

MUNGBAM GRAMMAR

by

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Oh! Amos Cottle! for a moment  
think  
What meagre profits spread from  
pen and ink

---

Lord Byron

If you receive a bribe, include it in  
your income.

---

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Yo a vuestra alteza presento lo que  
mío no es, bien así como las  
abejas que roban la sustancia de  
las melifluas de los huertos agenos  
y la traen a cuestras y anteponen a  
la su maestra.

---

Juan de Mena, preface to his  
c. 1442 translation of *The Illiad*

You too can be a toxicologist in  
two easy lessons, each of ten years.

---

Arnold Lehman

Elles ressemblent au critique  
littéraire d'aujourd'hui, qui, sous  
quelques rapports, peut leur être  
comparé, et qui arrive à une  
profonde insouciance des formules  
d'art: il a tant lu d'ouvrages, il en  
voit tant passer, il s'est tant  
accoutumé aux pages écrites, il a  
subi tant de dénouements, il a vu  
tant de drames, il a tant fait  
d'articles sans dire ce qu'il pensait,  
en trahissant si souvent la cause de  
l'art en faveur de ses amitiés et de  
ses inimitiés, qu'il arrive au dégoût  
de toute chose et continue  
néanmoins à juger.

---

Balzac, *Les splendeurs et misères  
des courtisanes*

# Dedication and Acknowledgements

## Dedication

For Na.

## Personal remarks and attestation of faith

It is in order to make general remarks in favor of peace in the beginning of a book,<sup>1</sup> so I think it is fit to say here that I think people should avoid fighting as far as possible. Specifically, when people are drinking they should be laughing and dancing instead of gambling<sup>2</sup> or quarrelling.

## Acknowledgements

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<sup>1</sup> See Flanagan (2002:i), where peace is lauded in a book otherwise unrelated to the topic of conflict resolution, as a precedent.

<sup>2</sup> See Trollope (1875: *passim*) for a fictional account of how gambling, especially while drinking, can invite adverse consequences.

BSC-0853981). Grammars rarely get written without government support for the humanities.

A special debt of gratitude is due Mr. Ngong George Bwei Kum. George's assistance to linguists working in Cameroon dates back to 1979, when he assisted members of the the Grassfields Bantu Working Group, including Jean-Marie Hombert and Larry Hyman, as a Naki consultant. Data from "Mekaf" reported in Hombert (1980) was elicited from George. One of Dr. Hyman's PhD students, Jeff Good, who is my principal advisor for this dissertation, travelled to Cameroon in 2005, managing to make contact with George and resume work on the description of Naki. When I travelled to Cameroon in 2010 and 2012 to do field work for this dissertation, George helped me with various logistical challenges in Bamenda, Wum and Lower Fungom, arranging meetings with consultants and introducing me to the chiefs of the Mungbam villages. Because I am (sensibly) afraid of travelling by motorcycle and because George does not mind walking long distances and knows the main walking trails in Lower Fungom, we went twice together on the six-hour walk from Ngun to Weh, stopping at his brother's house in Mekaf for lunch. It would not be an exaggeration to say that the body of scholarship now available on the languages of Lower Fungom would not be nearly the same quality and quantity as it is now if not for his continuing dedication to the project; dedication which has outlasted most of the scholars who have worked in the region.

James Tegha Attia hosted me at his Wum house during both of my field trips. It was always pleasant to converse with Pa Attia while I wasn't working; Pa proved to be an enabler, as it were, for most of my leisure activities: he arranged for me to have lessons in the brewing of *shah* (honey beer), and was always agreeable whenever I wanted to kill a fowl (and in one case a turkey) for a Sunday meal. The Attia household was only habitable for the hard work of Mrs. Attia and three of the Attia daughters, Bridget, Ethel and Eveline, who cooked most meals for

me and washed my clothes sometimes. Bridget taught my wife to prepare about a dozen different Cameroonian dishes, some of which we still enjoy occasionally in the States.

Linguistic consultants who have made this work possible are acknowledged by name in § 1.3.1.

I thank my dissertation committee members: Jeff Good, Matthew Dryer and David Fertig. My principal advisor, Jeff Good, has provided literally hundreds of suggestions for improvements in this dissertation. Over the course of my five years at the University at Buffalo, we have often had the occasion to share our impressions on a variety of literature, and he has always been quick to steer me in a suitable direction if I have shown signs of being influenced by any sort of hare-brained scholarship. Dr. Good has arranged for the funding of both of my field trips, and most importantly responds to emails fast. Very fast. Aside from Dr. Good, Pierpaolo Di Carlo and Rebecca Voll, fellow Western scholars of the Lower Fungom area, have always been helpful in discussing ideas.

In 2011–2012, I collaborated with Alice Mitchell and Natsuko Nakagawa in producing a sketch grammar of Wala (ISO 693-3 [lg1]) on the basis of a New Testament translation. The corpus-based method we used for collecting examples of relevant grammatical phenomena, and testing our generalizations, was quite similar to the system I have used in the present work: typing all of my texts into an ASCII format and then developing some simple command-line tools for searching through the digitized corpus. The project was originally an assignment for a graduate seminar taught by Matthew Dryer, who encouraged us to prepare the grammar for publication and provided thorough comments on an early version. Of course, I am thankful to these three people since the experience of writing the Wala grammar gave me an idea of the task I was up against as I began this Mungbam grammar.

Hiroto Uchihara and Adam Sposato are acknowledged for helping me to maintain something of an *esprit de corps* with my graduate cohort. There are so many other people to thank, and I just know I will forget someone. . . <sup>3</sup>

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<sup>3</sup>Redacted.

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# List of Abbreviations

Single-word examples are mostly displayed inline or in tables. Phrase- and sentence-length examples are displayed as blocks and numbered in the format  $(i.j)$ , indicating that the example is the  $j^{th}$  example of chapter  $i$ . These examples are presented with interlinear glosses, and follow the Leipzig glossing conventions (Bickel et al., 2008) insofar as possible. Abbreviations used in Mungbam examples are summarized below in table 1.<sup>4</sup>

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<sup>4</sup> Examples occasionally appear for other languages, and unfamiliar glosses are explained in footnotes immediately following.

---

(A)	verb class a	IPFV	imperfective
(B)	verb class b	IRR	irrealis
(C)	verb class c	LOC	locative postposition
1 . . . 3	first . . . third person	CL16-	general locative prefix
ADJ	adjective	LOC.OBJ	locative object
CL <i>n</i>	noun class <i>n</i>	D.NEG	‘D’ negative morpheme
CLSBRK	clause break	S.NEG	‘S’ negative morpheme
COM	comitative	NEG	perveral negative morpheme
COMP	complementizer	NMLZ2	‘disability’ nominalizer
COND	conditional	P0	recent past
COP	copula	P1	hodial past
L.COP	‘L’ copula	P2	pre-hodial past
B.COP	‘B’ copula	P3	remote past
D.COP	‘D’ copula	PART	discourse particle
DAT	dative	PFV	perfective
DEB	debitive	PL	plural
DEM.PROX	proximal demonstrative	POSS	possessive pronoun
DEM.DIST	distal demonstrative	PREP	preposition
DET	definite determiner	PRF	perfect
DS	dummy subject	REL	relativizer
EXCL	exclamation	SG	singular
FRUST	frustrative	TOP	topic marker
FUT	future	VENT	ventive
HYP	hypocoristic	VET	vetitive
IDEO	ideophone	VFOC	verum focus
INF	infinitive	VOC	vocative
??	no gloss identified		

---

Table 1: Table of glossing abbreviations.

# Abstract

This dissertation is an attempt to state what is known at present about the grammar of Mungbam (ISO 693-3 [mj]). Mungbam is a Niger-Congo language spoken in the Northwest Region of Cameroon. The dissertation is a descriptive grammar, covering the phonetics, phonology morphology and syntax of the language. Source data are texts and elicited data collected during two field trips by the author: a six month trip during the first half of 2010, and a one month trip during April–May 2012.





# Chapter 1

## Language and field setting

This dissertation is an attempt to state what is known at present about the grammar of Mungbam (ISO 693-3 [mi.j]). Mungbam is a name coined by the author to refer to the related lects spoken in the villages of MUUnken, NGun, Biya, Abar and Missong,<sup>1</sup> in Northwest Cameroon. Due to the differences between the lects, Mungbam would properly be referred to as a “dialect cluster” rather than as a “language” (Di Carlo and Pizziolo, 2012: 160), but the latter term will be retained for simplicity. The language was called “Missong” in the *Ethnologue* (Lewis et al., 2013) through its fourteenth edition, and was called “Abar” in the fifteenth and sixteenth editions. A name change was enacted in early 2013, and the language is now listed as “Mungbam” in the *Ethnologue*.

This first chapter gives various bits of preliminary information which must preface the linguistic data. Basic facts about the geographic and sociolinguistic setting of the language are given in § 1.1. Section 1.2 discusses previous published and unpublished work on Mungbam. Section 1.3 contains a description of the nature, quantity and quality of data underlying this description, and how it was

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<sup>1</sup> The *r* is not pronounced in *Abar*.

collected. Section 1.4 discusses the relative levels of coverage achieved for the five dialects. Sections 1.5–1.6 are directed towards the reader, discussing interactive features of the PDF version of this dissertation and the glossing and annotation conventions employed. Finally, §1.7 discusses the organization of the remainder of the dissertation.

This work is descriptively oriented, and contains only as much theoretical information as is deemed necessary to give a precise presentation. The intended audience is scholars of African languages and typologists.

## 1.1 Language setting

### 1.1.1 The name ‘Mungbam’

Even though Munken, Ngun, Biya, Abar and Missong are treated in this dissertation as dialects of one language, people from the area where they are spoken would generally reject the idea that the people of say, Munken, speak the same language as the people of, say, Biya. It would not be controversial to state that Munken and Biya ‘rhyme’, or that a person from Munken can easily understand the language spoken in Biya, but Munken and Biya could scarcely be considered to be “the same language” any more than Munken and Isu (a neighboring Bantoid language of the West Ring family) could. On the other hand, Munken and Biya are obviously mutually intelligible.<sup>2</sup> One lengthy text in my corpus is in fact a conversation between a Biya woman and a Munken woman, each speaking their own dialect, without any indication of difficulty in communicating.<sup>3</sup> Because the dialects are very closely related, and can be described (as they are here) as sharing a common

<sup>2</sup> This is my assessment based on familiarity with both dialects. It is not clear to what extent the apparent ability of Munken speakers to understand Biya is acquired by contact with Biya people.

<sup>3</sup> See also remarks in Di Carlo and Pizziolo (2012: 161)

grammatical system, an artificial name has been designated for communication among linguists.<sup>4</sup> It is to be pronounced [mùŋ.gbàm], which (in most Mungbam dialects) is homophonous with a word referring to a variety of grass which grows in Lower Fungom.

### 1.1.2 Geographic setting

Mungbam is spoken in five villages in the Lower Fungom region of Cameroon, Northwest Region, Menchum Division, Wum Subdivision. The English names of the villages are Munken, Ngun, Biya, Abar and Missong. The Lower Fungom area, depicted in figure 1.1 (p. 4), is host to at least seven different languages, five of which do not have close relatives outside of Lower Fungom.

### 1.1.3 Sociolinguistic setting

The lects spoken in the five Mungbam villages, Munken, Biya, Ngun, Abar and Missong, are all noticeably different from each other.<sup>5</sup> From the standpoint of mutual intelligibility, Missong would likely be considered a separate language; non-Missong linguistic consultants who did not attend grade school in Government School Abar-Missong<sup>6</sup> claimed to be unable to understand Missong fully, and were seen to converse with Missong people in Pidgin English.

The origins of the English names for the Mungbam villages are in some cases very close to indigenous names for the village or its people, while in other cases the relationship is not fully clear (see table 1.1). The name *Za?*, by which Biya is referred in some older works, is apparently of Kung (a Central Ring language of Lower Fungom, ISO 639-3 [kf1]) origin, and its use is dispreferred. Table 1.1 gives

<sup>4</sup> And I don't expect or intend it to be used for any other purpose.

<sup>5</sup> Naïve linguists have in the past been able to discover noticeable differences in vocabulary within 5–10 minutes of elicitation.

<sup>6</sup> With reference to the map in figure 1.1, the school is along the road leading between Abar and Missong, near the path branching off towards Munken.

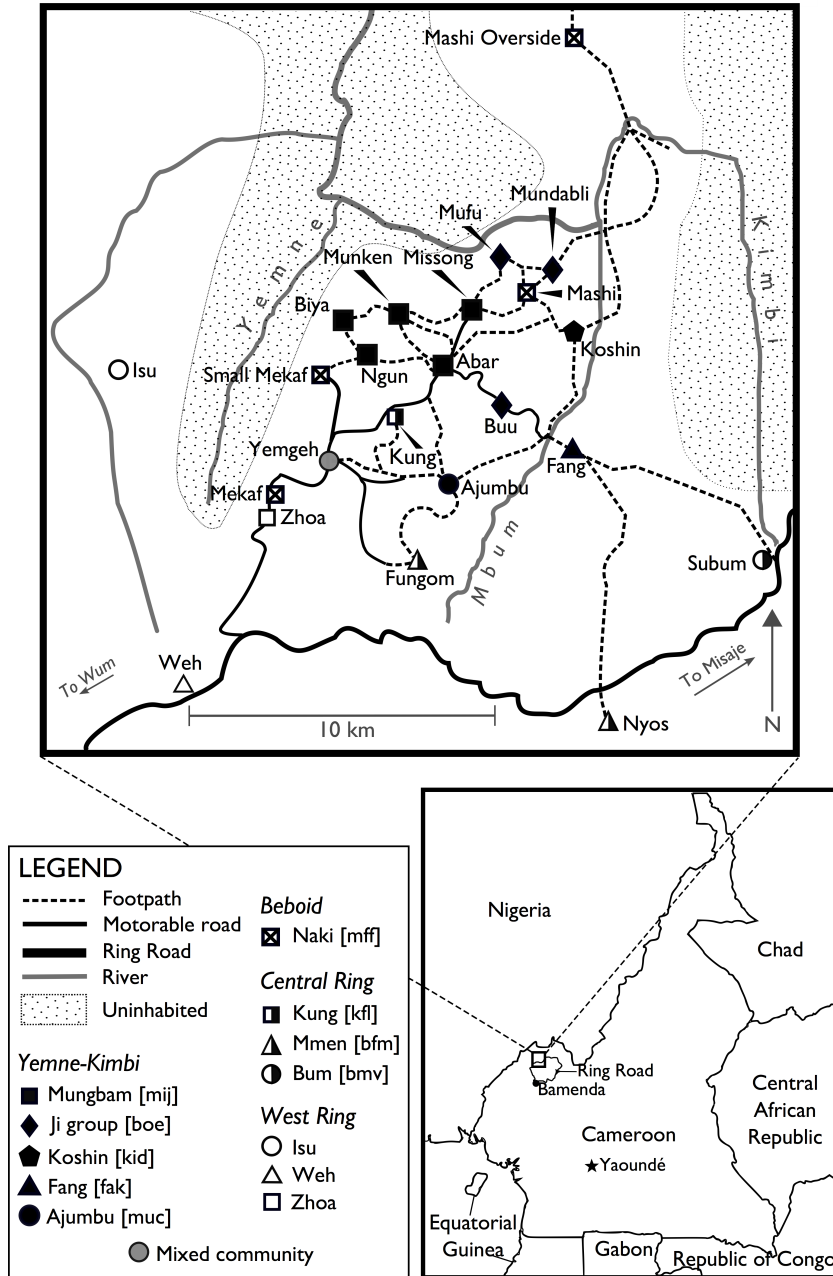


Figure 1.1: Lower Fungom and surrounding area (Good et al., 2011)

the indigenous names for each of the Mungbam villages as well as the associated ethnonyms. My records do not contain an Abar word for Abar people, or an Ngun word for Ngun people, so Munken and Abar words are substituted in these cases.

English Name	Village name	Ethnonym
Biya	újà	bì-jà
Missong	bì-ḡūn	bì-ḡūn
Munken	̀ntsàn	bā-ntsàn
Abar	úbà	bā-bàlè (MK)
Ngun	̀nsún	(b)ì-gùn (AB)

Table 1.1: Local village names and ethnonyms. (MK)/(AB) indicates that the autonym is not known, and so the word from Munken/Abar is substituted.

All of the Mungbam varieties are spoken within their respective villages by all residents of all ages, and the language is being learned by children. Monolinguals, however, are generally not found in Lower Fungom, since most people have some familiarity with Pidgin English and may be capable of conversing in the other languages spoken in nearby villages.

Contact between speakers of the five dialects is very frequent. A public primary school called Government School [GS] Abar-Missong is attended by mostly children of Abar, Missong, and Munken, placing them in daily contact. GS Bati enrolls many Biya and Ngun children. There are markets held every eight days in Abar and also in Yemgeh. On two occasions when I visited Abar market, I met people from all five villages. When visiting Yemgeh market, I met people from Ngun, Biya and Munken. Each village has a day of rest locally called (in Pidgin) ‘Country Sunday’, and people often visit a neighboring village’s Country Sunday to participate in the meetings of micro-savings and loan organizations (called *Njangí* in Pidgin, *Tantine* in French), or to make merry with friends and family. As figure 1.1 shows, there are multiple footpaths connecting the five villages. Although there is no proper footpath connecting Ngun and Munken, on a visit to Ngun I

have seen Munken people passing through Ngun along an uncleared trail that leads to Yemgeh.<sup>7</sup> Moving at a reasonable pace, one can travel from Biya to Ngun in 30 minutes, from Munken to Biya (climbing a steep hill) in about one hour, and between Munken and either Missong or Abar in about one and a half hours. The road from Abar to Missong, which is passable by motorcycle or (in fair weather) by four-wheel drive pickup, can be travelled in about 45 minutes' walking time.

While sociolinguistic studies concerned with Mungbam have not been undertaken, ongoing research by Pierpaolo Di Carlo and collaborators<sup>8</sup> has concerned the language ecology, history and traditions of Lower Fungom, and encompasses several Mungbam varieties.

## 1.2 Previous research on Mungbam

There is very little previous published data on Mungbam in the linguistics or other literature, and it will be possible to more or less exhaustively list all of the relevant work here. Hombert (1980) includes a sketch of the noun class system of Missong. A SIL survey described in Hamm et al. (2002) includes a wordlist of 126 items for Abar and Missong (though tone is not marked), and proposes Abar as the reference dialect. Data collected between 2005 and 2008 by Jeff Good and Scott Farrar, concerning mostly noun class systems and vowel ablaut in verb stems, has been the subject of a handful of conference presentations (e.g. Farrar and Good (2008); Good and Lovegren (2009)). Good et al. (2011), who first proposed the label Mungbam (the group of dialects had previously been referred to as “Fən” by the same group of scholars), include a basic outline of the phonological and morphological systems for each of the five Mungbam dialects. Di Carlo (2011)

<sup>7</sup> The dashed footpaths in figure 1.1 tend to be cleared of brush somewhat regularly by labor crews.

<sup>8</sup> See, for example, Di Carlo (2011, 2012); Di Carlo and Pizziolo (2012); Di Carlo and Good (2013).

is an attempt at reconstructing the history of the settlement of Lower Fungom, and discusses settlement patterns for all of the Mungbam-speaking villages. Good (2012), a more theoretically-oriented work written in 2010, contains Mungbam data.

An unpublished Master's qualifying paper by the present author (Lovegren, 2011b) and a subsequent unpublished manuscript (Lovegren, 2011a) (originally submitted as a journal article) deal with the phonetics of the vowel contrasts in Mungbam. These works are superseded by the material to be presented in §3 of this dissertation. Lovegren (2012a) is a short conference paper aimed at establishing the stem-initial syllable of Mungbam nouns and verbs as a fixed accentual position. Lovegren (2012b) is another short conference paper concerned with the question of whether tonal alternations on possessed nouns in Munken should be regarded as suppletive. Lovegren and Voll (2013), which was mostly written in early 2012 (and is not yet published at the time of writing), describes relative clause constructions in Mungbam and Mundabli (a Yemne-Kimbi language of Lower Fungom; ISO 639-3 [boe]).

### 1.3 Field setting and data collection methods

Data were collected during two field trips to Cameroon: a six month trip during the first half of 2010, and a one month trip during April–May 2012. Most interviews were conducted in Wum<sup>9</sup> with Lower Fungom natives who were temporarily living in Wum or were visiting Wum. During the 2010 trip I made several short trips to Lower Fungom. The major purpose of these trips was to record texts which could be analyzed with the assistance of my regular Wum-based consultants.

Linguistic data were collected in the form of texts and elicited data. Texts

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<sup>9</sup>Wum is a medium-sized town about 10 km southwest of Weh.

cover a variety of genres, including traditional folktales, conversations, personal histories, prayers and devotions, and ritual or official speeches. Roughly 60% of time with consultants was spent in elicitation, and the remainder in transcribing and translating texts. There is a sort of tension (cf. Evans 2008:346–8) in the community of documentary linguists between those who consider naturalistic texts to be the only fully legitimate source of data for a grammar, and those who find that certain information uncovered by elicitation will not be found in a text corpus of any size.

My position is that example sentences drawn from naturally-occurring speech are generally to be preferred. A close study of naturalistic data does, in my experience, lead to a more nuanced picture of the overall grammatical patterns in a new language. The value of elicited examples, however, becomes clear when practical issues in the grammar-writing ecology are considered. I think that to test hypotheses that are developed through an examination of texts, the only practical way for a visiting field linguist with typical time constraints is to make extensive use of structural elicitation. Evans (2008:347) points to the example of the use of such phrases as ‘chief’s beetle’s kidney basket’ by Hyman (2007) as providing evidence of the type which could not be encountered even in a corpus of infinite size (2008:347). Evans’ point seems hyperbolic. Fluent speakers of a language learn to use their language through exposure to other speakers. If a native speaker is asked to produce a sentence of the type he/she has never encountered before, and there are two (or more) reasonable conjectures (based on analogy to similar construction types) about what form the sentence should have, the consultant will not have any better idea<sup>10</sup> than the linguist about what the “correct” form is. Consider, for example, the remarks by Hyman (1986:121–2) on apparent minor differences in the tonal phonology of two Ngamambo speakers, one of whom Hyman collaborated

<sup>10</sup> A native speaker will, of course, express his/her conjecture with more confidence!



with in Asongwed and Hyman (1976), and another interviewed about ten years later, apparently from the same village.<sup>11</sup> I don't think, as is claimed in Evans (2008), that elicitation can provide high quality data of the sort that a suitably diverse and large corpus couldn't. It's just that elicitation is the only feasible way for the average foreign linguist with the usual time constraints to get certain types of data.

When suitably directed, elicitation is capable of providing an accurate picture of most all the categorical phenomena in a language's grammar, and they are arrived at by a shortcut method. This aspect of elicitation is especially pertinent in a work such as the present one, which is based on a relatively small amount of field data, and which has as its aim a broadly-based description of an entire language. Elicitation has, accordingly, been used to a considerable extent to clarify patterns observed in texts.

One advantage of a heavily text-based approach to a language description is the fact that elicited data is usually *single purpose*; that is, it is intended to provide an illustration of exactly one grammatical phenomenon. Naturalistic data, on the other hand, are more frequent than not *multipurpose*; because naturalistic example sentences are more complicated, they usually serve to exemplify more than one grammatical phenomenon. Because of their grammatical complexity, naturalistic examples can be distracting to readers, and so an elicited sentence tends to be the best way to clearly exemplify a particular type of structure to the audience of linguists unfamiliar with the language of study. But because of their richness, text examples are more valuable to the grammarian who is working under the usual time constraints. In the present case, there was simply not enough time

<sup>11</sup> The 1976 speaker pronounced a phonemic M (mid) and 'M (lower-mid) tone differently after a "linked" L (low) tone, but not the 1986 speaker. Hyman uses scare quotes in referring to the variety of Ngamambo spoken by the second consultant as a « second "dialect" » (1986: 122).<sup>12</sup>

<sup>12</sup> Hyman's scare quotes might be a sort of reference to the "my dialect—your dialect—gambit" of the early generative era (Bar Hillel, 1971: 403–4), which still enjoys occasional recrudescences.

for detailed elicitation on every topic which has been discussed in this dissertation. For quite a few phenomena, the generalization offered here occurred to me after the end of my second (and last) fieldtrip. In these cases, I was able to find evidence for or against a particular analysis because the text corpus of approximately 40,000 words, though relatively small compared to those underlying other published grammars, was large and diverse enough.

Another issue which should be confronted before starting concerns the accuracy of the transcriptions. Here might be a convenient place to collect a few quotations from other scholars who have studied languages in the Cameroonian Grassfields:

- (On the languages of the “ $\text{ŋK}\text{ɔ}\text{M}$ ” group) “There are numerous exotic nasal, central, back unrounded, and front rounded vowels in addition to the more normal peripheral vowels. The whole central vowel problem is most disquieting in view of the widely varying realizations of the same vowel by the same informant.”

(On the Bamiléké languages) “This is probably one of the most problematic regions of Africa from a phonetic standpoint.” (Richardson, 1957: 56, 62)

- “. . . the languages of the Mbam-Nkam linguistic unit have been much neglected in the past. Where scholars have collected wordlists from these languages, they have been appalled at the phonetic complexity of the material.” (Dunstan, 1971: 15)
- “Be sure to meet the biggest crisis of your career if you are not prepared to fail constantly in the tonal analysis.” (J. Voorhoeve p.c. to K. Stallcup, quoted in Hyman (2001: 31))
- “Cameroon is called the phonologist’s graveyard.” (Keith Beavon p.c., 2010)

Mungbam has, not surprisingly, posed quite a few difficulties as concerns the analysis of the vowel system and the tonal system. Much of the text collection was transcribed before I had fully worked out the details of the tonal morphology, and so in many cases initial impressionistic transcriptions have been revised on the basis of the recordings and knowledge of the tone which would be expected on the basis of the analysis eventually worked out. The tonal contrast between the irrealis perfective and realis imperfective forms of the set B verbs, for example, is so subtle that I doubt it was ever correctly reflected in transcriptions from 2010. After assuring myself of this difference in 2012, and revisiting some examples recorded in 2010, I could be confident about amending the transcriptions made in 2010. Likewise, the current picture of the actually occurring vowel contrasts was not in something like its current form until 2011, after I had had time to subject my recordings to a spectrographic analysis. Vowel transcriptions from 2010 have then in some cases had to be corrected, and inaccuracies are likely to remain. While this is clearly not an ideal situation from either a documentary perspective or a theoretical perspective (transcribing tones with input from what the tones are supposed to be according to the account clearly prejudices against finding inadequacies in that account), I imagine that if text transcription had been delayed until such time as I had a clear picture of the tonal and vowel systems, my text collection would have been drastically smaller, or actually nonexistent. Working with a decent-sized corpus and the benefits it confers comes at the cost of tolerating occasional inaccuracies where the transcription is concerned.

### 1.3.1 Linguistic consultants

The names of the people, speakers of Mungbam, who have contributed oral texts or served as consultants for this dissertation are listed below. The aim of this short section is to give an idea of the breadth of the data, but mostly to put in print (in

a prominent location other than the acknowledgments, which no one reads) the names of the people who offered their expertise in making this work possible.

Abar: Nchang Adeline, Ladji Mispa, Nchang Manassy, Mbong Charlotte, Kulo Rene, Domo Emerencia, Domo Marie Ade;

Munken: Ishe Solomon<sup>†</sup>, Ngong Belta, Esther Nungo, Kizita Simpe, Bong Christian, Mbelebo William, Pawbeh Kelvin, Yo Philemon, Koma Delphine, Ageh Ernestine, Mutcho Julie;

Biya: Kang Protus, Kang Egidius, Kang Gerald, Kang Nellis, Kang Ronat, Njimbong Diboral, Ma Pius, Ndom Esther, Robert Bangabwe, Gabriel Banten, Nda Solomon Kedi, Sama Tiroshia, Kang Moses;

Missong: Ncho Vayska Ndi, Nsa Kenji Celestine, Asoa Julius, Sangbo Glory, Nang Emmanuel, Akanga Marcos, The Chief of Missong, Akpe Michael Ngu?, Achintu Monica, Boniface, Ngom Christian, Njeh Martin, Francis Nga Iza, Mary Kakom, Fani Kakom, Njakam Kosu, Nsu Marta, Ncho Susanne, Su Cletus, Bia Nyam, Sa William Mbeh, Mang Ge Kam, Wan Peter Bung Kam, Andrew, Takeh Wan Bo, Bo Makpa Amos;

Ngun: Akwe Thomas<sup>†</sup>, Abanga Christian, Njah Vincent, Akpong Makolé, The Chief of Ngun;

A small subset of those named above worked with me in the majority of elicitation and transcription sessions in Wum. For the duration of the 2010 field trip, Ngong Belta (Munken) and Kang Protus (Biya) worked an average of 3–5 two-hour sessions per week; Nchang Adeline (Abar), Kizita Simpe (Munken), Sangbo Glory (Missong), Esther Nungo (Munken), and Kang Nellis (Biya) were also frequent contributors over spans of ~ 2 months each. Nearly all Ngun data was collected in three ~ 12 hour “crash courses” with Abanga Christian, who was able to come to Wum in two-day spans. During the short 2012 field trip, Nchang Manassy

(Abar), Nchang Adeline (Abar), Kang Protus (Biya), Kang Ronat (Biya), Ncho Ndi (Missong), Nsa Celestine (Missong), Ngong Belta (Munken), and Yo Philemon (Munken) all worked an average of 4–5 two-hour sessions per week, almost always on teams. Two short trips to Missong, and one to Abar yielded a good number of texts from older storytellers, which were translated in Wum. Kang Protus proved to be especially gifted as a linguist, and performed the invaluable service of helping me to train new consultants in the art of making grammaticality judgments, pronouncing words clearly in isolation, and reciting morphological paradigms.

## 1.4 Coverage of data presented

The idea for writing a grammatical description which covers five somewhat divergent dialects as if they formed a single linguistic system came from my participation in a 2009 workshop at Hamburg University’s Asien-Afrika-Institut entitled “Towards polylectal grammars of African languages,” organized by Mechtild Reh, Roland Kießling and colleagues.

A polylectal grammar is perhaps not so different from the normal type of monograph-length reference grammar. Grammars which are not touted as “polylectal” generally do go beyond what Wolff (2009) calls “strong monolectal” grammars, those which document a single idiolect. Monolectal grammars generally are based on input from more than one speaker, and the linguistic consultants come from different backgrounds in terms of age, gender, socioeconomic status, and even dialect, but one of these consultants has the status of “principal informant.”<sup>13</sup> These are “weak monolectal” grammars in Wolff’s terms. What distinguishes a polylect-

<sup>13</sup> cf. (tangentially) Pullum’s (1987: 454) tongue-in-cheek remark:

... principal informant[,] which means that on the way to your informant’s hut you were in the habit of saying good morning to one or two other villagers whom you met along the way, and sometimes you took note of a phrase or two that they said, if it seemed interesting.

tal grammar is that it is a description based on the speech of several informants, none of which has “principal” status. Though this does not necessarily mean that the several informants must speak noticeably different linguistic varieties, such an assumption is normally implied when the term is used. The proposed dissertation will be a descriptive reference grammar based primarily on the speech of about ten different consultants (those recognized above in § 1.3.1), with other lesser contributors, representing five speech varieties which are, by both social and linguistic criteria, palpably different.

It has been attempted to produce, insofar as possible, a grammatical description which is representative of all varieties of Mungbam. While in some cases it has been possible to verify the generalizations made against data from all five dialects, or to present near-complete paradigms which show forms for each of the five dialects, the more usual situation is that conclusions are drawn in the absence of supporting data from at least one dialect. A difficulty in locating qualified Ngun consultants in Wum, for example, has severely limited the amount of Ngun data that could be presented. As an approximate heuristic, the ease of access to good consultants, and the amount of data available, is ranked by dialect as in (1.1). In cases where data from one or more dialects is missing from a table of forms, it is for lack of complete data, and not a suggestion that the paradigm in question does not apply to that dialect.

(1.1) Munken > Biya > Abar > Missong > Ngun

At this point it may be questioned whether, with the same time and resources available, it might have been wiser to attempt instead a more comprehensive and complete description of a single one of the varieties, so as to avoid the inevitable coverage gaps entrained by a polylectal approach. In the present case, there are

practical factors which made the polylectal approach desirable, and there are general arguments to the effect that a polylectal approach may be more heuristically fruitful.

One practical consideration favoring a polylectal approach concerns the availability of language consultants.<sup>14</sup> Since Mungbam speakers resident in Lower Fungom are generally heavily occupied with farming or trading activities, it is actually easier to find Mungbam consultants with flexible schedules in the nearby provincial town of Wum (about 10km southwest of Weh, cf. figure 1.1). These include high school students,<sup>15</sup> who by training can sit patiently for two or more hours at a time without becoming bored or idle. The Lower Fungom diaspora population in Wum is however not that large, and it was necessary to accept speakers of any of the five Mungbam varieties if idle days were to be avoided.

The heuristic aspect of a polylectal approach is familiar to descriptive linguistics, and endorsements are not difficult to find, e.g.:

Indeed I find it hard to do descriptive work on a language without simultaneously considering what is or can be known about its history, especially as concerns resemblances and differences with closely related languages. . .

If at any time there is a lull in your work, or you can't seem to find what the interesting issues are, get the next dialect, then the next, then the next. . . (Hyman, 2001: 22, 26)

In early stages of the data collection process I managed to solve many small and some very vexing problems more easily by comparing similar constructions in different varieties. This was especially the case in untangling pairs of grammatical

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<sup>14</sup> Wolff (2009) refers to a set of practical considerations, including consultant availability, in producing grammars, as the “ecology of grammar production.”

<sup>15</sup> As of 2012, there was no high school in Lower Fungom, and Lower Fungom students wishing to gain an O- or A-level certificate would frequently study in Wum.

particles which are homophonous in one dialect, but not in another. For example, it was easier to work out the system of preverbal tense/mood particles, shown in table 1.2 (=table 7.11) in several of the dialects simultaneously than it would have been to attempt to work out the whole system by considering data from only one dialect.

Initially, on the basis of Munken data, I assumed that there was no grammatical conditional category separate from the hodial past (P1) in any dialect, since the elicited *if...then* clauses came out with the same preverbal marker as elicited hodial past clauses. This analysis was changed when I noted that, in Biya, the particle in a conditional sentence had a different tone from that in a hodial past sentence. A mistake made after my first session with a Missong consultant was to assume that there was no distinction between hodial and pre-hodial (P2) past tenses, as I did not catch the tonal difference in the preverbal particles at first. After gathering a tense paradigm for Abar, which is the dialect most similar to Missong, I decided to revisit the Missong paradigm and corrected it.

	P3	P2	P1	P0	FUT	COND
MK	lē	lē	fǒ	∅	á	fǒ
MS	kà	kà	ká	∅	á	
BY	àlǒ	àlǒ	fǒ ~ fǒ	∅	á	fǒ
AB	kǎ	kǎ	há	∅	á	á
NG	lē	lē	fǒ	∅	á	ǎ

Table 1.2: Summary of preverbal tense markers in all five dialects. Shaded cells indicate missing data. In this and subsequent tables, MK=‘Munken’, MS=‘Missong’, BY=‘Biya’, AB=‘Abar’, and NG=‘Ngun’.

A tactic which proved very useful was to have two consultants from different dialects attend an elicitation session together, and when confronted with a difficult sentence in one dialect, have it translated to the other dialect. Example (1.2) comes from an Abar folk tale (top line). There are two words in the Abar version, the class 9 definite determiner and the class 1 pronoun *wù*, which are not pronounced



separately (represented by non-segmental tones in the transcription), because they assimilate with the vowel in the previous word. On first transcribing the line, I simply assumed that no determiner was present after  $\grave{\text{i}}\text{-}\acute{\text{c}}\grave{\text{i}}$  ‘fowl’, and I mistook the verb  $w\hat{\text{u}}$  ‘ascend’ for a class 1 pronoun. Translating the story to Munken with the help of two consultants, each of whom was familiar with both dialects (one being dominant in Munken and one dominant in Abar) helped to correct the original transcription, and eventually led to an early discovery that definite determiners in Abar are phonologically reduced compared to those of the other four dialects (cf. § 6.3.3).

- (1.2)  $\eta\acute{\text{o}}$   $\grave{\text{i}}\text{-}\acute{\text{c}}\grave{\text{i}}$      `      $t\acute{\text{o}}$       $t\grave{\text{o}}$       $b\grave{\text{a}}h\text{a}$       $w\hat{\text{u}}$   
 $w\check{\text{a}}$   $\grave{\text{i}}\text{-}\acute{\text{c}}\grave{\text{e}}$       $j\bar{\text{e}}$       $t\acute{\text{o}}$       $t\grave{\text{o}}b\grave{\text{a}}$       $j\hat{\text{u}}$   
 then CL9-fowl CL9.DET (B)come.IPFV (A)peck (B)exit.IPFV (C)ascend.IPFV  
 `     `     `     `     `     `  
 $w\grave{\text{u}}$   
 CL1  
 “... then the fowl was coming to peck him up...” (Abar/Munken)

In sum, because of the approach taken in collecting data for this dissertation there is more data and less data: more data of potential use for for historical and comparative purposes, and possibly more data overall; but various lacunae which will be noted throughout in the form of empty, gray shaded cells in paradigms, and lack of mention of whether a given generalization holds for all dialects.

## 1.5 Features of this document

In the PDF version of this dissertation, all cross-references to page numbers, example numbers, section numbers,<sup>16</sup> tables and figures are clickable. Most PDF

<sup>16</sup> Cross-references to sections are written either as **section 1.1.2** (at the beginning of a sentence) or § 1.1.2 (elsewhere), referring to the second subsection of the first section of chapter 1. References to whole chapters are written as **chapter 8** (at the beginning of a sentence) or § 8 (elsewhere).

readers have a function allowing one to go “back” after following a cross-reference.<sup>17</sup>

Citations are clickable, and clicking will bring up the associated page of the references section at the end of the document. Web links are also clickable, and will open a web page in the default browser.

## 1.6 The presentation of examples

All consultants were fluent in Pidgin English, and most had been through an English language grade school education. For the few consultants who were not comfortable speaking standard English, elicitation was done entirely in Pidgin English. For consultants who were comfortable using standard English, Pidgin was still frequently deployed as a metalanguage, since there are numerous words and constructions in Mungbam which have a very close correspondent in Pidgin, but not in standard English. Accordingly, in the interest of transparently representing the consultants’ intuitions about the meanings of Mungbam words, interlinear glosses contain a number of Pidgin words, whose meaning is explained in a footnote the first time it appears. Free translations are given in standard American English. Certain species of plants and animals are only known to me by their Pidgin or Cameroonian English names. When these appear in examples, the gloss will be in Pidgin or Cameroonian English, and a footnote will indicate the scientific name if it is known. Some words, such as *fowl* (chicken), *cock* (rooster), and *groundnut* (peanut) are kept in Cameroonian English in the examples for their sentimental value.

Pidgin words appear in glosses, and they occasionally also appear in the original versions of texts. When a Pidgin or English word appears in an example sentence, the word is spelled with standard English orthography, and italicized, as in (1.3).

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<sup>17</sup> For example, in Acrobat Reader™, one can press **Alt** + **←** to go back to resume reading at the previously viewed page after following a cross-reference.

- (1.3)  $\bar{\eta}$ -continue fí ā-jǒŋǒ ǰwàn because à lě wè  
 1SG-continue (B)give CL12-thanks 2SG.DAT because DS (B)L.COP 2SG  
 à lě kà-jì  
 2SG (B)L.COP CL12-god  
 “I continue to give thanks to you because it is you who is God.” (Abar)

A useful proposal for avoiding the ambiguity between language-specific categories and typological prototypes, traceable to Comrie (1976: 10) and specifically advocated for by Haspelmath (2010: 674), is to designate the former with initial capital letters. Though I agree with the spirit of the convention, I do not follow it in the present work, simply because there are very few instances where I use word class labels to refer to typological prototypes, so any gain in clarity would not be significant enough to justify imposing an unfamiliar typographic convention on the reader.

Elicited sentences are indicated by a  $\diamond$  symbol in the free translation, while sentences lacking the  $\diamond$  symbol are drawn from texts. When a constituent is in focus in Mungbam, the translation equivalent of the focused item is underlined in the English free translation.

## 1.7 Organization of this dissertation

Chapter 2 concerns contrast in the sound system, and introduces the vowel and consonant transcription symbols to be used. Chapter 3 discusses in more detail the phonetic aspects of some close contrasts in the vowel system. Chapter 4 resumes discussion of the sound system, focusing on phonological alternations. The transcription system for tone is introduced in this chapter.<sup>18</sup> Chapter 5 introduces

<sup>18</sup> As will be seen, the system for describing and transcribing tone departs somewhat from normal practice, but it has proven a reasonable *modus vivendi* in constructing the present description.

the noun class system of Mungbam and its relationship to the noun class system of Proto-Bantu. Chapter 6 concerns the structure of the noun phrase, cataloguing the various types of words which modify head nouns, and discussing constituent order within the noun phrase. Chapter 7 concerns verbal morphology, including the marking of tense and aspect within the verbal complex. Chapter 8 describes the use of serial verb constructions in Mungbam, cataloguing several of these constructions by their function. Chapter 9 presents word classes not properly part of the noun or verb system, including postpositions and spatial and temporal deictics. Chapter 10 is concerned with argument structure within the clause, and outlines the semantic and formal properties of the different types of arguments (i.e., subject, object, comitative, dative, locative, adjunct). Chapter 11 discusses the information structure system, and how focus is expressed. Chapter 12 treats the formation of relative clauses and clause-combining structures, including coordination, subordination, and complementation. Chapter 13 deals with negation. Chapter 14 deals with non-verbal predicates and copula verbs, and finally, chapter 15 concerns the formation of questions. Two appendices include a sample text (Appendix A) and a glossary of words appearing in the examples (Appendix B).

## Chapter 2

# Contrast

On my first fieldtrip to Cameroon, I met SIL linguist Keith Beavon in Yaoundé the day after landing in the country. On hearing that my interest was in Phonology, he informed me that Cameroon was known among SIL linguists as a “phonologist’s graveyard,” so complex were the sound systems of Cameroonian languages. Not surprisingly, Mungbam turned out to have a complicated phonological system.

There are three chapters dedicated to sounds, and the coverage does not exactly fit the traditional divide between phonetics and phonology. The present chapter deals with the linguistic phonetic aspects of Mungbam, or those properties of the sound system which are responsible for supporting lexical contrast. Section 2.1 discusses the basis for treating stem-initial (or accented) and stem-internal positions as separate phonological subsystems. Once this groundwork has been laid, contrasts in vowels (§ 2.2), consonants (§ 2.3), and tones (§ 2.4) are discussed. The choice of orthographic symbols for the consonant and vowel systems are treated in their respective sections, while a discussion of tone orthography is postponed for chapter 4. This delay in the coverage of tonal orthography is due to the fact that the system to be eventually presented cannot be fully justified without a consid-

eration of the properly phonological tonal alternations found in the language.

Chapter 3 (which could be skipped without any important descriptive details about the language being missed) considers the role of physical phonetic data in deciding how a featural analysis of the vowels would be undertaken. Chapter 4 concerns syntagmatic sound alternations, but also contains substantial discussion on tonal contrast.

One major methodological choice concerning phonology which has been taken in this dissertation is that a language should be treated as having multiple phonological systems.<sup>1</sup> This means, for example, that no attempt is made to extend the description of tonal patterns affecting noun stems to tonal patterns affecting verb stems; or, to give another example, that there is no interest in deciding how the reduced set of vowels in noun class prefixes maps onto the full set of vowels found in noun and verb stems.<sup>2</sup> As such, the phoneme concept is not employed except in an informal way, for the purpose of determining a convenient orthographic system.

## 2.1 The word-accentual system

The presence of a word-accentual system in Mungbam was first discussed in Lovegren (2012a). Some observations presented in that paper will provide a useful backdrop for discussing the contrasts present in the Mungbam sound system.

Nouns and verbs, the only open word classes in Mungbam, have similar phonological shapes when certain key differences in their morphological behaviors are factored out, and only the stem itself is considered. As for nouns, almost all must bear a noun class prefix.<sup>3</sup> Although for some nouns there exists some variabil-

<sup>1</sup> Such a treatment in phonological theories is referred to by proponents of Firthian-style phonology as *polysystemicity*. See, e.g., Sprigg (1972).

<sup>2</sup> Of course, the choice of phonological subsystems is not fixed *a priori*. One would sensibly choose them in such a way that the phonological generalizations described are as broad as possible.

<sup>3</sup> Some nasal-initial class 1 nouns lack a prefix (cf. § 5.4.1). Further exceptions are mentioned in § 5.

ity with respect to the choice of prefix, there is no context where the noun class prefix is optional. Other than the noun class prefix, nouns do not contain any affixal morphology. As for verbs, they most frequently appear as stems without any segmental affixes.<sup>4</sup> Derived nouns may be formed from verbs by addition of the class 5 prefix *i-* to the verb stem. Aside from these differences, nouns and verbs have more or less the same phonological shape. At the level of availability and frequency of certain of the stem tones, though, additional differences are found (cf. §§2.4, 4.1.2.3).

(N)CV		CCV	
í-gí	‘CL5-candle sap’	ì-fwō	‘CL5-measure’
ù-nè	‘CL1-person’	ī-kjá	‘CL5-build foundation’
ø-ḡgò	‘CL1-species’	ù-kwè	‘CL1-female friend’
bū-tù	‘CL14-day’	ù-bjù	‘CL1-farm’
ú-mó	‘CL3-neck’	á-mjú	‘CL12-thing’

CVN		CCVN	
í-jám	‘CL4a-name’	ā-ḡgjòḡ	‘CL12-story’
á-káḡ	‘CL12-pan’	ī-ljén	‘CL5-tell story’
ì-tcàn	‘CL5-arm’	ū-bjêḡ	‘CL1-something’
í-sóḡ	‘CL4a-power’	ì-gjēḡ	‘CL5-cure’
ǰ-ḡé	‘CL6a-water’	mú-mjóḡ	‘CL18a-ant type’

Table 2.1: Possible shapes of the stem-initial syllable in Munken nouns, including deverbal nouns. Noun class prefixes are discussed in § 5.

A stem may have either one or two syllables. The attested stem-initial syllable shapes are CV, CVC and CCVC, with only the glides *w* and *j* permitted as the second consonant of an onset cluster (also *ɲ* in Missong, Ngun and Abar), and with only the nasal consonants *m*, *n*, and *ŋ* permitted in coda position. Stem-initial nasal+obstruent sequences are frequent in nouns, but in every case the nasal syllabifies with the prefix rather than the stem-initial syllable. Nasal+obstruent sequences are not found stem-initially in verbs. Table 2.1 gives examples of the

<sup>4</sup> As will be discussed in § 7, verbs do carry morphological tonal marking. In the terminology of Mel’čuk (1997: ch. 3), it could be said that all verbs require a tonal suprafix.

four different possible shapes of stem-initial syllables for Mungen.

As for non-initial stem syllables, their only licit shape is CV. Non-initial stem syllables are also restricted with respect to the number of possible consonants, vowels, and tones which they may host. There are fewer possible consonants in non-initial stem syllables (see § 2.3.3), and the vowel and tone of a non-initial stem syllable can be entirely predicted. This is illustrated for vowels in Ngun nouns in table 2.2. If the two vowels of a disyllabic stem are separated by phonetic *h*, the second vowel must be a copy of the first. Otherwise, the second vowel must be *ɔ* in Abar, and *ə* in the other dialects. A non-initial stem syllable can also be said, in phonological parlance, to be unspecified for tone. All of the same tones are available on both monosyllabic and disyllabic stems; the realization of the tone is spread across both syllables when the stem is disyllabic. Non-initial syllables are therefore not written with a tone diacritic, as the diacritic over the vowel in the stem-initial syllable will be understood to represent the tone of the full stem.

DISYLLABIC STEM	
$C_2 \neq /h/; V_2 = /ə/$	$C_2 = /h/; V_2 = V_1$
ḡ-gũlə ‘CL1-planting seed’	bí-ǰáha ‘CL8-bush pineapples’
fī-nāḡə ‘CL19-needle’	ù-nèhe ‘CL1-male’
kó-tséfə ‘CL12-chameleon’	ì-kwīh ‘CL5-to pound’
ā-kwālə ‘CL1-frog’	ú-kpóhə ‘CL1-money’
kə-ḡkpómə ‘CL12-runt’	kó-tǰôho ‘CL12-corn basket’

Table 2.2: Contrasting vowels in Ngun nouns.

Because of these prominence asymmetries between stem-initial and non-initial stem syllables, and despite the lack of any clear phonetic correlate of accent in Mungen, stem-initial syllables were argued to be *accented* in Lovegren (2012a). Although the idea was not explored in any detail in Lovegren (2012a), it will be assumed here that to the extent that it is possible to recognize a metrical structure in Mungen, the basic unit of metrical analysis is the trochaic foot. Reference



will be made in this dissertation to stem-initial vs. stem-internal (i.e., the second in a disyllabic stem) syllables, and occasionally, to foot-initial vs. foot-internal segments (in cases where a monosyllabic noun or verb stem is thought to belong to the same metrical constituent as a following grammatical word).

## 2.2 Vowels

Now since the consonants can  
make no speech or sound by  
themselves, not even so much that  
they can be named without a  
vowel, while every vowel can be  
pronounced alone just as it is  
named and just as it is spoken in  
every context, and since the vowels  
thus carry off the honors over the  
consonants, just as the almighty  
does over the halfmighty, therefore  
I have placed them first both in  
the alphabet and in my discussion  
here.

---

*Anonymous*, c. 1150; tr. Haugen,  
1950

In this section, the transcription system used for vowels is presented (§ 2.2.1), some impressionistic notes on the vowel qualities involved are made (§ 2.2.2), and examples are given illustrating the vowel contrasts (§ 2.2.3). Chapter 3 treats in more detail the question of how to characterize the contrast between certain pairs of vowels.

### 2.2.1 The orthographic system for vowels

There are different considerations which could be taken into account in deciding how to write the vowels of a language for an audience of phonologists. The list

that follows is intended as a list of implicit guidelines which seem to be followed in practice by linguists, if not actually made explicit.

- (0) Symbols should not be used in such a way that different-sounding words are written in the same way.
- (1) A set of symbols should be selected which can be used for all of the dialects/languages under study.
- (2) A particular symbol should have approximately the same phonetic value when it is used for different dialects/languages, though some latitude is allowed if it permits the writing of cognate words in the same way.
- (3) A particular symbol should have approximately the same phonetic value as the cardinal vowel associated with it.
- (4) There should be phonetic and phonological evidence for the featural decomposition normally associated with a given vowel symbol. e.g., if both /i/ and /ɪ/ are used, there should be evidence for regarding /ɪ/ as being both [+HIGH] and [-ATR].<sup>5</sup>
- (5) Typographic traditions should be respected, such that a five-vowel system should use the symbols /aeiou/, six- and seven-vowel systems should be written using /ɛ/ and /ɔ/ in addition to the five Latin letters, and the symbols /ɪ/ and /ʊ/ should be reserved for systems having more than seven peripheral vowels.<sup>6</sup>

Not surprisingly, it is difficult to satisfy all of these criteria simultaneously in the present work. In deciding which criteria to transgress, I first of all assume (0) to

<sup>5</sup> Or [-EXPANDED], or [-TENSE], according to the prevailing tradition.

<sup>6</sup> This convention applies to languages where all the vowels are peripheral vowels. One popular convention for writing central vowels is to write the central vowel as /ə/ if there is only one, and introduce the symbol /i/ if there are two.

be inviolable. Although in earlier works I have done differently, in this dissertation It seems fit to me to abide mostly by (5), recognizing the arbitrary association between a sound and its representation with a conventionalized symbol.

The problem with satisfying the other criteria can be understood by comparing front vowels<sup>7</sup> for Abar and Munken with the cardinal vowels.<sup>8</sup> Let's call the Abar vowels  $a_1, a_2, a_3, a_4$ , and the Munken vowels  $m_1, m_2, m_3$  (a lower number corresponds to a higher vowel). and designate the cardinal front vowels by their familiar symbols  $i, \iota, e, \varepsilon$ . If we match the sets of vowels according to their pronunciations, we note that  $a_1$  and  $m_1$  both sound quite similar, and both have a pronunciation similar to cardinal  $i$ . Additionally,  $a_4$  sounds quite close to cardinal  $\varepsilon$ . Cardinal  $e$  sounds similar to  $m_2$ . Cardinal  $\iota$  does not sound quite similar to any of the other Abar or Munken sounds:  $a_2$  sounds like cardinal  $i$ , only a bit lower;  $a_3$  sounds at about the same height as cardinal  $e$ , but is more lax, as does  $m_3$ . These impressionistic observations are schematized in table 2.3.

A	M	C
$a_1$	$m_1$	$i$
$a_2$		...
		$\iota$
	$m_2$	$e$
$a_3$	$m_3$	...
$a_4$		$\varepsilon$

Table 2.3: Impressionistic comparison of Abar and Munken front vowels with Cardinal front vowels.

These impressionistic observations are more or less confirmed by plotting of the vowels in normalized F1×F2 space (figure 2.1). Data come from one speaker

<sup>7</sup> It will be assumed that the discussion on front vowels would relate equally well to back vowels, since the main points of difficulty which arise for front vowels are also present for the back vowels.

<sup>8</sup> Not having been properly trained in cardinal vowels, I use here an approximation, where cardinal  $i, e$ , and  $\varepsilon$  are understood to have qualities as they have in Parisian French (see Collins and Mees (1999: 179–80) on why this would be a reasonable approximation), and  $\iota$  is understood to have the quality it has in RP English.

each for each of the five dialects, and are based on 12–14 repetitions of a word containing each of the vowels shown as a stem vowel.

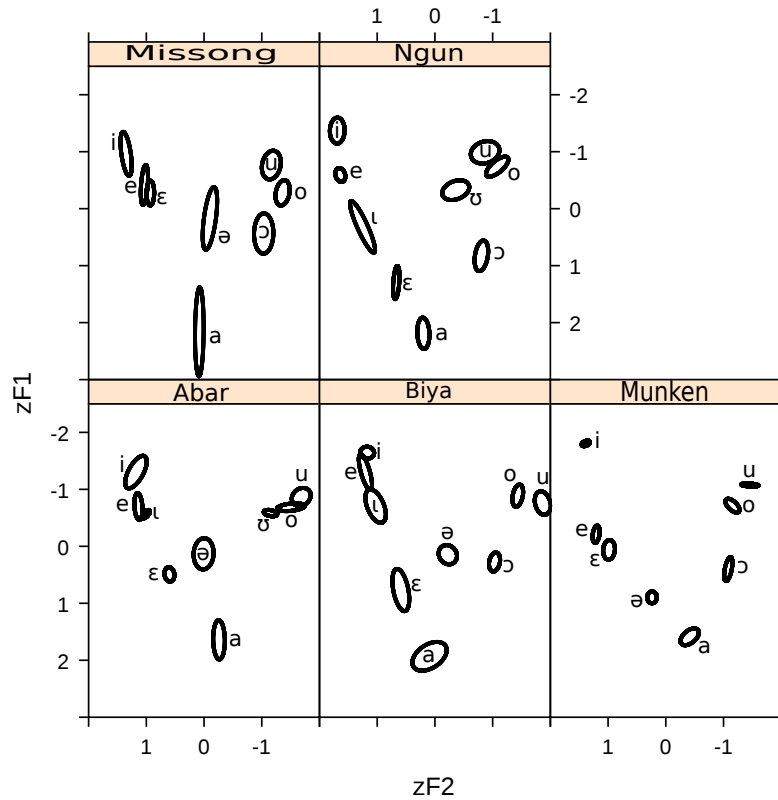


Figure 2.1: Vowels in normalized F1x F2 space, with ellipses centered at mean values, having semi-axes of length equal to one standard deviation as measured along the axis. Ellipses rotated to minimize area enclosed. Originally presented in Good et al. (2011: 117) without ellipses. The axis labels zF1 and zF2 should be read ‘normalized F1/F2’.

In solving the problem of which transcription symbols to use for the vowels, several possible solutions can be entertained. The first would be to follow the principle that the vowel symbols should be selected on the basis of their proximity to a cardinal vowel symbol. But this strategy creates a dilemma, since  $a_1$  and

$a_2$  are both closer to Cardinal  $i$  than they are to any other Cardinal vowel, and likewise  $m_2$  and  $m_3$  are both closer to Cardinal  $e$  than they are to any other Cardinal vowel. Since we cannot violate the contrast principle (number 0 in the list) under any circumstances, this strategy is not viable.

The second solution would be to choose the symbols in a way that reflects the correct featural analysis of the vowel system, according to some pre-selected feature system.<sup>9</sup> As can be verified from looking at figure 2.1, it is not clear whether the vowels should be treated as reflecting a purely height-based distinction, or a height-based distinction which is crosscut by a feature corresponding to laxness or pharyngeal expansion (call it [ATR]). Furthermore, there are not any phonological processes involving vowels (viz., vowel harmony) which might be considered in supporting one type of feature system over the other. In both Abar and Munken there are pairs of vowels which are very close together in terms of their mean F1 values. The approach I took in Lovegren (2011a) was to use the fact that there exist pairs of vowels most likely not contrasted in terms of F1 to argue for a mixed height- and [ATR]-based featural analysis of the vowel system of Abar and Missong. Vowel symbols were then selected based on the usual IPA symbol corresponding to a particular feature combination: Abar vowels were transcribed, in order of decreasing height, as  $i$ ,  $e$ ,  $\iota$ ,  $\varepsilon$ , and Munken vowels (in a purely height-based system) were transcribed  $i$ ,  $e$ ,  $\varepsilon$ . Missong, which has a set of front vowels which sound very similar to the Munken front vowels, was deemed to have  $i$ ,  $e$ ,  $\iota$ , since the last two were found to not differ by a statistically significant amount in terms of their mean F1 measurement.

A final solution, which is the one adopted presently, is to start from the assumption that the choice of transcription symbols should be governed as much by

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<sup>9</sup> For example, one which is based only on physical phonetic properties capable of supporting lexical contrasts, such as Ladefoged (2007), or any of the various proposals attempting to also use phonological alternations as evidence for features, such as Clements and Hume (1995); Hall (2007).

convention as it is by reason. Someone who is interested to know more about the sound value of a graphic symbol can read this chapter to find out more. Otherwise, the only important consideration is that the symbols be familiar to readers and that they be distinctive on the printed page. The approach which I wish to take in this dissertation is to simply use the symbols which are most typographically customary, *i*, *e*, *ɛ*, and only use *ɪ* when there is a fourth front vowel in the system (as in Ngun, Biya and Abar), because it is easily confused with *i*. Similarly, for back vowels, the customary symbols *u*, *o*, *ɔ* are used for the first three back vowels, and *ʊ* is used only when a fourth back vowel exists, as is the case for Ngun and Abar.

### 2.2.2 Phonetic values of the vowel transcription symbols

Table 2.4 gives the transcription symbols which will be used to transcribe the vowels in this dissertation. These symbols approximately reflect vowel qualities referred to by the corresponding IPA symbols. As noted above, the correspondence between the vowels and the usual sound value of the corresponding IPA symbol is not exact in some cases,<sup>10</sup> so it will be useful here to describe how the vowels sound impressionistically. A more precise discussion of the qualities of the front vowels, supplementing the remarks made above, is found in chapter 3.

i	i	u
e		o
ɪ	ə	ʊ
	ɛ	ɔ
	a	

Table 2.4: Vowel transcription symbols.

The symbol *i* is used to represent a high front vowel which is frequently realized

<sup>10</sup> What it would mean for a language to have a vowel *e*, for example, that sounded just like IPA *e*, is in any case unknown. The IPA vowel symbols are not presently defined by stable reference values in the way that commonly-used units of weight and measure are.

with frication. In noun class prefixes (classes 4, 5, 7, 8, 9, and 10), where only the point vowels *i*, *u*, and *a* are found, in addition to *ə*, *i* is not as high as *i* as a stem vowel. The symbol *u* is used to represent a high back rounded vowel, also frequently realized with frication. As with *i*, it is used to transcribe noun class prefixes (classes 1, 3, 14, and 18a), where it is not as high as the *u* used to transcribe a stem vowel. Since the number of vowels appearing in prefixes is quite limited, I have no basis for arguing that prefix *i* and *u* are in some sense ‘the same’ as stem *i* and *u*.

The symbol *e* is used to transcribe a front vowel which, in Biya, Abar and Ngun, is quite high and could be mistaken for *i* by a naïve English-speaking linguist. In Munken and Missong, *e* is not as high, and sounds rather similar to (Parisian) French /e/. The symbol *o* is used to refer to a back rounded vowel which is not realized with frication. It is a bit higher than French *o*. In Biya, it has a “flat” (or “hollow”) quality and sounds similar, though higher, than Abar *ɔ*. The symbol *ɪ* is used to transcribe a front vowel which is at the same or a slightly lower height than *e*, but sounds more flat. It is found in Ngun, Biya and Abar. In the latter two dialects there is considerable difficulty in distinguishing *e* and *ɪ*, though I felt confident of being able to distinguish them by the start of my second field trip. The symbol *ʊ* is used to transcribe a back round vowel which is at the same height or slightly lower than *o*. It has a flat quality which is especially pronounced in Ngun, but more subtle in Abar.

The symbol *ɛ* is used to transcribe a front vowel which is lower than *e*. In Ngun, Abar and Biya, it is quite low, while in Munken and Missong it is very near to *e* in height. Munken and Missong *ɛ* sounds more similar to *ɪ* in Abar, Biya and Ngun than to *ɛ* in those dialects, and it might well have been transcribed as *ɪ* if a more phonetically-oriented orthography had been opted for. Biya *ɛ* is realized as a diphthong [ɛa] in open syllables, and as a monophthong in closed syllables. In

Munken,  $\varepsilon$  is raised in closed syllables, where it has a quality close to (Southern) American English /ɪ/. The symbol  $\text{ɔ}$  is used to transcribe a mid-low back round vowel. It is present as a stem vowel in all dialects save Abar, where it appears only as a neutral vowel in function words and stem-internal syllables.

A phonetic diphthong is found in Missong stems which is transcribed *oa* (and would be transcribed the same way in IPA). This sound almost always corresponds to *an* in the other dialects, when cognates are available for comparison.

The symbol *a* is used to transcribe a low central vowel, which may be either long or short. When it is contrastively long (in Abar; see §4.2.1.2), it is written with the double symbol *aa*. Interestingly, this vowel is not found in Biya stems, except in some putative loan words. The symbol  $\text{ə}$  is used to transcribe a central vowel which is normally found only in closed syllables, except in Biya and Missong, where it can serve as a stem vowel in CV stems. Finally, the symbol *i* is used to describe a high mid vowel which is extra short, and found mostly in reduplicant syllables. It is also attested in CVN verb and noun stems in Abar, where it usually corresponds to  $\text{ə}$  in Munken cognates.

### 2.2.3 A demonstration of the vowel contrasts

Sets of words demonstrating the basic vowel contrasts present for each dialect are given in table 2.5. The focus is on vowels which can appear in open accented syllables. Vowels which are found only in closed syllables and nonaccented syllables are those shown in the shaded cells of table 2.5. A careful investigation into the vowels which may appear in closed syllables has not been made, though some remarks on this topic are found in §4.2.1.1.



ABAR			
í-dǐ	‘CL5-bush candle’ <sup>11</sup>	ì-tú	‘to enthrone’
ì-lǎŋ	‘to look (for)’		
í-dě	‘CL5-bean (sg.)’	ì-tó	‘to carry water’
í-dǐ	‘CL5-chin’	ì-tú	‘to show’
í-lě	‘they (CL10) COP. . .’	ì-fǎlə	‘to work’
ì-kā	‘to ask for repayment’	ì-tǎŋ	‘to count’
MUNKEN			
í-bǐ	‘CL10-dogs’	í-bú	‘CL10-chimpanzees’
í-bě	‘CL10-goats’	ì-wó	‘to hear’
í-bě	‘CL5-palm nut’	á-bǒ	‘CL12-palm cone’
á-bǎ	‘CL12-palm frond type’	ì-sələ	‘to string up’
BIYA			
í-dǐ	‘CL5-bush candle’	í-bú	‘CL10-chimpanzees’
ì-dě	‘CL5-bean (sg.)’	í-bó	‘CL5-palm nut’
ì-dí	‘to talk’	kó-bǒ	‘CL12-palm cone’
í-dě	‘CL5-beard’	ú-sǎ <sup>12</sup>	‘CL3-lawsuit’
ì-tsó	‘to tie’		
NGUN			
í-dǐ	‘CL5-candle sap’	kə-sù	‘CL12-soap’
í-dě	‘CL5-bean’	ásó	‘my brother’
í-dǐ	‘CL5-beard’	ì-kpū	‘CL5-thyroid’
ī-sén	‘CL5-tree type’	ú-sǒ	‘CL1-lawsuit’
í-səŋ	‘CL5-power’	ú-bǎ	‘CL3-palm frond’
MISSONG			
ɖɿ	‘steal!’	ɖũ	‘warm!’
ɖɛ	‘fry!’	ɖò	‘beat!’
ɖɛ̃	‘pick up!’	ɖɔ̃	‘travel!’
ɖə̃	‘look!’	ɖá	‘insult!’
		ɖə̃a	‘tie!’

Table 2.5: Vowels appearing in Mungbam verb and noun stems. Shaded cells indicate vowels which are not found in stem-initial open syllables. Short *ǎ* is restricted to closed syllables in Abar. Abar *ɔ* is found only in stem-internal syllables. Except in Missong and Biya, stem *ə* is found only in closed and stem-internal syllables.

<sup>11</sup> Flammable resin from the bark of *Canarium schweinfurthii*.

<sup>12</sup> The corresponding word in Abar is *ú-sǎkə*. I hypothesize that the word was originally borrowed from English *case*, then reanalyzed as having a class 12 prefix, *ka-sV*, whence the apparent historical determiner *kə* appended in Abar. Monosyllabic stems with vowel *a* are otherwise unattested in Biya.

## 2.3 Consonants

In this section the contrasting consonants are presented. The familiar PLACE OF ARTICULATION × MANNER OF ARTICULATION table showing all consonants will be found at the end of §2.3.1, which explains the choice of using an IPA-based<sup>13</sup> orthography rather than one based on the General Alphabet of Cameroon Languages. Consonant contrasts are discussed separately depending on their position within the stem, with three distinct positions recognized: stem-initial position (§2.3.2), stem-internal position (§2.3.3), and coda position (§2.3.4). Variability in the phonetic properties of the consonants does not nearly approach that seen for vowels, and so the consonant system is presented in a unified way for all dialects.

### 2.3.1 Orthographic conventions

The consonant orthography uses IPA symbols. Although the use of IPA characters in consonant orthography would normally not seem controversial, I defend it here since there are other possible choices.

