıtì dáàr$^{\varepsilon}$	"Saturday"		

Dāar$^{\varepsilon}$ "day" is "twenty-four hour period" (*nīntāŋ* "day as opposed to night") and is used with predeterminers to specify a particular day; the word *dàbısır*$^{\varepsilon}$ is also used for "day" in counting periods of time, occurring usually in the plural:

Dābá àyɔ́pɔ̀e̯ dáàr kà fù ná lɛ̄b nā.	"You'll come back in a week."
Dābá àyɔ́pɔ̀e̯ kà fù ná lɛ̄b nā.	"You'll come back for a week."
Àláasìd dáàr kà fù ná lɛ̄b nā.	"You'll come back on Sunday."
Tì kpɛ́lìm ànínā dábısà bī̀ələ́.	"We stayed there a few days."

Longer periods of time:

dābá àyɔ́pɔ̀e̯	"week"	also *bákpàe̯* ← Hausa *bakwài* "seven"
ňwādıg$^{a/}$	"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^{ɔ}	"rainy season"	*úun*$^{n\varepsilon}$	"dry season"

The Harmattan part of *úun* is called *sāpál*$^{l\varepsilon}$ and the very hot humid part before the rains is *dàwàlıg*^{a}.

yʊ̀ʊm$^{m\varepsilon}$	"year"	*dūnná*$^{+}$	"this year"

"Time" in general is the irregular noun *sāŋá*$^{+}$ pl *sānsá*$^{+}$ cb *sān-*; "time of day" is *wìn*$^{n\varepsilon}$; "time" as in "several times" is *nɔ̄ɔr* 16.4.2.4. Examples with *sāŋá*$^{+}$:

sān-kánɛ̀?	"when?"	*sān-kán lā*	"at that time"
sāŋá kám	"all the time"	*sāŋá bɛ̀dʊgʊ̄*	"a long time"
sānsá bɛ̀dʊgʊ̄	"many times"	*sāŋá bī̀ələ́*	"for/in a short time"

31 General vocabulary

Words are ordered by Short Forms.

Vowel glottalisation, and the distinctions *n*/*ǹ*, *ə*/*e*/*e̩*/*ɛ*, *i*/*ɪ*/*i̩*, *ɵ*/*o*/*ɔ* and *u*/*ʊ*/*u̩* 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 are included under the entry for the first element.

Nouns are listed under the singular form. Adjectives are listed under the $g^{\text{ə}}|s^{\text{ɛ}}$ class form if extant, if not, then $g^{\text{ɔ}}|d^{\text{ɛ}}$ or $r^{\text{ɛ}}|a^{+}$. Dual-aspect verbs are listed under the perfective.

Dual-aspect verb imperfectives and imperatives are listed only where irregular. Gerunds, agent nouns and dynamic 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 30.2 30.3 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 *ɪ ʊ* 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.

Binomial names of plants taken from Haaf (see References) are likely to be reliable; he checked the identifications with local botanical experts.

Abbreviations:

adj	adjective	*adv*	adverb
agt	agent noun	*cb*	combining form
dv	dual-aspect verb	*ger*	gerund
imp	imperative	*ipfv*	imperfective
n	noun	*pl*	plural
q	quantifier	*res*	resultative
sg	singular	*sv*	single-aspect verb

A

à- *personifier proclitic (default allomorph)* 16.6
āaǎndɪg^{a} *pl āaǎndɪs^{ɛ} cb àaǎnd- n.* black plum tree, *Vitex doniana*
āaǎndɪr^{ɛ} *pl āaǎnda^{+} n.* black plum fruit
àaǎns^{ɛ} *dv.* tear
àbùlá$^{+}$ how many-fold? 16.4.2.4
àbùyí$^{+}$ àbùtáǎ̀$^{'+}$ àbùnāasí$^{+}$ *adv.* twice, three times etc 16.4.2.4
à-dàalúŋ^{ɔ} *pl à-dàalís^{ɛ} à-dàalímìs^{ɛ} cb à-dàalúŋ- n.* stork 16.6
àdàkɔ́ǎ̀$^{'+}$ *q.* one 16.4.2.2
àe̯ǎ^{a} *ger àaǎnlím^{m} sv.* be something/somehow 20.2 8.5.2
àeǎ$^{+}$ *dv.* get torn; *res adj àaǎnlúŋ^{ɔ}* torn
à-gáùǎ̀g^{ɔ} *pl à-gáàǎd^{ɛ} cb à-gāǎ- n.* pied crow 16.6
àgɔ́l^{lɛ} àgɔ̄lá$^{+}$ *adv.* upwards
Àgɔ̀l^{lɛ} *n.* Agolle district of Kusaasi territory; *n.* Agolle Kusaal dialect
à-kɔ̄ra-díàm^{ma} *pl à-kɔ̄ra-díàm-nàm^{a} n.* praying mantis 16.6
àlá$^{+}$ *adv.* thus 17.7
àlá$^{+}$ *q.* so many; how many? 17.7
àláafù$^{+}$ *n.* health; in greetings 29; cf *láafîya^{+}* ← Arabic العافية *ʔal-ʕa:fiya(tu)*
Àláasìd dáàr^{ɛ} *n.* Sunday ← Arabic
Àlàmíisì dáàr^{ɛ} *n.* Thursday ← Arabic
Àlárɪbà dáàr^{ɛ} *n.* Wednesday ← Arabic
àlá zùg^{ɔ} therefore 21.2.1 17.7
àlɔ́pìr^{ɛ} *pl àlɔ́pìya^{+} n.* aeroplane ← English
àmáa$^{=}$ but 21.2.1 ← Hausa ← Arabic
àmɛ̄ŋá$^{+}$ *adv.* really, truly 17.4
àmí amen ← Arabic آمين; in replies to greetings 29
à-mús^{ɛ} *pl à-mús-nàm^{a} n.* cat 16.6; cf Hausa *mussàa id*
ànāasí$^{+}$ *q.* four 16.4.2.1
àní$^{+}$ *adv.* there 17.7
àníi$^{=}$ *q.* eight 16.4.2.1
àní nā$^{+/}$ *adv.* there 17.7
àníŋà$^{+}$ *adv.* promptly 17.4
ànɔ́'ɔn^{ɛ} who? 16.3.4
àǎ̀rʊŋ^{ɔ} *pl àǎ̀rɪma^{+} cb àǎ̀rʊŋ- n.* boat (written *aaruŋ* in the 1976/1996 NT)
āǎns^{ɛ} *dv.* pluck (leaves)
áǎ̀sìb^{a} *pl āǎns-nám^{a} cb āǎns- n.* mother's brother
āǎ̀sɪg$^{ɛ/}$ *dv.* break at an angle
āǎ̀síŋ^{a} *pl āǎ̀sís^{ɛ} cb āǎ̀sɪŋ- n.* (man's) sister's child
àntù'a$^{=}$ *pl àntù'ɐs^{ɛ} cb àntu̯'à- n.* lawsuit
ànū$^{+}$ *q.* five 16.4.2.1

àňwá$^{+}$ *adv*. like this 17.7
ānzúrɪfà$^{+}$ *n.* silver; cf Hausa *azùrfaa* ← Berber **a-ẓrəf*, Souag 2016
àrazàk^{a} *pl àrazà'as*^{ɛ} *cb àrazà'-* *Generally used in pl: n.* wealth, riches ← Arabic الرزق *ʔar-rizq(u)*
àrazánà$^{+}$ *n.* heaven ← Arabic الجنة *ʔal-ɟanna(tu)*
Àrzúmà dáàr^{ɛ} *n.* Friday ← Arabic
àsɛ́ɛ except, unless 18 21.2.1 ← Hausa *sai*
Àsíbɪtì dáàr^{ɛ} *n.* Saturday ← Arabic
àsīda^{+} *adv*. truly 17.4
àsùbá$^{+}$ *n.* dawn ← Arabic الصباح *ʔasˁ-sˁaba:ħ(u)*
àtáň'$^{+}$ *q*. three 16.4.2.1
Àtàláatà dáàr^{ɛ} *n.* Tuesday ← Arabic
àtáŋā$^{+/}$ *q*. three exactly 16.4.2.1
Àtínì dáàr^{ɛ} *n.* Monday ← Arabic
àtìu̱k^{ɔ} *n.* sea ← Hausa *tèeku*
àwánā$^{+/}$ *adv*. like this 17.7
àwāẹ̱$^{+}$ *q.* nine 16.4.2.1
àyí$^{+}$ *q*. two 16.4.2.1
áyìɪ no 22.3.4
àyíŋā$^{+/}$ *q*. two exactly 16.4.2.1
àyɔ́pɔ̀ẹ̱$^{+}$ *q.* seven 16.4.2.1
àyúɵbù$^{+}$ *q*. six 16.4.2.1

B

bà they, their *(proclitic)*; **ba**$^{+}$ them *(enclitic object)* 16.3.1
bā'$^{+/}$ *pl bā'-nám*^{a} *cb bā'-* *n.* father 9.4
bāa$^{=}$ *pl bāas*^{ɛ} *cb bà-* *n.* dog
báa (← Hausa *bâa* "not exist") *in constituent negation* 27.2
bā'a$^{=}$ *pl bā'ab*^{a} *cb bà'a-* *n.* traditional diviner; **bà'a-kɔ̀lʊg**^{ɔ} *pl bà'a-kɔ̀n*^{nɛ} *cb bà'a-kɔ̀l-* *n.* diviner's bag
bā'a$^{=}$ *pl bā'as*^{ɛ} *cb bà'-* *n.* peg to hang things on
bà'an^{nɛ} *pl bà'ana*$^{+}$ *cb bà'an-* *n.* stocks (punishment)
bàaňlɪg^{a} *pl bàaňlɪs*^{ɛ} *adj*. narrow, slender
bāaňlíg^{a} *adj*. quiet
bāaňlím^{m} *adv*. quietly
bà'ar^{ɛ} *pl bàda*$^{+}$ *bà'a*$^{+}$ *cb bà'-* *n.* idol
bābá$^{+}$ beside *postposition* 17.6; cf *bābɪr*$^{ɛ/}$ sphere of activity
bàbɪgā$^{+/}$ *q*. many 16.4.1
bákpàẹ̱$^{+}$ *n.* week ← Hausa *bakwài* "seven"
bàlàar^{ɛ} *pl bàlàya*$^{+}$ *cb bàlà-* *n.* stick, staff, club

bàlàŋɪrᵋ *pl* bàlàŋaᐩ *cb* bàlàŋ- *n.* hat
bālɛ̄rʊgɔ/ *pl* bālɛ̄rɪdᵋ/ bālɛ̄rɪsᵋ/ *cb* bālɛ́r- *n.* ugly person; cf lɛ̄rᵋ get ugly
bàmmāᐩ/ these, those *demonstrative* 16.3.2
bànᵋ these, those *demonstrative* 16.3.2
bán they *(subject of ǹ-clause)*; **bānᵋ** they, them *(contrastive)* 16.3.1
bāǎ'ᐩ *dv.* ride
bānāa⁼ *pl* bānāasᵋ *cb* bànà- *(tone* sic *in my materials) n.* traditional "fugu" smock
bàǎ'adᵃ *pl* bàǎ'ad-nàmᵃ *n.* ill person
bāǎ'alᵋ/ *dv.* make to ride (horse, bicycle)
bāǎ'asᵋ *cb* bàǎ'- *n. pl as sg* disease
bàn-dāʊgɔ *pl* bàn-dāadᵋ *cb* bàn-dà- *n.* crocodile
bān-kʊ́sɛ́lˡᵋ *pl* bān-kʊ́sɛ̄láᐩ *cb* bān-kʊ́sɛ̄l- *n.* lizard
bāŋᵃ *pl* bāaǎnsᵋ *cb* bàŋ- *n.* ring, chain, fetter
bàŋᵃ *n.* agama lizard
bàŋᵋ *dv.* come to know
báp wallop!
Bārɪgᵃ/ *pl* Bārɪsᵋ/ *cb* Bār- *n.* Bisa person (not only the Bareka, WK)
bárɪkàᐩ *n.* blessing; in greetings 29 ← Arabic بركة *baraka(tun)*
Bārʊgɔ/ *n.* Bisa country; North 30.3
bàsᵋ *dv.* go away; abandon; throw out
Bātᵋ/ *n.* Bisa language
bàtáǎ'ᐩ *q.* three *(after personal pronoun* 16.4.2.1*)*
bàu̱ŋʊᐩ *n. found only as in* Ò kpɛ̀ǎ' báu̱ŋù. He was circumcised. ← Songhay "pool" *(for the idiom* 15.1*)*
bàyɛ̄ogɔ/ betrayer of secrets (*cf* yɛ̄ɛsᵋ/)
bàyíᐩ *q.* two *(after personal pronoun* 16.4.2.1*)*
bàyɔ́pɔ̀e̱ᐩ *q.* seven *(after personal pronoun* 16.4.2.1*)*
bɛ̀ᐩ *ger* bɛ̀límᵐ *(sic) sv.* exist; be in a place 20.1
bɛ̄dɪgᵋ/ *dv.* go rotten
bɛ̀dʊgɔ bɛ̀dɪrᵋ *pl* bɛ̀daᐩ *cb* bɛ̀d- *adj.* great
bɛ̀dʊgʊ̄ᐩ/ *q.* much, a lot 16.4.1
bɛ̄ɛ or 21.2.1 22.1.2
bɛ̀kɛ̀kɛ̀oǎ'gɔ or **bɛ̀kɛ̀oǎ'gɔ** *n.* very early morning
bɛ̀lɪmᵐ *dv.* beg
bɛ̀lɪsᵋ *dv.* comfort
bɛ̄nⁿᵋ *pl* bɛ̄naᐩ *cb* bɛ̀n- *n.* end
bɛ̀ǎ'ᐩ *ger* bɛ̄ǎ'ɛsᵋ *dv.* fall ill
bɛ̀ǎsɪgᵋ *dv.* serve soup
bɛ̀ŋᵋ *dv.* mark out a boundary
bɛ̄ŋɪdᵋ *cb* bɛ̄ŋ- *n. pl* bean leaves, *Vigna unguiculata* (Haaf); bɛ̄ŋɪ́d nɛ̄ kɪ̄ᐩ/ *n.* beanleaf-and-millet, a traditional snack

bɛ̄ŋír^{ɛ} *pl bɛ̄ŋá*$^{+}$ *cb bɛ̄ŋ- n.* brown bean
bɛ̄og^{ɔ} *n.* tomorrow 21.2.1 30.8; *Kà bɛ̄og níe kà ...* The next day ...
bɛ̄ogʊ-n$^{ɛ/}$ *n.* morning 30.8
bɛ̄'og^{ɔ} ***bī'a***$^{+}$ *pl bɛ̄'ɛd*^{ɛ} *bī'əs*^{ɛ} *cb bɛ̀'- bi̯à'- adj.* bad
bɛ̀rɪŋ^{a} *pl bɛ̀rɪgɪs*^{ɛ} *sic n.* a plant used for fibre (KED), *Hibiscus cannabinus* (Haaf)
bɛ̄rɪga^{+} *cb bɛ̀rɪg- pl* leaves of *bɛ̀rɪŋ* used for soup (KED)
bɛ̄sʊg^{ɔ} *pl bɛ̄sɪd*^{ɛ} *cb bɛ̀s- n.* a kind of wide-mouthed pot
bi̯āň'ar$^{ɛ/}$ *pl bi̯āň'adá*$^{+}$ *bi̯áň'a*$^{+}$ *cb bi̯āň'- n.* wet mud, black mud; riverbed
bi̯āu̯ňk^{ɔ} *pl bi̯āň'ad*^{ɛ} *cb bi̯àň'- n.* shoulder
bīə́l^{lɛ} *pl bīəlá*$^{+}$ *adj.* naked
bìəl^{ɛ} *dv.* accompany
bī'əlá$^{+}$ *q.* a little 16.4.1; ***bī'əl bī'əl*** *q. and adv.* a very little; little by little
bī'əm^{m} *pl bì'əm-nàm*^{a} *bī'əmma* LF *cb bì'əm- n.* enemy
bīən^{nɛ} *pl bīəna*$^{+}$ *cb bìən- n.* shin
bīər$^{ɛ/}$ *pl bi̯ēyá*$^{+}$ *cb bi̯ā- n.* elder sibling of the same sex
bì'əs^{ɛ} *dv.* doubt
bìgɪs^{ɛ} *dv.* show, teach
bīig^{a} *pl bīis*^{ɛ} *cb bì- bī- n.* child; ***bī-díbìŋ***^{a} *n.* boy; ***bì-līa***$^{+}$ *n.* baby; ***bì-nà'ab***^{a} *n.* prince; ***bì-pīt***$^{a/}$ *pl bì-pītíb*^{a} *cb bì-pīt- n.* father's younger brother; ***bī-pʊ́ŋ***^{a} *n.* girl
bì'ig^{ɛ} *dv.* ripen, become pregnant
bīilíf^{ɔ} *pl bīilí*$^{+}$ *cb bīil- n.* seed
bìilím^{m} *n.* childhood
bīɪm$^{m/}$ *cb bī- n.* soup, stew
bì'isím^{m} *n.* milk (human or animal)
bì'isɪr^{ɛ} *pl bì'isa*$^{+}$ *cb bì'is- n.* woman's breast
bīl^{a} *pl bībɪs*^{ɛ} *cb bìl-* or *bì- adj.* little, small
bìlɪg^{ɛ} *dv.* roll *(transitive)*
bìlɪm^{m} *dv.* roll *(intransitive)*
bìmbìm^{mɛ} *pl bìmbìma*$^{+}$ *cb bìmbìm- n.* altar NT (KED: mound or pillar of earth)
Bìn^{nɛ} *pl Bìm*^{ma} *cb Bìn- n.* Moba, Bimoba person (not only Bemba, WK)
Bìn^{nɛ} *n.* Moba language
bīn^{nɛ} *n.* excrement
Bìu̯ŋ^{ɔ} *n.* Moba country
bɔ̀$^{+}$ *dv.* seek; ***bɔ̀ɔd***^{a} *ipfv* used for: want, like, love (sexual, romantic); *imperfective gerund* ***bɔ̀ɔdɪm***^{m} will 13.2.1.4
bɔ̄$^{+}$ *cb bɔ̀-* what? why? 16.3.4; ***bɔ̀-būudɪ***$^{+}$ what sort of ..?; ***bɔ̄-zúgɔ̄*** because 21.2.1, why? 17.7; ***bɔ̀-wìn***^{nɛ} what time of day?
bɔ̀bɪg^{ɛ} *dv.* wrap round, tie round
bɔ̀dɪg^{ɛ} *dv.* lose, become lost
bɔ̀dɔ̀bɔ̀dɔ̀$^{+}$ *n.* bread (? ultimately ← English)
bɔ̀k^{ɔ} *pl bʊ̀'ad*^{ɛ} *cb bu̯'à- n.* pit