The orthographic convention used in Good et al. (2011), is one partially based on the standard for writing Cameroonian languages established by the General Alphabet of Cameroon Languages (Tadadjeu and Sadembouo, 1979). Good et al. (2011) were not able to follow the standard entirely. For example, the standard was found impractical for transcribing vowel quality, tone, or vowel nasalization, and so IPA standards were retained in these areas. The sound corresponding to IPA  $\eta$  was also transcribed using IPA orthography rather than Tadadjeu and Sadembouo's (1979: 7) symbol  $\ddot{w}$ , which Tadadjeu and Sadembouo admitted should "only be tolerated as a temporary measure" due to its violation of the principle concerning diacritics (Good et al., 2011: 111). An anonymous reviewer for *Africana*

<sup>13</sup> As one committee member has pointed out, the transcription of labial velar stops without a ligature is not fully compliant with IPA recommendations.

*Linguistica* disputed the orthographic convention used in Good et al. (2011), commenting thus:

Regarding their presentation of data and examples, the authors have adopted an orthographic representation (e.g. using ‘sh’ for ʃ, ɕ), and opted not to standardize their transcription conventions across languages. This should be changed. I strongly urge that IPA conventions be followed, and that a standard system be used across languages. This will not only permit greater ease of comparison, but it is especially important given that most of the data presented here is all that is available for these languages and so should be as detailed and as accurate as possible.

Good et al. argued that the non-IPA-based orthography should be used, since they wished to make their work more accessible to Cameroonian linguists (and non-linguists), pointing out that the alphabet proposed in Tadadjeu and Sadembouo (1979) was in general currency in Cameroonian linguistics departments, and that Cameroonian co-authors indicated that they preferred to use the General Alphabet of Cameroon Languages rather than a strictly IPA-based orthography. The main point where the General Alphabet of Cameroon Languages differs from IPA (as concerns the writing of Mungbam) is in five consonant symbols: *sh* is used rather than IPA *ɕ*, *c* is used rather than *tɕ*, *j* is used rather than *ɕ*, *ny* is used rather than *ɲ*, and *y* is used rather than *j*. These differences should not be all that consequential, but have in the past proved to be the major point of conflict between IPA and other transcription systems, as the following anecdote suggests:

In America phonetic notation has had a curious history. Bloomfield used IPA notation in his early book *An Introduction to the Study of*

*Language*, 1914, and in the English edition of his more famous *Language*, 1935. But since then, a strange hostility has been shown by many American linguists to IPA notation, especially to certain of its symbols.

An interesting and significant story was once told by Carl Voegelin during a symposium held in New York in 1952 on the present state of anthropology. He told how, at the beginning of the 1930s, he was being taught phonetics by, as he put it, a “pleasant Dane”, who made him use the IPA symbol for sh in ship, among others. Some while later he used those symbols in some work on an American Indian language he had done for Sapir. When Sapir saw the work he “simply blew up”, Voegelin said, and demanded that in future Voegelin should use ‘s wedge’ (as š was called), instead of the IPA symbol. (Abercrombie, 1991: 44–5)

In this work, I adhere as closely as possible to IPA symbols for transcription. Though I would like to respect the wishes of Cameroonian linguists, all of my field notes use IPA transcriptions, and I fear some errors would be introduced in the typing of examples if I had to remember to convert some of the consonant symbols to a script that I have never become familiar with using.<sup>14</sup>

This being said, the symbols used for writing consonants are given in table 2.6. All consonants are found in stem-initial position except for *x* and *h*. The consonant *x* is found only in stem-internal position, and only in the Abar dialect (e.g., *ɔxɔ* ‘(c)run’). The consonant *h* is found in all dialects, where it can only be the onset of a stem-internal syllable. The consonant *p* is found only in Munken, Mis-

<sup>14</sup>I first learned to read and write in phonetic notation by studying the pronunciation keys appearing in a French dictionary, which made strict use of the IPA.

song and Abar, and there is only a single stem, *pi* ‘(B)die’.<sup>15</sup> The consonant *ɥ* is found in noun or verb stems in Abar (e.g., *tɥɔŋ* ‘(C)travel’), Missong, and Ngun, where it is restricted to stop+glide clusters in complex stem-initial syllables. In addition to *x* and *h*, all of the consonants in shaded cells in table 2.6 may appear as the onsets of stem-internal syllables.

	Labial	Dental	Alveolo-Palatal	Palatal	Velar	Labial-Velar	Glottal
Plosives	(p)	b	t	d	k	g	kp gb
Fricatives	f	s	ɕ		x		h
Affricates		ts	ɕʑ	ɕʑ			
Nasals		m	n	ɲ		ŋ	
Liquids			l				
Glides				ɥ	j		w

Table 2.6: Mungbam consonants. Grey shaded cells indicate consonants that may appear in both stem-initial and stem-internal syllables. Cells enclosed by dashed lines indicate consonants with restricted distribution. Parentheses around *p* indicate its *highly* restricted distribution, as signaled above.

### 2.3.2 Stem-initial position

As noted in §2.1, the number of distinct possible consonants is highest in stem-initial position. Table 2.7 gives examples of verbs in Munken containing each of the possible stem-initial consonants. There are no differences in terms of consonant distribution between nouns and verbs.

As was noted above, *p* is found in only one word. The labial velar stops *kp* and *gb* are not found before high vowels *i* and *u*. The hissing sibilant fricatives and affricates *s*, *z*, *ts* and *dz* are not found before *i*. The velar stops *k* and *g* are found before *i* or *j* in Munken, but not in any other dialect.<sup>16</sup>

<sup>15</sup> The correspondent in Biya and Ngun is *kpe*. Of course, nouns and adjectives derived from this stem would contain *p* as well.

<sup>16</sup> Words in other dialects corresponding to Munken *gi* or *ki* tend to have *di* and *ti* (Abar, Biya, Ngun), or *ɕi* and *ɕi* (Missong).

<b>pi</b>	‘(B)die’	<b>bi</b>	‘(c)give birth’
<b>to</b>	‘(B)carry water’	<b>di</b>	‘(A)cry’
<b>ki</b>	‘(B)spit’	<b>gi</b>	‘(c)be plentiful’
<b>kpo</b>	‘(B)chop’	<b>gba</b>	‘(A)cut’
<b>fu</b>	‘(A)rot’	<b>sɛ</b>	‘(A)descend’
<b>ɕu</b>	‘(B)scrape’		
<b>tsɛ</b>	‘(B)tie’	<b>dzɛ</b>	‘(A)tether’
<b>tɕɛ</b>	‘(B)contribute’	<b>ɕa</b>	‘(A)steal’
<b>wo</b>	‘(B)hear’	<b>jo</b>	‘(A)entertain’
<b>le</b>	‘(A)make’		
<b>na</b>	‘(A)announce’	<b>ɲɛ</b>	‘(A)stay’
<b>ma</b>	‘(A)rain’	<b>ŋa</b>	‘(B)separate’

Table 2.7: Stem-initial consonants in Munken verbs.

Plosive+glide sequences are possible with glide consonants *j* and *w*, subject to the restrictions summarized in table 2.8.

	b	t	d	k	g	kp	gb
j	✓	-MK, -MS	(MK), (MS)	ɰ<MK	ɰ<MK	✗	✗
w	✓	✗	✗	✓	✗	✗	✗

Table 2.8: Restrictions on the formation of plosive+glide sequences. ✓ indicates that the sequence is found in all dialects. ✗ indicates that the sequence is not found in any dialect. -MK indicates that the sequence is not found in Munken. (MS) means that the sequence is found with restricted distribution in Missong. ɰ<MK means that the sequence is found only in Munken.

The labial-velar stops *kp* and *gb* do not combine with glides. Sequences formed with *w* are limited to the plosives *k* and *b*. The root meaning ‘waist’, for example, has in all dialects stem-initial *bw*, as in Missong *k̄i-bw̄a*; and the verb meaning ‘shout at’ is from set A and has segmental form *kwan* in all dialects. The sequence *bj* is also found in all dialects. As an example, the verb meaning ‘go hunting’ is from set B and has segmental form *bjam* in all dialects except for Missong, where the same root appears in a noun stem meaning ‘hunting’. As for *kj*, *gj*, *tj*, and *dj*, a general pattern is present which pits Munken against the other four dialects. For the majority of words examined where cognates are available, a *kj* or *gj* in

Munken corresponds to *tj* or *dj* in Abar, Biya and Ngun. Munken *kj* has varying correspondents in Missong,<sup>17</sup> and *ɕ* is most frequently attested as a Missong correspondent of Munken *gj*. Consequently, *tj* is not found in Missong or Munken, and *kj* and *gj* are. The sequence *dj* is very infrequent in Munken and Missong, though it is found in the Munken word for Mundabli, *n̄djân* (cf. Missong *n̄ɕân*), and in the Missong word for ‘beard’, *í-djê* (same stem, but with unpalatalized *d* in all other dialects).

MK	BY	AB	MS	NG	
ɛ̄-ŋkjâŋ	fī-ntjâŋ	ɛ̄-ntjâŋ	fī-nɕâŋ	fī-ntjâŋ	‘tree branch’
ŋgjò	ndjò	ndjò	nɕà	ndjò	‘throat’
tsé	kjɪ	tsɪ	tɕa	kjɪ	(B)‘finish’

Table 2.9: Typical correspondences for Munken words with stem-initial *gj* and *kj* (first two rows). One aberrant lexical item (third row).

### 2.3.3 Stem-internal position

The consonants which can appear as the onsets of stem-internal syllables are *b*, *h*, *f*, *s*, *m*, *n*, *ŋ*. Stem-internal *x* is additionally found in Abar. Examples are given in table 2.10.

á-kwǒbə	‘CL12-virgin forest’
á-ɕǎha	‘CL12-bush pineapple’
ú-tǒfə	‘CL3-intelligence’
á-ŋgǒmə	‘CL12-plantain’
í-mǎnə	‘CL5-mosquito’
ú-wǒsə	‘CL3-fire’

Table 2.10: Intervocalic stem-internal consonants in Munken.

Munken *ŋ* is not attested intervocalically within noun stems, except in possessed nouns (q.v. § 4.1.2.1.4) and nouns of class 13, which are formed with a

<sup>17</sup> Actual attested correspondents are *t*, *ts*, *ɕ* and *tc*. *tc* would seem to be the “canonical” representative, by comparison with *gj* ~ *ɕ*. The canonical correspondence is found in the word for ‘cap’ (Munken *ā-ŋkjâŋ*, Missong *ī-tcām*; though one could raise questions about the cognacy of this pair).

circumfix. Such contexts are shown in examples (2.1)–(2.2) (unpossessed ‘trumpets’ in Munken is *bə-nɕəŋ*).

- (2.1) *bə-nɕəŋ*      *bē*      *bē*  
 CL2-trumpet CL2.POSS CL2.DET  
 ‘... their trumpets...’ (Munken)

- (2.2) *ú-kpě*      *kí-nəŋ-ə*  
 CL3-house CL13-iron-CL13  
 ‘prison (lit. iron house)’ (Munken)

Munken stem-internal *s* has an uncertain status. For most of my consultants, it is not found in citation forms of verbs or nouns (One exception is *n̄tɕənsə*<sup>18</sup>). One consultant, who I worked with in 2010, produced stem-internal *s* in a large number of words in citation form for which other consultants produced *h*. When asked about the differences, everyone agreed that both forms were correct, though the *s*-prone speaker said that *h* was a recent innovation, and the one *h*-prone speaker said that *s* was a corruption of the language introduced by contact with Biya speakers. In any case, both *h* and *s* are found to alternate in texts. Complicating the picture further is that *h* may also alternate with *f*. This issue is discussed further in §4.3.2.

In Biya, both *s* and *ŋ* are well-attested in stem-internal position. Examples containing the possible Biya stem-internal consonants are given in table 2.11.

<i>ləbə</i>	‘(A)swallow’	<i>namə</i>	‘(A)crawl’
<i>waha</i>	‘(A)buy’	<i>manə</i>	‘(c)doubt’
<i>nəfə</i>	‘(A)uproot’	<i>məŋɔ</i>	‘(c)get angry’
<i>tosə</i>	‘(A)burn’		

Table 2.11: Intervocalic stem-internal consonants in Biya.

<sup>18</sup> When cooking is done in a firewood kitchen, and a large cauldron is used to prepare fufu corn (which resembles semi-firm polenta) three large stones are placed around the fire for the pot to rest on. Another inner ring of three smaller stones further stabilizes the pot. This inner ring of stones is called *n̄tɕənsə* in Munken.



### 2.3.4 Coda position

The only consonants which may appear in coda position are the nasals *m*, *n* and *ŋ*. The palatal nasal *ɲ* is not found outside of stem-initial position. There are no differences between the dialects concerning the licit coda consonants. Table 2.12 shows a minimal triplet for the three coda consonants.

<b>bam</b>	‘ <sub>(B)</sub> beat’
<b>ban</b>	‘ <sub>(B)</sub> shine’
<b>baŋ</b>	‘ <sub>(B)</sub> lock’

Table 2.12: Possible coda consonants (Abar).

## 2.4 Tones

Tonal contrasts are employed in different ways for nouns and verbs. In nouns, tonal contrasts are predominantly lexical: nouns may have one of eleven different stem tones (though not all eleven are attested in all dialects; see §2.4.2), all of which which may be assigned to a noun with either monosyllabic or disyllabic stem.<sup>19</sup> The tone of noun class prefixes is mostly fixed by the stem tone, but noun class prefixes appear to have a small contrastive potential (cf. §5.3). In verbs, tonal contrasts are both lexical and morphological: all verbs belong to one of three lexical tone classes, and a given verb will have different possible tones, according to its tone class, when inflected.

### 2.4.1 Verb tones

The Mungbam dialects each have three lexical classes of verbs, called A, B, and C. Tone on a verb serves to mark inflection, so the potential of verbs to contrast

<sup>19</sup> It would not be surprising, however, to learn that differences in the distribution of tones could be traced to *historical* differences in the number of syllables.

tonally depends on the inflectional category chosen, such that the category affording the maximum number of contrasts (realis perfective) permits three types of verbs to be distinguished based on their tone. The only lexical information which I consider to be associated with verbal tones is the correspondence between tones associated with different morphological categories. This means, for example, that for a verb having an ML tone in its irrealis form, its lexical entry should specify that it must have an HL tone in its imperfective realis form. No particularly strong evidence exists for treating any of the morphological categories expressed by tone as the primary one, so verbs are considered to belong to abstract, ‘substance-free’ lexical tonal categories, and they are not assigned underlying tones.

When all inflectional categories are considered, there are six possible tones which can occur on non-reduplicated verb stems. The same distinctions are present in all dialects, with only very minor differences in the phonetic realization of the tones. The possible verb tones are presented in table 2.13 for Abar (see § 4.1.1 on the parallel use of tonal diacritics and ‘tone letters’ such as H<sup>+</sup>).

Realis	Irrealis	gloss
wù (L <sup>-</sup> )	wù (L <sup>+</sup> )	‘ <sub>(A)</sub> grind’
wǔ (S)	wù (ML)	‘ <sub>(B)</sub> wash’
wù (HL)	wú (H <sup>+</sup> )	‘ <sub>(B)</sub> wash.IPFV’
wù (HL)	wú (H <sup>+</sup> )	‘ <sub>(C)</sub> ascend’

Table 2.13: Tonal contrast on verbs in realis and irrealis forms (Abar). The use of the letters accompanying the transcriptions is explained in § 4.1.1.

Verbs of class A and C have only two possible tones when only non-reduplicated forms are considered. Verbs of class B have different tones depending on whether a perfective or imperfective stem is present (cf. § 7.2). Tones for class B imperfective stem verbs are identical to tones for class C verbs.

The tone on irrealis set A verbs may be realized as a mid level tone, rather than as a low rising tone. When this possibility is considered, it can be seen

that the verbal system displays four distinct possible level tones. Four tone levels are also necessary to characterize all tonal contrasts on nouns, as will be seen in §2.4.2. There are certain narrow contexts where five tone levels are necessary to characterize all tone contrasts, but the phonological analysis to be presented in §4.1.2 can be considered as being based on only four tones. Lovegren (2012b) sketched an analysis for a fragment of the phonology which made use of only two underlying tones, along with a complicated set of autosegmental association rules and key lowering/raising rules implemented in the optimality theory (OT) formalism.<sup>20</sup> No such exercise is attempted in this dissertation.

### 2.4.2 Noun tones

Noun stems contrast a greater number of surface tonal patterns than verb stems do. Nouns generally do not have morphological tonal alternations,<sup>21</sup> but are subject to syntagmatic tonal alternations in certain contexts (cf. §4.1.2).

If the tone of the noun class prefix and the tone of the noun stem are taken together as a “melody”, some interesting observations can be made about the relative frequencies of the different melodies. In a 282-word list of Munken nouns, six of the twelve possible tonal patterns appeared on ~85% of the nouns, while the other six patterns represented ~15% of the nouns, with two tone patterns found on only two nouns each. This uneven distribution motivates a division of tonal melodies into ‘major’ and ‘minor’ sequences.<sup>22</sup>

Table 2.14 gives examples for each of the eleven possible tone patterns found on

<sup>20</sup> The OT literature is of high quantity, and I do not pretend to follow it; a more or less representative work is Prince and Smolensky (2002), though one would have to consult Lovegren (2012b) directly to determine exactly which version of OT was employed in that work. As key lowering/raising has been mentioned, it will be noted here that downstep (key lowering over the course of an intonational phrase) has not been found in Mungbam.

<sup>21</sup> Some nouns, mostly in class pairing 9/10, have a different stem tone depending on whether they bear a singular or plural noun class prefix.

<sup>22</sup> Though the exact patterns treated as ‘major’ may show a small amount of variation between dialects. Munken, for example, has L-M<sup>-</sup> as a major sequence and L-L<sup>-</sup> as a minor sequence.

MAJOR SEQUENCES					
L-L <sup>-</sup>		M-ML		H-HL	
ì-ḍì	‘CL9-porcupine’	ū-wè	‘CL3-moon’	ú-gbê	‘CL3-rope’
ì-jì	‘CL5-bush pepper’	ū-tsùm	‘CL3-cooking pot’	ú-ɛí	‘CL1-knife’
fì-mbwàha	‘CL19-lizard type’	kī-sī	‘CL7-snake type’	ú-gūsə	‘CL1-fire’
̀̀̀-tɛ̀̀̀	‘CL1-bush onion’	kī-kpè	‘CL7-shoe’	kí-mê	‘CL7-clay’
kì-nsè	‘CL7-highwayman’	ī-fī	‘CL5-head’	í-kpâm	‘CL5-seed’
̀̀̀-fàn	‘CL1-mouth’	ū-fū	‘CL1-hair’	í-ɛê	‘CL10-fowls’
L-M <sup>o</sup>			M-H <sup>-</sup>		
̀̀̀-gè	‘CL1-quarter head’	kī-fī	‘CL7-pig’		
̀̀̀-bənə	‘CL1-salt’	̀̀̀-kúŋ	‘CL1-chief’		
̀̀̀-səŋ	‘CL5-calabash bowl’	ī-nə	‘CL5-knee’		
kì-mfī	‘CL7-cocoyam’	fī-mjáŋ	‘CL19-ant type’		
̀̀̀-bān	‘CL1-shin’	fī-ŋkpúŋ	‘CL19-drum type’		
̀̀̀-tɛ̀̀̀	‘CL1-snare’	̀̀̀-kóm	‘CL1-cage’		
H-S		L-L <sup>+</sup>			
í-kí	‘10-baboons’	̀̀̀-kpənə	‘CL5-story’		
í-bá	‘10-palm nuts’	̀̀̀-kì	‘CL9-baboon’		
í-bú	‘10-goats’	̀̀̀-bă	‘CL9-palm nut’		
ú-tɛ́úm	‘1-village’	̀̀̀-tsūŋ	‘CL5-indian bamboo’		
kí-gǎfə	‘7-gap’	̀̀̀-tsɔ	‘CL5-cork’		
bú-tsó	‘14-witchcraft’	̀̀̀-səŋ	‘CL5-hip basket’		
MINOR SEQUENCES					
H-L <sup>+</sup>			L-M <sup>-</sup>		
bá-bjàŋ	‘2-ajumbu people’		bà-bjàŋ	‘2-children’	
í-sə	‘5-face’		bù-jèlò	‘14-needle’	
M-HL			H-HM		
ī-tsâm	‘9-monkey type’		kí-tɛ́	‘7-foundation’	
fī-nḍâŋ	‘19-potato’		kí-ká	‘7-wall’	

Table 2.14: Possible tonal sequences on Missong nouns.

Missong nouns, with a division being made between major and minor sequences. What can be inferred from table 2.14 is that the prefix tones are *mostly* predictable from the stem-initial tones (and the noninitial stem tones are completely predictable from the stem-initial tones, as discussed in § 2.1).

This is not to say that there is an overall phonological rule which can be applied to any of the nine possible stem-initial tones to determine the prefix tone,

but instead to say that the prefix tone can be inferred when the stem-initial tone is known, simply because most stem-initial tones appear in only one of the tonal sequences. Furthermore, if the four minor sequences are ignored, then a stem-initial tone can be uniquely associated with a prefix tone in every case. It can also be seen that contours are generally restricted to stem-initial position, with prefix tones being restricted to one of three level tones.

Tones on prefixes, then, do not carry the same contrastive weight that tones on accented syllables do. In light of the discussion to be presented in § 5.6.1.2, where noun classes are designated as having either a high or low inherent tone, it seems reasonable to suppose that noun class prefixes were historically limited to either a high or a low tone, and that the diversity of tones present on accented syllables is due to assimilatory (or “spreading,” depending on one’s preferred descriptive vocabulary) effects caused by tones on prefixes and stem-internal syllables. At this stage, however, no such account is ventured, and I limit myself to presenting all of the possible tones found on noun stems.

Stem tone	Abar	Biya	Munken
L <sup>-</sup>	ìmbòŋ ‘cow’	ìmbòŋ ‘cow’	ìmbòŋ ‘cow’
L <sup>+</sup>	ù-tèĕlò ‘woman’	ù-mjĕ ‘bush fowl’ <sup>23</sup>	ìmbĕlò ‘ribs’
M <sup>-</sup>	ìmbī ‘world’	ā-jī ‘eggs’	kī-bĕ ‘traditional plates’
M <sup>o</sup>	ì-bī ‘dog’	ù-wāha ‘noon sun’	bò-bwĕ ‘friends’
M <sup>+</sup>		kō-kĕŋ ‘calabash plant’	ā-ŋkōŋ ‘clay pot’
ML	ì-sū ‘fish’	í-jām ‘song’	
H <sup>-</sup>	mūŋ-kŋ ‘shah’	ī-fjŋ ‘ankle’	jī-jĕ ‘water’
H <sup>+</sup>		ú-sú ‘face’	ŋkpānò ‘clay dish’
HM	ċī-nāŋɔ ‘needle’	bī-bó ‘palm trees’	á-lāŋ ‘law’
HL	ċī-bús ‘cat’	fī-bús ‘cat’	ìmbĕ ‘salt’
S	ú-gbĕ ‘rope’	ú-gbō ‘rope’	ú-gbĕ ‘rope’

Table 2.15: Examples of words containing each of the possible stem tones for nouns in Abar, Biya and Munken (Ngun data is incomplete). Shaded cells indicated unattested stem tone. Dashed lines surround exemplars of tones which are not distinct except in their phonological behavior (q.v. § 4.1.2).

<sup>23</sup> Refers to various birds of genus *Francolinus* (*sensu lato*).

For the words presented in table 2.15, the vowel of the accented syllable is bolded. The tone is indicated two ways in table 2.15: first with a letter in the first column, and again with a diacritic over the vowel in the transcription. As will be discussed in § 4.1.1, the number of possible surface tones is quite large, and so special symbols which preserve all phonetic possibilities are employed when necessary, since the diacritics used in the transcription system are potentially ambiguous. Namely, tones referred to by  $M^-$  and  $ML$  are not distinct in the orthography (except in Biya), and neither are  $H^-$  and  $H^+$ . Since for both of these pairs of tones, one corresponds to a ‘minor’ tone in the sense discussed above, there would scarcely be any chance for confusion if native speakers were to make use of the present orthographic system.<sup>24</sup>

The issue may be appreciated by comparing the relative frequencies of stem tones found in the 282-word set of Munken nouns referred to above (cf. table 2.16). Although the  $H^-$  and  $H^+$  tones should in principle be contrastive,  $H^+$  is exceedingly rare in citation nouns (the example in table 2.15 is one of only two that I know of). Although  $ML$  is attested widely on a token basis (it is the irrealis tone for perfective stem class B verbs), there is no contrast between  $M^-$  and  $ML$  on nouns. The two tones differ slightly in their phonetics, but do not contrast anywhere. At least in Munken, the diacritic  $\hat{x}$  can be properly phonetically interpreted as long as one knows whether it appears on a noun or on a verb. The tonal orthography is discussed in more detail in § 4.1.1.

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<sup>24</sup> This is not to say that the marking of tone in the present orthography would prove ideal for the non-linguist user. See remarks in Bird (1999).

Tone	Frequency	Cum. %
S	97	34.4%
L <sup>-</sup>	54	53.5%
M <sup>-</sup>	40	67.7%
HM	31	78.7%
H <sup>-</sup>	29	89.0%
L <sup>+</sup>	12	93.2%
HL	10	96.8%
M <sup>°</sup>	9	100.0%
M <sup>+</sup>	0*	100.0%
H <sup>+</sup>	0*	100.0%
ML	0 <sup>†</sup>	100.0%

Table 2.16: Frequencies of stem tones present in a 282-word list of Munken nouns. Tones are ordered by descending frequencies, and cumulative percentages are given. \* M+ and H+ are attested in one or two words each in my field notes (but not in the 282-word list). † ML is found only in verbs.





## Chapter 3

# Close contrasts in the vowel system

### 3.1 Introduction

Remarks on the phonetics of the vowel system have been presented in a mostly qualitative fashion in §§2.2.1–2.2.2. The aim of the present chapter is to present physical phonetic data on a subset of the vowel systems in a more rigorous manner, and use the data to determine whether any Mungbam dialect has a pair of contrasting vowels which differ in tongue root retraction, or pharyngeal expansion (referred to by the feature label “[ATR]” in phonology literature, and as shorthand in this chapter), and not in height.

For all of the most common vowel features (e.g., height, backness, rounding, nasality, phonation type, etc.), language descriptions mention whether the feature supports contrast, regardless of whether it is phonologically active. For example, minimal pairs such as *mɛs* ‘mass’ ~ *mɛ̃s* ‘thin’ may be given to establish nasality

as a vowel feature in French (Martinet, 1933:193), though French lacks nasal harmony.

A curious fact about the vowel feature [ATR] is that its presence as a contrast-bearing feature is uncontroversial only in languages having some kind of phonological process where the feature is active (*viz.* vowel harmony). This is because the feature is not easily “heard.” Although the physiological basis of [ATR] is well-substantiated, it is difficult to distinguish the acoustic effects of an [ATR] contrast from those of a height contrast. Since one tries to arrange a phonological analysis so that a minimum of features are used, a pair of vowels contrasting in their articulation partly in terms of pharyngeal expansion, and partly in terms of tongue height, would likely be classified as contrasting only for height.

A major goal of the study presented in this chapter is to devise a way of classifying a pair of vowels not as contrasting in one feature or another, but as having variably weighted features contributing to the contrast.<sup>1</sup> When physical phonetic data are used, statistical methods can be used to assign weights to different cues. As will be seen in §3.6.2.1, the method I use only succeeds when pairs of vowels which are acoustically close are considered.

Mungbam dialects provide an excellent data source in this respect for two main reasons. First, there is no phonological process in the language involving either height or [ATR]. Arguments about the phonological system which could cloud the analysis, or downplay the importance of phonetic considerations, are precluded. Second and most importantly, all dialects have pairs of vowels which are rather close together in terms of their height, so considering data from several of the dialects is likely to reveal systems where the vowel height is used to a greater or lesser degree.

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<sup>1</sup> Because the study presented in this chapter is concerned with establishing the main physical parameter associated a ontrast between one pair of vowels, a featural decomposition of the vowel system in terms of binary or multi-valued features is not an immediate goal.

Pairs of vowels were chosen from Munken, Biya, Abar and Missong which are quite close in  $F1 \times F2$  space (see figure 2.1, p. 28). The pairs of vowels to be considered are those transcribed  $e$  and  $\iota$  in Abar and Biya, and those transcribed  $e$  and  $\varepsilon$  in Munken and Missong. Front vowels are chosen because not all dialects have a pair of back vowels which are very close in terms of height, and because formant values can be determined from an automatic formant tracker with a greater degree of accuracy and precision for front vowels than for back vowels, reducing the amount of time consumed in processing the data.

In § 3.2 I summarize earlier work on the issue of vowel contrast in Mungbam, emphasizing shortcomings which are improved upon in the current study. In § 3.3 I review some of the previous approaches in the published literature to identifying spectral correlates of vowel contrasts termed “[ATR]” in African languages. Section 3.4 provides an introduction to the statistical methods employed in characterizing vowel contrasts. In § 3.5 the raw data, and their method of collection, are characterized. The results of the analysis are presented in § 3.6, and a general discussion concludes the chapter (§ 3.7).

## 3.2 Previous work on Mungbam vowel contrast

In two earlier unpublished studies on Mungbam vowel contrast (Lovegren, 2011a,b), I considered recordings of vowel productions (repetitions of vowel-final words, presented in random order, and without carrier sentences<sup>2</sup>) for two Abar speakers, two Biya speakers, and one Missong speaker. I considered repetitions of tokens of words containing pairs of vowels which I judged to be rather perceptually close, which amounted to words transcribed with the stem vowels  $/e/$  and  $/\iota/$ , and words transcribed with the stem vowels  $/o/$  and  $/u/$ .

<sup>2</sup>The reasons for not using carrier phrases are explained in Lovegren (2011a: 5–6).

First formant frequency (F1) was measured for each vowel token (as an indicator of height), as was the bandwidth of the first formant (B1) (as an indicator of pharyngeal expansion). A simple statistical procedure, described in the next paragraph, was used to gauge the relative importance of B1 and F1 in establishing the contrast.

For each speaker and each vowel contrast, I ran two paired *t*-tests for each close contrast: one compared values of F1, and one compared values of B1. For example, a paired *t*-test was run to determine whether there was a statistically significant difference in the mean F1 value for 13 repetitions of *o* by one Abar speaker, and 13 repetitions of *u* by the same speaker. The idea was to determine whether two vowels should be treated as contrasting in terms of height, or instead in terms of [ATR]. In total, 11 *t*-tests were run, and *p*-values were adjusted to avoid family bias according to the procedure of Rom (1990). I used the following procedures for deciding which feature was more important:

- If a *t*-test returned a non-significant *p*-value for a given physical parameter, then the corresponding distinctive feature would not be the one which bore contrast, and the other feature was the one which bore the contrast.
- If both *t*-tests returned significant *p*-values, then the feature corresponding to the *t*-test with the lower *p*-value would be treated as the one which bore the contrast.

Put informally, lack of significance was used as a way of ‘weeding out’ candidate features. This procedure was partly justified on the basis of a comment by Clements (1991: 52):

“In classical ATR-based systems, such as that of Akan, the [+high, -ATR] vowels are not well separated in first formant frequency from the [-high, +ATR] vowel.”

As the reasoning went, if the B1 difference between two vowels was more significant than their F1 difference, then there would be a basis for calling the vowels “not well separated” in terms of F1. According to these criteria, the Missong speaker and one of the Abar speakers were deemed to make use of the feature [ATR] rather than height in contrasting the vowel pairs for which their productions were recorded.

One shortcoming of the statistical analysis was the small number of participants used, with data from only one or two participants per dialect being used. A more serious shortcoming of Lovegren (2011a) was the crude nature of the statistical procedures employed in that paper. The use of paired *t*-tests forced severe restrictions on the analysis. First, since a paired *t*-test compares the means of data sets of the same sample size, some data points had to be discarded when different numbers of recorded tokens of each vowel were available for a given participant. Second, since only one variable could be tested at a time, the effects of F1 and B1 on resolving the contrast could not be compared directly. Instead, *p*-values had to be compared. For the same reason, the effect of F2 could not figure into the comparison. Third, since several tests were run concurrently, critical values had to be altered to avoid family-type error, with the alterations becoming more drastic with each new test introduced. The number of tests run had to be minimized, and so one of the most perverse outcomes was that data which was available was not analyzed, so as to preserve my ability to discover statistically significant generalizations. Data from only two Biya consultants was considered, though data from four consultants had been collected in 2010. Finally, since the *t*-test falls within the family of statistical methods applicable to continuous-valued data, only continuous-valued variables (i.e., spectral measurements) could be considered.

The problem of small sample size has been ameliorated somewhat in the current

study with the inclusion of unused data collected in 2010, and additional data collected in 2012. Most of the problems concerning the statistical methods used can be overcome with the use of methods for categorical data analysis (Agresti, 2002), and more so when methods of hierarchical modeling are additionally employed (Gelman and Hill, 2007). These methods, which form the basis of the present analysis, are discussed in § 3.4, which follows the discussion on acoustic correlates of pharyngeal expansion (§ 3.3).

### 3.3 Spectral correlates of pharyngeal expansion

The most common types of vowel contrasts have well-understood physical correlates. Lowering the jaw and the tongue body is associated with an increase in the first formant (F1). Moving the tongue body forward is associated with an increase in the second formant (F2). Rounding the lips produces a decrease in all formant values.<sup>3</sup> Retracting the tongue root affects the same acoustic parameters: it is associated with an increase in F1, and a “centering” effect on F2, reducing it for front vowels, and increasing it for back vowels (Halle and Stevens, 1969:211). If tongue root retraction is to be distinguished from tongue body lowering on the basis of acoustic data, additional correlates will be necessary which differentiate the two types of gestures. It is necessary at this point to review some proposals which have been advanced in pursuit of this goal.

A handful of studies have sought to establish acoustic indicators of tongue root advancement or retraction beyond perturbations in F1 and F2. All of these have sought a way of measuring differences in the acoustic impedance of the pharyngeal walls due to changes in pharyngeal volume.

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<sup>3</sup>For a brief and well-referenced historical discussion on the development of acoustic phonetic theory, see Harrington and Cassidy (1999:60–1).

Acoustic losses in the region of the first three formant have been modeled by Fant (1972: 41–4), who proposed an empirical equation for determining formant bandwidths on the basis of Swedish data reported by Fujimura and Lindqvist (1971). Fujimura and Lindqvist’s procedure, though not in itself especially invasive or expensive to perform, has not, as far as I can tell, been repeated on speakers of any languages other than Swedish.

Hess (1992), using data from one Akan speaker, found a reliable difference in first formant bandwidth (B1) between [±ATR] vowels having similar F1 values, with root retracted vowels having higher B1 values. For pairs of vowels not having similar F1 values, she considered differences between measured B1 values and values predicted on the basis of F1 from Fant’s equation. Root retracted vowels were found to show a greater divergence from Fant’s equation than root advanced vowels. Hess additionally measured spectral tilt, or the differential between the intensity of the first and second harmonics, which has been shown to be sensitive to phonation type (Gordon and Ladefoged, 2001: 397–9). No correlation was found for this measure. This method was replicated by Anderson (2003), using Ikpɔsɔ data. In that study, no reliable differences were found in B1, but an effect for spectral tilt was observed.

Fulop et al. (1998), who studied [ATR] contrast in Degema vowels, used a somewhat more sophisticated procedure,<sup>4</sup> employing a model which calculated a vowel’s spectrum on the basis of the contribution to the overall spectrum by each formant. They computed a measure, called normalized  $A_1 - A_2$ , which compared the difference between the measured intensity of the harmonics nearest F1 and F2 and the intensities for the same F1 and F2 values as determined from Fant’s (1972) model. Acoustic losses in the F1 region would be reflected by a negative

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<sup>4</sup> Acknowledgments in that paper indicate that Gunnar Fant, though not included as one of the coauthors, provided technical guidance in the analysis.

normalized  $A_1 - A_2$  value. Although this measure showed an overall significant effect for [ATR], it was only significant for two of the five [ $\pm$ ATR] pairs of vowels.

A less specific measure, which has the advantage of being easy to compute accurately, is spectral center of gravity (COG). Edmondson (2009) proposed this measure, believing that it would correlate with the perceptual quality of “flatness,” as described by Kingston et al. (1997), and, using Akan and Kabiyé data, found an effect for [ATR], with root retracted vowels having higher COG. Anderson (2007) found a similar effect with data from Foodo. Since COG necessarily takes the full spectrum into account, it is susceptible to various factors, including the value of the first three formants, and the presence of noise at higher frequencies.

A more recent attempt at finding an acoustic correlate of pharyngeal expansion is the study of Remijsen et al. (2011), which employed nine Shilluk (Nilotic) speakers. Like Edmondson (2009), Remijsen et al. attempt to capture the observation that pharyngeal constriction in vowel articulation corresponds to an upward shift in overall spectral energy. After considering five different measures of spectral energy distribution (2011: 117, fn.9), the authors chose the metric of spectral emphasis (Traunmüller and Eriksson, 2000: 3440),<sup>5</sup> which they found best separated the [+ATR] and the [-ATR] vowels.

Of the measures discussed, B1 was the non-formant acoustic parameter used in Lovegren (2011a). As was noted in that paper, there are issues with the accu-

<sup>5</sup> Traunmüller and Eriksson (2000: 3440) describe the procedure as follows:

The concatenated voiced segments of each phonated utterance were low-pass filtered with a cutoff frequency of  $1.5 \times F0_{mean}$ , 18 dB/octave, and the average SPL of the lowpass-filtered signal ( $SPL_0$ ) was measured. A measure of spectral emphasis was then obtained by calculating the difference,  $Emph = SPL_v - SPL_0$ . This measure is equal to zero when partials above the first are totally absent and it is +3 dB when there are equal amounts of energy below and above  $1.5 \times F0_{mean}$ .

Remijsen et al.’s procedure differs very slightly in that their measurements were made with Praat (Boersma, 2000), whose low-pass filter operates on the frequency domain, and therefore has no associated “roll-off” measure equivalent to the value of 18dB/octave quoted in Traunmüller and Eriksson (2000: 3440). Instead, Remijsen et al. seem to have used a “smoothing” factor of 25Hz in the script posted on Mills’ website.



racy of B1 measurements. The difficulty of accurately measuring formant bandwidths from an LPC analysis based on an all-pole model<sup>6</sup> is well-known (Iskarous, 2010: 379), especially for formants near a subglottal resonance (Atal and Hanauer, 1971: 646). The parameter to be used presently is spectral tilt, since it is easy to calculate accurately, has been found to be useful in identifying [ATR] contrasts in a recent study, and has a sound theoretical basis.

### 3.4 Statistical Methods

As has been pointed out in §3.2, some of the most serious shortcomings of my earlier work on Mungbam vowel contrast were due to the limitations imposed by the simple statistical methods used. The statistical method used in the current work, that of Generalized Linear Mixed-effects Modeling (GLMM) offers drastic improvements. The method allows for the determination of a single model which expresses the probability of a given type of observation as a function of all of the physical and idiosyncratic parameters of interest. The model estimates weights for each of the physical parameters, and these weights may be compared to measure the relative importance of each parameter. Though the GLMM method is rapidly gaining popularity as an analytical tool within the social sciences, it is rarely used in answering routine questions concerning the structure of particular languages. Given that I am applying a familiar method to a novel territory, it will be appropriate to explain in this section what the method consists of. Further exposition of the method for an audience of linguists is found in Jaeger (2008). Of the more detailed expositions available, Agresti (2007) and Gelman and Hill (2007) are accessible and thorough.

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<sup>6</sup> A standard and relatively simple model used for LPC analysis. The term *pole* comes from the field of complex analysis, where it refers to a discontinuity in a complex-valued equation.

### 3.4.1 Form of the modeled equation

In the current application, I model the probability that a given sound slice will be a token of a given vowel, where this probability is a function of several physical parameters. The overall equation has a general form of (3.1).

$$p(V = v_j) = f(F1, F2, \mathcal{S}, \mathcal{P}) \quad (3.1)$$

In (3.1),  $p(V = v_j)$  represents the probability that a given sound slice  $V$  represents, in a given speech variety, an articulation of the vowel  $v_j$ . This probability is expressed as a function of several explanatory variables: the first formant frequency (F1), the second formant frequency (F2), the spectral emphasis ( $\mathcal{S}$ ), and the identity of the participant ( $\mathcal{P}$ ). The exact form of the equation is determined through the method of generalized linear mixed-effects modeling (GLMM). In a GLMM model, the observed data within an experimental group  $i$  (out of  $m$  total groups) are assumed to be related to the values of the explanatory variables  $x_1, x_2, \dots$  by an equation of the form (3.2):

$$g(y) = \alpha_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \alpha_i + \epsilon \quad (3.2)$$

The parts of the equation are as follows:

- $y$  is the value of the observed variable, or response variable.
- $x_1, x_2, \dots$  are the values of the (experimentally or naturally) manipulated variables, also called the explanatory variables.
- $\beta_1, \beta_2, \dots$  are the values of the weighting coefficients associated with each explanatory variable.
- $\alpha_0$  is a constant “intercept” term (sometimes written as  $\beta_0$ ).

- $\alpha_i$  is a constant associated with experimental group  $i$ . It represents the contribution to the result due to random, idiosyncratic factors associated with experimental group  $i$ . The values of  $\alpha_i$  are assumed to have a mean of zero, and to be normally distributed.
- $g(\dots)$  is the *link function*, which transforms the values of the response variable so that they can be modeled by a linear function.
- $\epsilon$  represents the error between the actual values of the response variable and the values predicted by the modeline equation. Values of  $\epsilon$  are assumed to be normally distributed with a mean of zero, and they are assumed not to be correlated with any of the other variables.

It must be recognized that in most applications one can never be sure that the equation parameters obtained are the “true” values of the coefficients and constants in (3.2). An alternate form of (3.2), then, is written in terms of parameter *estimates* (values of  $\beta$  estimated by the model-fitting algorithm), and in terms of a predicted value of the response variable  $\hat{y} = y - \epsilon$ . The rewritten equation is given in (3.3), where the “hat” diacritics indicate estimates rather than true values.

$$g(\hat{y}) = \hat{\alpha}_0 + \hat{\beta}_1 x_1 + \hat{\beta}_2 x_2 + \dots + \hat{\alpha}_i \quad (3.3)$$

### 3.4.2 Estimation of future probabilities from past data

Applying the general equation to the specific modeling problem requires a consideration of the type of each variable and knowledge of theoretical proposals relating the response variable and the explanatory variables, and any proposals relating the explanatory variables to each other. The form of our response variable is categorical with two categories:  $e$  and  $\iota$  (for Biya and Abar), or  $e$  and  $\epsilon$  (for Missong

and Munken). We are interested in determining the probability that an unidentified vowel with certain spectral characteristics uttered by a certain person from a certain dialect will be a token of one or the other of these two categories. If the experimental data is limited to only these two vowels, then the probabilities for the two categories are related as follows (using the Biya and Abar contrast as an example):

$$p(V = e) + p(V = \iota) = 1 \quad (3.4)$$

Therefore, we only need to estimate the probability for one of the categories, the other probability being inferrable from this relationship. The category whose probability is not estimated directly is called the *baseline category*.

If the same trial is repeated infinitely many times, and  $x$  is one of the possible outcomes, the proportion of trials with outcome  $x$  is, by definition, equal to the probability of  $x$  (Bulmer, 1967: 4–5). Given this definition of probability, we can *estimate* the probability of an event  $x$  as the proportion of a *finite* number of equal trials for which  $x$  is the outcome. As we increase the number of trials, the estimate of  $x$  becomes more accurate. This definition of probability is the basis for using a sample of previously recorded vowel tokens to determine general properties about the Mungbam vowel systems.

### 3.4.3 Form of the link function

Given that probability is defined as a proportion, the only possible values of a probability are numbers on the closed interval  $[0, 1]$ . If we were to attempt to predict probabilities directly from (3.2) without the use of a link function,<sup>7</sup> it would often be the case that the predicted probabilities would lie outside the range of actually possible probabilities. A first approach to improving the model

<sup>7</sup>Or more precisely, with the identity link function  $g(y) = y$ .

is to instead model the *odds* of an event of interest happening. Odds are defined (for trials with only two possible outcomes) as follows:

$$O(x) = \frac{p(x)}{1 - p(x)} \quad (3.5)$$

The value of  $O(x)$  must lie on the interval  $[0, +\infty)$ . Values of  $O(x)$  less than 1 correspond to probabilities less than 0.5, and values of  $O(x)$  greater than 1 correspond to probabilities greater than 0.5. Although the use of odds partially solves the problem, since predicted values greater than 1 no longer correspond to impossible scenarios, there remains the problem that the scale is not symmetric: probabilities between 0 and 0.5 correspond to odds values between 0 and 1, but probabilities between 0.5 and 1 correspond to odds values between 1 and  $+\infty$ . This problem is solved by using as the link function the logarithm of the odds, whose values lie on the interval  $(-\infty, +\infty)$ , and are symmetric about 0. The log of the odds ratio is commonly called the *logit* function, defined as:

$$\text{logit}(x) = \log\left(\frac{p(x)}{1 - p(x)}\right); \quad \text{logit}^{-1}(y) = \frac{e^y}{1 + e^y} \quad (3.6)$$

For the Biya model, then, we can rewrite (3.3) as follows:

$$\hat{p}(V = e) = \text{logit}^{-1}(\hat{\alpha}_0 + \hat{\beta}_1 x_1 + \hat{\beta}_2 x_2 + \hat{\beta}_3 x_3 + \hat{\alpha}_i) \quad (3.7)$$

Equation (3.7) can be used to predict the probability that a vowel with given physical parameters  $x_1, x_2, \dots$  is the vowel  $e$ . Since we limit the model to tokens of only two vowels,  $\hat{p}(V = \iota)$  can be readily calculated once  $\hat{p}(V = e)$  is determined.

### 3.4.4 The use of perceptual scales

All that remains in reaching the final form of the model equation are numerical interpretations of the physical parameters  $x_1, x_2, x_3$ , which should represent F1, F2 and  $\mathcal{S}$ . When measured from the spectrograms, the formant frequencies are expressed in units of Hertz (Hz), and spectral emphasis is represented in units of decibels (dB). The decibel scale is, to an approximation, a perceptual scale, in that equal differences on that scale correspond to roughly equal differences in subjective loudness (Johnson, 2003: 49), so the measurement of spectral emphasis does not need to be transformed to a scale more appropriate to the analysis of perceptual categories. The formant frequency values, however, are transformed to the perceptual mel scale using the formula:

$$m = 2595 \times \log_{10} \left( 1 + \frac{f}{700} \right) \quad (3.8)$$

### 3.4.5 Normalization of data

Next, inter-speaker differences are partly neutralized through a normalization procedure: a normalized value for each measurement for a given participant is obtained by subtracting the participant's mean value, and then dividing the difference by the participant's standard deviation. Scaled scores calculated in this way are often called  $Z$  scores, after the variable used to indicate values of the abscissa on the standard Gaussian curve. The extent to which this procedure generalizes the data over participants can be observed by considering the estimate of  $\alpha_i$  in the fitted model. If the variance of  $\hat{\alpha}_i$  is significantly more than zero, then the fitted model produces different estimates for different participants, and individual variation remains an important factor in the data. If, on the other hand,  $\hat{\alpha}_i \approx 0$ , then for given values of the physical parameters of interest, the model will pro-

duce the same estimates for all participants, and individual variation can be said to have been completely accounted for by the normalization process. The normalization procedure also removes the effect of different levels of low-frequency noise in different recordings introduced by the use of two different types of micorphones, and slightly varying settings of the input volume from recording to recording.<sup>8</sup> Using a prime (') symbol to denote scaled and normalized values of the physical parameters, equation (3.7) is rewritten as:

$$\hat{p}(V = e) = \text{logit}^{-1}(\hat{\alpha}_0 + \hat{\beta}_{F1}x'_{F1} + \hat{\beta}_{F2}x'_{F2} + \hat{\beta}_{\mathcal{F}}x'_{\mathcal{F}} + \hat{\alpha}_i) \quad (3.9)$$

Equation (3.7) does not contain interaction terms, but these will be tested in actual model runs.

### 3.5 Data collection procedure

The analysis is based on data collected in 2010 and in 2012. The 2010 data includes recordings made from 11 consultants, and the 2012 data includes recordings from 6 additional consultants. My earlier papers based on the 2010 data used data from only five of the consultants (2 Biya, 2 Abar, and 1 Missong). The analysis reported here is based on data from 16 of the 17 recorded consultants (4 Biya, 4 Abar, 5 Munken, 3 Missong). Data from one Biya consultant had to be excluded from the study due to a persistent creak in the consultant's voice, which prevented the precise measurement of F0 (as will be seen below, precise F0 measurements were needed for the calculation of spectral emphasis).

<sup>8</sup>Noting that if a constant  $c$ , is added to all values of a sample, the mean of the modified sample is equal to  $\bar{x} + c$ , and the standard deviation of the sample is unchanged. The normalized value  $Z_i = \frac{x_i + c - (\bar{x} + c)}{s(x)} = \frac{x_i - \bar{x}}{s(x)}$  remains unchanged. Therefore, if there is a low frequency noise component of constant intensity present in all of the recordings for one speaker, its will not appreciably affect the normalized spectral emphasis measurements.

Consultants were prompted with an English gloss, and they then produced the corresponding target word in isolation. Depending on the session, a set of between 6 and 12 target words were used, with only two of these representing the vowel contrast of interest. Each word was repeated in isolation between 12 and 15 times, depending on the speaker, and tokens were presented in a randomized order. With some slight variations between speakers, the target words used were those containing stem *e*, *ɪ*, or *ɛ* given in table 2.5 (p. 33).

Audio was recorded outdoors on a Marantz PMD661 solid state recorder either with a Shure WH30XLR head-mounted condenser microphone or the internal microphone of the solid state recorder. Recordings were made at a sampling rate of 44.1 kHz, at 24-bit resolution. Vowels were tagged and extracted. Sounds were then downsampled to twice the formant frequency ceiling (5 kHz for males, 5.5 kHz for females), and formants were determined via LPC analysis with 10 or 11 prediction coefficients (i.e. one per 1kHz of the new sampling rate), using Burg's method for generating prediction coefficients. Measurements for F1 and F2 were made for each vowel and spectral tilt was calculated directly from the LPC curve. The formant extraction procedure was automated using the `To formant (burg) . . .` macro in Praat version 5.2.03 (Boersma, 2000). When the formant tracker produced an inaccurate measurement, the measurement was repeated by hand. Spectral emphasis was calculated from the LPC curve using the procedure described in Traunmüller and Eriksson (2000:3440) (see § 3.3).<sup>9</sup>

<sup>9</sup>The main potential for error in automatic formant measurement is the computer's occasionally picking the "wrong" local maximum from the LPC curve. This is a problem that affects formant tracking, but not measurement of spectral tilt.



## 3.6 Results

Results are presented in two-part fashion. First I present the results in a qualitative fashion, commenting on three figures drawn to illustrate the basic data (§ 3.6.1). In § 3.6.2 the results of regression modeling performed on the data are discussed.

### 3.6.1 Qualitative discussion

Measurements of F1, F2, and spectral emphasis were made for a total of 417 tokens of *e*, *ɪ*, and *ɛ* for 16 participant, speakers of Biya, Abar, Munken and Missong. These measurements were converted to normalized perceptual scales. The results are plotted in figures 3.1–3.3, produced with the aid of the `lattice` package in R (Sarkar, 2008; R Core Team, 2012). Ellipses in the plots are centered at the average values, and have semi-axis lengths equal to one standard deviation when differences from the mean value are measured along that axis. Ellipses are rotated so that their area is a minimum.

The first plot, shown in figure 3.1, takes the familiar form of a F1 × F2 vowel quality plot, with acoustic height represented on the y-axis, and backness represented on the x-axis. Figure 3.1 suggests that normalized F2 clearly separates the vowels of interest only in Munken, while normalized F1 appears to distinguish the vowels in all of the dialects except for Abar (though the separation in terms of F1 in Biya and Missong is rather slight).

The second plot, shown in figure 3.2, shows the range of spectral characteristics for the vowels of interest in terms of normalized F1 (y-axis) and normalized spectral emphasis (x-axis). The y-axis is inverted so that the plot indicates vowel height in an intuitive way. The regions enclosed by ellipses in figure 3.2 neatly complement the initial picture shown in figure 3.1. It can be seen that, as in figure 3.1, normalized F1 is a good parameter in Munken, Missong and Biya for approximately

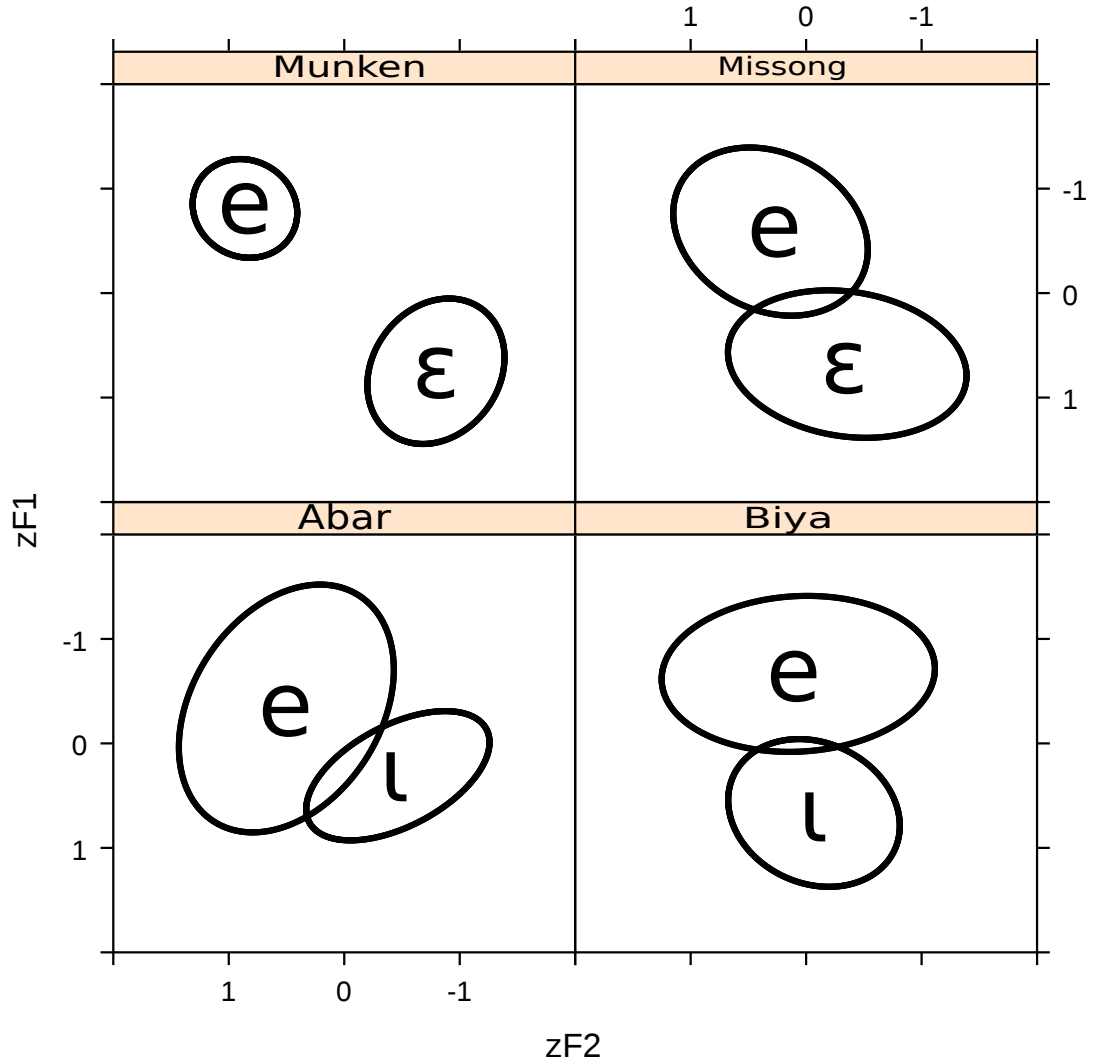


Figure 3.1: Normalized F2 vs. F1 values, axes inverted.

dividing up the perceptual space into regions corresponding to each of the vowels. Since the Abar vowels are distinct, and, logically, must be distinguished by *some* spectral property, it is a welcome observation to find that although the Abar

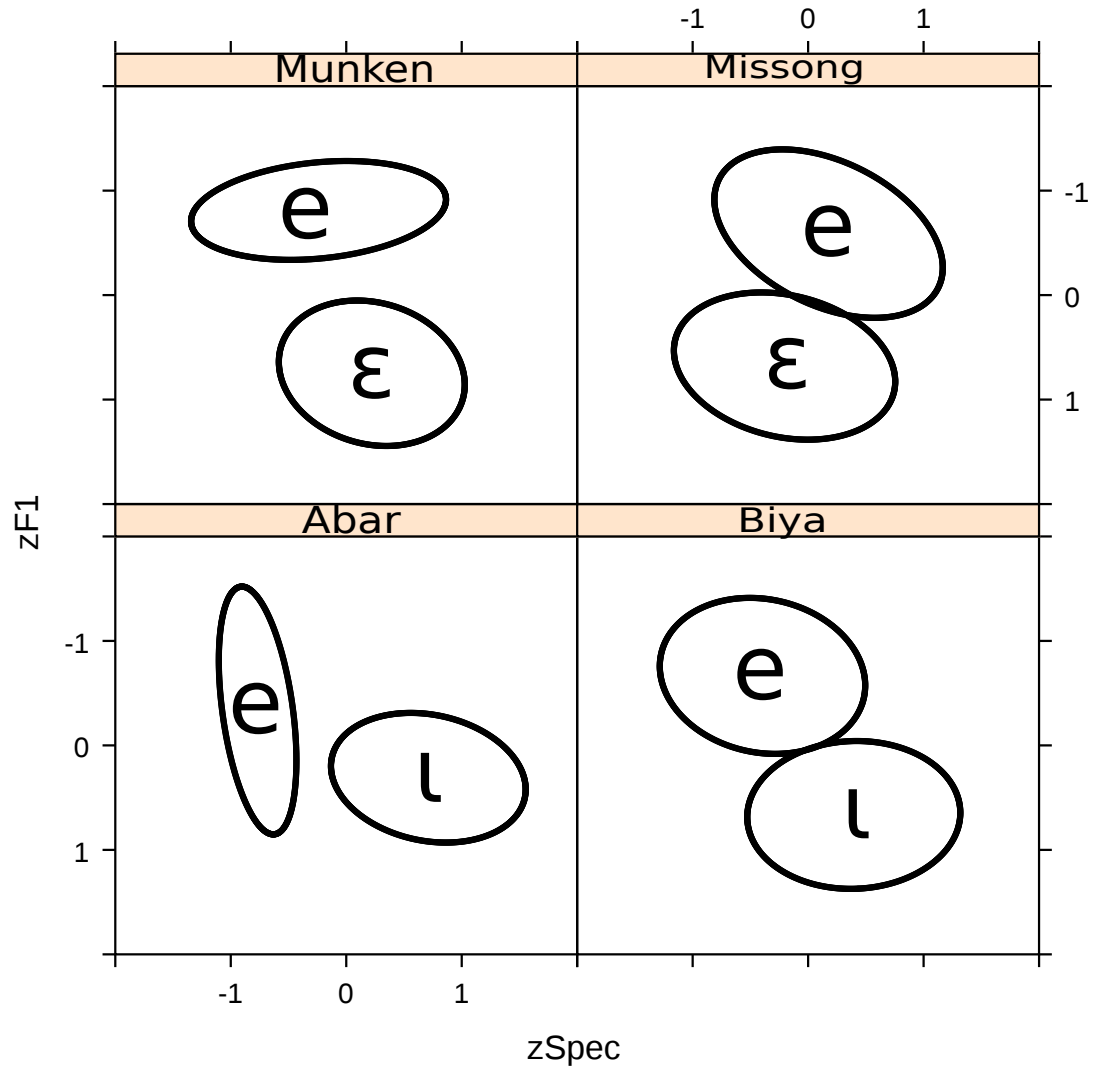


Figure 3.2: Normalized Spectral emphasis vs. F1 values, y-axis inverted.

vowels are not well-separated in terms of normalized F1, a clear contrast is made when normalized spectral emphasis is used. In the other three dialects, the vowel pairs are not separated nearly as well in terms of normalized spectral emphasis.

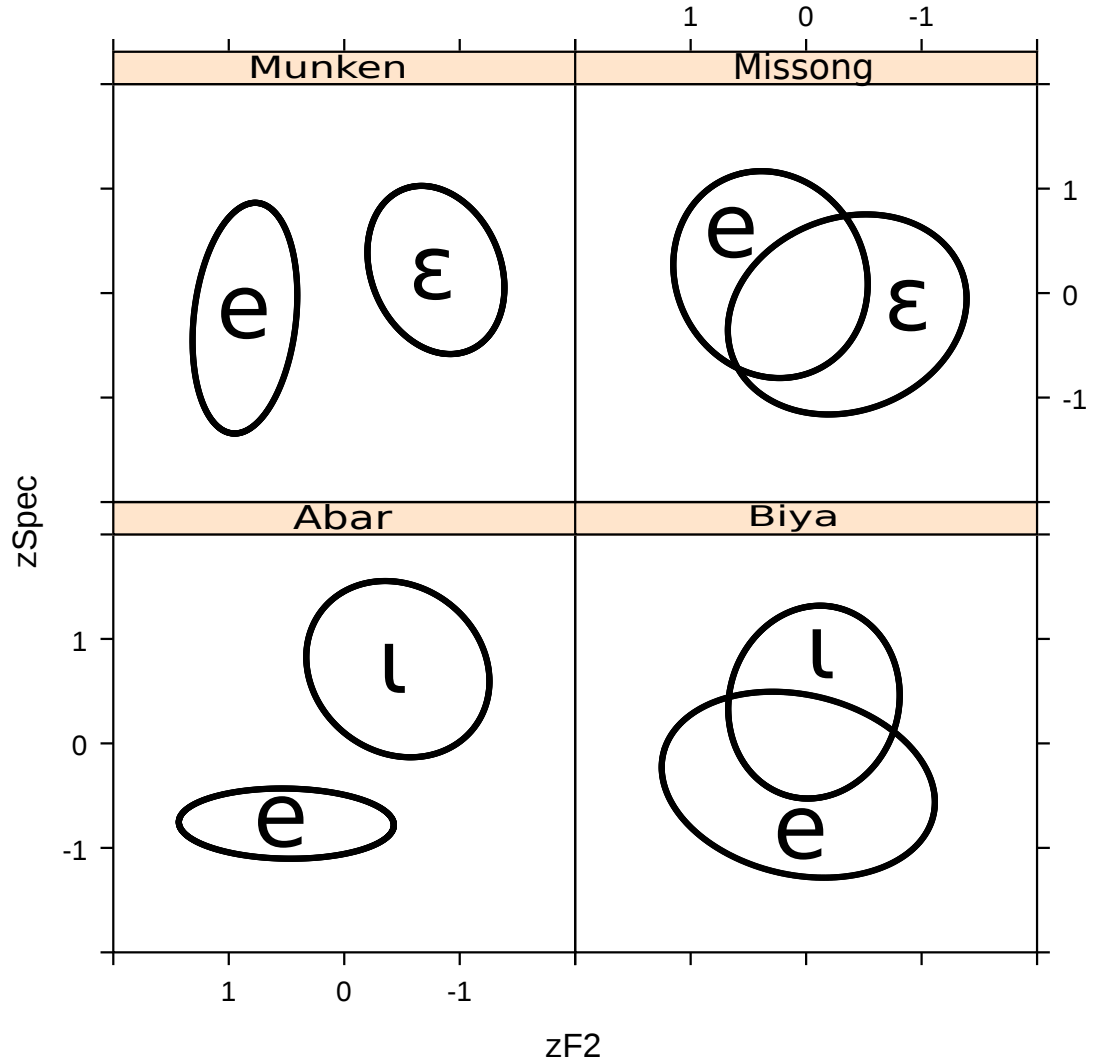


Figure 3.3: Normalized F2 vs. Spectral emphasis values, x-axis inverted. Labels are centered within ellipses except where they overlap significantly.

The third plot, shown in figure 3.3, does not actually present any new information, but offers a convenient visualization of how well the vowel pairs are separated in terms of normalized F2 (x-axis) and normalized spectral emphasis (y-axis). The

x-axis is inverted to indicate vowel backness intuitively. As could be deduced by considering figures 3.1–3.2, significant overlap of the vowel ellipses is found in Biya and Missong, since in those two dialects the vowels are well-separated neither in terms of normalized F2 nor in terms of normalized spectral emphasis. The configuration of the overlapping ellipses in Biya and Missong suggest that normalized F2 is more important than normalized spectral emphasis in Missong, with the opposite holding in Biya. The Munken and Abar panels witness the importance of normalized F2 in Munken, and of normalized spectral emphasis in Abar.

### 3.6.2 Results of the regression analysis

A well-designed statistical analysis has the power of reinforcing the points suggested in a qualitative fashion by the plots given in §3.6. In this section I report on the findings of a regression model attempting to quantify the relative importance of each of the three physical parameters. The analysis implements procedures included in the R package `arm` (Gelman et al., 2012).

#### 3.6.2.1 Individual differences and model convergence

It was stated above that measures of the physical parameters were normalized in order to reduce the amount of variation in the data due to physiological differences between individual participants affecting their overall ranges of pitch and formant frequency in vowel productions.

The term  $\hat{\alpha}_i$  in the model equation is often called a *random intercept* term. In the current model the variance of  $\hat{\alpha}_i$  would reflect differences between participants affecting the probability of a particular vowel being observed. When  $\hat{\alpha}_i$  is the only random term,  $\hat{\alpha}_i \approx 0$  in every case, because participants produced approximately equal numbers of vowels of each type. Models whose only random term is a random

intercept can meaningfully account for variation between groups only if the value of the response variable is not controlled by experimental design.

More relevant to the current research question is there are individual differences which translate into differential weightings of any of the physical parameters. These differences could be captured by the inclusion of a *random slope* term, which would allow for weighting factors (i.e., the  $\hat{\beta}$  terms in the equation) to vary by participant. Weighting factors which include this random component are modified by a subscript  $i$ , as the random intercept term is. In order to determine whether this kind of variation was present, a model was fitted containing terms for normalized F1, normalized F2, normalized spectral emphasis, an interaction term for normalized F1 and normalized spectral emphasis, and random slope and intercept terms. Since each vowel was in fact observed in approximately 50% of samples, effects introduced by varying weighting factors would be “corrected” by the value of the random intercept, and the variance in the random intercept could be used as a convenient indicator for whether there was variation between participants in the values of the weighting factors.