bɔ̄sɪrᵋ *pl bɔ̄saᐩ cb bɔ̀s- n.* a kind of small, very poisonous snake
bʊ̄'ᐩ *dv.* beat
bu̱àkᵋ *dv.* split
bʊ̀'arᵋ *pl bu̱'àaᐩ cb bu̱'à- n.* hole
bʊ̄'arᵋ/ *pl bu̱'áaᐩ cb bu̱'ā- n.* skin bottle
bʊ̀dᵋ *ger bʊ̄dɪgᵃ bʊ̄dʊgᵓ dv.* plant seeds
bʊ̀dɪmᵐ *dv.* get confused
bʊ̀dɪmísᵋ *n.* confusion
bʊ̀'eᐩ *dv.* pour out
bʊ̀gᵋ *dv.* get drunk; cf Hausa *bùgu id*
bʊ̄gʊdᵃ *n.* client of a *bā'a⁼* traditional diviner
bʊ̀gʊlɪmᵐ *dv.* cast lots
bʊ̄gʊrᵋ *pl bʊ̄gaᐩ cb bʊ̀g- n.* dwelling-place of a *wīnⁿᵋ* localised spirit; also a *wīnⁿᵋ/* as a *sīgɪrᵋ/* 30.2 inherited from one's mother's family
bʊ̀gʊ́mᵐ *cb bʊ̀gʊ̄m- bʊ̀gʊ́m- n.* fire; ***Bʊ̀gʊ́m-tɔ̄ɔ̆ɲ̆rᵋ*** *n.* Fire Festival
bʊ̄gʊsᵃ/ *sv.* be soft
bʊ̄gʊsígᵃ bʊ̄gʊsírᵋ *pl bʊ̄gʊsáᐩ cb bʊ̄gʊs- adj.* soft, weak
bʊ̄gʊsígāᐩ/ *adv.* softly 17.4
bʊ̄gʊsímᵐ *n.* softness, weakness
bʊ̄kᵋ/ *dv.* weaken
bʊ̀kᵋ *dv.* cast lots
bʊ̀lᵋ *dv.* germinate, ooze
bʊ̄lˡᵋ *pl bʊ̄laᐩ n.* shoot, sprout
bʊ̀lᵋ *dv.* astonish
Bʊ̀lˡᵋ *n.* Buli language
Bʊ̀lɪgᵃ *pl Bʊ̀lɪsᵋ cb Bʊ̀l- n.* Bulsa person
bʊ̀lɪgᵃ *pl bʊ̀lɪsᵋ cb bʊ̀l- n.* well, pond
bʊ̀mbàrɪgᵃ *pl bʊ̀mbàrɪsᵋ cb bʊ̀mbàr- n.* ant
bʊ̀nᵋ *dv.* reap, harvest
bʊ̄nⁿᵋ/ *pl bʊ̄náᐩ bʊ̄n-námᵃ cb bʊ̄n- n.* thing (concrete or abstract) 16.10.4; ***bʊ̄n-bʊ́ʊdìfᵓ*** *n.* plant; ***bʊ̄n-gíŋᵃ*** *n.* short chap (informal, joking); ***bʊ̄n-kɔ́ɲ̆bʊ̀gᵓ*** *pl bʊ̄n-kɔ́ɲ̆bìdᵋ cb kɔ̀ɲ̆b-* (*sic*) *n.* animal; ***bʊ̄n-kʊ́dʊ̀gᵓ*** *n.* old man
bʊ̄n-dáàrᵋ which day? 17.7
bʊ̀ŋᵃ *pl bʊ̀mɪsᵋ cb bʊ̀ŋ- n.* donkey
bʊ̀ŋᵋ *dv.* take a short cut
bʊ̀ɵlᵋ *dv.* call, summon; *Ò yʊ̄'ʊr búèn* X. She is called X. 19.8.2
bʊ̀ɵrᵋ *pl bu̱èyaᐩ cb bu̱à- n.* grain store, silo
bʊ̄'ɵsᵋ *dv.* ask; *ger* ***bʊ̄'ɵsʊ́gᵓ*** *n.* question; *bu'oskaŋa* this question (Jn 18:34)
bʊ̀-pīiga *adv.* ten times 16.4.2.4
bʊ̄ráa⁼ *n.* man, male adult (in ILK but characteristically *Toende* Kusaal; see *dāu̱ᐩ*)
bʊ̄rɪyáᐩ *n.* Christmas ← Twi/Fante *bronya*

bùrkìnᵃ *pl bùrkìn-nàm*ᵃ *cb bùrkìn- n.* free person; honourable person ← Songhay 15.1
Bùsáàňlᵋ *n.* Bisa language
Bùsáŋᵃ *pl Bùsáàňs*ᵋ *cb Bùsāŋ- n.* Bisa person
būtɪŋᵃ *pl būtɪɪsᵋ irregular* 6.2; *cb bùtɪŋ- n.* cup (in general; etymologically ← "seed planting [cup]")
būʋdᵋ *n. pl as sg* innocence
būudɪ⁺ *cb bùud- n.* kind, sort, ethnic group
bʊ̄ʋgᵃ *pl bʊ̄ʋsᵋ cb bʊ̀- n.* goat; **bʊ̀-dìbɪgᵃ** *n.* male kid

D

dà before two days ago, *tense particle* 19.3.1
dā not *with imperative mood* 19.5
dàa day after tomorrow, *tense particle* 19.3.1
dāa before yesterday, *tense particle* 19.3.1
dà'⁺ *dv.* buy
dà'aᵐ *pl dà'asᵋ cb dà'- n.* market
dà'abɪrᵋ *n.* slave
dàalɪmᵐ *n.* masculinity
dàalímᵐ *pl dàalímìsᵋ n.* male organs
dāamᵐ/ *cb dā- n.* millet beer, "pito"; **dā-núùrᵋ** *n.* beer-drinking; **dā-bínⁿᵋ** *cb dā-bín- n.* residue of beer; NT yeast (cf *bīnⁿᵋ*)
dàamᵐ *dv.* disturb, trouble (cf Hausa *dàamaa id*)
dāanᵃ *pl dàan-nàm*ᵃ *cb dàan- n.* owner of ... 16.10.4
dāarᵋ *pl dābá⁺cb dà- n.* day, 24-hour period 30.8; **dà-pīigaᵃ⁺** *n.* ten days
dāa-sí'ɛrɛ̄ perhaps 21.2.1
dàbīəmᵐ *tone sic n.* fear
dàbīogᵓ *pl dàbīədᵋ cb dàbi̱à- n.* coward
dàbɪsɪrᵋ *pl dàbɪsa⁺ cb dàbɪs- n.* day (as one of several)
dādúkᵓ *n.* a kind of large pot
dā'eᵐ⁺/ *dv.* push; blow (of wind)
Dàgáàdᵃ *pl Dàgáadìbᵃ Dàgáàd-nàmᵃ cb Dàgáàd- n.* Dagaaba person (L prefix *sic*)
Dàgbānⁿᵋ/ *pl Dàgbāmᵐᵃ/ cb Dàgbān- n.* Dagomba person
Dàgbānⁿᵋ/ *n.* Dagbani language
Dàgbāu̱ŋᵓ/ *n.* Dagomba country, Dagbon
dàgɔ̀bɪgᵃ *n.* left-hand; (*yà*) *dàgɔ̀bɪgᵃ* South KB 30.3
dākáᵐ⁺ *pl dākáà-nàmᵃ cb dāká- n.* box ← Hausa *àdakàa*
dàkīigᵃ *pl dàkīisᵋ cb dàkì- n.* wife's sibling; **dàkì-dāu̱⁺** *n.* wife's brother; **dàkì-pu̱ākᵃ** *n.* wife's sister; **dàkì-tùa⁺** *n.* wife's sister's husband
dà-kɔ̀ɔňrᵋ *pl dà-kɔ̀ňya⁺ cb dà-kɔ̀ň- n.* unmarried son 30.1
dàmᵐ *ipfv dàmmɪdᵃ dv.* shake

dàmà'a$^{=}$ *n.* liar cf *mà'*$^{+}$
dàmà'am^{m} *n.* lie, untruth, lying
dàmà'ar^{ɛ} *n.* lie, untruth
dāmpūsāar^{ɛ} *n.* stick
dànkɔ̀ŋ^{ɔ} *n.* measles
dà-pāal$^{a/}$ *n.* young man, son
dà-sāŋ^{a} *pl dà-sāañs*^{ɛ} *dà-sām*^{ma} *cb dà-saŋ- n.* young man
dà-tāa$^{=}$ *pl dà-tāas*^{ɛ} *cb dà-tà- n.* enemy
dàtìu̱ŋ^{ɔ} *n.* right-hand; (*yà*) *dàtìu̱ŋ*^{ɔ} North KB 30.3
dāu̱$^{+}$ *pl dāp*^{a} *cb dàu̱- dàp-* 9.2.2 *n.* man (as opposed to woman)
dàʋg^{ɔ} *pl dàad*^{ɛ} *cb dà- n.* piece of wood, log; *pl also:* wood (material); ***dà-kīəd***^{a} *n.* wood-cutter; ***dà-kpī'əd***^{a} *n.* carpenter; ***dà-pūʋdír***^{ɛ} *n.* cross-piece, *pl* ***dà-pūʋdá***$^{+}$ *n. used as sg* cross NT
dāʋg^{ɔ} *pl dāad*^{ɛ} *cb dà- adj.* male
dàwàlɪg^{a} *n.* hot humid season before the rains
dàwān$^{nɛ/}$ *pl dàwāná*$^{+}$ *cb dàwān- n.* pigeon
dàyáam^{ma} *pl dàyāam-nám*^{a} *cb dàyāam- n.* husband's parent; ***dàyāam-dáu̱***$^{+}$ *n.* husband's father; ***dàyāam-pu̱ák***^{a} *n.* husband's mother
dàyūug$^{ɔ/}$ *pl dàyūud*$^{ɛ/}$ *cb dàyū- n.* rat
dèbɪr^{ɛ} *pl dèba*$^{+}$ *n.* mat, pallet, bed
dēɛŋ^{a} *pl dɛ̄ɛ̆ns*^{ɛ} *dɛ̄ɛmɪs*^{ɛ} *dɛ̄ɛna*$^{+}$ *cb dèɛŋ- q.* first 16.4.2.3
dɛ̄l$^{la/}$ *ger dɛ̄llúg*^{ɔ} *dɛ̄llím*^{m} *sv.* lean on something (of a person)
dèlɪm^{m} *dv.* begin to lean on something (of a person)
dɛ̄ŋ^{a} *pl dɛ̄mɪs*^{ɛ} *cb dèŋ- n.* accidental bruise
dèŋ^{ɛ} *dv.* go, do first
dèŋɪm beforehand, *preverb* 19.7.2
dì it, its *(proclitic)* 16.3.1 = *lì*
dì$^{+}$ *ipfv dìt*^{a} *imp dìm*^{a} *dv.* eat, receive; *ger* ***dīɪbɔ***^{ɔ} *n.* food; *Ò dì pu̱'ā.* He's married a wife. *Ò dì ñyán.* She's ashamed.
di̱ā'^{a} *dv.* get dirty
di̱ā'ad$^{ɛ/}$ *n.* dirt
dī'e$^{+/}$ *dv.* receive, get
dìəm^{ma} *pl dìəm-nàm*^{a}*cb dìəm- n.* wife's parent; *also in polite address to an unrelated person of opposite sex and similar or greater age than onself;* ***dìəm-dāu̱***$^{+}$ *n.* wife's father; ***dìəm-pu̱āk***^{a} *n.* wife's mother
dì'əm^{m} *dv.* play, not be serious
dì'əma^{+} *n.* festival
dī'əs$^{ɛ/}$ *dv.* receive (many things)
dīgɪ$^{ya/}$ *ger dīk*$^{a/}$ KT *dīgɪr*$^{ɛ/}$ WK *sv.* be lying down
dīgɪsá$^{+}$ *n. pl* lairs
dīgɪl$^{ɛ/}$ *dv.* lay down

dìgɪnᵋ *dv*. lie down
dìgɪrᵋ *pl* *dìgaᐩ* *cb* *dìg-* *n.* dwarf
dìɪsᵋ *dv*. feed; *agt* **dìɪsᵃ** *n.* glutton
dìɪsúŋɔ *pl* *dìɪsímàᐩ* *dìɪsísᵋ* *cb* *dìɪsúŋ-* *n.* spoon
dìmᵃ *dummy head pronoun, animate pl*; **dìnⁿᵋ** *inanimate sg* 16.10.4
dín it *(subject of* *ǹ-clause)* 16.3.1
dīnᵋ it *(contrastive)* 16.3.1 = *līnᵋ*
dìndɛ̄ogɔ/ *pl* *dìndɛ̄ɛdᵋ/* *cb* *dìndɛ̄-* *n.* chameleon
dìndìɪsᵃ *n.* glutton
dìn zúgɔ therefore 17.7
dìtʊ́ŋɔ *n.* right-hand (see *dàtìu̱ŋɔ*)
dì-zɔ̄rʊgɔ/ *pl* *dì-zɔ̄ráᐩ* *cb* *dì-zɔ̄r-* *n.* crumb
dɔ̄lla/ *ger* *dɔ̄llímᵐ* *sv.* accompany in a subordinate rôle; *Ànɔ́ˈɔnì dɔ̄llí fɔ̀?* Who has come with you? (to an elderly patient.) *Bà dɔ̀l nɛ̄ tāaba.* They went together.
dɔ̄lɪgᵋ/ *dv*. make accompany, send along with
dɔ̄lɪsᵋ/ *dv*. investigate, trace
dɔ̄ǎlɪgᵋ/ *dv*. stretch oneself
dɔ̀ǎˈɔsᵋ *dv*. water plants
dɔ̀ɔgɔ *pl* *dɔ̀ɔdᵋ* *dɔ̀tᵋ* *cb* *dɔ̀-* *n.* house, hut; clan; *dɔ̀ɔg bíìgᵃ* *n.* (house) cat
dɔ̀ɔǎgɔ *pl* *dɔ̀ɔǎdᵋ* *cb* *dɔ̀ǎ-* *n.* dawadawa fruit
dʊ̄ᐩ *ipfv* *dʊ̄tᵃ/* *imp* *dʊ̀mᵃ* *dv*. go up
du̱ˈàᵃ *dv*. bear, give birth, beget; *agt* **dʊ̄ˈadᵃ** *n.* elder relation
dʊ̀ˈalᵋ *dv*. make interest (of a loan)
dʊ̄ˈamᵐ *n.* birth
dùaǎᐩ *pl* *dɔ̀ɔǎsᵋ* *cb* *dɔ̀ǎ-* *n.* dawadawa *Parkia clappertoniana* [*biglobosa*] (Haaf)
du̱ˈátàᐩ *n.* doctor ← English
dūeᐩ/ *dv*. raise, rise
dʊ̄gᵋ *dv*. cook
dʊ̄kɔ/ *pl* *dʊ̄gʊdᵋ/* *dʊ́tᵋ* *cb* *dʊ̄g-* *n.* cooking pot; **dʊ̄g-pɛ́ˈɛ̀laᐩ** *n.* full pots
dùmᵐ *dv*. bite
dūmᵐᵋ **dūmⁿᵋ** *pl* *dūmaᐩ* *cb* *dùm-* *n.* knee
dʊ̀ndʊ̀ugɔ *pl* *dʊ̀ndʊ̀udᵋ* *cb* *dʊ̀ndʊ̀-* *n.* cobra
dūnɪyaᐩ *cb* *dūnɪyá-* 9.6 *n.* world ← Arabic دنيا *dunya:*
dūnnáᐩ *adv*. this year 30.8
dūŋᵃ *pl* *dūmɪsᵋ* *cb* *dʊ̀ŋ-* *n.* mosquito
dūɵrᵋ/ *pl* *du̱ēyáᐩ* *cb* *du̱ā-* *n.* stick
dūˈɵsᵋ/ *dv*. lift up, honour
dʊ̀rᵃ *sv*. be many
dūˈunᵋ/ *dv*. pass water (*ger* recorded as **dūˈunʊ́gɔ**)
dūˈunɪ́mᵐ *cb* *dūˈun-* *n.* urine
dʊ̄ʋsáᐩ *n. pl.* steps

E

ɛ̄ɛ̀ň yes 22.3.4
ɛ̄ɛ̀ň or ***ɛ̄ɛ̀ň tɪ́*** see *ňyɛ̄ɛ*, *ňyɛ̄ɛ tɪ́* habitually *auxiliary tense marker* 19.7.2
ɛ̄ɛ̀ňbᵋ/ *dv*. lay a foundation
ɛ̄ɛ̀ňbɪ́rᵋ *n*. foundation 12.2.2
ɛ̀ňbɪsᵋ *dv*. scratch
ɛ̀ňdᵋ *dv*. block up, plug up
ɛ̀ňdɪgᵋ *dv*. unblock, unplug
ɛ̀ňrɪgᵋ *dv*. shift along (e.g. a bench)

F

fᵓ you *sg (enclitic object)* 16.3.1
fāaňᵐ *q*. every 16.4.1
fāeňᐩ/ *dv*. save; *agt* ***fāaňdᵃ/ fāaňgɪ́dᵃ*** *n*. saviour 15.1
fāňᐩ *dv*. grab, rob
fáss *ideophone for pìəlɪgᵃ* white 16.11.1.3
fɛ̄ɛgᵋ/ *dv*. (of food) get old, cold
fɛ̄ň'ogᵓ/ *pl fɛ̄ň'ɛdᵋ/ cb fɛ̄ň'-* *n*. ulcer
fìəbᵋ *dv*. beat
fì'igᵋ *dv*. cut off
fɪ̄ɪňᵐ *q*. a little (liquid) 16.4.1
fɪ̀tláᐩ *n*. lamp ← Hausa *fitilàa*; *in KB adapted to the rᵋ|aᐩ class*: *sg fitir pl fita*
fɔ̄ɔsᵋ/ *dv*. blow, puff (wind); *ger* ***fɔ̄ɔsʊ́gᵓ*** *n*. hypocrisy NT
fʊ̀ you, your *sg (proclitic)* 16.3.1
fùeᐩ *dv*. draw out
fʊ̄fʊ̄mᵐᵋ *pl fʊ̄fʊ̄maᐩ cb fʊ̄fʊ́m-* *n*. envy; stye (believed to result from envy)
fʊ́n you *sg (as subject of ǹ-clause)*; ***fʊ̄n*** SF ***fʊ́nɛ̄*** LF you *sg (contrastive)* 16.3.1
fūugᵓ/ *pl fūudᵋ/ fūtᵋ/ cb fū-* *n*. shirt, clothing; *pl also:* cloth