When models containing both random slopes and intercepts were fitted for Abar, Biya and Missong, random intercepts in the fitted models had variances significantly different from zero. This suggests that (as would be expected) the normalization process does not filter out individual preferences as to the relative weights of different physical parameters. The limited number of participants used for each dialect has precluded more detailed knowledge of any trends of interspeaker variation in parameter weighting within dialects. The inclusion of random slopes in the models, however, allows for this variation to be factored out, improving the likelihood that the parameter estimates represent actual trends which hold in general for a dialect.

When such a model was fitted for Munken, the model failed to converge. Algo-

rithms for fitting generalized linear models for categorical data tend to fail when confronted with data which is too neatly partitioned (see Agresti (2002:195–6) for discussion). It seems that the Munken model failed to converge because the vowels  $e$  and  $\varepsilon$  are *too distinct*. To appreciate this fact, consider figure 3.4, which shows the Munken panel from figure 3.1, with actual measured values of normalized F1 and F2, and with larger ellipses having twice the axis length of the original ellipses overlaid. It is almost possible to draw a single straight line on figure 3.4 which partitions all of the  $e$  tokens from all of the  $\varepsilon$  tokens. The Munken case approaches a situation which has been termed *perfect discrimination*, where all values of the response variable can be perfectly predicted from any set of possible values for the predictor variable(s). Data exhibiting perfect discrimination (or coming close to it) cause predictors in the fitted model to trend towards  $\pm\infty$ , causing the model to fail to converge.

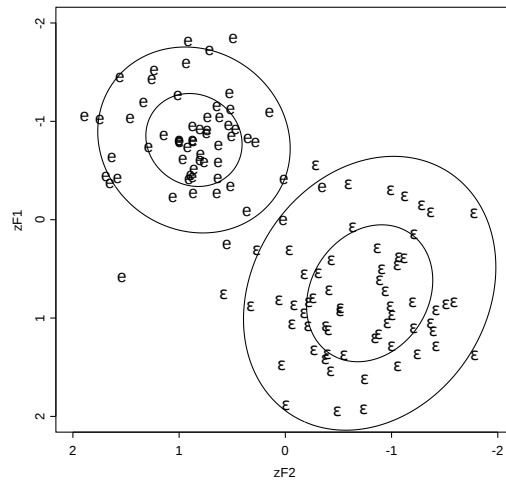


Figure 3.4: Munken  $e$ - $\varepsilon$  plot with measured tokens overlaid.

The failure of the Munken model to converge suggests something about the models for the other dialects: the contrasts involved are indeed subtle, since it

would not have been possible to model them if the physical parameters selected could be used to perfectly discriminate between the two vowels. I now discuss separately the fitted models for each of the three dialects where the initial model converged.

### 3.6.2.2 Biya

The model originally fitted for Biya can be described with the following prediction equation:

$$p(V = \iota) = \text{logit}^{-1} \left\{ \begin{array}{l} \hat{\alpha}_0 + \hat{\beta}_{zF1,i} \cdot x'_{zF1} + \hat{\beta}_{zF2,i} \cdot x'_{zF2} + \\ \hat{\beta}_{\mathcal{J},i} \cdot x'_{\mathcal{J}} + \hat{\beta}_{\mathcal{X},i} \cdot x'_{zF1} \cdot x'_{\mathcal{J}} + \alpha_i \end{array} \right\} \quad (3.10)$$

After the individual-level differences have been controlled for, the fitted model reports significant weighting coefficients for normalized F1 and normalized spectral emphasis.<sup>10</sup> Both parameters are positive, which is to be expected, since increasing F1 and increasing spectral emphasis are both expected to result in a higher probability that a vowel will be a token of  $\iota$  rather than  $e$ . The normalized F1 parameter is more than twice as large as the normalized spectral emphasis parameter, indicating that normalized F1 is more important to determining the contrast than normalized spectral emphasis is. The normalized F2 term is not significant,<sup>11</sup> and has a positive sign. The sign is not in the expected direction: an increase in normalized F2 is expected to correspond to a decreasing probab-

<sup>10</sup> Since the concept of statistical significance in fitted regression models is complicated by the introduction of random effects, the term “significant” here should be simply understood to refer to a parameter estimate with a mean whose magnitude is more than twice the standard error (cf. Gelman and Hill, 2007: 42).

<sup>11</sup> The actual set of fitted parameters is:

	coef.est	coef.se
(Intercept)	-1.88	0.79
zSpec	3.59	1.44
zF1	8.44	3.41
zF2	1.39	1.74
zSpec:zF1	0.26	0.58



ity of finding a lax vowel (assuming that  $\iota$  has been properly impressionistically characterized as lax). Following the advice of Gelman and Hill (2007:69), that non-significant parameters which do not have the expected sign can be discarded from a model, the normalized F2 term can be removed.

The interaction term is not significant, but its sign is positive, as would be expected. It is not certain whether it is useful to the model. There exist several metrics for judging between two or more models fitted on the same data. Generally, an information metric is a measure of how badly a model fits the data, so lower scores indicate a better fit.<sup>12</sup> I compare the original model for the Biya data with three other models: one where the normalized F2 term is removed, one where both of the non-significant parameters are removed, and one where only the normalized F1 parameter is retained. Comparison of the models according to three metrics (Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), and Deviance Information Criterion (DIC)) is shown in table 3.1. The BIC penalizes the introduction of additional parameters most heavily, while the DIC apparently introduces the least penalty for the introduction of new parameters. The differential penalization of added parameters can be clearly seen from table 3.1. The simplest model, with only one parameter (and a random slope), is preferred by the BIC, while the most complex model is preferred by the DIC. The model preferred by the AIC seems to show a compromise between goodness of fit and reduction of parameters, preferring the model with two parameters (and random slopes). A pragmatic approach suggests that the model preferred by the AIC is most satisfying, since it is simple to interpret, and includes all and only the significant parameters.

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<sup>12</sup> Discussion of the actual numerical interpretation of the various information criteria would bring the discussion (even for a footnote) too far afield, and exceed the present author's capabilities. A potentially useful work on the topic, which I have not consulted, is Burnham and Anderson (2002).

Model	AIC	BIC	DIC
Original model	77.6	117.3	47.6
Remove F2 term	79	105.4	59
Remove F2 and Interaction term	77	100.8	59
Retain only F1 term	79.5	92.7	69.5

Table 3.1: Comparison of fitted Biya models according to three information criteria. Cells corresponding to preferences by a given criterion are shaded.

What has been found from the GLMM analysis of the Biya data largely supports the impressionistic observations made from the ellipse plot shown in the previous section: F1 appears to be the major physical parameter affecting the contrast, while spectral emphasis is a less important but still significant parameter. In common phonological parlance, it might be said that F1 is the *primary* acoustic cue relevant to the  $e\sim i$  contrast in Biya, and spectral emphasis (or some related measure) is a *secondary* cue.

### 3.6.2.3 Misong

A rigorous modeling of the Misong  $e\sim \varepsilon$  contrast has been limited by the smaller number of participants involved: three rather than four or five. A greater number of data points is generally desirable in all quantitative analyses, and sophisticated analytical techniques can help researchers to make the most of limited data.<sup>13</sup>

In the case of the Misong model, however, a certain threshold appears to have been crossed beyond which there are not enough participants to support a useful GLMM modeling. While the initial Misong model did converge, it did not find any parameter to be significant, and subsequent models which differed in the choice of explanatory variables included either did not converge or converged with non-significant results. Since all models using the Misong data *without* random slopes converged with significant parameter estimates, it seems clear that having

<sup>13</sup> See discussion in Box and Tiao (1973: 1–2) on pragmatic reasons for the growing acceptance of Bayesian methods in statistical analysis.

only three, rather than four or more Missong participants has prevented a model from converging which yielded useful results.<sup>14</sup>

A series of regression models containing no random effects were fitted to the Missong data. A fully saturated model (containing terms for normalized F1, F2 and spectral emphasis in addition to all possible interactions) had the lowest residual deviance. In all of the fitted models, the F1 term was highly significant and had a greater magnitude than the other prediction terms. Since these models do not filter out the effects of individual variation, it will not be worthwhile to dwell on their proper interpretation.

#### 3.6.2.4 Abar

In modeling the Abar data, we take the same starting points as for Biya: a model with terms for normalized F1, F2 and spectral emphasis, and an interaction term for F1 and spectral emphasis. In contrast to the Biya model, the F1 term was not found to be significant, although its sign was positive as expected. The significant parameters were instead the spectral emphasis and F2 terms, with the spectral emphasis term having a positive sign, and the F2 term a negative sign, as expected.<sup>15</sup> In the saturated model, the spectral emphasis parameter had a magnitude  $\sim 70\%$  greater than the F2 parameter. As with the Biya analysis, a series of other models were fitted with sequentially fewer parameters: a model with the interaction term removed, a model with both the interaction term and

<sup>14</sup> A similar boundary between a sample size of 3 and a sample size of 4 for random effects models was noted by Jaeger et al. (2011: 298–300) in their attempt to verify the proposal of Atkinson (2011). Jaeger et al. raised questions about the validity of Atkinson’s findings on the grounds that random slopes were cast out of his model, since it did not converge with them included.

<sup>15</sup> The report for the fitted parameters is:

	coef.est	coef.se
(Intercept)	1.28	1.03
zSpec	5.70	1.89
zF1	1.80	1.85
zF2	-3.38	1.18
zSpec:zF1	-2.15	1.53

the nonsignificant F1 term removed, and a model with only the spectral emphasis term. When these models are compared in terms of the three information criteria used to compare the Biya models (table 3.2), the BIC predictably favors the model with the fewest parameters, and the DIC favors the model with the most parameters. The AIC does not signal a strong preference other than one against the minimal model with only one parameter (plus a random slope).

	AIC	BIC	DIC
Original model	58.7	98.4	28.7
Interaction term removed	58.4	95.4	30.4
F1 and interaction term removed	58.5	82.3	40.5
Only spectral emphasis term retained	61.7	75.0	51.7

Table 3.2: Comparison of fitted Abar models according to three information criteria. Cells corresponding to preferences by a given criterion are shaded.

The results of the Abar model suggest that when individual differences are factored out, the major physical parameter supporting the contrast  $e\sim\iota$  is spectral emphasis (or a related measure), with F2 playing a secondary role. F1 appears to play at most a minor role in the contrast.

### 3.7 Discussion

For the Abar and Biya data, the use of GLMM techniques for quantitatively analyzing the contrast between the vowels transcribed  $e$  and  $\iota$  has helped to clarify what was hinted at by figures 3.1–3.3, Namely, although the corresponding vowels in each dialect sound quite similar to each other,<sup>16</sup> the statistical analysis has shown that there are real differences in terms of the weights given to each of three different physical parameters in terms of their ability to aid in the discrimination of the vowels.

<sup>16</sup> I had learned to discern (with some difficulty) the two vowels in Biya before having had contact with any Abar speakers. By the time I began working on Abar, the  $e\sim\iota$  contrast in that dialect was immediately apparent.

The final question to consider is that posed at the outset of the chapter: is it possible to diagnose a vowel system as employing an [ATR] contrast on the basis of phonetic data alone? What has been shown here is that it is possible to show that there are cases (i.e., in Abar) where a pair of contrasting vowels (which do not seem to differ in nasality, rounding, or phonation type) are best distinguished by a spectral parameter (spectral emphasis) other than the frequencies of the first two formants. That this spectral parameter has been proposed as a correlate of [ATR] makes that feature the most likely candidate as the primary determiner of contrast. More interesting still is that “the same” two vowels in Biya, which sound nearly identical to the ear, and are largely cognate, do not show the same importance for spectral emphasis as a distinguishing parameter.



## Chapter 4

# Phonology

The present chapter presents an overview of the important phonological processes in Mungbam. While chapter 2 has presented the segmental and tonal contrasts which are found in the language and the basic constraints on word forms, and has established a segmental transcription system, the present chapter treats in more detail syntagmatic sound alternations and lower-level distributional patterns. The tonal system is covered in more detail, and the tonal transcription system used in this chapter and elsewhere in the dissertation is explained.

Section 4.1 deals with tone, section 4.2 with the vowel system, and section 4.3 with the consonant system. The presentation will be mostly descriptive in nature, with very few theoretical considerations.

### 4.1 Tone

The tonal system of Mungbam is rather limited as to phonological processes involving tone: there is only one major process of note, “extension” (§ 4.1.2), and also a relatively simple rule of tone sandhi which is found only in Missong (§ 4.1.3).

The rather large number of tones in play, the nature of the phonetic changes, and the differences between dialects, however, have at this stage ruled out a treatment of tone extension which can achieve simplicity. The system used for transcribing surface tones, which is mostly restricted to use in this chapter, precedes the presentation of extension and sandhi (§ 4.1.1).

### 4.1.1 Transcription of tone

As was noted in §2, the transcription system used in this dissertation does not distinguish all of the possible surface tones. That choice is discussed here, and an auxiliary system for use in this chapter, which does (nearly) distinguish all surface tones, is presented.

Consider three possible goals that one might strive for in establishing a practical transcription system.

- (a) Represent tones at what has been called a ‘systematic phonetic’<sup>1</sup> level of detail, such that all tones represented by a given diacritic have the same phonetic realization.
- (b) Represent tonemes, so that all tones which are contextual variants of each other have the same symbol, and two tones do not have the same symbol unless they are contextual variants of each other.
- (c) Represent tones with a minimum number of symbols such that all contrasts within any given word class are preserved, though knowledge about the lex-

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<sup>1</sup> On this term, see Chomsky (1962: 532). According to Chomsky’s original presentation, a representation at the systematic phonetic level should, in a version of linguistic theory adhering to the condition of ‘phonetic specifiability’ (*ibid.*: 531), have a language-independent interpretation as to the corresponding physical phonetic form. That phonetic specifiability is generally understood to be unachievable in practice has not stopped various linguists in the past from using the term ‘systematic phonetic representation’ to mean anything more precise than ‘a moderately narrow phonetic transcription’. I retain the term in its common, slipshod sense.



ical regularities and morphosyntactic context may be needed to know how the tone would be realized phonetically.

Of these three goals, the one that I have most closely adhered to is (c), reasoning that following (a) would lead to a bloated set of symbols, and observing (b) would amplify any risks associated with getting any details of the phonological analysis wrong. Since the use of a system of type (c) requires one to be familiar with various lexical and morphosyntactic properties of the language in order to know which surface tone is meant, an auxiliary system which is more in line with type (a) will be introduced here. The auxiliary system is used to refer to tones in discussion. Surface tones are represented with the letters L, M, S, H, familiar to Africanists; and additional modifiers (<sup>+</sup>, <sup>-</sup> and <sup>°</sup>) are used to differentiate tones, and also as a mnemonic for indicating two tones as potential contextual variants of each other. Generally, but with various exceptions, a <sup>-</sup> tone is replaced by a <sup>+</sup> in “extension” contexts (cf. §4.1.2). For convenience, table 4.1 may be referred to during the discussion in the next paragraph.

Prose symbol	Diacritic	Prose symbol	Diacritic
L <sup>-</sup>	ḵ	L <sup>+</sup>	ḵ
M <sup>-</sup>	ḵ / ḵ <sup>2</sup>	M <sup>°</sup>	ḵ
H <sup>-</sup>	ḵ	H <sup>+</sup>	ḵ
S	ḵ	M <sup>+</sup>	ḵ
HL	ḵ	HM	ḵ
ML	ḵ	SM	ḵ <sup>3</sup>

Table 4.1: Tonal transcription system. Pairs of phonetically distinct surface tones which are undifferentiated in the diacritic transcription system are enclosed in dashed line boxes.

The L tone is a low tone that falls before a pause in all dialects, and is low and level otherwise. The L<sup>+</sup> tone is a low tone that rises slightly. In running speech,

<sup>2</sup> The diacritic  $\bar{x}$  is used in Biya, and  $\hat{x}$  in the other dialects. This means that M<sup>-</sup> and M<sup>°</sup> are undifferentiated only in Biya, while M<sup>-</sup> and ML are undifferentiated in the other dialects.

<sup>3</sup> The symbol  $\bar{x}$  is used in §7.3.1.2 when necessary to transcribe an SM tone which contrasts with an HM tone in reduplicated forms of set C verbs.

$L^+$  may be leveled to  $M^\circ$ . The  $M^-$  tone is a mid tone which falls before a pause in Munken, Missong and Abar, but remains level otherwise. In Biya,  $M^-$  remains level in all contexts. The  $M^\circ$  tone is a mid tone in all dialects, which remains level in all contexts. In Biya,  $M^-$  and  $M^\circ$  are the same.  $M^+$  is a mid tone which rises slightly. Both  $M^-$  and  $M^\circ$  convert to  $M^+$  in “extension” environments in Munken, Missong and Abar.  $ML$  is a falling tone which is slightly higher in pitch than  $M^-$ . It is not found on nouns except in Abar, but is found in the verbal system. In Biya,  $M^\circ$  does not extend. Its pitch is higher than  $L^+$  but lower than  $M^+$ .<sup>4</sup> The  $H^-$  tone is a high tone which remains level in all contexts. The  $H^+$  tone is a high tone which rises slightly. The  $S$  tone is a superhigh tone which rises slightly.  $HL$  and  $HM$  are falling tones which fall from high to low or mid.  $SM$ , which is found only as an extended variant of  $HM$ , falls from superhigh to mid.

#### 4.1.2 Tone “extension”

The most important tonal phonological process in Mungbam is a systematic alternation here called ‘extension’. It is so called because of a number of constructions providing a context where the stem vowel of a noun is lengthened, and its tone changes. This alternation provides a basis for dividing the surface tones into two general groups: extended tones, and unextended tones.

Tone extension is a process which treats raised and rising tones as a natural class as opposed to lowered and non-rising tones. Nonextended tones have level or falling pitch, and may fall before a pause. The extended tones, on the other hand may have a higher pitch than their unextended counterparts, and may rise slightly, even before a pause.

Extension is divided into two sub-processes, named for the contexts where

<sup>4</sup> This leads to a situation where five distinct pitch levels are contrasted in possessed nouns stems in Biya. cf. § 4.1.2.1.1

they are witnessed: possessive lengthening (§ 4.1.2.1), and frustrative and dative lengthening (§ 4.1.2.2). Possessive lengthening is observed on possessed nouns belonging to one of the inherently high-toned noun classes (i.e., all classes other than 1, 5L, and 9; cf. § 5.1). Frustrative lengthening is observed on nouns preceding the frustrative marker (q.v. § 13.7), and dative lengthening in nouns modified by the dative enclitic (q.v. § 10.7).

After presenting the types of alternations where extension is observed, I comment on other areas where extended forms are found without a non-extended homologue (§ 4.1.2.3).

#### 4.1.2.1 Possessive lengthening

Possessive lengthening, which affects possessed nouns,<sup>5</sup> is found in all dialects. There exist, however, differences in realization which are substantial enough to warrant dividing the presentation into four parts, one corresponding to each dialect studied. Discussion of Ngun is omitted for want of relevant data.

Possessive lengthening is sensitive to the noun class of the affected noun, only affecting targets belonging to inherently high-toned noun classes. In Munken and Abar, the effect is also sensitive to the tone of the following possessor, and to the tone of the possessed noun itself, whatever its noun class may be. The account given here supercedes the presentation of data for Munken possessive lengthening given in Lovegren (2012b), correcting some factual points without disturbing the main theoretical issue dealt with in that presentation.

**4.1.2.1.1 Biya** In Biya possessive lengthening, the stem vowel of a possessed noun belonging to a high-toned noun class is lengthened with respect to the unpossessed form, and its tone changes. A set of examples are shown in table 4.2.

<sup>5</sup> Regardless of whether the possessor is a noun phrase or a possessive pronoun.

Nouns with an M° or S stem tone do not undergo extension.

L <sup>-</sup> → L <sup>+</sup>	bè-mfì	‘CL2-slaves’	bè-mfì mǎ	‘my slave’
M° → M°	fì-nsā	‘CL19-needle’	fì-nsā mǎ	‘my needle’
M <sup>-</sup> → M <sup>+</sup>	ú-wō	‘CL3-moon’	ú-wō mǎ	‘my moon’
H <sup>-</sup> → H <sup>+</sup>	bā-ndjój	‘CL2-stories’	bā-ndjój mǎ	‘my stories’
S → S	ú-gbǎ	‘CL3-rope’	ú-gbǎ mǎ	‘my rope’
HM → SM	ká-tsō	‘CL12-rooster’	ká-tsō mǎ	‘my rooster’

Table 4.2: Possessive lengthening in Biya.

It will be noted that in Biya, M° and M<sup>-</sup> tones are identical when appearing on a noun stem in isolation, but are distinguished under possessive lengthening. Data such as these, involving contextual neutralization, are usually the starting point for phonological analyses employing floating tones as explanatory devices. The descriptively-oriented ‘tone letter’ system is used here rather than a floating tone analysis because it has so far not been possible to develop a consistent and reasonably simple analysis based on floating tones and autosegmental association rules which can account for the full variety of tonal changes found in possessive lengthening.<sup>6</sup>

Nouns belonging to classes 1, 5L, or 9 generally do not participate in the process, so class 1 nouns such as *m̄fì* ‘slave’ or *ì-bé* ‘goat’, which have an L<sup>-</sup> or H<sup>-</sup> stem tone, remain unchanged when possessed. It is possible, however, to “coerce” low class nouns into undergoing extension when the extended noun is part of an associative construction headed by a high class noun, as (4.1)–(4.2) show.

- (4.1) *m̄bòŋ Nǎŋ*  
 CL1.cow N.  
 ‘°Nang’s cow’ (Biya)

<sup>6</sup> But see Lovegren (2012b) for an attempt.

- (4.2) í-gúŋ            ìbɔ̀ɔ̀ŋ    Nǎŋ  
           CL5H-spear CL1.cow N.  
           ‘°The spear of the cow of Nang.’ (Biya)

It is conceivable that example (4.2) could only mean ‘[the spear of the cow] of Nang,’ and that a version of (4.2) without extension could only mean ‘the spear of [the cow of Nang],’ but I was not able to ascertain this in elicitation.

**4.1.2.1.2 Missong** A representative paradigm of possessive lengthening effects is given in table 4.3 for Missong. As in Biya, extension is not sensitive to the tone of the possessor noun. Nouns with an S stem do not undergo extension, as in Biya. Missong nouns with M° stem tone do undergo extension, but H<sup>-</sup> nouns do not. Nouns with an HL stem tone extend to S. Perhaps not coincidentally, for many Biya, Munken, Ngun and Abar nouns which have an S stem tone in citation, the Missong cognate has an HL stem tone. Nouns in Missong as well as the other dialects which have a citation L<sup>+</sup> stem tone always have a long stem vowel, and do not change their tone under extension.<sup>7</sup>

Change	Unextended	gloss	Extended	gloss
L <sup>-</sup> → L <sup>+</sup>	bà-mfì	‘CL2-slaves’	bà-mfìí mó	‘my slaves’
L <sup>+</sup> → L <sup>+</sup>	ì-tsɔ̀ɔ̀	‘CL5L-cork’	ì-tsɔ̀ɔ̀ Ñzɔ̀	‘Nzɔ̀’s cork’
M <sup>-</sup> → M <sup>+</sup>	ù-wê	‘CL3-moon’	ù-wêé mó	‘my moon’
M° → M <sup>+</sup>	bì-mfī	‘CL8-cocoyams’	bì-mfīí mó	‘my cocoyams’
H <sup>-</sup> → H <sup>-</sup>	kī-fí	‘CL7-pig’	kī-fí mó	‘my pig’
S → S	í-tám	‘CL5H-axe’	í-tám mó	‘my axe’
HL → S	ú-gbê	‘CL3-rope’	ú-gbêé mó	‘my rope’

Table 4.3: Missong possessive lengthening.

<sup>7</sup> This is probably not a real generalization, since the nouns with an L<sup>+</sup> stem tone in Missong for which possessive forms are recorded belong to class 5L. Since 5L is inherently low-toned, lengthening would not be expected anyways. In dialects other than Missong, the largest source of nouns with an L<sup>+</sup> stem tone is deverbal nouns formed from set A verbs. These belong to class 5L.

**4.1.2.1.3 Abar** In Abar and Munken, nouns with a superhigh citation tone have more than one possible extended variant, depending on the tone of the possessor noun. There are three possibilities, which are illustrated in table 4.4. What makes the S tone in Abar unusual is that it lowers to H<sup>+</sup> before a low or mid-toned possessor without any concomitant vowel lengthening. Nouns with an S tone stem can also lengthen without any actual change in the stem tone when the possessor is a super-high stem.

Tone	Form	gloss
S	ú-gbé	‘CL3-rope’
HM	ú-gbéé mó	‘my rope’
S	ú-gbéé Náj	‘Nang’s rope’
H <sup>+</sup>	ú-gbé bàn	‘y’all’s rope’
H <sup>+</sup>	ú-gbé bwīn	‘their rope’

Table 4.4: Abar possessive lengthening, S stem tone.

Nouns in ‘high’ classes of any other tone have only one corresponding extended form, as they do in Biya and Missong. Table 4.5 shows the outcome of extension for nouns with L<sup>-</sup>, M<sup>-</sup>, and H<sup>-</sup> stem tone. H<sup>-</sup> does not undergo extension. Possessors of three different tones are shown for comparison, illustrating that the outcome (or possibility) of extension is not determined by the tone of the possessor.

L <sup>-</sup> → L <sup>+</sup>		M <sup>-</sup> → M <sup>+</sup>		H <sup>-</sup> → H <sup>-</sup>	
bwè-mfà	‘CL2-slaves’	ū-wè	‘CL3-moon’	kā-nsá	‘CL7-shed’
bwè-mfàà mó	‘my slaves’	ū-wéé mó	‘my moon’	kā-nsá mó	‘my shed’
bwè-mfàà Náj	‘Nang’s slaves’	ū-wéé Náj	‘Nang’s moon’	kā-nsá Náj	‘Nang’s shed’
bwè-mfàà bàn	‘their slaves’	ū-wéé bàn	‘their moon’	kā-nsá bàn	‘their shed’

Table 4.5: Abar possessive lengthening, non-S stem tone.

**4.1.2.1.4 Munken** In Munken, the segmental effect of possessive lengthening is slightly different from that of other dialects. When the lengthened word ends in

a coda consonant, possessive lengthening adds an additional vowel (ə) to the end of the word rather than lengthening the stem vowel.

(4.3) à-ŋgjôŋ ‘CL7-story’ (HL)

(4.4) à-ŋgjóŋə bē ‘their story’ (H<sup>+</sup>)

Munken has two stem tones whose extended variants depend on the tone of the possessor: S (as in Abar), and M<sup>-</sup>. The other nouns undergo lengthening without regard to the tone of the possessor.

Tone	Form	Gloss
M <sup>-</sup>	ū-wĕ	‘CL3-moon’
M <sup>+</sup>	ū-wĕĕ bà	‘y’all’s moon’
M <sup>+</sup>	ū-wĕĕ bē	‘their moon’
HM	ū-wĕĕ mó	‘my moon’
M <sup>+</sup>	ū-wĕĕ Náŋ	‘Nang’s moon’

Table 4.6: Munken possessive lengthening, ML stem.

Tone	Form	Gloss
S	ú-gbĕ	‘CL3-rope’
H <sup>+</sup>	ú-gbĕĕ bà	‘y’all’s rope’
H <sup>+</sup>	ú-gbĕĕ bē	‘their rope’
HM	ú-gbĕĕ mó	‘my rope’
S	ú-gbĕ Náŋ	‘Nang’s rope’

Table 4.7: Munken possessive lengthening, S stem.

The outcome of extension for other nouns is presented in table 4.8. While HL extends to S in Misson, it extends to H<sup>+</sup> in Munken. Both M<sup>o</sup> and H<sup>-</sup> are subject to extension. HM extends to SM.<sup>8</sup>

<sup>8</sup> Data on possessive lengthening of HM for dialects other than Biya and Munken is not available.

Change	Unextended	gloss	Extended	gloss
L <sup>-</sup> → L <sup>+</sup>	b̀̀-̀̀mb̀̀ɔ̀̀ŋ	‘CL2-cow’	b̀̀-̀̀mb̀̀ɔ̀̀ŋə mə́	‘my cows’
M <sup>o</sup> → M <sup>+</sup>	ɛ̀-̀̀ns̄	‘CL19-needle’	ɛ̀-̀̀ns̄ɔ́ mə́	‘my needle’
HL → H <sup>+</sup>	ā-̀̀ŋḡj̄ɔ̀̀ŋ	‘CL12-story’	ā-̀̀ŋḡj̄ɔ̀̀ŋə mə́	‘my story’
H <sup>-</sup> → H <sup>+</sup>	m̄-̀̀ŋ-ké	‘CL6a-shah’	m̄-̀̀ŋ-kéɛ mə́	‘my shah’
HM → SM	á-ts̄	‘CL12-rooster’	á-ts̄ɔ́ mə́	‘my rooster’

Table 4.8: Munken possessive lengthening, ML and S not included.

#### 4.1.2.2 Dative and frustrative lengthening

Nouns which are immediately followed by the dative enclitic (cf. § 10.7) or the frustrative marker (cf. § 13.7) may undergo extension, with the same effect being obtained in dative lengthening as in frustrative lengthening. While significant differences between the dialects exist for possessive lengthening, dative and frustrative lengthening offer a lesser opportunity for variation, since the frustrative and dative markers are both high toned in all dialects. A representative paradigm is given for Munken in table 4.9. All noun stem tones other than S undergo extension.

Change	Unextended form	Extended form	gloss
L <sup>-</sup> → L <sup>+</sup>	̀̀mb̀̀ɔ̀̀ŋ	̀̀mb̀̀ɔ̀̀ŋ	‘CL1-cow’
L <sup>+</sup> → M <sup>+</sup>	̀̀-̀̀ts̄ɔ́	̀̀-̀̀ts̄ɔ́	‘CL5-cork’
M <sup>o</sup> → M <sup>+</sup>	ɛ̀-̀̀ns̄	ɛ̀-̀̀ns̄ɔ́	‘CL19-needle’
M <sup>-</sup> → HM	ā-kp̄à	ā-kp̄áā	‘CL12-shoe’
H <sup>-</sup> → H <sup>+</sup>	̀̀-̀̀bé	̀̀-̀̀béé	‘CL9-goat’
HL → H <sup>+</sup>	kí-wóm-ə	kí-wóm-ə	‘CL13-war-CL13’
HM → SM	á-l̄m	á-l̄m̄	‘CL12-country onion’ <sup>9</sup>
S → S	N̄áŋ	N̄áŋ	[personal name]

Table 4.9: Unextended and extended forms of several nouns in Munken (dative and frustrative lengthening).

While extension primarily affects nouns, clauses where the frustrative marker immediately follows a verb are possible (cf. § 13.7.2), and extension occurs in these cases. Some examples are given in (4.5)–(4.9), with the tonal change indicated.

<sup>9</sup> Seeds of *Afrostryax lepidophyllus*



- (4.5) Nǎŋ dà ù gběe nǒ  
 N. D.NEG CL1 (A)fall.IRR FRUST  
 “Nang cannot fall.” (Biya; L<sup>+</sup> → M<sup>+</sup>)
- (4.6) Nǎŋ dà ù tɛ́n nǒ  
 N. D.NEG CL1 (c)contribute.IRR FRUST  
 “Nang cannot contribute.” (Biya; H<sup>+</sup> → H<sup>+</sup>)
- (4.7) Nǎŋ á sóŋ nǒ mǎ  
 N. FUT (c)invite FRUST 1SG  
 “°Nang will not invite me.” (Biya; HL → H<sup>+</sup>)
- (4.8) Nǎŋ á kpé nǒ  
 N. FUT (B)die FRUST  
 “°Nang will not die.” (Biya; S → S)
- (4.9) mǎ m̄-fɛ̀lǎ gběe lǎ  
 1SG.FUT 1SG-(c)tangle (A)fall FRUST  
 “I will not get wrapped up and fall.” (Munken; L<sup>-</sup> → L<sup>+</sup>)

#### 4.1.2.3 Distribution of extended and non-extended tones

Outside of the specific contexts exemplified above, there is a somewhat restricted distribution of extended and unextended tones.

**4.1.2.3.1 Nouns** The great majority of lexical nouns appear only with one of the unextended stem tones. Munken has a few nouns whose citation form is L<sup>+</sup> (e.g., *ì-tsǎ* ‘CL5-cork’), and several Biya nouns (most of which are in class 9) have citation H<sup>+</sup> tones.

In all dialects except Missong, deverbal nouns (called ‘infinitives’) have an M<sup>°</sup> or L<sup>+</sup> stem tone when formed from set A verbs, and an H<sup>-</sup> or H<sup>+</sup> stem tone when formed from set B or C verbs. (see § 7.1 on the A/B/C naming convention for verbs). Deverbal nouns with a monosyllabic stem in Munken show the unextended tone, as do those in Abar, unless the stem vowel is extra-long (cf. § 4.2.1.2), in which case the extended tone is witnessed. Deverbal nouns with monosyllabic

stems in Biya appear to freely vary between the non-extended and the extended tone. Deverbal nouns with disyllabic stems always have an extended stem tone. Examples of the possible tones on Abar infinitives are shown in table 4.10.

	CV	CVV	CVCV
SET A	‘fall’	‘dig’	‘uproot’
Irrealis form	gbē	buù	wǒhɔ
Infinitive	ì-gbē	ì-buù	ì-wǒhɔ
SET B	‘come’		‘mooch’
Irrealis form	tī		lāha
Infinitive	ì-tí		ì-lāha (H <sup>+</sup> )
SET C	‘meet’	‘hang’	‘decide’
Irrealis form	tí	tú (H <sup>+</sup> )	sáɓɔ (H <sup>+</sup> )
Infinitive	ì-tí	ì-tú (H <sup>+</sup> )	ì-sáɓɔ (H <sup>+</sup> )

Table 4.10: Tone on Abar infinitives, by stem shape and lexical class. Extra-long vowels not found in set B verbs.

**4.1.2.3.2 Verbs** The inflectional distinction between realis and irrealis verbs (cf. §7.1) corresponds partly to a split between unextended and extended tones.

Table 4.11 summarizes the coincidence.

Realis tone	Irrealis tone	Category
L <sup>-</sup>	L <sup>+</sup>	A
S	ML	B (PFV)
HL	H <sup>+</sup>	B (IPFV)
HL	H <sup>+</sup>	C

Table 4.11: Realis tones are unextended, and irrealis tones are extended. The pair in the shaded cells is unclear since S is found as both an extended and an unextended tone, and data is lacking for the ML tone under extension.

### 4.1.3 Tone sandhi in Missong

Tone sandhi is observed in Missong between consecutive verbs.<sup>10</sup> Set A verbs in their irrealis form (a category which includes imperatives, remote past, and some types of subordinate clauses; see § 7.1) undergo a tone change which is triggered by an immediately preceding verb, as examples (4.10)–(4.12) illustrate.

(4.10) tsè ‘go!’

(4.11) wǒŋ ‘squeeze<sup>11</sup> [honey]!’

(4.12) tsè wǒŋ ‘go and squeeze [honey]!’

As examples (4.10)–(4.12) show, a set A verb normally bears an L<sup>+</sup> tone (realized as M<sup>o</sup> outside of slow speech) in a simple imperative sentence with only one verb. However, when the imperative sentence contains two consecutive set A verbs, the second one is realized with a superhigh tone instead of the expected mid tone. Sandhi on a set A verb is also triggered by a preceding set C verb in its irrealis form, as in (4.13). The sandhi is not observed in realis forms (4.14).

(4.13) má            sǎ            á-dê        wō  
 (C)soak.IRR (A)descend.IRR CL6-bean CL6.CL6.DET  
 “Soak the beans!” (Missong)

(4.14) Nǎŋ mō            sò            á-dê        wō  
 N. (C)soak.IPFV (A)descend.IPFV CL6-bean CL6.DET  
 “Nang is soaking the beans.” (Missong)

<sup>10</sup> The term “sandhi” is chosen because of the similarity to phonological processes referred to by the same name in Sinitic languages. Although the tonal changes are restricted to a certain word class and to a certain morphological category within that word class, they do not convey any morphological information beyond what the input tones taken individually do.

<sup>11</sup> The verb glossed as ‘squeeze’ refers to the action of gently squeezing honeycomb which has been soaked inside of a bucket full of palm wine so that the sugars dissolve and the eluted chaffs eventually rise to the top. A bucket so prepared, after covered for 2–3 days and strained, will yield honey wine, a popular and intoxicating drink of ritual importance. The object of the verb is understood to be *ɪ-jō* ‘CL5-honey’.

When there are three or more verbs in sequence, the tone change occurs in such a way that the same verb may not be both a trigger and a target of the sandhi process, with the effect that in a sequence of (monosyllabic) set A verbs in their irrealis forms, every other verb, starting with the second one, will have a superhigh tone.

- (4.15) tsē        wǒŋ        fōa        ì-jǒ  
 (A)go.IRR (A)squeeze.IRR (A)sell.IRR CL5-honey  
 “◊Go and squeeze and sell honey!” (Missong)

- (4.16) tsē        wǒŋ        fōa        kpáha    ì-jǒ        jī  
 (A)go.IRR (A)squeeze.IRR (A)sell.IRR (A)last.IRR CL5-honey CL5.DET  
 “◊Go and squeeze and sell the last of the honey!” (Missong)

The change is not triggered by a Set B verb in its perfective form (4.17), however, the imperfective form of a Set B verb may serve as a trigger (4.18). Up to this point, the pattern can be summarized as follows: a verb with an underlying L<sup>+</sup> tone (i.e., set A irrealis) is realized with an S tone when immediately preceded by a verb with either an H<sup>+</sup> (i.e., set C irrealis or set B imperfective irrealis) or L<sup>+</sup> tone.

- (4.17) tãha                    fōa        ì-jǒ        jī  
 (B)remove.honey.IRR (A)sell.IRR CL5-honey CL5.DET  
 “◊Remove and sell the honey!” (Missong)

- (4.18) tɛ́                    nǎŋ  
 (B)fry.IPFV.IRR (A)stay.IPFV.IRR  
 “◊Be frying!” (Missong)

The pattern becomes complicated when disyllabic set A verbs are considered. In a two-verb sequence, a disyllabic set A verb functions the same as its monosyllabic counterpart, either triggering (4.19) or undergoing (4.20) the tone change, depending on its position in the sequence. However, in longer sequences, a disyllabic set A verb may function simultaneously as both a trigger and a target. When

it bears this dual function, its tone changes to a high falling tone rather than to a superhigh tone (4.21).

- (4.19) kāsə      ɕǝ      bi-tɕɔŋbə      bī  
 (A)tie.IRR (A)share.IRR CL8-groundnut CL8.DET  
 “Tie and share the groundnuts!” (Missong)

- (4.20) tsē      kásə      bi-tɕɔŋbə      bī  
 (A)go.IRR (A)tie.IRR CL8-groundnut CL8.DET  
 “Go tie the groundnuts!” (Missong)

- (4.21) tsē      kāsə      kpáha      bi-tɕɔŋbə      bī  
 (A)go.IRR (A)tie.IRR (A)last.IRR CL8-groundnut CL8.DET  
 “Go and tie the last of the groundnuts!” (Missong)

Since a C class verb, which has a high tone in its irrealis form, can trigger the tone change, the sequence A–C–A of verbs in their irrealis forms is realized with the pleasant sounding tonal sequence L<sup>+</sup>–H<sup>+</sup>–S.

- (4.22) tsē      má      sǎ      á-ɕǝ      wō  
 (A)go.IRR (c)soak.IRR (A)descend.IRR CL6-bean CL6.DET  
 “Go and soak the beans!” (Missong)

Sandhi is not observed in any other Mungbam dialect.

## 4.2 Vowels

The bulk of the section on vowel phonology is dedicated to a discussion of vowel length differences in the dialects (§4.2.1). Also discussed is a process of vowel elision, where function words combine phonologically with a neighboring word if two vowels meet across a morpheme boundary (§4.2.2).

### 4.2.1 Vowel length

While not entirely irrelevant from a phonetic point of view, vowel length plays a rather restricted role in the phonology of Mungbam. Nevertheless, vowel length properties, even phonologically insignificant, provide information which is potentially important from a comparative perspective.

There are two types of vowel length properties of interest: intrinsic length (§4.2.1.1) and contrastive length (§4.2.1.2). Intrinsic length is a length difference which is predictable given the quality of the vowel and the type of syllable it appears in, and it is said to exist on the basis of my impressionistic judgments.<sup>12</sup> Contrastive length is a length difference between vowels of the same or nearly the same quality in the same context, and as its name suggests it can be used to differentiate lexical items. Intrinsic length is observed at least in Munken, but probably exists in all of the dialects, while contrastive length is found only in Abar and Missong.

There are three vowel lengths: extra short, regular, and extra long. Extra short vowels are restricted to closed syllables in all of the dialects except for Missong. In Missong, extra short vowels are additionally found in some Set B verbs having CV shape. Extra long vowels are found only in Abar, and appear to have developed in that dialect due to the vocalization of intervocalic *\*l*.

#### 4.2.1.1 Intrinsic length

In Munken and Biya, there are no contrast-bearing differences in vowel length. Munken, however, has non-contrastive differences in vowel length in closed syllables which will here be called intrinsic length. Speakers tend to be somewhat aware of these length differences, but they do not always produce them consistently when paid to repeat words for two hours at a time. The two Biya consultants with whom

<sup>12</sup> Though in principle these judgments could be confirmed by spectral analysis on recorded data.

I worked primarily in 2012 did not produce intrinsic length effects reliably enough for me to come to any conclusions as to whether the effect is present in Biya. Table 4.12 classifies (for Munken) combinations of vowel and coda consonant by whether the vowel is intrinsically short, intrinsically long, or the combination is unattested.

	m	n	ŋ
i		short	
u			short
e		short	
o	short		short
ɛ	short	short	short
ɔ	long		short
ə	short	short	short
a	long	long	short

Table 4.12: Classification of vowel-coda combinations by the intrinsic length of the vowel (Munken). Shaded cells indicate combinations not found in the set of ~250 verbs used for phonological elicitation.

As table 4.12 shows, most vowel-coda consonant combinations contain an intrinsically short vowel. The two intrinsically-long combinations with vowel /a/, however, are of high frequency, so short vowels do not predominate in token frequency as they do in type frequency. It is also interesting to note that in Munken, verb stems with a closed syllable, coda *n*, and a back stem vowel are not found. Such a lexical gap is not found in the other dialects. Examples of intrinsically short vowels are given below as part of the discussion of the vowel length contrast in Abar (§4.2.1.2.2). Data on intrinsic length is limited to verb stems, and it cannot be said whether these generalizations extend to nouns as well.

#### 4.2.1.2 Contrastive length

Vowel length contrasts are observed in Abar and Missong. In both cases the functional load is rather low. In Abar, there is a contrast between normal and

extra-long vowels, while in Missong, the contrast is between normal and extra-short vowels.

**4.2.1.2.1 Extra long vowels (Abar)** Contrastive extra-long vowels are found in Abar. Such vowels are found mostly in verbs, and only in verbs of set A and C. Exact minimal pairs are difficult to find, though one which differs only by tone extension (see note in § 4.1.2.3.1) is given in (4.23)–(4.24).

(4.23)  $\bar{i}$ -sá (H<sup>-</sup>) ‘(B)to entertain’

(4.24)  $\bar{i}$ -saá (H<sup>+</sup>) ‘(c)to decide’ (Abar)

Comparative evidence suggests that the extra long vowels were created as a result of the loss of intervocalic *\*l* in disyllabic verb stems. The putative historical *\*l* is preserved in Munken, which witnesses /-Vlə/ in cognates for the majority of Abar verbs with an extra-long stem vowel. Some examples are given in table 4.13. There are no Abar verbs with extra-long vowels corresponding to an intervocalic consonant other than /l/ in other dialects.

Abar	Munken	gloss
saa	salə	‘decide’.C
kpaá	kpalə	‘cross (ankles)’.C
jʊʊ	jələ	‘make noise’.A
gee	gelə	‘go around’.C
buu	bwələ	‘hatch’.A
çoo	çələ	‘loosen’.A
çii	selə	‘string up’.A
tii	tilə	‘undress’.A
suu	çələ	‘insult’.C
naa	nalə	‘stretch’.A
see	çi	‘select’.C
jʊʊ	jo	‘entertain’.A
tʊʊ	tə	‘support’.A

Table 4.13: Extra-long vowels in Abar formed via vocalization of historical intervocalic /l/, preserved in Munken.



Examples listed at the bottom of table 4.13 are those where the correspondence between an extra-long vowel in Abar and an intervocalic /l/ in Munken does not hold.

**4.2.1.2.2 Extra-short vowels** In Abar and Missong, an extra-short variant of /a/, transcribed /ǎ/, contrasts with /a/ in closed syllables. In Missong, the long and short variants seem to have nearly the same quality, while in Abar the short variant is slightly raised, with a pronunciation close to IPA [e̞]. Examples (4.25)–(4.26) give a minimal pair which has the same transcription for both dialects.

(4.25) ɲǎm ‘tiptoe!’

(4.26) ɲǎm ‘be stingy!’ (Abar/Missong)

Contrastive extra-short /ǎ/ in Abar has (approximately) regular correspondences with *intrinsically* short vowels in Munken, with the correspondent partly determined by the coda consonant (table 4.14).

Abar	Munken	gloss
tsǎŋ	tsǒŋ	‘(B)see’
bǎŋ	bǒŋ	‘(A)greet’
gǎŋ	gǒŋ	‘(B)carry’
ɕǎŋ	ɕǎŋ	‘(A)dance in the middle’
fǎŋ	fǎŋ	‘(B)remain’
bǎŋ	bǎŋ	‘(B)lock’
tǎn	tǎn	‘(C)fasten/rear animal’
tsǎn	tsǎn	‘(B)be drunk’
kǎm	kǎm	‘(A)slaughter’
tǎm	tǎm	‘(B)shoot’
nǎm	nǎm	‘(B)be fat’

Table 4.14: Correspondences between Abar /ǎ/ and intrinsically short Munken vowels in closed syllables.

The correspondences in table 4.14 suggest one possible scenario for the development of different vowel qualities. An earlier system with a smaller number of vowel quality distinctions in addition to length distinctions may have at some point developed length-dependent quality differences. Additional data from intra- and inter-dialectal variation in noun class prefixes (§5) will suggest that /ə/ in closed syllables should in most cases be reconstructed as a short /ǎ/.

Extra-short vowels are additionally found in open syllables in a handful of Missong verbs of set B. These are listed in table 4.15. Although it does not carry a high functional load, it appears to be contrastive, as pairs like *fǎ* ‘fly’ and *fa* ‘struggle’ are attested.

bǎ	‘be tired’	sě	‘decide’
kě	‘detour’	ɬũ	‘enthrone’
tǒ	‘come’	tǎ	‘fell’
dzǎ	‘eat’	dzǎ	‘travel’
fǎ	‘fly’		

Table 4.15: Extra-short vowels in Missong Set B verbs.

### 4.2.2 Vowel elision

In Mungbam, the major strategy for resolving vowel hiatus (cf. Casali (1996)) or the occurrence of two vowels separated by a syntactic word boundary, is elision. The process is illustrated in (4.27)–(4.29). The word meaning ‘hair’ in Biya, *ú-fwí*,<sup>13</sup> normally starts with the vowel *u*, and the comitative marker in Biya normally ends with the vowel *ə*. In situations where the comitative marker precedes this noun, or any other noun with a vocalic prefix, the comitative marker and the noun class are very frequently (though not always) realized as a single syllable whose nucleus has the same vowel quality and tone as the noun class prefix.

<sup>13</sup> Its plural, in class 4, refers to multiple heads of hair.

(4.27) bǐ      lè      wǎn      ú-fwí      jí  
 (B)plait (A)VENT (B)keep CL3-hair 3SG.POSS  
 "...plaited her hair..." (Biya)

(4.28) bē      kǎ-nǒ  
 COM CL12-thing  
 "...with a thing..." (Biya)

(4.29) bú-fwí      jí  
 COM.CL3-hair 3SG.POSS  
 "...with her hair..." (Biya)

Lexical nouns, some preverbal pronouns, and grammatical morphemes with segmental form *a* are the only words which can begin with vowels. Elision in Mungbam is therefore restricted to sequences of a vowel-final word and one of these aforementioned vowel-initial words. Certain types of junctures do not occasion elision. Coalescence is not observed with nouns in IAV position, as (4.30)–(4.31) illustrate.

(4.30) mē      ú-kpǒǒ  
 (A)take.IRR CL3-money  
 "...take money..." (Misong)

(4.31) í-bí=ní      í-fwí  
 CL5.INF-(B)plait=DAT CL4-hair  
 "...to plait [peoples'] hair." (Biya)

Elision is also not observed, except occasionally in rapid speech, between a noun and a following modifier. Example (4.32) shows two junctures with unresolved hiatus.

(4.32) wán      ù-lē      ù-tǝǝlǝ      ù-kínkjín  
 CL1.child CL1-other CL1-female CL1-small  
 "...another small girl child..." (Munken)

Contexts where elision generally is observed are listed below, along with references to relevant examples. No systematic evaluation has been made to determine

whether elision involves compensatory lengthening, though my impression is that this is likely to be the case.

- between comitative marker and vocalic noun class prefix (4.33)–(4.34)
- between subject pronoun and future or negative marker (4.35)–(4.36)
- between vetitive marker and vocalic prefix or pronoun (4.37)
- between ‘then’ marker and vocalic prefix or pronoun (4.38)
- between preposition and vocalic prefix (table 10.5, p. 307)

- (4.33)                    / b̄ ò ì-ŋáf̄ə /  
 m̄ ò   àl̄ò kp̄é   [ b̄ ì-ŋáf̄ə ]  
 1SG P2 (B)die COM.CL5.INF-(B)be.sick  
 “‘I died (figuratively) of sickness.’” (Biya)
- (4.34)                    / k̄ ó á-k̄ǒn /  
 ī-n̄əs̄ə      á      f̄i            [ k̄ á-k̄ǒn ]  
 CL5-stone PREP LOC.head COM.CL6-hand  
 “... on a stone by hand.” (Missong)
- (4.35) / s̄ ò á /  
 [ s̄ á ]      n̄àŋ      d̄í      á      t̄ɛ̀ù      j̄ì=n̄ó  
 1PL.FUT (A)go (C)say PREP CL1.wife 3SG.POSS=DAT  
 “We will go and say to his wife...” (Munken)
- (4.36) / s̄ ò á /  
 [ s̄ á ]      w̄ɔ̄              k̄əm              h̄ò  
 1PL.NEG (B)hear.IRR (A)again.IRR S.NEG  
 “We have not heard...” (Munken)
- (4.37) / k̄ ó à /  
 [ k̄ á ]      k̄əm      tsàm      dzòŋ      j̄ɛ̄  
 VET.2SG (A)again (A)talk (A)again thus  
 “Don’t talk [about that] again...” (Munken)
- (4.38)                    / m̄ ò ì /  
 ì-c̄ɛ̀      [ m̄ ì ]      j̄ál̄ə      d̄ən              l̄è  
 CL9-fowl then.CL9 (C)run (C)go.away (A)VENT  
 “The fowl then ran away...” (Biya)

Complete data on the behavior of tone in vowel elision contexts is not available, but the available data can be used to hypothesize about some likely generalizations. For elision of the vowel in the comitative morpheme, the comitative tone is also elided. For elision of the vowel in the ‘then’ marker, the fate of the tone in the ‘then’ marker is not known, since it has a low tone and the only examples of following vocalic prefixes available are the low-toned class 1 and class 9 preverbal subject pronouns (*ù* and *ì*, respectively). In other cases, it seems that both tones remain, forming a contour when they are dissimilar.

## 4.3 Consonants

In this section are presented three common types of variation affecting consonants: vocalization of foot-internal *l* and *n* (§ 4.3.1), lenition of *s* and *f* to *h* (§ 4.3.2), and nasal place assimilation (§ 4.3.3).

### 4.3.1 Sonorant consonant deletion

The diachronic change leading to the development of long vowels in Abar, discussed in § 4.2.1.2.1, has a synchronic counterpart. A foot-internal syllable whose onset is a sonorant consonant (i.e., *n* or *l*) may be optionally deleted, with compensatory lengthening. The Biya verb glossed as ‘(c)decide’, for example, has citation form *salə*, but is realized as *saa* where it is attested in texts.

- (4.39) bú sâa      ú-bjâm      bwē  
 CL2 (c)decide CL3-hunting CL2.POSS  
 “They decided [to go] hunting.” (Biya)

- (4.40) wán      ù-nī      ù      fǒ      sâa      kó-mjǒ      kǎ-kǎŋ  
 CL1.child CL1-REL CL1 P1 (c)decide CL12-thing CL12-DEM.PROX  
 kǎ  
 CL12.DET  
 “The child who decided this plan. . .” (Biya)

The reduced forms are especially common in high frequency collocations. Examples (4.41) – (4.42) show common phrases in Munken which appear at least as often in reduced form as in non-reduced form.

- (4.41) [ á-ɲǎ́ ]  
 / á-ɲǎ́      ɲó /  
 CL12-thing REL  
 ‘Because...’ (Munken)

- (4.42) [ á-ɲǎ́      á-ɖǎ́ ]  
 / á-ɲǎ́      à-ɖǎ́-ló /  
 CL12-thing CL12-(B)eat-ADJ  
 ‘food’ (Munken)

### 4.3.2 Lenition of /s/ and /f/ to /h/

A type of free variation which is well-attested in Munken, and less so in the other dialects, is variation between either stem-internal *s* or stem-internal *f*, and *h*. In elicitation, consultants tend to have firm (and mutually contrary) preferences about whether they believe a word should be pronounced with *s/f* or with *h*, but data from spontaneous conversation and narratives shows that speakers are not fully consistent unto themselves as to which form they produce. Some words which are found with variable pronunciation in texts are presented in table 4.16.

‘P1’	há	fǎ
‘S.NEG’	dàha	dàsə
‘CL3.fire’	ú-wósə	ú-wěhɛ
‘(B)excessively’	nəhə	nəfə
‘CL3.money’	ú-kpófə	ú-kpóhɔ
‘(B)ask’	bɔfə	bɔhɔ
‘(B)exit’	bɛsə	bɛhɛ
‘(B)be.careful’	tɔfə	tɔhɔ
‘(B)roast’	fɔfə	fɔhɔ
‘CL6-eye’	á-dzísə	á-dzěhɛ

Table 4.16: Variable pronunciation in Munken of words containing stem-internal *f*, *s*, or *h*.

It is not certain whether all words with stem-internal *h* have an *s/f* alternant: Munken words such as *u-kwehε* ‘CL3-foot’, *i-bɔhɔ* ‘CL5-buttocks’, for example, are attested with only an *h* variant. However, all words which in citation have a stem-internal *s* or *f* do appear to have an *h* alternant. There are no words which show an alternation between *s* and *f*.

The variation also appears to have a diachronic basis, as citation forms of cognate words vary across the five dialects with respect to whether they have a stem-internal *s/f* or *h*. As table 4.17 shows, Abar is relatively deficient in words with stem-internal *s/f* (these are attested, though: e.g., *ɲɪfɔ* ‘(c)whip’), and Biya is relatively deficient in words with stem-internal *h*.

Gloss	Abar	Missong	Munken	Biya	Ngun
‘(B)squeeze banga’	saha	saha	safə	safə	
‘(B)remove honey’	taha	taha	tafə	tafə	
‘(A)tie’	kaha	kasə	kεhε	kaha	
‘(B)ask’	bɔhɔ	bɔhɔ	bɔhɔ	bufə	bɔhɔ
‘(B)roast’	fɔhɔ	fɔhɔ	fɔfə	fufə	
‘(A)burn’	taha	təsə	tosə	tusə	
‘(c)bend down’	kamhɔ	kumfə	kəmfə	kwumə	
‘(A)breathe’	wɔhɔ	wofə	nəmfə	wəmfə	wəmfə
‘(B)be sick’	ɲaha	naha	naha	ɲafə	ɲaha
‘(c)crack egusi’	bwehe	bwaha	bwehe	bwasə	bwaha
‘(A)think’	ɲɔhɔ	wɔɲhɲ	nɔɲhə	wɔɲsə	mɔɲhə
‘(B)be careful’	tɔhɔ	tɔfə	tɔfə	tɔfə	tɔfə
‘(A/c)open’			(c)wuhə	(A)wusə	
‘(c)worry’	fəmhɔ		fwəmfə	fwəmfə	fwəmfə

Table 4.17: Verbs showing varying witnesses of *\*s/\*f* in citation. Letter following gloss indicates verb class. Shaded cells indicate no cognate and/or missing data.

### 4.3.3 Nasal place assimilation

Prefixes ending in a nasal (including syllabic nasal prefixes) assimilate to the place of the following consonant. Examples (4.43)–(4.45) show assimilation of the first

person singular subject prefix. Table 4.18 shows assimilation of the final nasal in the class 18a and class 6a prefixes.

- (4.43)  $\bar{m}$ -bò                       $\bar{n}$ -lèn  
 1SG-(A)search.IPFV 1SG-(B)tell.story.IRR  
 "...[that] I want to tell..." (Munken)
- (4.44)  $\bar{n}$ -kwé  
 1SG-(B)hold  
 "I have..." (Ngun)
- (4.45)  $\bar{n}$ -júɔn              tí~tí              jà  
 1SG-(c)forget VFOC~(c)also thus  
 "I've also forgotten..." (Biya)

mun-saŋ	'CL18a-necklace'	BY
mūn-ló	'CL18a-other'	MK
muŋ-ɲa	'CL18a-bird'	MK
mūŋ-kálə	'CL6a-shah'	BY
múm-būs	'CL18a-cat'	MK

Table 4.18: Assimilation of final nasal consonant in class 6a and 18a prefix.

The process does not generalize to assimilation of a coda nasal in an accented syllable. The following disyllabic words show a coda  $\eta$  which does not assimilate to a following  $s$  or  $f$ :  $bəŋsə$  'before (Biya)',  $laŋfə$  'rinse (Munken)',  $wəŋsə$  '(A)think (Biya)'.



## Chapter 5

# The noun class system

A Bantu-like noun class system is a type of agreement system found in virtually all Bantu and Bantoid languages. It is superficially similar to gender agreement systems found in various European languages. Example (5.1) shows gender agreement in Latin. The form of the underlined nouns partly indicates their gender, and and the form of the possessive pronouns (in square brackets) is partly determined by the gender of the noun they modify.

- (5.1) qui loquitur veritat-em in cord-e [su-o]:  
who.M.SG.NOM speak.3SG truth-F.SG.ACC in heart.N.SG.ABL 3SG.POSS-N.SG.ABL  
qui non eg-it dol-um in lingu-a  
who.M.SG.NOM NEG act.PST-3SG trickery-M.SG.ACC in tongue-F.SG.ABL  
[su-a]  
3SG.POSS-F.SG.ABL  
“... He that speaketh truth in his heart, who hath not used deceit in his tongue ...” (Vulgate Bible, Psalms 15:3)<sup>1</sup>

Similarly, in Mungbam (example (5.2)), the underlined noun has a prefix which indicates its noun class, and the determiner-like modifier (in square brackets) takes

<sup>1</sup> In the Latin example, glossing abbreviations not used in Mungbam also are as follows: M: masculine; NOM: nominative; F: feminine; ACC: accusative; N: neuter; PST: past.

a prefix whose form is determined by the noun class of the noun it modifies.

- (5.2)  $\underline{\text{bà-}}\text{tɛ̃lɔ}$  [bā-lɔ] sɛ̀ mɛ̀  
 CL2-woman CL2-other (A)descend (A)take  
 "...other women go down and take..." (Munken)

The tradition for grammarians of Latin and other European languages is to treat gender as a category separate from number: that a noun is of the masculine, feminine or neuter gender does not preclude it from being either singular or plural. The Bantu/Bantoid grammatical tradition differs at this point. Some noun classes have singular reference, some have plural reference, and some have mass or non-individuated<sup>2</sup> reference. The noun meaning 'woman', for example, belongs to class 2 when it has plural reference, as in (5.2); and belongs to class 1 when it has singular reference, as in (5.3).

- (5.3)  $\text{ù-tɛ̃lɔ}$   $\text{ù-lɛ̃}$   $\text{ù tɛ̀}$  ká  $\text{ũ-tsɔ̃ŋ}$   
 CL1-woman CL1-other CL1 (B)come.IRR COM CL3-pot  
 "Another woman is bringing a pot." (Missong)

Since all noun classes are by convention strictly associated with a number category, there is no need to include the number category of a noun (singular or plural) in glosses for nouns so long as the noun class is indicated. Following Bantuist convention, each noun class is assigned a numeral, with number specifications as in table 5.1.

For any type of agreement system, it is possible to distinguish agreement triggers and agreement targets. Following Good (2012: §2.1), I make a terminological distinction along these lines: 'class marking' is used to refer to noun class marking on a head noun, and 'concord' is used to refer to noun class marking on nominal modifiers.

<sup>2</sup> The term is intended more or less in the sense of '[relatively] indistinct from its background', as discussed by Hopper and Thompson (1980: 253); emphasis is placed on the treatment of mass nouns and abstract nouns as non-individuated *vis à vis* their count and concrete counterparts. Practically speaking, the term is chosen as a cover term for a group of nouns which have for the most part mass and abstract reference.

Number specification	Noun class
SINGULAR	1, 3, 5, 7, 9, 12, 19
PLURAL	2, 4, 6, 8, 10, 13, 18a
NON-INDIVIDUATED	6a, 14

Table 5.1: Association between number specifications and noun classes in Mungbam.

Before moving into a presentation of the full set of noun classes, a short note will be made on the regularity of the noun class marking system. Nouns in Mungbam are highly regular insofar as suppletion in singular/plural alternations is very rare. The only well-documented example of a noun with suppletive singular/plural variants is the noun translatable as ‘child’ (table 5.2). There are two distinct singular forms (both in class 1) and two distinct plural forms (both in class 2) corresponding to this gloss, and it is not clear which singular form corresponds to which plural form.<sup>3</sup>

Dialect	SG1	SG2	PL1	PL2
Biya	wò	wán	bə-mbjún	bó-tíŋ
Abar	wè	wá	ā-bjáŋ	bó-tóŋ
Ngun		wán	(bə-)bjǎŋhə	bó-tjón
Missong	wò	wá	(bā-)bjǎŋ	—
Munken	wò	wán	bó-bjémə	bó-kjón

Table 5.2: Singular and plural forms for the words meaning ‘child’ and ‘children’. Shaded cells indicate missing data. Em dash indicates likely absence of cognate root. Parentheses enclose prefixes which are found to be omitted in texts.

## 5.1 Previous work and chapter overview

Works prior to Good et al. (2011) which have treated Mungbam data in any detail have been mainly concerned with the noun class system. The noun class system

<sup>3</sup> See also § 6.5 for a brief discussion of irregularity in the formation of possessed and vocative nouns.

can be worked out rather accurately in a short amount of time on an unfamiliar language, so this choice of coverage is not unexpected.

The noun class structure of Mungbam was first discussed in Hombert (1980), which incorporated data from Missong. Hombert's work was aimed at reconstructing the noun class system of "Proto-Beoid," a grouping which at the time included what Good et al. (2011) referred to as the Beoid languages, in addition to the Yemne-Kimbi languages. A sketch incorporating data from all five Mungbam<sup>4</sup> dialects was presented by Farrar and Good (2008), though this work was never officially published. Farrar and Good (2008) did not include the class 14 noted by Hombert (1980) for Missong, but otherwise produced a sketch similar to that of Hombert (1980), though enlarged in detail. A more complete sketch, nearly in agreement with the present one, with refinements based on subsequent fieldwork by the present author, was published by Good et al. (2011). The analysis of the noun class system presented here supersedes all previous descriptions, though the points of difference between this dissertation and earlier works are rather minor. The main contribution as concerns the noun class system is to present the first reconstruction of a "Pre-Mungbam" noun class system, and to attempt to provide evidence for some of the less well-supported aspects of earlier analyses. Obviously, the present work also goes into much more detail about the concord system than any previous works have. This chapter, however, discusses the concord system only in a general way, with specifics about individual concord elements deferred until § 6.3.

Section 5.2 provides a snapshot of the noun class system, presenting reconstructed prefixes for a hypothetical common ancestor language to all of the five varieties ("Pre-Mungbam"), and then briefly presenting the prefixes for each of the five dialects. Section 5.3 discusses the issue of tone and noun class marking. Sec-

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<sup>4</sup> At that time the language was referred to as "Fən".

tion 5.4 lists all of the common singular/plural class pairings, giving examples of nouns belonging to each class, including those which lack a singular/plural counterpart (classes 6a and 14). Section 5.5 discusses in more detail three of the noun classes (5, 7/12, and 13) for which relation to Proto-Bantu noun class with the same number is not entirely straightforward. Finally, in § 5.6 a broad outline of the morphophonological processes available for marking concord is given.

## 5.2 Inventory of noun class prefixes

Table 5.3 collects several reconstructed systems of noun class prefixes: the proposed Pre-Mungbam system, presented for the first time in this chapter, as well as corresponding classes from Proto-Bantu (PB), Proto-Western Grassfields (PWG), and Proto-Beoid (PBb). A firm tradition in the study of Bantu/Bantoid languages is to label each of the noun classes with a number which can be traced to a reconstructed class in Proto-Bantu (PB), regardless of whether the relationship between the modern language noun class and the PB class can be fully substantiated, and regardless of one's views on whether the proto-language ever existed at any point in time. In this spirit, the Pre-Mungbam reconstruction presented here is a working hypothesis, representing the best information *presently* available; it is likely to be modified and expanded upon as new data is considered.

The Proto-Western Grassfields prefixes were originally presented in a study by Hyman (1980b), who drew attention to the presence of nasals in classes 1, 3, 4, 6, 9, and 10 in Eastern Grassfields languages of Cameroon,<sup>6</sup> and the absence of nasals in those classes in the Western Grassfields languages. Pre-Mungbam reconstructions are in line with PWG *vis à vis* the nasal/non-nasal patterning, with

<sup>5</sup> The only Mungbam variety surveyed by Hombert (1980) was Missong, which in his sketch and in the present work lacks class 12. Class 12 was diagnosed by Hombert in the Beoid languages Mekaf, Noni and Bebe-Jatto.

<sup>6</sup> These are the PB classes with nasals in their prefixes.