G

gàadᵋ *dv*. pass, surpass 23.2.2
gáafàra sorry *formula* 29 (Hausa *gaafaràa*, ultimately ← Arabic)
gà'alᵋ *dv*. button up
gà'amᵐ *dv*. grind teeth
gāaňᵐ/ *pl gāaňsᵋ/ cb gāň-* *n*. Nigerian ebony *Diospyros mespilliformis* (Haaf)
gàasᵋ *dv*. pass by
gādʊᐩ gādʊgᵓ/ *pl gādʊ-námᵃ gātᵋ/ cb gād- gādʊ-* *n*. bed ← Hausa *gadoo*
gàlɪmᵐ *dv*. joke

gàlɪsᵋ *dv*. exceed, get to be too much
gāňrᵋ/ *pl gāňyá⁺ cb gāňr- n.* fruit of Nigerian ebony
gàŋᵋ *dv*. step over
gāŋᵋ/ *dv*. choose
gbāň'e⁺/ *dv*. catch
gbáňyà'aᵉ *n.* lazy person 15
gbáňyà'amᵐ *n.* laziness; 1976 NT *gonya'am*
gbàu̯ŋᵓ *pl gbàna⁺ cb gbàn- gbàu̯ŋ- n.* book WK
gbāu̯ŋᵓ/ *pl gbāná⁺ cb gbān- gbāu̯ŋ- n.* animal skin WK; animal skin, book DK
gbɛ́ɛ̀ňmᵐ *cb gbɛ̄ň- n.* sleep
gbɛ̀'ogᵓ *pl gbɛ̀'ɛdᵋ gbɛ̀da⁺ cb gbɛ̀'- n.* forehead; shore of a lake
gbɛ̄rᵋ/ *pl gbɛ̄yá⁺ cb gbɛ̄r- n.* thigh
gbīgɪmⁿᵋ *pl gbīgɪma⁺ cb gbìgɪm- n.* lion
gbìnⁿᵋ *pl gbìna⁺ cb gbìn- n.* buttock; base (e.g. of a mountain); *postposition* 17.6
gbìn-vɔ̀ɔňrᵋ *n.* anus
gbīsᵋ *dv*. sleep
gɛ̄ɛlᵋ/ *dv*. place between one's legs (Pattern H)
gɛ̄ɛňmᵐ/ *dv*. go mad, madden
gɛ̄ɛňmísᵋ *n. pl as sg* madness
gɛ́ɛňŋᵃ *pl gɛ̄ɛňmísᵋ n.* madman
gɛ́lˡᵋ *pl gɛ̄lá⁺ cb gɛ̄l- n.* egg
gɛ̄ň⁺ *dv.* get tired; *res adj* ***gɛ̄ɛňlʊ́ŋᵓ*** *adj*. tired
gɛ̄ň'⁺ *dv*. get angry
gɛ̄ogᵓ *n.* place between one's legs (Pattern O *sic*)
gīiňlímᵐ *n.* shortness
gìkᵃ *pl gìgɪsᵋ cb gìg- n.* dumb person
gìgɪlɪmᵐ *dv.* become dumb
gīlɪgᵋ/ *ipfv gīnⁿᵃ/ dv*. go around 11.1
gīmᵐᵃ/ *sv*. be short
gīŋᵃ *pl gīma⁺ cb gìŋ- adj*. short
gìŋᵋ *dv*. scrimp
gīŋa⁺ *adv*. shortly 17.4
gīŋɪlímᵐ *n.* shortness
gɔ̄dɪgᵋ/ gɔ̀'ɔnᵋ *dv*. look up
gɔ̄lˡᵃ/ gɔ̄rᵃ/ gɔ̄'eʸᵃ/ *sv*. be looking up
gɔ̀ň⁺ *dv*. hunt; *ipfv* ***gɔ̀ɔňdᵃ*** wander, *ger gɔ̀ɔňdɪmᵐ* wandering 13.2.1.4
Gɔ̀ɔgᵃ *pl Gɔ̀ɔsᵋ n.* clan name
Gɔ̀ɔgᵓ *n.* place of the *Gɔ̀ɔsᵋ* Goosi clan
gɔ̀'ɔnᵋ *dv*. look up
gɔ̄rᵃ/ *sv*. be looking up

gɔ̄s$^{\varepsilon}$ *ipfv* *gɔ̄sɪd*$^{a/}$ *gɔ̄t*$^{a/}$ *imp* *gɔ̀sɪm*^{a} *gɔ̀m*^{a} *ger* *gɔ́sɪ̀g*^{a} *dv*. look; *agt* ***gɔ̄t***$^{a/}$ *n.* seer, prophet

gū'$^{+}$ *dv*. guard, protect

gùl$^{\varepsilon}$ *ipfv* *gùn*^{na} *dv*. suspend

gùl^{la} *ger* *gūlɪbɔ* *sv*. be suspended

gùllɪm$^{n\varepsilon}$ only; *post-NP/AdvP particle* 28.6

gùm$^{m\varepsilon}$ *pl* *gùma*$^{+}$ *n.* kapok fruit; *also* thread WK

Gùm$^{m\varepsilon}$ *n.* place of the clan *Gùm-dìm*^{a}

gūmpūzɛ̄r$^{\varepsilon/}$ *pl* *gūmpūzɛ̄yá*$^{+}$ *cb* *gūmpūzɛ́r-* *n.* duck

gùň'a^{+} *pl* *gɔ̀ň'ɔs*$^{\varepsilon}$ *cb* *gɔ̀ň'-* *n.* thorn; Acacia; *gɔ̀ň'-sābɪlíg*^{a} *Acacia hockii* (Haaf)

gùngūm$^{m\varepsilon}$ *n.* kapok material

gùŋ^{a} *pl* *gùmɪs*$^{\varepsilon}$ *cb* *gùŋ-* *n.* kapok tree *Ceiba pentandra* (Haaf)

gūr$^{a/}$ *ger* *gūrím*^{m} *sv*. be on guard, watch for 26.1

Gūrín$^{n\varepsilon}$ *n.* Farefare language

Gūríŋ^{a} *pl* *Gūrís*$^{\varepsilon}$ *n.* Farefare person

gū'ul$^{\varepsilon/}$ *dv*. put on guard

gù'ʊlɪm^{m} *dv*. become half-ripe

gùʊr$^{\varepsilon}$ *pl* *gùya*$^{+}$ *cb* *gù-* *n.* upland; bank of river

gūʊr$^{\varepsilon}$ *pl* *gūya*$^{+}$ *cb* *gù-* *n.* ridge of back

gū'us$^{\varepsilon/}$ *dv*. take care, watch out

gū'ʊs$^{\varepsilon}$ *n. pl* half-ripe fruit

H

hālí$^{+}$ until, up to and as far as, even 18 21.2.1 23.1 28.6; ? ← Arabic حتى *ħatta:* *hālí báa* even

I

i̱ā$^{+}$ *dv*. seek

i̱āň'as$^{\varepsilon/}$ *dv*. leap

i̱āňk$^{\varepsilon/}$ *ger* *i̱āň'ad*$^{a/}$ *agt* *i̱āň'ad*$^{a/}$ *dv*. leap, fly 11.1

īgɪ$^{ya/}$ *ger* *īk*$^{a/}$ KT *īgɪr*$^{\varepsilon/}$ WK *sv*. be kneeling

īgɪl$^{\varepsilon/}$ *dv*. make to kneel

ìgɪn$^{\varepsilon}$ *dv*. kneel down

ɪ́ɪl$^{l\varepsilon}$ *pl* *īɪlá*$^{+}$ *cb* *īɪl-* *n.* horn

īsɪr$^{\varepsilon}$ *pl* *īsa*$^{+}$*cb* *ìs-* *n.* scar

ìsɪg$^{\varepsilon}$ *dv*. get up early

K

kà and, that 21.2
kāab$^{\varepsilon/}$ *dv*. offer, invite
kāal$^{\varepsilon/}$ *dv*. count
kāas$^{\varepsilon/}$ *dv*. cry out, weep; (cock) crow
kà'asɪgɛ̄ LF *only*; *sv*. not exist 19.5.1
kābɪg$^{\varepsilon/}$ *dv*. ladle out (liquid)
kābɪr$^{\varepsilon/}$ *dv*. call out asking for admission 29; *ger* ***kābɪrí***$^{+}$ *n*. calling out for admission
kàd$^{\varepsilon}$ *dv*. drive away; *kàd sàríyà dv*. judge 19.8.1; *agt* ***sàríyà-kāt***^{a} *n*. judge NT
kā'e̱$^{+}$ *ger kā'alím*^{m} *sv*. not exist, not be, not have 19.5.1 8.5.2
kāl$^{\mathrm{l}\varepsilon/}$ *pl kālá*$^{+}$ *cb kāl- n*. number
kàlɪgā$^{+/}$ *q*. few 16.4.1
kàm^{a} *q*. every 16.4.1
Kàmbùnɪr$^{\varepsilon}$ *n*. Twi language
Kàmbùŋ^{a} *pl Kàmbùmɪs*$^{\varepsilon}$ *cb Kàmbùŋ- n*. Ashanti person
kàn$^{\varepsilon}$ this, that *demonstrative* 16.3.2
kàňb$^{\varepsilon}$ *ger kāňbɪr*$^{\varepsilon}$ *dv*. scorch
kàŋā$^{+/}$ this, that *demonstrative* 16.3.2
kàr^{a} *sv*. be few
kàrɪm^{m} *dv*. read
kàsɛ̄t$^{\mathrm{a}/}$ *n*. witness; testimony (Mooré *kàsétò* "proof, testimony"; probably ultimately ← French *cachet* 15.1; *pl kàsɛ̄tíb*^{a} witnesses)
kɛ̄$^{+}$ *ipfv kɛ̄t*$^{\mathrm{a}/}$ *imp kɛ̀l*^{a} *dv*. let, cause to ... 11.1 23.3
kɛ̀ɛkɛ̀$^{+}$ *pl kɛ̀ɛkɛ̀-nàm*^{a} *cb kɛ̀ɛkɛ̀- n*. bicycle ← Hausa *kèekè*
kɛ̀ɛs$^{\varepsilon}$ *dv*. say farewell to
kɛ̀lɪg$^{\varepsilon}$ *or* ***kɛ̀lɪs***$^{\varepsilon}$ *dv*. listen
kɛ̄ň$^{+}$ *ipfv kɛ̄n*$^{\mathrm{a}/}$ *imp kɛ̀m*^{a} *ger kɛ̄n*$^{\mathrm{n}\varepsilon/}$ *dv*. come 11.1; *always with nā* 19.10; ***kɛ̄n kɛ̄n*** welcome! 29
kɛ̄ŋ$^{\varepsilon/}$ *ipfv kɛ̄n*$^{\mathrm{na}/}$ *imp kɛ̀m*^{a} *(disambiguated with sà* 19.10*) dv*. go; walk 11.1; *agt* ***kɛ̄n***$^{\mathrm{na}/}$ *n*. traveller
kɛ́rɪfà or ***kárɪfà*** ← Hausa *ƙarfè*; *in telling time* 30.8
kī$^{+/}$ *cb kī- kā- n*. cereal, millet; ***kì-dà'ar***$^{\varepsilon}$ *pl kì-dà'ada*$^{+}$ *n*. purchased millet; ***kā-wɛ̄nnɪr***$^{\varepsilon}$ *pl kā-wɛ̄nna*$^{+}$ *cb kā-wɛ́n- n*. corn
kị̂à$^{+}$ *dv*. cut
kīdɪg$^{\varepsilon/}$ *dv*. cross over, meet; ***À-Kīdɪgɪ Bū'ɵs*** *n*. the constellation Orion
kīibú$^{+}$ *cb kīib- n*. soap WK; ← Mampruli 15.1; *written materials ki'ib*^{ɔ}, *probably kī'ɪb*$^{\mathrm{ɔ}/}$
kíiňf^{ɔ} *pl kīiní*$^{+}$ *n*. millet seed
kìɪs$^{\varepsilon}$ *dv*. listen
kī'ɪs$^{\varepsilon/}$ *dv*. deny
kìkàm$^{\mathrm{m}\varepsilon}$ *pl kìkàma*$^{+}$ *n*. fig

kìkàŋ^{a} kìnkàŋ^{a} *pl kìkàmɪs^{ɛ} cb kìkàŋ- n.* fig tree *Ficus capensis* (Haaf)

kìkīrɪg$^{a/}$ *pl kìkīrɪs$^{ɛ/}$ cb kìkīr- 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$^{ɛ/}$* hostile to man live in the bush: "Their feet are attached backwards to confuse trackers." WK; **kìkīr-bɛ́'èd^{ɛ}** *n.* NT evil spirit, demon (KB just uses *kìkīrɪg$^{a/}$*)

kīlɪm$^{m/}$ *dv.* become, change into

kìm^{m} *dv.* tend flock, herd; *agt* **kɔ̀ǹb-kīm^{na}** *n.* herdsman, shepherd

kīr^{ɛ} *ger kɪkírʊ̀gɔ kīrɪbɔ dv.* hurry, tremble

kīs$^{a/}$ *ger kísʊ̀gɔ agt kīs$^{a/}$ kīsɪd$^{a/}$ sv.* hate

kísʊ̀gɔ *adj.* hateful, taboo

kɔ̀$^{+}$ *dv.* get broken, break *(intransitive)*; *res adj* **kɔ̀ɔlʊ́ŋɔ** *adj.* broken

kɔ̀bɪgā kɔ̀bɪsí$^{+}$ *q.* one hundred, two hundred 16.4.2.1

kɔ̄bɪr^{ɛ} *pl kɔ̄ba^{+} cb kɔ̀b- n.* bone

kɔ̄dʊ́$^{+}$ *n.* banana ← Twi *kwadu*

kɔ̀l^{ɛ} *dv.* put something around the neck

kɔ̄lɪg^{a} *pl kɔ̄lɪs^{ɛ} cb kɔ̀l- n.* river; **kɔ̄lʊgʊ-n nɔ́-dáʊ̀gɔ** *n.* crayfish

kɔ̀lʊgɔ *pl kɔ̀n^{nɛ} cb kɔ̀lʊg-* 9.2.2 *n.* sack, bag

kɔ̄m$^{m/}$ *cb kɔ̄m- n.* hunger

kɔ̄ǹbʊgɔ *pl kɔ̄ǹbɪd^{ɛ} cb kɔ̀ǹb- (also used as cb of bʊ̄n-kɔ́ǹbʊ̀gɔ* animal*) n.* animal hair or human body hair; cf *zʊ̄əbʊ́gɔ*; **kɔ̀ǹb-kīm^{na}** *pl kɔ̀ǹb-kīmmɪb^{a} n.* shepherd, herdsman

kɔ̄ǹ'ɔkɔ̄$^{+}$ *adv.* alone, by oneself 17.4

kɔ̀ǹs^{ɛ} *dv.* cough

kɔ̀ǹsɪm^{m} *dv.* cough

kɔ̀'ɔg^{ɛ} *dv.* break *(transitive or intransitive)*

kɔ̀'ɔs^{ɛ} *dv.* break several times

kɔ̀tàa^{nɛ} at all; *post-NP/AdvP particle* 28.6

kɔ́tʊ̀$^{+}$ *n.* lawcourt ← English, probably via Hausa

kpà'a$^{=}$ *pl kpà'a-nàm^{a} n.* rich person

kpāad$^{a/}$ *pl kpāadíb^{a} cb kpāad- n.* farmer, cultivator

kpà'am^{m} *n.* riches

kpāaǹm$^{m/}$ *cb kpāǹ- n.* grease, ointment; **kpāǹ-sɔ́ǹ'ɔdɪm^{m}** *n.* anointing oil

kpàkʊ̄r$^{ɛ/}$ *pl kpàkʊ̄yá$^{+}$ cb kpàkʊ̄r- n.* tortoise

kpān^{nɛ} *pl kpāna^{+} cb kpàn- n.* spear

kpàǹdɪr^{ɛ} *pl kpàǹda^{+} cb kpàǹd- n.* baboon

kpàr^{ɛ} *dv.* lock

kpār-kɛ́ɔ̀ǹgɔ *pl kpār-kɛ́ɛ̀ǹd^{ɛ} cb kpār-kɛ́ǹ- n.* rag

kpā'ʊ́ŋɔ *pl kpī'iní$^{+}$ cb kpā'- n.* guinea fowl

kpɛ̄$^{+}$ *adv.* here 17.7

kpɛ̄ɛǹm^{m} *pl kpɛ̀ɛǹm-nàm^{a} cb kpɛ̀ɛǹm- n.* elder

kpɛ̄ɛn̆m$^{\text{ma/}}$ *sv*. be older than
kpɛ̄lá$^{+}$ *adv*. here 17.7
kpèlɪm still; immediately after, *preverb* 19.7.2
kpèlɪm^{m} *dv*. remain
kpèn *reduced form of the preverb kpèlɪm*
kpèn̆'$^{+}$ *dv*. enter
kpɛ̄n̆dɪr$^{\text{ɛ/}}$ *pl kpɛ̄n̆dá*$^{+}$ *cb kpɛ̄n̆d- n.* cheek
kpèn̆'ɛs^{ɛ} *dv*. make enter
kpè'ŋ^{ɛ} *dv*. strengthen
kpɛ̄on̆ŋ^{ɔ} *n.* seniority
kpì$^{+}$ *dv*. die; *res adj* **kpìilʊ́ŋ**^{ɔ} *adj*. dead
kpì'a^{+} *pl kpì'əs*^{ɛ} *cb kpi̱à'- n.* neighbour
kpi̱à'$^{+}$ *dv*. shape wood with axe etc
kpì'e^{+} *dv*. approach
kpī'əm$^{\text{ma/}}$ *sv*. be strong, hard
kpìibɪg^{a} *pl kpìibɪs*^{ɛ} *cb kpìib- n.* orphan
kpìig^{ɛ} *dv*. go out (fire)
kpī'ɪlím^{m} *dv.* finish, come to an end
kpī'im$^{\text{m/}}$ *pl kpī'imís*^{ɛ} *cb kpī'im- n.* dead person, corpse
kpìis^{ɛ} *dv*. quench (fire)
kpīkpīn$^{\text{na/}}$ *pl kpīkpīnníb*^{a} *cb kpīkpín- n.* merchant
kpī'oŋ^{ɔ} *pl kpī'əma*$^{+}$ *cb kpì'oŋ- adj*. strong, hard
kpìsɪnkpìl^{lɛ} *pl kpìsɪnkpìla*$^{+}$ *cb kpìsɪnkpìl- n.* fist
kpìsʊkpìl^{lɛ} *n.* fist
kpʊ̀kpàr^{ɛ} *pl kpʊ̀kpàra*$^{+}$ *n.* palm tree fruit
kpʊ̀kpàrɪg^{a} *pl kpʊ̀kpàrɪs*^{ɛ} *cb kpʊ̀kpàr- n.* palm tree (probably *Borassus akeassii* or *aethiopum*)
kpʊ̀kpàu̱ŋ^{ɔ} *pl kpʊ̀kpàma*$^{+}$ *cb kpʊ̀kpàu̱ŋ- n.* arm, wing
kʊ̀ not; *negates irrealis mood* 19.5
kʊ̄$^{+}$ *dv*. kill
kʊ̄$^{+}$ *dv.* gather, threaten (of rain): *Sāa kʊ́ yā.* It looks like rain.
ku̱ā$^{+}$ *dv*. hoe, farm
kʊ̄'alíŋ^{a} *pl kʊ̄'alímìs*^{ɛ} *kʊ̄'alís*^{ɛ} *cb kʊ̄'alíŋ- n.* sleeveless traditional smock
kʊ̀d^{ɛ} *dv*. work iron
kʊ̀dɪg^{ɛ} *dv*. shrivel up, dry out, age
kʊ̄dɪm^{m} *n.* the olden days; *also for kʊ̄lɪm qv*
kʊ̄dʊg^{ɔ} **kʊ̄dɪr**^{ɛ} *pl kʊ̄da*$^{+}$ *kʊ̄t*^{ɛ} *cb kʊ̀d- adj*. old
kʊ̄dʊg^{ɔ} *pl* **kʊ̄t**^{ɛ} (used as sg 16.2.1) *cb kʊ̀t- n.* iron, nail; *sg only in names* 30.2
kʊ̄gʊr$^{\text{ɛ/}}$ *pl kʊ̄gá*$^{+}$ *cb kʊ̄g- n.* stone
kʊ̄k^{a} *pl kʊ̄gʊs*^{ɛ} *cb kʊ̀g- n.* chair
kʊ̀k^{a} *n.* ghost