Sg. Cl.	PM	PB	PWG	PBb
1	*ũ-	*mù-	*ù(N)-	*u-
3	*ú-	*mù-	*ú-	*u-
5	*i-	*lì-	*í-	*i-
6a	*má-	—	*mə-	*m-
7	*kí-	*kì-	*kí-	*kì-
9	*i-	*nì-	*ì(N)-	*i-
12	*ká-	*kà-		*ka <sup>5</sup>
14	*bú-	*βù-		*bu-
19	*fí-	*pì-	*fí-	*fi-
Pl. Cl.	PM	PB	PWG	PBb
2	*bá-	*βà-	*bó-	*ba-
4	*í-	*mì-	*í-	*i-
6	*má-	*mà-	*á-	*a-
8	*bí-	*βì-	*bí-	*bi-
10	*i-	*lì- *nì-	*ì(N)-	*i-
13	*kí...-Cɔ	*tù-	*tí-	*ki- (27)
18a	*mú-	*mù- (18)		*muN- (26)

Table 5.3: Reconstructed noun class prefixes for Pre-Mungbam (PM), with Guthrie’s Proto-Bantu (PB) classes (Maho, 1999: 51), Hyman’s Proto-Western Grassfields (PWG) classes (Hyman, 1980b: 182), and Hombert’s Proto-Beboid (PBb) classes (Hombert, 1980: 86). Cedilla is used to distinguish super-high vowels; q.v. Hyman (1999: 247). Shaded cells indicate no reconstruction proposed in PWG. Numbers 18, 26 and 27 in parentheses indicate the numbering assigned to a prefix in the source consulted.

the conspicuous exception of class 6. Proto-Beboid reconstructions were originally published in early work by Hombert (1980). Although Hombert’s proposal unifying the language grouping now known as Yemne-Kimbi (his Western Beboid) and the grouping now known as Beboid (his Eastern Beboid) at the level of “Beboid” has fallen into disfavor (cf. Good and Lovegren (2009)), his observations on certain problematic reconstructions remain relevant to Mungbam.

Noun class prefixes for each of the five Mungbam varieties are given in tables 5.4–5.7. Prefixes are presented in two columns, with singular or non-individuated prefixes on the left and plural prefixes on the right. Rows are arranged so as to contain actually-occurring singular/plural pairs. The shaded cells across from classes

14 and 6a are intended as a reminder that these classes lack singular/plural counterparts. Tone diacritics on prefixes are not meant to indicate the actual tone (or analyzed underlying tone) on a prefix, but to indicate that the relevant classes are distinguished from each other by relative higher or lower tones on noun stems and/or concordant words. Prefix tones are not fixed, but are instead probabilistically determined from the associated stem tone (cf. § 5.3). Some general comments are made in this introductory section, and each of the classes is discussed in more detail, with examples, when the singular/plural class pairings are discussed in § 5.4.

Abar		Biya					
1	ù- / Ø-	2	bwe-/bə-/a-	1	ù- / Ø-	2	bə-
3	ú-	4	í-	3	ú-	4	í-
5L	ì-	6	mwe-/mən-/a-	5L	ì-	6	a-
5H	í-	13	i-/ki-...-(lɔ)	5H	í-	13	kə-...-(lə)
12	kə-/a-	8	bi-/i-	12	kə-	8	bi-
9	ì-	10	í-	9	ì-	10	í-
14	bu-/u-			14	bu-		
19	ci-/i-	18a	mN-	19	fi-	18a	mN-
6a	mən-/aN-			6a	N-		

Table 5.4: Abar and Biya noun class prefixes.

Overall, it will be noted that Mungbam is conservative in retaining segmental prefixes for all classes when compared to contemporary Yemne-Kimbi and Beboid languages (See Good (2012: §4) for discussion). Table 5.5 illustrates this point in comparing nouns from Munken and the neighboring language Mundabli.

Mundabli	Munken	gloss	Mundabli	Munken	gloss
gb̄	ú-kpě	‘CL3.house’	dz̄	í-kpě	‘CL4.houses’
yĩ	í-dzěhɛ	‘CL5.eyē’	yĩ	á-dzěhɛ	‘CL7/CL6.eyes’
kū	à-kəfə	‘CL7/CL12.bone’	kū	bī-kəfə	‘CL8.bones’
ɕũ	ì-bé	‘CL9.goat’	ɕũ	í-bé	‘CL10.goat’

Table 5.5: Forms illustrating the loss of segmental noun class prefixes in Mundabli vs. their retention in Munken. CL7/CL12 means that the noun is class 7 in Mundabli and class 2 in Munken. (Lovegren and Voll, 2013)

Class 1 nouns with a  $\emptyset$ - prefix have for the most part a stem-initial nasal-stop se-

quence,<sup>7</sup> with the nasal being syllabic in the singular form,<sup>8</sup> and syllabifying with the class 2 prefix in the plural form (e.g., *m̄b̄ðŋ* ‘cow’; *b̄ð-m̄b̄ðŋ* ‘cows’ (Munken)). Rather than reconstructing a nasal in the Pre-Mungbam class 1 prefix, I consider the prefixless forms containing a syllabic nasal to have been a result of a general sound change  $*uN > N̄$ .<sup>9</sup> Forms for the class 2 prefix are rather consistent across dialects, with the Missong form being treated as conservative, the schwa forms resulting from a hypothesized reduction of short *a*. Support for this hypothesized sound change is found in in Abar, which generally allows for initial consonants to be dropped from noun class prefixes. In that dialect the vocalized variant of *bə-* is *a-* rather than *ə-*. The variant *bwe-* for class 2 in Abar (also for class 6) seems to be an innovation involving a loss of distinction between the concordant definite determiner and the noun class prefix (cf. also discussion in §5.5.2). Class 3 and 4 prefixes have a uniform form across all Mungbam dialects, and also agree with the PWG and PBb reconstructions.

Missong			Munken				
1	ù- / Ø-	2	ba-	1	ù- / Ø-	2	bə-
3	ú-	4	í-	3	ú-	4	í-
5L	ì-	6	a-	5L	ì-	6	a-
5H	í-	13	ki...-(Cə)	5H	í-	13	ki...-(lə)
7	ki-	8	bi-	12	a-	8	bi-
9	ì-	10	í-	9	ì-	10	í-
14	bu-			14	bu-		
19	fi-	18a	mu-	19	ci-	18a	mu-
6a	aN-			6a	N-		

Table 5.6: Missong and Munken noun class prefixes.

<sup>7</sup> Some exceptions: *w̄ð* ‘CL1.child’; *n̄ām* ‘CL1.husband’; *bw̄ē* ‘CL1.friend’ (Munken); *d̄ēm* ‘fish type’ (Biya).

<sup>8</sup> Such words are considered to be disyllabic with a syllabic nasal rather than monosyllabic with a prenasal stop for the following reasons. First, syllabic nasals are found as prefixes, so positing a syllabic nasal here adds no complexity to the overall description of the phonotactics. Second, the pre-stop nasals in class 1 nouns, together with the stem syllables, form tonal sequences comparable to those found on uncontroversially disyllabic nouns (e.g., *m̄b̄ān* ‘CL1-shin’; *ç̄i-ns̄* ‘CL19-needle’ in Munken) rather than simply assimilating in tone to a neighboring syllable. Third, the syllabic nasals in class 1 nouns can absorb preceding non-segmental tones (see examples in table 10.5, p. 307). Finally, by the author’s experience doing a day of elicitation in Shupamem, which has prenasalized stops and not syllabic nasals (Nchare, 2011), Mungbam syllabic nasals are palpably longer in duration from an impressionistic standpoint.

<sup>9</sup> Evidence for this reconstruction is rather scant. See §5.4.1, below.



Class 5 is bifurcated into high-tone (5H) and low-tone (5L) versions in the individual dialects, and is reconstructed without a tone in Pre-Mungbam (see discussion in § 5.5.1). Class 6 shows a non-nasal prefix *a-* in all dialects except for Abar, yet nasal concord forms are found in Abar, Munken and Biya. The class 6 concord forms in Biya and Missong are indistinguishable from class 3 concord forms. One troublesome aspect of the Mungbam noun class system is the presence of a class in Missong which is most naturally related to PB class 7, but whose homologue in the other dialects is a class best treated as related to PB class 12 (see § 5.5.2). Class 8 is uniform in all dialects and is more or less unchanged from PB.

Ngun			
1	ù- / Ø-	2	bə-
3	ú-	4	í-
5L	ì-	6	a-
5H	í-	13	kə-...-(Cə)
12	kə-/a-	8	bi-
9	ì-	10	í-
14	bu-		
19	fi-	18a	mN-
6a	N-		

Table 5.7: Ngun noun classes.

Classes 9 and 10, which form a singular/plural pairing, are formally indistinct from classes 5L and 4, respectively. Although the prefixes are segmentally identical, every singular/plural pair of nouns in class 9/10 is distinguished by a difference in stem tone (see examples in table 5.19). On semantic grounds, however, they are set apart and show clear correspondence with PB 9 and 10, corresponding almost entirely to nouns referring to animals. Another problematic class from the point of view of reconstruction is class 13. Discussion of this class is found in § 5.5.3. Class 14 has a very small membership, and shows semantic and formal congruence with PB class 14. Class 19, which is a diminutive class, is also uncontroversially related to the PB class with the same number. The plural correspondent of class

19, here called 18a corresponds most closely in form to the PB locative class 18. Rather than selecting a number which would not be recognizable to Bantu scholars (as with Hombert's 26), I follow the approach of designating an 'a' class which resembles a PB class either in form or semantics, but not both (see Doke (1927); Hyman (1980b: 183)). This explains the labeling of class 6a, which is reconstructed for PWG and PBb, but notably absent from PB. This class has in Mungbam (as it does in other Western Grassfields languages (Hyman, 1980b: 183)) clearly circumscribed semantics, referring to liquids and amorphous solids (e.g., water, oil, earth).

### 5.3 Tone and class marking

It was remarked in §2.4.2 that if all of the possible prefix-stem tone combinations were considered for a given dialect, then a great majority of nouns could be segregated into a group of nouns bearing 'major' tonal sequences—those where knowledge of the stem tone allows the prefix tone to be known as well. This general tendency is summarized in table 5.8, which gives the attested prefix tones for each stem tone. When two prefix tones are given, and one is underlined, the underlined tone is associated with a 'major' tone sequence, and the non-underlined tone is associated with a 'minor' sequence.

Stem	Prefix	Stem	Prefix
L <sup>-</sup>	<u>L</u> , S <sup>†</sup>	L <sup>+</sup>	<u>L</u> , H
M <sup>°</sup>	<u>L</u>	M <sup>-</sup>	<u>L</u> , M
H <sup>-</sup>	L, M, S <sup>†</sup>	H <sup>+</sup>	<u>M</u> , H
ML	<u>M</u> , H	HL	M, H
HM	<u>H</u>	S	H

Table 5.8: Prefix tones corresponding to each stem tone. † = Munken only. Underline indicates the prefix tone which is most frequent, where two are possible.

In the case of HL stems, H is the 'major' prefix tone for Missong, while M is

the major prefix tone for other dialects. The  $H^+$  stem tone is, as noted in §2.4.2, exceedingly rare in nouns, and any noun containing it would fall into a ‘minor’ class. In the case of the  $L^-$  and  $H^-$  stem tones, the alternate S prefix tone is restricted to Munken, and in that dialect S prefixes are very rare. As for  $H^-$  stems, the data is a bit cloudy; a large number of Biya nouns originally transcribed M-H were later decided to be L-H; since these nouns were not rechecked for all dialects, it is not clear whether there is a clear choice of ‘major’ prefix for  $H^-$  stem tones. The S- $L^-$  tone sequence is restricted to two proper names, and the S- $H^-$  tone sequence is found only on about a dozen nouns, most of which belong to class 6a (table 5.9).

S- $L^-$		S- $H^-$	
m̀b̀ù	‘CL1.quarter name’	j̀-̀p̀é	‘CL6a-water’
ń̀t̀ò	‘CL1.Kwifon house’	ń̀-t̀ú	‘CL6a-achu’ <sup>10</sup>
		c̀í-ǹǰ́á	‘CL19-garden egg’

Table 5.9: Nouns in Munken with S-tone prefix.

One interesting consequence of the patterning of S- $H^-$  nouns in Munken is that if a noun falls into class 6a, it has a high probability of having the S- $H^-$  tonal pattern. Furthermore, if a prefix has a superhigh tone, it has a high probability of being a class 6a prefix.

This leads to the idea that certain noun class markings are inherently associated (in a probabilistic) way with certain prefix-stem tone combinations. It will be noted, for example, that superhigh stem tones are *never* found on native nouns belonging to class 1, class 5L, or class 9. Superhigh stem tones are also very rare in class 2 nouns. In Munken, the only two known class 2 nouns with an S stem tone are *b̀ó-t̀á̀b̀ò* ‘cigarettes/tobaccoes’, whose singular counterpart is a loan word, and *b̀ó-b̀j̀é̀m̀ò* ‘children’, which lacks a singular counterpart. However, the plural

<sup>10</sup> A type of stew made with saponified palm oil and flavored with country onion (*Afrotyrax lepidophyllus*) and bush pepper (*Piper guineense*), traditionally eaten with pounded taro.

counterpart of a class 5L or class 9 noun may itself have an S stem tone. In fact, S is the most frequent stem tone for class 10 nouns. This leads to the situation where most nouns with class 9/10 singular/plural pairings undergo changes in stem tone, as the examples in table 5.10 illustrate (cf. also §5.4.5). As the words for ‘fish’ and ‘monkey type’ show, not all tonal alternations can be explained as a simple avoidance of S stem tones in class 9, and preference for them in class 10.

CL9 SINGULAR	CL10 PLURAL	gloss
ì-ɛ̀ì	í-ɛ̀í	‘animal’
ì-ɕ̀ì	í-ɕ̀í	‘porcupines’
ì-s̀ù	í-s̀ù	‘fish’
ì-k̀àn	í-k̀àn	‘monkey type’
ì-ẁùŋ	í-ẁúŋ	‘pig’
ì-b̀é	í-b̀é	‘goat’

Table 5.10: Tonal alternations in nouns with class 9 singular and class 10 plural in Munken.

Tonal alternations in singular/plural pairs are also found, though to a lesser extent, in pairs of nouns with singular in class 5L. Examples of tonal alternations in 5L/6 and 5L/13 singular/plural pairs can be found in §§5.4.3, 5.4.7. Class 1/2 pairings, and other pairings not involving a class 1, 5L or 9 singular, generally do not show tonal alternations related to class marking. Because of the affinity for lower stem tones in these three singular classes, and because of their concord behavior, they are called the ‘low’ classes, the remaining classes being called the ‘high’ classes.

## 5.4 Singular/plural class pairings

In the present section the classes are exemplified in pairs. In a canonical Bantu-like noun class system, each singular class has exactly one corresponding plural class, and each plural class has exactly one corresponding singular class. In Mungbam,

like most languages with Bantu-like noun class systems, there exist cases of non-unique mappings between singular and plural classes, and there exist classes, whose semantics tend to be inherently non-individuated, which lack a singular or plural distinction.

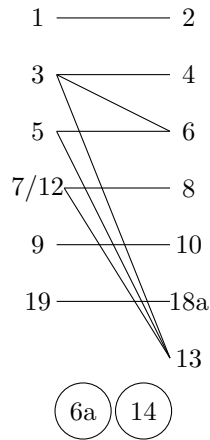


Figure 5.1: Scheme showing correspondence between singular (left) classes and plural (right) classes. Circled classes lack singular/plural counterparts.

Pairings designated by horizontal lines in figure 5.1 are *normal* in the sense that they tend to correspond to the singular/plural pairings reconstructed for PB.<sup>11</sup> The *teratogenetic*<sup>12</sup> pairings, designated by diagonal lines in figure 5.1, are those which are innovative from a historical viewpoint, and, if excluded, would leave

<sup>11</sup> By this criterion, 12/8 would not be normal, but see discussion in §5.5.2.

<sup>12</sup> This macabre choice of term finds its precedent in linguistic analysis in the DC Circuit Court case *Alabama Power Company et al. v. Costle* 636 F.2d 323 (1979), at *fn. 80* of Justice Wilkey’s opinion. Justice Wilkey considered the following phrase appearing in §165(b) of the Clean Air Act:

“... [an expansion or modification of [a major emitting facility which is in existence on the date of enactment of the Clean Air Act Amendments of 1977]], whose allowable emissions of air pollutants...” (bracketing added)

At issue was whether the relative pronoun *whose* bound the bracketed noun phrase *expansion or modification...*, or *a major emitting facility...* The EPA contended that it was the latter case. Justice Wilkey overruled this interpretation, arguing:

Though this construction may be supported by one reading of the syntax, it is so teratogenetic as to force us to reject it as an incorrect interpretation of the provision.

behind a canonical<sup>13</sup> residue with strict one-to-one pairings. The normal pairings are discussed in §§5.4.1–5.4.6, with discussion of their semantics and examples given. The teratogenetic pairings, and the phenomenon of variability in singular/plural correspondence, are discussed in §5.4.7. Dialect names are abbreviated in example tables in this chapter, according to the convention shown in table 5.11.

MK	Munken
MS	Missong
BY	Biya
NG	Ngun
AB	Abar

Table 5.11: Abbreviations for dialect names used in tables of examples in this chapter.

### 5.4.1 Classes 1/2

The 1/2 pairing contains most noun lexemes referring to humans, as well as other things of various semantics.<sup>14</sup> When the stem begins with a nasal cluster, the prefix is often zero, otherwise it is *u-*, save a few exceptional prefixless words. To the examples given in footnote 7 may be added several loan words (e.g., *tábɔŋ* ‘tobacco’ (Biya) (probably < Fr. *tabac*); *lâpe* ‘pagne’ (Munken) (< En. *wrapper*)), as well as phonologically unassimilated<sup>15</sup> English and Pidgin words arising through code switching, as illustrated in (5.4), where the English word *principal* governs class 1

<sup>13</sup> The term is used approximately in the sense intended in various works by Greville Corbett and colleagues; a canonical noun class system would be one where all singular-plural pairs correspond to singular-plural pairs reconstructed in PB. This does not mean that it is expected that a majority of pairs in a Bantu/Bantoid language will be canonical. cf. remarks by Corbett (2007: §1.1):

The canonical approach means that I take definitions to their logical end point, enabling me to build theoretical spaces of possibilities. Unlike classical typology, only then does one ask how this space is populated with real instances. The canonical instances, that is, the best, clearest, indisputable (the ones closely matching the canon), are unlikely to be frequent. Rather, they are likely to be rare or even nonexistent.

<sup>14</sup> A number of plural nouns referring to nationalities fall instead into class 8, e.g., in Munken, *bī-jâ* ‘CLS-Biya people’; *bī-kwɔ̄sən* ‘CLS-Koshin people’; *bī-bwə̀* ‘Buu people’.

concord on the definite determiner and the preverbal pronouns (underlined).

- (5.4) *principal*    nò wē    ù ɛô    gòŋ tē    kôŋ  
 CL1.principal TOP CL1.DET CL1 (c)stay.day.IPFV only (B)come (c)drive  
 lə    sə, ù sê    sə  
 (A)VENT 1PL CL1 (c)insult 1PL  
 ‘The principal was just coming and driving us [for nonpayment of school fees] away, insulting us.’ (Biya)

The nasal-initial words beginning with a nasal-obstruent sequence have an initial syllabic nasal, so that these words remain disyllabic despite their lack of prefix. It seems likely that in such words a sound change of  $uN > ŋ$  took place. The earlier stage appears to be preserved in at least one fixed expression in Ngun, *tám ũŋkúŋ* ‘chief’s emissary (lit. sent [by] chief)’, where the word meaning ‘chief’, *ŋkúŋ*, is normally prefixless and in class 1. An exception to the pattern of class 1 words with a stem-initial nasal-obstruent sequence is the Biya word meaning ‘woman’ (table 5.12), which is not found in other dialects.<sup>16</sup>

ø-ŋkpǎnə	‘clay dish’	bə-ŋkpǎnə	‘clay dishes’	MK
ø-nám	‘husband’	bə-nám	‘husbands’	MK
ø-mbòŋ	‘cow’	bə-mbòŋ	‘cows’	MK
ù-ndĩnə	‘woman’	bə-ndĩnə	‘women’	BY
ù-nè	‘person’	bə-nè	‘people’	MK

Table 5.12: Singular/plural pairs in class 1/2.

Class 1 and 2 illustrate the concept of what is called here *inherent tone*. As mentioned in § 5.3, all noun classes except for 5 have an inherent high or low tone, and are called ‘high’ and ‘low’ classes where it is necessary to make a distinction. A ‘low’ class noun and a ‘high’ class noun have different phonological behavior when possessed, and are associated with different tonal forms of the personal possessive

<sup>15</sup> The word for ‘tobacco’ cannot be said to be completely assimilated, since native class 1 words tend to not have S stem tones.

<sup>16</sup> The word is likely to have originated from a non-derived adjective meaning ‘female’, however, with adjectival usage still in effect, e.g., *í-gǒŋ í-ndĩnə* ‘female pigs’.

pronouns, as table 5.13 shows (see also §§ 4.1.2.1, 6.3.5). The tone on most concord forms can also be predicted from the inherent tone of the class (see § 6.3). Class 1 has an inherent low tone, while class 2 has an inherent high tone. Although class 2 is regarded as ‘high’ because of its concord behavior, it is unusual among ‘high’ classes in never being associated with S-toned noun stems (except in exceptional cases, as mentioned in § 5.3).

̀̀nɕ̀̀ù	‘bush cow’ <sup>17</sup>	b̀̀è-nɕ̀̀ù	‘bush cows’
̀̀nɕ̀̀ù m̩ə	‘my bush cow’	b̀̀è-nɕ̀̀ùù m̩ó	‘my bush cows’
m̩bān	‘shin’	b̀̀è-mbān	‘shins’
m̩bān m̩ə	‘my shin’	b̀̀è-mbānə m̩ó	‘my shins’

Table 5.13: Differences between ‘low’ class 1 and ‘high’ class 2 under possession (Munken).

#### 5.4.2 Classes 3/4

The class 3/4 pairing is somewhat restricted in membership, and so it is unclear whether any coherent semantics can be established for it. Both classes 3 and 4 have high inherent tones. Included in the pairing are the words for rope, house, firewood, fire, and the moon. Class 4 is formally identical to class 10, and the two are distinguished by their singular counterpart, and also the fact that class 10 usually has animal referents. Some examples of class 3/4 pairings are shown in table 5.14. Both classes being ‘high’, stem tone alternations are not seen in class 3/4 singular/plural pairs.

ú-gbě́	‘rope’	í-gbě́	‘ropes’	MK
ú-gbǒ	‘rope’	í-gbǒ	‘ropes’	BY
ú-jě́n	‘tail’	í-jě́n	‘tails’	MK
ú-kpê	‘house’	í-kpê	‘houses’	MS

Table 5.14: Singular/plural pairs in class 3/4.

<sup>17</sup> *Cephalophus ogilbyi*



### 5.4.3 Classes 5/6

Nouns in plural class 6 usually fall into a singular class with an *i-* prefix, class 5. Class 5, however, lacks a consistent inherent tone: some class 5 nouns have a low inherent tone, and some have a high inherent tone. When it is necessary to distinguish between class 5 nouns with low inherent tone and those with high inherent tone, the labels 5L and 5H are used. The class pairing is of medium size with not much semantic coherence other than the fact that many body part terms fall into this pairing. As seen in table 5.15, below, some class 5L/6 singular-plural pairs show differences in stem tone.

ì-jǒŋ	‘thigh’	ā-jǒŋ	‘thighs’	BY
ī-sû	‘face’	á-sú	‘faces’	NG
ì-tɛ̀ɛ̀hɛ	‘claw’	á-tɛ̀ɛ̀hɛ	‘claws’	MK
ì-kpò	‘seed’	ā-kpò	‘seeds’	MK

Table 5.15: Singular/plural pairs in class 5L/6.

í-dé	‘bean’	á-dě	‘beans’	BY
í-dé	‘bean’	món-dě	‘beans’	AB
í-dê	‘bean’	á-dê	‘beans’	MS
í-lám	‘tongue’	á-lám	‘tongues’	NG
í-bí	‘tadpole’	á-bí	‘tadpoles’	NG

Table 5.16: Singular/plural pairs in class 5H/6.

### 5.4.4 Classes 7/8 and 12/8

The pairing of 7/8 is found only in Missong for the simple reason that class 7 itself is restricted to Missong, with the singular correspondent of class 8 being class 12 in the other dialects. Some examples of the 7/8 pairing in Missong are given in table 5.17. Examples of the 12/8 pairing in other dialects are given in table 5.18. It can be seen that, although classes 7, 12 and 8 are inherently ‘high’, the pairing

is not particularly restricted tonally, with nearly all possible stem tones being attested on class 7/8 pairs (cf. §2.4.2). There are also no alternations in tone between singular class 7 stems and their plural counterparts. The semantic range of nouns in the 7/8 and 12/8 class pair is rather broad, and membership is large. Included in the pairing are some plants, some animals, and some inanimates. Nouns with human referent are excluded, with the exception of some nationalities, as noted above (footnote on p. 118).

kì-nzù	‘chimpanzee’	bì-nzù	‘chimpanzees’
kì-ɕùŋ	‘garden egg’	bì-ɕùŋ	‘garden eggs’
kī-fí	‘pig’	bī-fí	‘pigs’
kī-nɕím	‘grasshopper’	bī-nɕím	‘grasshoppers’
kí-wúm	‘plantain’	bí-wúm	‘plantains’
kí-nó	‘thing’	bí-ná	‘things’
kī-kpɛ̃	‘shoe’	bī-kpɛ̃	‘shoes’
kī-kâm	‘crab’	bī-kâm	‘crabs’
kì-mfī	‘cocoyam’	bì-mfī	‘cocoyams’
kí-nîm	‘grass (sg.)’	bí-nîm	‘grass (pl.)’
kí-dǎŋ	‘calabash plant’	bí-dǎŋ	‘calabash plants’

Table 5.17: Missong singular/plural pairs in class 7/8.

ā-nɕámə	‘grasshopper’	bī-nɕámə	‘grasshoppers’	MK
á-lóho	‘corner’	bí-lóho	‘corners’	MK
á-ŋǎmə	‘plantain’	bí-ŋǎmə	‘plantains’	MK
kó-bân	‘rat mole’	bí-bân	‘rat moles’	NG
kə-ɕéú	‘caterpillar type’	bí-ɕéú	‘caterpillar type (pl.)’	NG

Table 5.18: Singular/plural pairs in class 12/8.

### 5.4.5 Classes 9/10

The class pairing 9/10 is perhaps the most semantically coherent. All of its members are animals (cf. table 5.19). Class 9 is formally indistinguishable from the low tone variant of class 5 (with inherent low tone), and class 10 is formally indistin-

guishable from class 4 (with inherent high tone). A noun's membership in the 9/10 pairing can therefore only be determined by considering the singular/plural pairing, which always involves an alternation in stem tone. As will be noted below in §5.4.7, the fact that class 9 nouns can only distinguished from class 5L nouns by the fact that they have plurals in class 10, and refer to animals, makes it impossible to reliably recognize teratogenetic pairings involving class 9 (unless, the 'animal' criterion is taken as defining).

ì-bí	'dog'	í-bí	'dogs'	MK
ì-bé	'goat'	í-bé	'goats'	MK
ì-bwē	'goat'	í-bwé	'goats'	AB
ì-zé	'soldier ant'	í-zé	'soldier ants'	MK
ì-bù	'gorilla'	í-bù	'gorillas'	NG
ì-ké	'chimpanzee'	í-ké	'chimpanzees'	NG
ì-cē	'fowl'	í-cē	'fowls'	NG
ì-cū	'fish'	í-cū	'fish.pl'	NG
ì-wì	'stone beef' <sup>18</sup>	í-wí	(pl.)	MK

Table 5.19: Singular/plural pairs in class 9/10.

### 5.4.6 Classes 19/18a

Class pairing 19/18a is associated with diminutive semantics. The members of the class usually refer to things and animals which are small, benevolent and/or cute. Both the singular and plural class have a high inherent tone, and singular/plural stem tone alternations are not found.

ē-ntēn	'ring'	mū-ntēn	'rings'	MK
ē-ŋkjāŋ	'bird type'	mū-ŋkjāŋ	(pl.)	MK
fī-mbjô	'mushroom type'	mū-mbjô	(pl.)	BY
ē-kwàn	'lizard'	mūŋ-kwàn	'lizards'	MK
fī-něŋ	'caterpillar type'	mù-něŋ	(pl.)	BY

Table 5.20: Singular/plural pairs in class 19/18a.

<sup>18</sup> Pidgin name for Rock Hyrax (*Procavia capensis*).

While there is a largish number of nouns which always belong to pairing 19/18a, nouns normally belonging to other classes may productively (and regularly, in terms of the prefixation process<sup>19</sup>) be assigned to 19/18a if it is intended to give them a diminutive interpretation. Some examples follow. In (5.5) the nouns *ɲí* ‘mother’ (usually class 1/2) and *-ndóŋ* ‘macabo cocoyam’<sup>20</sup> (usually class 12/8) are given class 18a plural prefixes, and govern class 18a concord. Example (5.6) shows the latter noun with its normal (class 8) plural prefix.

- (5.5)  $\bar{n}$ -nəfə            all mū-ɲí            mū-ndóŋ            mwò mū,  
 1SG-(A)uproot all CL18a-mother CL18a-macabo.cocoyam TOP CL18a.DET  
 ǎ            mú    ɲ-wê            nəŋ dzè    ɲəbə  
 DS.COP CL18a 1SG-(C)go.farm (A)go (A)plant today  
 ‘I pulled up all of those small mother macabo cocoyam plants, those are the ones that I went to the farm and planted today.’ (Munken)

- (5.6)  $\bar{m}$ -bàn            dzì-dzà            ú-kpɔ́fə    nó  $\bar{m}$ -fǒ     $\bar{n}$ -dzè    bàn  
 1SG-(A)really VFOC~(A)lack CL3-money REL 1SG-COND 1SG-PLANT (A)really  
 sè            bī-ndóŋ            nômɔ bī  
 (A)descend CL8-macabo.cocoyam TOP CL8.DET  
 ‘I just lack the money that I could have [used to] plant [a significant amount] of those macabo cocoyam plants.’ (Munken)

Example (5.7) illustrates the pejorative use of the class 19 prefix, used to refer to an undesirable man who would eventually succeed in marrying the chief’s beautiful daughter through trickery. My consultant originally suggested I translate *fì-nò* as ‘small, dirty man’.

<sup>19</sup> But see example (5.8) for a possible counterexample.

<sup>20</sup> *Xanthosoma sagittifolium*

- (5.7) à bè ú-tóm mwè m̄ fi-nò fī-bú~bálə fī-né  
 DS B.COP CL3-village TOP LOC.at CL19-person CL19-spoil.ADJ CL19-other  
 à lē lē dō  
 DS P3 (B)L.COP.IRR CL17.DET  
 “Meanwhile in that village there was a small ugly man who was there.”  
 (Ngun)

People are also referred to with the 19/18a class pair when they are very thin or short, without any pejorative connotation. Fulani people, who are, in general, taller with a more slender physique than the indigenous population, are consistently referred to with 19/18a class in one lengthy Munken text. Examples (5.8)–(5.9) show the use of the class 19 prefix on English loan words denoting small objects (a bouillon cube and a plastic sandwich bag).

- (5.8) ɛ-ágè cī sà̀n á ntī  
 CL19-maggi CL19.DET (A)pass PREP LOC.immersed  
 “The small Maggi<sup>21</sup> [cube] goes in [the soup].” (Munken)

- (5.9) jē bé lə bōŋ kwó bō  
 COMP CL2 (A)make.IPFV (B)cover.IPFV (C)return.IPFV COM  
 cì-lápi  
 CL19-wrapper  
 “... that they wrap [the fufu] up with a small wrapper.” (Munken)

### 5.4.7 Teratogenetic pairings

Teratogenetic pairings differ from the normal pairings presented in §§ 5.4.1–5.4.6. They are historically innovative and, for some singular nouns, they may permit an alternate plural form. The teratogenetic 3/6 pairing, for example (table 5.21), complements the normal 3/4 and 5/6 pairings: some class 3 nouns do not have the expected class 4 plural, and some class 6 nouns do not have the expected class

<sup>21</sup> For readers not familiar with this condiment, see <http://en.wikipedia.org/wiki/Maggi>.

5 singular form. For the nouns given in table 5.21, 3/6 is the only singular/plural pairing attested, and so the 3/6 pairing is aberrant only from a historical standpoint; it does not directly introduce variability (q.v. Good (2012: §4.6)) into the noun class system.

ú-kǐ	CL3-tree branch	á-kǐ	CL6-tree branches
ú-bǎha	CL3-trap	á-bǎha	CL6-traps
ú-kě	CL3-hand	á-kě	CL6-hands
ū-sě	CL3-face	á-sě <sup>22</sup>	CL6-faces

Table 5.21: Teratogenetic 3/6 pairings in Munken.

Other teratogenetic pairings involve a plural class 13 (with inherent high tone), which does not appear to have any ‘normal’ singular counterpart. Where class 13 appears, it is often as an alternate plural class to the normal one. Table 5.22 shows alternate plurals for two class 3 nouns which have attested class 4 plurals.

ú-ǰóho	CL3-door	ú-jě́n	CL3-tail
í-ǰóho	CL4-doors	í-jě́n	CL4-tails
kí-ǰóho	CL13-doors	kí-jě́n	CL13-tails

Table 5.22: Teratogenetic 3/4/13 triplets in Munken.

Examples such as those in table 5.22 may explain another type of curious triplet, attested for two other nouns in Munken. When elicited, these nouns had a consistent 5/13 singular/plural pairing. In one text, however, forms with an *í*-prefix which clearly<sup>23</sup> have plural reference are found. It may be that by analogy to 3/4 nouns which have class 13 as an alternate plural, other nouns having their main plural in class 13 are treated as having an alternate class 4 plural. This is

<sup>22</sup> It is uncertain why a tonal alternation exists with this noun, since both its singular and plural are in ‘high’ classes. Note, however, that the Ngun cognate, which also shows an alternation is in the 5L/6 pairing (table 5.15).

<sup>23</sup> The relevant example, from the pan-African folktale ‘Why tortoise has a warped shell’:

at least more plausible than assuming that there are nouns which have completely homophonous singular/plural forms.

í-tám	CL5-axe	í-wúŋ	CL5-spear
í-tám	CL4-axes	í-wúŋ	CL4-spears
kí-tám	CL13-axes	kí-tám	CL13-spears

Table 5.23: Teratogenetic 5H/4/13 triplets in Munken.

The majority of nouns having class 13 as their most common plural form belong to singular class 5. Notwithstanding the examples in table 5.23, these mostly fall into class 5L.<sup>24</sup> Examples are given in table 5.24. As will be seen, a few of these show a raised stem tone in the plural form.

ì-tcàn	‘arm’	kí-tcǎn-ə	‘arms’	MK
ì-tsɔ̃	‘cork’	kí-tsɔ̃-lə	‘corks’	MK
ì-tsɔ̃	‘cork’	kó-tsɔ̃-lə	‘corks’	BY
ì-wôm	‘war’	kī-wôm-ə	‘wars’	MK
ì-fə	‘debt’	kì-fə-lə	‘debts’	MS
ì-jī	‘bee’	kī-jī	‘bees’	AB
ì-kùŋ	‘kite’	kí-kúŋ	‘kites’	MK
ī-dzɔ̃ŋ	‘instrument type’	kī-dzɔ̃ŋ-ə	‘(pl.)’	MK
ì-kpàha	‘cow horn’	kì-kpàha	‘(pl.)’	MK
ì-kè	‘basket’	kí-ká-lə	‘baskets’	MK
ì-kàha	‘fence’	kí-kǎhansó	‘fences’	MS

Table 5.24: Teratogenetic class 5/13 pairings.

Additional examples of teratogenetic 3/13 pairings are given in table 5.25. It is not knowable in the present analytical scheme whether there exist any teratogenetic 9/13 pairings; this is an artifact of the method of distinguishing class 5 and 9. Since class 5 and class 9 are formally identical, the current method for

(5.10) à fū      bēhe      lē      all í-cě,      all í-tám,      all í-wúŋ      ...  
 2SG (A)off.IRR (B)exit.IRR (A)VENT.IRR all CL4-knife all CL4-axe all CL4-spear  
 “You should take out all knives, all axes, all spears...” (Munken)

<sup>24</sup>The L/H split in class 5 can be noted by a difference in tonal behavior in their concord items (cf. §6.3), and also by the fact that 5L nouns may have a different (lower) stem tone than their plural counterpart. Only the latter distinction can be appreciated in table 5.24.

$\bar{u}$ -b $\bar{e}$	‘country pan’	k $\bar{i}$ -b $\bar{e}$	‘country pans’	MK
ú-kpóó	‘money’	kí-kpó-lə	‘monies’	MS
ú-mó	‘neck’	kí-mó	‘necks’	NG
$\bar{u}$ -c $\bar{o}$ ŋ	‘stream’	kí-c $\bar{o}$ ŋ	‘streams’	MK

Table 5.25: 3/13 singular/plural pairings.

determining whether a noun falls into class 5 or 9 is as follows: if the noun has a plural in class 10 and refers to an animal, then it is class 9; otherwise it is class 5. Teratogenetic 9/13 pairings therefore cannot exist.<sup>25</sup>

Teratogenetic class 12/13 pairings are also attested, with the class 13 plural existing alongside the expected class 8 plural. Good (2012: §4.6) gives an example of two different plural counterparts to the Munken phrase  $\bar{a}$ -j $\bar{o}$ h $\bar{o}$  k $\bar{o}$ ŋk $\bar{o}$  ‘CL12-this jaw’, the ‘normal’ counterpart  $b\bar{i}$ -j $\bar{o}$ h $\bar{o}$  b $\bar{j}$ êmbi ‘CL8-these jaws’ and the teratogenetic counterpart  $k\bar{i}$ -j $\bar{o}$ h $\bar{o}$  k $\bar{j}$ êŋk $\bar{o}$  ‘CL13-these jaws’.

#### 5.4.8 Pairless classes (6a and 14)

Classes 14 and 6a lack plural counterparts. Class 14 is the smallest class in terms of membership. Its members include nouns referring to medicine, witchcraft, fufu, bridges, cowpea leaves, and days. These nouns may not show any number distinction.

b $\bar{u}$ -t $\bar{i}$	‘medicine’	MK	b $\bar{u}$ -ts $\bar{e}$	‘witchcraft’	BY
b $\bar{u}$ -c $\bar{o}$ n	‘cowpea leaves’	MK	b $\bar{u}$ -t $\bar{u}$	‘day’	MK
b $\bar{u}$ -j $\bar{e}$ l $\bar{o}$	‘needle’	MS	b $\bar{u}$ -g $\bar{o}$ m $\bar{o}$	‘fruit type’	MK
b $\bar{u}$ -g $\bar{j}$ é $\bar{l}$ $\bar{o}$	‘bridge’	MK	b $\bar{u}$ -f $\bar{e}$ l $\bar{o}$	‘fruit type’	MK

Table 5.26: Nouns in class 14.

For some of the nouns in table 5.26, it seems that there are situations which could arise where one would want to talk about more than one ‘bridge’ or more

<sup>25</sup> A committee member has pointed out that a teratogenetic class 9/13 pairing *could* be recognized if a 9/10/13 triplet were found. I suspect that such an example could be elicited, but presently lack one.



than one ‘day’. On the one occasion where I pressed a Munken consultant for a plural of ‘bridge’, she said that if there was talk of multiple bridges, the second bridge could be referred to as ‘another bridge’, *bū-gjélə bū-ló*. This kind of usage is also found (example (5.11)) in one text where the narrator is discussing the passage of several days of time.

- (5.11) *bū-tū bū-né mà kò béhε kó*  
 CL14-day CL14-other then (A)go (B)exit ??  
 “... then came another day.” (Ngun)

Class 6a is another class whose members show no number distinction. All of its member nouns refer to liquids or uncountable substances such as salt and sand. The class has a high inherent tone.

<i>áj-kwó</i>	‘oil’	MS	<i>áj-ɲé</i>	‘water’	MS
<i>ám-fjé</i>	‘blood’	MS	<i>ǰ-kám</i>	‘fruit type’	MK
<i>ǰ-kwé</i>	‘oil’	MK	<i>ǰ-ɲé</i>	‘water’	MK
<i>m̄ɲ-kí</i>	‘shah’ <sup>26</sup>	AB	<i>áj-kwó</i>	‘oil’	AB
<i>ǰ-kū</i>	‘oil’	NG	<i>ǰ-ɲē</i>	‘water’	NG
<i>m̄-fjám</i>	‘blood’	BY			

Table 5.27: Nouns in class 6a.

## 5.5 Classes with problematic reconstruction

This section discusses three classes for which the relationship to the PB class of the same number is uncertain. The aim is not so much to give convincing reasons for why the numbering chosen is correct, but simply to point out the complicating factors that are present, and which might guide future refinements.

<sup>26</sup> Corn beer. Though the word is not usually written, it is spelled *shaa* in Nyamnjoh (2007: 182), as one committee member has pointed out.

### 5.5.1 Class 5

Class 5 is the only class which is not analyzed as having a unique inherent tone, and I have broken it up into two subclasses, 5L and 5H, when it is necessary to refer to groups of class 5 nouns associated with a particular inherent tone. Subclass 5L is formally identical to class 9 in all respects.<sup>27</sup> The only points of difference are the semantics of the class, and the usual singular-plural pairings. Subclass 5H is formally identical to plural classes 4 and 10, with the major exception that it is a singular class. The difference in concord behavior between the 5L and 5H subclasses is illustrated for Biya in table 5.28. For two nouns both having plurals in class 6, they govern concord on the modifier translated as ‘some, another’ (cf. §6.3.6.1) in different ways. The 5L noun is associated with the L-M prefix-stem pattern on the modifier, and the 5H noun is associated with an M-H pattern.

ì-cām ‘CL5L-planting seed’	ā-cām (pl.)	ì-cām ì-nī ‘another planting seed’
í-fū <sup>28</sup> ‘CL5H-hog peanut’ <sup>29</sup>	á-fū (pl.)	á-fū ā-ní ‘another hog peanut’

Table 5.28: 5L vs. 5H concord in Biya in two nouns with singular/plural 5/6 pairing.

I have faced some indecision in analyzing class 5L and 5H as either belonging to a unitary class 5, or being separate classes altogether, and have taken the first option in the present work. In Good et al. (2011), class 5 was considered to be inherently ‘low’, and a separate class, class 4a, was invented to handle all of the singular nouns which, by their semantics and corresponding plural class, appeared to be in class 5, but by their inherent tone were formally identical to the plural classes 4 and 10. The two choices in analysis can be put as follows:

<sup>27</sup> I.e., its prefix and concord forms are the same.

<sup>28</sup> *Vigna subterranea*. Called *Bambara groundnut* in Cameroonian English. A different gloss is used here to make the table come out within the margins.

<sup>29</sup> Also attested with M stem tone.

- (a) Admit the possibility of lexically determined inherent tone in order to uphold the principle of only historically valid classes (5L and 5H are subclasses of class 5).
- (b) Preempt the principle of only historically valid classes in favor of the principle of only class-based inherent tone (5L and 5H are separate classes).

The first possibility creates a complication in the formal workings of the grammar in favor of a more clearcut comparative picture. Although treating class 5 as a low class would have made for a more consistent descriptive picture (every class having a fixed inherent tone), doing so would have been incongruous with the reconstructions of the prefixes for Proto-Western Grassfields given in Hyman (1980b: 182), where only classes 1, 9, and 6a are reconstructed with low-tone prefixes. Admittedly, however, having a class 5 with variable inherent tone does not bring the data wholly in line with the reconstructions, since class 6a in Mungbam is clearly associated with a high inherent tone.

A possible historical explanation for the situation might involve the potential for confusion sown by nouns notionally belonging to the class 3/4 pairing which have an optional class 13 plural (discussed in §5.4.7): if the class 13 plural came to be seen as the standard plural form, the class 4 form could be reinterpreted as singular. Aside from the examples of this phenomenon found in table 5.23, I note an example of the Munken word *-mwèlò* ‘farm’, which was treated alternately as being of pairing 3/4 or of pairing 5H/13 by the same consultant. On one occasion a consultant produced the discordant form *ū-mwèlò ī-tè* ‘two farms (CL3-farm CL4-two)’. Such an explanation is of course highly speculative.

Semantically, class 5 contains the singular forms of some body parts and some inanimates. Class 5 also contains verbal infinitives in Abar, Munken, Biya and Ngun, which are productively formed by prefixing the class 5 prefix *ì-* to the verb

stem. The use of class 5 as an infinitivizer is well-attested in Northwest Bantu languages (Hadermann, 1999).

### 5.5.2 Class 7/12

One problematic issue with the Yemne-Kimbi/Beboid noun classes which was first noted by Hombert (1980:95) involves the correspondence in some languages of the singular prefix *kə-* or *a-* with the plural class 8 prefix *bi-*, rather than the expected reflex of the PB class 7 prefix, *ki-*. In other languages, the expected reflex of PB class 7 prefix *\*ki-* is instead attested on singular nouns with *bi-* plurals. Rather than postulate an improbable sound change from *\*ki-* > *\*a-*, Hombert (1980) proposed that the two types of prefixes are reflexes of different PB noun classes, with *kə-* and *a-* being reflexes of PB class 12 rather than PB class 7. Good et al. (2011:120) followed this precedent, but advised that their class 12 “... should be taken with caution as an actual reconstruction. . .” That solution deserves being revisited in the present work, especially since one dialect (Missong) has the class 7 prefix *ki-*, but lacks class 12, while the other four dialects have class 12 *kə-/a-* but lack singular class 7. Good et al. (2011) labeled the Biya and Ngun prefix *kə-* as belonging to class 7, but I prefer to treat it as class 12 for reasons to be given shortly.

In the scenario proposed by Hombert (1980:95), the putative common ancestor of the Beboid and Yemne-Kimbi languages originally made use of both the class 7 singular prefix *\*ki-* and the class 12 singular prefix *\*ka-*. The latter being reconstructed as a diminutive in PB, it could have been prefixed to different nouns in a more or less productive way, just as class 19 *fi-/ɛi-* can be now. After the diminutive interpretation was lost on *\*ka-*, the prefix might have become frozen onto different nouns in different languages. At this point, Hombert (1980:95) suggests that nouns with the frozen diminutive prefix formed their plural with the

class 8 prefix *bi-* via analogy with class 7, since class 7 and class 12 would have had identical concords. What is implied, but left unstated by Hombert (1980) is that the distinction between class 7 and class 12 would have had to have been subsequently leveled, in favor of class 7 in some languages, and in favor of class 12 in other languages. That this assumption is necessary may be verified by noting that class 7 nouns in Missong tend to correspond to class 12 in the other dialects, when the stems are cognate (table 5.29).

Missong	Munken	Abar	Gloss
kí-wúm (7/8)	á-ŋgómə (12/8)	kó-wóm (12/8)	‘plantain’
kí-tɛí (7/8)	á-kí (12/8)	kó-tí (12/8)	‘foundation’
kī-kpáj (7/8)	á-kpɔŋ (12/8)	kɔ-kpɔŋ (12/8)	‘bottle’
kī-bwā (7/8)	ā-bwānə (12/8)	kɔ-bwān (12/8)	‘waist’
kí-tɛúŋ (7/8)	á-tɔŋ (12/8)	kó-tɔŋɔ (12/8)	‘ear’

Table 5.29: Correspondence between Missong class 7 and Munken/Abar class 12

The assumption of prior leveling of all singular *k-* prefix classes in the Pre-Mungbam era is not especially attractive, but it should be borne in mind that Hombert’s 7~12 theory was resorted to due to the improbable nature of a *\*ki-* > *\*a-* sound change. A change of *ka-* > *a-* is not in itself especially plausible, in light of the fact that the initial prefix of other noun classes was not disturbed.<sup>30</sup> Hombert (1980:95) noted, however, that the loss of the initial consonant of any other noun class prefix would have resulted in homophony between singular/plural class markers.

An alternative proposal, detailed in Hyman (2005) for several Ring languages, avoids the reconstruction of *both* classes 7 and 12 by proposing that nouns with a prefix *a-* having their plurals in class 8 do in fact belong to class 7.<sup>31</sup> Hyman (2005:§3.1) suggests that the class 7 prefix *a-* in Ring languages is derived

<sup>30</sup> But see discussion below on prefix vocalization in Abar.

<sup>31</sup> This proposal essentially represents a reversal of the position of Hyman (1980b:183), according to which class “7” prefix *à-* in Grassfields languages was suggested to be a reflex of PBC *\*ka-* (class 12).

not from *\*ki-*, but rather from *\*á-ki-*, where *á-* is an initial vowel used in the Ring languages Kom, Bum, and Bafmen (the latter two of which are spoken less than 20 km from Mungbam villages; cf. figure 1.1.) to mark demonstratives and possessives as the head of a headless NP. The initial vowel (called a “pre-prefix” by Chia (1984: 32) (qtd. in Hyman, 2005: 319)) also appears on nouns in citation or list form, and on nouns at the beginning of a sentence.

(5.12)  $\bar{\text{ə}}\text{-t}\bar{\text{ə}}\text{-nc}\bar{\text{i}}\bar{\text{a}}$ <sup>32</sup>  
 IV-CL13-stings  
 ‘stings’ (Kom)

(5.13)  $\bar{\text{ə}}\text{-f}\bar{\text{ə}}\text{-b}\bar{\text{o}}\eta$   
 IV-CL19-ground squirrel  
 ‘ground squirrel’ (Kom) (Hyman, 2005: 319)<sup>33</sup>

(5.14)  $\bar{\text{ə}}\text{-t}\bar{\text{o}}\eta\text{t}\bar{\text{ə}}^\circ$   
 IV-CL13.DEM.PROX  
 ‘these ones’ (Kom)

(5.15)  $\bar{\text{ə}}\text{-f}\bar{\text{o}}\eta\text{f}\bar{\text{ə}}^\circ$   
 IV-CL19.DEM.PROX  
 ‘this one’ (Kom) (Hyman, 2005: 328)

Hyman (2005: 329) puts his proposal as follows:

The purpose of the initial vowel is to mark the nominality and initiality of modifiers within their noun phrase. My claim is that in Kom, Bum, and Bafmeng this marking has been extended to nouns themselves, which explains why the initial vowel is identified with initial position within the phrase.

Hyman (2005: 327–330) goes on to support this reconstruction by comparing data from six Ring languages, noting (among other things) that in the languages

<sup>32</sup> In Kom examples, IV means ‘initial vowel’.

<sup>33</sup> Orthography in Kom examples is adapted to IPA transcriptions.

which have an initial vowel, the initial vowel is used to mark a modifier in a headless noun phrase, but in languages which do not have an initial vowel, modifiers in headless NP's are marked by other means (e.g., a concordant affix). He notes that his analysis would be challenged by an example of a language which has initial vowels on nouns, but not on modifiers in headless NP's. (2005:329, footnote 17) Since the Ring languages with initial vowels also have class 7 prefix *a-* rather than *kV-*, Hyman argues that in these languages the original class 7 prefix has been replaced by the initial vowel *á*.

Although Hyman's (2005) account of class 7 *a-* prefixes was developed to explain phenomena in Ring languages, its level of support could still be affected by relevant facts from neighboring languages. What is found in Mungbam is that there are no initial vowels on nouns or nominal modifiers other than the noun class agreement prefixes. This means that if the *a-* prefix in Munken were due to the replacement of an earlier prefix *\*kV-* by an initial vowel, then subsequent historical changes would have covered up all traces of this initial vowel elsewhere in the nominal system of that language. But given that the prefix *a-* alternates with *kə-* in Ngun and Abar, it would appear instead that the *\*kV-* prefix in Munken was lost relatively recently.

That this prefix was *\*ka-* rather than *\*ki-* is suggested by other noun class prefix alternations found in Abar. In Abar, *all* CV prefixes may be pronounced with the initial consonant deleted in casual speech. Class 14 *bu-* may be realized as *u-*, classes 8, 13 and 19 *bi-*, *ki-* and *çi-* may be realized as *i-*, and class 2, 6, 6a and 12 *bə-*, *məN-*, and *kə-* may be realized as *a-* (table 5.30).

Vocalization of noun class prefixes optionally applies for all eligible classes in Abar, with *Cə-* consistently realized as *a-* rather than *ə-*. When this fact is paired with the fact that correspondences between *ə* and *á* are found between dialects (cf. § 4.2.1.2.2), there is a preponderance of evidence suggesting that the *Cə-* pre-

mó-ŋkán	‘CL6-hands’	á-ŋkán	‘CL6-hands’
m̄-mbálo	‘CL6a-oil’	ā-mbálo	‘CL6a-oil’
kí-lám	‘CL13-tongues’	í-lám	‘CL13-tongues’
bí-ɲú	‘CL8-things’	í-ɲú	‘CL8-things’
kè-jì	‘CL12-god’	à-jì	‘CL12-god’
bú-tsě	‘CL14-witchcraft’	ú-tsě	‘CL14-witchcraft’
ɛí-bûs	‘CL19-cat’	í-bûs	‘CL19-cat’

Table 5.30: Vocalization of noun class prefixes in Abar.

fixes should be reconstructed as *\*Ca-* rather than *\*Cə-*. For classes 2 and 6, such a reconstruction is consistent with the PB reconstructions, and would also be consistent with PB class 12. The fact that only classes 12 and 6 are vocalized in Munken may be explainable, as Hombert (1980: 95) has suggested, by noting that the vocalization of any other prefix would have led to homophony: vocalization of singular classes 14 and 19 would have led to homophony with singular classes 3 and 5H, respectively, and vocalization of plural classes 2 or 8 would have led to homophony with plural classes 6 and 10, respectively.<sup>34</sup> The optional vocalization of prefixes in Abar creates widespread homophony in the noun class prefixes, as may be verified from (5.30).

On phonological grounds, then, treating modern *kə-* and *a-* as reflexes of PB class 12 prefix *\*ka-* is well-supported. Outstanding anomalous issues (which are not present in Hyman’s analysis), however, are the necessity of assuming differential 7/12 leveling in Missong and the rest of Mungbam, and the lack of class 12 *\*ka-* in other Grassfields languages (Hyman, 2005: 327). One possible revision of the Hombert hypothesis (which has its own problems) involves a scenario where a sound change in the class 13 plural prefix *\*tV-* to *\*ki-* may have placed pressure on nouns with the singular prefix *\*ki-* to merge, with a resultant avoidance of homophony (though the homophony would have been between a singular and a

<sup>34</sup> The validity of homophony avoidance as an explanatory principle in historical linguistics has been called into question by a number of commentators, and I do not pretend to offer a defense of it in these pages. For recent commentary, see Paster (2010) and references therein.



plural class).

### 5.5.3 Class 13

Though no dialect has both singular class 12 and singular class 7, all have a plural class 13, which has been numbered “7a” by Farrar and Good (2008); Good et al. (2011), and “27” by Hombert (1980). As the variable numbering suggests, previous researchers have been unsure about the proper PB cognate for this noun class, opting for non-historical labels. The present label is admittedly speculative, but to the extent that there is evidence tying this noun class to a PB class, the evidence points towards class 13. This is the only noun class which may be marked on the head noun by a circumfix. Some examples of nouns with their plurals in class 13 in Missong are given in table 5.31.

ì-jǒ	‘CL5-bee’	kí-jǒ-lə	‘CL13-bee’
ú-tǔúm	‘CL3-village’	kí-tǔúm-nə	‘CL13-villages’
ì-dzām	‘CL5-back’	kí-dzām-nə	‘CL13-backs’
ì-nǎsə	‘CL5-mortar’	kí-nǎ-nsə	‘CL13-mortar’
ì-kpàhà	‘CL9-horn’	kí-kpàhà-nsə	‘CL13-horn’
ì-kàhà	‘CL5-fence’	kí-kàhà-nsə	‘CL13-fence’
ì-sínsîŋ	‘CL9-ant type’	kí-sínsîŋ-nə	‘CL13-ant type’

Table 5.31: Missong class 13 plurals.

Class 13 often appears as the plural corresponding to class 5 singulars, but also takes the role of “imperialistic” class (see §5.4.7),<sup>35</sup> appearing in variation with the usual plurals of nouns of other singular classes, including 3 and 12.<sup>36</sup> This

<sup>35</sup> The term has been applied to Mungbam class 13 in Good (2012: §4.6), having been proposed by Gerhardt (1994: 167), who claims to have been inspired by the title of a paper by Alexandre (1971). The term sounds very pleasing to me, but it should be noted that it does not apply exactly in the way that Gerhardt (1994: 167) intended, as he considered an imperialistic noun class to be one of open membership which is “morphophonologically less marked” than other classes. This second criterion clearly does not fit the Mungbam data, since 13 is the only circumfixal class, circumfixes ostensibly being more “morphophonologically marked” than prefixes.

<sup>36</sup> Similar behavior is exhibited by class 6 in Akɔ̄sɛ̄, which is attested as the correspondent of all of the singular classes other than class 1 (Hedinger, 1980: 11–2).

class is of uncertain origin: Hombert (1980:93) suggested that it might be a reflex of PB class 13, but did not go so far in labeling it as such, instead adopting the neutral “27”. The label 13 has been chosen because the prefix is *ki-* and because the concord forms contain a palatalized *k*, making the correspondence to *\*tu-* somewhat plausible. In Missong, the only dialect with singular class 7, class 7 and 13 have identical concords.

Marking of class 13 on nouns is circumfixal, with a prefix *ki-* and an optional suffix (usually present in elicited forms, but frequently dropped in texts) which varies by dialect and by position. The general conditions are listed in table 5.32. As will be seen below, these conditions are reminiscent of the conditions for the formation of deverbal adjectives (table 6.5, p.158). The conditions in Abar, Biya and Munken are somewhat similar to each other. Missong has the unusual addition of a suffix *-nsə* on disyllabic stems with a stem-internal fricative. Interestingly, similar conditions are posed for the formation of deverbal adjectives in Abar and Biya (but not in Missong): a disyllabic verb has a special suffix.

Abar	For open monosyllabic stems, <i>(-lə)</i> . For closed monosyllabic stems, <i>(-ɔ)</i> . For disyllabic stems, <i>-∅</i> .
Biya	For open monosyllabic stems, <i>(-lə)</i> . For closed monosyllabic stems, <i>(-ə)</i> . For disyllabic stems, <i>-∅</i> .
Munken	For open monosyllabic stems, <i>(-lə)</i> or <i>-∅</i> . For closed monosyllabic stems, <i>(-ə)</i> or <i>-∅</i> . For disyllabic stems, <i>-∅</i> .
Missong	For open monosyllabic stems, <i>(-lə)</i> . For mono- or disyllabic stem ending in a nasal consonant, <i>(-nə)</i> . For disyllabic stems with stem-internal fricative, <i>(-nsə)</i> . Otherwise, <i>-∅</i> .

Table 5.32: Distribution of suffixal element of class 13 marking on nouns.

The coincidence between formation of plurals in class 13 and the formation of deverbal adjectives is not absolute, but is still noteworthy. The main point of difference lies in the treatment of disyllabic stems: deverbal adjectives formed from disyllabic stems in Biya and Abar take a suffix of *-tə́* and *-tɛ́í*, respectively,

which might plausibly be cognate with the Missong 13 suffix *-nsə*.<sup>37</sup> However, this suffix is not present in 13 plurals in those dialects. Likewise, the Missong 13 suffix *-nsə* is not found on deverbal adjectives. The suffix *-nsə* is, however, present on some underived adjectives in Missong (5.16)–(5.17).

(5.16) *-fwàhànsó* ‘mixed color’

(5.17) *-tsínsə* ‘black’

At this point, any proposal about the origin of class 13 would be speculative, but it will be worth outlining some of the pieces of evidence pointing to a PB 13 origin for class 13, at the very least to aggregate them into one place for the benefit of future scholars.

The suffixes in class 13 might be remnants of a class 13 suffix *-tV*, having undergone lenition intervocalically and following nasals, and being partly preserved in Missong disyllabic nouns, and Abar and Biya disyllabic deverbal adjectives.

As for the prefix, the PB class 13 prefix *\*tu-* is reconstructed as *\*tí-* for Proto-Western Grassfields (Hyman, 1980b: 182). If the Mungbam class 13 prefix comes from *\*tí-*, then a sound change *\*tí- > kí-* would have had to have taken place. While exact directionality cannot be established, it can be noted that the Menchum (Grassfields) languages Modele, Mukuru, Befang [bby], Bangui, Obang and Okomanjang<sup>38</sup> have a plural noun class (called “4” by Boum (1980: 74), though with the usual disclaimers about its uncertain relation to PB class 4) which corresponds to singular classes 3 and 5, just as Mungbam 13 does. Class “4” in Menchum has prefixes *tí-* in Okomanjang, *té-* in Obang, and *kí-* or *ké-* in the other Menchum dialects.

<sup>37</sup> Proto-Oceanic *\*ns*, for example, is considered to have changed to *\*s* before high vowels and to *\*t* elsewhere in Proto-Cristobal-Malaita (Lichtenberk, 1988: §2).

<sup>38</sup> Befang is the only of these languages associated with an ISO 693-3 code.

A possible explanation for the coincidence between some of the properties of class 13 nouns and deverbal adjectives in Mungbam might be glimpsed at by considering an example from Kom (Central Ring), with “relatively conservative” morphology (Hyman, 2005:314). Example (5.18) shows a class 13 noun in Kom modified by a deverbal adjective.

- (5.18)  $\bar{a}$ - t $\bar{a}$ - b $\bar{i}$  t $\bar{a}$ - b $\acute{o}$  -l $\acute{o}$  -n $\acute{o}$  -t $\acute{o}$   
 IV- CL13- kola.nut CL13- big- PLURAC- ADJ- CL13  
 ‘big kola nuts’ (Hyman, 2005:314)

Given the similarities (in Mungbam) between the class 13 suffix and the adjectival suffix, there is some question about how they might have developed. The data that is available suggests that deverbal adjectives showing class 13 concord *do not* exhibit suffixal concord, only bearing the usual adjectival suffix.

- (5.19)  $\bar{i}$ - $\bar{j}$  $\bar{i}$   $\bar{i}$ - $\eta$  $\acute{a}$ ha-t $\acute{o}$   
 CL5-*bee* CL5-(B)*sick*-ADJ  
 ‘sick bee’ (Ngun)
- (5.20) k $\bar{a}$ - $\bar{j}$  $\bar{i}$ -l $\bar{o}$  k $\bar{a}$ - $\eta$  $\acute{a}$ ha-t $\acute{o}$   
 CL13-*bee*-CL13 CL13-(B)*sick*-ADJ  
 ‘sick bees’ (Ngun)<sup>39</sup>

If the curious allomorphy witnessed in adjectival suffixes (in Biya, Abar, and Ngun), and in class 13 suffixes (in Missong) cannot comfortably be explained as natural sound change from a unique historical form, a plausible competing explanation could be that the parallel class 13 and adjective suffixing systems may have arisen from a prior Kom-like system<sup>40</sup> where multiple suffixes were permitted on word stems. Phonological restrictions on maximum word size (cf. Hyman (2004)) might have led to -ADJ-CL13 suffix combinations being reinterpreted as

<sup>39</sup> Special thanks is due to Pierpaolo Di Carlo for eliciting these and a few other key words and phrases in November of 2012.

<sup>40</sup> Incidentally, class 13 in Kom corresponds to singular classes 3 and 5, as it does in Mungbam (Shultz, 1997:12).

single suffixes, leading to a general confusion of the forms of both suffixes when taken individually.

## 5.6 Concord

In the context of Bantu/Bantoid language scholarship, ‘concord’ is used to refer to noun class agreement marking within the noun phrase.<sup>41</sup> The term ‘concord’ is used here, along with the related term ‘concordant’, referring to a word or class of words whose members are capable of bearing concord marking. The term is used in deference to current practice in Africanist scholarship, without any implied claim that ‘concord’ would be useful in denoting a special case of agreement in non-African languages.<sup>42</sup>

The present section is concerned with establishing the formal processes by which concord is realized. A more detailed description of the behavior of each of the concordant nominal modifiers is reserved for §6.3.

### 5.6.1 Types of concord

The things which show agreement with the head noun are: numerals, adjectives, demonstratives, the definite determiner, the relativizer (Biya only) and proforms, including topic, focus, dative and possessive pronouns. The number of possible agreement forms varies, though some forms, such as possessive pronoun, have a heavily reduced agreement system.

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<sup>41</sup> And to subject/object agreement marking on verbs in Bantu languages which show such marking.

<sup>42</sup> See Corbett (2006: 5–7) for critical remarks on the concept of ‘concord’.

Concord may be realized in one or more of three ways:

- (i) Prefixation
- (ii) Tonal stem change
- (iii) Segmental stem change

Of the seven logically possible different combinations concord marking strategies, six are witnessed:

1. Only prefixation: lexical adjectives, numerals, distal demonstratives, question words ‘which’ and ‘how many’
2. Only tone change: possessive pronouns
3. Only segmental change: definite determiner
4. Prefixation + tone change: derived adjectives
5. Tone change + stem change: dependent proximal demonstratives, topic and focus pronouns
6. All three: independent proximal demonstratives

#### 5.6.1.1 Prefixal concord

Prefixal concord consists of the realization of a noun class prefix on a concordant nominal modifier. The noun class prefix is in almost all cases identical to the class prefix found on the head noun. In the one exception so far attested, a class 6a concord prefix on an adjective differs from the usual class 6a prefix on head nouns. It is not clear whether the apparent mismatch in (5.21) illustrates a difference in adjectival vs. head nominal prefix for class 6a in Munken, or whether the speaker simply used as the adjectival prefix a variant of the Abar 6a prefix.<sup>43</sup>

<sup>43</sup> This explanation would be plausible for the speaker who uttered this example, since he attended primary school at GS Abar-Missong. Munken graduates of this school who have worked for me tend to have a good familiarity with both Abar and Missong.

- (5.21) *ǰi-né mən-tsöbə ntì*  
 CL6a-water CL6a-hot.ADJ LOC.immersed  
 “... in the hot water.” (Munken)

### 5.6.1.2 Tonal concord

The inherent tone of a noun is a morphological property which determines the tone of concordant nominal modifiers. For nouns of every class except for class 5, the inherent tone is determined by the noun’s class membership. Classes 1 and 9 have a low inherent tone, which is to be expected, historically (cf. Hyman, 1980b: 179; Katamba, 2003: 105), and all other classes besides class 5 have a high inherent tone. The inherent tone of class 5 nouns is lexically determined.

Class 1, 9	Low
Class 5	Lexically determined
All other classes	High

Table 5.33: Inherent tone.

Inherent tone effects are observed in associative constructions, which show rather complicated tonal perturbations which appear to be due to a historical associative marker. Tonal alternations are also found on proximal demonstratives, deverbal adjectives, and possessive pronouns, where they are relatively regular and consistent.

**5.6.1.2.1 Tonal concord in the associative construction** In Munken examples (5.22)–(5.23), the 1sg possessive pronoun *mə* takes one of two tones, depending on the inherent tone of the possessed noun. The singular class 1 noun has a low inherent tone, while the plural class 2 form has a high inherent tone.

- (5.22) *nǰù mə* ‘my bush cow’

- (5.23) *bə-nǰùù mə* ‘my bush cows’

Nouns of class 5, however, may have either a high or low inherent tone, the choice which is lexically-specific, but partly predictable from the stem tone (e.g., an S stem tone is found only in inherently high nouns) Munken examples (5.24)–(5.25) show two possessed class 5 nouns. One has an inherent low tone, and the other has an inherent high tone.

(5.24) *ì-wòm mǎ* ‘my war’

(5.25) *í-lámǎ mǎ* ‘my tongue’

The different tonal properties observed in associative constructions in Grassfields languages are often analyzed as being due to the presence of a non-segmental associative marker which consists of a high or low floating tone. An analysis along the lines of Voorhoeve (1971), *et seq.*, would attempt to derive the surface forms as in (5.26)–(5.27), with non-segmental associative markers in the form of floating tones.

(5.26) /*̀nɕù ` mǎ*/ → *̀nɕù mǎ*

(5.27) /*b̀nɕù ´ mǎ*/ → *b̀nɕù mǎ*

At the level of reconstruction, this seems a reasonable conjecture for explaining tone changes that affect both possessive pronouns and possessed stems. It has, however, proven difficult to write simple synchronic phonological rules to explain the changes observed in possessive constructions in a unified way (cf. also discussion in § 6.3.5, as well as the rather complex analysis attempted in Lovegren (2012b)).

**5.6.1.2.2 Tonal concord in other environments** Tonal concord outside of the associative construction is more straightforward. The proximal demonstratives, for example, may have one of two tones, HL for ‘high’ classes and M for



‘low’ classes. The Missong class 1 proximal demonstrative  $w\bar{\omega}n$  is distinguished from its class 3 homologue,  $w\hat{\omega}n$ , only by their tone. To take another example, the modifier translated as ‘some, another’ ( $-l\mathcal{E}$  in Missong), has a mid tone when modifying a ‘low’ class noun, and a high tone otherwise. Presentation of these types of concordant words is found in § 6.3.

### 5.6.1.3 Whole form concord

The proximal demonstrative and the definite determiner are the only types of word which undergoes stem-internal changes marking concord. Presentation of examples is deferred until the presentation of full paradigms in § 6.3.4.



## Chapter 6

# The noun phrase

The purpose of the present chapter is to outline the structure of the noun phrase. In the first two sections (§§ 6.1, 6.2, respectively), lexical nouns and pronouns, words which by themselves can be a complete noun phrase, are discussed. Although other categories may head noun phrases (see § 6.3.7), the great majority of noun phrases in the text corpus are headed by either a lexical noun or a pronoun. In the third section (§ 6.3), the types of words which usually function as modifiers of the head noun are presented, including demonstratives, determiners, adjectives, and numerals. Section 6.4 treats the ordering of the head noun and its modifiers within the noun phrase. A final section (§ 6.5) covers the restricted phenomenon of irregularly possessed nouns.

### 6.1 Lexical nouns

Lexical nouns (with a handful of exceptions) bear a noun class prefix (cf. § 5.2) which is lexically determined (but varies for number) and may govern noun class agreement with its modifiers. A complete noun phrase can be formed from a lexical

noun alone, as in (6.1) (minimal NP in square brackets).

- (6.1) á-mjú      mò k̄ā      ù      bù      ḡêl̄ə      [í-wúŋ]  
 CL12-thing TOP CL12.DET CL1.DS (A)dig (c)go.around CL10-pig  
 “That’s why pigs root [lit. go around digging].” (Munken)

Derived (deverbal) nouns may also head noun phrases, as in (6.2), where an infinitive (underlined) is a nominal head.

- (6.2) ì-bjúń      n̄ó bí tí      bí kw̄ê      ì-kw̄é  
 CL5.INF-(B)dance REL CL8 (B)come CL8 (c)return.from.bush CL5.INF-(c)return.from.bush  
 m̄ī      è  
 LOC.in CLSBRK  
 “The dancing [of the type] that they are about to emerge. . .” (Munken)<sup>1</sup>

## 6.2 Pronouns

The other major word class which can head a noun phrase, and which can by itself form a minimal noun phrase, is the pronoun. Two types of distinctions are made here between different types of pronouns.

First is the distinction between *personal* pronouns (corresponding to the six common person-number combinations) and *class* pronouns (third person pronouns marked for noun class). There is some overlap between personal and class pronouns, since the third person singular and plural pronouns are the same as the class 1 and class 2 pronouns (except in possessive pronouns, where a 3sg possessive pronoun exists which is distinct from the class 1 possessive pronoun). Throughout this chapter, pronominal paradigms are separated into two tables: one for personal pronouns and one for class pronouns.

<sup>1</sup> The class 8 pronoun refers to *jujus* (forest spirits) and their human manifestations. The verb normally meaning ‘return from the farm/from hunting’ when applied to *jujus* means to appear in the village commons during a ritual celebration. On the cognate locative argument seen in this example, see § 10.3.2.

The second distinction is that between *preverbal* pronouns and *independent* pronouns. This distinction is made in the survey article of Good et al. (2011: 113), where the terms *preverbal* and *non-preverbal* are used instead:

All of the languages of [Lower Fungom] show at least a partial distinction between two sets of pronouns which we refer to as ‘Preverbal’ (understood as occurring immediately before the verbal complex) and ‘Non-Preverbal’. Functionally, the distinction falls roughly along the lines of subject/non-subject pronouns, but subjects can take on the Non-Preverbal forms in certain contexts (e.g., when they are in focus, which often entails not being immediately preverbal).

Preverbal pronouns appear before the verbal complex (the verbs and preverbal TAMP markers; cf. § 8.1.1), and usually immediately before it. They agree in noun class with the notional subject NP (whether it is present or not). The preverbal pronoun (underlined) may be the only representative of the subject in a clause, as in (6.3), or it may appear together with a subject NP (in square brackets), as in (6.4).

(6.3) ù    ɛ̀òà        fə̀    ɲà̀ŋ        ú-gbê  
 CL1 (A)loosen (A)off (A)stay.IPFV CL3-rope  
 “He’s loosening the rope.” (Missong)

(6.4) [ù-ndĩ̀nə    wḕ]        ù    tām        sè        wè    útə̀ŋ  
 CL1-female CL1.DET CL1 (B)shoot.IPFV (A)descend CL1 LOC.ground  
 “The woman is throwing it down on the ground.” (Biya)

A preverbal pronoun, however, is not required when a subject NP is present in the clause, as (6.5) shows.

(6.5) ù    bə̀    ábā̀n, [ù-nò]        mə̀    tḕ        wənə̀        bə̀    wè  
 CL1 B.COP outside CL1-person then (B)come (A)lie.down COM CL1  
 “While [her husband] was outside, the man came and slept with her.”  
 (Biya)

The dummy subject marker à (underlined in the following two examples) is of the same distribution as the preverbal pronouns, but does not show agreement. It may be used in place of a preverbal marker when a preverbal subject NP is present, as in (6.6).

- (6.6) [bà-nè      bī-kú]      à gbè      kī-fī      ù-nò  
 CL2-person CL8-Koshin DS (A)chop COM.CL5-head CL1-person  
 òṣàṅ  
 Mundabli  
 “Koshin people cut off the head of a Mundabli man.” (Missong)

Its main function, however, is to hold the place, as it were, of an *ex situ* subject NP which is in focus, as it does in (6.7) (see § 11.2.2).

- (6.7) à kàfə      tɛ̀à      tɛ́      [nâ      wù]  
 DS (A)shout (A)pass (B)come CL1.mother CL1.DET  
 “The woman shouted the most...” (Abar)

Preverbal pronouns generally serve as an NP by themselves,<sup>2</sup> though they are seen in a few cases with modifiers, as in (6.8), where an independent pronoun is modified by a numeral, and (6.9), where a relative clause modifies a personal pronoun (NP’s containing modified pronoun in square brackets, modified pronoun underlined).

- (6.8) [b́ b̄-f̄ɛ],      wù      b̄      ù-nè      w̄,      ù-nè      ì-s̄ŋə  
 CL2 CL2-two CL1 COM CL1-person CL1.DET CL1-person CL5-power  
 d̄àn,      b́      t̄ɛ̀-̄t̄ɛ̀      á-̄j̄úm      n̄ómò      n̄ē  
 CL17.DEM CL2 VFOC~(A)pass CL6-year TOP CL6.DET  
 “The two of them, him and the man, the man of power there, they have passed those [i.e., that many] years.”<sup>3</sup> (Munken)

<sup>2</sup> For this to be true requires the assumption that all clauses have a subject NP, whether one headed by a lexical noun or one which consists simply of a preverbal pronoun.

<sup>3</sup> The speaker is discussing a proposed law setting a maximum age for presidential candidates. She is referring to Paul Biya, the incumbent president, and opposition candidate John Fru Ndi, whose partisans make a ‘power fist’ gesture at rallies. ‘Man of power’ refers to Fru Ndi.

- (6.9) *whether* [ù jí ù lé í-séhe ì-fālò mī], *whether*  
 whether CL1 REL CL1 (B)L.COP CL5-place CL5.INF-(A)work LOC.in whether  
 [mò jí ñ-lé fāno]  
 1SG REL 1SG-(B)L.COP CL16.here  
 “... whether it’s he who is at the jobsite, whether it’s I who am here...”  
 (Abar)

The independent pronouns are those which appear in other positions, including the position immediately after the verb (“IAV”) (6.10), as the subject of a verbless predicate nominal construction (6.11), or the focused element of a cleft construction (6.12). Second person singular forms are chosen for the following three examples since the preverbal and independent forms are most distinctive of all person-number combinations.

- (6.10) à lē tám wò *Yesu* á sō=nó  
 DS P3 (c)send.IRR 2SG Jesus PREP 1PL=DAT  
 “You sent Jesus unto us.” (Munken)
- (6.11) kū ɲwəŋ á-sú, wò mbè<sup>4</sup>  
 (A)go.IRR only CL16-face 2SG chief.VOC  
 “Just go ahead, you are *Mbe*.” (Ngun)
- (6.12) à wè à tàŋ ū ɲən ù bāŋ  
 DS 2SG 2SG (A)touch CL1.LOC.OBJ LOC.on CL1 (A)pray.IRR  
 “It’s you who touches him [so that] he prays.” (Abar)

In tables 6.1 – 6.3, paradigms for preverbal and independent pronouns are given. Two other types of pronouns, possessive pronouns and locative object pronouns, are discussed elsewhere (§§ 6.3.5.1, 9.1.1, respectively). Dative pronouns, found only in Ngun and Abar, are presented in § 10.7.

### 6.2.1 Personal pronouns

For the personal pronouns given in table 6.1, it will be noted that the difference between the preverbal form and the independent form is rather slight, except in

<sup>4</sup>When a chief is addressed directly, he must be addressed as *mbè*.

the case of the second person singular forms. Although only one form is given in table 6.1, the class 2 (i.e., 3pl) subject pronouns often appear in texts with the central vowel  $\text{ə}$  rather than the peripheral vowel which usually appears in elicitation. Segmental forms of the “reduced” class 2 preverbal pronoun are  $b\text{ə}$  (MK, MS, AB) and  $b\text{ɪ}\text{ə}$  (BY, NG, AB).

	MUNKEN		ABAR		BIYA		MISSONG		NGUN	
1sg	$m\bar{a} \dots \bar{N}$	$m\bar{ə}$	$m\bar{a} \dots \bar{N}$	$m\bar{\text{ə}}$	$m\bar{a} \dots \bar{N}$	$m\bar{a}$	$m\bar{a} \dots \bar{N}$	$m\bar{ə}$	$m\bar{a} \dots \bar{N}$	$m\bar{\text{ə}}$
1pl	$s\bar{a}$	$s\bar{\text{ə}}$	$s\bar{a}$	$s\bar{\text{ə}}$	$s\bar{a}$	$s\bar{a}$	$s\bar{a}$	$s\bar{\text{ə}}$	$s\bar{a}$	$s\bar{\text{ə}}$
2sg	$\text{à}$	$w\bar{\text{ə}}$	$\text{à}$	$w\bar{\text{è}}$	$\text{à}$	$\text{ò}$	$\bar{i}\sim\bar{b}\bar{i}$	$b\bar{i}$	$\bar{a}$	$w\bar{\text{ə}}$
2pl	$b\bar{a}$	$b\bar{\text{a}}$	$b\bar{a}$	$b\bar{\text{a}}n$	$b\bar{a}$	$b\bar{\text{a}}n$	$b\bar{a}$	$b\bar{\text{a}}\bar{a}$	$b\bar{\text{a}}n$	$b\bar{\text{e}}n$
3sg	$(w)\bar{u}$	$w\bar{u}$	$(w)\bar{u}$	$w\bar{u}$	$(w)\bar{u}$	$w\bar{i}$	$(w)\bar{u}$	$w\bar{u}$	$(w)\bar{u}$	$w\bar{\text{e}}$
3pl	$b\bar{\text{é}}$	$b\bar{\text{é}}$	$b\bar{w}\bar{\text{é}}$	$b\bar{w}\bar{\text{é}}$	$b\bar{u}$	$b\bar{w}\bar{i}$	$b\bar{u}$	$b\bar{u}$	$b\bar{u}$	$b\bar{w}\bar{\text{e}}$

Table 6.1: Personal pronouns, preverbal (left) and independent (right) forms. Symbol  $\sim$  separates forms in free variation with each other. Note that in Munken, Abar and Ngun some variation is seen in the quality of the vowel in the independent form of the 2sg pronoun, with both  $w\bar{\text{è}}$  and  $w\bar{\text{ə}}$  being attested. The form given in the table is the one which is produced in elicitation.

The preverbal forms of the first person singular pronouns show a discontinuous form  $mV$  followed by a homorganic nasal. When the verb immediately follows the preverbal pronoun (i.e., there are no preverbal TAMP markers present), a full preverbal pronoun may be present, as in (6.13), or the pronoun may be reduced to a syllabic nasal, as in (6.14).

- (6.13)  $\text{í-d}\hat{\text{ə}}\text{s}\bar{\text{ə}}$   $\text{j}\bar{i}n$   $n\bar{a}$   $\underline{m\bar{a}}$   $\bar{\eta}\text{-w}\bar{á}$   $\bar{a}\eta\text{-}\eta\bar{\text{é}}$   $m\bar{u}$   
 CL5-place CL5.DEM.PROX REL 1SG 1SG-(B)keep CL6a-water CL6a.DET  
 $\text{j}\bar{i}$   
 CL5.DET  
 “This place where I have installed the water [fountain]...” (Missong)

- (6.14)  $\bar{\eta}\text{-j}\bar{u}\bar{\text{ə}}n$   $t\bar{i}\sim t\bar{i}$   $\text{j}\bar{a}$   
 1SG-(C)forget VFOC~(B)also thus  
 “I have also forgotten.” (Biya)

In P2 and P3 tenses, the homorganic nasal is not attested, and  $mV$  is never



dropped, as in (6.15). In P1 tense, the homorganic nasal may precede the tense marker, as in (6.16), and *mV* is optionally omitted.

- (6.15) í-sé̃hɛ    ɪ-ló        m̄ə    lē    kwɛ̃  
 CL5-place CL5-other 1SG P3 (B)hold.IRR  
 “The other place that I had...” (Munken)

- (6.16) à    mbòŋ    tálə        á        wò        ù-tɛ̀ðlə    nó    m̄-fǒ    díə    bɛ̀  
 DS first (c)grow.up PREP CL1.child CL1-female REL 1SG-P1 (c)say ??  
 “She’s the firstborn (i.e., the elder sibling) to the girl that I just mentioned...” (Munken)

When either of the TAMP morphemes with form *á* (negative or future) are present, the full form *mV...N* is required, with the homorganic nasal immediately preceding the verb. Two examples are given in (6.17)–(6.18).

- (6.17) fǰé<sup>5</sup>        mì    sà        kī-bān    fǰɛ̀,        m̄ǎ        n̄-táha  
 CL19.COND (A)shit (A)descend CL7-shit CL19.POSS.CLSBRK 1SG.FUT 1SG-(c)scatter  
 kí    là    ɲkùŋkwà  
 CL7 ?? now  
 “If you shit your shit, I will still scatter it now.” (Missong)

- (6.18) m̄ǎ        n̄-kəm        ts’ŋ    bànə    dà    wù    ù    fànà  
 1SG.NEG 1SG-(A)again (B)see (A)really D.NEG CL1 CL1 (A)sell.IPFV  
 “I really don’t see her selling anymore.” (Munken)

### 6.2.2 Appositive use of pronouns

Personal pronouns may appear in apposition with a following lexical noun phrase.

Three examples are given in (6.19)–(6.21).

- (6.19) ɔ̀óŋ    kón    ɔ̀óŋ        dā,    s̄ə    bá-ɲí        bū        à    ɲàŋ  
 NEG thus (B)be.fine D.NEG 1PL CL2-mother CL2.DET DS (A)sit.IPFV  
 kó    ŋgunə    s̄ā        jì  
 COM CL1.anger 1PL.LOC.OBJ LOC.stomach  
 “It’s not good, we the mothers sit with anger in our bellies.” (Missong)

<sup>5</sup> An elephant is addressing a chicken (normally class 9), and the diminutive class 19 is being used pejoratively.

- (6.20) dzóŋ sē lə                      dā    ndīnə                      kī-tífə, sē    bī-ŋún  
 VET 1PL (A)make.IPFV D.NEG CL1.problem CL7-law 1PL CL8-missong  
 dzóŋ sē lâha                      dā    ndīnə  
 VET 1PL (B)search.IPFV D.NEG CL1.problem  
 “We don’t cause law problems, we the Missong are not looking for trouble.” (Missong)
- (6.21) wè, ŋkúŋ    ā-bð                      bē    mū-ŋkjém, wè ná à    lē lē  
 2SG CL1.chief CL12-heavens COM CL18a-earth 2SG REL 2SG P3 (A)make.IRR  
 mbī                      wðŋ                      wē  
 CL1.world CL1.DEM.PROX CL1.DET  
 “... you, chief of heaven and earth, you who made this world...” (Munken)

Apposition of two lexically-headed noun phrases is also attested, as in (6.22)

- (6.22) à    bð                      nām                      jī,                      kó-tsô                      kō,                      ù  
 DS B.COP CL1.husband 3SG.POSS CL12-cock CL12.DET CL1  
 kpé=ǎ  
 (B)die=PRF  
 “When her husband, the rooster, died...” (Biya)

### 6.2.3 Class-marked pronouns

Class-marked pronouns, or simply ‘class’ pronouns, are third person pronouns which agree in noun class with their antecedent. Some minor differences are noted between preverbal forms (table 6.2) and independent forms (table 6.3). It was (incorrectly) assumed for some time that independent forms, possessive forms and locative object forms were the same for classed pronouns, with the unfortunate result that certain gaps exist in the data on classed independent pronouns for Abar, Missong and Biya.

	ABAR	MISSONG	MUNKEN	BIYA	NGUN
1	(w)ù	(w)ù	(w)ù	(w)ù	(w)ù
2	bwé	bú	bé	bqó ~ bú	bqó
3	(w)ú	(w)ú	(w)ú	wó	qó
4/5H/10	(j)í	(j)í	(j)í	(j)í	(j)í
5L/9	(j)ì	(j)ì	(j)ì	(j)ì	(j)ì
6	mwé	ú	né	wó	mqó
6a	mwé	mún	mé	mú	mú
7/12/13	kí	kí	kí	kó	kó
8	bí	bí	bí	bí	bí
14	bú	bú	bú	bqó	bqó
18a	ím	mú	mú	mú	mú
19	čí	fí	čí	fí	fí

Table 6.2: Class-marked third person pronouns, preverbal forms. Omissible segments are enclosed in parentheses, forms in free variation are separated by a tilde.

	ABAR	MISSONG	MUNKEN	BIYA	NGUN
1	wù	wù	wù	wì ~ wò	wè
2	bwé	bú	bé	bwí	bwé
3			wú	wí ~ wó	wé
4/5H/10		jí	jí		jí
5L/9	jì	jì	jì	jì	jì
6	mwé		né	wí ~ wó	mwé
6a			mé		mwé
7/12/13		kí	kí		ké
8		bí	bí	bí	bí
14			bú		bwé
18a			mú		mwé
19			čí		fí

Table 6.3: Class-marked third person pronouns, independent forms. Forms in free variation are separated by a tilde.

### 6.3 Nominal modifiers

Having introduced the main types of constituents which head noun phrases, lexical noun and pronouns, we now consider the various types of words which are normally present in a noun phrase as modifiers of the head noun. These include adjectives (§ 6.3.1), numerals (§ 6.3.2), definite determiners (§ 6.3.3), demonstra-

tives (§ 6.3.4), associative noun phrases (§ 6.3.5), and other miscellaneous modifiers (§ 6.3.6). The section concludes with discussion of the possibility of words which normally serve as modifiers serving as the head of a noun phrase (§ 6.3.7).

### 6.3.1 Adjectives

#### 6.3.1.1 General properties of adjectives

Adjectives in Mungbam are so called because they are words which can act as modifiers in a noun phrase, may show concord with the noun they modify, and usually have English adjectives as translation equivalents. Adjectives, however, otherwise have decidedly noun-like properties: they bear a noun class prefix, as in (6.23),<sup>6</sup> and they may head a noun phrase, as in (6.24) (see also § 6.3.7).

- (6.23) kɛ̀ ù lãnə bə̀-bjãŋhə jĩ [bə̀-něhe] bə̀-fĩn á  
 as CL1 (c)learn CL2-children 3SG.POSS CL2-male.ADJ CL2-two PREP  
 jē  
 thus  
 "... as he trained his two sons like that..." (Ngun)

- (6.24) [bĩ-fĩŋ] bĩ tɛ̀ jĩ lə̀  
 CL8-new.ADJ CL8.DET (c)grow.up (c)ascend (A)VENT  
 "... new ones grow up..." (Missong)

Associative NP's (§ 6.3.5) are another type of constituent which can modify a head noun, but they do not show concord as adjectives do.

Most adjectives are formed from verbs according to the morphological process to be discussed in § 6.3.1.2. The same process also serves to form nouns with abstract reference (§ 6.3.1.2.1). A small number of adjectives are not analyzable as being derived from any verb. These underived adjectives are discussed in § 6.3.1.3.

<sup>6</sup> Adjectives in (6.23)–(6.24) are enclosed in square brackets.

### 6.3.1.2 Deverbal adjectives

Adjectives may be formed more or less productively from verbs. An adjective stem is formed from a verb stem by tone change and, depending on the dialect and the segmental shape of the verb, by addition of a suffix. Adjective stems require a concordant noun class prefix.

The tone on the verb stem appearing in a deverbal adjective depends on the lexical class of the underlying verb as well as the class of the prefix, as summarized in table 6.4. B and C class verb stems have an H<sup>+</sup> tone when forming a deverbal adjective stem. A class verb stems have an L<sup>+</sup> tone when the concordant prefix is a ‘low’ class, and an S tone when the concordant prefix is of a ‘high’ class.<sup>7</sup>

	A	B	C
Low class	ǎ	á	á
High class	ǎ	á	á

Table 6.4: Tone on verb stems appearing in deverbal adjectives.

Examples illustrating the tones found on deverbal adjectives are given in (6.25)–(6.30).

- |  |   |
|--|---|
| <p>(6.25) mbòŋ ù-gbè-lə<br/>CL1.cow CL1-(A)fall-ADJ<br/>‘fallen cow’ (Munken)</p>        | <p>(6.28) mbòŋ ù-ɕú-lə<br/>CL1.cow CL1-(B)fear-ADJ<br/>‘scared cow’ (Biya)</p>              |
| <p>(6.26) ú-gbé ú-gbé-lə<br/>CL3-rope CL3-(A)fall-ADJ<br/>‘fallen rope’ (Munken)</p>     | <p>(6.29) bí-káha-tɛí<br/>CL8-(A)tie-ADJ<br/>‘tied up things’ (Abar)</p>                    |
| <p>(6.27) bí-tsô bí-kpé-lə<br/>CL8-rooster CL8-(B)die-ADJ<br/>‘dead roosters’ (Biya)</p> | <p>(6.30) ú-kpé ú-jí-lə<br/>CL3-house CL3-(C)build-ADJ<br/>‘house being built’ (Munken)</p> |

The choice of the suffix depends on the shape of the verb stem, with some discrepancies existing between the dialects studied. Factors governing the adjectival

<sup>7</sup> See § 4.1.1 on the use of tone letters (such as L<sup>+</sup>, H<sup>+</sup>) developed for distinction of tones at a level finer than that allowed by the set of diacritics in use.

suffix are summarized in table 6.5.

Biya	For monosyllabic verbs, the suffix is <i>-lə</i> . For disyllabic verbs, the suffix is <i>-tɔ́</i> .
Abar	For monomoraic verbs with an open syllable, the suffix is <i>-lɔ</i> . For monomoraic verbs with a closed syllable, the suffix is <i>-ɔ</i> . For bimoraic verbs, the suffix is <i>-tɛ́</i> .
Munken	For monosyllabic verbs with an open syllable, the suffix is <i>-lə</i> . For monosyllabic verbs with a closed syllable, the suffix is <i>-ə</i> . For disyllabic verbs, the suffix is <i>-ø</i> .
Missong	For monosyllabic verbs with an open syllable, the suffix is <i>-lə</i> . For monosyllabic verbs with a closed syllable, the suffix is <i>-nə</i> . For disyllabic verbs, the suffix is <i>-lə</i> , but is optionally omitted.

Table 6.5: Criteria for determining suffix in deverbal adjectives. Ngun data is incomplete, but suggests criteria essentially similar to those found in Biya.

In Biya, infinitives sometimes take suffixal endings associated with adjectives. Two examples of this phenomenon, not attested in other dialects, are given in (6.31)–(6.32).

- (6.31) bú nò fǝ-fjɔ́ŋ, ɕŋúnə lè tɛ́ sù  
 CL2 (A)go.IPFV CL16-stream (C)go.away (A)VENT (B)come (A)start  
ì-dèè-tɔ́  
 CL5.INF-(A)cook-ADJ  
 ‘‘They were going to the stream, [then they] left back and came and started cooking.’’ (Biya)

- (6.32) ì-ɕù jè ì-té-ló jē bú nō ú-kpó  
 CL9-fish (A)stay CL5.INF-(B)come-ADJ COMP CL2 (A)go.IRR CL3-house  
 bú gbàŋ  
 CL2 all  
 ‘‘Is the fish able to come so that they all go to the house [together]. . .’’  
 (Biya)

**6.3.1.2.1 Deverbal abstract nouns** Deverbal abstract nouns are attested which have a form like a deverbal adjective with an invariant class 8 prefix. Three examples from texts are shown in (6.33)–(6.35) (abstract nouns underlined). In

the first two of these examples there is a nasal of unknown provenance (not normally associated with adjective formation) between the class 8 prefix and the verb stem.

- (6.33)  $\bar{l}\bar{e}$              $\acute{a}\text{-}\bar{c}\acute{a}m$          $m\acute{o}=n\acute{o}$              $m\grave{a}l\bar{o}$ ,  $\bar{l}\bar{e}$              $\bar{n}\text{-}kw\grave{e}$   
 (A)make.IRR CL12-heart 1SG.POSS=DAT (A)cold (A)make.IRR 1SG-(B)hold.IRR  
 $\underline{b\acute{i}\text{-}\eta kw\acute{o}n\bar{o}}$              $\acute{a}$          $m\bar{o}$              $j\grave{e}$   
 CL8-(c)be.happy.ADJ PREP 1SG.LOC.OBJ LOC.belly  
 ‘‘Make my heart cool, make that I have happiness inside me.’’ (Munken)

- (6.34)  $k\acute{o}$   $b\bar{a}$   $l\grave{e}$          $d\bar{a}$      $j\bar{e}$          $b\bar{a}$   $l\grave{e}$          $\underline{b\acute{i}\text{-}\eta k\grave{u}n\bar{o}}$   
 VET 2PL (A)make D.NEG COMP 2PL (A)make CL8-(A)fight.ADJ  
 $l\acute{e}$   
 FRUST  
 ‘‘Y’all shouldn’t act [in a way] that you cause fighting.’’ (Missong)

- (6.35)  $\bar{c}l\bar{e}$          $\underline{b\acute{i}\text{-}m\grave{a}l\bar{o}}$              $\acute{a}$          $b\bar{o}$              $f\grave{a}m\bar{o}$   
 (A)put.IRR CL8-(A)cold.ADJ PREP CL2.LOC.OBJ LOC.on.top  
 ‘‘Put cold on top of them. . .’’ (Munken)

### 6.3.1.3 Underived adjectives

Although the majority of adjectives are derived from verbs, a small number can be identified as non-derived by having any one of the following three properties:

- (i) No lexical verb corresponds to their stem.
- (ii) They may have a stem tone other than one of those noted in table 6.4.
- (iii) They may be reduplicated (deverbal adjectives do not allow reduplication).

Most adjectives do have tone patterns which are identifiable with one of the deverbal adjective tone patterns, though a few have *sui generis* tone melodies, such as  $\text{-}\bar{n}\acute{e}\acute{e}n\bar{s}\bar{o}$  ‘male’ (Biya). Other adjectives, however, have tone patterns matching exactly one of the lexical verb classes. The Munken adjective translatable as ‘red’, shown in (6.36)–(6.37), patterns tonally as if it were derived from a class A verb.

(6.36) m̀b̀òŋ    ù-bwĩhu<sup>8</sup>  
 CL1.cow CL1-red  
 ‘a red cow’

(6.37) ú-gbě    ú-bwĩhu  
 CL3-rope CL3-red  
 ‘a red rope’ (Munken)

Color terms are included among the underived adjectives (table 6.6). Although the adjective meaning ‘mixed’ color has an ending which is the same as that used to form deverbal adjectives (and so it is likely that this term is recently descended from a deverbal adjective), no verb meaning ‘to be of mixed color’ is attested. Table 6.6 illustrates an interesting dynamic which is noticed with a few words<sup>9</sup> between the dialects: sometimes two different roots are associated with one meaning across the dialects, as with *-bVhV* in Abar, Munken and Missong and *bɛnlə* in Biya, both meaning ‘red’. In the dialect which has the apparently innovative root, the original root is still found, but with a changed meaning. In this case, the original root appears in Biya with an innovative meaning, giving that dialect a fourth basic color term which is clearly not the one which would be expected in a language developing a fourth term (Berlin and Kay, 1969).

Abar	Munken	Missong	Biya	Gloss
-mwée	-wílə	-wúlə	-wélə	‘white’
-dúŋɔ	-dájɔ	-tsínsə	-dóŋlə	‘black’
-bwehe	-bwɪhu	-bwəhɔ	-bénlə	‘red’
			-bwaható	‘ebony-colored; dark red’
-fwéhetɕí	-físə	-fwàhànsó	-fwásətó	‘mixed color; spotted’

Table 6.6: Color terms in Abar, Munken, Missong and Biya. Roots without tone marking behave tonally as deverbal (class A) adjectives.

<sup>8</sup> On the use of adjectives as clausal predicates, see § 14.3.4.

<sup>9</sup> To give a second example: Munken and Biya have a word for frog, *kàākwē ~kàkàkwē*, likely imitative in origin. Missong has a different root, *kɛ-ŋgbākɔŋ*, referring to the same animal. In one Missong folk tale featuring a race between a frog and an antelope, however, the frog’s nickname, when other characters of the story call out to him, is *kwé*.



### 6.3.2 Numerals

Numerals pattern formally as underived adjectives do: they (usually) show prefixal concord, and they may function as the head of a noun phrase. In (6.38)–(6.39), a numeral functions as the head noun of an NP containing a relative clause. In (6.40), a numeral is discontinuous with the noun it modifies, standing alone in the focus field (see § 6.4.1.2 for further discussion on this phenomenon).

- (6.38) *kpōa ná bú gbè bū*  
 five REL CL2 (A)fall CL2.DET  
 °“The five that fell. . .” (Missong)

- (6.39) *bā-fà ná bú gbè bū*  
 CL2-two REL CL2 (A)fall CL2.DET  
 °“The two that fell. . .” (Missong)

- (6.40) *ā-ná bə̀-dzèn bwē í-wɔŋ mó à tsám*  
 CL2-people CL2-DEM.DIST CL2.DET CL10-pig 1SG.POSS DS (B)beat  
*bə̀-tì*  
 CL2-three  
 °“Those three people beat my pigs.” (Abar)

Comparing (6.38) and (6.39), it will be noted that there are cases where numerals lack a concord prefix. The lack of a concord prefix depends on the numeral, with most numerals displaying concord and a few lacking it. Table 6.7 (p. 162) gives the numerals 1–10 for all of the five dialects. The numerals 5 and 10 are non-concordant in all dialects, while 9 is non-concordant in Munken, Abar and Missong, and concordant in Biya.<sup>10</sup>

Inspection of table 6.7 also suggests that the numerals 6–9 are morphologically complex: the numeral 6 contains the form corresponding to the numeral 3 (in Biya

<sup>10</sup>The best current hypothesis for the non-concordance of 5 would be that it originally derives from the class B verb translatable as ‘be enough’, whose form is *kpan/kpa/kpan/kwan* (AB/MS/MK/BY). As for the non-concordance of 10, it may be that 10 originates from a (non-extant) noun, in view of the fact that it can be pluralized to form numerals representing multiples of 10 (see discussion below).

Numeral	Munken	Abar	Biya	Missong	Ngun
1	-mwə̀nə	-m̀	-m̀	-m̀	-m̀
2	-fè	-fìn	-fō	-fá	-fé
3	-tē	-t̄l̄	-tē	t̄è	-t̄è
4	-ɲónə	-ɲ̄	-ɲ̄	-ɲ̄	-ɲ̄
5	kpónə	kpán	kp̄en	kpōa	kpààɲ̄
6	-lēt̄è	lēt̄è	-t̄t̄t̄	-lēt̄è	-lēt̄è
7	-ɲ̄ -t̄è	-ɲ̄t̄è	-ɲ̄ -t̄è	-ɲ̄ -t̄è	-ɲ̄ -t̄è
8	-ɲ̄ -ɲ̄	-n̄n̄	-ɲ̄ -ɲ̄	-n̄n̄	-ɲ̄ -ɲ̄
9	kp̄n ɕ̀ɲ̄	kpán̄ ɲ̄	-ɲ̄kp̄en	kp̄n̄ɲ̄	
10	kw̄n	ɕ̀ɲ̄h̄é	kw̄n	ɕ̀óh̄ó	kw̄n

Table 6.7: Numerals. Shaded cells indicate non-concordant numerals. Empty cells indicate missing data.

6 appears to be based off of a reduplication of 3); the numeral 7 is formed from 4 and 3; the numeral eight is formed from 4 and 4, and the numeral 9 is formed from 5 and 4 (4 and 5 in Biya), though questionably so in Munken. It is therefore not surprising that forms for 7 and 8 may be twice-concordant in some dialects. Examples of double concord on numerals 7 and 8 are given in (6.41)–(6.42). The numeral 8 is only once-concordant in Abar (6.43).

- (6.41) ní            b̄i            s̄è    b̄ā-ɲ̄        b̄ā-t̄è        tí  
 CL1.mother (c)give.birth 1PL CL2-four    CL2-three father  
 Akpe=ná  
 A.=DAT  
 “Our mother bore us seven unto our father Akpe.” (Missong)

- (6.42) b̄i-kp̄élə        b̄i-ɲ̄        b̄i-ɲ̄  
 CL8-(B)die.ADJ CL8-four CL8-four  
 “°The dead ones are eight [in number].” (Biya)

- (6.43) b̄i-p̄íɔ            l̄é            b̄i-n̄n̄  
 CL8-(B)die.ADJ (B)L.COP CL8-eight  
 “°The dead ones are eight [in number].” (Abar)

While the numeral 10 is not concordant, some higher numerals formed from the root for 10 may contain class 2 marking (regardless of the noun class of the

head noun), as in (6.44)–(6.45). The class 2 marking is most likely reflective of a plural form for 10.

- (6.44) bú à *join* kú *group* bú á mī bú à póa kâlə  
 CL2 DS join COM group CL2.POSS PREP LOC.in CL2 DS (A)stay (C)gather  
 kú bú ɕóhó=ná, bú bā-ɕóhó bā-fífá=ná, bú múŋ  
 COM CL2 ten=DAT CL2 CL2-ten CL2-two=DAT CL2 (B)dance  
 ‘‘They join their groups, they usually gather together ten [or] twenty,  
 then dance.’’ (Missong)

- (6.45) ù-nè nò ɕà á-ŋúm bā-kwîn bā-kwîn bā-ŋī bā-ŋì  
 CL1-person TOP (A)pass CL6-year CL2-ten CL2-ten CL2-four CL2-four  
 ‘‘The man [Paul Biya] is more than eighty years old...’’ (Munken)

The description of multiples of 10 is somewhat complicated by inconsistencies, both random variation and inter-dialectal differences. There is inconsistency as to whether the numeral 10 should be reduplicated (It is in (6.45), but not in (6.44)). When a translation of ‘thirty cows’ was elicited in Munken, for example, a non-reduplicated *bə-mbòŋ bə-kwîn bə-tè* (CL2-cow CL2-ten CL2-three) was given. Elicited higher numerals in Abar show reduplication of the numeral 10, but class 2 marking is absent:

- (6.46) ɕūhé ɕūhé āŋ-kè m-fīn  
 ten ten CL6-times CL6(?)two  
 ‘‘twenty’’ (Abar)

While the numeral 20 in Missong is transparently formed from 10 (cf. (6.44)), in Munken (and also Biya) it is translated literally as ‘a person’s decorations’.

- (6.47) bó-kjŋ bé há tǎŋ béhe kí-kwê nómò kī  
 CL2-children CL2 COND (B)count (B)exit CL13-village TOP CL13.DET  
 bó ɕà sep<sup>11</sup> ù-wōn ù-nè  
 CL2 (A)pass even CL1-decoration CL1-person  
 ‘‘The children, if they counted the villages they would even pass twenty  
 [in number].’’ (Munken)

Other numerals of curious etymological provenance are 100 (or possibly 100,000 francs when used to refer to a sum of money),<sup>12</sup> literally translatable as ‘rope’ (*ú-gbě* in Abar), and 1000 (or possibly 1,000,000 francs when used to refer to a sum of money), literally translated as ‘leaf’ (*í-ǫ́én* in Abar).

### 6.3.3 Definite determiner

Forms for the definite determiner are given in table 6.8 (p.165) for all five dialects. What will be noticed in all of the dialects is that inherent tonal contrasts between the noun classes, which appear on most concordant forms, are neutralized in the determiner forms, leading to homophony between class 1 and class 3 forms, and between class 4/5H/10 and class 5L/9 forms. Concerning the Abar forms specifically, it will be noted that the determiners corresponding to noun classes which have a vocalic prefix are relatively reduced phonologically with respect to homologous forms in the other four dialects.<sup>13</sup>

The definite determiner is almost always restricted to NP-final position, even in long noun phrases. Example (6.48) is a case of an exceptionally long NP, modified by two relative clauses, one of which itself contains two clauses. The determiner (underlined) nevertheless appears at the end of the NP.

<sup>11</sup> A Pidgin scalar focus particle, apparently derived originally from ‘except’, usually translatable as ‘even’.

<sup>12</sup> In parts of Cameroon which were formerly under British colonial rule, the pound was replaced by the franc after independence and unification, with a fixed exchange rate of 1 pound = 1000 francs. The ambiguity in these higher numerals is due to the occasional tendency for speakers to count in “pounds” rather than in francs when referring to larger sums of money.

<sup>13</sup> Abar class 1 and 3 definite determiners assimilate to the quality of a preceding back vowel (see example (12.92), p. 405), and class 4, 5, 9 and 10 definite determiners assimilate to the quality of a preceding front vowel (e.g., *í-bwě è* ‘the goats (CL10-goat CL10.DET)’).

Class	Abar	Missong	Biya	Ngun	Munken
1	ḥ	wō	wō	wē	wē
2	bwè	bō	bṽ	bwē	bē
3	ḥ	wō	wō	wē	wē
4/5H/10	è	jī	jī	jī	jē
5L/9	è	jī	jī	jī	jē
6	mwè	wō	wō	mwē	nē
6a	mwè	mū	mū	mwē	mē
7/12	kè	kī	kō	kē	kō
8	bì	bī	bī	bī	bī
10	è	jī	jī	jī	jē
13	kì		kō		kī
14	bù	bō	bṽ	bū	bū
18a	ḥ	mū	mū		mū
19	è	fī	fī	fī	ē

Table 6.8: Definite determiners (shaded cells indicate missing data).

- (6.48) [bā-bjáŋ ná sō bì bú, ná bú tē kpālō  
 CL2-children REL 1PL (c)give.birth CL2 REL CL2 (B)grow.up.IRR (B)be.sufficient.IRR  
 sà bú à dɛ̀~dɛ̀ kó sè bŭ]  
 1PL CL2 DS RED~same COM 1PL CL2.DET  
 "...the children that we bore [them], that they have grown up and  
 reached us and they are [now] the same with us..." (Missong)

Departure from the determiner-final constituent order is rarely found in texts, but I have been able to elicit such sentences. The issue appears to be different scopal interpretations of definiteness with respect to the other constituents of the NP. While the normal state of affairs is for either all or none of the information in the NP to be given a definite interpretation, corresponding to either the appearance of the determiner NP-finally or its complete absence, some cases are possible where the head nominal is given a definite interpretation, but one of its modifiers is given an indefinite interpretation. In (6.49), for example, the relative clause follows the definite determiner. The appropriate context is one where the listener is familiar

with the group of fowls being discussed, and familiar with the fact that some fowls within the group fell, but does not know which of the fowls fell.

- (6.49) í-ǵě      jē      ná í      gbè      í-bwínsə jē  
 CL10-fowl CL10.DET REL CL10 (A)fall CL10-red CL10.DET  
 “<sup>o</sup>The fowls which fell are the red ones.” (Munken)

### 6.3.4 Demonstratives

Spatial demonstratives are divided into proximal and distal forms. A type of distinction found in some European languages (e.g., Portuguese) as well as in other Grassfields languages (e.g., Ngwe),<sup>14</sup> between a demonstrative used to refer to regions of space which are close to the listener, but far from the speaker; and one which refers to regions far from both the speaker and the listener, is not found in Mungbam.

Table 6.9 gives the forms of the proximate demonstrative in Abar, Missong, Biya and Munken. The inherent tonal distinction between “high” and “low” classes is preserved in these. The variability in the class 1 forms in Missong and Munken is most likely due to fusion of the determiner, similar to what is shown for the distal demonstratives in Munken in table 6.11. A definite regularity can be noticed in the forms; the only element which is not fully predictable is the vowel, which seems to vary depending on the initial consonant.

The distal demonstratives (table 6.10, p. 168), on the other hand, have a clear prefix-stem structure, and the stem is invariant (segmentally and tonally) for all of the noun classes in all of the dialects. “Low” and “high” class forms are still distinct by virtue of the tone on the prefix, however. The prefixes are essentially the same as those which are found on adjectives. Distal demonstratives are not encountered very frequently in texts, and when elicited they are given by my

<sup>14</sup> Njika (2001: §1.3.1.1b)

Class	Abar	Missong	Biya	Munken
1	wĕn	wĕn ~ wōŋ	wĕn	wĕn ~ wōŋ
2	bwĭn	bŭn	bwĕn	bĕn
3	wĕn	wĕn	wĕn	wĕn
4/5H/10	jĭn	jĭn	jĕn	jĕn
5L/9	jĭn	jĭn	jĕn	jĕn
6	mwĕn	wĕn	wĕn	nĕn
6a	mwĕn	mŭn	mwĭn	mĕn
7/12	kĕn	kĭn	kĕn	kĕn
13	kjĭn	kĭn	kĕn	kjĕn
8	bjĭn	bĭn	bjĕn	bjĕn
14	bwĕn	bŭn	bwĕn	bwĕn
18a	mwĕn	mŭn	mwĭn	mwĕn
19	çĭn	fĭn	fjĕn	çĕn

Table 6.9: Proximal demonstratives.

consultants in one of two versions. The first is a shorter form corresponding to what is presented in table 6.10. The second is a longer form (shown for Munken in table 6.11, p. 168) which can be analyzed as involving a distal demonstrative followed by a definite determiner. The definite determiner fuses phonologically with the demonstrative stem, changing the place of its final nasal and (for classes 1 and 3) changing the quality of the stem vowel. It is interesting to note that the fused determiners following the demonstratives associated with vocalic class-marking prefixes resemble the determiners found in Abar rather than the Munken ones.

The fact that the distal demonstrative stem is relatively unaffected by phonological properties associated with the noun classes suggests that it may have grammaticalized recently. A likely source, a distal spatial deictic having the same form as the demonstrative stem, is seen in Munken. Two examples are given in (6.50)–(6.51).

Class	Abar	Missong	Biya	Munken
1	ù-dzən	dzən	ù-dzò	ù-dzèn
2	b̄-dzən	b̄-dzən	b̄-dzò	b̄-dzèn
3	ū-dzən	ú-dzən	ú-dzò	ū-dzèn
4/5H/10	ī-dzən	í-dzən	í-dzò	ī-dzèn
5L/9	ì-dzən	ì-dzən	ì-dzò	ì-dzèn
6	m̄n-dzən	á-dzən	á-dzò	ā-dzèn
6a	ān-dzən	án-dzən	mún-dzò	m̄-dzèn
7/12	k̄-dzən	kí-dzən	kó-dzò	ā-dzèn
8	bī-dzən	bí-dzən	bí-dzò	bī-dzèn
13	kī-dzən	kí-dzən	kó-dzò	kī-dzèn
14	bū-dzən	bú-dzən	bú-dzò	bū-dzèn
18a	mūn-dzən	mún-dzən	mún-dzò	mū-dzèn
19	ɕī-dzən	fí-dzən	fí-dzò	ɕī-dzèn

Table 6.10: Distal demonstratives.

1	ù-dzə̀ŋ-ḁ
2	b̄-dzə̀m-bè
3	ū-dzə̀ŋ-ḁ
4/5H/10	ī-dzə̀n-ḁ
5L/9	ì-dzə̀n-ḁ
6	ā-dzə̀n-nè
7/12	ā-dzə̀ŋ-kī
6a	m̄-dzə̀m-mè
8	bī-dzə̀m-bī
13	kī-dzə̀ŋ-kī
14	bū-dzə̀m-bū
18a	mū-dzə̀m-mū
19	ɕī-dzə̀n-ɕī

Table 6.11: Fusion of definite determiner with distal demonstrative in Munken.

- (6.50) ù-nè      ù-l̄      kwě      kí~kí      dzənə      s̄  
 CL1-person CL1-other (B)hold VFOC~(C)also there.DIST 1PL.LOC.OBJ  
 kwě  
 LOC.country  
 “Someone else claimed [a farming plot] over there in our territory.”  
 (Munken)

- (6.51) à    ɲkə    nó    bó    nàŋkə    á    dzən    á    court    ɲkín    bó  
 DS thus REL CL2 (A)go.IPFV PREP there.DIST PREP court now CL2  
 nàŋkə    bó    nāŋ    sign    ā-ŋwātə  
 (A)go.IPFV CL2 (A)go.IRR sign CL12-book  
 “That’s why they’re going over there to court now, they’re going so that  
 they can go and sign documents.” (Munken)



### 6.3.5 Associative NP/pronoun

The ‘associative’ construction is used to express any of various possible relationships between the referents of two nouns: it includes possession but also more general types of relationship which can be somewhat arbitrary in nature, on par in semantic latitude with English noun-noun compounds.<sup>15</sup> In the associative construction, a head nominal is modified by a full noun phrase which immediately follows it. In the examples given in (6.52)–(6.55), the matrix noun phrase is enclosed in outer square brackets, and the associate noun phrase is enclosed in inner square brackets.

- (6.52) wǎ [fī-nòò [i-gbəsə] fī] à dē jē  
 then CL19-person CL5-wound CL19.DET DS (c)say COMP  
 “Then the little one [who had] a wound said...” (Missong)
- (6.53) ǎ [ñdù [kə-laŋ] bó wǎn ɲè úɕíɕê ú-fjě  
 DS.COP CL1.dress CL12-law CL2 (B)keep (A)stay LOC.upwards CL3-door  
 kpó sú]  
 house LOC.face  
 “It’s a law dress [a flag] that they keep up [in the air] in front of the door.” (Biya)
- (6.54) sō tsóŋ gòŋ [i-fī [ù-nò ù-nī wə]]  
 1PL (B)see only CL5-head CL1-person CL1-other CL1.DET  
 “We are seeing only the head of a person.” (Biya)
- (6.55) [bí-mjǐ [i-kwàm] bí-bjôn]  
 CL8-problem CL5-cowife CL8-DEM.PROX  
 “This cowife problem!” (Biya)

As has been noted in §4.1.2.1, nouns modified by an associative NP may undergo tonal extension. This effect may be seen in (6.52), where the stem of the head noun, which would normally have an  $L^-$  stem tone, is extended to  $L^+$ . The head nouns of (6.53)–(6.54) do not undergo extension because they belong to

<sup>15</sup> E.g., as attested in a Munken text *ù-nè tábə wə* ‘the cigarette man (CL1-person CL1.cigarette CL1.DET)’, i.e., the man who was previously seen with a cigarette in his mouth in the company of others who weren’t smoking.

‘low’ classes (1 and 5, respectively). The head noun in (6.55) does not undergo extension because S-tone stems are not eligible for extension in Biya. Aside from their relative linear position, formal indication of a relationship between the head noun and the modifying NP is somewhat constrained, being limited as it is to a tonal perturbation. Most Grassfields languages are analyzed with some kind of associative marker, whether it is associated with segmental material (6.56), or with a floating tone (6.57).

- (6.56) eʔ-təg      éʔ      kúb  
 CL8-feather CL8.AM CL9.hen  
 ‘feathers of the hen’ (Akóṣsē; Hedinger (1980: 22))

- (6.57) ñzēm      ˘      lèkwòŋ°  
 CL9.shadow CL9.AM CL5.spear  
 ‘shadow of the spear’ (Ngyembɔɔn; Anderson (1980: 43–4))

If faithfulness to earlier historical stages of the language were of high priority, then it would probably be best to reconstruct the associative marker in Mungbam as being a low floating tone for nouns of class 1, 5L, and 9, and as a high floating tone for the other classes.

### 6.3.5.1 Possessive pronouns

An associative NP very frequently consists of only a possessive pronoun. Personal possessive pronouns (shown in table 6.12) vary in tone depending on the noun class of the possessum, with one tone corresponding to the ‘low’ classes, and another to the ‘high’ classes. Possessive pronouns, like lexical associative NP’s, may trigger possessive lengthening (§ 4.1.2.1), depending on whether the possessum is of ‘low’ or ‘high’ class. An interesting point concerning the possessive pronoun system is that human 3sg possessive referents are not referred to with the class 1 possessive pronoun, but instead with a special pronoun not found among other pronominal

paradigms. I am not aware of similar examples of such a split in other Grassfields languages.

	NGUN	MUNKEN	BIYA	ABAR	MISSONG
1sg	mə́ / mǒ́	mə́ / mǒ́	mə́ / mǒ́	mə́ / mǒ́	mə́ / mǒ́
1pl	sə́ / sǒ́	sə́ / sǒ́	sə́ / sǒ́	sə́ / sǒ́	sə́ / sǒ́
2sg	jě́ / jě́	ǎ	ǎ / ǎ́	jě́ / jě́	bī́ / bí
2pl	bēn	bà	bón / bǒn	bān	baà / baà
3sg	jì / jí	jī́ / jí	jī́ / jí	jī́ / jí	wù / wú
3pl	(=CL2)	(=CL2)	(=CL2)	(=CL2)	(=CL2)

Table 6.12: Personal possessive pronouns. The form to the left of the ‘/’ corresponds to a ‘low’ class (CL1, 5 or 9) possessum, and the form to the right of the ‘/’ corresponds to a ‘high’ class (other noun classes) possessum. Cells containing only one form correspond to invariant possessive pronouns.

Third person classed possessive pronouns (table 6.13, p.172) do not undergo changes in tone conditioned by the class of the possessum. Those corresponding to ‘high’ classes, however, can have either a mid or superhigh tone, with no apparent difference in meaning between the two. This variation has been noted for all dialects other than Missong. In Missong, it is not certain whether mid tone variants are possible. Some of the classed possessive pronouns in Abar have coda voiceless nasals, though they are only transcribed as open syllables in texts.

### 6.3.6 Miscellaneous nominal modifiers

Some nominal modifiers have in one way or another *sui generis* behavior, and cannot be comfortably treated as an adjective, numeral, or demonstrative. These are presented in the current section.

	NGUN	MUNKEN	BIYA	ABAR <sup>16</sup>	MISSONG
1	wè	wù	wə	wù	wù
2	bw̄n ~ bw̄n	bē ~ bé	bɥə̄ ~ bɥə̄	bwēn ~ bwēn	bú
3	w̄n ~ w̄n	wū ~ wú	wə̄ ~ wə̄	wū ~ wú	wú
4/5H/10	j̄n ~ j̄n	jī ~ jí	j̄ ~ jí	jī(n) ~ jí(n)	jí
5L/9	jì	jì	jì	jì	jì
6	mw̄n ~ mw̄n	nē ~ né	wə̄ ~ wə̄	mwēn ~ mwēn	wú
6a	mw̄n ~ mw̄n	mē ~ mé	mɥə̄ ~ mɥə̄	mwēn ~ mwēn	mú
7/12/13	k̄n ~ k̄n	kī ~ kí	kə̄ ~ kə̄	kī(n) ~ kí(n)	kí
8	b̄n ~ b̄n	bī ~ bí	b̄ ~ bí	bī(n) ~ bí(n)	bí
14	bw̄n ~ bw̄n	bū ~ bú	bɥə̄ ~ bɥə̄	bū ~ bú	bú
18a	mw̄n ~ mw̄n	mū ~ mú	mɥə̄ ~ mɥə̄	m̄ ~ mú	mú
19	f̄n ~ f̄n	fī ~ fí	f̄ ~ fí	fī(n) ~ fí(n)	fí

Table 6.13: Classed possessive pronouns. The ‘~’ symbol separates forms in free variation with each other.

### 6.3.6.1 ‘some’, ‘another’

All of the Mungbam varieties have a type of nominal modifier which, depending on the context, may function as an indefinite determiner, or a modifier translatable as ‘another’.<sup>17</sup> It is glossed ‘other’ in both cases. This word takes a concordant noun class prefix, and has a stem *-le* (Munken and Missong),<sup>18</sup> *-nu* (Biya and Ngun), or *-lehe* (Abar), which has a mid tone when its prefix is ‘low’ class, and a high tone when its prefix is ‘high’ class.

- (6.58) m̄-ɲ̄nə m̄-ló ɲ̄~ɲ̄ɛ m̄ n̄̄nə, m̄-ló j̄n  
 CL18a-bird CL18a-other VFOC~(A)stay CL18a (B)big CL18a-other thus  
 “Some birds are [there] which are fat, others are like this [makes a gesture].” (Munken)

The word has determiner function, but its morphological behavior is closest to that of an adjective, since it has both prefixal and tonal concord. While it can

<sup>16</sup> Abar classes 4, 8, 10, 13, and 19 are sporadically attested with a coda voiceless nasal in transcriptions from elicitation sessions. Since the voiceless nasal is easy to miss when one is not listening to it, it is possible that it is more common, but underreported in my field notes.

<sup>17</sup> Heine and Kuteva (2002: 220–3) note a relationship between these functions in that both are frequently grammaticalized from a word meaning ‘one’.

<sup>18</sup> The variant *-l* is also commonly seen in Munken.

head a noun phrase, as adjectives may, it may not appear alone in IAV position, separated from its NP by an intervening verbal complex.<sup>19</sup>

- (6.59) ā-jī wə ɕù ā-wéłə  
 CL6-egg CL6.DET (A)break CL6-white  
 °“The white eggs broke.” (Biya)

- (6.60) \*ā-jī wə ɕù ā-ní  
 CL6-egg CL6.DET (A)break CL6-other  
 °intended: The other eggs broke. (Biya)

### 6.3.6.2 ‘all’

Another nominal modifier which does not easily fit into any of the major word classes is the quantifier ‘all’. This word could be most closely compared (in formal properties) to a non-concordant numeral such as 5: it does not show concord, it may appear alone in IAV position (6.61), and it may appear to the right of the determiner, which is usually NP-final, as in (6.63)–(6.62). However, ‘all’ may not serve as the head of a noun phrase; the translation equivalent of a noun phrase ‘all’ requires an independent pronoun as its head, as in (6.64). The modifier meaning ‘all’ in Missong may be reduplicated, as in (6.65), suggesting that it may have grammaticalized from a verb.

- (6.61) ā-jī wə ɕù gbəŋ  
 CL6-eggs CL6.DET (A)break all  
 °“All the eggs broke.” (Biya)

- (6.62) mə jē dəsə j̄-já bəhɛ lē dà bí-mjú  
 1SG (A)stay S.NEG 1SG-(C)sing.IRR (B)exit.IRR (A)VENT.IRR D.NEG CL8-word  
 nómə bí á mən dzɔ́ gbəŋ  
 TOP CL8.DET PREP 1SG.LOC.OBJ LOC.mouth all  
 “I am not able to sing all of those words out of my mouth.” (Munken)

<sup>19</sup> See § 6.4.1.2 on this phenomenon.

- (6.63) ā-nī wā gbàṅ ɕù-ɕù  
 CL6-eggs CL6.DET all VFOC~(A)break  
 °“All the eggs broke.” (Biya)
- (6.64) ì-fèlò jí bọ́ fèlò jénà ì gbàṅ lé á  
 CL5.INF-(A)work REL CL2 (A)work today CL5 all (B)L.COP PREP.2SG  
 kàn  
 LOC.hand  
 “... the work that they do, it is all in your hands.” (Abar)
- (6.65) so, kī-kūn-nə kī kúnkpám, bú dè nò tá ì-dzôm  
 so CL13-village-CL13 CL13.DET all CL2 (c)cry ?? only CL5-war  
 á kèn  
 PREP LOC.hand  
 “So, [in] all of the villages, they were crying only because of war.” (Mis-  
 song)

### 6.3.6.3 Topic marker

A topic marker usually appears accompanied by an immediately following definite determiner. It appears mostly in narratives and discourse and its function is to signal that the reference of the noun phrase that contains it is the same as a similar noun phrase mentioned earlier. The noun phrases containing the topic markers in (6.66)–(6.67) are enclosed in square brackets.

- (6.66) [fī-nò námò fī] mà tǎ jêhe kpèlè jī  
 CL19-person TOP CL19.DET then (B)come (C)stand (A)be.lat (C)ascend  
 lè kè í-dzòmə wān  
 (A)VENT ?? CL5-back LOC.on  
 “The [aforementioned] small man came last, standing up forth from the  
 back [of the crowd].” (Ngun)
- (6.67) *problem* wā dà kòm ì-sálə-tó=nó, à jē  
 problem CL1.DET D.NEG (A)again CL5.INF-(C)decide-ADJ=DAT DS COMP  
 [*Christian* nò wā] dá fí-fólə  
 C. TOP CL1.DET (C)talk.IPFV VFOC~(C)entangle  
 “The problem [in going to your graduation party] is not in deciding [to  
 go], it’s that Christian is telling [me contradictory and confusing things].  
 [lit. is talking-tangling]” (Biya)

### 6.3.7 Modifier as head nominal

Modifiers themselves may serve as the head noun when a lexical noun or independent pronoun is absent from a noun phrase.<sup>20</sup> The major types of modifiers (adjectives, numerals, and demonstratives) can serve as head nominals, as they do in (6.68)–(6.70), respectively (noun phrases with non-lexical/non-pronominal heads are enclosed in square brackets).

- (6.68) wǎ jí í ɕûɔ ná, í-gǔŋ bwĩnə [í-nín-nám  
 then CL10 CL10 (B)eat.IPFV (A)stay.IPFV CL10-pig CL2.POSS CL10-RED-fat.ADJ  
 jĩ]  
 CL10.DET  
 “Now they’re eating. Their pigs are the fat ones.” (Biya)

- (6.69) [bā-fà ná bú gbè bũ]  
 CL2-two REL CL2 fall CL2.DET  
 “The two that fell. . .” (Missong)

- (6.70) [ù-wən] ɨgò gbù-gbō jē [ù-wən  
 CL1-CL1.DEM.PROX as VFOC~(A)wait.IPFV COMP CL1-CL1.DEM.PROX  
 wə] fĩlɔ  
 CL1.DET (B)give.IRR  
 “This one is waiting so that this [other] one will give [it to him].” (Biya)

## 6.4 Ordering of NP constituents

When one considers the order of a head noun and the most common types of modifiers within the NP, the unmarked word order is as in (6.71). Examples such as (6.72), with a noun phrase containing five modifiers, are found only in elicited data, though examples with two modifiers other than the definite determiner, as in (6.73)–(6.74), are reasonably well attested in texts.

<sup>20</sup> One committee member has pointed out that this claim relies on an assumption that all NPs must have a constituent which is the head. I.e., there are no headless NPs.

- (6.71) NP → N (NP<sub>ASSOC</sub>) (ADJ) (NUM) (DEM) (S<sub>REL</sub>) (DET)
- (6.72) [múm-bús]<sub>N</sub> [mɔ́]<sub>ASSOC</sub> [mũŋ-gbábə-tɛ́]<sub>ADJ</sub> [mũm-fín]<sub>NUM</sub> [mũn-ɖɛ̀n]<sub>DEM</sub>  
 CL18a-cat 1SG.POSS CL18a-(B)strong-ADJ CL18a-two CL18a-DEM.DIST  
 [mũ]<sub>DET</sub>  
 CL18a.DET  
 ‘◊Those my two strong cats.’ (Abar)
- (6.73) ɛ́í m̀ə gbè s̀ə á [bí-ɲí]<sub>N</sub> [bí-gbábə]<sub>ADJ</sub> [nóm̀ə]<sub>DEM</sub>  
 CL19 then (A)fall (A)descend PREP CL8-thing CL8-(B)strong.ADJ TOP  
 [bĩ]<sub>DET</sub> bĩ f̀əmə  
 CL8.DET CL8.LOC.OBJ LOC.head  
 ‘He [tortoise] fell down on top of those hard/sharp things.’ (Munken)
- (6.74) ì-jē [bí-mú-lə]<sub>N</sub> [sɔ́]<sub>ASSOC</sub> [bí-bîn]<sub>DEM</sub> lá  
 CL5-name CL8-(B)drink-ADJ 1PL.POSS CL8-DEM.PROX (B)L.COP  
 āŋ-kálə  
 CL6a-corn.beer  
 ‘The name of this our drink is *āŋkálə*.’ (Missong)

In the default order, relative clauses follow all of the nominal modifiers other than the determiner, as in (6.75) – (6.77).

- (6.75) [í-bí]<sub>N</sub> [mɔ́]<sub>ASSOC</sub> [í-fò]<sub>NUM</sub> [í-ní jí gbì bí-nám bĩ  
 CL10-dog 1SG.POSS CL10-two CL10-REL CL10 (A)fall CL8-grass CL8.DET  
 á f̀ɛ̀]<sub>REL</sub> [jĩ]<sub>DET</sub>  
 PREP LOC.head CL10.DET  
 ‘◊My two dogs which fell on the grass’ (Biya)
- (6.76) m̄ə n̄-ɖɛ̀ [í-jā]<sub>N</sub> [wán j̀ɛ̀]<sub>ASSOC</sub> [í-nènə-tə]<sub>ADJ</sub>  
 1SG 1SG-(C)call CL5-name CL1.child 2SG.POSS CL5-(A)hide-ADJ  
 [jĩ]<sub>DET</sub>  
 CL5.DET  
 ‘... [if] I call your child’s secret name...’ (Ngun)
- (6.77) [í-sɛ̀hɛ]<sub>N</sub> [mɔ́]<sub>ASSOC</sub> [j̀ɛ̀n]<sub>DEM</sub> [nó ɲí-ɲé m̄ə ɲ̀ɛ̀]<sub>REL</sub>  
 CL5-place 1SG.POSS CL5.DEM.PROX REL CL6a-water CL6a.DET (A)stay  
 [j̀ɛ̀]  
 CL5.DET  
 ‘◊This my place where there is water’ (Munken)



### 6.4.1 Exceptions to the default NP-ordering

Perhaps the strictest of the ordering conventions is that an associative NP directly follows the head noun. Exceptions are not found. As for ordering of the adjective and the numeral, the cooccurrence of an adjective and a numeral is quite rare to begin with, so no contradictions to the order shown in (6.71) are found in texts. But variable orderings could be elicited, as (6.78)–(6.79) show.

(6.78) í-wɔŋ    mɔ́    í-tì            í-námɔ  
 CL10-pig 1SG CL10-three CL10-fat  
 ‘my three fat pigs’ (Abar)

(6.79) í-wɔŋ    mɔ́            í-námɔ    í-tì  
 CL10-pig 1SG.POSS CL10-fat CL10-three  
 ‘my three fat pigs’ (Abar)

It is not known whether there is any functional difference between (6.78) and (6.79). There are, however, a handful of important classes of exceptions to the ordering found in (6.71) which have identifiable associated meaning differences. These are discussed in §§ 6.4.1.1–6.4.1.4.

#### 6.4.1.1 Determiner scope

A first type of exception is one where a modifier of the NP follows the determiner rather than preceding it, as in (6.80).

(6.80) [bā-nè]    [bū]            [bà-fà]    à    ɕ̀ùm            b̀̀lɔ  
 CL2-person CL2.DET CL2-two DS (B)jump.IRR (B)exit.IRR  
 ‘... two of the people jumped out...’ (Missong)

Non-final placement of the definite determiner appears to be associated with different scopal interpretations of definiteness within the noun phrase. Not surprisingly, the concept of new information proved to be more useful than the concept of definiteness in discussing the use of the determiner with my consultants. While

the normal state of affairs is for all of the head noun and all of its modifiers to represent new or unshared information (in which case no determiner is present) or for the head noun and all of its modifiers to represent old or shared information (in which case the determiner is NP-final), there are cases where only part of the material in the NP represents new information, and the other part represents old information. In the text where (6.80) appears, it has been established that there is a bellicose group of people who are secretly murdering children, but (6.80) represents the first report from someone actually watching one of the murders. In this case, *bā-nè bū* ‘the people’ is old information, though the fact that there were two attackers in this case is new information. The partition between new and old information is similar to that prototypically found in a partitive construction in English, and so (6.80) is translated quite naturally with an English partitive.

Example (6.80) could just as well be translated with a left-dislocation topical construction in English ‘the people, two of them jumped out...’ Similarly, in the elicited example (6.81), where the determiner precedes a relative clause, the information in the relative clause can be counted as new information.<sup>21</sup>

- (6.81) [í-cě] [jē] [nó í gbè] í-bwínsó jē  
 CL10-fowl CL10.DET REL CL10 (A)fall CL10-red CL10.DET  
 “°Those of the fowls which fell are the red ones.” (Munken)

#### 6.4.1.2 Separable modifiers

A second type of exception concerns what I term the separability of numerals and adjectives. A nominal modifier is termed separable if it can stand alone in IAV position, while the remainder of the nominal material is in preverbal position.<sup>22</sup>

<sup>21</sup> According to my consultant, such a sentence would be felicitous if the listener knew about the particular group of fowls that was referred to, but didn’t know which of them had fallen. Placement of the determiner after the relative clause would indicate that the listener was familiar with the group of fowls having fallen.