kōk[a/] *n.* mahogany tree, *Khaya senegalensis* (Haaf); cf Hausa *kuukàa*
kòkɔ̀m[mɛ] *pl kòkɔ̀ma*[+] *cb kòkɔ̀m-* *n.* leper
kòkɔ̄r[ɛ/] *pl kòkɔ̄yá*[+] *cb kòkɔ̄r-* *n.* voice
kòkpàrɪg[a] see *kpòkpàrɪg*[a] *id*
kūl[ɛ] *ger kūlɪg*[a/] *dv.* return home; *transitive* marry *(woman subject, man object)*
kōlɪm always, *post-subject particle* 21.2.3
kòlɪŋ[a] *pl kòlɪmɪs*[ɛ] *kòlɪs*[ɛ] *cb kòlɪŋ-* *n.* door
kòm[m] *dv.* cry, weep
kūm[m] *cb kùm-* *n.* death; **kùm-vō'ʊgír**[ɛ] *n.* resurrection NT
kòndò'ar[ɛ] *pl kòndò'ada*[+] *cb kòndu̱'à-* *n.* barren woman
kòndòŋ[a] *pl kòndòmɪs*[ɛ] *kòndòna*[+] *n.* jackal, hyena
kù'ɐm[m] *cb ku̱'à-* *n.* water; **ku̱'à-nūud**[ɛ/] *n.* thirst; **ku̱'à-ňwīig**[a/] *pl ku̱'à-ňwīis*[ɛ/] *n.* current in a river
kùɐs[ɛ] *dv.* sell
kòrkʊ̄r[ɛ/] *pl kòrkʊ̄yá*[+] *cb kòrkʊ̄r-* *n.* pig
Kʊ̄sáa[=] *pl Kʊ̄sáàs*[ɛ] *cb Kʊ̄sá-* *n.* Kusaasi person
Kʊ̄sáàl[ɛ] *n.* Kusaal language
Kʊ̄sáòg[ɔ] *n.* Kusaasi country
Kòtān[nɛ/] *pl Kòtām*[ma/] *cb Kòtān-* *n.* member of WK's clan
Kòtāu̱ŋ[ɔ/] *n.* country of clan *Kòtām*[ma/] Kutamba
kʊ̄ʊ or 21.2 22.1.2 ← Hausa
kūug[a/] **kūug**[ɔ/] *pl kūus*[ɛ/] *cb kū-* *n.* mouse
kòʊl[ɛ] *dv.* get drunk

L

lā[+/] *definite article* 16.5
là'[+] *dv.* laugh
lā'afɔ *n.* cowrie; *pl* **līgɪdɪ**[+] *n.* cowries, money; *cb lìg- là'-*; **là'-bīəlífɔ** *n.* small coin
láafɪya[+] *n.* health ← Arabic العافية *ʔal-ʕa:fiya(tu)*; *replaced throughout by laafe* **láafɪ** *in 1996 NT and KB*
là'am together, *preverb* 19.7.2
là'am[m] *dv.* associate with; together with 23.2
là'as[ɛ] *dv.* gather together *(transitive)*; *Bà là'as tāaba* They gathered together.
làbāar[ɛ] *cb làbà-* *n.* news ← Arabic الاخبار *ʔal-ʔaxba:r(u)*
làbɪ[ya] *sv.* be crouching, hiding behind something (cf Hausa *laɓèe* "crouch behind something to eavesdrop" 15.1)
làbɪl[ɛ] *dv.* make crouch behind something
làbɪn[ɛ] *dv.* crouch behind something
làbɪs[ɛ] *dv.* walk stealthily
lābɪs[a/] *sv.* be wide

lābɪsígᵃ **lābɪsír**ᵋ *pl* *lābɪsá*⁺ *cb* *lābɪs-* *adj*. wide
lābɪsímᵐ *n*. width
lākᵋ/ *dv*. open (eye, book)
lālˡᵃ/ *sv*. be distant
lālɪgᵋ/ *dv*. get to be far, make far
lāllí⁺ *adv*. far off
lāllíŋᵃ *pl* *lāllísᵋ* *cb* *lāllíŋ-* *adj*. distant
lāllúgɔ *pl* *lāllá*⁺ *cb* *lāl-* *adj*. distant
lāmᵐᵋ/ *pl* *lāmá*⁺ *cb* *lām-* *n*. gum (of tooth); **lām-fɔ́ɔ̀g**ɔ *pl* *lām-fɔ́ɔ̀d*ᵋ *adj*. toothless
làmpɔ̄-dí'èsᵃ *n*. tax collector 15 ← French *l'impôt*
lānⁿᵋ *pl* *lāna*⁺ *cb* *làn-* *n*. testicle
làngáʊŋɔ *pl* *làngáam*ᵐᵋ *làngāamá*⁺ *cb* *làngāʊŋ-* *n*. crab (cf *màngáʊŋ*ɔ *id*)
lànnɪgᵃ *pl* *lànnɪsᵋ* *cb* *lànnɪg-* 9.2.2 *n*. squirrel
lā'ŋᵋ/ *dv*. set alight
lāŋímᵐ *dv*. wander around searching
lāu̯kɔ *pl* *lā'adᵋ* *cb* *là'-* *n*. item of goods *pl* goods
là'ʊŋɔ *pl* *là'ama*⁺ *n*. fishing net
lèbᵋ *ger* *lēbɪgᵃ* *dv*. return *(intrans)*
lèbɪgᵋ *dv*. turn over; return
lèbɪsᵋ *dv*. answer; send back; divorce (wife)
lèɛ but, *VP particle* 19.7.1
lèm again, *preverb* 19.7.2
lèmᵐ *ipfv* *lèmmɪdᵃ* *dv*. sip, taste
lērᵋ *dv*. get ugly
lì it, its *(proclitic)*; **lɪ**⁺ it *(enclitic object)* 16.3.1
lì⁺ *ipfv* *lìtᵃ* *imp* *lìmᵃ* *ger* *līigᵃ* *dv*. fall
lī⁺ *dv*. block up
lìa where is ...? 22.3.2
lìdɪgᵋ *dv*. turn a shirt WK
lìdɪgᵋ *dv*. astonish, be amazed
lìəbᵋ *dv*. become
lì'əlᵋ *dv*. approach, come near
lí'əmᵐᵋ *pl* *lī'əmá*⁺ *n*. fruit of yellow plum tree
líəŋᵃ *pl* *līəmísᵋ* *cb* *līəŋ-* *n*. axe
lí'əŋᵃ *pl* *lī'əmísᵋ* *n*. yellow plum tree, *Ximenia americana*
lìgᵋ *dv*. patch
lìgɪlᵋ *dv*. cover
lìgɪnᵋ *dv*. cover oneself
līɪbɪrᵋ *pl* *līɪba*⁺ *cb* *lìɪb-* *n*. twin
līkᵃ *pl* *līgɪsᵋ* *n*. darkness
lìlāalíŋᵃ *pl* *lìlāalísᵋ* *lìlāalímìsᵋ* *cb* *lìlāalíŋ-* *n*. swallow

lín it *(subject of ǹ-clause)*; **līn**$^{\varepsilon}$ it *(contrastive)* 16.3.1
lìn$^{\varepsilon}$ that *demonstrative* 16.3.2
lìná$^{+}$ that *demonstrative* 16.3.2
lɔ̄$^{+}$ *dv*. tie
lɔ̄b$^{\varepsilon}$ *dv*. throw stones at
lɔ̄bɪdíg^{a} *pl* *lɔ̄bɪdís*$^{\varepsilon}$ *n*. water drawing vessel
lɔ̄dɪg$^{a/}$ *pl* *lɔ̄dɪs*$^{\varepsilon/}$ *cb* *lɔ̄d-* *n*. corner; **lɔ̄dɪgín kúg-sʊ́ŋ**^{ɔ} cornerstone NT
lɔ̄dɪg$^{\varepsilon/}$ *dv*. untie
lɔ̀k^{ɔ} *pl* *lʊ̀'ad*$^{\varepsilon}$ *cb* *lu̱'à-* *n*. quiver (for arrows)
lɔ̀mbɔ̀'ɔg^{ɔ} *pl* *lɔ̀mbɔ̀'ɔd*$^{\varepsilon}$ *cb* *lɔ̀mbɔ̀'-* *n*. garden ← Hausa *làmbuu*
lɔ̄ŋ^{a} *pl* *lɔ̄mɪs*$^{\varepsilon}$ *cb* *lɔ̀ŋ-* *n*. a kind of frog
lɔ̄'ŋ$^{\varepsilon/}$ *dv*. go across river, road etc
lɔ́r$^{\varepsilon}$ *pl* *lɔ́yà*$^{+}$ *lɔ́ɔm*^{ma} *cb* *lɔ́r-* *n*. car, lorry ← English
lù$^{+}$ *ipfv* *lùt*^{a} *imp* *lùm*^{a} *dv*. fall
lūb$^{\varepsilon}$ *ger* *lūbɪr*$^{\varepsilon/}$ *dv*. buck, kick, struggle, throw off rider
lūg$^{\varepsilon}$ *dv*. swim
lʊ̄gʊr$^{\varepsilon}$ *n*. organ, member

M

m̀ I, my *(proclitic)*; **m**^{a} me *(enclitic)* 16.3.1
mà$^{+}$ *cb* *mà-* *n*. mother; *pl* *mà nám*^{a} *(tone sic)* mother's sisters/co-wives; **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'$^{+}$ *dv*. lie, deceive
mà'aa SF **mà'anɛ̄** LF only; *post-NP/AdvP particle* 28.6
màal$^{\varepsilon}$ *dv*. prepare, sacrifice; *agt* **màal-māan**^{na} *n*. sacrificer; priest NT; traditionally just a worker who conducts the actual slaying for the *tɛ̀ŋ-dāan*^{a} earth-priest
mā'al$^{\varepsilon/}$ *dv*. make cool, wet
māan$^{n\varepsilon}$ *pl* *māana*$^{+}$ *cb* *màan-* *n*. sacrifice 12.2.2
má'an$^{n\varepsilon}$ *pl* *mā'aná*$^{+}$ *cb* *mā'an-* *n*. okra
mā'as$^{a/}$ *sv*. be cool, wet
mā'asíg^{a} **mā'asír**$^{\varepsilon}$ *pl* *mā'asá*$^{+}$ *cb* *mā'as-* *adj*. cool, wet
mā'asígā$^{+/}$ *adv*. coolly 17.4
mā'asím^{m} *n*. coolness, wetness
mādɪg$^{\varepsilon/}$ *dv*. overflow, abound
mā'e$^{+/}$ *dv*. cool down
màk$^{\varepsilon}$ *dv*. crumple up
māk$^{\varepsilon/}$ *dv*. measure, judge

màli̯āk$^{a/}$ *pl màli̯ā'as*$^{ɛ/}$ *màli̯āk-nám*^{a} *cb màli̯ā'-* *n.* angel ← Arabic ملاك *malʔak(un)* 15.1
written malek in NT versions before 2016
màlɪgɪm again; *preverb* 19.7.2
mālɪs$^{a/}$ *sv.* be sweet, pleasant
mālɪsíg^{a} ***mālɪsír***^{ɛ} *pl mālɪsá*$^{+}$ *cb mālɪs-* *adj.* sweet, pleasant
mālɪsím^{m} *n.* sweetness
mālɪsíŋ^{a} *pl mālɪsís*^{ɛ} *cb mālɪsíŋ-* *adj.* sweet, pleasant
mālʊŋ^{ɔ} *pl mālɪma*$^{+}$ *cb màlʊŋ-* *n.* sacrifice
mām I, me 16.3.1
mán I *(as subject of ǹ-clause)*; ***mān*** SF ***mánɛ̄*** LF I, me *(contrastive)* 16.3.1
màngáʊŋ^{ɔ} *pl màngáam*^{mɛ} *màngāamá*$^{+}$ *cb màngāʊŋ-* *n.* crab (cf *làngáʊŋ*^{ɔ} *id*)
màu̯k^{ɔ} *pl mà'ad*^{ɛ} *adj.* crumpled up
mɛ̀$^{+}$ *dv.* build
mɛ̀ mɛ̀n^{ɛ} too, also; *post-NP/AdvP particle* 28.6; ***mɛ̀-kàma*** -soever 16.3.3
mɛ̄d^{ɛ} *dv.* mash up
mɛ̀ɛŋ^{a} *pl mɛ̀ɛmɪs*^{ɛ} *cb mɛ̀ɛŋ-* *n.* turtle
mɛ̀lɪgɪm^{m} *n.* dew
mɛ̄ŋ$^{a/}$ self 16.10.4
mɛ̄ŋír^{ɛ} *adj.* genuine
mɛ̄t$^{ɛ/}$ *cb mɛ̄t-* *n. pl as sg* pus
mī'$^{+}$ *ger mī'ilím*^{m} *sv.* know; *agt* ***gbàn-mī'id***$^{a/}$ *n.* scribe ("book-knower") NT
míif^{ɔ} *pl mīiní*$^{+}$ *n.* okra seed
mì'ig^{ɛ} *dv.* become sour
mì'is^{a} *sv.* be sour
mì'isʊg^{ɔ} *pl mì'isa*$^{+}$ *cb mì'is-* *adj.* sour
mīlɪg$^{ɛ/}$ *dv.* get dirty
mìmīilím^{m} ***mìmīilʊ́g***^{ɔ} *n.* sweetness
mìt see that it doesn't happen that... 19.5.1; *always mid in KB*
mɔ̄$^{+}$ *dv.* strive, struggle
mɔ̄d^{ɛ} *dv.* swell
mɔ̄dɪg$^{ɛ/}$ *dv.* be patient, endure
mɔ̀lɪf^{ɔ} *pl mɔ̀lɪ*$^{+}$ *cb mɔ̀l-* *n.* gazelle
mɔ̄n^{ɛ} *dv.* grind millet to make *sā'ab*^{ɔ} porridge
mɔ̄ŋ$^{ɛ/}$ *dv.* refuse to lend
mɔ̄ɔg^{ɔ} *pl mɔ̄ɔd*^{ɛ} *cb mɔ̀-* *n.* grass, "bush"; ***mɔ̀-pīl***^{lɛ} *n.* grass thatch
Mɔ̀ɔg^{ɔ} *n.* Mossi realm; ***Mɔ̀ɔg Ná'àb***^{a} *n.* the Moro Naba, King of the Mossi
mɔ̄ɔl$^{ɛ/}$ *dv.* proclaim; *agt* ***mɔ̄ɔl-mɔ́ɔ̀n***^{na} *n.* proclaimer
Mɔ̀ɔl^{ɛ} *n.* Mooré language
Mɔ̄r$^{ɛ/}$ *pl Mɔ́ɔm*^{ma} *cb Mɔ̄r-* *n.* Muslim
mɔ̄r$^{a/}$ *ger mɔ̄rím*^{m} *sv.* have, possess; ***mɔ̄r nā*** bring 19.10
Mùa^{+} *pl Mɔ̀ɔs*^{ɛ} *cb Mɔ̀-* *n.* Mossi person

mu̱'à^{a} *dv.* suck (of a baby)
mu̱àk^{a} *pl* *mù'as*^{ɛ} *cb* *mu̱'à-* *n.* maggot
mù'ar^{ɛ} *pl* *mu̱'àa*$^{+}$ *mù'ada*$^{+}$ *cb* *mu̱'à-* *n.* dam; reservoir
mù'as^{ɛ} *dv.* give (to baby) to suck
mù'e^{+} *dv.* redden; catch fire/ignite; become intense, severe
mùi̱$^{+}$ *cb* *mùi̱-* *n. pl as sg* rice
mùl^{ɛ} *dv.* itch
mùm^{m} *dv.* bury

N

ǹ *clause nominaliser particle* 25
n *clause catenator particle* 23.1
ǹ- *personifier clitic (allomorph used before an adjective)* 16.6
n^{ɛ} *discontinuous-past enclitic* 24.1.1
n^{ɛ} ***nī***$^{+/}$ *locative enclitic* 17.3
nà *positive irrealis mood marker* 19.4
nā$^{+/}$ hither; *VP-final particle* 19.10
nā$^{+}$ *dv.* join
náa reply to greetings invoking blessings 29
nà'ab^{a} *pl* *nà'-nàm*^{a} *cb* *nà'-* *n.* chief, king; ***nà'-bīig***^{a} *n.* prince, princess
náaf^{ɔ} *pl* *nīigí*$^{+}$ *cb* *nā'-* *n.* cow; ***nā'-lɔ́r***^{ɛ} *n.* place in compound for tying up cows; ***nā'-dáùg***^{ɔ} *pl* *nā'-dáàd*^{ɛ} *cb* *nā'-dá-* *n.* ox; ***nā'-dá-kūɵdír***^{ɛ} *n.* ox for ploughing
nàam^{m} *dv.* happen
nā'am^{m} *cb* *nà'am-* *n.* chieftaincy, kingdom
nāan next, afterwards = *ňyāan*
nāan *or* ***nāanɪ*** then, in that case, being thus/there 24.1.2
nà'anā$^{+/}$ *adv.* easily 17.4
nà'as^{ɛ} *dv.* honour; *ger* ***nà'asɪ***$^{+}$ *n.* honour
Nàbɪd^{a} *pl* *Nàbɪdɪb*^{a} *cb* *Nàbɪd-* *n.* Nabdema person
Nàbɪdʊg^{ɔ} *n.* Nabdema country
Nàbɪr^{ɛ} *n.* Nabit language
Nà'dàm^{ma} *n.* clan name
Nà'dàu̱ŋ^{ɔ} *n.* place of clan Nadamba
nà'-dàwān$^{nɛ/}$ *n.* pigeon KED (= *dàwān*$^{nɛ/}$)
nāe$^{+/}$ *dv.* finish
nàm still, yet; *auxiliary tense particle* 19.3.1
nàm^{a} *pluraliser* 9.4
nā'mɪs$^{ɛ/}$ *dv.* persecute, suffer
nān^{ɛ} *dv.* love, respect, appreciate
nà'-nɛ̄sɪnnɛ̄og$^{ɔ/}$ *n.* centipede WK

nānná$^{+}$ *adv*. now 17.7

nānná-nā$^{+/}$ *adv*. now 17.7

nānzū'us$^{\varepsilon/}$ *n.* pepper *tones uncertain*

nāŋ^{a} *pl nāmɪs*$^{\varepsilon}$ *cb nàŋ- n.* scorpion

nār$^{a/}$ *ger nārím*^{m} *sv*. be obliged to; impersonal: to be necessary; *with following purpose clause* 26.1; *negated:* be obliged not to

nàrʊŋ^{ɔ} *pl nàrɪma*$^{+}$ *cb nàrʊŋ- adj*. necessary

Nàsāal$^{\varepsilon}$ *n.* English/French language

Nàsāara^{+} *pl Nàsàa-nàm*^{a} *Nàsàar-nàm*^{a} *cb Nàsàa- Nàsàar- n.* European person ← Arabic نصارى *Nasʿa:ra:* "Christians"; ***Nàsàa-bīig***^{a} *n.* European child

nàyīig^{a} *pl nàyìig-nàm*^{a} *nàyìis*$^{\varepsilon}$ *n.* thief

nàyīigɪm^{m} *n.* thievery

nà'-zɔ̀m$^{m\varepsilon}$ *n.* locust

nɛ̄ *preposition:* with 18; *linking NPs and AdvPs:* and 16.7

nɛ̄ *uncommon variant of yɛ̄* that 26.2 (cf Mampruli *ni id*)

nɛ̄$^{+/}$ *focus particle* 28.1.2; *temporal marker* 19.2

nɛ̄$^{+/}$ *meaningless particle after objects of wʊ̄ʊ and wɛ̄n*$^{na/}$ 18

nɛ̄'$^{+/}$ this *(pronoun)* 16.3.2

nɛ̀ɛl$^{\varepsilon}$ *dv*. reveal

nɛ̀ɛm^{m} *adv*. for free

nɛ̄ɛm$^{m/}$ *dv*. grind with a millstone

nɛ̄ɛr$^{\varepsilon/}$ *n.* millstone

nɛ̀ɛs$^{\varepsilon}$ *dv*. reveal

nɛ̀ɛsɪm^{m} *n*. light

nɛ̄m-nɛ́ɛ̀r$^{\varepsilon}$ *pl nɛ̄m-nɛ́yà*$^{+}$ *n.* someone who grinds

nɛ̄n$^{na/}$ *ger nɛ̄nnímm sv*. envy

nɛ̄'ŋá$^{+}$ this *(pronoun)* 16.3.2

nɛ̀og^{ɔ} ***nɛ̀ɛr***$^{\varepsilon}$ *pl nɛ̀ɛd*$^{\varepsilon}$ *nɛ̀ya*$^{+}$ *cb nɛ̀- adj*. empty

nɛ̄sɪnnɛ̄og$^{ɔ/}$ *pl nɛ̄sɪnnɛ̀ɛd*$^{\varepsilon/}$ *cb nɛ̄sɪnné- n.* envious person WK; *others:* centipede