<sup>22</sup> Cf. §§ 11.2, 11.2.2 on the focus effects associated with the presence of a constituent in IAV position.

Separability of numerals is not-infrequently observed in texts, as in (6.82). Elicited examples showing the separability of adjectives are also available (6.83).

- (6.82) [bā-tɕə̀lə bā] káŋkìn fē béh=ǎ bā-fè  
 CL2-female CL2.DET now there (B)exit=PRF CL2-two  
 ‘‘Now there are two women there.’’ (Munken)

- (6.83) Nǎŋ [í-wúŋ mǒ] fǒ tsám í-tè  
 N. CL10-pig 1SG.POSS P1 (B)beat CL10-three  
 ‘‘Nang beat my three pigs.’’ (Munken)

The grammatical relation between the separated modifier and the NP it belongs to does not seem to affect the acceptability of separation. A separated modifier of an intransitive subject is seen in (6.84), and a separated modifier of an object in (6.85).

- (6.84) [bǒ-bjà̀aŋ] bǒ pí bǒ-fè  
 CL2-Ajumbu.person CL2 (B)die CL2-two  
 ‘‘Two Ajumbu people died.’’ (Munken)

- (6.85) Nǎŋ [í-wúŋ mǒ] tsám í-fè  
 N. CL10-pig 1SG.POSS (B)beat CL10-two  
 ‘‘Nang beat two of my pigs.’’ (Munken)

Example (6.86) shows that the the modifier of a transitive subject is separable when the object is defocalised. Note that in (6.86)–(6.87) it is only from the noun class agreement facts that the identity of the quantified referent can be disambiguated.

- (6.86) [ā-ná bə̀-dzèn] í-wóŋ mǒ à tsám bā-tì  
 CL2-person CL2-DEM.DIST CL10-pig 1SG.POSS DS (B)beat CL2-three  
 ‘‘Those three people beat my pigs.’’ (Abar)

- (6.87) ā-ná bə̀-dzèn [í-wóŋ mǒ] à tsám í-tì  
 CL2-person CL2-DEM.DIST CL10-pig 1SG.POSS DS (B)beat CL10-three  
 ‘‘Those people beat my three pigs.’’ (Abar)

When both the subject and defocalised object are of the same noun class, ambiguity is present, as in (6.88).

- (6.88) [ā-ná      bə̀-dzèn]      [bə̀-mbɔ̃ŋ mɔ́]      à tsám      bə̀-tì  
 CL2-person CL2-DEM.DIST CL2-cow 1SG.POSS DS (B)beat CL2-three  
 \*‘Those people beat my three cows / Those three people beat my cows.’  
 (Abar)

### 6.4.1.3 Locative phrases and other minor nominal modifiers

A second type of exception to the default NP ordering concerns the NP’s which are the object of a locative phrase. While the exact ordering of the locative phrase with respect to other nominal modifiers is not fully certain at this point, some examples can give a partial idea. Examples (6.89)–(6.92) show NP’s which are modified by a locative phrase as well as some additional modifier; either a relative clause ((6.89)–(6.90)), a relative clause and a possessive pronoun (6.91), or a numeral (6.92). In the following four examples, the head noun is underlined and the non-locative modifier referred to is enclosed in square brackets.

- (6.89) tábə̀      wə̀      á      wū      dzʷ      [ù dzè wán  
 CL1.cigarette CL1.DET PREP CL1.LOC.OBJ LOC.mouth CL1 (A)put (B)keep  
 kwínə̀]  
 (c)enter  
 ‘... the cigarette in his mouth that he has put...’ (Munken)
- (6.90) ú-kóho      ù-nèhe      ù-ndìnə̀      wē      bə̀      kə̀-nó      ú  
 CL3-foot CL1-male CL1-female<sup>23</sup> CL3.DET COM CL12-thing PREP.CL1.LOC.OBJ  
 bə̀      [bú kàha wán]  
 LOC.touching CL2 (A)tie (B)keep  
 \*‘... the left foot of a man with something on it that they have tied...’  
 (Biya)

<sup>23</sup>The adjective glossed as ‘female’ means ‘left’ when talking about a hand or foot.

- (6.91)  $\dot{\text{i}}\text{-kp}\ddot{\text{u}}\text{n}\ddot{\text{a}}$  [m\ddot{\text{a}}] b\dot{\text{i}}\text{-m}\dot{\text{j}}\ddot{\text{u}} b\dot{\text{i}}\text{-}\dot{\text{c}}\ddot{\text{u}}\text{n} \ddot{\text{a}} m\ddot{\text{i}} [n\ddot{\text{a}}  
 CL5-story 1SG.POSS CL8-word CL8-missong.people PREP LOC.at REL  
 $\ddot{\text{n}}\text{-ts}\ddot{\text{e}}$  j\ddot{\text{e}}  
 1SG-(A)know CL5.DET  
 “My story in Missong language that I know...” (Missong)
- (6.92) \ddot{\text{u}} s\ddot{\text{a}}\text{n} d\ddot{\text{a}}\text{n} b\ddot{\text{e}}\text{h}\ddot{\text{e}} l\ddot{\text{e}} b\ddot{\text{a}} b\ddot{\text{a}}\text{-duckfowl} \ddot{\text{u}}  
 CL1 (A)pass (c)go.away (B)exit.IPFV (A)VENT COM CL2-duck CL1.LOC.OBJ  
 k\ddot{\text{a}} [b\ddot{\text{a}}\text{-f}\ddot{\text{a}}]  
 LOC.hand CL2-two  
 “She’s coming out [towards us, moving off of the picture] with two ducks  
 in her hands.” (Biya)

The foregoing examples suggest that when a locative phrase modifies a noun, it follows a genitive noun phrase but precedes other modifiers. (The unusual placement of the determiner in (6.89) is most likely a scoping effect of the type discussed in §6.4.1.1.) However, in a noun phrase which is itself the object of a locative phrase, it would appear that some modifiers may be ‘extraposed’, or placed outside of the locative phrase.<sup>24</sup> In example (6.93), for example, a relative clause modifying the noun *\dot{\text{i}}\text{-s}\ddot{\text{e}}\text{h}\ddot{\text{e}} ‘place’ appears outside of the locative phrase, to the right. In (6.94), the ‘heavy’ locative object NP is intact, but it is extraposed from the relative clause itself. This phenomenon has not been subject to follow-up elicitation, so details beyond the examples found in texts are not available.*

- (6.93) b\ddot{\text{o}} n\ddot{\text{a}}\text{ŋ} s\ddot{\text{a}}\text{n} \dot{\text{i}}\text{-s}\ddot{\text{e}}\text{h}\ddot{\text{e}} m\ddot{\text{i}} [b\ddot{\text{a}}\text{-n}\ddot{\text{e}} kw\ddot{\text{a}}\text{h}\ddot{\text{a}} f\ddot{\text{e}}]  
 CL2 (A)go (A)pass CL5-place LOC.at CL2-person (c)gather there  
 “They have passed and gone to the place where people are gathering.”  
 (Munken)
- (6.94) f\ddot{\text{i}}\text{-m}\text{b}\dot{\text{j}}\ddot{\text{u}} \dot{\text{i}}\text{-b}\dot{\text{i}} \dot{\text{i}}\text{-s}\ddot{\text{e}}\text{h}\ddot{\text{e}} [n\ddot{\text{u}} b\ddot{\text{u}} b\dot{\text{i}} j\ddot{\text{i}}] \ddot{\text{a}}  
 CL19-puppy CL9-dog CL5-place REL CL2 (c)give.birth CL9 PREP  
 m\ddot{\text{i}}  
 LOC.at  
 “... a puppy in the place where it was born.” (Biya)

<sup>24</sup> See also the mention of extraposition within the locative phrase in §9.1, where a locative object and the preposition may have an order inverted from the usual, as in (6.91) and (6.94).

## 6.4.1.4 NP-initial demonstrative

There are a few examples of an inverted order of the proximal demonstrative and the head noun. In such a case, the construction is translatable as ‘any N’ rather than ‘this N’. Examples are given in (6.95)–(6.96).

- (6.95) ù-wēn                      ù-nò              tǎ              wě              mà  
 CL1-CL1.DEM.PROX CL1-person (B)come CL1.FUT (A)marry  
 wán=nó  
 CL1.child=DAT  
 “Every man came in order to [ask the chief’s consent] marry the girl.”  
 (Ngun)
- (6.96) í-jên                      í-nóm      tǎ,              bú kò      nàm              wòŋ dō  
 CL5-DEM.PROX CL5-year (B)come CL2 (A)go (A)work.farm only there  
 “...each [new] year that came, they went and worked only there.”  
 (Ngun)

Demonstrative-initial word order is only rarely attested in texts. Its limited appearance in my corpus may be due to the fact that another construction, involving the Pidgin loan ‘any’, which also appears pre-nominally, takes up the same function. Some examples of the Pidgin-based construction are given in (6.97)–(6.99).

- (6.97) lá Akpe kà tū                      kām,              dzóŋ ù      lò              kàn  
 as A.      P3 (B)come.IRR (A)again.IRR VET CL1 L.COP.IRR (B)hold.IRR  
 dā      bì-lùŋ              kó      any ù-nò              lé  
 D.NEG CL8-problem COM any CL1-person FRUST  
 “As Akpe came back, he didn’t have problems with any man.” (Missong)
- (6.98) b=á      bāmə      dà      jē      any ù-nè              kì      kwī  
 CL2=NEG (C)accept D.NEG COMP any CL1-person (A)step (C)enter  
 lò  
 (A)VENT  
 “They don’t let anyone step in [i.e., cross into their land]...” (Munken)
- (6.99) any ī-çè              ì-nī              bɔ́ tən              jà              á      sō  
 any CL9-fowl CL9-REL CL2 (C)rear.IPFV (A)stay.IPFV PREP 1PL.LOC.OBJ  
 kpò  
 LOC.house  
 “Any fowl that they’re raising at our house...” (Biya)

## 6.5 Irregularly possessed nouns

Certain kinship terms appear to have special forms when possessed. Data on this phenomenon is quite limited, so at this point I can only show the examples which are known to me, that they might serve as a base for learning more during future research. The relevant examples are presented in table 6.14. There are two examples (‘our father’ in Biya and ‘our mother’ in Munken) where what appears to be a class 2 (plural) prefix appears on forms which context shows to refer to a single person.

BIYA	
bàtè sǒ	‘our father’
tíē bēn	‘y’all’s father’
ùβǎ	‘father (hypocoristic?)’ <sup>25</sup>
ɲí bū	‘their mother’
nĕĕ	‘my mother (vocative)’
MUNKEN	
kǎ	‘your father’
tǎǎ	‘my father (vocative)’
kjǎ̀lǎ	‘(somebody’s) father’
nĕ	‘your mother’
bǎnǎ	‘our mother(?)’
ɲí	‘(somebody’s) mother’
ABAR	
tɛ̀ù	‘(somebody’s) wife’
tɛ̀im	‘my wife (vocative)’

Table 6.14: Various attested forms for ‘father’, ‘mother’, ‘wife’, which have irregular possessed or vocative forms.

<sup>25</sup> A similar form *bùbá*, appears twice in an Ngun folk tale when a young princess refers to her father the chief, e.g.,

(6.100) búbá fǒ dé tǐ jĕ ì-jǎ mǎ à nĕ  
 father.HYP P1 (c)say (c)meet COMP CL5-name 1SG DS who.Q  
 “What did father say my name was?” (Ngun)





## Chapter 7

# Verbal morphology

The present chapter concerns the morphological processes of verbs. The focus is on single-verb verbal cores. Clauses containing multi-verb verbal cores, or serial verb constructions, are discussed in §8. The inflectional processes to be covered are aspect/mood-marking tonal inflection (§7.1), aspect-marking ablaut (§7.2), and focus-marking reduplication (§7.3). Tense marking is also accomplished by placement of preverbal tense markers. Although their wordhood status, and their relevance to a chapter on verbal morphology (*sensu stricto*), is not clearcut, preverbal tense markers will be discussed in this chapter (§7.4) for the sake of continuity in presentation of the TAM (tense-aspect-mood) system. Likewise, the place of the perfect enclitic (§7.5) in a discussion on morphology could be questioned, but discussion of the perfect marker is included here for the same reasons.

Table 7.1 summarizes the formally-distinct TAM categories (and focus categories) which are marked either by tonal inflection, reduplication, ablaut, the preverbal tense markers or the perfect enclitic. At the bottom are indicated the sections of this chapter containing discussion of each of these grammatical categories. The abbreviations P0. . . P3 are used to signify increasing degrees of remote-

ness into the past, with P0 referring to the present time, or immediately before it, and P3 referring to the remote past.

TENSE	ASPECT	MOOD	FOCUS
P0	Perfective	Realis	Verum Focus
P1	Imperfective	Irrealis	Unfocused
P2	Perfect		
P3			
FUT			
Conditional			
§ 7.1, § 7.4	§ 7.1, § 7.2, § 7.5	§ 7.1, § 7.4	§ 7.3

Table 7.1: Functional categories distinguished by verbal morphology (*sensu lato*), and references to sections of this chapter treating the realization of each category.

Aside from the marking of TAM categories in verbs, the nominalization of verbs is also discussed (§ 7.6). The most frequent type of nominalization is the formation of infinitives (§ 7.6.1). Sections 7.3.2 and 7.6.2 contain discussion of minor, unproductive processes involving verbs (stylistic reduplication and the disability construction).

A short note on terminology will be in order at the outset: the use of functional labels, especially in the aspect and mood categories, comes with the usual caveat that formally distinct categories need not have all of the typologically-common properties associated with the label chosen.<sup>1</sup>

## 7.1 Tonal inflection

All verbs belong to one of three lexical conjugation classes, termed ‘A’, ‘B’ and ‘C’ (henceforth ‘verb classes’). These lexical classes are defined on the basis of tonal properties alone. The three-way contrast may be observed in perfective irrealis forms. As table 7.2 shows, the same tonal patterns apply to both monosyllabic

<sup>1</sup>I hasten to emphasize this point in view of the fact that criticism of functionally-oriented work (e.g., Buell (2006)) may incorrectly assume that functionalists are working with labels for grammatical categories which have a clear, language-independent definition.

and disyllabic verb stems. It will also be inferred from table 7.2 that a major use of the irrealis mood is the formation of imperatives.

Class	Monosyllabic	Disyllabic
A	tũ ‘play stones!’ <sup>2</sup>	wãha ‘buy!’
B	tũ ‘spit!’	ŋãha ‘yawn!’
C	tá ‘point!’	bwáha ‘crack!’

Table 7.2: Three-way contrast in imperatives (Ngun).

In earlier presentations of tonal inflection in Mungbam,<sup>3</sup> verbs were treated as having three basic tonal inflectional categories: jussive, remote past (P3), and non-remote past<sup>4</sup> (NP3). The perfective-imperfective distinction was not thought to be manifested tonally. For the sake of comparison with the current analysis, the now-disavowed paradigm is given in table 7.3 (where the diacritic over *x* indicates the tone to be expected on any verb stem falling into the relevant class, whether it be mono- or disyllabic).

	NP3	P3	JUSS
A	ẋ	̄x	ẋ
B	ẋ	̄x	̂x
C	̂x	ẋ	ẋ

Table 7.3: Old analysis of inflectional verb categories (cf. Good et al. (2011: 118))

The earlier treatment is now revised to reflect two dimensions of tonal contrast for verbs: realis vs. irrealis, and perfective vs. imperfective. The surrogate ‘tone letter’ transcription system is also adopted for the first time in this dissertation. The new paradigm is summarized in table 7.4.

One major source of confusion, which delayed the development of the current

<sup>2</sup> A children’s game called *ì-tũ*, similar to jacks. Several palm kernels are laid on the ground, and one tosses one of the kernels in the air and tries to pick up as many of the other kernels as possible without failing to catch the tossed kernel as it falls.

<sup>3</sup> E.g., Good et al. (2011: 118); Lovegren (2012a: 51).

<sup>4</sup> That is, the category used for the marking of future, present/immediate past (P0), hodial past (P1), and semi-remote past (P2).

		PFV	IPFV
A	REALIS	$\check{x} (L^-)$	$\check{x} (L^-) + \text{ABL}$
	IRR	$\check{x} (L^+)^\dagger$	$\check{x} (L^+)^\dagger + \text{ABL}$
B	REALIS	$\acute{x} (S)$	$\acute{x} (\text{HL}) + \text{ABL}$
	IRR	$\check{x} (\text{ML})$	$\acute{x} (\text{H}^+) + \text{ABL}$
C	REALIS	$\hat{x} (\text{HL})$	$\hat{x} (\text{HL}) + \text{ABL}$
	IRR	$\acute{x} (\text{H}^+)$	$\acute{x} (\text{H}^+) + \text{ABL}$

Table 7.4: Current analysis of verb conjugation. ‘+ ABL’ means ‘with ablaut’.  
 † Monosyllabic set A verbs are alternately pronounced with  $\bar{x}$  (M $\circ$ ) tone.

analysis, was in sorting out allophonic differences between pre-pausal and non-prepausal tonemes.<sup>5</sup>

A second issue which delayed the final analysis for some time was an earlier belief that jussive imperfective forms were not possible. As it turned out, they were merely difficult to elicit. Once I eventually succeeded in eliciting imperfective imperatives for a large portion of the verbs in my lexical database,<sup>6</sup> I became persuaded of the correctness of the present analysis (or to put it more conservatively, the wrongness of the old analysis).

The distinction between realis and irrealis mood was introduced after it was decided that there was no difference between the tones on remote past forms and the tones on jussive forms (after pre-pausal/non-prepausal differences were factored out). It was subsequently discovered that the tone pattern found in remote past and jussive is also found in ‘s’-type negation (cf. § 13.2) as well as in constructions indicating ability or potentiality (cf. § 14.5.3). The best umbrella term for a category comprising jussive and potential mood, remote past, and one type of negating construction, as far as appropriateness of fit and generality of use seems, to be irrealis (though it does of course leave something to be desired).

An aspect of the analysis which has remained constant is the treatment of

<sup>5</sup> See § 4.1 on the current understanding of how tones are realized in context.

<sup>6</sup> That is, for all monosyllabic verbs in a working list of ~250 verbs used during the 2012 field trip.

monosyllabic and disyllabic verb stems. The same paradigm applies to all verb stems, regardless of their number of syllables. In disyllabic verbs, the tone is realized across both syllables, as if they were one.

## 7.2 Ablaut

As may be inferred from table 7.4, only set B verbs show a tonal distinction between perfective and imperfective aspect. Verbs of all classes, however, may exhibit a difference in segmental stem shape depending on the aspectual category.<sup>7</sup> This difference is almost always reflected as a difference in the stem vowel, and the alternation is therefore labeled ‘ablaut’. Ablaut, in Mungbam, is an alternation whereby the stem of a verb in its imperfective form has a different vowel than the same stem in its perfective form. Some examples are given for Munken in table 7.5. All of the verb forms listed in table 7.5 consist of a single open syllable, with the perfective form having one of the front vowels {i, e, ε}. The imperfective stem differs from the perfective stem in that it has instead one of the back vowels {u, o, ɔ, a}.

It also appears, from the data given in table 7.5, that the nature of the alternation is mostly predictable. A perfective stem vowel /i/ changes to /o/ when the preceding consonant is coronal. Additional pairs (beyond those shown in table 7.5) following this generalization are *tɛi* ~ *tɛo* ‘(A)look at’, *ɛi* ~ *ɛo* ‘(c)select’, *di* ~ *do* ‘(A)cry’, *ɛi* ~ *ɛo* ‘(c)be full’, and *ɛi* ~ *ɛo* ‘(B)pass the day’. This change also applies with some stems having labialized or palatalized stem-initial consonants: *ji* ~ *jo* ‘(A)weave’, *ji* ~ *jo* ‘(c)build’, and *kwi* ~ *kwo* ‘(c)enter’. Perfective /i/ instead changes to /u/, with insertion of the palatal glide /j/ after the stem consonant, when the stem-initial consonant is dorsal or labial. Additional examples

<sup>7</sup> Aspectual constructions with more specific semantics than a broad perfective/imperfective split are discussed in §§8.2.5, 12.3.2.2.

Perfective stem	Imperfective stem	gloss
ti	to	'(B)come'
ɕi	ɕo	'(B)eat'
tse	tso	'(B)pass the night'
gbe	gbo	'(A)fall'
le	lo	'(A)make'
jɛ	jo	'(C)lick'
sɛ	so	'(A)descend'
mɛ	mo	'(C)soak'
ɲi	ɲu	'(B)beat'
ki	kju	'(B)spit'
pi	pju	'(B)die'
fɛ	fa	'(B)give'
ɲɛ	ɲa	'(A)stay'
mɛ	ma	'(A)take'

Table 7.5: Examples of ablaut alternations (Munken).

are *mi* ~ *mju* '(A)excrete', and *bi* ~ *bju* '(C)give birth'.

With the exception of *le* ~ *lo* '(A)make', perfective stem /e/ changes to /o/ in the imperfective. Examples other than those shown in table 7.5 are *gbe* ~ *gbo* '(A)wait', and *dze* ~ *dzo* '(A)put'.

Perfective stem /ɛ/ changes to either /ɔ/ or /a/. Further examples of the former type of change are *dze* ~ *dzo* '(A)tether an animal', *tse* ~ *tso* '(C)be finished', *kɛ* ~ *kɔ* '(A)pluck', *bɛ* ~ *bɔ* '(A)look for', *fɛ* ~ *fɔ* '(B)fly', *dze* ~ *dzo* '(C)call' and *tɛ* ~ *to* '(B)fell'. No further examples of the /ɛ/ ~ /a/ alternation exist.

In total, I have observed 35 verbs in Munken which undergo ablaut. The majority of verbs do not undergo ablaut simply because they do not meet the structural conditions for it, viz., (i) the stem must consist of a single open syllable, and (ii) the stem vowel in the perfective must be a front vowel. However, there are some Munken verbs which, although they meet these structural conditions, do not undergo ablaut. Examples include *ke* '(B)fry', *gɛ* '(A)be heavy', *mwe* '(B)be pregnant', and *be* '(B)plait hair'.

As I have illustrated with the Munken data, there are three factors which should

be taken into consideration in describing the ablaut alternation: (i) the structural conditions for ablaut, (ii) the regularity (or predictability) of the process, and (iii) the productivity of the process. Ablaut is a process common to all of the Mungbam dialects, but there are important differences with respect to these three factors.

	ABAR	MISSONG	MUNKEN	BIYA
ablaut stems	14	66	35	44
eligible stems	45	81	45	58
productivity (%)	31%	81%	78%	76%

Table 7.6: For a comparative list of 254 verbs, the number of stems which undergo ablaut, the number of stems meeting the phonological criteria for ablaut, and the proportion of eligible stems which undergo ablaut expressed as a percentage.

These differences can be characterized by the values given in table 7.6. Examples of cognate verbs which differ between dialects in their ability to undergo ablaut are given in table 7.7.

Generally speaking, ablaut is relatively productive in Missong, Munken, and Biya, but not in Abar. Biya and Missong additionally have a higher number of ‘eligible’ stems than do Munken or Abar, indicating more encompassing structural conditions for ablaut: in Biya, verbs with perfective stem vowel  $\text{ə}$  may undergo ablaut; in Missong, verbs with perfective stem vowel  $a$  may undergo ablaut. The vowel  $\text{ə}$  is not a licit stem vowel (for open-syllable stems) in Munken and Abar, and verbs with stem vowel  $a$  are not ablaut eligible in any dialect except for Missong. Another reason for higher ablaut rates in Missong is the presence of the stem nucleus  $oa$  in that dialect, which corresponds to the closed syllable rhyme  $an$  in other dialects. These  $oa$  stems regularly change to  $/\text{ɛ}\eta/$  in the imperfective, as in  $foa \sim f\text{ɛ}\eta$  ‘<sup>(A)</sup>sell’,  $toa \sim t\text{ɛ}\eta$  ‘<sup>(A)</sup>jump’,  $kpo\check{a} \sim kp\text{ɛ}\eta$  ‘<sup>(B)</sup>be sufficient’, and  $boa \sim b\text{ɛ}\eta$  ‘<sup>(A)</sup>climb’. The cognates in other dialects have invariant cognates  $fan$  ‘<sup>(A)</sup>sell’,  $tan$  ‘jump’,  $kpan$  ‘<sup>(B)</sup>be sufficient’,  $ban$  ‘<sup>(A)</sup>climb’.

Abar	Missong	Munken	Biya	gloss
ɲin	ne	nolə	—	‘(c)lean’
kəmhɔ	koa	kanə	—	‘(c)quarrel’
—	joa	—	jolə	‘(A)be missing’
sanə	sa	—	—	‘(c)warm’
kamə	kɛ	kamə	kamə	‘(c)make fist’
nɪ	nɛ	nalə	non	‘(A)hide’
ɕoo	ɕoa	ɕolə	ɕu	‘(A)loosen’
kpan	kpoã	kpan	kpan	‘(B)be sufficient’
nən	—	naɲ	nə	‘(A)go’
fan	foa	fan	fan	‘(A)sell’
tɕa	tɕɛ	tsalə	tɕon	‘(A)know’
tan	toa	tan	tan	‘(A)jump’
fo	fɛ	fwo	fwo	‘(A)measure’
du	ɕɛ	du	du	‘(B)pick up’
tju	tɕu	ki	tu	‘(B)spit’
sa	sɛ	so	so	‘(B)congratulate’
ɲu	we	wo	walə	‘(c)hear’
kpo	kpe	kpo	gbo	‘(B)chop’
ɲu	na	nu	ɲu	‘(B)be satisfied’
buu	bwe	bwo	bwo	‘(A)dig’
ta	tɛ	ta	tɛ	‘(B)grow up’
la	lɛ	—	—	‘(A)go to the farm’

Table 7.7: Eligibility asymmetries. Forms which undergo ablaut are shaded. Different root is indicated by ‘—’.

Finally, there are some other eligibility gaps not explained by a difference in structural conditions. As various examples in table 7.7 show, there are cases where the stem has a front vowel in one dialect, but a back vowel in the other dialects. Such a verb is ablaut eligible when it has a front vowel stem, but ineligible when it has a back vowel stem.

One final note concerning ablaut is the occasional presence of a schwa at the end of a CV verb in its ablaut stem, as shown in (7.1)–(7.2). The usual elicited ablaut forms of the verbs *ɕɛ* ‘(c)call’ and *ɕi* ‘(B)eat’ are *ɕɔ* and *ɕu*, respectively. This point of variation has not been subject to any serious scrutiny.



- (7.1) à nàŋ=ā ... bó dʒôə jē f̄ə  
 2SG (A)go=PRF ... CL2 (c)call.IPFV COMP where  
 “[If] you go to ... it [the place] is called where?” (Munken)
- (7.2) s̄ə d̄òə ɲà, mī ù ɕûə j̄ànə, ù ɕûə  
 1PL (A)cry.IPFV (A)stay.IPFV whether CL1 (B)eat.IPFV how CL1 (B)eat.IPFV  
 j̄àn è  
 how Q.POLAR  
 “... we were crying, [wondering] ‘How is he eating? How is he eating?’ ”  
 (Munken)

## 7.3 Reduplication

The term ‘reduplication’ elsewhere in this dissertation refers to what is in this chapter termed ‘inflectional reduplication’ (§ 7.3.1), in order to distinguish it from a minor process I have called ‘stylistic reduplication’ (§ 7.3.2).

### 7.3.1 Inflectional reduplication

Inflectional reduplication has as its normal function the marking of verum focus. Examples (7.3)–(7.4) illustrate the difference in phonological shape between a plain verb and a reduplicated verb. Discussion of the functional properties of this morphological process is made in §§ 11.4, 11.7–11.8. The present section is limited to characterizing the phonological shape of a reduplicated verb. Segmental and tonal properties are treated separately.

- (7.3) Nǎŋ à gbè=ā  
 N. DS (A)fall=PRF  
 “Nang has fallen.” (Biya)
- (7.4) Nǎŋ gbù~gbè  
 N. VFOC~(A)fall  
 “Nang did fall.” (Biya)

## 7.3.1.1 Segmental properties

When a verb is reduplicated, the segmental form of its stem does not change, and the reduplicant precedes the stem. The reduplicant must be a single syllable with a high vowel. Some examples of verb stems and their corresponding reduplicated forms are given in table 7.8.

ABAR			BIYA		
STEM	RED.	GLOSS	STEM	RED.	GLOSS
mi	mi~mi	(A)‘shit’	ɕo	ɕu~ɕo	(B)‘be afraid’
lanɔ	lin~lanɔ	(A)‘go’	ɕo	ɕi~ɕo / ɕu~ɕo	(B)‘eat.IPFV’
ji	ji~ji	(A)‘weave’	tɕi	tɕi~tɕi	(A)‘look’
tii	ti~tii	(A)‘undress’	ɗi	ɗi~ɗi	(A)‘cook’
bu	bu~bu	(A)‘dig’	de	di~de	(A)‘cry’
ɲu	ɲi~ɲu	(B)‘plant (tree)’	bjɛlɔ	bi~bjɛlɔ / bi~bjɛlɔ	(C)‘light fire’
gee	gi~gee	(C)‘go around’	kpalɔ	kpu~kpalɔ	(C)‘cross ankles’
do	di~do	(A)‘cry.IPFV’	ji	ji~ji	(C)‘build’
da	di~da	(C)‘talk.IPFV’	do	du~do	(B)‘carry water’
to	tu~to	(B)‘carry water’	du	du~du	(B)‘pick up’
tu	tu~tu	(B)‘crown chief’	bjafɔ	bi~bjafɔ / bi~bjafɔ	(A)‘belch’
su	si~su	(A)‘descend’	wi	wu~wi / wi~wi	(B)‘beat’
ti	ti~ti	(B)‘come’	ɲulɔ	ɲu~ɲuu	(B)‘be satisfied’
tu	ti~tu	(B)‘fell tree’	jalɔ	ji~jalɔ	(C)‘run’
be	bi~be	(C)‘boil’	mi	mi~mi / mi~mi	(A)‘shave/shit’ <sup>8</sup>
kwɔ	ku~kwɔ	(B)‘catch’	mju	mi~mju	(A)‘shave.IPFV’
			bam	bim~bam	(C)‘accept’

Table 7.8: Some verb stems and corresponding reduplicated forms in Abar and Biya. Alternate reduplicated forms in Biya indicate inconsistent productions between different consultants.

General rules for formation of reduplicant syllables are as follows:

- The onset of the reduplicant syllable is the same as that of the stem. However, the reduplicant onset is simplified to a plain stop if the stem onset is a stop-glide cluster.

<sup>8</sup> Although the two stems are normally homophonous, two of my Biya consultants insisted (to a highly skeptical linguist) that they were in fact distinct when reduplicated.

- The reduplicant is an open syllable unless the stem contains a nasal coda, in which case the reduplicant has a nasal coda homorganic with the stem-initial consonant.<sup>9</sup>
- The default vowel for a reduplicant syllable is /i/. However, if the stem vowel is high /i/ or /u/, then the reduplicant vowel will be identical to the stem vowel.<sup>10</sup> Stems with second-degree /e/ or /o/ occasionally trigger /i/ or /u/ reduplicants, but not consistently across lexical items.
- If the stem onset is palatalized (this includes plain /j/) then the reduplicant vowel is /i/.
- If the stem onset is labialized (this includes the labial velars /kp/ and /gb/ as well as /w/) then the reduplicant vowel is /u/.
- When two rules for selecting a reduplicant vowel are in conflict, the available evidence shows that there is variation in form.
- There are words where default /i/ is found when /i/ or /u/ would have been expected.

Overall, the segmental rules for forming reduplicants are for the most part productive, but it has proven frustrating to characterize the phenomenon with exactness.

### 7.3.1.2 Tonal properties

The assignment of tone to reduplicated verbs has been persistently investigated in elicitation, yet remains the area within the tonal system that I consider the most poorly understood. This may have been one area where a polylectal approach

<sup>9</sup> Though  $\eta$  is considered ‘homorganic’ with the labial velars. For example, the reduplicated (realis) form of *gbɔŋbɔ* (B) ‘be clear’ is *gbuŋ-gbɔŋbɔ* (Ngun).

<sup>10</sup> See Faraclas and Williamson (1984) for some similarities in reduplicated forms between Mungbam and Lower Cross languages.

was more of a handicap than a benefit since it seems that there are inconsistencies between the dialects which are manifest only at a very fine level of phonetic detail. I have had difficulty in deciding if I am hearing the tones inconsistently, or my consultants are producing the tones inconsistently, and my usual practice of checking my analysis of one dialect by comparing it with another dialect has cast matters in to a deepened state of uncertainty. These shortcomings notwithstanding, paradigms showing tonal patterns for each of the established inflectional categories for reduplicated verbs are given below for four of the dialects (tables 7.9–7.10).

As the tables suggest, realis-irrealis distinctions are often collapsed. Imperfect irrealis forms are missing in some cases because the category was discovered relatively late in my research, and has proven difficult to elicit reduplicated forms for.

MISSONG	PFV	IPFV	BIYA	PFV	IPFV
(A)‘fall’	gbì~gbṵ	gbì~gbē	(A)‘fall’	gbù~gbè	gbù~gbò
	gbí~gbṵ		IRR	gbù~gbè	
(B)‘come’	tó~tó	tí~tē	(B)‘be tired’	bú~bwó	bú~bwó
	tó~tó	tí~tē	IRR	bú~bwó	bú~bwó
(C)‘quarrel’	kú~kwā	kíj~kēj	(C)‘soak’	mí~mṵ	mí~mṵ
	kù~kwā		IRR	mí~mṵ	mí~mṵ

Table 7.9: Tonal paradigms for reduplicated verbs in Missong and Biya. Shaded cells indicate missing data.

MUNKEN	PFV	IPFV	ABAR	PFV	IPFV
(A)‘fall’	gbì~gbè	gbù~gbò	(A)‘cry’	dì~dè	dò~dò
IRR	gbí~gbè		IRR	dī~dè	
(B)‘eat’	ḡí~ḡí	ḡí~ḡó	(B)‘eat’	ḡí~ḡí	ḡú~ḡú
IRR	ḡí~ḡí		IRR	ḡí~ḡí	
(C)‘give birth’	bí~bí	bí~bjó	(C)‘build’	jí~jí	
(C)‘build’.IRR	jí~jí		IRR	jí~jí	

Table 7.10: Tonal paradigms for reduplicated verbs in Munken and Abar. Shaded cells indicate missing data.

### 7.3.2 Stylistic reduplication

The stylistic reduplication construction is only attested twice in my corpus, and I was not successful in finding other examples through elicitation. It is also not obviously morphological in nature, but will be included here nonetheless for lack of a better place to mention it. In the two examples, a verb is repeated, and the two repetitions are separated by a particle *kà/ɕà*, whose meaning is unclear. The first example is from a war song of sorts, and the second is a type of formulaic ending to a narrative.

- (7.5) ù            kpòŋ            kà kpòŋ            ì-kwèhɛ  
 CL1.TOP (A)shout.IPFV ?? (A)shout.IPFV CL9-bird.type  
 “He is shouting [his battle cry] as the ikwɛhɛ bird.” (Ngun)

- (7.6) kpòm        ɕà kpòm,        ā-ndjòŋ        mó        kó        tsí=á  
 (A)overstay ?? (A)overstay CL12-story 1SG.POSS CL12 (c)finish=PRF  
 “It has gone on long enough. My story is over.” (Abar)

## 7.4 Preverbal tense markers

The preverbal tense markers immediately precede the verbal core. There are five true tenses as well as a conditional marker which appears in the same linear position as the true tense markers. Forms are summarized in table 7.11. In all dialects except Biya, the tense markers associated with tenses P2 and P3 are identical in form: the two are distinguished by the fact that the remote past (P3) is only compatible with verbs in their irrealis forms.

### 7.4.1 True tenses

The true tenses are those whose main purpose is to situate an event on a time scale with respect to the time of speaking. The approximate range of times which they indicate are summarized in table 7.12.

	P3	P2	P1	P0	FUT	COND
	IRR	REALIS or IRREALIS				
MK	lē	lē	fǒ	∅	á	fǒ
MS	kà	kà	ká	∅	á	
BY	àlō	àlò	fǒ ~ fō	∅	á	fō
AB	kè	kè	há	∅	á	á
NG	lē	lē	fǒ	∅	á	ǎ

Table 7.11: Summary of preverbal tense markers in all five dialects. Shaded cell indicates missing data.

P0	a few instants ago, presently, in an instant <sup>11</sup>
P1	today
P2	yesterday up to a few days ago
P3	historical past up to a few days ago
FUT	any time in the future

Table 7.12: Windows of time associated with each of the five tenses.

While the P3 tense is inherently in irrealis mood, the other tenses permit their verbs to be in either realis or irrealis forms, so long as the context is appropriate. In Biya, the form of the P1 marker differs in tone when accompanied by an irrealis verb, as examples in table 7.13 show.

	Realis	Irrealis	Translation
A	Nǎŋ fǒ tɛ̄i	Nǎŋ fō tɛ̄i	‘Nang looked. / Nang should have looked.’
B	Nǎŋ fǒ ɕí	Nǎŋ fō ɕí	‘Nang ate. / Nang should have ate.’
C	Nǎŋ fǒ tɛ̄i	Nǎŋ fō tɛ̄i	‘Nang contributed. / Nang should have contributed.’

Table 7.13: Realis and irrealis versions of P1 marker in Biya, with examples from verb classes A, B and C.

### 7.4.2 Conditional ‘tense’

Conditional clauses contain a special preverbal marker which goes into the slot taken up by markers actually indicating tense, as well as a clause-final particle è,

<sup>11</sup> A Munken consultant informs me that the sentence *à gbè sè* (DS (A)fall 1PL) usually means ‘we fell’ (recently), but in an appropriate context (e.g., uttered by a motorcyclist to his passenger), can mean ‘we’re gonna fall [so brace yourself]’.

glossed as CLSBRK (cf. § 12.1). In Biya, the conditional marker has the same segmental form as the hodial past marker, but a different tone. In Abar, the conditional marker has the same form as the future marker, *á*, while in Ngun the conditional marker only differs from the future marker only in tone. Examples (7.7)–(7.10) illustrate.

(7.7) Nǎŋ fə̀ bən̄ fī-kpáfə̀ fī á fū̀ è  
 N. COND (A)climb CL19-shed CL19.DET PREP LOC.head CLSBRK  
 “°If Nang climbs on top of the shed...” (Biya)

(7.8) Nǎŋ á wú̀ m̀bòŋ è  
 N. COND (B)wash CL1.cow CLSBRK  
 “°If Nang washes a cow...” (Abar)

(7.9) Nǎŋ á wù̀ m̀fwáha è  
 N. COND (A)grind CL1.pepper CLSBRK  
 “°If Nang grinds pepper...” (Ngun)

(7.10) Nǎŋ á wù̀ m̀fwáha  
 N. FUT (A)grind CL1.pepper  
 “°Nang will grind pepper.” (Ngun)

## 7.5 The Perfect Marker *á*

The present section deals with a grammatical particle called the perfect marker, glossed ‘PRF’. Morphophonological properties of the perfect marker are discussed in § 7.5.1, and a discussion on its functions is found in § 7.5.2. The perfect is also discussed in the context of the focus-marking system in § 11.8.2.

### 7.5.1 Marking of the perfect

The perfect marker is an enclitic represented as =*á* which attaches to the right edge of a verb. In rapid speech the vowel may be reduced to ə. The high tone on the disembodied form does not indicate that there is always a high *surface* tone

on the perfect marker, only that the perfect marker has at least as high or higher a tone than the particular verb it attaches to. As with other tonal processes, no formal phonological account is attempted to explain tonal phenomena related to the marking of the perfect. The stem tone of a perfect verb also appears to be fixed, with the general scheme for monosyllabic verbs shown in table 7.14 applying for all dialects. It is not clear at present how the tone of perfect-marked verb stems can be squared away with the inflectional patterns established in table 7.4.

mè=ā	‘(A)take=PRF’
ɲí=ǎ	‘(B)beat=PRF’
dzé=ǎ	‘(C)call=PRF’

Table 7.14: Tonal patterns on perfect-marked verbs (Munken).

For disyllabic verbs, the perfect marker causes the final vowel of the verb stem to change to *a*, with the tonal patterns shown in table 7.14 maintained. This pattern is illustrated for Ngun in table 7.15.

	‘(A)shift’	‘(B)exit’	‘(C)stand’
IRREALIS	gèhɛ	bèhɛ	jéhɛ
PERFECT	gèh=ā	béh=ǎ	jéh=á

Table 7.15: Perfect marking on disyllabic verbs (Ngun). Tonal extension not marked in order to maintain consistency of presentation with table 7.14.

For disyllabic verbs of set A, the perfect marker and the final vowel fuse to create a vowel which has an extended tone, and is (impressionistically judging) longer. This creates a rather subtle contrast with CVN monosyllabic verbs, as table 7.16 shows. This pattern has been observed in Munken, Biya, and Ngun. It is not known whether the pattern extends to all dialects, or to set B and C verbs. As with examples of possessive lengthening, this ‘perfect lengthening’, as it were, is not marked in examples unless specific attention is being drawn to it.

The perfect marker is treated as a clitic because its scope of modification is



IRREALIS	PERFECT	GLOSS
ɲǎn	ɲǎn=ǎ	‘(A)vomit’
ɲǎnə	ɲǎn=ǎǎ	‘(A)open’

Table 7.16: Tonal extension on perfect-marked disyllabic verbs of set A (Munken).

the verbal core as a whole, and not any single verb. When a verbal core contains more than one verb, the perfect marker attaches to the rightmost verb, as in (7.11) (perfect-marked verbal core enclosed in square brackets).

- (7.11) ù-tɛ̀ðlə      ù-lɛ̀      ù tɪ́<sup>12</sup>      ù [tɪ́      sà̀n      ɕù      kwín]=ǎ  
 CL1-female CL1-other CL1 (B)come CL1 (B)come (A)pass (c)go.away (c)enter=PRF  
 ú-kpé  
 CL3-house  
 “Another woman has just come and passed away into the house.” (Munken)

### 7.5.2 Functions of the perfect

The perfect in Mungbam has a broader range of functions than the corresponding category in familiar languages such as English and Spanish does. In Comrie’s (1976:56) influential treatment, the perfect indicates “the continuing relevance of a previous situation.” Or, put more precisely, the perfect relates two temporally sequenced events, the former of which, though having been completed, has continuing relevance to the latter. Of the four functions of perfect marking discussed by Comrie (1976) (Perfect of result, Experiential Perfect, Perfect of persistent situation, and Perfect of recent past), all but one (experiential perfect) can be achieved with the category glossed PRF ‘perfect’ in Mungbam.<sup>13</sup>

Examples of the perfect of result, which is used to indicate the relevance of a result state after its occurrence, are shown in (7.12)–(7.13). In example (7.12), the subject of discussion is a man who is fond of insulting other people without

<sup>12</sup> See § 12.3.2.2 on this first use of the verb glossed ‘come’.

<sup>13</sup> Experiential perfect is marked through a particular serial verb construction. See § 8.2.5.5.

restraint, and has by now exhausted the patience of all who surround him. Example (7.13) comes from a consultant’s description of a video recording of several men killing and cleaning a pig (the pig’s legs are tied at the start of the video).

- (7.12) ù kwé jé̃lɔ̀ ñlɛ̀n ù-báɔ̀ sɔ́tɛ̀ even jí  
 CL1 (B)hold (B)very CL1.manner CL1-bad.ADJ until even CL1.mother  
 ù-sìsɛ̀, jí ù-nɔ̃mfɔ̀ nẫmɔ̀ bwé̃l=ǎ́ wū  
 CL1-true(?) CL1.mother CL1-male TOP (B)be.tired=PRF CL1.LOC.OBJ  
 kɔ̃<sup>14</sup>  
 LOC.hand  
 “He really has bad behavior, to the point that even his own mother, the  
 mother of that boy, is tired of him.” (Munken)

- (7.13) ì-wùŋ̀ bə̀-nè̀ bə̀-fɛ̀ bó nàm kwí̃nə̀, bó kɛ̀h=ā́  
 CL9-pig CL2-person CL2-two CL2 (A)work (C)enter.CLSBRK CL2 (A)tie=PRF  
 á-kwé̃hɛ̀ jí  
 CL6-foot CL9.POSS  
 “The pig that two men have sent [a pole] in [between its legs], they have  
 tied its feet.” (Munken)

Comrie’s ‘perfect of persistent situation’ is the use of a perfect to indicate a situation which began at some unspecified time in the past, is still true, and is presently relevant. Two examples appearing to fit this characterization are given in (7.14)–(7.15). In example (7.14), the speaker refers to the fact that no matter who there is who claims to be the best, wisest, etc., it would be possible to produce an extant second man who exceeds the first one. Example (7.15) refers to a bird who (presumably) has had a tailfeather all along, but his possession of it is relevant to the present situation, where tortoise requires a donation of feathers in order to be able to fly to a feast in the heavens.

<sup>14</sup>This sentence seems somewhat Pidgin-influenced. The first part of the clause appears to be a calque on the Pidgin expression ‘get bad fashion’ or ‘get wowo fashion’, which means ‘to have a bad attitude, to behave scandalously’. The word *soté* is borrowed from Pidgin, where it may mean ‘until’, or ‘for a long time’, or ‘excessively’. The adjective which I have glossed as ‘true’ may or may not be borrowed from Pidgin *sepsep*, whose best translation is Latin *ipse*. i.e., Pidgin *X sepsep* is best rendered as English ‘the very X’.

- (7.14)  $\bar{n}$ -kwé dʒòŋ tɛ́ ù-nū ù tɛ̀à tɛ́=á  
 1SG-(B)hold (A)again (B)also CL1-other CL1 (A)surpass (B)also=PRF  
 wè  
 CL1  
 “I have another [man] who passes him. [i.e., (this man who thinks he is better than everyone), I know yet another man who is better than *him*]” (Ngun)
- (7.15) à ɛ̀i-nūnə ɛ̀i-mwə̀nə nɔ́ ɛ́ lē pē ɛ́ kwé=á  
 DS CL19-bird CL19-one REL CL19 P3 (A)stay.IRR CL19 (B)hold=PRF  
 ú-títǝfə<sup>15</sup> wə̀  
 CL3-tailfeather CL3.DET  
 “There was one bird who was [there] who had a tailfeather.” (Munken)

Comrie (1976: 60) describes the perfect of recent past as follows:

In many languages, the perfect may be used where the present relevance of the past situation referred to is simply one of temporal closeness, i.e. the past situation is very recent.

This description fits the examples given in (7.16)–(7.17) rather neatly. Example (7.16) was uttered by a woman who was on her way to a farm, and had the misfortune of walking past her younger brother, who was accompanied by the author, the two of them hoping to catch someone who could tell a story to be transcribed. She was shy about saying anything into the microphone, and generally flummoxed by the whole situation. She reports on this very recent incidence of bad luck. Example (7.21) is a report from a consultant watching the same video of a pig being slaughtered. He is reporting an event he has seen happen right before the moment of speaking (various women passing through the viewing screen, and two remaining in focus).

- (7.16)  $\bar{n}$ -tɛ́ gbè=ā kɔ́-mjǐ tì  
 1SG-(B)come (A)fall=PRF CL12-matter LOC.immersed  
 “I have come and fallen into problems!” (Biya)

<sup>15</sup> This word appears to be related to the verb *tǝfə* ‘(B)pluck (feathers)’.

- (7.17) bə-tɛɔlɔ bə kəŋkɪn fɛ bɛh=á bə-fɛ  
 CL2-female CL2.DET now CL16.DET (B)exit=PRF CL2-two  
 “The women there are now two. [lit. the women there have now come out two]” (Munken)

Several other uses of the perfect in Mungbam, however, evade the four-way classification given in Comrie (1976). I call these the ‘proximate perfect’ and the ‘sequential perfect’ (though the analysis of these examples could change as further data becomes available). The proximate perfect is marking of a perfect to signify an event the anticipation of which is relevant to a present situation. In example (7.18), the perfect-marked verbal core is in a clause marked for future tense. The event of plucking is done in anticipation of a proximate throat-cutting event. Example (7.19) describes a man who climbed a tree so as to be able to see why children were dying after returning from fetching water.

- (7.18) ̀̀ tɔfɔ fɔ bɛhɛ í-sɛ́hɛ nó bá ŋán  
 CL1 (B)pluck.IPFV (A)off (B)exit.IPFV CL5-place REL CL2.FUT (c)slice  
 kwín=á bə ú-kwɔ́mə mī  
 (c)enter=PRF COM CL3-knife LOC.in  
 “She is plucking out [feathers] on the place [on the duck’s neck] that they will cut with a knife.” (Munken)
- (7.19) wɔ ̀̀ bɛŋ ɲàŋ ū-kwā=ná, ké bjáj bū  
 then CL1 (A)climb.IPFV (A)stay.IPFV CL3-tree=DAT as CL2.children CL2.DET  
 kà sà̀n=ā á ñ-tɛ̀ð=ná āŋ-ɲé  
 P3 (A)pass=PRF PREP CL1.INF-(B)carry.water=DAT CL6a-water  
 “. . . then he climbed and stayed in a tree as the children passed to carry water.” (Misong)

The so-called sequential perfect appears on clauses describing events which are completed in succession, and which can be said to be relevant to each other in the sense that prior events make possible future events. Frequently, two consecutive clauses are marked with the perfect, as in (7.20)–(7.21). In example (7.22), only the second of two sequential events is perfect-marked.

- (7.20) *then* bó mà gəm=ā bə-nè bú-tí bē, mà  
 then CL2 then (A)pay=PRF CL2-person CL14-medicine CL2.DET then  
 bó ɸún=á, jē á-ŋgǵjǵj mǎ kǎ  
 CL2 (c)go.away so CL12-story 1SG.POSS CL12.DET  
 “Then they paid the doctors<sub>i</sub>, then they<sub>i</sub> went away. So goes my story.”  
 (Munken)
- (7.21) mù tsóŋ=ǎ ù wən=ō bù-tɕùlǎ wē, mù  
 then.CL1 (B)see=PRF CL1 (A)sleep=PRF COM.CL1-female CL1.DET then.CL1  
 tsóŋ=ǎ ù-tɕùlǎ wē mɕé jí  
 (B)see=PRF CL1-female CL1.DET (c)pregnant (c)ascend  
 “Then he noticed that he had slept with the woman. Then he noticed  
 that the woman was [visibly] pregnant.” (Ngun)
- (7.22) mā bí-lúŋ á-ŋgǵmǎ, à tǎn=ā ā-tǎ kǎ  
 1SG-(A)take CL8-peel CL12-plantain 2SG (A)dry=PRF CL12-rafters CL12.DET  
 mǎ  
 LOC.in  
 “Take plantain peels, [then] you dry [them] in the rafters.” (Munken)

## 7.6 Nominalization

There are two morphological processes by which lexical verbs may be converted to nouns. The first, which is fully productive and very frequently attested throughout all of the dialects, is termed infinitive formation, and discussed in §7.6.1. The second process, involved in a “disability construction” is not productive, restricted to a very particular semantic domain, and very sparsely attested. It is discussed in §7.6.2.

### 7.6.1 Infinitives

All dialects have a productive process for forming deverbal nouns. Deverbal nouns formed by this productive process are here called infinitives to distinguish them from deverbal nouns formed by the ‘disability’ construction (cf. §7.6.2), which is

semantically and lexically restricted.<sup>16</sup> Infinitives are used in a variety of constructions and can be formed from all lexical verbs. They are formed by affixation of a noun class prefix (or circumfix), though the particular affix used in Munken, Ngun, Biya and Abar differs from that used in Missong.

### 7.6.1.1 Munken, Ngun, Biya and Abar

In Munken, Ngun, Biya and Abar, the formation of infinitives involves prefixation of the class 5 prefix *ì-*, and produces a class 5 noun with an intrinsic low tone.

Infinitives function as lexical nouns do, governing agreement with modifiers, and heading noun phrases, but they generally lack plurals.<sup>17</sup> An example showing an infinitive noun triggering agreement on the relativizer and the definite determiner is given in (7.23).

- (7.23) *ì-gbē*            *ì-nī*        *Náj fǒ gbè jī*        *ǎ*        *nē*  
 CL5.INF-(A)fall CL5-REL N.    P1 (A)fall CL5.DET DS.COP how  
 “°How did Nang fall? [lit. The falling that Nang fell is how?]” (Biya)

Set A verbs have an M° stem tone in the infinitive,<sup>18</sup> while set B and C verbs have an H<sup>+</sup> stem tone in the finite. This means that tonal differences between B and C verbs are collapsed in the infinitive.

<i>ì-mē</i>	‘(A)to take’
<i>ì-mú</i>	‘(B)to drink’
<i>ì-mí</i>	‘(C)to soak’

Table 7.17: Tone on infinitives in Munken.

<sup>16</sup> Also to distinguish them from deverbal adjectives (cf. § 6.3.1), which can be argued to be nouns from a formal perspective. Though Mungbam infinitives clearly will not share all properties with words given the same name in European languages, they lack inflectional marking, and appear in nominalized clauses, as infinitives in, say, Spanish or Latin, do. Furthermore, though Mungbam lacks an English- or Spanish-style auxiliary system, it can use infinitives as dative arguments in some constructions (e.g., the purposive; § 10.7.2.5) where infinitival complements are used in English or Spanish.

<sup>17</sup> Elicitation directed towards discovering plurals of infinitives has regrettably not been undertaken, so this statement is based only on their paucity in texts.

<sup>18</sup> For a slight complication to this description, see § 4.1.2.3.1.

In Biya, a suffix *-lə* optionally appears on infinitives formed from verb stems consisting of a single open syllable. As far as the realization of tone is concerned, the *-lə* suffix behaves as a second syllable, ‘sharing’ the stem tone with the proper stem syllable. Examples are given in table 7.18.

Imperative	Infinitive	Gloss
tɛ̄	ì-tɛ̄-lə	‘(A)look’
fì	ì-fì-lə	‘(B)give’
ɔ́	ì-ɔ́-lə	‘(C)call’

Table 7.18: Suffixed infinitive forms in Biya.

It can be noted as well that infinitives may be formed from multi-verb verbal cores, with the infinitive prefix attaching to the first verb. This is best observed in constructions where an infinitive is dative-marked, since the dative enclitic and the infinitive prefix neatly delimit the verbal core, as in example (7.24) – (7.25)

- (7.24) kó s̄ə n̄ə h̄ə í-[n̄ə mú]=nó j̄-j̄é  
 as 1PL (A)go (A)descend PREP.CL5.INF-(A)go (B)drink=DAT CL6a-water  
 mw̄é  
 CL6a.DET  
 “... as we went down to go and drink water...” (Biya)

- (7.25) bɔ́ s̄ù í-[kú dánə]=nó  
 CL2 (A)start PREP.CL5.INF-(C)return (C)go.away=DAT  
 “They started to go back...” (Biya)

### 7.6.1.2 Missong

In Missong, a circumfix  $\dot{N} \dots n̄ə$  marks verbs as an infinitive, and deverbal nouns so formed belong to class 1. The infinitives show a two-way tonal contrast, with infinitives formed from set A verbs contrasting with infinitives formed from set B or C verbs.

Example (7.26) shows agreement between an infinitive noun heading a relative clause and the class 1 determiner, which follows the relative clause.

A	B	C
̀̀-ḡì-̀̀-̀̀ ‘to steal’	̀̀-̀̀-̀̀-̀̀-̀̀ ‘to talk’	̀̀-̀̀-̀̀-̀̀ ‘to sing’
̀̀-̀̀-̀̀-̀̀ ‘to fall’	̀̀-̀̀-̀̀-̀̀ ‘to eat’	̀̀-̀̀-̀̀-̀̀ ‘to contribute’
̀̀-̀̀-̀̀ ‘to cry’	̀̀-̀̀-̀̀-̀̀ ‘to exit’	̀̀-̀̀-̀̀-̀̀ ‘to slice’

Table 7.19: Tone on Missong infinitives. Set B and C verbs merge to contrast with Set A verbs.

- (7.26) ̀̀-̀̀-̀̀-̀̀      dā      ̀̀-̀̀-̀̀-̀̀-̀̀      ná Náj ḡó      ̀̀-̀̀-̀̀-̀̀ á      kèn  
 ISG-(A)like D.NEG CL1.INF-(B)fear-INF REL N. (B)fear Nz. PREP LOC.hand  
 wū  
 CL1.DET  
 “I don’t like the way Nang is afraid of Nzo. [lit. I don’t like the fear  
 that Nang is fearing at Nzo’s hand.]” (Missong)

### 7.6.2 “Disability” constructions

A second type of nominalization process has been attested which is not productive,<sup>19</sup> and is termed a “disability” construction because it is usually used to refer to humans or animals which are in some way malformed or disabled. Despite its marginal function in the grammar over all, the construction attracts some interest since it is the only process whereby a noun may lose its usual class prefix. In this type of construction a verb takes a homorganic nasal prefix, becoming a class 1/2 noun. It is followed by another noun, which always refers to a body part, which is generally lacking its noun class prefix. This construction has only been attested for three verbs, meaning ‘cut off’, ‘break’, and ‘lock/block’, and so I cannot state with certainty generalizations about the tone of the nominalized verb in this construction. Furthermore, the construction is only attested in elicited sentences.

From example (7.27)–(7.28) it can be seen that the nominalized verb has its plural in class 2, from which I deduce that it has singular class 1 (concord data is not available). In these two examples, the body part noun exceptionally has its

<sup>19</sup>The construction is found at least in Biya and Munken. Investigation has not been made for other dialects.



prefix.

(7.27)  $\bar{m}$ -bâŋ                      bí-tóŋ  
 CL1.NMLZ2-lock.IRR CL8-ear  
 ‘deaf person’ (Biya)

(7.28)  $b\bar{a}$ -m-bâŋ                      bí-tóŋ  
 CL2-NMLZ2-lock.IRR CL8-ear  
 ‘deaf people’ (Biya)

Examples of “disability” constructions where the body part noun lacks its prefix are given in (7.29)–(7.34).

(7.29) ìŋ-kəm                      ø-kūsə  
 CL1.NMLZ2-break leg  
 ‘a broken leg’ / ‘an amputee’ (Biya)

(7.30) ìŋ-gbò                      ø-fē  
 CL1.NMLZ2-cut.off head  
 ‘severed head’ / ‘person with no head’ / ‘senseless person’ (Biya)

(7.31) ìŋ-kəm                      ø-kpāsē  
 CL1.NMLZ2-break horn  
 ‘a broken horn’ / ‘animal with broken horn’ (Biya)

(7.32)  $\bar{m}$ -bâŋ                      ø-ŋí  
 CL1.NMLZ2-lock nostril  
 ‘smelling-impaired person’ (Biya)

(7.33) ìŋ-kəm                      ø-dzěŋ  
 CL1.NMLZ2-break tooth  
 ‘broken teeth’ / ‘person with broken teeth’ (Munken)

(7.34) ìŋ-kpò                      ø-fí  
 CL1.NMLZ2-cut.off hair  
 ‘a barber’ (Munken)

The lack of prefixes on the body part nouns in the disability construction is reminiscent of the lack of prefixes on postpositions as compared with the body

part nouns with which they are historically related. Most of the body part nouns in the disability construction, however, do not have corresponding postpositions, so it is not advisable to treat the prefixless nouns in the disability construction as postpositions. Since the verbs are analyzed as being nominalized, treating the body part terms as nouns would make the full construction analyzable as a type of exocentric noun-noun compound.

## Chapter 8

# The verbal core

### 8.1 Introduction

The verbal core is the part of the clause containing a contiguous block of one or more verbs. This chapter is concerned with the semantic organization of constructions involving a block of at least two verbs, as in (8.1) (verbs enclosed in square brackets), referred to as serial verb constructions (SVCs).

- (8.1) ù [tɛŋ            nâm]            ū-kwân=ná  
CL1 (A)climb.IPFV (B)be.furtive.IPFV CL3-tree=DAT  
“... [then] he secretly climbs into a tree...” (Missong)

In the remainder of this introductory section, terminological clarifications are made concerning the distinction between the terms ‘verbal core’ and ‘verbal complex’ (§ 8.1.1), and between the terms ‘asymmetric’ and ‘symmetric’ as they apply to SVCs (§ 8.1.2). Work by Kießling (2004, 2011)<sup>1</sup> on verb serialisation in Isu influences the overall organization of the remaining sections: a broad formal split

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<sup>1</sup> Kießling’s work itself, though including a fairly comprehensive literature review, draws significantly on the typology presented in Aikhenvald (2003, 2006).

is made between asymmetric and symmetric SVCs (§ 8.2 and § 8.3, respectively), and then an effort is made to catalogue the most important functions carried out by each type of construction. The similarity is partly due to a desire to emulate Kießling's style of description, but also for the reason that many of the structures and meanings found in Isu verb serialization are also witnessed by Mungbam. The main point of departure from Isu is the larger role played by symmetric SVCs, which are largely lacking in Isu.

### 8.1.1 Verbal core and verbal complex

As has been recognized for various other languages (cf. Van Valin (2005: §3.5)), the concept “verb phrase” as it is used in generative grammar (referring to the verb(s) and non-subject arguments) is not effective as a descriptive category for Mungbam syntax. This term will be avoided so as to prevent confusion about its meaning. The term verbal complex, (based somewhat loosely on the term *Verbalkomplex* in the German grammar tradition) will be used to refer to the tense/polarity markers and the verb(s) in a basic clause. The term verbal core is used to refer to the verbs alone.

When containing more than one verbal element, the verbal core forms the predicate in what is usually referred to as a nuclear serialisation construction (Foley and Olson, 1985: §3.2).

### 8.1.2 Symmetric and asymmetric SVCs

Aikhenvald (2006), though not necessarily their point of origin, collects several terminological distinctions which have since gained currency; and introduces descriptive conventions which are well-confirmed and generally useful across a large number of unrelated and typologically distinct languages.

The most important of these in the present chapter is the distinction between symmetric and asymmetric SVCs (2006: §3.1). Aikhenvald's labels correspond quite closely to Bamgbose's (1974: §§ 3, 6) distinction between linking and modifying SVCs, but the former pair of terms have recently become widespread, and are for this reason preferred. Aikhenvald (2006) provides a list of properties which distinguish symmetric and asymmetric SVCs, summarized here in table 8.1.

SYMMETRIC	ASYMMETRIC
Consist of two verbs from grammatically unrestricted classes.	Consist of one verb from a relatively unrestricted class (the 'major' <sup>2</sup> verb), and another from a semantically or grammatically restricted class (the 'minor' verb).
Order of components tends to be iconic.	Order of verbs need not be iconic.
Verbs have equal semantic status.	The major verb is the semantic 'head', while the minor verb provides a modifying meaning.

Table 8.1: Properties of symmetric vs. asymmetric SVCs (Aikhenvald, 2006: 21–2).

Aikhenvald's framework would probably not be helpful in classifying constructions of particular languages, if the descriptions in table 8.1 were taken to be reliable diagnostics for assessing symmetry or asymmetry in serial verb constructions. One issue is that insofar as the three criteria could be independently diagnosed, there is no *a priori* reason why a hybrid type (e.g., a SVC whose semantic head came from a grammatically restricted class) could not exist. A second, more problematic issue concerns the possibility of diagnosing in a consistent way properties such as lexical class membership, iconicity, and semantic constituency.

However, criticism of the system along these lines would probably not be very

<sup>2</sup> Aikhenvald (2006: 22) attributes the terms 'major' and 'minor' to Durie (1997). I cannot, however, find those terms in Durie's work. Durie (1997: 309, 324–5) instead uses the terms 'free' and 'fixed', respectively, which he claims to take over from Sebba (1987). Durie (1997: 302) does, however, appear to be the origin of the distinction between 'contiguous' and 'non-contiguous' verb-sequencing, which Aikhenvald employs.

fruitful when its ultimate function is taken into account. In a description such as the present one, it is most convenient to treat syntactic topics with a “function-to-form” orientation (Noonan, 2005: 120). This means that individual SVCs should be presented according to their function. It is desirable, then, for all SVCs expressing direction, for example, to be described together. With such a motivation, it is not as important for all SVCs within one functional category to pass whatever diagnostics be proposed; the best that can be hoped for is that a diagnostic, at an intuitive level, is consistent with the majority of examples within a functional category.

Aikhenvald’s two-way division (and those of earlier authors) is probably best considered as a higher order grouping intended to divide a larger number of functional categories into two larger groups. This is to say that the classification is a bottom-up one which has been presented as if it were top-down.

<u>Types of asymmetric SVCs</u>	<u>Types of symmetric SVCs</u>
<ul style="list-style-type: none"> <li>• Direction and orientation</li> <li>• Aspect, extent, change of state</li> <li>• Complementization</li> <li>• Valency changing</li> <li>• Comparatives</li> <li>• Event-argument</li> </ul>	<ul style="list-style-type: none"> <li>• Sequential actions</li> <li>• Cause-effect</li> <li>• Manner</li> <li>• Synonymous verb serialization</li> </ul>

Table 8.2: Sub-classes of symmetric and asymmetric SVCs, following Aikhenvald (2006: §§ 3.2–3).

I think that the high-level properties attributed to symmetric and asymmetric SVCs flow from typical encoding strategies suited to the lower-level functional groups; they are generalizations over semantic properties which tend to correlate with each other.

For my own part, I tend to consider an SVC as being symmetric or asymmetric based on its function, using the groupings in table 8.2. The only formal diagnostic that I employ with any frequency is one for determining whether a verb is a minor coverb,<sup>3</sup> following Bamgbose's (1974: 40) description of 'modifying verbs' (= minor verbs): "... verbs which have a different kind of function in the serial verbal construction as compared with their function in a minimal sentence."

One note which should be made about minor verbs, following earlier commentators such as Bamgbose (1974: §8) and Crowley (1987: 79–82), is to recognize the verbal status of minor verbs and avoid traditional labels such as 'adverb', 'preposition' and 'auxiliary', which, though they may be helpful in designating translation equivalents for these categories in European languages, are misleading about the nature of the relevant elements in Mungbam which do not formally differ from the words which are translation equivalents of English verbs.

## 8.2 Asymmetric serial verb constructions

Asymmetric SVCs are those having at least one coverb which is minor, and individual types of asymmetric SVCs can be recognized by the presence of a particular minor coverb associated with that construction.

Minor coverbs often have meanings which are not associated with canonical verbs in the typological sense, but they are by morphological criteria verbs, since they (i) fall into one of the three verbal inflection classes, (ii) can be reduplicated, and (iii) may show vowel ablaut.

A given minor coverb usually appears in a fixed order with respect to the major

<sup>3</sup> Where 'coverb' refers to any of the two or more verbs belonging to the same multi-verb verbal core. Various scholars (e.g., Clark (1975: iii); Amberber et al. (2010: 1)) have used the term in more or less the same way as Aikhenvald (2006) uses the term 'minor verb'. In this chapter, 'minor coverb' can be understood to have the same meaning as the term 'coverb' itself usually does.

verb, either before or after it. Minor coverbs which always come before the major verb are called ‘left-modifying’, while minor coverbs which always come after the major verb are called ‘right-modifying’.

Types of asymmetric SVC covered in this section are summarized in table 8.3.

Construction type	Section
Directionals	§ 8.2.1
Custody transfer	§ 8.2.2
Comparatives	§ 8.2.3
Causation	§ 8.2.4
Aspectuals	§ 8.2.5
Degree and extent	§ 8.2.6
Pragmatic effect	§ 8.2.7

Table 8.3: Asymmetric SVC constructions surveyed in this section.

## 8.2.1 Directionals

Two types of asymmetric SVCs are recognized which have a minor coverb expressing direction. First are those containing a minor coverb of vertical direction (§ 8.2.1.1), and second are those containing a minor coverb of direction with respect to the deictic center (§ 8.2.1.2).

### 8.2.1.1 Vertical directionals

Vertical directional coverbs are right-modifying, usually appearing at the right edge of the verbal core. Examples (8.2)–(8.3) show vertical directionals (underlined>) expressing upward and downward motion, respectively.

- (8.2) bú nâŋ [tô                              fə    jí-jú]                              kílɔ  
CL2 thus (B)carry.on.shoulder.IPFV (A)off VFOC~(C)ascend.IPFV CL1.scale  
á    fè  
PREP LOC.head  
“Like that they’re picking it [the pig] up [on a shoulder pole] off of the  
scale.” (Missong)



- (8.3) ù-ndĩnə wē [ɲè s̄ə] ... à ɲè wən dànó  
 CL1-female CL1.DET (A)sit (A)descend ... 2SG (A)sit (A)lie.down D.NEG.FRUST  
 b̄ə m̄ə  
 COM 1SG  
 ‘The woman sat down [refusing to move, saying] ‘If you won’t sleep with  
 me. . . ’” (Biya)

Verbs which function as vertical directionals in asymmetric SVCs may also function as major verbs, as they do in (8.4)–(8.6). These verbs (both in major and minor capacities) are especially frequent in all genres of speech since descriptions of terrestrial motion must be specified as to whether the motion is upward, downward, or on flat land.

- (8.4) wán wù mà b̄ɛɛ k̄ə mù [s̄ə]=ā  
 CL1.child CL1 then (B)exit (A)go then.CL1 (A)descend=PRF  
 f̄ə-mfj̄ən  
 CL16-stream  
 ‘The child then came out and went down to the stream.’ (Ngun)
- (8.5) b̄ə-nò [ɲû l̄ə], b̄ə-nò [ɲû  
 CL2-person (C)ascend.IPFV (A)VENT.IPFV CL2-person (C)ascend.IPFV  
 l̄ə]  
 (A)VENT.IPFV  
 ‘People were coming up and coming up.’ (Ngun)
- (8.6) lá s̄ə [ts̄ə] k̄à k̄i-ns̄əm á m̄i, s̄ə k̄ânə  
 as 1PL (A)go.IPFV IPFV CL7-Kinsam<sup>4</sup> PREP LOC.in 1PL (B)hold.IPFV  
 bà-ɲw̄è s̄ə k̄ən  
 CL2-calabash 1PL.LOC.OBJ LOC.hand  
 ‘As we go to Kinsam, we hold our drinking cups in our hands. . . ’ (Mis-  
 song)

The use of vertical directionals is often conventionalized based on general facts about the regional geography and patterns of human settlement and economic activity: settled areas tend to be ‘up’, farms, hunting grounds, and other wild places tend to be ‘down’. Upward motion is associated with returning from work,

<sup>4</sup> A type of women’s dance group.

and downward motion is associated with going to work. A nice example comes from an Ngun narrative, shown in (8.7). Here, the narrator is giving an approximate account of the creation story as found in the book of Genesis. God has formed the earth, and then decides to add sand, carrying it ‘up’ to the earth, even though He is understood to be acting from above.

- (8.7) kó mà dzàn kà, kó mà [kó pĕ] á-cǎŋ  
 CL12 then (A)stay ??, CL12 then (B)hold (C)ascend CL6-sand  
 ūtĕn  
 LOC.ground  
 “He [God] stayed, then He brought up sand on the ground.” (Ngun)

Motion whose goal is expressed with the locative phrase *ūtĕn* ‘on the ground’ typically includes a motion verb expressing *downward* motion, as in (8.8). The oddness of (8.7) from an English perspective might be explained by facts about the geography of Lower Fungom: villages were historically settled on hilltops for defensive purposes. Sand, used for building the foundations of houses, is carried from streams, which are at lower elevations. Sand is therefore conventionally carried ‘up’, regardless of the actual circumstances of its conveyance.

- (8.8) ù-ndĩnə wē ù [tôm sò] wè  
 CL1-female CL1.DET CL1.TOP (B)shoot.IPFV (A)descend.IPFV CL1  
 ūtĕn  
 LOC.ground  
 “The woman is throwing it [the pinioned duck] on the ground.” (Biya)

### 8.2.1.2 Directionals of deictic orientation

Minor coverbs may be used to express real or fictive direction with respect to a deictic center. There are two verbs used for direction away from the center (‘centrifugal’), and one for direction towards the center (‘centripetal’). The first of the two centrifugal directionals is used for direction of a figure away from a

ground that it is not enclosed by or attached to. The verb is glossed ‘off’, which is often an appropriate translation. Examples are given in (8.9)–(8.11).

- (8.9) à díə bó [mē fē] wǎ bó [mà fō]  
 2SG (c)say CL2 (A)take.IRR (A)off.IRR then CL2 (A)take.IPFV (A)off.IPFV  
 “You tell them to remove [the cowpea leaves from the drying mat], they’ll be removing [them].” (Munken)
- (8.10) ɛí-bús ɛí à [kwé ɕí fē]  
 CL19-cat CL19.DET DS (B)catch (B)eat (A)off  
 “The cat caught and ate [the chicks] away.” (Munken)
- (8.11) [mē fē] á-ní kō á fōmō  
 (A)take (A)off CL12-thing CL12.DET PREP.2SG.LOC.OBJ LOC.head  
 “Take the thing [headset microphone] off your head.” (Munken)

The other centrifugal directional, which is especially frequent in texts, is used to describe real or fictive motion of a figure which is attached to or enclosed by the ground. The gloss used here is ‘exit’, though the range of meanings, as will be seen, makes any English gloss not appropriate in all contexts. Several examples are given in (8.12)–(8.15).

- (8.12) ù [kwô wīlō fə<sup>5</sup> bēhɛ lɔ̃]  
 CL1 (B)hold.IPFV (c)peel.IPFV (A)off.IPFV (B)exit.IPFV (A)VENT.IPFV  
 ì-wīlō  
 CL5-skin  
 “He is peeling off the [pig’s] skin [towards himself]. . .” (Munken)
- (8.13) ì-wùŋ jē mō ā-bāha nó ù [kân fō bēhɛ]  
 CL9-pig CL9.DET LOC.at CL12-side REL CL1 (B)scrape (A)off (B)exit  
 kō  
 CL12.DET  
 “. . . on the side of the pig that he’s scraping [the hair] off [of]. . .” (Munken)
- (8.14) mù [nám dɛ bēhɛ] kō  
 then.CL1 (B)do.secretly (c)call (B)exit ??  
 “Then she furtively called out [her secret name].” (Ngun)

<sup>5</sup> It is not fully clear how or whether the simultaneous use of ‘off’ and ‘exit’ minor coverbs is pleonastic.

- (8.15) à ì-bí ì [tɛ̀ù bɛ̀hɛ̀ lò] ú-kpé̀ jē  
 DS CL9-dog CL9 (A)look (B)exit (A)VENT CL3-house 9.POSS.PREP  
 m̀ì  
 LOC.at  
 ‘It’s a dog that’s looking out from its house...’ (Biya)

The verb may function as a major verb with a wide range of meanings, typically translatable as ‘come out [from a house]’, ‘appear’, or ‘arrive’. Some examples are given in (8.16)–(8.18).

- (8.16) ɛ̀í-tòòki m̀è [bɛ̀h]=ǎ̀ ɛ̀í m̀è nà̀ŋ fwòlò ú-kpóhò  
 CL19-tortoise then (B)exit=PRF CL19 then (A)go (A)borrow CL3-money  
 mwò ì-wùŋ á k̀è  
 TOP CL9-pig PREP LOC.hand  
 ‘Then tortoise came up (it being his turn at the Njangi<sup>6</sup> house) and went and borrowed money from pig.’ (Munken)
- (8.17) ā-fwánə gbùŋ ì-wùŋ à nà̀ŋ, ɛ̀í [bɛ̀hɛ̀] jē ɛ̀í ú-kpóhò  
 CL6-day all CL9-pig DS (A)go CL19 (B)exit COMP CL19 CL3-money  
 kwè hē  
 (B)hold.IRR S.NEG  
 ‘Every day that pig went [to Tortoise’s house to ask for the money], Tortoise came out [saying] that he didn’t have the money.’ (Munken)
- (8.18) à [bɛ̀h]=ǎ̀ m̄fū ù-n̄ wə̀ b̀ò  
 DS (B)exit=PRF CL1.day CL1-other CL1.DET LOC.at  
 ‘On the next day...’ [lit. It came out on another day] (Biya)

The minor coverb with centripetal directional meaning patterns as a set A verb with form *le* or *lɛ* in Munken, Ngun and Biya, and is not attested as a freestanding lexical verb. Abar lacks this word, using instead the lexical verb translated as ‘come’. Both forms are attested in Missong. Examples (8.19)–(8.20) come

<sup>6</sup> *Njangi* is a type of informal financial institution prevalent throughout the Grassfields community. Members of an *Njangi* meet regularly and at each meeting all of the members must contribute a fixed amount. At each meeting, one member takes all of the money which is contributed, as an interest-free loan which is payed off through the regular contributions. *Njangi* members may also contribute money above their regular contributions, which is to be used to make interest-bearing loans to members. Delinquent members are those who take on their turn but fail to give their regular contributions, or who default on a loan.

from an Abar folk tale and its translation into Munken. Biya, Ngun and Missong examples are given in (8.21)–(8.24). Note that the distinction between *centripetal* defined as ‘direction towards the deictic center’ and *centripetal* defined as ‘direction towards the speaker’ is decided by (8.24), where the ventive coverb refers to direction towards the addressee (the author), who is the topic of discussion.

- (8.19) í-góho sèhe tō kī<sup>7</sup> ɖó è  
 CL4-fire (A)issue(?) (B)come.IPFV CL12.LOC.OBJ LOC.mouth CLSBRK  
 “Fire spewed forth from its [the disembodied head’s] mouth. . .” (Abar)
- (8.20) í-wéhe kwô bēhe lò á jī  
 CL4-fire (c)return.from.bush.IPFV (B)exit.IPFV (A)VENT.IPFV PREP CL5.LOC.OBJ  
 ɖó è  
 LOC.mouth CLSBRK  
 “Fire spewed forth from its [the disembodied head’s] mouth. . .” (Munken)
- (8.21) fí tēu bēhe lò ábān  
 CL19 (A)look.IPFV (B)exit.IPFV (A)VENT.IPFV outside  
 “It [a cat] is looking out to the outside.” (Biya)
- (8.22) mù mà lò bó-tjāŋ bə-tēlō bwē bā-jī  
 then.CL1 (A)take (A)VENT CL2-children CL2-female CL2.DET CL2-four  
 bā-tē  
 CL2-three  
 “Then he brought forth the seven girls. . .” (Ngun)
- (8.23) à lè ɖín~ɖǒŋ lá à bósə tō jā  
 2SG (A)come VFOC~(B)be.good as 2SG (B)exit (B)come thus  
 “You have done well as you have emerged unto [us] like this.” (Missong)
- (8.24) bí-mjé ná sō kà tē, sā lē bī-mbónə  
 CL8-word REL 1PL P3 (c)grow.up.IRR 1PL (A)do.IRR CL8-peaceful.ADJ  
 jī, m-bjāŋ sò lò á bī=ná  
 ?? 1SG-(B)talk.IPFV (A)descend.IPFV (A)VENT.IRR PREP 2SG=DAT  
 “The talking that we grew up with, we did it peacefully, I say to you.”  
 (Missong)

<sup>7</sup> This is aberrant agreement, for the indexed noun *í-fi* ‘CL5-head’. It is not possible to know whether the agreement is for class 12 (which is singular) or class 13 (which is imperalistic).

### 8.2.1.3 Obligatory directional specification

Very frequently, a sentence containing a particular directional coverb will be rejected by consultants in elicitation if the directional verb is removed, suggesting that there are situations where a directional specification is obligatory. An account of exactly when directional verbs (or custody transfer verbs, cf. §8.2.2) are obligatory and when they are optional is not presently available, but some examples given below can illustrate the phenomenon somewhat.

Consider a scenario where a person is being offered a drink. When an already-poured drink is within the listener's reach, but not yet in his hand, there are several possible commands, depending on details of the cup's location with respect to the listener.

- (8.25) m̄ō            m̄ù  
 (A)take.IRR (B)drink.IRR  
 “Take and drink.” [cup is within reach and at the level of the listener's hands, in front of him] (Biya)

- (8.26) m̄ō            j̄ó                    à            m̄ù  
 (A)take.IRR (C)ascend.IRR 2SG.TOP (B)drink.IRR  
 “Take and drink.” [cup is on the floor] (Biya)

- (8.27) m̄ō            s̄ō                    l̄ē            à            m̄ù  
 (A)take.IRR (A)descend.IRR (A)VENT.IRR 2SG.TOP (B)drink.IRR  
 “Take and drink.” [cup is within reach, but listener must reach upwards to take it] (Biya)

- (8.28) m̄ō            l̄ē                    à            m̄ù  
 (A)take.IRR (A)VENT.IRR 2SG (B)drink.IRR  
 “Take and drink.” [cup is to the listener's side, but at the level of his hands] (Biya)

In (8.27)–(8.28) the ventive coverb is required, since, according to my consultants, one must bring the drink back towards his body before drinking it.

### 8.2.2 Custody transfer

In descriptions of events where an agent acts on a theme, the verbal core often must contain a coverb indicating how the theme comes into the agent's custody, and how it leaves the agent's custody. Coverbs fulfilling this role can be termed custody transfer coverbs. While a number of custody transfer coverbs are attested, I will focus on those with the most general meanings, 'take' and 'keep'. In an event description of this type, the absence of a custody transfer coverb usually indicates that no custody transfer took place (because the theme was already in the agent's custody at the outset of the event, because the action was performed without the agent taking custody, because the theme ceased to exist at the end of the event, etc.), and not that the custody transfer event is left unspecified. Continuing with the examples concerning obligatory directionals, it will be noted that in all of (8.25)–(8.28), the custody transfer verb *mə* '(A)take' is obligatory, since the type of event described is one where the drinking cup is not yet in the addressee's custody. The only situation where a simple imperative *mū* 'drink!' is felicitous is a case where the addressee is already holding a drinking cup.

#### 8.2.2.1 Transfer *into* custody 'take', 'catch'

Consider a simple event where a person reports having been scratched by a cat. The literal translation of the English 'A cat scratched me', shown in (8.29) for Biya, is ungrammatical.

- (8.29) \*fī-būs s'ɛŋ mə  
 CL19-cat (B)scratch 1SG  
 intended: A cat scratched me. (Biya)





In a situation where an attendant is pouring drinks for guests, and the guest will take an already-filled cup, the appropriate custody-transfer coverb specifies the action of ‘taking’ the cup from the table or the attendant’s hand, in which case (8.33) is appropriate. If the situation was instead that wine was in the bottle, (8.33) could only mean that the guest was being ordered to drink directly from the serving bottle.

- (8.33) nā            mā<sup>10</sup>            mû  
 (A)go.IRR (A)take.IRR (B)drink.IRR  
 “°Go and drink. [wine is inside of a cup]” (Biya)

There is in fact no single command which can cover both situations, and the literal translation of ‘Go and drink’, (8.31) is rejected by consultants, presumably because it leaves the custody transfer event unspecified.

### 8.2.2.2 Transfer *from* custody, ‘keep’

A verb generically signifying transfer from custody is glossed ‘keep’ (in the sense of ‘keep in a safe place’.) Concerning a verb in Isu with the same gloss, Kießling (2011: 170–1) remarks thus:

...it denotes an action of controlled transfer with an agent causing a patient object to move along a downward path including an intended termination. . . In many instances, however, [it] is reduced to the notion of controlled termination, losing its component of downward orientation. . .

Such a description would be equally valid for Mungbam *wan*<sup>11</sup> ‘(B)keep’ as it is for Isu *ná*. To Kießling’s characterization should be added (at least for Mungbam, though this is consistent with all of the Isu examples in Kießling (2011:170–7))

<sup>10</sup> Sic in field notes. *mā* expected.

<sup>11</sup> In Misson, *wa* (PFV), *waj* (IPFV).

that the verb glossed as ‘keep’ almost always involves controlled transfer to a stationary, non-animate goal, usually with the understanding that the theme will not be further moved from the goal.

Example (8.34) shows the verb being used in the same way as English ‘leave behind, put down’. A more interesting example is (8.35), where *wan* seems to unnecessarily indicate that the person being described has placed a cigarette in his mouth *and left it there* (cigarettes are normally held in the mouth in Lower Fungom as they are everywhere else in the world). Though specific elicitation on this point has not been made, *wan* appears to be obligatory for the description of an event like that described by (8.35).

- (8.34) m̀̀ ǹ̀ nǎŋ̀̀ h̀̀ ì-gobə̀̀ j̀̀ wòŋ̀̀  
 then.CL1 (A)make (B)be.fine (A)descend CL5-body 3SG.POSS (A)squeeze.honey  
 ì-p̀̀ [t̃̀̀ wǎǹ̀] u-waǹ̀ j̀̀ á̀̀  
 CL5-honey (B)come (B)keep CL1-parent.in.law 3SG.POSS PREP  
 kɔ̀̀nə̀̀  
 LOC.compound  
 “Then he fixed up his body<sup>12</sup> and prepared honey beer and came and left it in his in-laws’ compound.” (Biya)
- (8.35) tǎ̀bà̀ ū̀̀ dzó̀̀ ù̀̀ [dzè̀̀ wǎǹ̀]  
 CL1.cigarette CL1.LOC.OBJ LOC.mouth CL1 (A)put (B)keep  
 “A cigarette in his mouth that he has put [there]...” (Munken)

The BowPed stimulus (Bowerman and Pederson, 1992), which contains a number of line drawings depicting still scenes, was used to elicit spacial descriptors in Munken and Biya. Instances of the *wan* are especially frequent in descriptions of the BowPed stimuli, perhaps due to their nature of depicting configurations of objects which have been in many cases manipulated by humans and then left as they are. Examples from the BowPed stimulus are given in (8.36)–(8.40). As

<sup>12</sup>The protagonist in this story uses sorcery to temporarily look like a strong, handsome person with fine clothes.

example (8.36) shows, the custody transfer indicated by *wan* can be metaphorical in nature.

- (8.36) à fē<sup>13</sup> bó [bwín wán sè]  
 DS CL16.DET CL2 (B)write (B)keep (A)descend  
 “That’s why they have written [it] down.” (Munken)
- (8.38) à ù-sù ù-nò bú [nè wán] á kō-ŋwàà kō  
 DS CL3-face CL1-person CL2 (A)make (B)keep PREP CL12-book CL12.DET  
 kō bō  
 CL12.LOC.OBJ LOC.at  
 “It’s a man’s face that has been imprinted [lit. made] on a book.” (Biya)
- (8.39) ŋkè ā-tī è bó [tǎ sǎŋ wán hǎ]  
 CL1.part CL12-tree CLSBRK CL2 (B)fell (C)hang (B)keep (A)descend  
 “... a tree stump, which they have felled [the tree] and left sitting [lit. hanging] [there].” (Munken)
- (8.40) à gbùkan bú [bwèn dè wán] kí-gǔŋ á  
 DS CL1.papaya CL2 (A)pierce (A)put (B)keep CL13-spear PREP  
 mǐ  
 LOC.inside  
 “It’s a papaya that has had spears pierced into it.” (Biya)

In metaphorical use, *wan* is used to indicate that a plan or idea has been fixed or resolved. Three examples of this type of usage are given in (8.41)–(8.43).

- (8.41) ŋkè mú lē [tsām wán] jē cí-tòrkí mē  
 as CL18a P2/3 (B)talk.IRR (B)keep.IRR thus CL19-tortoise then  
 wó=á  
 (C)hear=PRF  
 “As they decided it like that, Tortoise overheard...” (Munken)

<sup>13</sup>The cleft construction with the class 16 spatial deictic in the first clause is from translated ‘That’s why...’, e.g. (from a folk tale where a man and a fish are initially friends but the man goes back on his promise of not killing and eating the fish),

- (8.37) à fē ī-cú jī í nà fǒ-fjǎŋ, í tǎŋ ù-nò,  
 DS CL16.DET CL10-fish CL10.DET CL10 (A)stay.IPFV CL16-stream CL10 (B)see CL1-person  
 í jǎlə  
 CL10 (C)run  
 “That’s why [lit. it’s there that] fish stay in the stream. They see a man and they flee.” (Biya)

- (8.42) bə̀-nè      nó b́ó      [kwàn wán]      bə̀-ló      bē,      bé jà  
 CL2-person REL CL2.DET (A)plan (B)keep CL2-other CL2.DET CL2 thus  
 gbò      bú-tú      mò bū  
 (A)wait.IPFV CL14-day TOP CL14.DET  
 “People who have made plans [against] others, they are awaiting that  
 day.” (Munken)
- (8.43) jā jē      wà ɣ̀kə̀ à      [lè      kwé      wán]=ó  
 thus COMP only as 2SG (A)make (B)hold (B)keep=PRF  
 “So it’s that [your hair appointment] is only as you make it.” (i.e., it’s  
 up to you what time you pick out to come in to get your hair styled)  
 (Munken)

### 8.2.3 Comparatives

Comparatives of intransitive predicates may be formed with a right-modifying minor coverb translatable as ‘surpass’.

- (8.44) à lē [dī                      tɛ̀ā]                      bī-mbūn  
 DS P2 (c)be.many.IRR (A)surpass.IRR CL8-dead.palms  
 “It was dead palms which were more plentiful.” (Ngun)
- (8.45) à [kə̀fə      tɛ̀à      tɛ̀]      nā      wū  
 DS (A)shout (A)pass (B)come mother CL1.DET  
 “It was the woman who shouted the most.”<sup>14</sup> (Abar)

As a major verb, *tɛ̀a* is transitive and may be translated as ‘exceed’.

- (8.46) bé há      tɔ̀ŋ      bɛ̀hɛ      kī-kwé-nó                      mò kī,      bó tɛ̀à  
 CL2 COND (B)count (B)exit CL13-village-CL13 TOP CL13.DET CL2 (A)pass  
 sep ū-wɔ̀n                      ù-nè  
 even CL1-ornaments CL1-person  
 “If they counted up those villages, they would even exceed twenty.”  
 (Munken)

When the verb indicating the attribute of comparison is transitive, a relatively uncommon SVOV constituent order is observed. In an example such as (8.47) it

<sup>14</sup> In this example, the female protagonist is faking shock and surprise at the disappearance of the child that her husband was planning to kill and eat, though she was the one who warned the child to run away.

must be argued that *ɬà* ceases to function as a true verb if the generalization that verbs of a clause are contiguous is to stand. Instead, *ɬà* can be considered as having undergone grammaticalization so that one of its functions is now to introduce additional arguments.

- (8.47) *jē bó-kjǫ̃ bā-wilə bē kwé í-sǫ̃ ɬà í-bàm~bwínsə*  
 COMP CL2-children CL2-white CL2.DET (B)hold CL5-power (A)pass CL10-red  
*jē*  
 CL10.DET  
 “...that the white children (of the fowl) are stronger (lit. have more power than) the red ones...” (Munken)

It might be supposed that a simpler analysis would be to treat *ɬà* as something other than a verb when modifying transitive coverbs as well. The word, however, is attested in reduplicated form, in (8.48), so it clearly does preserve some verbal properties.

- (8.48) *ū-mwɛ̃nə nómò wā nóm ɬà, à gjɛ̃fə ɬì~ɬā kí*  
 CL3-farm TOP CL3.DET (B)fat (A)pass DS (A)long VFOC~(A)pass CL12  
 “That farm is bigger, it’s broader than it [the distance from here to the fence].” (Munken)

### 8.2.4 Causation

There are two basic causation constructions involving the verb translatable as ‘make, do’. One involves a serial verb construction, while the other involves clause linkage.<sup>15</sup> In the serialization version, the semantic role of the causee is restricted: it must be the absolutive argument of the main verb (i.e., the object of a transitive verb or the subject of an intransitive verb; see § 10.10.3). The minor verb (‘give’) is left-modifying.

<sup>15</sup> Clause linkage is discussed in § 12.

- (8.49) Mú kə [lè fĩ] Nǎŋ mē ú-kpɔ̀bə  
 M. P2 (A)make (B)give N. COM CL3-money  
 “°Mu made [somebody] give Nang money.” (≠ “Mu made Nang give [somebody] money...”) (Abar)
- (8.50) Nǎŋ fɔ̀ [nə ɕĩ] í-bwé  
 N. P1 (A)make (B)eat CL10-goat  
 “°Nang made [somebody] eat the goats.” (≠ “Nang made the goats eat.”)  
 (Biya)
- (8.51) Nǎŋ fɔ̀ [nə jálə] í-bwé  
 N. P1 (A)make (C)run CL10-goat  
 “°Nang made the goats run.” (Biya)

The non-serializing, bi-clausal option is to use two linked clauses separated by a particle which is usually best translated as ‘so, thus, as’. This is the only option available for causative constructions where the causee is the subject of a transitive main verb (8.52), but may be used for intransitives as well (8.53) (coordinated clauses enclosed in square brackets).

- (8.52) [Mà àlè nə Nǎŋ] [ŋgə ɕĩ b̄-mēm]  
 M. P2 (A)make N. so (B)eat CL14-fufu  
 “°Ma made Nang eat fufu.” (Biya)
- (8.53) [à nò s̄ə] [s̄ə ŋkə mələ j̄-jé m̄q̄ t̄ən]  
 2SG (A)make 1PL 1PL so (A)sink CL6a-water CL6a.DET LOC.under  
 “You made us sink under the water.” (Ngun)

In (8.53), the object of the first clause and the subject of the second clause are coreferent; and the coordinator is in post-subject position,<sup>16</sup> leading to the scenario where the pronoun referring to the causee appears twice in sequence. In (8.52), the noun *Nǎŋ* is not repeated, leading to an exception of the generalization that subjects are generally not omitted.<sup>17</sup>

In Abar, an overt coordinator is not needed, and in (8.54), a proform is used with the effect of avoiding repetition.

<sup>16</sup> See also discussion on the ‘B’ copula (p. 433 ff.), another word which may appear in the same position.

<sup>17</sup> See § 10 on the omissibility of different argument types.

- (8.54) Mú kà lè      Lāđí ù    tō      ì-bwé    Kúlo=ní  
 M. P1 (A)make L.    CL1 (c)show CL9-goat K.=DAT  
 “Mu made Ladjì show the goat to Kulo.” (Abar)

## 8.2.5 Aspectuals

Grammatically encoded aspectual markings for the perfective-imperfective distinction, as well as the perfect marker, have been presented in §7. There are also quite a few lexical verbs which, when used as a minor coverb, encode other types of more fine-grained aspectual distinctions. Some of these are detailed in the present section.

### 8.2.5.1 Perdial and pernoctal

Like other languages of the Grassfields, Mungbam has two verbs which in a minimal sentence mean ‘pass the day’ and ‘pass the night’. Two common greetings are formed using these verbs.

- (8.55) à    ɛí=ǎà  
 2SG (B)stay.day=PRF.Q.POLAR  
 “Good afternoon. [lit. Have you passed the day?]” (Munken)

- (8.56) à    tsé              gbábà  
 2SG (B)stay.night (B)be.strong.Q.POLAR  
 “Good morning. [lit. Have you passed the night?]” (Munken)

The use of the second verb outside of a greeting is shown in (8.57), where the usual situation of someone passing the night by sleeping applies. In (8.58), however, the same verb is used in a single-verb predicate with reference to a situation where one passes the night by drinking rather than by sleeping.

- (8.57) mà pè á bí-kúŋ=nó à fē ù lē  
 then.DS (A)stay PREP CL8-bed-DAT DS there CL1 P2/3  
 tsē  
 (B)pass.night.IRR  
 “Then it [the recliner] became a bed (lit. beds). That’s where he slept  
 the night.” (Munken)
- (8.58) sā tsé àŋ-kələ sá fē  
 1PL (B)pass.night CL6a-corn.beer 1PL.POSS LOC.head  
 “We pass the night on top of our shah [i.e., we stay up all night drinking  
 corn beer].” (Missong)

When used as minor coverbs, these two verbs are used to indicate a situation where an action has been repeated or consistently carried out for a whole day or a whole night. As (8.59)–(8.61) show, both verbs are left-modifying.

- (8.59) ù-nò nàŋ wē à [cô dzù jîŋ  
 CL1-person TOP CL1.DET DS (B)stay.day.IPFV (A)travel.IPFV (B)stand.still.IPFV  
 dzù] ú wān=nó  
 (A)travel.IPFV PREP.CL1 alone=DAT  
 “The man was just moving around all day by himself.” (Ngun)
- (8.60) m̄-bwél=á sá [cí tsám] jē wàha ì-tsám  
 1SG-BE.TIRED=PRF 1PL.FUT (B)stay.day (B)talk COMP only CL5.INF-(B)talk  
 ì-tsám, ù-nè á tsám tsê dà mī  
 CL5.INF-(B)talk CL1-person NEG (B)talk (C)finish D.NEG Q.POLAR.NEG  
 “I’m tired. We will pass all the day talking just for the sake of talking,  
 Has a person not spoken their all yet?” (Munken)
- (8.61) á-cām mó, mō n-[tsô wèn jōŋ  
 CL12-heart 1SG.POSS 1SG 1SG-(B)stay.night.IPFV (A)sleep.IPFV (C)forget.IPFV  
 sò] dà  
 (A)descend.IPFV D.NEG  
 “My heart, I’m up all night, I can’t manage to sleep a wink. . .” (Munken)

### 8.2.5.2 Progressive

Verbs which, when functioning as main verbs, mean ‘stay, sit’ and ‘go’, function as right-modifying progressive auxiliaries in asymmetric SVCs. Examples from each dialect are given in (8.62)–(8.66).



- (8.62) tsā í-cām jí [tâm ɲà], mǰú ù-nè  
 (A)know.IRR CL5-heart 3SG.POSS (B)shoot (A)stay.IPFV, lest CL1-person  
 ù-l̩ à mè f̩ m̩ á wū k̩  
 CL1-other DS (A)take (A)off 1SG PREP CL1.LOC.OBJ LOC.hand  
 “Who knows if his heart is beating [i.e., he has feelings for me]. May  
 another man not take me from him!” (Munken)
- (8.63) bó [fwâm ɲì~ɲà] jē ù-ndīnə wē ù  
 CL2 (B)struggle.IPFV VFOC~(A)stay COMP CL1-female CL1.DET CL1  
 bí  
 (c)give.birth.IRR  
 “They are struggling that (i.e., they are impatient for) the woman should  
 give birth.” (Biya)
- (8.64) bà-nè bū l̩ ɲj̩ ɲàŋ í-cě  
 CL2-person CL2.DET (A)make.IPFV (B)die.IPFV (A)stay.IPFV CL10-fowl  
 “People are killing fowls.” (Missong)
- (8.65) mù tsóŋ=ǎ fī-mfwēhe fī fī ɕ̩ l̩n bī-nt̩c̩ŋɔ  
 then.CL1 (B)see=PRF CL19-rat CL19.DET CL19 (B)eat.IPFV (A)go CL8-groundnuts  
 bī  
 CL8.DET  
 “Then he saw the rat eating the groundnuts.” (Ngun)
- (8.66) t̩c̩ ð̩ jī à b̩ f̩n í-cěhe k̩úŋ, w̩ [g̩n  
 CL1.wife 3SG.POSS DS (A)B.COP there CL5-fireside LOC.neck CL1 (A)sleep.IPFV  
 l̩nɔ]  
 (A)go.IPFV  
 “His wife was by the fireside, sleeping.” (Abar)

SVCs containing progressive auxiliaries are of very high frequency. The major verb uses of the progressive auxiliaries are also relatively well-attested.

- (8.67) b̩ɣ̩ l̩n̩ m̩ w̩ íd̩ŋ  
 CL2 (A)go COM CL1 LOC.bush  
 “They went with him into the bush.” (Abar)
- (8.68) ɲ̩k̩j̩h̩ n̩ ù ɲ̩ á-sáha n̩ f̩m̩  
 CL1.cooking.pot REL CL1 (A)stay CL6-three.stones CL6.DET LOC.top  
 “The pot that sits on the three stones [used to balance it over the cooking  
 fire].” (Munken)

## 8.2.5.3 Habitual

The verb translatable as ‘sit, stay’, has a different meaning when it is used as a *left-modifying* minor coverb. In such a case, rather than indicating progressive aspect, it indicates that an action is done frequently or habitually.

- (8.69) ǎ á-mjǒ né fī-būs [dzàn ɕô dzàn] ú  
 DS.COP CL12-reason REL CL19-cat (A)stay (B)stay.day (A)stay PREP.CL3.LOC.OBJ  
 kpô  
 LOC.house  
 “That’s why the cat is always staying in the house all the time.” (Ngun)
- (8.70) mō [ɲà kwô] dà m̄fú í-nāŋ  
 1SG (A)stay.IPFV (B)hold.IPFV D.NEG CL1.occasion PREP.CL5.INF-(A)go  
 jí=nó bí-ɲí bjêṁ bī  
 (C)cut.vegetables=DAT CL8-thing DEM.PROX CL8.DET  
 “I usually don’t get the chance to go cut those things [cowpea leaves]...”  
 (Munken)

A corresponding construction is not attested for Abar and Missong. The closest functional correspondent found so far is the verbal-core final particle glossed ‘IPFV’, which seems to signify imperfective aspect generally (cf. § 14.5.1). Two examples are given in (8.71)–(8.72).

- (8.71) bɥó ɲìṅ kò jē ā-bjáŋ jē gbē í-ɲú  
 CL2 (A)fight IPFV COMP CL2-children 2SG.POSS (A)fall.IRR CL8-thing  
 í-bàà tēn  
 CL8-bad LOC.inside  
 “They are fighting that your children fall into bad things.” (Abar)
- (8.72) ɲkè ù jê lè kì fá-ŋkǎṅ, wǎ tó  
 as CL1 (C)ascend (A)VENT IPFV CL16-compound CL1.FUT (B)come  
 pí tâ ìṅ-pī-nò  
 (B)die only CL1.INF-(B)die-INF  
 “As he came up to the compound, he would come and just simply die.”  
 (Missong)

**8.2.5.4 Habitual 2 ‘be strong’**

The verb which as a major verb means ‘be strong’ has a habitual interpretation when acting as a right-modifying minor coverb. Constructions with this coverb are found at least in Munken and Biya. It is not known whether such a use is available in the other three dialects. Two examples from Munken are given in (8.73)–(8.74).

- (8.73) mī à jē à [nà nà gbâbə]  
 OR DS thus DS (A)stay.IPFV (A)stay.IPFV (C)be.strong  
 “...or that’s how it always is...” (Munken)

- (8.74) à jē ásó bē [lò gbâbə]  
 DS thus CL2.Isu CL2.DET (A)do.IPFV (C)be.strong  
 “That’s how the Isu always do...” (Munken)

**8.2.5.5 Experiential perfective ‘see’**

The experiential perfective (cf. Comrie (1976: 58–9)) is used to indicate that a particular event has happened at least once in the past, and is indicated in Mungbam with a right-modifying coverb which otherwise means ‘see’.<sup>18</sup>

- (8.75) mō lō tɛ́ŋ tɛ́ŋ ì-bù  
 1SG P2 (B)see (B)see CL9-chimpanzee  
 “‘I saw a chimpanzee [for the first time].” (Biya)

- (8.76) mō lō mɔ́ɛ tɛ́n~tɛ́ŋ  
 1SG P3 (B)be.pregnant.IRR VFOC~(B)see  
 “‘I have been pregnant before.” (Biya)

- (8.77) *Est-ce que* à fě tsóŋ=ǎ bō-picture à á  
 Q.POLAR.NEG 2SG (B)give (B)see=PRF CL2-picture 2SG.POSS PREP  
 mō=nó  
 1SG=DAT  
 “‘Have you ever given me the pictures of you?” (Munken)

<sup>18</sup> Cf. remarks in Ameka (2008: 169) on this grammaticalization pathway.

The construction is the usual way of indicating that a particular state of affairs has never happened, so the equivalent of English sentences ‘... never...’ are found with the experiential perfective.

- (8.78) wò á-ŋgǝǝ m̀ k̄ á [wó tsóŋ]  
 2SG CL12-story TOP CL12.DET NEG (B)hear (B)see  
 dà  
 D.NEG.Q.POLAR  
 “You’ve never heard the story?” (Munken)

- (8.79) *Mister* Nche dí m̄=nó jē á-ǝ́ á-ló á [ǝ̀ǝ̀]  
 M. N. (c)say 1SG=DAT COMP CL12-thing CL12-other NEG (B)be.good  
 tsóŋ] dàha ǝ̀k̄ b̄-m̄m̄ n̄m̀ b̄ m̄  
 (B)see S.NEG as CL14-fufu TOP CL14.DET LOC.at  
 “Mister Nche told me that nothing can ever be as delicious as that fufu.”  
 (Munken)<sup>19</sup>

### 8.2.5.6 Morative perfective ‘look’

A second type of perfective meaning using a minor coverb of visual perception involves the verb translatable as ‘look, look at’. By itself, this verb means ‘be conscious, be alive’ when used intransitively, and ‘look at’ when used transitively. When used as a perfective minor coverb its best translation is ‘have a chance’. It may be used to indicate that an action happened after some period of waiting which required patience, prototypically when people must take turns to do something. An example such as (8.80) would be used in a situation where daily-wage workers were lining up to collect their pay at the end of a day. Example (8.81) comes from an adaptation of the creation story in the book of Genesis, where the male protagonist meets the first-created woman and only understands the process of mating after some study and practice interacting with her.

<sup>19</sup> Concerning the use of locative phrases to indicate a standard of comparison, as in (8.79), see §10.6.2.

- (8.80) m̄ə l̄ə [n̄ə m̄ə l̄ə t̄ɛ̀] ú-kpáǎf̄ə  
 1SG P2/3 (A)go (A)take (A)VENT (A)look CL3-money  
 “I went and took money [on my turn].” (Biya)
- (8.81) ù-n̄əhe w̄ē m̄ə [s̄ù ts̄óŋ t̄ɛ̀]=ā à j̄ē í-c̄ɔŋə=n̄ó  
 CL1-male CL1.DET then (A)start (B)see (A)look=PRF DS thus PREP.CL5.INF-play=DAT  
 bù-t̄ɔ̀l̄ə  
 COM.CL1-female  
 “The man then eventually started to see how to play with the woman.”  
 (Ngun)

The morative (< *Lat. morari* ‘delay, wait’) perfect is commonly encountered with the sentence-final frustrative particle when an action of fruitless waiting or searching in vain is described.

- (8.82) ɨ̀k̄ə̀ ù [gb̄è t̄ɛ̀] jí b̄ē w̄ə lé  
 as CL1 (A)wait (A)look CL1.mother CL2.POSS CL1.DET FRUST  
 “Having waited fruitlessly for their mother...” (Munken)
- (8.83) b̄ɛ́ dz̄ə w̄è Àl̄ambú Àl̄ambú=ó, b̄ɛ́ [dz̄ə fw̄óm  
 CL2 (c)call.IPFV CL1 A. A.=VOC CL2 (c)call.IPFV (B)struggle.IPFV  
 t̄ɛ̀] m̄ó  
 (A)look.IPFV FRUST  
 “They were calling to her ‘Alambu, Alambu O!’ They were struggling to call to her with no avail.” (Ngun)
- (8.84) b̄ó [ts̄ám t̄ɛ̀]=ā l̄ó  
 CL2 (B)talk (A)look=PRF FRUST  
 “They have spoken [for some time without any sign of agreement].”  
 (Munken)

### 8.2.5.7 ‘just’, ‘very recently’

A left-modifying verb usually translatable as ‘just’ (in the sense of ‘very recently’) appears in a handful of places in the text corpus. Some examples from Munken are given in (8.85)–(8.87).

- (8.85) wán jī nǒ ù [kòhɔ mɛ̃]  
 CL1.child 3SG.POSS REL CL1 (A)just (A)marry  
 “Her child who just got married. . .” (Munken)
- (8.86) n̄-dī bònə, n̄-dī bònə jē m̄-fǒ bēhɛ=nə bō  
 1SG-(c)say (A)prove 1SG-(c)say (A)prove COMP 1SG-P1 (B)exit.IPFV COM  
 n̄sàn, then bí-tsā bī [kòhò sà̀nə]  
 CL1-ligby then CL8-juju CL8.DET (A)just (A)pass  
 “I [would] confess, I [would] confess that I was coming [out of the bushes]  
 with my illicit boyfriend and just then the jujus were passing by.”<sup>20</sup>  
 (Munken)
- (8.87) ù nǒ ù-tɛ̀lɔ ù-l̄ [kòhɔ lè tí] dī Yaoundé,  
 CL1 REL CL1-female CL1-other (A)just (A)make (B)come there Y.  
 à dī wù jē  
 DS (c)say CL1 COMP  
 “. . . the one (friend) who some woman had just had come (i.e., arranged  
 for to come) there from Yaoundé, she said that. . .” (Munken)

### 8.2.5.8 ‘again’, ‘also’

A right-modifying minor verb *ɔ̀wɔ̀* (class A), translatable as ‘again, also’, is not attested as a major verb. Examples are given in (8.88)–(8.91). This verb is often found appearing together with a left-modifying coverb with the same gloss (cf. § 8.2.5.9), in an apparent double marking, as is the case in (8.89)–(8.91).

- (8.88) ù nǒ ù [bī ɔ̀wɔ̀]=ɔ̀ á wò ù-nòmfo  
 CL1 REL CL1 (c)give.birth (A)again=PRF COP CL1.child CL1-male  
 “The one that she bore next was a boy.” (Munken)
- (8.89) ī-cũ jī mī [kòm sù ɔ̀wɔ̀]=ɔ̀  
 CL9-fish CL9.DET then.CL9 (A)again (A)start (A)again=PRF  
 í-jám=nǒ  
 PREP.CL5.INF-sing=DAT  
 “The fish then started singing again.” (Biya)

<sup>20</sup> This example comes from a text where two young women were discussing the case of a married woman who fell ill by coming too close to jujus (ritual dancers representing evil forest spirits) who were performing a dance that women are forbidden to see, but was too ashamed to admit the the reason she had been exposed to the jujus. The speaker in this text states earlier that if it was her, she would swallow her pride and confess rather than risking death from exposure to the jujus. On the gloss *ligby*, see footnote 8, p. 465.

- (8.90) ù [kəm kwé dzòŋ] ù-tə̀lə ù-l̄  
 CL1 (A)again (B)hold (A)again CL1-female CL1-other  
 “He also has another [wife].” (Munken)
- (8.91) kâ [kəm tsəm dzòŋ] jē ā-fwómə nē bú á  
 VET.2SG (A)again (A)speak (A)again thus CL6-days CL6.DET CL14 NEG  
 kpán dà  
 (B)be.sufficient D.NEG  
 “You shouldn’t talk like that anymore, the days [i.e., the season for the  
 annual festival] have not yet reached.” (Munken)

### 8.2.5.9 ‘again’, reversive

Another minor coverb, in this case left-modifying, is also glossed as ‘again’. The semantics of *kəm* appear to be slightly different from *dzòŋ*, as the former is often associated with a reversive meaning. In examples (8.92)–(8.94), the clause containing the SVC with *kəm* has a possible English translation containing the word ‘back’.

- (8.92) ù tí ù cì ù [kəm bʰe lè]  
 CL1 (B)come CL1 (A)want CL1 (A)again (B)exit (A)VENT  
 “Right when he wanted to come back out again...” (Munken)
- (8.93) ì-gòbə cī mē [kəm tʰm bʰŋ kwí]=á  
 CL5-body CL19.POSS then (A)again (B)shoot (B)bind (C)enter=PRF  
 “His [Tortoise’s] body then joined back together.” (Munken)
- (8.94) ɨ̀kə̀ ì nàŋ fwələ, mì [kəm nàŋ fé]=ǎ  
 as CL9 (A)go (A)borrow then.CL9 (A)again (A)go (B)give=PRF  
 “[Pig] having gone and borrowed money, he then went and paid it back.”  
 (Munken)

The coverb is used in a negated clause in (8.95) with a sense of ‘[never] again’.

- (8.95) kû [kəm tsáŋ] hō á-kwē jí bō lá  
 VET.CL1 (A)again (B)see S.NEG CL2-male.friend 3SG.POSS CL2.DET FRUST  
 ǎj  
 no  
 “He didn’t see his friends again? No.” (Abar)

The verb takes a more literal meaning in (8.96), used to indicate literal doubling (folding over) of a pliable object.

- (8.96) ì-bé bò ì tān bēhε-nə ... ì [kàm fàha]  
 CL9-goat (A)want.IPFV CL9 (A)jump.IRR (B)exit-? ... CL9 (A)back (A)fold  
 à-kwèhε nē ídzəmə útónə  
 CL6-foot CL6.DET LOC.behind LOC.ground  
 “The goat wants to jump out...Its has folded its legs behind on the ground.” (Munken)

### 8.2.6 Degree and extent

A number of asymmetric SVCs involve minor coverbs used to express degree or extent.

#### 8.2.6.1 Exhaustive

A verb translatable as ‘be finished, depleted’, appears as a right-modifying minor coverb. Such a verb indicates that an action has been carried out for all members of a group (cf. (8.97)–(8.98)), or has been carried out to completion by virtue of encompassing all parts of a referent (cf. (8.99)). As can be inferred from (8.97)–(8.99), the referent over which the exhaustive coverb has scope is the absolutive argument of the major coverb (i.e., the subject argument of an intransitive verb, or the object argument of a transitive verb). Note that in (8.97)–(8.98) quantification is doubly coded, once with the exhaustive coverb, and again with the nominal modifier *gbùŋ* ‘all’.

- (8.97) bə-nò gbùŋ mà [jêhε kjê] á line wə  
 CL2-person all then (c)stand (c)finish PREP line CL1.LOC.PRO  
 m̄  
 LOC.at  
 “Everyone then stood in a line.” (Ngun)



- (8.98) ɛ́í mà [nòŋhə tsé]=á bí-mjǔ gbùŋ  
 CL19 then (A)think (c)finish=PRF CL8-matter all  
 “He (Tortoise) thought of every option.” (Munken)
- (8.99) ì-wùŋ ì-nìnānə à há ɲè bó [tè tsé]=á  
 CL9-pig CL9-fat.ADJ DS COND (A)stay CL2 (A)undress (c)finish=PRF  
 jǐ  
 CL9  
 “[It’s] a fat pig, they would have finished shaving and washing [lit. un-  
 dressing] it [by now if it weren’t so fat].” (Munken)

### 8.2.6.2 ‘also’

A right-modifying minor coverb translatable as ‘also’ is well-attested. Though its meaning is not prototypically verbal, there are a number of points which suggest that the word in question is morphologically a verb. Firstly, it may take a perfect suffix, as in (8.100).

- (8.100) fí mà [ɲí lə tɛ́í]=ǎ  
 CL19 then (c)ascend (A)VENT (B)also=PRF  
 “He [the small ugly man] also came up.” (Ngun)

The verb is also found in reduplicated form, as in (8.101), and, since it is ablaut-eligible (cf. § 7.2) in all dialects, it can be found in an ablaut form when part of an imperfective clause (8.102).

- (8.101) mà dzàn=ā jē mǎ n̄-[tsám kpé tɛ́í~tɛ́í]  
 then.DS (c)stay=PRF COMP 1SG.FUT 1SG-(B)slap (B)die VFOC~(B)also  
 múŋ wò  
 1SG.DAT 2SG  
 “Then it is that I would also, for myself, strike you and kill you.” (Ngun)
- (8.102) bó [lò ɲà kjǒ] dī ì-kè nêmo  
 CL2 (A)do.IPFV (A)stay.IPFV (B)also.IPFV CL17.DET CL5-basket TOP  
 jē mī  
 CL5.DET LOC.in  
 “They are also doing [it] (placing pieces of fabricated duck) there in the  
 basket.” (Munken)

## 8.2.6.3 ‘excessively’

A left-modifying verb is used to indicate that an action was done excessively, highly frequently, or to a greater than usual extent. For main verbs translatable as English adjectives, the best translation is usually ‘too’, or ‘very’.

- (8.103) ì-çèlǎ      nó dān      jē      [nǒfǎ      gbábǎ]  
 CL5.INF-work REL CL17.here CL5.DET (B)be.excessive (B)be.strong  
 ú-kpǒfǎ  
 CL3-money  
 “The work [i.e., the cost of hired farm labor] here [in Wum] is too expensive.” (Munken)
- (8.104) n̄-[nǒhǎ      gǔ]      jē      tɛ̀ù      í-nā̀ŋ  
 1SG-(B)be.excessive (A)be.lazy COMP (A)look.IPFV PREP.CL5.INF-(A)go  
 jí=nó      ló  
 (A)cut.vegetables=DAT FRUST  
 “I’m too lazy that [I’m] never finding the time to go harvest [cow-pea leaves, which grow fast and must be harvested with frequency].” (Munken)
- (8.105) kǎ      bǔé [nǒfǎ      dzê]      sǎ      jē      sǎ      bǎ-nò  
 VET CL2 (B)be.excessive (c)call 1PL COMP 1PL CL2-person  
 bǎ-jóŋ-ɔ  
 CL2-(c)forget-ADJ  
 “Let them not constantly call us foolish people.” (Ngun)
- (8.106) tɛ̀ù      jī      kǎ dǎ      kǎ      ɨ̀wìn      jē      j̄-[nǎ̀ha  
 CL1.wife 3SG.POSS P1 (c)say.IPFV IPFV DAT.CL1 COMP 1SG-(B)be.excessive  
 kòŋ]      wù      tɛ̀ìn  
 (A)love CL1 very.much  
 “His wife always said that she loved him so.” (Abar)

## 8.2.6.4 ‘lastly’

A coverb translatable as ‘be last’ is used to indicate that the absolutive argument refers to the final member(s) of a larger set. In serial verb constructions employing this verb, the best English translation usually has the adjective ‘last’ modifying

the absolutive noun. Use as a major verb is unattested, but this point was not explored in elicitation.

- (8.107) ù-lē wō [mjù kpàha bɛ́hɛ l̩]  
 CL1-other CL1.DET (A)shave.IPFV (A)be.last.IPFV (B)exit.IPFV (A)VENT.IPFV  
 á-t̩ŋ nē mī  
 CL6-ear CL6.DET LOC.inside  
 “The other one is shaving the last [of the hair] out of the ears.” (Munken)
- (8.108) à [sàŋ kpàha] tám ù-mwə̀nə, à f̩ tí bə̀-ntám  
 DS (A)remain (A)be.last CL1.hour CL1-one 2SG P1 (B)come CL2-hour  
 bā-f̩ n̩  
 CL2-two Q.POLAR.POS  
 “There’s one more hour remaining. You came at two o’clock, right?”  
 (Munken)

### 8.2.7 Coverbs of pragmatic effect

A handful of asymmetric SVCs involve a minor coverb called one of ‘pragmatic effect’, having functions relating to the information structure.

#### 8.2.7.1 ‘just’, ‘simply’

A left-modifying coverb is routinely translated by consultants as ‘just’. It appears to be an appropriate translation both in the sense of ‘suddenly, right now’ (as in (8.109)), and in the more abstract sense of indicating that the situation being referred to is very simply and accurately described by the words having been chosen (as in (8.110)).<sup>21</sup>

- (8.109) ù [t̩ɛ̀n kwô mà jí] ì-ç̩ ì-mwə̀nə  
 CL1 (A)just (B)catch.IPFV (A)take.IPFV (C)ascend CL9-fowl CL9-one  
 “She’s just [now] caught and picked up one fowl.” (Munken)

<sup>21</sup> Though not in the sense where English *just* is used to mean ‘only’.

- (8.110) ǎ [tɛ̀n bjù sò lɔ̀] wò  
 DS.FUT (A)just (C)give.birth.IPFV (A)descend.IPFV (A)VENT.IPFV CL1.child  
 ɕú bɔ̀ɲ lɔ̀ wà bɔ̀ ɲkpàlɔ̀ wɔ̀  
 (C)go.away (B)join (A)VENT.IPFV only COM CL1.placenta CL1.DET  
 “You’ll just deliver the child and it’ll come out forth together with  
 the placenta.” [i.e., there will be no issue of a troublesome afterbirth]  
 (Munken)

As a main verb, the word translates to ‘be lacking’, as (8.111)–(8.112) show.

- (8.111) wù jē à [lè tɛ̀n béhɛ] wà sɔ̀ *waterleaf*  
 CL1 thus DS (A)do (A)lack (B)exit only 1PL *Talinum Triangulare*  
 “It’s the only thing lacking unto us, waterleaf is.” (Munken)
- (8.112) jē à [tɛ̀n] ú-kpóhɔ̀ á wà mɔ̀=nó í-nāɲ=nó  
 COMP DS (A)lack CL3-money PREP CL1.child 1SG=DAT PREP.CL5.INF-(A)go=DAT  
 ú-kpé ā-ɲwàtə  
 CL3-house CL12-book  
 “...that it’s money which is lacking for my child to go to school.”  
 (Munken)

### 8.2.7.2 ‘truly, very much’

A coverb of class A with segmental form *ban* translatable as ‘really, truly’ can be best treated as a lexical resource for placing contrastive focus on the truth value of an assertion. Since, in the examples given in (8.113)–(8.115), the verb, *ban* appears in various positions within the verbal core, it is not clear whether it should be treated as left-modifying or right-modifying.

- (8.113) wéj! bə̀-nè [nàm bàn ɲà] wù  
 EXCL CL2-person (A)work.farm (A)really (A)stay.IPFV CL1  
 “Vae! People are really cultivating it [plots of level land].” (Munken)

- (8.114) *so á-mj' né bō [bàn bō] jē kó dzān*  
 so CL12-thing REL CL2 (A)really (A)want.IPFV COMP CL12 (A)stay.IRR  
*ú-t'óm só wōŋ wē á mē, kó à*  
 CL3-village 1PL.POSS CL1.DEM.PROX CL1.DET PREP LOC.at CL12 DS  
*kó-mj' bē*  
 CL12-thing what  
 “So, what do you really want in this our village? [lit. the thing that you  
 really want to be in our village is which thing?]” (Ngun)

- (8.115) *má n̄-[tsà bàn] dàha mī ù-nè mwò wō,*  
 1SG.NEG 1SG-(A)know (A)really D.NEG whether CL1-person TOP CL1.DET  
*ù-nōmfə wē, à bū-tī ù lè á wè ù-təðlə*  
 CL1-male CL1.DET DS CL14-medicine CL1 (A)do PREP CL1.child CL1-female  
*wē mə*  
 CL1.DET LOC.at  
 “I really don’t know whether that person, the boy, if it’s medicine that  
 he’s used on the girl.” (Munken)

A possibly related form, shown in (8.116) (see also (8.118)–(8.119)), might be analyzed as a reduplicated form of the coverb *ban*.

- (8.116) *m̄-bìm~bānə*  
 ??-VFOC~(A)really  
 “Really??” (Munken)

### 8.2.7.3 Contrastive focus ‘meet’

A right-modifying minor coverb which by itself means ‘meet’ can be used to place contrastive emphasis on some part of the clause. The best examples of its use are subject-focus constructions. It is not well-attested in texts, and I cannot be sure of the full range of constituents which can be contrastively focused through its use. Example (8.117) comes from a folk tale where a group of children go to the farm together, and one of them proposes an agreement whereby anyone who leaves

behind his flute will have to go back alone to retrieve it rather than inconvenience the others to escort him. Later, the one who originally proposed the agreement forgets his flute, and then tries to arouse sympathy in his companions so that he will not have to return alone to retrieve it. Example (8.117) is what another member of the group tells him to remind him that he is not entitled to the group's sympathy. An explanation offered by my consultant for why it is correct to include the coverb *tî* rather than only using the simple subject focus construction *à sóm wè* is that 'The child was behaving as if he was not the one who started the idea.'

- (8.117) à [sóm tî] wè á-ńú kī  
 DS (B)start (C)meet 2SG CL12-thing CL12.DET  
 "You started the matter." (Abar)

- (8.118) í-tsǎ=ńí mbîmbè mī tɛ̀ jī [kòŋ  
 PREP.CL5.INF-(A)know=DAT truly whether CL1.wife 3SG.POSS (A)love  
 tî] wù  
 (C)meet CL1  
 "...in order to truly know whether the wife loved him." (Abar)

The verb is used by itself in (8.119) in forming a question where *mbîmbè* 'truly' is clearly in focus.

- (8.119) à [tî] mbîmbè jē à lè pí ù-nò  
 DS (C)meet truly COMP 2SG (A)make (B)die CL1-person  
 è  
 Q.POLAR  
 "Is it really true that you killed someone?" (Abar)

### 8.3 Symmetric serial verb constructions

This second major section covers symmetric serial verb constructions, which do not involve any coverb designated as minor. Symmetric SVCs covered in this section include those used to represent sequential events (§ 8.3.1), multi-verb expressions

which have non-decomposable semantics (§ 8.3.2), SVCs where one verb represents a result state (§ 8.3.3), and SVCs where one verb indicates the manner in which an event occurred (§ 8.3.4).

### 8.3.1 Sequential events

Symmetric serial verb constructions are often easily decomposable semantically, since the major coverbs represent sequentially occurring events. In (8.120), for example, the bracketed verbal core contains three major coverbs, referring to sequential events whose order is the same as their linear order in the sentence. The final coverb is a minor coverb serving as an progressive aspectual auxiliary. Further examples of sequential event SVCs are given in (8.121)–(8.123).

- (8.120) à nàm bi-kaŋ fē, bə-nè bə-ló [fīn  
 2SG (A)work.farm CL8-ridge there CL2-person CL2-other (B)clear.IPFV  
 bwìnə dzò nàŋkə] jē  
 (A)pierce.IPFV (A)plant.IPFV (A)go.IPFV thus  
 “You form ridges, other people are [instead] clearing, making holes [in  
 the ground] and planting [seeds] like that.” (Munken)
- (8.121) ù dá tɛ̀ù jī=ní jē ǎ ù-nò  
 CL1 (C)say.PREP CL1.wife 3SG.POSS=DAT COMP DS.COP CL1-person  
 wənɔ̄ n-lè pí mə [bù ɕì], à tsà tâ  
 CL1.DEM.PROX 1SG-(A)make (B)die (A)take (A)dig (A)put DS (A)know only  
 mō mō wè  
 1SG COM 2SG  
 “He said to his wife [having shown her a mound of dirt] that it was the  
 man that he had killed and buried, only you and I know.” (Abar)
- (8.122) bú mà ú-tóm mə [ɕô kwàha]  
 CL2 (A)take CL3-village then (C)call (A)gather  
 “They took the village and called and gathered [them].” (Abar)
- (8.123) ā-fwínə gbùŋ bɔ́ [dè ɕó] bí-nú ɕí-ló  
 CL6-day all CL2 (A)cook (B)eat.IPV CL8-thing (B)eat.ADJ  
 “Every day they were cooking and eating food.” (Ngun)

### 8.3.2 Fixed expressions

A large number of serial verb constructions are formed from two verbs which are not easily divided up into major and minor coverb based on their semantics. These have the appearance of institutionalized phrases (Sag et al., 2001: §2.4): the verbal core they form may be to some extent semantically compositional, but the coöccurrence of the two verbs is more frequent than would normally be expected. The following examples by no means exhaust the phenomenon, but should give an idea of the types of complex meanings produced by serializations in Mungbam (usually corresponding to single verbs in English). Since not much is known about the constructions of this type except for their form and translations, examples are prefaced by the English translation of the relevant fixed expression, without any comments.

‘be obstinate’

- (8.124) mō lē dí kòm mō=nó jē wù [jêhe bǎŋ]  
 1SG P3 (C)stay.IRR (A)again 1SG=DAT COMP CL1 (C)stand (B)block  
 jē wà jē  
 COMP only COMP  
 “I thought to myself that he’s going to be obstinate (lit. stand lock)  
 [saying] that it’s only that...” (Munken)

‘drop the matter, abandon’

- (8.125) ɲkà ù tɛi-tɛi kí lē dí wù jē n̄-[tám wàn],<sup>22</sup> Nene  
 as CL1 VFOC~(A)look CL12 P2 (C)say CL1 COMP 1SG-(C)send.IRR (B)keep.IRR  
 nāŋ bòŋ  
 N. (A)go.IRR first  
 “As he looked at it [the problem of school fees], He said that I should  
 just drop [my plans to pay his school fees], that Nene should go [to  
 school] first...” (Munken)

<sup>22</sup> *Wan* is treated above as a minor coverb, though the example is included here since the translation ‘drop the matter, abandon’ is not easily guessed from a verbal core literally translated as ‘send and keep’.



‘inform’

- (8.126) à jē m̄-fǒ b̀ ñ-[dí l̀ànə]  
 DS thus 1SG-P1 (A)want.IPFV 1SG-(C)say.IRR (A)learn.IRR  
 “That’s what I wanted to inform [you] about...” (Munken)

‘eavesdrop’

- (8.127) eí [j̀èlò ŵ] ɣ̀k̀è mú-ɲənə m̄ dí è  
 CL19 (A)be.quiet (C)hear as CL18a-bird CL18a.DET (C)say CLSBRK  
 “He [Tortoise] eavesdropped as the birds spoke.” (Munken)

‘confess, testify’

- (8.128) ñ-[dí b̀ànə], ñ-[dí b̀ànə] jē m̄-fǒ b̀hɛ-nə  
 1SG-(C)say (A)prove 1SG-(C)say (A)prove COMP 1SG-P1 (B)exit.IPFV-??  
 b̄ ñsàn, then bí-tsá b̄ k̀h̀è s̀ànə  
 COM CL1-ligby then CL8-juju CL8.DET (A)just (A)pass  
 “I [would] confess, I [would] confess that I was coming [out of the bushes]  
 with my illicit boyfriend and just then the jujus were passing by.”  
 (Munken)

### 8.3.3 Result state

Symmetric SVCs are found with various intransitive coverbs which indicate the result state of some action. A handful of examples, mostly from elicitation, are shown in (8.129)–(8.133).

‘die’

- (8.129) ì-ɛ̀ l̀è [t̀ù kp̄é] bí-t̄ú  
 CL9-fowl P2 (A)peck (B)die CL8-caterpillar  
 “°The fowl pecked the caterpillars, killing them.” (Biya)

‘fall’

- (8.130) M̀à l̀è [t̄ám gb̀è] N̄́ɲ  
 M. P2/3 (B)slap (A)fall N.  
 “°Ma slapped Nang, making him fall.” (Biya)

‘cry’

- (8.131) wə̀ lə̀ [tɛ́ám dè̀] Nǎŋ  
 CL1 P2/3 (B)slap (A)cry N.  
 “°He slapped Nang, making him cry.” (Biya)

‘be deep’

- (8.132) ù [bù dím] ì-ɕàha  
 CL1 (A)dig (B)deep CL5-hole  
 “He dug a deep hole.” (Abar)

‘be tired’

- (8.133) j̄-ɲè n̄-sān ɲgə̀ à dè gòŋ mə̀ j̄ n̄-[ɕí  
 1SG-(A)stay 1SG-(A)pass.IRR so DS (c)say only 1SG COMP 1SG-(B)eat  
 bú~bwó]  
 VFOC~(B)tired  
 “If I can pass [the exam], I’ll only be saying that I’m tired of eating.”  
 (Biya)

### 8.3.3.1 Custody transfer verb as result state

Example (8.134) could be interpreted with *fjɛfə* ‘blow’ as the major coverb, with the second verb indicating a result state (air being put in the balloon), or it could be interpreted with *dzù* as the major coverb, with the first verb indicating the manner in which air was introduced into the balloon.

- (8.134) à ká-nó bə́-təŋ fjɛfə dzù ú-gbáha á kə̀  
 DS CL12-thing CL2-child (c)blow (A)put.IPFV CL3-air PREP CL12.LOC.OBJ  
 m̄ kə̀  
 LOC.in CL12.DET  
 “It’s the thing that children blow air into.” [i.e., that they put air into  
 by blowing] (Biya)

I prefer the first type of analysis for two reasons: first, coverbs functioning as manner adverbials tend to be right-modifiers, and second, there are other cases of

the verb translated as ‘put’ behaving as a more clear example of a result state, filling the outgoing custody transfer slot where *wan* is often observed (8.135).

- (8.135) η̄ō bɔ́ [bâ    ɕù                    jâɲhə                    kò]  
 as CL2 (B)arrange.in.basket.IPFV (A)put.ipfv (C)quickly.IPFV (A)descend.IPFV  
 n-ɕáha bɔ́                    mwē                    ɪ-tɕòxo                    bī                    mī  
 CL6-corn 3PL.POSS CL6.DET CL8-corn.cage CL8.DET LOC.in  
 “As they rushed to pack their corn down inside of the corn cages...”  
 (Abar)

### 8.3.4 Manner

A number of symmetric SVCs involve one right-modifying coverb which indicates the manner in which an event takes place. Manner coverbs may indicate manner of motion, as in (8.136).

- (8.136) í-ɕé                    í-ló                    á                    bâm                    dà                    í-[dzē    gélo]=nó  
 CL10-fowl CL10-other NEG (c)accept D.NEG PREP.CL5.INF-(A)travel (c)go.around=DAT  
 bì-ɕè                    nó m̀ò  
 COM.CL9-fowl TOP  
 “The other fowls refuse to associate (move around) with that fowl.”  
 (Munken)

Manner verbs not relating strictly to motion are widely attested as well. With verbs of speaking, a right-modifying coverb translatable as ‘get tangled’ is used to indicate that the speech was confusing, unintelligible, or misleading or deceptive, as in (8.137).<sup>23</sup>

<sup>23</sup> The construction seems to be general enough in the region that it is found in Cameroonian Standard English; foreign visitors to Anglophone Cameroon (esp. speakers of American English) are often said to ‘wrap’ when they speak English, meaning that their accent is difficult to understand.