ǹfá! Well done! 22.3.4

nɪ$^{+/}$ *locative enclitic* 17.3 *see n*$^{\varepsilon}$

nì$^{+}$ *dv*. rain

nīd$^{a/}$ *pl nīdɪb*$^{a/}$ *cb nīn- n.* person; ***nīn-sáàl***^{a} *pl nīn-sáalìb*^{a} *cb nīn-sáàl- n.* human being; ***nīnpʊ̄nān***$^{na/}$ *pl nīnpʊ̄nānníb*^{a} *cb nīnpʊ̄nán- n.* disrespectful person; ***nīn-sábɪlìs***$^{\varepsilon}$ *n.* Africans

nìe^{+} *dv*. appear, reveal

nīf$^{ɔ/}$ *pl nīní*$^{+}$ *cb nīn- nīf- n.* eye; ***nīf-gbáu̱ŋ***^{ɔ} *n.* eyelid; ***nīf-sɔ́b***^{a} *n.* miser; ***nīf-ňyáu̱k***^{ɔ} *adj*. one-eyed 16.11.1.4; ***nīn-dáa***$^{=}$ *pl nīn-dáàs*$^{\varepsilon}$ *cb nīn-dá- n.* face; ***nīn-gɔ́tìŋ***^{a} *n.* mirror *pl* ***nīn-gɔ́tìs***$^{\varepsilon}$ *n.* spectacles, glasses; ***nīn-kúgʊdìg***^{a} *pl nīn-kúgʊdìs*$^{\varepsilon}$ *n.* eyebrow; ***nīn-tá'àm***^{m} *n.* tear(s); ***nīn-múa***$^{+}$ *n.* concentration ("eye-redness"); *m̀ nīní mù'e nɛ̄* ... I'm concentrating on ... (KB "zealous for ...")

***níiŋ*ᵃ** *pl nīimísᵋ níisᵋ cb nīiŋ- n.* bird

***nīm*ⁿᵋ/ *nī'm*ⁿᵋ/** *pl nīmá⁺ cb nīm- n.* meat

nīn-báalìg*ᵃ** *n.* pity; ***nīn-báàl-zɔ̄ɔrᵋ *n.* pity; *Ò zɔ̀t·ō nīn-báalìg.* He has pity on him.

nīŋ*ᵃ** *pl nīisᵋ cb nìŋ- nìn- n.* body *(uncommon)*; ***nìn-tūllímᵐ *n.* fever; ***nìn-tāa⁼*** *pl nìn-tāasᵋ cb nìn-tà- n.* co-wife; husband's sister's wife (Ghanaian English: "rival"); ***nìn-gbīŋɔ/*** *pl nìn-gbīná⁺ cb nìn-gbīŋ- n.* body *(plural often used as singular)*; ***nìn-gɔ̀ɔrᵋ*** *n.* neck

nīn-púùdᵋ *n. pl as sg* pus

nīntāŋᵃ/ *pl nīntāaňsᵋ/ cb nīntáŋ- n.* heat of the day, early afternoon

nìŋᵋ *dv.* do

n lā that is ... 22.3.1

ǹnāas *q.* four, *in counting* 16.4.2.2

ǹníi *q.* eight, *in counting*

ǹnū *q.* five, *in counting*

n ňwà this is ... 22.3.1

n ňwà nā this here is ... 22.3.1

nɔ̄⁺ *dv.* tread

nɔ̄bᵋ *dv.* get fat

nɔ̄bɪgᵋ/ *dv.* grow (e.g. child, plant)

nɔ́bìrᵋ *pl nɔ̄bá⁺ cb nɔ̄b- n.* leg, foot; ***nɔ̄b-bílᵃ*** *n.* toe; ***nɔ̄b-yɪ́u̱ŋɔ*** *adj.* one-legged 16.11.1.4; ***nɔ̄b-íň'a⁺*** *n.* toenail; ***nɔ̄b-púmpàu̱ŋɔ*** *n.* foot

nɔ̄kᵋ/ *dv.* pick up, take up

nɔ̀ŋᵋ *agt nɔ̀ŋɪdᵃ (irregularly Pattern L) sv.* love (family, spiritual); *irregularly has the mᵃ-imperative form nɔ̀ŋɪmᵃ* 11.2.2

nɔ̄ŋɔ/ *cb nɔ̄ŋ- n.* poverty; ***nɔ̄ŋ-dáànᵃ*** *n.* poor person

nɔ̀ŋɪlímᵐ *n.* love

nɔ̄ɔrᵋ/ *pl nɔ̄yá⁺ cb nɔ̄- n.* mouth; command, message, opinion; ***nɔ̄-dí'èsᵃ*** *n.* "linguist", a councillor who speaks on a chief's behalf on all official occasions (not only in the region of the old Mossi-Dagomba states 1.1: "linguist" in Ghana typically refers to an Akan chief's herald and spokesman, the *okyeame*); ***Wínà'am nɔ́-dí'èsᵃ*** ("God's linguist") prophet NT/KB; ***nɔ̄-lɔ́ɔ̀rᵋ*** *n.* fasting ("mouth-tying", as throughout W Africa); ***nɔ̄-náàrᵋ*** *n.* covenant; ***nɔ̄-pɔ́ɔ̀rᵋ*** *n.* oath; ***nɔ̄-gbáu̱ŋɔ*** *pl nɔ̄-gbánà⁺ n.* lip

nɔ̄ɔrᵋ/ times 16.4.2.4

nɔ̄ɔrímᵐ times 16.4.2.4

ǹpɔ̀e̱ *q.* seven, *in counting* 16.4.2.2

ǹtáň' *q.* three, *in counting* 16.4.2.2

nū⁺ *dv.* drink

nūa⁺/ *pl nɔ̄ɔsᵋ/ cb nɔ̄- n.* hen; ***nɔ̄-dáùgɔ*** *n.* cock; ***nɔ̄-ňyá'àŋᵃ*** *n.* (specifically female) hen; ***Nɔ̄-ňyá'àŋ-né-ò-Bīis*** the Pleiades

nūlɪgᵋ/ *dv.* make drink

nūlɪsᵋ/ *dv*. make drink
nú'ùgᵓ *pl nú'ùsᵋ cb nū'- n.* hand, arm; ***nū'-bílᵃ*** *pl nū'-bíbìsᵋ n.* finger; ***nū'-dáùgᵓ*** *n.* thumb; ***nū'-yíu̯ŋᵓ*** *adj*. one-armed 16.11.1.4; ***nū'-íň'a⁺*** *pl nū'-éň'èsᵋ cb nū'-éň'- n.* fingernail; ***nū'-wɛ́ň'èdᵃ*** *n.* mediator
ňwà⁺ this 16.5
ňwā'⁺ *dv*. smash, break up
ňwāaŋᵃ *pl ňwāamɪsᵋ cb ňwàaŋ- n.* monkey
ňwādɪgᵃ/ *pl ňwādɪsᵋ/ cb ňwād- n.* moon, month; ***ňwād-bílᵃ*** *pl ňwād-bíbìsᵋ n.* star; ***Ňwād-dárᵋ*** *n.* Venus
ňwà'e⁺ *dv*. cut wood
ňwā'e⁺/ *dv*. strike, break
ǹwāe̯ *q*. nine, in counting 16.4.2.2
ňwāmᵐᵋ ňwānⁿᵋ *pl ňwāma⁺ ňwāna⁺ cb ňwàm- ňwàn- n.* calabash
Ňwāmpūrɪgᵃ/ *pl Ňwāmpūrɪsᵋ/ cb Ňwāmpúr- n.* Mamprussi person
Ňwāmpūrɪlᵋ/ *n.* Mampruli language
Ňwāmpūrʊgᵓ/ *n.* Mamprussi country
ňwè'⁺ *dv*. beat; *ňwè'* X *nú'ùg* make an agreement with X; *ňwè' ňyɔ̄'ɔg* boast
ňwīigᵃ/ *pl ňwīisᵋ/ cb ňwī- n.* rope; ***ňwī-tɛ́kᵃ*** *pl ňwī-tɛ́kìdɪbᵃ cb ňwī-tɛ́k- n.* rope-puller; ***ňwī-tɛ́kìrᵋ*** *pl ňwī-tɛ́kà⁺ n.* rope for pulling
ňwīigᵋ/ *dv.* make a rope
ňyā'alᵋ/ *dv*. leave behind
ňyāan next, afterwards; *post-subject particle* 21.2.3
ňyá'aŋᵃ *pl ňyá'asᵋ ňyā'amísᵋ cb ňyā'aŋ- adj*. female (animal)
ňyá'aŋᵃ behind, *postposition* 17.6; East 30.3; ***ňyà'an-dɔ̀lˡᵃ ňyà'an-dɔ̀lˡᵋ*** *pl ňyà'an-dɔ̀lla⁺ ňyà'an-dɔ̀llɪbᵃ cb ňyà'an-dɔ̀l- n.* disciple NT; *tones unexpected, Pattern L*
ňyā'arᵋ *pl ňyā'a⁺ cb ňyà'- n.* root
ňyāeⁿᵋ/ *adv*. in the light, brightly, clearly 17.3
ňyālʊ́ŋᵓ *pl ňyālɪmá⁺ cb ňyālʊŋ- adj*. wonderful
ňyànⁿᵋ *n.* shame; *Ò dì ňyán.* He's ashamed.
ňyāŋᵋ/ *dv*. overcome 23.2
ňyàu̯kᵓ *pl ňyà'adᵋ adj*. only (eye) 16.11.1.4
ňyɛ̄⁺ *ipfv ňyɛ̄tᵃ/ imp ňyèmᵃ dv*. see, find; *ňyɛ̄ láafìya* get well
ňyɛ̄ɛ, ***ňyɛ̄ɛ tí*** habitually, *auxiliary tense marker* 19.7.2
ňyɛ̄'ɛrᵋ/ *pl ňyɛ̄dá⁺ cb ňyɛ̄'- n.* next-younger sibling
ňyèɛsᵃ *sv*. be self-confident
ňyèɛsɪmᵐ *n.* self-confidence
ňyèɛsíŋᵃ *pl ňyèɛsísᵋ cb ňyèɛsíŋ- adj*. self-confident
ňyèɛsíŋā⁺/ *adv*. self-confidently 17.4
ǹyí *q*. two, *in counting* 16.4.2.2
ňyīnⁿᵋ/ *pl ňyīná⁺ cb ňyīn- n.* tooth
ňyīrífᵓ *pl ňyīrí⁺ n.* a kind of edible seed, egusi: *Colocynthis citrullus* (Haaf)

ňyɔ̄ɔd$^{\varepsilon}$ *n.* intestines
ňyɔ̄'ɔg$^{\mathfrak{d}/}$ *n.* chest
ňyɔ̄ɔr$^{\varepsilon}$ *pl* *ňyɔ̄ya*$^{+}$ *cb* *ňyɔ̀-* *n.* nose; breath; ***ňyɔ̀-vʊ̄r***$^{\varepsilon/}$ *pl* *ňyɔ̀-vʊ̄yá*$^{+}$ *cb* *ňyɔ̀-vʊ̄r-* *n.* life;
ňyɔ̀-vʊ̄r-páàl$^{l\varepsilon}$ *n.* new life NT
ňyɔ̄'ɔs$^{\varepsilon/}$ *n.* smoke
ǹyúèb *q.* six, *in counting* 16.4.2.2
ňyūur$^{\varepsilon/}$ *pl* *ňyūyá*$^{+}$ *cb* *ňyū-* *n.* yam

O

ò [ʊ] he, she, his, her *(proclitic)*; $^{\mathbf{o}}$ LF [ʊ] him, her *(enclitic object)* 16.3.1
ɔ́n he, she *(subject of ǹ-clause)*; ***ɔ̄n***$^{\varepsilon}$ he, she *(contrastive)* 16.3.1
ɔ̀n$^{\varepsilon}$ this, that *(animate sg demonstrative)* 16.3.2
ɔ̀ňb$^{\varepsilon}$ *ger* *ɔ̄ňbɪr*$^{\varepsilon}$ *dv.* chew
ɔ̀ŋā$^{+/}$ this, that *(animate sg demonstrative)* 16.3.2
ɔ̄ɔs$^{\varepsilon/}$ *dv.* warm oneself; *Ò ɔ̀ɔsɪd nɛ̄ búgʊ́m lā.* She's warming herself at the fire.

P

pà' earlier today, *tense particle* 19.3.1
pà'al$^{\varepsilon}$ *dv.* teach, inform; *agt* ***pā'an***^{na} *pl* *pā'annɪb*^{a} *cb* *pà'an-* *n.* teacher
pà'al$^{\varepsilon}$ *dv.* put on top of something
pāalíg^{a} ***páal***$^{l\varepsilon}$ *pl* *pāalís*$^{\varepsilon}$ *pāalá*$^{+}$ *cb* *pāal-* *adj.* new
pāalím^{m} *adv.* recently 17.4
pāalʊ́$^{+}$ *adv.* openly 17.4
pàaňlʊ́ŋ$^{\mathfrak{d}}$ *pl* *pàaňlímìs*$^{\varepsilon}$ *n.* spider's web
pàam^{m} *dv.* receive a gift
pàas$^{\varepsilon}$ *dv.* add up to, amount to
pāe$^{+/}$ *dv.* reach
pàk$^{\varepsilon}$ *dv.* surprise
pàk$^{\varepsilon}$ *dv.* take off from the top
pāmm SF ***pāmné*** LF *q.* much, a lot 16.4.1 6.6
pàň'alɪm^{m} *dv.* dedicate
pàňsɪg$^{\varepsilon}$ *dv.* lack
pàŋ^{a} *pl* *pàaňs*$^{\varepsilon}$ *cb* *pàŋ-* *n.* power
pà' tì perhaps; *post-subject particle* 21.2.3
pèbɪs$^{\varepsilon}$ *dv.* blow (of wind)
pèbɪsɪm^{m} ***pèbɪsʊg***$^{\mathfrak{d}}$ *n.* wind
pè'ɛl$^{\varepsilon}$ *dv.* fill; *res adj* ***pè'ɛlʊ́ŋ***$^{\mathfrak{d}}$ full
pɛɛlʊg$^{\mathfrak{d}}$ in *zū-pɛ́ɛlʊ̀g*$^{\mathfrak{d}}$ bald 16.11.1.4; cf *pie* "go bald" (Leviticus 13:40), Mooré *põogè*
pè'ɛs$^{\varepsilon}$ *dv.* add up to, amount to

pɛ̀lɪg$^{\varepsilon}$ *dv*. whiten, go white
pɛ̀lɪs$^{\varepsilon}$ *dv*. sharpen
pɛ̀n$^{n\varepsilon}$ *n*. vagina
pɛ̄'ŋ$^{\varepsilon/}$ *dv*. borrow; knock over WK
pɛ̀og^{ɔ} *pl* *pɛ̀ɛd*$^{\varepsilon}$ *cb* *pɛ̀-* *n*. basket
pɛ̄'og$^{ɔ/}$ *pl* *pɛ̄'ɛs*$^{\varepsilon/}$ *cb* *pɛ̄'-* *n*. sheep; **pɛ̄'-sá'a**$^{=}$ *n*. ewe lamb
pɛ̄sɪg$^{\varepsilon/}$ *dv*. sacrifice
pi̱ā$^{+}$ *dv*. dig up
pi̱ā̀ǹ'a *dv*. speak, praise; *ger* **pi̱àu̱ǹk**^{ɔ} *n*. word *pl* **pi̱à̀ǹ'ad**$^{\varepsilon}$ language *cb* *pi̱à̀ǹ'-*; **pi̱à̀ǹ'-zòna**$^{+}$ *n*. foreign language
pìbɪg$^{\varepsilon}$ *dv*. uncover
pìbɪl$^{\varepsilon}$ *dv*. cover up
pībɪn$^{n\varepsilon}$ *pl* *pībɪna*$^{+}$ *cb* *pìbɪn-* *n*. covering 12.2.2
pìd$^{\varepsilon}$ *dv*. put on (hat, shoes, rings); *clothing item as object; with indirect object* put (hat, shoes, rings) on someone else
pīd$^{\varepsilon}$ *dv*. get bloated
pìdɪg$^{\varepsilon}$ *dv*. take off (hat, shoes, rings)
pīe$^{+/}$ *dv*. wash (part of one's own body)
pìəb$^{\varepsilon}$ *dv*. blow (e.g. flute)
pìəlɪg^{a} **pìəl**$^{l\varepsilon}$ *pl* *pìəla*$^{+}$ *pìəlɪs*$^{\varepsilon}$ *cb* *pìəl-* *adj*. white
pìəlɪm^{m} *n*. whiteness
pìəs$^{\varepsilon}$ *dv*. fool someone
pīəs$^{\varepsilon/}$ *dv*. wash
pīiga^{+} *q*. ten 16.4.2.1
pīim$^{m/}$ *pl* *pīmá*$^{+}$ *cb* *pīm-* *n*. arrow
pɪ́ɪn̆fɔ *pl* *pīɪní*$^{+}$ *cb* *pīɪn-* *n*. genet
pīinɪ$^{+}$ *cb* *pìin-* *pl* as sg (?) *n*. gift
pìl$^{\varepsilon}$ *dv*. cover
pìlɪg$^{\varepsilon}$ *dv*. uncover
pīǹ'il$^{\varepsilon/}$ *dv*. begin
pɪpīrɪg$^{a/}$ *pl* *pīpīrɪs*$^{\varepsilon/}$ *cb* *pīpír-* *n*. desert
pīsí$^{+}$ *q*. twenty 16.4.2.1
pītʊ́$^{+}$ *pl* *pītíb*^{a} *cb* *pīt-* *n*. younger sibling of the same sex
pɔ̄$^{+}$ *dv*. swear
pɔ̀ǹd$^{\varepsilon}$ *dv*. crouch down
pɔ̄ǹ'ɔl$^{\varepsilon/}$ *dv*. cause to rot
pɔ̀ǹ'ɔlɪm^{m} *dv*. cripple, get crippled
pɔ̀ǹ'ɔr$^{\varepsilon}$ *pl* *pɔ̀ǹda*$^{+}$ *cb* *pɔ̀ǹ'-* *n*. cripple
pɔ̀ǹr^{a} *ger* *pɔ̄ǹrʊb*^{ɔ} *sv*. be near
pɔ̀ɔd^{a} *sv*. be few, small
pɔ̀ɔdɪg^{a} **pɔ̀ɔdɪr**$^{\varepsilon}$ *pl* *pɔ̀ɔda*$^{+}$ *cb* *pɔ̀ɔd-* *adj*. few, small

pɔ̀ɔdɪm^{m} *n.* fewness
pɔ̄ɔg$^{ɔ/}$ *pl pɔ̄ɔd*$^{ɛ/}$ *pɔ̄t*$^{ɛ/}$ *cb pɔ̄-* *n.* field, farm
pɔ̀'ɔg^{ɛ} *dv.* diminish, denigrate
pɔ̄ɔr$^{ɛ/}$ *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*", also "*serment*")
pʊ̄ not: *negates indicative mood* 19.5
pʊ̄$^{+}$ *dv.* divide
pu̯'ā^{a} *pl pʊ̄'ab*^{a} *cb pu̯'à-* *n.* woman, wife; *Ò dì pu̯'ā.* He's married a wife; ***pu̯'à-dīɪr***^{ɛ} *n.* marriage; ***pu̯'à-ɛ̄líŋ***^{a} *n.* fiancée; ***pu̯'à-gīnníg***^{a}, ***pu̯'à-gɔ̄ɔňdɪr***^{ɛ} *n.* prostitute; ***pu̯'à-ňyá'aŋ***^{a} *pl pu̯'à-ňyá'as*^{ɛ} *n.* old woman; ***pu̯'à-pāal***$^{a/}$ *n.* bride; ***pu̯'à-sādɪr***$^{ɛ/}$ *n.* young woman; ***pu̯'à-sāň'am***^{na} *n.* adulterer; ***pu̯'à-yùa***$^{+}$ *n.* daughter
pu̯āk^{a} *pl pʊ̄'as*^{ɛ} *adj.* female (human only)
pʊ̀'alɪm^{m} *dv.* cook
pʊ̀'alɪm^{m} *dv.* harm, damage; *res adj* ***pʊ̀'alʊ́ŋ***^{ɔ} damaged
pʊ̀'alɪm^{m} *n.* femininity
pʊ̀'alím^{m} *pl pʊ̀'alímìs*^{ɛ} *cb pʊ̀'alím-* *n.* female sex organs
pʊ̀d^{ɛ} *dv.* name
pʊ̄dɪg$^{ɛ/}$ *dv.* divide, share out
pʊ̀gʊdɪb^{a} *pl pʊ̀gʊd-nàm*^{a} *cb pʊ̀gʊd-* *n.* father's sister
pʊ̀kɔ̀ɔňr^{ɛ} *pl pʊ̀kɔ̀ňya*$^{+}$ *cb pʊ̀kɔ̀ň-* *n.* widow
pʊ̄kpāad$^{a/}$ *pl pʊ̄kpāadíb*^{a} *cb pʊ̄kpá-* (*irreg: contrast kpāad*$^{a/}$) *n.* farmer
pùlɪma^{+} *n.* a species of grass, *Imperata cylindrica* (Haaf)
pʊ̀mpɔ̄ɔg^{ɔ} *n.* housefly
pʊ̀n previously, already; *preverb* 19.7.2
pūň'e$^{+/}$ *dv.* rot
pūsɪg$^{a/}$ *pl pūsɪs*$^{ɛ/}$ *cb pūs-* *n.* tamarind
pūsɪr$^{ɛ/}$ *pl pūsá*$^{+}$ *n.* tamarind fruit
pʊ̄-sʊ́k^{a} *pl pʊ̄-sʊ́gʊ̀s*^{ɛ} *n.* half 16.4.2.1
pʊ̄t$^{ɛ/}$ *n. pl as sg* contents of stomach WK
pūum$^{m/}$ *cb pūum-* *n.* flowers
pʊ̄ʊg^{a} *cb pʊ̀-* *n.* inside, belly; *Pu̯'ā lā mɔ́r pʊ̄ʊg* The woman is pregnant; *pʊ̄ʊgʊ-n*$^{ɛ/}$ inside 17.6; ***pʊ̀-pìəlɪm***^{m} *n.* holiness; ***pʊ̀-tɛ̀ň'ɛr***^{ɛ} *pl pʊ̀-tɛ̀ňda*$^{+}$ *cb pʊ̀-tɛ̀ň'-* *n.* mind
pʊ̄ʊr$^{ɛ/}$ *n.* stomach
pʊ̀'ʊs^{ɛ} *dv.* greet, worship, thank; *ger* ***pʊ̀'ʊsɪm***^{m} *n.* worship; *ger* ***pʊ̀'ʊsʊg***^{ɔ} *n.* thanks; ***pʊ̀'ʊsʊg dɔ́ɔ̀g***^{ɔ} NT temple

S

sà yesterday, *tense particle* 19.3.1
sà hence, ago, *VP-final particle* 19.10
sā'$^{+}$ *dv.* be in distress
sàa tomorrow, *tense particle* 19.3.1
sāa$^{=}$ *pl sāas*$^{\varepsilon}$ *cb sà-* *n.* rain; sky; *as subject of ja̰ňk*$^{\varepsilon/}$ "leap": lightning; **sāa dɪ́ndɛ̀og**$^{ɔ/}$ rainbow ("rain chameleon"); **sāa zúg**^{ɔ} *n.* sky 17.6
sā'ab^{ɔ} *cb sà'-* *n.* millet porridge, "TZ", the staple food of the Kusaasi
sāafɪ$^{+}$ (?*tones*) *n.* lock, key ← Twi *safẽ*
sàal^{a} *pl sàalɪb*^{a} *cb sàal-* *n.* human (perhaps ← "hairless" cf *bʊ̄n-kɔ́ňbʊ̀g*^{ɔ}); **sàal-bīig**^{a} *pl sàal-bīis*$^{\varepsilon}$ *n.* human being
sàalíŋā$^{+/}$ *adv.* smoothly 17.4
sàam^{ma} *pl sàam-nàm*^{a} *cb sàam-* *n.* father; **sàam-kpɛ̄ɛňm**^{m} *n.* father's elder brother; **sàam-pīt**$^{a/}$ *pl sàam-pītíb*^{a} *cb sàam-pīt-* *n.* father's younger brother
sāam$^{m/}$ *dv.* mash, crumble
sā'an$^{\varepsilon/}$ in the presence of, in the opinion of; *postposition* 17.6
sāan$^{a/}$ *pl sáam*^{ma} *cb sāan-* *n.* guest, stranger
sáannɪ̀m^{m} *n.* strangerhood
sàbɛ̀og^{ɔ} *pl sàbɛ̀ɛd*$^{\varepsilon}$ *cb sàbɛ̀-* *n.* wind, storm
sābɪlíg^{a} **sābíl**^{lɛ} *pl sābɪlís*$^{\varepsilon}$ *sābɪlá*$^{+}$ *cb sābɪl-* *adj.* black
sàbùa^{+} *pl sàbùɐs*$^{\varepsilon}$ *cb sàbʊ̀à-* *n.* lover, girlfriend
Sà'dàbɔ̀ɔg^{ɔ} *n.* place of the clan Sarabose
Sà'dàbùa^{+} *pl Sà'dàbùɐs*$^{\varepsilon}$ *Sà'dàbùɐb*^{a} *n.* clan name
sādɪgím since, because 25.2
sāa̰ňˇ$^{+}$ or **sāa̰ňˇ**^{a} *pl sāaňb*^{a} *cb sàň-* *n.* blacksmith
sākárʊ̀g^{ɔ} *pl sākárɪ̀d*$^{\varepsilon}$ *cb sākár-* *n.* fox
sàlɪbɪr$^{\varepsilon}$ *n.* bridle
sālɪma^{+} *cb sàlɪm-* *n. pl as sg* gold; **sàlɪm-kùɐs**^{a} *n.* gold merchant
sām$^{n\varepsilon/}$ *pl sāmá*$^{+}$ *cb sām-* *n.* debt; **sām-kpá'às**^{a} *n.* household servant
sāmán$^{n\varepsilon}$ *pl sāmánà*$^{+}$ *cb sāmán-* *n.* open space in front of a *zàk*^{a} compound; **Sāmán-píər**$^{\varepsilon}$ *n.* traditional New Year ceremony
sàň'am^{m} *dv.* spoil, get spoiled, get broken; destroy
sāngʊ́nnɪ̀r$^{\varepsilon}$ *pl sāngʊ́nnà*$^{+}$ *cb sāngʊ́n-* *n.* millipede
sāŋá$^{+}$ *pl sānsá*$^{+}$ *cb sān-* *n.* time 30.8 9.3.2; **sān-kán**$^{\varepsilon}$ *adv.* then; when? **sān-sí'ən lā** *adv.* at one time, once ... 21.2.1
sàŋ-gbàa̰ŋ^{ɔ} *n.* sky, heaven; cf *sāa*$^{=}$
sāpál^{lɛ} *n.* Harmattan part of the dry season *úun*$^{n\varepsilon}$
sārɪgá$^{+}$ *n.* prison ← Hausa *sarƙàa* "chain"
sàríyà$^{+}$ or **sɛ̀ríyà**$^{+}$ *n.* law ← Arabic شريعة *ʃari:ʕa(tun)*; **sàríyà-kāt**^{a} *n.* judge NT
sāʊgɔ *pl sāad*$^{\varepsilon/}$ *cb sā-* *n.* broom, brush

sàʊkɔ *pl* *sà'adᵋ* *n.* mote of dust
sāʊ́ŋɔ *n.* hospitality
sɛ̀⁺ *ipfv* *sɛ̀ɛdᵃ* *dv.* transplant
sɛ̄oň̌gɔ *n.* rainy season
sì⁺ *dv.* skin, flay
sī'a⁺ some, any *(sg)* 16.3.3
sīa⁺ *pl* *sīəsᵋ* *cb* *sị̀à-* *n.* waist; **sị̀à-lɔ́ɔdíŋᵃ** *n.* belt ("waist-tying-thing"); **sị̀à-nīfɔ/** *n.* kidney
sị̄à'alᵋ/ *dv.* get to be enough
sị̀à'arᵋ *pl* *sị̀à'a⁺* *cb* *sị̀à'-* *n.* forest (WK), wilderness
sị̀àkᵋ *dv.* agree (cf Mooré *sàke*, Buli *siagi id*)
sị̄akᵋ/ *dv.* suffice (cf Mooré *sékè*, Buli *chagi id*)
sībɪgᵃ/ *pl* *sībí⁺* *cb* *sīb-* *n.* a kind of termite
sìd truly, *post-subject particle* 21.2.3
sìda⁺ *pl* *sìd-* *n.* *pl as sg* truth
sīdᵃ *pl* *sīdɪbᵃ* *cb* *sìd-* *n.* husband; **sìd-bīlᵃ** *n.* husband's younger brother; **sìd-kpɛ̄ɛňmᵐ** *n.* husband's elder brother; **sìd-pʊ̣̄akᵃ** *n.* husband's sister
sīe⁺/ *dv.* descend, be humbled
sīəba⁺ some(ones), any (ones) 16.3.3
sī'əlᵃ something, anything 16.3.3
sī'əmᵐ somehow, anyhow 16.3.3 17.7
sīgᵋ *dv.* descend
sīgɪrᵋ/ *n.* guardian spirit, typically but not invariably the *wīnⁿᵋ/* of an ancestor 30.2
sīgɪsᵋ/ *dv.* lower
sīgɪsírᵋ *pl* *sīgɪsá⁺* *n.* stopping-place
sɪɪgᵃ *pl* *sīɪsᵋ* *cb* *sì-* *n.* shade, personal spirit (KED); used in NT for "spirit"; in traditional belief rather *Lebenskraft* (Haaf) "vital energy", closely associated with a person's tutelary *kìkīrɪsᵋ/* (qv); **Sì-sʊ̀ŋɔ** *n.* Holy Spirit NT; cf Buli *chíik*
sɪɪgᵃ *pl* *sīɪsᵋ* *n.* African birch, *Anogeissus leiocarpa*; cf Buli *sīik*
sìilɪmᵐ *dv.* cite proverbs
sìilíŋᵃ sìilʊ́ŋɔ *pl* *sìilísᵋ* *sìilímɪsᵋ* *sìilímà⁺* *cb* *sìilíŋ-* *n.* proverb
sīiňdᵋ/ *n.* honey
sīiňfɔ/ sīiňgᵃ/ *pl* *sīiňsᵋ/* *cb* *sīň-* *n.* bee
sī'ɪsᵋ/ *dv.* touch
sīlɪnsíùgɔ *pl* *sīlɪnsíîsᵋ* *n.* ghost
sīlɪnsíùňgɔ *pl* *sīlɪnsíîňdᵋ* *n.* spider
sìlʊgɔ *pl* *sìnⁿᵋ* *sìlɪsᵋ* *cb* *sìl-* *n.* hawk
sìmᵐ *dv.* sink in a liquid
Sìmīigᵃ *pl* *Sìmīisᵋ* *cb* *Sìmì-* *n.* Fulɓe person, Fulani
Sìmīilᵋ *n.* Fulfulde language
Sìmīugɔ *n.* place of the Fulɓe

sīn$^{na/}$ *ger sīnnímᵐ sv.* be silent
sīnsáaň$^{=}$ *n.* a kind of tiny ant
sīŋ^{a} *pl sīɩňsᵋ cb sìŋ- n.* a kind of very big pot
sī'ŋ$^{ɛ/}$ *dv.* begin
sīsíbìg^{a} *pl sīsíbìsᵋ cb sīsíb- n.* neem tree *Azadirachta indica* (Haaf)
sīsíbìr^{ɛ} *pl sīsíbà*$^{+}$ *n.* fruit of neem tree
sìsì'əm^{m} *n.* wind, storm
sìsùʊgʊ̄-n$^{ɛ/}$ between, *postposition* 17.6 KB *sʊʊgʊn*
sī'úŋ^{ɔ} *pl sī'imísᵋ cb sī'uŋ- n.* a kind of large dish
sɔ̄'$^{+}$ some(one), any(one), *animate sg* 16.3.3
sɔ̄b^{a} *dummy head pronoun, animate sg* 16.10.4
sɔ̄b^{ɛ} *dv.* go/make dark; *usually* write; ***sɔ̄bɩr***$^{ɛ/}$ *n.* piece of writing
sɔ̄bɩg$^{ɛ/}$ *dv.* blacken
sɔ̄e̯ň$^{+}$ or ***sɔ̄e̯ň***^{a} *pl sɔ̄ɔňbᵃ cb sɔ̀ň- n.* witch
sɔ́gi̯à^{a} *n.* soldier ← English
sɔ̄lʊŋ$^{ɔ/}$ *pl sɔ̄lɩmá*$^{+}$ *n.* story
sɔ̄ň$^{+}$ *dv.* rub
sɔ̄ň'e$^{ya/}$ *sv.* be better than; *agt sɔ̄ň'ɔdᵃ/ pl sɔ̄ň'ɔbᵃ/ cb sɔ̄ň'ɔd-*
sɔ̄nnɩr^{ɛ} *pl sɔ̄nna*$^{+}$ *cb sɔ̀n- n.* courtyard dividing wall
sɔ̄ňs^{ɛ} *ger sɔ́ňsìgᵃ dv.* converse, talk with
sɔ̄ɔňg^{ɔ} *n.* witchcraft
sɔ̄ɔňr^{ɛ} *pl sɔ̄ňya*$^{+}$ *cb sɔ̀ň- n.* liver
sɔ̀s^{ɛ} *ger sɔ̄sɩgᵃ dv.* ask; *agt* ***sɔ̀s***^{a} *n.* beggar
sʊ̀$^{+}$ *dv.* take a bath
su̯'ā^{a} *dv.* do secretly, hide
su̯āk$^{a/}$ *n.* hiding place
sūeň$^{+/}$ *dv.* anoint
sʊ̄'e$^{ya/}$ *sv.* own; *ger* ***sʊ̄'ʊlím***^{m} *n.* property, country, realm
sūgʊr$^{ɛ/}$ *dv.* show forbearance, be patient with; ***sūgʊrʊ́***$^{+}$ *n.* forbearance
sʊ̀m^{m} *n.* goodness; well 17.4 20.2
sʊ̀m^{ma} *sv.* be good
sùmbʊ̄gʊsím^{m} *n.* peace
sūmmɩr^{ɛ} *pl sūmma*$^{+}$ *cb sùm- n.* groundnuts; ***sūm-dʊ́gʊdà***$^{+}$ *n.* cooked groundnuts
sùn^{nɛ} *ger sùnnɩrᵋ* or *sùnnʊgᵓ dv.* bow one's head; *agt* ***sūn***^{na} *n.* ("someone who goes about with bowed head") deep thinker, close observer WK
sūň'e$^{+/}$ *dv.* become better than
sūňf$^{ɔ/}$ ***sūuňr***$^{ɛ/}$ *pl sūňyá*$^{+}$ *cb sūň- n.* heart; ***sūň-kpí'òŋ***^{ɔ} *n.* boldness 16.10.1; ***sūň-má'asìm***^{m} *n.* joy (*M̀ sūňf má'e yā.* "My heart has cooled"= I'm joyful); ***sūň-málɩsìm***^{m} *cb sūň-málìs- n.* joy; ***sūň-pɛ́ɛ̀n***^{nɛ} *n.* anger (*M̀ sūňf pɛ́lìg nɛ̄.* "My heart is whitened"= I'm angry); ***sūň-sáň'ʊ̀ŋ***^{ɔ} *n.* sorrow (*M̀ sūňf sáň'àm nɛ̄.* "My heart is spoilt" = I'm sad)

sʊ̀ŋᵋ *dv*. help
sʊ̀ŋɔ̀ sʊ̀mᵐᵋ *pl sʊ̀maᐩ cb sʊ̀ŋ- adj*. good
sʊ̀ŋāᐩ/ *adv*. well 17.4 20.2
súˈɵŋᵃ *pl sūˈɵmísᵋ cb sūˈɵŋ- n*. rabbit
sūɵrᵋ/ *pl sụ̄yáᐩ cb sụ̄- n*. road; permission *in sūɵr bɛ́, mɔ̄r sūɵr* 26.1
sùˈɵsᵃ *n*. yesterday 30.8
sùˈɵsᵋ *dv*. trick
sùrᵃ *sv*. have one's head bowed
sʊ̀sɔ̀mᵐᵋ *n*. grasshopper
Sūtáanàᐩ *n*. Satan
sʊ̄ʊgᵋ/ *dv*. wither (leaves) WK
sʊ̀ˈʊgᵃ sʊ̀ˈʊgɔ̀ *pl sʊ̀ˈʊsᵋ cb sʊ̀ˈ- n*. knife

T

tāa⁼ tāasᵋ fellow- *as second part of compound* 13.2.1.4
tāabaᐩ tāab each other 16.3.5
tāˈadɪrᵋ *pl tāˈadaᐩ cb tàˈad- n*. sandal
tàalˡᵋ *pl tàalaᐩ cb tàal- n*. fault, sin
táˈamᵐᵋ *pl tāˈamáᐩ n*. shea tree fruit
táˈaŋᵃ *pl tāˈamísᵋ cb tāˈaŋ- n*. shea butter tree *Butyrospermum parkii* (Haaf)
tāˈasᵋ/ *dv*. help someone to walk; *in greetings* 29
tàbᵋ *dv*. get stuck to
tàbɪʸᵃ *sv*. be stuck to
tàbɪgᵋ *dv*. get unstuck from
tàbɪlᵋ *dv*. stick to *(transitive)*
tàdɪgᵋ *n*. become weak
tādɪmᵐ/ *pl tàdɪm-nàmᵃ cb tàdɪm- n*. weak person
tàdɪmísᵋ *n*. weakness
Tàlɪnⁿᵋ *n*. Talni language
Tàlɪŋᵃ *pl Tàlɪsᵋ cb Tàlɪŋ- n*. Tallensi person
tàmᵐ *ipfv tàmmɪdᵃ dv*. forget
tàmpūaᐩ *pl tàmpɔ̄ɔsᵋ cb tàmpɔ̀- n*. housefly 9.3.2
tàmpʊ̄rᵋ *cb tàmpʊ̀- n*. ashpit, rubbish tip
tānⁿᵋ *pl tānaᐩ cb tàn- n*. earth; **tàn-mɛ̄ɛdᵃ** *n*. builder
tāňpɔ̀ *n*. war; **tàňp-sɔ̄bᵃ** *n*. warrior
tàňsᵋ *ger tàňsʊgɔ̀ dv*. shout; *Wìnnɪg táňsìd nɛ̄.* The sun is shining.
tārᵃ/ *ger tārímᵐ sv*. have; *more typical of Toende Kusaal; NT/KB always have mɔ̄rᵃ/*
tàsɪntàlˡᵋ *n*. palm of hand
tàtàlˡᵋ *n*. palm of hand
tāụňᐩ/ *pl tāňpᵃ/ cb tāụň- tāňp- n*. sibling of opposite sex

tɛ̀bᵋ *ger tɛ̄bɪgᵃ dv.* carry in both hands
tɛ̄bɪgᵋ/ *dv.* get heavy
tɛ̄bɪsᵃ/ *sv.* be heavy
tɛ̄bɪsígᵃ tɛ̄bɪsírᵋ *pl tɛ̄bɪsáᐩ cb tɛ̄bɪs- adj.* heavy
tɛ̄bɪsímᵐ *n.* heaviness
tɛ́ɛbʊ̀lᵋ *pl tɛ́ɛbʊ̀l-nàmᵃ n.* table ← English
tɛ̄ɛgᵋ/ *dv.* drag (ILK)
tɛ̀'ɛgᵃ *pl tɛ̀'ɛsᵋ cb tɛ̀'- n.* baobab *Adansonia digitata* (Haaf)
tɛ̄kᵋ/ *dv.* pull
tɛ̀ǹbᵋ *ger tɛ̀ǹbʊgᵓ dv.* tremble, struggle
tɛ̀ǹ'ɛsᵋ *dv.* remind
tɛ̄ǹ'ɛsᵋ/ *dv.* think; *ger* **tɛ̄ǹ'ɛsáᐩ** *n.* thought
tɛ̀ǹrᵃ *ger tɛ̄ǹrɪbᵓ sv.* remember
tɛ̄ŋᵃ *pl tɛ̄ɛǹsᵋ cb tɛ̀ŋ- n.* land; **tɛ̀ŋ-bīigᵃ** *n.* native; **tɛ̀ŋ-dāanᵃ** *n.* traditional earth-priest; **tɛ̀ŋ-dʊ̄'adɪgᵃ** *n.* native land; **tɛ̀ŋ-gbàu̱ŋᵓ** *n.* earth, land; **tɛ̀ŋ-pʊ̄ʊgᵓ/** *pl tɛ̀ŋ-pʊ̄ʊdᵋ/ cb tɛ̀ŋ-pʊ̄- n.* village, town; **tɛ̀ŋ-zʊ̀ŋᵓ** *pl tɛ̀ŋ-zʊ̀ʊǹsᵋ n.* foreign country
tɛ̄ŋɪ-nᵋ/ *or* **tɛ̄ŋírᵋ** downward; *as postposition* under 17.6
tɛ̀ogᵓ *pl tɛ̀ɛdᵋ n.* nest
tɛ̀'ogᵓ *pl tɛ̀'ɛdᵋ n.* baobab fruit
tì we, our *(proclitic)*; **tɪᐩ** us *(enclitic object)* 16.3.1
tì *preverb conveying completion or purpose* 19.7.2
tị̂à'alᵋ *dv.* come next
tị̂àkᵋ *dv.* change
tì'əbᵋ *dv.* prepare, get ready; heal *in this sense perhaps influenced by Arabic* طب *tˁibb(un)* "medicinal art"; **tī'əbᵃ** *n.* healer
tìeǹᐩ *dv.* inform WK (KED remember)
tìeǹᐩ *dv.* stretch out
tìəŋᵃ *pl tìəmɪsᵋ cb tìəŋ- n.* beard; **tìəŋ-gʊ̄ʊrᵋ** *n.* chin
tìgᵋ *dv.* become sated; *ger* **tīgɪrᵋ** *n.* glut
tī'iʸᵃ/ *ger tī'ibᵓ/ sv.* be leaning (object)
tìɪgᵃ *pl tìɪsᵋ cb tì- n.* tree
tī'ilᵋ/ *dv.* lean something
tìɪmᵐ *cb tì- n.* medicine; **tì-kʊ̄ʊdímᵐ** *n.* poison (killing-medicine); **tì-sābɪlímᵐ** *n.* "black medicine" (a particular traditional remedy); **tì-vʊ̄nnímᵐ** *n.* oral medication
tì'inᵋ *dv.* begin to lean
tīlásᵋ *n.* necessity ← Hausa *tiilàs* 26.1
tìlɪgᵋ *dv.* survive, be saved
tīnámᵃ we, us *(contrastive)*; **tīnámì** we *(subject of ǹ-clause)* 16.3.1
tīntɔ̃ǹrígᵃ *pl tīntɔ̄ǹrísᵋ cb tīntɔ́ǹr- n.* mole (animal)
tìpᵃ *pl tìp-nàmᵃ cb tìp- n.* healer (see *tī'əbᵃ id*)

tīráànᵃ *pl* tīráàn-nàmᵃ *cb* tīráàn- *n.* neighbour, peer
tīráànnɪmᵐ *n.* neighbourliness
tírɪgà *ideophone for* gīŋᵃ short 16.11.1.3
tìsᵋ *ipfv* tìsɪdᵃ tìtᵃ *agt* tìsᵃ *dv.* give; *also* tì *before enclitic pronouns: tì f* gave you
tītā'alᴵᵋ *n.* proud person
tītā'alɪmᵐ *n.* pride
tītā'amᵐ *n.* multitude
tītā'ʊgᵓ tītā'arᵋ *pl* tītāda⁺ *cb* tītá'- *adj.* big, great
tɔ̀ OK 22.3.4 (= Hausa *tôo*)
tɔ̀dᵋ *dv.* give to the poor, share
tɔ̄e̱ᵃ/ *sv.* be bitter, difficult
tɔ́klàe⁺ *n.* torch ← English "torchlight"
tɔ́lɪlìlɪ *ideophone for* wɔ̄kɔ/ tall 16.11.1.3
tɔ́lìb *onomatopoeic word* 16.11.1.3
tɔ̀ň⁺ *dv.* shoot
tɔ̀ň'ɔsᵋ *dv.* hunt
tɔ̄ɔgᵓ *pl* tɔ̄ɔdᵋ *cb* tɔ̀- *adj.* bitter, difficult
tɔ̄ɔmᵐ/ *dv.* depart, disappear
tɔ̀'ɔtɔ̄⁺/ *adv.* straight away 17.4
tu̱à⁺ *dv.* grind in a mortar; **tu̱à-bīlᵃ** *n.* pestle
tu̱'àᵃ *dv.* speak, plead in court
tɔ̀'alᵋ *dv.* condemn in court
tɔ̀'asᵋ *dv.* talk
tɔ̀bʊrᵋ *pl* tɔ̀ba⁺ *cb* tɔ̀b- *n.* ear; **tɔ̀b-kpìrᵋ** *n.* half of jaw; **tɔ̀b-yīu̱ŋᵓ/** *adj.* one-eared 16.11.1.4
tʊ̄lᴵᵃ/ *sv.* be hot
tùlɪgᵋ *dv.* invert
tʊ̄lɪgᵋ/ *dv.* heat up
tɔ̀mᵐ *dv.* work; *ger* tʊ̄ʊmᵐᵋ *n.* deed *pl* **tʊ̄ʊmaᵑ** *n.* deeds; work *cb* tɔ̀ʊm-; **tɔ̀ʊm-bɛ̄'ɛdᵋ** *n.* bad deeds; **tɔ̀ʊm-bɛ̄'ɛd-dímᵃ** *n.* sinners NT; *agt* **tɔ̀m-tʊ̄mⁿᵃ** *n.* worker
tɔ̀mᵐ *ger* tìtʊ̄mɪsᵋ *dv.* send; *compare Hausa* àikaa "*send*", *aikàtaa* "*work*"
tūň'e *sv.* be able 23.2
tūɵdɪrᵋ *pl* tūɵdaᵑ *cb* tùɵd- *n.* mortar
tùɵnⁿᵋ in front; *as postposition* 17.6; West (KB *yà tùɵna*) 30.3; **tùɵn-gātᵃ** *n.* leader
Tùɵnⁿᵋ *n.* Toende, Western part of Kusaasiland
Tùɵnnɪrᵋ *n.* Toende dialect of Kusaal
tūsɪrᵋ/ *n.* thousand 16.4.2.1
tɔ̀tūlᴵᵋ *n.* upside-down thing cf *tùlɪg*ᵋ
tʊ̄ʊlígā⁺/ *adv.* hotly 17.4
tʊ̄ʊlúgᵓ *pl* tʊ̄ʊlá⁺ *cb* tʊ̄ʊl- *adj.* hot
tʊ̄'ʊsᵋ/ *dv.* meet

U

ùdʊgᵓ *pl ùtᵋ cb ùd- n.* (piece of) chaff
ūgʊsᵋ/ *dv.* bring up a child
ùkᵋ *dv.* vomit
ūkᵋ *dv.* bloat
ùmᵐ *dv.* close eyes
úunⁿᵋ *n.* dry season 30.8

V

vābɪʸᵃ/ *ger vāpᵓ/* KT *vābɪrᵋ/* WK *sv.* be lying prone
vābɪlᵋ/ *dv.* make lie prone
vàbɪnᵋ *dv.* lie prone
vāʊňgᵓ/ *pl vāaňdᵋ/ cb vāň- n.* leaf
vɛ̄'⁺ *dv.* lead
vɛ̄'ɛgᵋ/ *dv.* drag
vɛ̀nⁿᵃ *sv.* be beautiful
vɛ̀ňlˡᵃ *sv.* be beautiful
vɛ̀ňllɪgᵃ *pl vɛ̀ňllɪsᵋ vɛ̀ňlla⁺ cb vɛ̀ňl- adj.* beautiful
vɛ̀ňllíŋᵃ *pl vɛ̀ňllísᵋ cb vɛ̀ňllíŋ- adj.* beautiful
vɛ̀nnɪgᵃ vɛ̀nnɪrᵋ *pl vɛ̀nnɪsᵋ vɛ̀nna⁺ cb vɛ̀n- adj.* beautiful
vɛ̀nnɪmᵐ *n.* beauty
vī'⁺ *dv.* uproot
vīkᵋ/ *dv.* uproot
vīugᵓ/ *pl vīidᵋ/ cb vī- n.* owl
vū⁺ *ger vūugᵓ/ dv.* make a noise; ***vūudᵋ/*** *n.* noise
vū̱ᵃ/ *sv.* be alive
vūlᵋ *dv.* swallow
vùlɪnvùuňlˡᵋ *n.* mason wasp
vūmᵐ/ *cb vūm- n.* life; ***vūm-páàlˡᵋ*** *n.* new life
vúɵŋᵃ *pl vūɵmísᵋ n.* red kapok *Bombax buonopozense* (Haaf)
vúɵrᵋ *pl vūáa⁼ cb vūɵ- n.* fruit of red kapok
vūrᵋ/ *pl vūyá⁺ cb vūr- adj.* alive
vū'ʊgᵋ/ *dv.* come, make alive
vū'ʊsᵋ/ *dv.* breathe, rest
vū'ʊsímᵐ *n.* resting

W

wā'$^{+}$ *dv.* dance
wāad$^{ɛ/}$ *n.* cold weather
wáaf^{ɔ} *pl wīigí*$^{+}$ *cb wā'-* *n.* snake
wāal$^{ɛ/}$ *dv.* sow, scatter seed
wā'alím^{m} *n.* length
wā'am$^{ma/}$ *sv.* be long, tall
wàbıg^{a} ***wàbır***^{ɛ} *pl wàbıs*^{ɛ} *wàba*$^{+}$ *cb wàb-* *n.* lame person
wàbılım^{m} *dv.* make, go lame
wābʊg$^{ɔ/}$ *pl wābıd*$^{ɛ/}$ *cb wāb-* *n.* elephant
wādır$^{ɛ/}$ *pl wādá*$^{+}$ *cb wād-* *n.* law (← English "order" via Hausa) *plural as sg*: law
wād-tís^{a} *n.* lawgiver NT
wà'e^{ya} *sv.* be travelling
wālıg^{a} *pl wālıs*^{ɛ} *wālí*$^{+}$ (*tone sic) cb wàl-* *n.* a kind of gazelle
wàŋım^{m} *dv.* waste away
wàsınwàl^{lɛ} *n.* a parasitic gall on trees, called "mistletoe" in local English
wàu̱ŋ^{ɔ} *pl wàna*$^{+}$ *cb wàu̱ŋ-* *adj.* wasted, thin
wèɛd^{a} see *wìıd*^{a}
wɛ̄ɛl$^{ɛ/}$ *dv.* be left unsold (KED) *but see wɛ̄og*$^{ɔ/}$
wɛ̄l^{ɛ} *dv.* bear fruit
wɛ̄l$^{lɛ/}$ *pl wɛ̄lá*$^{+}$ *cb wɛ̄l-* *n.* fruit
wɛ̄lá$^{+}$or ***wālá***$^{+}$ how? 17.7; *nìŋ wɛ̄lá n/kà* how can ...? 23.2.1
wɛ̄n$^{na/}$ *sv.* resemble; *in KB wɛ̄n nɛ̄ appears as nwɛnɛ*; *ger wɛ̄nním*^{m}
wɛ̄nnır^{ɛ} *adj.* resembling *(Pattern O, specifically confirmed with WK)*
wèog^{ɔ} *n.* deep bush
wɛ̄og$^{ɔ/}$ *pl wɛ̄ɛd*$^{ɛ/}$ *n.* cheap thing sold in abundance WK
wìdıg^{ɛ} *dv.* scatter
wìəf^{ɔ} *pl wìdı*$^{+}$ *cb wìd-* *n.* horse; ***wìd-lɔ̄r***$^{ɛ/}$ *n.* place for tying up horses in a compound;
wìd-dāʊg^{ɔ} *n.* stallion; ***wìd-ňyá'aŋ***^{a} *n.* mare; ***wìd-zʊ̄ʊr***^{ɛ} *n.* horsetail
wìıd^{a} or ***wèɛd***^{a} *pl wìıb*^{a} *cb wìıd-* *n.* hunter
Wìid^{a} *pl Wìid-nàm*^{a} *cb Wìid-* *n.* member of the clan Wiid
Wìidʊg^{ɔ} *n.* place of the clan Wiid
wīig$^{a/}$ *n.* whistle
wìım^{m} *n.* sickness, disease ("worse than *bāň'as*^{ɛ}" WK)
wìk^{ɛ} *ipfv wìid*^{a} *dv.* fetch water 11.1
wìl^{lɛ} *pl wìla*$^{+}$ *cb wìl-* *n.* branch
wīlısúŋ^{ɔ} *pl wīlımís*^{ɛ} *cb wīlısúŋ-* *n.* a kind of snail 9.3.2
wím *ideophone for zìň'a*$^{+}$ red 16.11.1.3
wīn$^{nɛ/}$ *pl wīná*$^{+}$ *cb wīn-* *n.* God; god; spiritual double, *genius*; destiny; *wīn-tɔ́ɔ̀g*^{ɔ}
n. misfortune

Wínà'am^{m} *n.* God 15.1
wìnnɪg^{a} *cb wìn-* *n.* sun; talent; ***wìn-līir***^{ɛ} *n.* sunset; ***wìn-kɔ̀ɔ̆r***^{ɛ} *n.* sunset
wìug^{ɔ} ***wìir***^{ɛ} *pl wìya*$^{+}$ *wìid*^{ɛ} *cb wì-* *adj.* red
wɔ̄k$^{ɔ/}$ ***wā'ar***$^{ɛ/}$ *pl wā'á*$^{+}$ *wā'ad*$^{ɛ/}$ *cb wɔ̄k-* *wā'-* *adj.* long, tall
wʊ̀m^{m} *dv.* hear; understand (a language)
wʊ̄sa^{+} *q.* all 16.4.1
wʊ̄ʊ$^{+}$ *q.* all 16.4.1
wʊ̄ʊ like, resembling 18
wʊ̄'ʊg$^{ɛ/}$ *dv.* get wet
wʊ̄'ʊl$^{ɛ/}$ *dv.* make wet

Y

yà you, your *pl (proclitic)*; ***ya***$^{+}$ you *pl (enclitic object)* 16.3.1
ya you *pl, enclitic subject after imperative* 8.2.1 16.3.1 22.1.3
yā$^{+}$ *independent-perfective particle* 19.6.2.1
yà' if, when 24
yáa *adv.* whither? 17.7
yáab^{a} *pl yāa-nám*^{a} *cb yāa-* *n.* grandparent, ancestor; ***yāa-dáu̱***$^{+}$ *n.* grandfather; ***yāa-pu̱'á***^{a} *n.* grandmother
yà'ab^{ɛ} *dv.* mould clay
yā'ad^{ɛ} *cb yà'-* *n.* clay
yà'al^{ɛ} *dv.* hang up; make perch (bird)
yà'an^{ɛ} *dv.* perch (of a bird)
Yàan^{nɛ} *n.* Yansi language (apparently Mooré now)
yáa nɪ́$^{+}$ *adv.* where? 17.7
yáaŋ^{a} *pl irr yáas*^{ɛ} *(consistently without nasalisation) cb yāaŋ-* *n.* grandchild, descendant 30.1
Yàaŋ^{a} *pl Yàam*^{ma} *Yàamɪs*^{ɛ} *Yàas*^{ɛ} *cb Yàaŋ-* *n.* Yansi person
yāar$^{ɛ/}$ *dv.* scatter
yàarɪm^{m} *cb yàar-* *n.* salt
yà'as^{a} ***yà'as***^{ɛ} again 23.2
yā'as$^{ɛ/}$ *dv.* open repeatedly
yàddā or ***yàdā*** *n.* faith, trust ← Hausa *yàrda*; *probably* ← Arabic يرضى *yardʿa:* 15.1 19.8.1; ***yàddā-níŋɪr***^{ɛ} *n.* belief
yādɪg$^{ɛ/}$ *dv.* scatter; *agt* ***yāt***$^{a/}$ *irreg. agent noun:* technical term for a participant in a housebuilding ritual
yā'e$^{+/}$ *dv.* widen, open (mouth)
yàk^{ɛ} *dv.* unhang, unhook
yàlɪm^{ma} *sv.* be wide
yālɪm$^{m/}$ *pl yālɪm-nám*^{a} *n.* worthless person

yālɪsʊ́ŋ^{ɔ} *pl yālɪmís*^{ɛ} *cb yālɪsʊ́ŋ- n.* quail 9.3.2
yàlʊŋ^{ɔ} *pl yàlɪma*$^{+}$ *cb yàlʊŋ- adj.* wide
yām^{mɛ} *pl yàma*$^{+}$ *cb yàm- n.* hay WK
yām$^{m/}$ *cb yām- n.* gall; gall bladder; common sense WK *yā'm*$^{m/}$.
yàmmɪg^{a} ***yàmmʊg***^{a} ***yàmmʊg***^{ɔ} *pl yàmmɪs*^{ɛ} *cb yàm- n.* slave
yānám^{a} you *pl (contrastive)*; ***yānámì*** you *pl (subject of ǹ-clause)* 16.3.1
Yārɪg$^{a/}$ *pl Yārɪs*$^{ɛ/}$ *cb Yār- n.* Yarsi person; also called Kantonsi; said to have been originally of Manding/Dyula origin
Yāt$^{ɛ/}$ *n.* Yarsi language (no longer Dyula/Bambara, but a Western Oti-Volta language)
yàʊg^{ɔ} *pl yàad*^{ɛ} *n.* grave, tomb
yɛ̄ that 26
yɛ̄ be about to ... 19.3.4
yɛ̀$^{+}$ *dv.* dress oneself; *res adj* ***yɛ̀ɛlʊ́ŋ***^{ɔ} worn (e.g. of a shirt)
yɛ̀ɛg^{ɛ} *dv.* undress oneself
yɛ̀ɛl^{ɛ} *dv.* dress someone
yɛ̄ɛs$^{ɛ/}$ *dv.* betray a secret
yɛ̀l^{ɛ} *ipfv yɛ̀t*^{a} *ger yɛ̀lʊg*^{ɔ} *dv.* say, tell
yɛ̄l$^{lɛ/}$ *pl* ***yɛ̄lá***$^{+}$ (*as postposition:* about 17.6) *cb yɛ̄l- n.* matter, affair; ***yɛ̄l-mɛ́ŋìr***^{ɛ} *n.* truth; ***yɛ̄l-nárʊ̀ŋ***^{ɔ} *n.* necessity; ***yɛ̄l-pákìr***^{ɛ} *n.* disaster; ***yɛ̄l-sʊ́'adìr***^{ɛ} *n.* confidential matter; ***yɛ̄l-sʊ́m***^{mɛ} *n.* blessing 16.11.1.1
yɛ̄ŋím^{m} *dv.* oscillate (like waves)
yɛ̀og^{ɔ} *pl yɛ̀ɛd*^{ɛ} *n.* bird's crop; person displaced from family (KED)
yɛ̄óŋ *q.* one, *in counting* 16.4.2.2
yī$^{+}$ *ipfv yīt*$^{a/}$ *imp yìm*^{a} *dv.* go, come out
yìdɪg^{ɛ} *dv.* go astray
yīdɪg$^{ɛ/}$ *dv.* untie
yìər^{ɛ} *n.* jaw
yīigá$^{+}$ *q.* firstly 16.4.2.3; former 16.7; ***yīig-sɔ́b***^{a} *n.* first person 16.10.4
yīis$^{ɛ/}$ *ger yīisíb*^{ɔ} *dv.* make go/come out, extract
yīmmír^{ɛ} *pl yīmmá*$^{+}$ *cb yīm- adj.* solitary, lone 16.4.2.3
yīmmʊ́$^{+}$ *adv.* straight away, at once 16.4.2.4
yīnní$^{+}$ *q.* one 16.4.2.1
yìŋ^{a} *adv.* outside
yīr$^{ɛ/}$ *pl yā*$^{+/}$ *cb yī- n.* house; ***yī-dáàn***^{a} *n.* householder; ***yī-sɔ́b***^{a} *pl yī-sɔ́b-nàm*^{a} *n.* householder; ***yī-dím***^{a} *n.* members of the household; ***yī-pɔ́ňrʊ̀g***^{ɔ} *pl yī-pɔ́ňrà*$^{+}$ *n.* neighbouring house; ***yī-sígɪdìr***^{ɛ} *n.* lodging-house; ***yín***^{nɛ} at home *pl yáan*^{ɛ}
yīs^{ɛ} *dv.* make go/come out, extract
yīu̯ŋ$^{ɔ/}$ *pl yīná*$^{+}$ *adj.* single- 16.11.1.4
yɔ̀$^{+}$ *dv.* close; *res adj* ***yɔ̀ɔlʊ́ŋ***^{ɔ} closed
yɔ̄$^{+n}$*vv.* pay; *ger* ***yɔ̄ɔd***$^{ɛ/}$ *n.* pay
yɔ̄lɪs$^{ɛ/}$ *dv.* untie

yɔ̄lɪsím^{m} *n.* freedom
yɔ̄lʊg$^{ɔ/}$ *pl yɔ̄n*$^{nɛ/}$ *cb yɔ̄l-* *n.* sack, moneybag, £100, ¢200 (200 cedis)
yɔ̀'ɔg^{ɛ} *dv.* open
yɔ̀ɔr^{ɛ} *pl yɔ̀ya*$^{+}$ *cb yɔ̀-* *n.* soldier ant
yu̯à$^{+}$ *dv.* bleed; *also* fornicate WK
yùbɪg^{a} *pl yùbɪs*^{ɛ} *cb yùb-* *n.* small bottle-like pot
yūgʊdɪr^{ɛ} *pl yūgʊda*$^{+}$ *cb yùgʊd-* *n.* hedgehog
yʊ̄gʊ́m^{mɛ} ***yʊ̄gʊ́m***^{nɛ} *pl yʊ̄gʊmá*$^{+}$ *cb yʊ̄gʊm-* *n.* camel
yùlɪg^{ɛ} *dv.* swing *(transitive)*
yūň'e$^{+/}$ *dv.* set alight
yū'ɵr^{ɛ} *pl yu̯āda*$^{+}$ *cb yù'ɵr-* *n.* penis
yùug^{ɛ} *dv.* get to be a long time, delay; *Tì yúùg nɛ̄ tāaba.* It's a long time since we met.
yùul^{ɛ} *dv.* swing *(intransitive)*
yʊ̄'ʊm$^{m/}$ *dv.* sing; *agt* ***yʊ̄ʊm-yʊ́'ʊ̀m***^{na} *pl yʊ̄ʊm-yʊ́'ʊ̀mnɪb*^{a} *n.* singer
yʊ́'ʊm^{nɛ} *pl yʊ̄'ʊmá*$^{+}$ *cb yʊ̄'ʊm-* or *yʊ̄ʊm-* *n.* song
yʊ̀ʊm^{mɛ} *pl yʊ̀ma*$^{+}$ *cb yʊ̀ʊm-* *n.* year; ***yʊ̀ʊm-pāalíg***^{a} *n.* new year
yʊ̄'ʊn then, next 21.2.3
yʊ́'ʊŋ^{ɔ} *pl yʊ̄'ʊmís*^{ɛ} *cb yʊ̄'ʊŋ-* *n.* night
yʊ̄'ʊr$^{ɛ/}$ *pl yʊ̄dá*$^{+}$ *cb yʊ̄'-* *n.* name
yʊ̄ʊr^{ɛ} *pl yʊ̄ya*$^{+}$ *cb yʊ̀-* *n.* water pot

Z

zā$^{+/}$ *cb zā-* *n.* millet
zāalíg^{a} ***záal***^{lɛ} *pl zāalís*^{ɛ} *zāalá*$^{+}$ *cb zāal-* *adj.* empty
zāalím^{m} *adv.* emptily
zàam^{m} *cb zà-* *n.* evening; ***zà-sìsɔ̄bɪr***$^{ɛ/}$ *n.* evening
zàaňsɪm^{m} *dv.* dream
zāaňsím^{m} *cb zāaňs-* *n.* soup; *soup in general, not "fish soup" despite Mampruli zaasim "fish"; cf Toende zãasím "soupe à viande" (Niggli)*
zàaňsʊ́ŋ^{ɔ} *pl zàaňsímà*$^{+}$ *cb zàaňsʊ́ŋ-* *n.* dream
zàb^{ɛ} *ger zàbɪr*^{ɛ} *dv.* fight; hurt (of body part); *agt* ***zàb-zàb***^{a} *n.* warrior; *agt* ***gbān-záb***^{a} *n.* leather-beater, leather-worker
zàbɪl^{ɛ} *dv.* cause to fight
zàk^{a} *pl zà'as*^{ɛ} *cb zà'-* *n.* compound; ***zà'-nɔ̄ɔr***$^{ɛ/}$ *n.* gate; ***zà'-nɔ̄-gúr***^{a} *n.* gatekeeper
zàkɪm^{m} *dv.* itch
zàlɪŋ^{a} *pl zàlɪmɪs*^{ɛ} *cb zàlɪŋ-* *n.* electric eel
zàm^{m} *ipfv zàmmɪd*^{a} *dv.* cheat; *agt* ***zàm-zām***^{na} *n.* cheat
zà'mɪs^{ɛ} *dv.* learn, teach
zāň'a$^{=}$ *q.* every 16.4.1

zàǎ'as^{ɛ} *dv*. refuse
zàǎbɪl^{ɛ} *dv*. tattoo, mark skin
zāǎbɪn^{nɛ} *pl* *zāǎbɪna*$^{+}$ *cb* *zàǎbɪn-* *n*. tattoo; NT sign 12.2.2
Zàngbɛ̀ɛl^{ɛ} *n*. Hausa language
Zàngbɛ̀og^{ɔ} *pl* *Zàngbɛ̀ɛd*^{ɛ} *n*. Hausa person
zàngùɵm^{mɛ} *pl* *zàngùɵma*$^{+}$ *cb* *zàngùɵm-* *n*. wall
zànkù'ar^{ɛ} *pl* *zànkᵾ'àa*$^{+}$ *zànkù'ada*$^{+}$ *cb* *zànkᵾ'à-* *n*. jackal
zāǎl$^{la/}$ *ger* *zāǎllím*^{m} *sv*. be holding, carrying in hands
zàǎl^{lɛ} *n*. umbilicus
zàŋ^{ɛ} *dv*. pick up, take up
zɛ̄m$^{ma/}$ *ger* *zɛ̄mmúg*^{ɔ} *sv*. be equal
zɛ̄'mɪs$^{ɛ/}$ *dv*. make equal
zɛ̄mmúg^{ɔ} *pl* *zɛ̄mmá*$^{+}$ *cb* *zɛ̄m-* *adj*. equal
zī$^{+}$ *ger* *zīid*$^{ɛ/}$ *dv*. carry on one's head; *agt* **zī-zíìd^{a}** *n*. carrier on the head
zɪ'$^{+}$ *ger* *zɪ'ılím*^{m} *sv*. not know 19.5.1; *agt* **zɪ'ɪd$^{a/}$** *n*. ignorant person
zì'e^{ya} *ger* *zī'a*$^{+}$ KED; DK KT *zī'əg*^{a} *(exceptional phonology* 15 12.2.1.2*) sv*. be standing
zì'əl^{ɛ} *dv*. make to stand; *zì'əl nɔ̄ɔr*$^{ɛ/}$ promise, command; *with* *n tìs* X: promise to X
zì'ən^{ɛ} *dv*. stand still; *Ò zì'ən nɛ̄.* She's pregnant.
zīɪm$^{m/}$ *cb* *zī-* *n*. blood
zíiŋ^{a} *pl* *zīmí*$^{+}$ *cb* *zīm-* *n*. fish; **zīm-gbáǎ'àd^{a}** *n*. fisherman
zìlɪm^{mɛ} *pl* *zìlɪma*$^{+}$ *cb* *zìlɪm-* *n*. tongue
zīlɪnzíùg^{ɔ} *adj*. unknown
zím *ideophone for* *sābɪlíg*^{a} black 16.11.1.3
zīná$^{+}$ today 30.8
zìǎ'a^{+} zɛ̀ǎ'ʊg^{ɔ} *pl* *zɛ̀ǎ'ɛd*^{ɛ} *zɛ̀ǎ'ɛs*^{ɛ} *zɛ̀ǎda*$^{+}$ *cb* *zɛ̀ǎ'-* *adj*. red
zìǎ'i^{ya} *sv*. be sitting; *ger* **zīǎ'ig^{a}** *pl* *zīǎ'is*^{ɛ} *cb* *zìǎ-* *(also* place*)*
zìǎ'il^{ɛ} *dv*. make sit, seat
zìǎ'in^{ɛ} *dv*. sit down
zīnzāᵾŋ$^{ɔ/}$ *pl* *zīnzāná*$^{+}$ *cb* *zīnzáᵾŋ-* *n*. bat
zīrí$^{+}$ *n*. lie, untruth
zɔ̀$^{+}$ *ipfv* *zɔ̀t*^{a} *imp* *zɔ̀m*^{a} *dv*. run; fear; experience emotion; *ger* *zūa*$^{+}$ *zɔ̄ɔg*^{ɔ} run;
imperfective ger **zɔ̀tɪm^{m}** fear 13.2.1.4 *Ò zɔ̀t·ō nīn-báalìg.* He has pity on him
zɔ̄l^{ɛ} *dv*. castrate
zɔ̄lɪmís^{ɛ} *n*. foolishness
zɔ̄lʊg$^{ɔ/}$ *pl* *zɔ̄n*$^{nɛ/}$ *cb* *zɔ̄l-* *n*. fool
zɔ̄m$^{m/}$ *cb* *zɔ̄m-* *n*. flour
zɔ̄ɔm^{mɛ} zɔ̄ɔm^{nɛ} *pl* *zɔ̄ɔma*$^{+}$ *cb* *zɔ̀ɔm-* *n*. refugee, fugitive
zɔ̄rɪg$^{a/}$ *n*. small child WK
zɔ̄rʊg$^{ɔ/}$ *pl* *zɔ̄rá*$^{+}$ *n*. piece
zū$^{+}$ *dv*. steal

zu̱à$^{+}$ *pl* *zu̱à-nàm*^{a} *cb* *zu̱à-* *n.* friend

Zùa^{+} *pl* *Zùɔs*^{ɛ} *n.* member of clan Zoose; *pl* *Zu̱à-wìis*^{ɛ} *Zu̱à-wìib*^{a}, *pl* *Zu̱à-sābılís*^{ɛ} *subclans of Zoose*

zù'e^{+} *dv.* get higher, more

zùe^{+} *dv.* perch, get on top *(? variant of zù'e*$^{+}$*)*

zūg$^{ɔ/}$ *pl* *zūt*$^{ɛ/}$ *cb* *zūg-* *zū-* 9.2.2 *n.* head; *as postposition* 17.6; ***zūgú-n***^{ɛ} *is also used as a postposition*; ***zūg-dáàn***^{a} *n.* boss, master (replaces *zūg-sɔ́b*^{a} in KB for meanings other than "the Lord"); ***zūg-kūgʊr***^{ɛ} *pl* *zūg-kūga*$^{+}$ *cb* *zūg-kúg-* *n.* pillow; ***zūg-máu̱k***^{ɔ} *pl* *zūg-má'àd*^{ɛ} *adj.* crushed-headed 16.11.1.4; ***zūg-sɔ́b***^{a} *n.* boss; NT Lord (often read as *zū-sɔ́b* in the audio NT); ***zū-pɛ́ɛlùg***^{ɔ} *pl* *zū-pɛ́ɛlà*$^{+}$ *adj.* bald 16.11.1.4; ***zū-píbìg***^{a} *n.* hat

zùlıg^{ɛ} *dv.* deepen

zùlım^{ma} *sv.* be deep

zùlʊŋ^{ɔ} *pl* *zùlıma*$^{+}$ *cb* *zùlʊŋ-* *adj.* deep

zùlʊŋ^{ɔ} *n.* depth

zùnzɔ̀ŋ^{a} ***zùnzɔ̀ŋ***^{ɔ} *pl* *zùnzɔ̀ɔ̌ns*^{ɛ} *cb* *zùnzɔ̀ŋ-* *n.* blind person

zūʊbúg^{ɔ} *pl* *zūʊbíd*^{ɛ} *cb* *zūʊb-* *n.* hair (of human head); see *kɔ̄ňbʊg*^{ɔ}

zùʊd^{ɛ} *n.* friendship

zùʊl^{ɛ} *dv.* make to perch

zū'ʊm$^{m/}$ *pl* *zū'ʊmís*^{ɛ} *cb* *zū'ʊm-* *n.* blind person

zū'ʊm$^{m/}$ *dv.* go blind, make blind

zùʊn^{ɛ} *dv.* begin to perch

zūʊr^{ɛ} *pl* *zu̱ēya*$^{+}$ *cb* *zu̱à-* *n.* hill

zùʊs^{ɛ} *dv.* befriend

zūríf^{ɔ} *pl* *zūrí*$^{+}$ *cb* *zūr-* *n.* dawadawa seed

zʊ́ʊňf^{ɔ} *pl* *zʊ̄ʊní*$^{+}$ *n.* dawadawa seed

zùuňg^{ɔ} *pl* *zùuňs*^{ɛ} *zùuňd*^{ɛ} *cb* *zùň-* *n.* vulture

zʊ̄ʊr^{ɛ} *pl* *zʊ̄ya*$^{+}$ *cb* *zʊ̀-* *n.* tail; ***zʊ̀-wɔ̄k***$^{ɔ/}$ *adj.* long-tailed 16.11.1.4