- (8.137) *problem* wā      dà      kəm      ì-sálə-tó=nó,      à      jē  
 problem CL1.DET D.NEG (A)again CL5.INF-(c)decide-INF=DAT DS COMP  
*Christian* nò      wā      [dà      fí-fələ]  
 C.            TOP CL1.DET (c)talk.IPFV VFOC~(c)entangle  
 “The problem [in going to your graduation party] is not in deciding [to go], it’s that Christian is telling [me contradictory and confusing things]. [lit. is talking-tangling]” (Biya)

Another non-motion manner verb is that which by itself means ‘forget’, but as a manner verb is better translated as ‘audaciously, effrontedly’, as in (8.138).

- (8.138) kē ù-nò      ná ù      dé=á      jē ù      [tèŋ      jòŋ]  
 as CL1-person REL CL1 (c)say=PRF COMP CL1 (A)jump.IPFV (c)forget  
 kì      wù  
 IPFV CL1  
 “... as someone who says that he dares to break [lit. jump] it [the law].”  
 (Missong)

A manner coverb translated as ‘quickly’ is shown in examples (8.139)–(8.140).

- (8.139) bé mà [tē      wí      jáŋhə      fē  
 CL2 then (A)clean.IRR (c)bright.IRR (c)quickly.IRR (A)off.IRR  
 bēhɛ]  
 (B)exit.IRR  
 “They should quickly clean [it] off brightening it. [i.e., finish shaving the dark hairs off of the freshly killed pig]” (Munken)
- (8.140) ŋō bɔ́ [bâ      ɕù      jáŋhə      kò]  
 as CL2 (B)arrange.in.basket.IPFV (A)put.IPFV (c)quickly.IPFV (A)descend.IPFV  
 n-ɕáha bɔ́      mwē      í-tɔ̀xó      bī      mī  
 CL6-corn 3PL.POSS CL6.DET CL8-corn.cage CL8.DET LOC.in  
 “As they rushed to pack their corn down inside of the corn cages...”  
 (Abar)

A verb which by itself means ‘hammer, strike’, appears as a manner coverb which can mean alternately ‘quickly’ or ‘firmly’, somewhat like the English word ‘fast’.

It can be both left- and right-modifying. Two examples are given in (8.141)–(8.142).

(8.141) à ɲǎŋ      ì-ɕě̀lə                      [tòmə      nəŋkə] dan j̄an  
 DS (B)be.fine CL5.INF-(A)work (A)hammer (A)go there thus  
 “It’s good [when] the work moves quickly like that.” (Munken)

(8.142) [kwê              tòm]                      ú-jɛnə      ú-kǎ      ntɕèhɛ mī  
 (B)hold.IPFV (A)hammer.IPFV CL3-tail CL3-hand CL3.left LOC.at  
 “[He] holds the tail firmly in his left hand. . .” (Munken)



## Chapter 9

# Other word classes

The present chapter contains discussion of classes of words which are not easily classified as nouns (or their modifiers), verbs, or grammatical words. Section 9.1 discusses postpositions and the formation of what are called here locative phrases. Section 9.2 concerns spatial and temporal deictics. A discussion is presented on the place of certain spatial deictics within the noun class system. Minor word classes such as exclamations, ‘yes’ and ‘no’ words, and ideophones are discussed in §§9.3–9.5.

### 9.1 Postpositions

Mungbam has a medium-sized class of spatial postpositions. Postpositions may head a locative phrase, and within the locative phrase they appear after the noun phrase they modify (henceforth the ‘object’), as in (9.1)–(9.2), where the postpositions are underlined, and their objects are enclosed in square brackets. Postpositions refer to some location in space with respect to the object.

- (9.1)  $\bar{n}$ -tɛ̀n      ɛ̀fə      wà      [mə̃]      jè  
 1SG-(A)just (A)laugh only 1SG.LOC.OBJ LOC.belly  
 ‘I just laughed heartily [lit. in-the-belly-of me].’ (Munken)
- (9.2) ì-ɛ̀ù      jē      [j̄-né]      tì,      à      [kə̃-sāŋ]      á  
 CL9-fish CL9.DET CL6a-water LOC.immersed DS CL12-basket PREP  
 m̀ì  
 LOC.in  
 ‘The fish in the water, it’s in a basket.’ (Biya)
- (9.3) jē      ú-túna      w̄ɛ̀n      wē      [wán],      m̄-bóho  
 COMP CL3-country.sunday<sup>1</sup> CL3.DEM.PROX CL3.DET LOC.on 1SG-(B)want  
 bə̀-nò      gb̀ùŋ      m̄      [fjèhɛ̃]  
 CL2-person all PREP.1SG.LOC.OBJ LOC.compound  
 ‘... that on this sabbath, I want everyone at my compound.’ (Ngun)

Table 9.1 lists the different postpositions attested in each Mungbam dialect. As may be seen by looking at the glosses, most of the postpositions have as their primary meaning a location on some part of the human body.

The postpositions are to a large extent related to lexical nouns (i.e., non-postpositions). Generally, the postposition differs from the noun it is related to in tone, and by its lack of a prefix. In several cases there is no known lexical noun which appears to be cognate with a particular postposition. Table 9.2 gives several Biya postpositions along with their related lexical nouns, and indicates postpositions lacking a known related lexical noun.

Postpositions head a constituent called the locative phrase, which is made of the postposition, its object, and an optional, general purpose preposition *á*. When the locative object is a pronoun, it always comes between the preposition and the postposition, as in (9.4) (locative phrase in square brackets). This ordering is also found with NP locative objects, as in (9.5). With full NP’s, however, the option exists of extraposing the object, so that it appears first in the locative phrase, with the ‘preposition’ occurring immediately before the postposition, as in (9.6).

<sup>1</sup> ‘Country Sunday’, as it is called in Pidgin, refers to a day in the traditional eight day week when people are supposed to abstain from farm work. The day is typically used for organizational meetings, visiting friends and family, and making merry.



Biya	Missong	Munken	Abar	Ngun	gloss
mì	mī	mī	mī	mē	‘contained in’
tì	ntī	tī	tēn	tūn	‘immersed/embedded in’
bò	bā	mà	ṛèn	wán	‘at, on, near, on the surface of’
fē	fē	fōmā	fī	fē	‘on top of, in the head’
bóŋ	gáŋ	mà	gáŋ		‘at the corner/side’
sú	sī	sē	só	sú	‘on the face, in front of’
dzōmā	dzām	dzōmā	dzām	dzōmā	‘on the back/behind’
tōn	lān	tàn	tān	tōn	‘underneath, behind, on the buttocks’
kúŋ	kóŋ	kúŋ	kúŋ	kúŋ	‘around the neck, at perimeter of’
jè	jī	jè	jī		‘in the belly of’
tì	ntī	tī	tēn		‘around the waist of’
ḡʰu / ḡʰsə	dzʰsə	dzʰhe	dzʰhe		‘in the eye of’
kò	kən	kə	kì	kè	‘in the hand of’
kpò	kpè	kpè	kpè	kpò	‘at the house of’
kú	kó	kwé	kú	kwèn	‘in the village/country of’
kōnə	fjàhà	çèhe	fīhu	fjèhe	‘in the compound of’
dzó	dzó	dzó	dzú		‘in the mouth of’
çín	çí	çí	çí		‘around the loins’
ɲí	ɲó		ɲóŋ		‘in/on the nostril’
çàm			çàm	çàm	‘in the middle/heart of’

Table 9.1: Known postpositions for all dialects. Shaded cells indicate missing data.

Noun	Noun gloss	Postposition
		mì (‘in’)
		bò (‘at,on’)
ì-fē	‘CL5-head’	fē
á-çám	‘CL6-heart’	çàm
ú-kán	‘CL3-hand’	kò
ú-kpó	‘CL3-house’	kpò
ī-kúŋ	‘CL5-front of neck’	kúŋ (‘around the neck’)
kó-jé	‘CL12-intestines’	jè
í-ḡéhe	‘CL5-eye’	ḡéhe
ì-dzōm	‘CL5-back’	dzōmā
		dzó (‘in the mouth of’)
ū-sù	‘CL3-face’	sú

Table 9.2: Comparison of postpositions and related nouns in Biya. Shaded cells indicate no known related noun.

- (9.4) bā jàn lē bj̄nhə bē bí [á bā tən]  
 2PL thus P3 (B)dance.IRR COM CL8 PREP 2PL.LOC.OBJ LOC.buttocks  
 “Like that y’all danced with them [wrappers] on your buttocks?” (Munken)

- (9.5) bā bī-tō bú ŋǐ wǎn [á ú-kpó kō-lāŋ wā  
 COM CL8-tree CL2 (B)plant.tree (B)keep PREP CL3-house CL12-law CL3.DET  
 bō]  
 LOC.at  
 “... with a tree that they have planted by the courthouse.” (Biya)

- (9.6) ì-kpūnə mə [bí-mjí bí-ɕún á mī] ná  
 CL5-story 1SG.POSS CL8-word CL8-missong.people PREP LOC.at REL  
 n̄-tsè jē  
 1SG-(A)know CL5.DET  
 “My story in Missong language that I know...” (Missong)

Locative phrases are typically attested as oblique arguments which appear after the verb. Examples where a locative phrase acts as a subject, appearing before the verb, are found, however. One example is given in (9.7). Further discussion on the formation of locative phrases and their role in argument structure is found in § 10.6.

- (9.7) ì-pàm jī mì cí=ā jē “ŋgáŋ, wǎn [á mō  
 CL9-leopard CL9.DET then deny=PRF COMP no wait.IRR PREP 1SG  
 ɕʒisə] tām bōsə ífín  
 eye.LOC clear.IPFV exit.IPFV first  
 “The leopard denied, [saying] ‘No, wait while my eyes are clearing first.’”<sup>2</sup>  
 (Biya)

### 9.1.1 Locative object pronouns

When the locative object is a pronoun, the segmental form of the pronoun is (with the exception of class 2) based on the preverbal pronoun, and the tone is always mid. Comparison of preverbal, independent, and locative object pronouns in Munken are given in table 9.3.

<sup>2</sup> Context: Leopard fell into a dark hole and stayed there for three days, so after being rescued his eyes were not yet adjusted to the sunlight.

	SBJ. AGREEMENT	INDEPENDENT	LOC. OBJ.
1sg	mā . . N̄	mà	mā(N)
1pl	sā	sà	sā
2sg	à	wò	ā
2pl	bā	bà	bā
1	(w)ù	wù	wū
2	bó	bé	bē
3	(w)ú	wú	wū
4/10	(j)í	jí	jī
5/9	(j)ì	jì	jī
6	né	né	nē
6a	mé	mé	mē
8	bí	bí	bī
12/13	kí	kí	kī
14	bú	bú	bū
18a	mú	mú	mū
19	čí	čí	čí

Table 9.3: Comparison of preverbal, independent, and locative object pronouns in Munken.

While systematic data on locative object pronouns is not available for dialects other than Munken, available examples, shown in (9.8)–(9.9), with a second person singular locative object pronoun in Biya examples suggest that the locative object pronouns in other dialects also have their segmental forms based on the preverbal pronouns.

- (9.8) āā                      kpò  
 PREP.2SG.LOC.OBJ LOC.house  
 ‘‘in your house’’ (Biya)

- (9.9) mà    tâ    wò            ù-nò            ī    tí                      tân            kú  
 (A)take only CL1.child CL1-person 2SG (B)come.IPFV (C)abandon COM  
 wù í                                      kpè  
 CL1 PREP.2SG.LOC.OBJ LOC.house  
 ‘‘[You] just marry a person’s child and come and abandon her in your house. . .’’ (Missong)

### 9.1.2 Spatial meanings and the locative phrase

One point which bears discussion at this point is the range of meanings which can be expressed by postpositions. Postpositions provide information about location, and provide no information about direction or motion. When a motion description contains a specification of the direction and the location (initial or terminal) of the motion, location is encoded in the locative phrase (enclosed in square brackets in the following examples), and the direction of motion is encoded in the verbal complex.

In (9.10), for example, a motion event is depicted where there is a direction of motion and an endpoint of the motion. The verb *kwín* ‘(c)enter’ corresponds to the direction of motion, and the locative phrase *úkpó wā mī* ‘in the shell’ corresponds to the endpoint of the motion. In (9.11), on the other hand, a motion event is depicted which has a direction of motion and a source of the motion. Three of the verbs in the verbal complex indicate direction (away, exiting, towards the deictic center), while the source of the motion is indicated by the locative phrase translatable as ‘immersed in the hot water’.<sup>3</sup>

- (9.10) *Tɔrɔki*<sup>4</sup> wā mù dān kwín=á [ú-kpó wā  
 CL1.tortoise CL1.DET then (c)leave (c)enter.PRF CL3-house CL3.DET  
 mī]  
 inside.LOC  
 “Tortoise then retreated into his [shell].” (Biya)

- (9.11) ù mǎ fǎ bǎlǎ lǎ ì-cē [ǎp-né ǎn-sálo  
 CL1 (A)take (A)off (B)exit (A)VENT CL9-fowl CL6a-water CL6a-(c)hot.ADJ  
 mwā ntī]  
 CL6a.DET LOC.immersed  
 “She has taken the fowl out of the hot water.” (Missong)

<sup>3</sup> The gloss ‘immersed’ is chosen since the particular postposition is only used to describe a location either inside of a liquid or buried in a medium such as soil. Simple containment is signaled by a different postposition.

<sup>4</sup> Pidgin word for tortoise (pitch accent is on final syllable). The word also appears with nativized phonology in Biya and Munken as *ɛ̄-tɔ̄ki* ‘CL19-tortoise’.

Example (9.12) also describes a motion event with a source component encoded by a locative phrases and a direction component encoded by a verb (*bɛhɛ* ‘(B)exit’). It additionally includes a manner specification, also encoded by a verb (*gbɛ* ‘(A)fall’).

- (9.12) *ì-fi jē ì gbè bɛ́hɛ [ú dzó]*  
 CL9-meat CL9.DET CL9 (A)fall (B)exit PREP.CL1.LOC.OBJ LOC.mouth  
 “The meat fell out of his mouth.” (Biya)

Since postpositions do not encode direction or manner of motion, it is common to find Mungbam sentences such as (9.13),<sup>5</sup> containing a motion description but lacking a postposition, although their English translations might have prepositions.

- (9.13) *ú-mwèlə ù-tɛ̀d̀lə wə̀ ɲè ɲkà, tɛ̀ kwíɲə ɲkà*  
 CL3-farm CL1-female CL3.DET (A)stay as (A)look.IRR (C)enter.IRR as  
*bī-tī dzəm bī ɲè*  
 CL8-tree DEM.DIST CL8.DET (A)stay  
 “The woman’s farm is like, [hesitates] look over at how those trees are...” (Munken)

Example (9.14) raises a second interesting point of comparison between English and Mungbam. While the English translation uses a single preposition *around* to encode both direction of motion and location of center of motion, there is no adposition in Mungbam translatable as ‘around’. English *around* has a complex lexical meaning: it describes location with respect to a ground and also contains a real or fictive directional component of angular motion about a center. In (9.14), these two meaning components are expressed with separate lexical items: an adposition indicating the location of the ground, and a verb *gee*<sup>6</sup> ‘(C)go around’ indicating the circular motion.

<sup>5</sup> Examples (9.13)–(9.14) both contain descriptions of fictive motion (cf. Talmy (2000a: §2)) rather than actual motion.

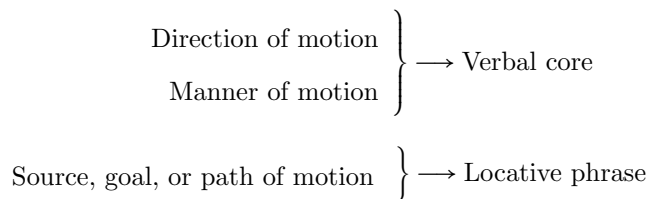
<sup>6</sup> The form *gelə* is also attested.

- (9.14)  $\acute{u}$ -kpě bā ì-kìkǎfə ì tǎm gêe [ú-kpě mwò  
 CL3-house COM CL5-fence CL5 (B)shoot (c)go.around CL3-house TOP  
 mǎ]  
 LOC.at  
 "... a house with a fence that is built around it." [lit. a house with a  
 fence that shoots encircles at the house] (Munken)

A further example is shown in (9.15). Inside of the verbal core are the major verb, *tâm* 'send', and the ventive coverb *lè*. The clause additionally contains a locative argument, *mā mbè* 'at my side'. The English translation, on the other hand, employs a preposition *to* expressing both direction and goal of motion. The two meaning components are separate in Mungbam.

- (9.15) kí tâm lè wù [mā m=bè]  
 CL12 (c)send (A)VENT CL1 1SG.LOC.OBJ 1SG=LOC.ribs  
 "... He (God) sent him to me." (Munken)

The degree to which primitive semantic categories such as MOTION, PATH, FIGURE, GROUND and MANNER are separately encoded has been termed the degree of conceptual separability of motion event subcomponents by Talmy (2000b: 36–7).<sup>7</sup> The division of labor, as it were, between the verbal complex (see §§8.2.1, 8.3.4) and the locative phrase in Mungbam (schematized below) is indicative of a high degree of conceptual separability.



<sup>7</sup> And conversely, 'degree of conflation' has been coined, referring to the extent to which multiple primitive meanings are encoded by a single lexical item.

## 9.2 Spatial and temporal deictics

The present section considers deictics used to refer to relevant portions of space (§9.2.1) or time (§9.2.2).

### 9.2.1 Spatial deictics

Spatial deictics (examples of which are the underlined words in (9.16)–(9.17)) are placed within the general noun class system presented in §5, corresponding to demonstratives and determiners of classes 16 and 17. Section 9.2.1.1 outlines the language-internal and historical evidence for this extension of the noun class system. The semantics of class 16 and 17 spatial deictics is discussed in §9.2.1.2. The coöccurrence of the class 16 determiner with a class 16 or 17 demonstrative is discussed in §9.2.1.3. A prefix of class 16, which can combine with postpositions to create spatial deictics with specialized meaning, is discussed in §9.2.1.4.

(9.16) mō n-tî                      gòŋ á     nān                      á     òsùŋ  
 1SG 1SG-(c)grow.up only PREP CL17.DEM PREP Ngun  
 “I grew up only here in Ngun.” (Biya)

(9.17) kō-kô[n]                      kō-ní     bē     fān  
 CL12-CL12.DEM.PROX CL12-REL what CL16.DEM  
 “What is this here? [lit. This that is what is here]”

#### 9.2.1.1 Extending the noun class system to include ‘locative’ classes

Classes 16 and 17 can be considered as defective members of the noun class system presented in §5. They are defective because they do not play a part in the concord system, as the other classes do. Since no nouns can have a prefix belonging to class

16 or 17 (class 17 does not even have an associated prefix), there is no opportunity for class 16–17 concord in nominal modifiers.

However, there are unmistakable parallels between the class 16–17 forms and the demonstratives and determiners in the other classes. Treating the spatial deictics as being part of the noun class system also facilitates their organization and helps to explain an otherwise puzzling bifurcation in forms, where there are two variants each of the proximal and distal deictics. The relevant forms are organized in table 9.4. “Class 18” is not analyzed as part of the synchronic noun class system, but is included in table 9.4 since it does appear to ultimately derive from PB class 18.

DIALECT	Class 16 forms			Class 17 Forms		Class 18 Forms
	PREFIX	DEM	DET	DEM	DET	Postposition ‘in’
Missong	fǎ-	fān	fā	nōa	tō	mī
Biya	fǎ-	fān	fū	nān	dīn	mì
Ngun	fǎ-	fān	fā	ndēn	dō	mì
Munken	fǎ-	fān	fē	dān	dī	mī
Abar	ǎ-	fān	fwē	tān	tō	mī

Table 9.4: Forms for the putative locative classes, which function as spatial deictics.

Classes 16 and 17 have forms labeled DEM and DET (called ‘demonstrative-like’ and ‘determiner-like’ in the ensuing discussion) because of the phonological correspondence between these categories and the similarly glossed categories for the noun class system proper (cf. §§6.3.3–6.3.4). Like demonstratives in the other noun classes, class 16 and 17 demonstratives consist of a single closed syllable ending in *n*, have a mid tone (as do proximal demonstratives in the inherently low-toned classes), and have an onset consonant which depends on the class. Like determiners in the other noun classes, class 16 and 17 determiners have CV shape, and have a mid tone.<sup>8</sup> Class 16 is also associated with a prefix, whose properties

<sup>8</sup> Recall, however, that Abar determiners in the other noun classes have a low tone.



are discussed in §9.2.1.4.

The identification with PB classes 16–18 is made for three reasons. First are geographic considerations. Maho (1999:197) writes of the Bantu languages that “[e]ven though some languages lack one or two of these three classes [16, 17, and 18], most languages<sup>9</sup> have traces of all three, either as adverbializing prefixes or as full-fledged noun classes...” It is therefore not controversial to expect the closest relatives of the Narrow Bantu languages to also have traces of classes 16–18. Classes 16 and 17 are claimed for the neighboring (non-Narrow Bantu) languages Noni (Hyman, 1981:15–6) and Mundabli (Rebecca Voll p.c.) as well. Second, the phonological correspondences between PB reconstructions and the Mungbam forms are plausible, as the comparison given in table 9.5 suggests. Finally, the Mungbam classes 16–18 are not at odds with the semantics of the PB locative classes. The PB locative classes are reconstructed with proximal, distal, and containment semantics, all of which are found in Mungbam classes 16–18. Complications in the semantics are discussed immediately below.

	MISSONG	PB
16	fā	*pà-
17	tō	*kù-
18	mī	*mù-

Table 9.5: Comparison between Missong ‘DET’ forms and reconstructed PB locative class prefixes (Maho, 1999:51).

### 9.2.1.2 Proximal and distal semantics of classes 16 and 17

One issue with the proposed arrangement of spatial forms into numbered classes is that the semantics do not correspond exactly with the PB reconstructions.

Class 16 is usually reconstructed as a proximal locative class, class 17 as a distal

<sup>9</sup>Including A-zone Bantu languages at the north of the Bantu-Grassfields borderlands (Maho, 1999:198). See also Watters (2003:§3.1.2).

locative class, and class 18 as a ‘containment’ class (Maho, 1999: 51). While the identification of the postposition used to express containment with class 18 is unproblematic from a semantic standpoint, it does not appear to be the case that the class 16 forms are always used for proximal reference and that the class 17 forms are always used for distal reference. Instead, the demonstrative-like forms in both class 16 and class 17 tend to be used for proximal reference. Though not consistent with PB semantics, it is at least consistent with the rest of the noun class system, as the demonstratives with corresponding phonological shape from the other noun classes have proximal meaning. At any rate, some semantic shift is not unexpected when comparing PB reconstructions with the form-meaning correspondences found in contemporary languages.

Examples (9.18)–(9.23), all of which come from speeches, discourse, or prayer (i.e., naturalistic non-narrative data), show the demonstrative-like forms of both class 16 and 17, often preceded by the general-purpose preposition *á*, being used for proximal reference. I have not so far succeeded in determining a clear meaning difference between the class 16 and 17 demonstrative-like deictics.

- (9.18) *tɛɔŋ kó n̄-dzè báha wǎn mō mī, kó-kôn*  
 (B)see.IRR as 1SG-(A)dress (B)spoil (B)keep 1SG.LOC.OBJ LOC.at CL12-CL12.DEM.PROX  
*kō-ní bē fān*  
 CL12-REL what CL16.DEM  
 “Look at how I’m poorly dressed, what kind of thing is this here?”<sup>10</sup>(Biya)

- (9.19) *whether mō ní n̄-lě fānɔ, à mō tàŋ m-mō*  
 or 1SG.TOP REL 1SG-(B)L.COP CL16.DEM 2SG then (A)touch PREP-1SG.LOC.OBJ  
*ŋèn*  
 LOC.at  
 “...or I who am here, you will touch me.” (Abar)

<sup>10</sup> The speaker is complaining to her brother that she has been caught unprepared to be interviewed on camera (mistaking the audio recorder for a video camera), and is upset that she might be filmed wearing work clothes rather than dress clothes.

- (9.20) ì-tù m̩ə gbə̀ŋ gòŋ á nān á nsùŋ  
 CL5-family 1SG.POSS all only PREP CL17.DEM PREP LOC.Ngun  
 “All of my family is only here in Ngun.” (Biya)
- (9.21) ì-c̩èl̩ə n̩ó dān j̩ē n̩ǒf̩ə gb̩á̩b̩ə  
 CL5.INF-(A)work REL CL17.DEM CL5.DET (B)be.excessive (B)be.strong  
 ú-kp̩ǒf̩ə  
 CL3-money  
 “The work here [i.e., the hiring of laborers] is too expensive.” (Munken)
- (9.22) dzóŋ à tá dā bí-ɕ̩ŋ, í-kú á bā á nōa  
 VET DS only D.NEG CL8-missong CL5-raphia PREP LOC.at PREP CL17.DEM  
 kp̩ùŋkp̩ām  
 all  
 “It’s not only Missong, all here in Lower Fungom. . .” (Missong)
- (9.23) bí b̩ěh̩e l̩ə á s̩ō k̩è, bí b̩ǒh̩e l̩ə  
 CL8 (B)exit (A)VENT PREP 1PL.LOC.OBJ LOC.hand CL8 (B)exit (A)VENT  
 á nd̩ēn á s̩ō k̩ə á nd̩ēn  
 PREP CL17.DEM PREP 1PL.LOC.OBJ LOC.hand PREP CL17.DEM  
 “They [laws] came from us, they came from here, from us here.” (Ngun)

As for the determiner-like forms, the class 17 form consistently has distal reference (it can always be translated as ‘there’), while the class 16 forms seems to be unspecified for distance from the deictic center (used by itself it is translated as either ‘here’ or ‘there’, depending on the context). Examples of the class 16 determiner-like deictic are given in (9.24)–(9.27).

- (9.24) b̩jáŋ b̩ún ná pj̩ú f̩ā, à l̩ə  
 CL2.children CL2.DEM.PROX REL (B)die.IPFV CL16.DET 2SG (A)make.IPFV  
 pj̩ú b̩āa bú è  
 (B)die.IPFV 2PL CL2 Q.POLAR  
 “These children that are dying here, y’all are killing them?” (Missong)
- (9.25) w̩ə f̩t̩ g̩òŋ f̩ē ì-ts̩ən á m̩t̩ f̩ē á  
 CL1 (A)work only CL16.DET CL5-road PREP LOC.at CL16.DET PREP  
 Yemgeh, n̩ò  
 Yemgeh, Q.POLAR.POS  
 “She only works there on the road there in Yemgeh, right?” (Biya)

- (9.26) ńgə̀ à fḗ í-éé́ jī́ jí mú jī-ńé,  
 as DS CL16.DET CL10-fowl CL10.DET CL10 (B)drink.IPFV CL6a-water  
 jí tɛ̀ù úɕíɕé bǎ̀ńsə́ jí à kòm mú dzòŋ  
 CL10 (A)look.IPFV up before CL10 DS (A)again (B)drink (A)again  
 “That’s why [lit. it’s from there] when fowls are drinking water, they  
 look up before drinking again.” (Biya)
- (9.27) jḕ ù nāŋ gbā́ ní bḗ á fḗ  
 COMP CL1 (A)go.IRR (A)cut.down.IRR CL1.mother CL2.POSS PREP CL16.DET  
 fǒ-ńcǒŋ<sup>11</sup>  
 CL16-stream  
 “... so that he would go and cut down their mother there at the stream...”  
 (Munken)

Further discussion of the class 16 determiner-like form is below found in § 9.2.1.3.

Examples of the class 17 determiner-like deictic, with reliably distal reference, are given in (9.28)–(9.30).

- (9.28) à ńè à tǰəm ɕǎn ńā́ dīm  
 2SG (A)stay 2SG (A)sew.IRR (A)just.IRR (A)stay.IPFV.IRR CL17.DET  
 “You can just be sewing there [in Munken; speakers are in Wum].”  
 (Biya)
- (9.29) fī-nò fī-bú-bā-lə́ fī-né à lḗ lḗ  
 CL19-person CL19-REDBad-ADJ CL19-other DS P2/3 (B)L.COP.IRR  
 dō  
 CL17.DET  
 “... some small dirty man was there.” (Ngun)
- (9.30) kù tí kpáŋhə́ ɕéń í-séhe í-téí, ú-tóm  
 (c)return (B)come (B)be.correct (c)go.away CL5-place CL5-different CL3-village  
 ú-téí he tṓ í-dùŋ è  
 CL3-different ?? CL17.DET CL5-bush CLS.BRK  
 “[He] came out [of the bush] and went away all the way to a different  
 place, a different village there in the bush.” (Abar)

### 9.2.1.3 More on the class 16 determiner $f\bar{V}$

The determiner-like class 16 particle also patterns syntactically as a determiner since it can immediately follow spatial deictics in the way that concordant deter-

<sup>11</sup> The prefix appearing on this word is discussed below in § 9.2.1.4.

miners follow demonstratives (§6.3.4). In the limited number of examples available, the determiner-like class 16 particle does not appear to have to agree with the preceding demonstrative-like form (it can follow either the class 16 or class 17 demonstrative-like deictic). Some examples are given in (9.31)–(9.34). It is uncertain what additional meaning is introduced with the use of both a class 16 or 17 demonstrative-like deictic and the additional class 16 determiner-like particle.

- (9.31) ù sà̀n mò bú-tù [tū fwē] bí-ḡúḡó  
 CL1.DS (A)pass 1SG CL14-night CL17.there CL16.DET CL8-good.ADJ  
 “And I passed the night fine [i.e., without developing any sickness]...”  
 (Abar)
- (9.32) ù-nò jí à dé jē à bùu ɖì [fāḡ fwē]  
 CL1-person REL 2SG (c)say COMP 2SG (A)dig (A)bury CL16.here CL16.DET  
 lé́ fú-fwē è  
 (B)L.COP RED~where Q  
 “Where is the man that you said that you buried here?” (Abar)
- (9.33) ù-nò ná ù kà gbē fānə fā wū,  
 CL1-person REL CL1 P2/3 (A)establish.IRR CL16.here CL16.DET CL1.DET  
 ù pí  
 CL1 (B)die.IRR  
 “The man who built this place, he died.” (Missong)
- (9.34) ɛ̄-ló mò dé=á jē à ḡǎḡə jē sō sè  
 CL19-other then (c)say=PRF COMP DS (B)good COMP 1PL (A)descend  
 tâm wǎn wù [fān fē]  
 (c)send (B)keep CL1 CL16.here CL16.DET  
 “Another [bird] then said that it’s better that we [fly] down [and] abandon him [Tortoise] here.” (Munken)

#### 9.2.1.4 The class 16 prefix *fV-*

The prefix identified with class 16 (seen above in example (9.27)) can attach to some of the postpositions and a handful of other roots. The particle is glossed ‘CL16’ in examples where it is found. A list of some possible forms exhibiting this prefix is given in table 9.6 for Biya.

IMPERSONAL		RELATED	
LOCATIVE	GLOSS	LEXICAL ITEM	GLOSS
fǝ-tì	‘on the waist’	tì	LOC.waist
fǝ-sú	‘ahead’	sú	LOC.face
fǝ-kúŋ	‘nearby’	kúŋ	LOC.neck
fǝ-ŋí	‘in the nostril’	ŋí	LOC.nostril
fǝ-dzó	‘at the beginning’	dzó	LOC.mouth
fǝ-kǝnə	‘in the compound’	kǝnə	LOC.compound
fǝ-ŋcàm	‘in the middle’	càm	LOC.heart
fǝ-fjǝŋ	‘at the stream’	ú-fjǝŋ	CL3-stream
fǝ-dzù	‘over there (dist.)’	-dzù	DEM.DIST
fǝ-tófə	‘on/near the cooking fire’	??	—

Table 9.6: Impersonal locative phrases in Biya

## 9.2.2 Temporal Deictics

A number of freestanding words are found whose function is to situate the event being described with respect to some specific point in time. They function syntactically as adjuncts, and are allowed some flexibility in their positioning with respect to the verb and its arguments (see §10). Use of temporal deictics allows for a greater degree of specificity in expression of time than does use of the tense system. It is not known the extent to which each of the temporal deictics corresponds in meaning to its English gloss, but the degree of correspondence appears close at the level of superficial scrutiny dedicated to this word class. Examples are given below without comment.

### 9.2.2.1 ‘now’

- (9.35) bí kǝhə sàŋ dǝnə ɨgǝŋgə  
 CL8 (A)just.now (A)pass (C)leave now  
 “They (Jujus) had just then passed and gone away.” (Biya)

- (9.36) baà kàfə ɲkùŋkwa bú kô kà lò  
 2PL (A)shout now CL2 (C)return.from.bush.IPFV IPFV (A)vent.IPFV  
 jã  
 thus  
 “You people are shouting now that they are coming back like this...”  
 (Missong)
- (9.37) à bé bā-tè bó ɲè ú fōmə kóŋkèn bó kân  
 DS CL2 CL2-three CL2 (A)stay PREP LOC.top now CL2 (C)scrape.IPFV  
 ɲà jì  
 (A)stay.IPFV CL9  
 “Now it’s three of them on top cleaning it [the slaughtered pig].” (Munken)

### 9.2.2.2 ‘previously’

- (9.38) ɲkə à kòŋ dā<sup>12</sup> wù è  
 as 2SG (A)love previously CL1 CLSBRK  
 “As you [God] loved him [Jesus]...” (Munken)
- (9.39) bó kəm dōhə là ú-móŋ wə mə ɲkə bé fě  
 CL2 (A)again (A)again L.COP CL3-neck CL3.LOC.OBJ LOC.at as CL2 P1  
 dōhə dā m̄fù ù-lē  
 (A)start previously CL1.time CL1-other  
 “They’ve still started again (shaving hair from the slaughtered pig) on  
 the neck as they had started the other time...” (Munken)

### 9.2.2.3 ‘today’

- (9.40) bjáŋ bú tsè lě<sup>13</sup> ɲá  
 CL2.children CL2.POSS (A)go ?? today  
 “Their children have gone [where] today?” (Missong)
- (9.41) bì-tɛí ñsùn ǎ tsé kú nŋ  
 CL8-juju Ngun DS.FUT (B)stay.overnight (C)return.from.bush today  
 “The Jujus of Ngun will stay the night and come back today...” (Biya)

<sup>12</sup> One committee member notes that by the positioning of the particle, it could be analyzed as a verbal element. Though this question has not been explored specially in elicitation, the particle is for the moment best analyzed as something other than a verb because its tone does not fit into any of the three verbal classes A, B, or C.

<sup>13</sup> From the context, the word *lě* would appear to have a meaning like ‘where’, ‘how’, yet it does not correspond with any of the question words identified in § 15.2. It might be noted that a similar-sounding word in Naki (and probably in Mashi as well) can be translated ‘how’.

- (9.42) ní mǎ dé=á jē ɲɛ̀bǎ bé ɛ̀ì  
 CL1.mother then (c)say=PRF COMP today CL2 (A)work  
 ì-ɛ̀ɛ̀lǎ  
 CL5.INF-(A)work  
 “[Her] mother then said that today they would work. . .” (Munken)

#### 9.2.2.4 ‘yesterday’

- (9.43) ɲ-ɛ̀ì òtù wē à ɲè *Sunday*  
 1SG-(c)say yesterday CL1.DET DS (A)stay Sunday  
 “Wasn’t yesterday Sunday. . .?” (Biya)
- (9.44) bī-mfé mǎ m̄-bò kwé lè òtù  
 CL8-cocoyam 1SG.POSS 1SG-(A)dig (B)catch (A)VENT yesterday  
 ù-lǎ  
 CL1-other  
 “The day before yesterday I dug up my cocoyams.” (Munken)
- (9.45) mǎ nǎ kǎ tsáj kǐ-nǒ àntà kǎ í-ɛ̀ɛ̀sǎ mǎ  
 1SG thus P2 (B)see CL7-thing yesterday COM CL5-eye 1SG.POSS  
 “I saw something yesterday with my [own] eye[s].” (Missong)

#### 9.2.2.5 ‘tomorrow’

- (9.46) nǎɲ dé á tɛ̀ù mǎ=nǒ jē  
 (A)go.IRR (c)say.IRR PREP CL1.wife 1SG.POSS=DAT COMP  
 útǎlǎ  
 tomorrow  
 “. . . tell my wife that tomorrow. . .” (Munken)
- (9.47) *so that* bɛ̀é mè tí dzàn á-táj bɛ̀é-ɲúnǒ útɛ̀lǎ  
 so that CL2 then (B)come (A)stay CL2-children CL2-good tomorrow  
 “. . . so that they will become good children tomorrow.” (Abar)
- (9.48) ù kú-kwé lè ítìlɛ̀ mù tsǒɲ fǐ-mfwéhe  
 CL1 RED~(c)return.from.bush (A)VENT tomorrow then.CL1 (B)see CL19-rat  
 fǐ à ɛ̀í=ǎ bí-ntɛ̀ɔ̀ɲ jí  
 CL19.DET DS (B)eat=PFV CL8-groundnut 3SG.POSS  
 “He will come back the next day and see the rat has eaten his ground-  
 nuts. . .” (Ngun)



### 9.3 Exclamations

Example (9.49) includes three different exclamations. The first, *ɛjé:::*, is used to express general surprise or shock at a situation with negative import.<sup>14</sup> The second exclamation, *háj* is used to express surprise at a difficult situation, especially a difficult contemplated task. The final exclamation, *kò?* is not as familiar to me; my consultants inform me that it means ‘to say ‘chai!’’, where *chai* is an exclamation found in Pidgin<sup>15</sup> used to express grief or surprise at a difficult situation. *Kò?* would appear among the curious group of ‘self-referential’ words with form *X* in various languages, which mean ‘to say ‘X’’.<sup>16</sup>

- (9.49) b́ ɛ́jé::: dà j̄ m̄, m̄ wán school, b́ j̄ b́  
 CL2 (B)see D.NEG COMP 1SG 1SG CL1.child school CL2 (A)stay CL2  
 tám wán ĩ-kāsə ḡ kùmù. ɛ́jé:::, háj! m̄  
 (c)send.IRR (B)keep.IRR 1SG-(A)tie.IRR only one EXCL EXCL 1SG  
 kò?  
 EXCL  
 “They don’t see that I—I’m a school child. They could allow me to tie  
 only one [wrapper on her costume, rather than two]. (Exclamation). I  
 said ‘kò?’ (Biya)

The exclamation in (9.50) is a generic exclamation used in unpleasant situations. It is used in Pidgin, and could conceivably come from some variant of the English ‘Woe!’, or (cognate) German ‘Weh!’.<sup>17</sup>

- (9.50) wéj! ì-gbē j̄ j̄ á m̄ m̄ ó  
 EXCL CL5.INF-(A)see CL5.DET (A)stay PREP 1SG.LOC.OBJ LOC.at PART  
 “Woe! Falling is upon me!” [i.e., I am at serious risk of falling] (Munken)

<sup>14</sup> An exclamation with similar meaning, having a form along the lines of *jékxé:::*, apparently based on a word meaning ‘no’ with similar form in various Bamileké languages, is common throughout the Grassfields. It is unclear of the etymology of the Mungbam expression.

<sup>15</sup> Which, in the spirit of irresponsible etymologizing (cf. Newman (2013)), I propose is derived from Ffulde *kai*.

<sup>16</sup> Cf. English *boo* ‘to say ‘boo’; the Vietnamese verb ‘chào’ ‘to say ‘chào, X’, i.e., to greet X.

<sup>17</sup> Thanks to David Fertig for pointing this German example out.

## 9.4 ‘Yes’ and ‘No’

The words which can serve as one word answers to polar questions, or which can be uttered by themselves as general markers of agreement or disagreement are *n̄m* ‘yes’, *jēs* ‘yes’ (written *yes* in examples), and *ngǎŋ* ‘no’, *ǎj* ‘no’. Examples are given in (9.51)–(9.56).

- (9.51) *yes*, ù ɲè ù nāŋ gǰě̀l̄ə ɲwùŋ  
 yes CL1 (A)stay CL1 (A)go.IRR (A)cook.IRR still  
 “Yes, she can still go and cook.” (Munken)
- (9.52) ìm, ù ɲè dī ī-wē í-lēt̄ē  
 yes CL1 (A)stay there CL4-moon CL4-six  
 “Yes, he stayed there six months.” (Munken)
- (9.53) ɲí m̄ə dé=á jē ngǎŋ  
 CL1.mother then (c)say=PRF COMP no  
 “[Her] mother said ‘No.’ ” (Munken)
- (9.54) jē ngǎŋ ngǎŋ ké ì-çē tǰù dēn wù lá  
 COMP no no VET CL9-fowl (A)peck D.NEG CL1 FRUST  
 “... [saying] that No, no! Let the fowl not peck [me]!” (Abar)<sup>18</sup>
- (9.55) kû kām tsāŋ h̄ə à-kwē jí b̄ə  
 VET.CL1 (A)again.IRR (B)see.IRR S.NEG CL2-friend 3SG.POSS CL2.DET  
 lá ǎj  
 FRUST no  
 “He didn’t see his friends ever again? No.” (Abar)
- (9.56) wǎ ù-nò té à d̄z̄ê, ǎjí jē  
 then CL1-person (B)come DS (c)call no thus  
 “Whenever someone wanted to [try to] call [the secret name], [the answer was] ‘No,’ like that.” (Ngun)

A way of expressing assent is to make a sound that sounds like a gasp, taking in a quick, deep breath through the mouth with the jaws open so that no turbulence

<sup>18</sup> This example comes from a folk tale about a fly who has created a situation of general pandemonium in the animal kingdom, and has been given a death sentence by the humans (with a chicken as executioner). In this example, the fly is not begging for mercy *per se*, but only begging that the punishment not be administered by a woman (a hen).

is generated at the teeth. My main Munken consultant frequently used this sound to indicate to me that I had correctly pronounced a word that I was trying to imitate.

One other type of interjection used to express disagreement should be mentioned here. While there is a verb *tɛim* '(B)tell.lie' which is used, two nouns are used as interjections to signal disagreement with a statement thought to be false: *ú-tɛú* 'mouth', and *í-lám* 'tongue'. Examples from texts are given in (9.57)–(9.58). The use of these words does not seem to be as face-threatening as it would be in English to say *Lies!* when confronted with a doubtful statement.<sup>19</sup>

In (9.58), for example, the speaker is commenting on certain practices said to occur during periods of war, which would have been reported to him by elders.

- (9.57) à fǎ nà wà í-séhe nǎ bó jè mī nē,  
 DS COND (A)stay.IRR only CL5-place REL CL2 (A)stay LOC.in CL6.DET  
 ú-tɛú, wà bə̀-spaghetti, bí-námə bē bī  
 CL3-mouth only CL2-spaghetti CL8-grass CL2.POSS CL8.DET  
 "...if it's only one place where they are, Lies! Only spaghetti, their  
 grasses." (Munken)<sup>20</sup>

- (9.58) then mà n̄-wòŋhŋ ... à bí-mjě í-lám  
 then then 1SG-(A)thing ... DS CL8-thing CL4-tongue  
 "...and I thought it wasn't true." (Missong)

<sup>19</sup> In Pidgin English, the equivalent of a rhetorical tag question (... , isn't it?) is the follow-up question *Na lie?* 'Is it a lie?' (the usual response is *Na so./Na true*. Similarly, Franco-phone Cameroonians are frequently heard to add for emphasis *Est-ce que je mens?* 'Am I lying?' (the usual response being *Non, c'est vrai*. 'No, it's true.'). Such stylistic devices are not face-threatening in the way their English translation equivalents are.

<sup>20</sup> The speaker has begun discussing the difficulties of her husband when he spent six months in England for studies. After saying that real Cameroonian food is exceedingly difficult to find outside of London, she comments on the quality of African restaurants in the provincial towns of England. The example is understood to mean that if there is one restaurant which seems to be the only authentic one, it will still be false, and they will serve spaghetti instead of the various types of wild grasses which are common in Cameroonian dishes.

## 9.5 Ideophones

Although ideophones have not been specifically explored in elicitation, they are relatively frequent in narratives, especially those told by older speakers. The majority of ideophones attested in my texts are imitative in nature, resembling the sound of an event being described:

- (9.59) ù mwô kâkâkâkâkâkâkâkâkâ fî-mfêhe fî ɔ̃ôə bí-ntɛ̀ɔ̃ŋ  
 CL1 (c)hear IDEO CL19-rat CL19.DET (B)eat.IPFV CL8-groundnut  
 bî  
 CL8.DET  
 “He heard the rat loudly eating the groundnuts.” (Ngun)
- (9.60) mē ì-jàŋ ù-nò è ì kpànə hà  
 COM CL5-arm CL1-person CL5.DET CL5 (A)roll.IPFV (A)descend.IPFV  
 tō kôkôkôkôkôkôkô  
 (B)come.IPFV IDEO  
 “... with a person’s arm which was rolling down [the hill].” (Abar)

At least one ideophone has been attested which is not obviously imitative, since it appears to refer to silence.<sup>21</sup>

- (9.61) s̄ə kòŋ ú-ɕûm s̄ó ɲwà m̄́ŋm̄́ŋ  
 1PL (A)like CL3-village 1PL.POSS (A)stay IDEO.silently  
 “We like our village to stay quiet...” (Missong)
- (9.62) m̄ə j̄ɛ̄l̄ t̄â m̄́ŋŋŋŋŋŋŋ  
 1SG (A)be.quiet only IDEO.silently  
 “I should be extremely quiet.” (Abar)

More extensive use of non-imitative ideophones is reported in Mundabli, which routinely uses ideophones to signal the presence of pure, unmixed colors (Rebecca Voll, p.c.). One final comment about ideophones is that they are to some extent conventionalized. The following examples illustrate this with a line from a

<sup>21</sup> A similar ideophone is found in Ngwe in the phrase *ŋaŋ lè ɲóóóóóó* ‘sit very quietly!’ (own notes).

Biya text where the speaker is describing a light but persistent rainfall, and two retellings of the line in Abar and Missong. A different ideophone is used in each dialect.

- (9.63) ì-bù jī ì nò í-séhe í-ní bjábjábjábjábjá  
 CL5-rain CL5.DET CL5 (A)do.IPFV CL5-place CL5-other IDEO  
 tsê jā mī  
 also thus LOC.in  
 “The rain is also making a drizzling sound in some other place.” (Biya)
- (9.64) ì-bù ù mà lànò tâ tēntēúnò tēntēúnò  
 CL5-rain CL5.DET (A)rain.IPFV (A)go.IPFV only IDEO  
 “The rain is only raining and drizzling.” (Abar)
- (9.65) ì-bù jī mè nàŋ í-dzísə jīn  
 CL5-rain CL5.DET (A)rain.IPFV (A)stay.IPFV CL5-place CL5.DEM.PROX  
 á mī tētētᵛáᵛə tētētᵛáᵛə  
 PREP LOC.in IDEO  
 “The rain is raining and drizzling in this place.” (Missong)



## Chapter 10

# Argument structure

The present chapter concerns the encoding of different types of clausal arguments and discusses the different transitivity frames which are commonly attested. There are five types of arguments which are formally distinguished in Mungbam: the two core arguments, subject and object; and the three types of oblique arguments,<sup>1</sup> the comitative, the dative, and the locative.

The presentation of substantive language data is preceded by an introductory discussion clarifying some definitional issues (§ 10.1). Sections 10.2–10.3 identify the main distributional characteristics of subject and object arguments, and touch lightly on the types of semantic roles coded by subjects and objects. Sections 10.5–10.7 outline how comitative, locative, and dative arguments, respectively, are coded, and then make a somewhat more detailed inventory of the functional uses of these kinds of arguments. The presentation of oblique arguments in 10.5–10.7 is preceded by a short discussion on the necessity of doing away with the category ‘adjunct’ in this work (§ 10.4). For convenience, the methods of marking

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<sup>1</sup> Here the term ‘oblique’ is used mostly as in typological literature (e.g., Dryer and Gensler (2011)), though it is additionally understood to mean a type of argument which is marked differently from a subject or an object (cf. Dixon and Aikhenvald (2000)).

the five argument types are given below:

- Subject ( $\emptyset$ -marked, normally appears before the verb).
- Object ( $\emptyset$ -marked, normally appears immediately after the verb)
- Comitative (preceded by a particle glossed COM)
- Dative (optionally preceded by the general-purpose preposition *á*, followed by a dative enclitic)
- Locative (optionally preceded by the general-purpose preposition *á*, followed by one of several possible locative postpositions)

Section 10.8 discusses the basic types of transitivity frames attested in a basic clause: intransitive, transitive, extended intransitive, and extended transitive. Section 10.9 discusses the limited phenomenon of valence alternations, or types of verbal cores which can accommodate two different argument frames. Finally, § 10.10 outlines a method for determining the argument structure properties of complex verbal cores from lexical information proper to each of the individual verbs within a core.

## 10.1 Introduction

At the outset, it will be important to make clear certain assumptions about my choice of terms, since relying on an intuitive understanding of traditional grammatical concepts may lead to fruitless controversy in cases where a particular usage of a term departs from the reader's assumptions about what the term means. The first point is that this chapter deals with the argument structure of verbal predicates. Non-verbal predicates are discussed in § 14. Excluding from the discussion the argument structure properties of non-verbal predicates merely reflects time and space constraints inherent in the present work, and not any sort of assumption



that such properties have no real status in the language.

The second point is that verbal cores (cf. §8.1), rather than individual verbs, are taken to be the argument-licensing units. In analyzing a sentence such as (10.1), for example, it will be convenient to simply state that the verbal core *kú wǎn*, meaning, more or less ‘to transfer something by hand in a controlled manner to a resting place’, licenses a subject, and object, and a locative phrase (in this case), rather than positing a pair of notional atomic argument structures, one associated with each verb, and a means for computing the overall argument structure. At least, the task of proposing such a method of calculation is put off until the end of the chapter (§10.10).

- (10.1) [ù]<sub>SBJ</sub> [kú wǎn]<sub>V</sub> [ā-ŋkjâŋ kə̃]<sub>OBJ</sub> [á wū  
 CL1 (B)hold (B)keep CL12-cap CL12.DET PREP CL1.LOC.OBJ  
 fə̃mə]<sub>LOC</sub>  
 LOC.head  
 “... she has put the cap on her head.” (Munken)

The third point concerns the formal means for diagnosing a particular verbal predicate as intransitive, transitive, etc. Like many other concepts in theoretical linguistics, transitivity is a notion which seems to be relevant to all languages. The morphosyntactic properties associated with transitivity, however, cannot be expected to be consistent across languages. One morphosyntactic property typically used as a diagnostic for transitivity, which is noted for English and most familiar European languages, is that a transitive predicate requires that an object argument be expressed (whether *in situ* or *ex situ*). Many languages of South-east Asia, on the other hand, allow widespread omission of arguments when their reference is inferrable from context. Example (10.2), exemplifying this property for Vietnamese, is excerpted from a dialogue between a mother and a son. The mother is upset with the son because he insists on marrying a woman of low birth,

so the notional object of *giết* ‘kill’ is apparent.

- (10.2) Dẫu mẹ giết, con cũng cam chịu  
 even mother kill child also content suffer  
 “Even if you kill [me], I’ll be willing to suffer.” (Vietnamese; Nguyễn (1997: 260))

If Mungbam were to be compared to one of these familiar languages with respect to its tolerance of omitted arguments, it would be closer to Vietnamese than to English. For concreteness, consider the predicate *kwé ɕí fè* ‘destroy/make disappear by catching and eating’ in example (10.3). Although only one overt argument is present, there are good intuitive reasons for treating the verbal predicate as transitive.

- (10.3) ɕí-bús ɕī à kwé ɕí fè  
 CL19-cat CL19.DET DS (B)catch (B)eat (A)off  
 “The cat caught and ate [the red-colored chicks] up.” (Munken)

When one considers the conceptually-based definitions of transitivity discussed in Hopper and Thompson (1980: 252), it would seem from the context<sup>2</sup> of the text where (10.3) appears that the event depicted would by almost all conceptually-based criteria be strongly transitive. Example (10.3) depicts an action with an agent of high potency which is acting volitionally, and with a patient which is totally affected by the action. As has been argued by Haspelmath (2010), grammatical labels such as ‘transitive’ can only be applied in a specific way across languages if their initial basis is conceptual-semantic. To define transitivity in a language-specific way, I start with a conceptual-semantic characterization of the notion which can be applied regardless of the language, and then look for specific

<sup>2</sup> Two Munken-speaking women are conversing naturally while observing a fowl move around the compound with three white chicks which were about two weeks old. They both knew, from having visited the compound regularly during the preceding weeks, that the original number of hatchlings was nine, most of which were red in color, and the remainder white in color. It was common knowledge that the reason the number of chicks had been steadily decreasing was that a cat had been entering the compound at night and catching the chicks.

morphosyntactic criteria which can be used to divide predicates into intransitive, transitive, etc. The descriptive terms employed in this work, though they are used in the description of potentially any language whatsoever, do not represent language universals; they instead represent descriptive conventions which have emerged as useful in the course of various comparative studies which have over time taken more and more languages into their scope.<sup>3</sup> While such a position clearly has certain deficiencies, I would counter that my main task is a descriptive one, and to outline a more nuanced position could undermine the accessibility of the work; besides, most readers are not expecting highly nuanced theoretical positions in a standard language description such as the present one.

Coming back to the issue of diagnosing transitivity in Mungbam verbs (or combinations of verbs), a formal guideline which is most in line with my impressionistic use of the conceptual-semantic criteria is that a transitive predicate *can* be followed by an object argument, but that the object may be omitted whenever its reference is inferrable from context or not important. The object may even be omitted when a focused subject occupies its normal position immediately after the verb. Examples (10.4)–(10.5) illustrate the lack of formal difference between an intransitive verb and a transitive verb whose object is omitted.<sup>4</sup>

(10.4) à fǝ kəm m̀̀  
 DS P1 (A)slaughter 1SG  
 “I slaughtered [an animal].” (Munken)

(10.5) à lē gbè m̀̀  
 DS P2 (A)fall 1SG  
 “I fell.” (Munken)

If one were to object that this is a somewhat weak criterion for distinguishing

<sup>3</sup> See on this point remarks in Dixon (1997: §9.2); Dryer (2006a,b); Dixon (2010).

<sup>4</sup> Note that (10.4) could also mean ‘You slaughtered me’, since the dummy subject is homophonous with the preverbal form of the 2sg pronoun. My consultants assure me that, when properly contextualized, (10.4) would not be likely to be misunderstood.

classes of verbs, it could be pointed out that there are areas where the distinction between transitive and intransitive is important. One example concerns the causative serial verb construction. In that construction, the causee must be either the notional intransitive subject of the caused verb, or its object (see § 8.2.4 for examples), but may not be the subject of a transitive verb.

Perhaps a more convincing demonstration of the importance in making the distinction between transitive and intransitive verbs is that there are pairs of verbs which are the same in form, but differ in transitivity, and have different meanings associated with transitive vs. intransitive senses. Two examples are given for Munken in table 10.1.

VERB FORM	INTRANSITIVE MEANING	TRANSITIVE MEANING
(A)wəŋ	‘lie down, sleep’	‘lay down, cause to bend down’
(A)tei	‘be alive, be conscious’	‘look at, wait for’

Table 10.1: Munken verbs with related but distinct intransitive and transitive senses

A slightly more complicated example is a set A verb with form *baŋ* in Abar and Missong, and *bəŋ* in the other dialects.

Subcategorization frame	Translation equivalent
Intransitive	‘say a prayer’
Transitive	‘pray to, greet’
Complement clause	‘be called [name]’

Table 10.2: Different translation equivalents, depending on subcategorization frame.

As for diagnosing a noun phrase as a ‘subject’, ‘object’, etc., a similar point could be made about my procedure: an intuitive, semantic-based understanding of the notions as they apply cross-linguistically is the starting point, and then the formal properties are chosen such that they bring about partition which is most in line with the intuitive understanding of these concepts. Formal means for

distinguishing each of the argument types which have been identified are detailed in the individual sections.

## 10.2 Subject

The subject is a bare NP which immediately precedes the verbal complex, except for when it is focused, in which case it appears in immediately after verb (IAV) position (cf. § 11.2), with the dummy subject particle *à* occupying the preverbal position. The semantics of subject arguments have not been subjected to detailed study, so I limit myself to giving examples concerning the most general and frequent function of subject arguments. A couple of other uses of subject arguments, with more specific semantics, are described in §§10.2.1–10.2.2.

The most typical use of a subject argument is to indicate a sentient agent in an event, as in (10.6). An example of a subject-focus construction, where the subject is in IAV position rather than in the topic field, is given in (10.7).

- (10.6) [eí-tǝki]      mǝ wǎn      hǝ      ú-kpǝhǝ      útǝnǝ  
 CL19-tortoise then (B)keep (A)descend CL3-money LOC.ground  
 “Tortoise then set the money down...” (Munken)

- (10.7) à sǝm      tǝ      [wǝ] á-ǝí      kǝ  
 DS (B)start (C)meet 2SG CL12-thing CL12.DET  
 “You started the matter.” (Abar)

### 10.2.1 Bodily sensation events

When a clause refers to a bodily sensation such as hunger, thirst, or sickness, the experiencer is generally not encoded as a subject, as would be the case in English. For events of hunger or thirst, a fixed impersonal subject, translatable as ‘hunger’ or ‘thirst’, as in (10.8)–(10.9), is used, and the experiencer is encoded as an object.

The verb meaning ‘eat’ stands in as the verbal predicate.<sup>5</sup> Examples such as (10.8)–(10.9) suggest a restricted form of split semantic alignment (Wichmann, 2008), not usually remarked upon for African languages.

- (10.8) wǎ [í-ǝ́hɛ òdù nò wǎ] á kòm ɕû  
 then CL5-thirst CL1.dress TOP CL1.DET NEG (A)again (B)eat.IPFV  
 dà  
 D.NEG  
 “Thirst for that that dress does not eat [me] anymore. (i.e., I no longer feel any longing to wear that dress.) (Biya)
- (10.9) n̄-ɕù nàŋkə jânə kó [í-ɕân] ɕû m̀  
 1SG-(A)look.IPFV (A)go.IPFV thus VET CL5-hunger (B)eat.IPFV 1SG  
 ló  
 FRUST  
 “[As] I’m looking [at my crops] like this, hunger cannot eat me.” [i.e., I do not fear going hungry] (Munken)

In indicating that a person is sick, a verb meaning ‘be sick’ is used. If the nature of the sickness is not specified, an experiencer subject is used, as in (10.10). If, however, a particular part of the body is indicated as being the source of sickness, the body part is encoded as a subject, with the experiencer as object, as in (10.11)–(10.12).

- (10.10) ù ŋí~ŋǎfə nò  
 CL1 VFOC~(B)sick Q.POLAR.POS  
 “She was sick, right?” (Biya)
- (10.11) jē kə-jǝ́hɔ jí ŋâha ǹ~n̄ wù  
 COMP CL12-jaw 3SG.POSS (B)sick.IPFV VFOC~(A)go CL1  
 “... that his jaw was sick. [lit. that his jaw was sicking him]” (Biya)

<sup>5</sup> Another interesting case is Vietnamese, which uses an idiomatic object for expressions of hunger or thirst: ‘be thirsty’ is translated as khát nước (lit. thirst water), and ‘be hungry’ is translated as đói bụng (lit. hunger stomach).

- (10.12) ù dé=á jí-nó jē à-kwèhè jí tèn  
 CL1 (c)say=PRF CL1.mother-DAT COMP CL6-foot 3SG.POSS LOC.under  
 nâfə jû lə wù  
 (B)sick.IPFV (c)ascend.IPFV (A)VENT.IPFV CL1  
 “She told [her] mother that the soles of her feet were paining her.”  
 (Munken)

### 10.2.2 Telling time

For expressions indicating what time of day it is, the indicated hour is encoded as a subject, and a verb translatable as ‘be correct, sufficient’ is used as an idiomatic predicate. This contrasts with English, which encodes the hour or day as the complement of a copula with an expletive subject (e.g., *It’s six o’clock*, *It’s not yet time*). Some examples are given in (10.13)–(10.15), the latter of which contains a subject-focus construction.

- (10.13) *time* ù kpán lè á bú-çôn  
 CL1.time CL1 (B)correct (A)VENT PREP CL14-cowpea.leaves  
 bwân=nó  
 CL14.DEM.PROX=DAT  
 “It’s time for [planting and harvesting] cowpea leaves.” (Munken)
- (10.14) ñtām kúmù ù kpáa  
 CL1.hour one CL1 (A)correct  
 “<sup>◊</sup>It’s one o’clock.” (Missong)
- (10.15) sā móŋ, and à tsè kpáa bà-ntām bā-lètè, sā  
 1PL (B)dance and DS (A)go (A)correct CL2-hour CL2-six 1PL  
 wíhi  
 (A)scatter  
 “We dance, then at six o’clock we disperse. . .” (Missong)

## 10.3 Object

The object argument is a bare NP which appears in IAV position in a clause which is not specially marked for focus. In a subject-focus construction, where

the subject argument is in IAV position, the object follows the subject. When the verb is in focus, the object may be optionally defocalized by dislocating it to preverbal position (following the subject). These three options are illustrated in (10.16)–(10.17).

- (10.16) ù bí=á [wán ù-nǎmfə]  
 CL1 (c)give.birth=PRF CL1.child CL1-male  
 “She gave birth to a son.” (Munken)
- (10.17) à nì mwé [Nǎŋ] í-bú mɛɛ  
 DS (A)go (B)beat N. CL10-dog 1SG.POSS.CL10.DET  
 “°Nang beat my dogs.” (Abar)
- (10.18) Nǎŋ [í-wúŋə mɔ́] tsín-tsámə  
 N. CL10-pig 1SG.POSS VFOC~(B)beat  
 “°Nang beat my pigs.” (Munken)

As discussed in § 11.2.5, both subjects and objects may be partly focused or defocused, leading to discontinuous constituency.

- (10.19) ú-kôn bŭ-kŭm kì-kām, bú ì-pí bôho  
 CL3-hand CL1.cottonwood VFOC~(A)break CL2 CL5-death (B)ask.IPFV  
 ì-mān  
 CL5-which  
 “The cottonwood bough has broken, which kind of death are they asking for?” (Missong)<sup>6</sup>

Some other functions of objects are briefly presented in §§10.3.1–10.3.2.

### 10.3.1 Recipient and theme

In a clause describing a transfer-of-possession event, the object may encode either the recipient or the theme, as in (10.20)–(10.21), respectively. This double func-

<sup>6</sup> This sentence comes from a ritual war song. The cottonwood bough breaking is a reference to the death of a chief. The phrase translated ‘which kind of death’ can be interpreted as ‘which types of funeral activities’. Taken as a whole, the verse suggests the anticipation of war during an interregnum period, especially if a chief has died wrongfully.



tional possibility for objects is a result of the valence alternation to be discussed in § 10.9.

- (10.20) tsē wāha tō bā-fā, bwé fé bí  
 (A)go.IRR (A)buy.IRR (B)come.IRR CL2-two CL2 (B)give 2SG  
*twenty five*  
 twenty five  
 “Go and buy and bring two [cigarettes], they’ll give you 25 [francs in change].” (Missong)

- (10.21) bā-kjî bē mà dé=á jē ù fā lō  
 CL2-children CL2.DET then (c)say=PRF COMP CL1 (B)give.IRR (A)VENT.IRR  
 ú-bjîm ì-tóǎ-nó jí-jé  
 CL3-thing CL5.INF-(B)carry.water-ADJ CL6a-water  
 “The children then said that he should give the thing for carrying water.”  
 (Munken)

### 10.3.2 Cognate objects

A type of construction which can best be described as involving a cognate object is used to mark the lexical meaning of a verb as contrastively focused. The nominalized form of a verb is included as an argument of the same verb. In Missong, the cognate object is an actual object argument, as in (10.22)–(10.23).

- (10.22) ú-sǒ ló dā nti lé, bú á tsǎŋ tâ  
 CL3-case (B)L.COP D.NEG LOC.immersed FRUST CL2 FUT (B)see only  
 ñ-tsǎŋ-nè-nè  
 CL1.INF-(B)see-INF-INF<sup>7</sup>  
 “There is no case inside. (i.e., we have no way of winning by conventional means) We will only see (i.e., wait for an opportunity instead of taking direct action).” (Missong)

<sup>7</sup> Infinitive suffixes in Missong are occasionally doubled, both in texts and elicitation.

- (10.23) āntcī      bē tsè fā      bē      jôhɔ      j̄-jôhɔ-nè      kōn  
 tomorrow 2PL (A)go CL16.DET 2PL      (c)run CL1.INF-(c)run-INF thus  
 “Tomorrow y’all [today’s young girls] will go there [to the husband’s  
 compound] and run running like that. (i.e., run back to your parents’  
 compound rather than seek to solve disputes with your husband through  
 traditional channels)” (Missong)

In other dialects, however, the cognate “object” is instead encoded as a locative argument. Some examples are given in (10.24)–(10.25).

- (10.24) *better* n̄-dzélɔ      k̄i      ì-dzélɔ      m̄i,      *even though* n̄-tsàlɔ  
 better 1SG-(B)travel IPFV CL5.INF-(B)travel LOC.in even though 1SG-(A)know  
 jē      m̄ɔ      m̄-fǎŋ      dān  
 COMP 1SG 1SG-(B)remain CL17.here  
 “I might as well travel for traveling’s sake even though I know that I’ll  
 end up here (in Wum).” (Munken)
- (10.25) à      hǒ ɲè      bó t̄è      f̄à      j̄i,      bó k̄əm      mjù      j̄ē  
 DS P1 (A)stay CL2 (A)clean (A)off CL9 CL2 (A)again (A)shave.IPFV CL9  
 ì-m̄i      m̄i  
 CL5.INF-(A)shave LOC.at  
 “It was that they had cleaned it [the pigs’ bristles], [but] they are again  
 shaving (for shaving’s sake).” (Munken)

## 10.4 On the distinction between oblique arguments and adjuncts

It was noted in § 10.1 that a difficulty which arises in describing a given verb as transitive or intransitive is the fact that non-subject arguments are freely dropped in main clauses whenever they can be inferred from context. Out of expedience, it was resolved to call transitive the verbs which *could* be followed by an object<sup>8</sup> (rather than those that *must* be followed by an object).

<sup>8</sup> Without altering the sense, it should be added.

A similar issue persists if it is desired to classify obliques as being either arguments or adjuncts. Comparing (10.26) and (10.27), it could be argued that the locative phrase is omitted in (10.27) because it is inferrable from context (in this case, it is clear from earlier sentences that the rope is tied onto a pig's feet).

- (10.26) ɬə̃ [ù-ɬùlə wū ù]<sub>SBJ</sub> [nàŋ ɕòà fə̃]<sub>V</sub> [ú-gbễ]<sub>OBJ</sub>  
 (A)look.IRR CL1-woman CL1.DET CL1 (A)go.IPFV (A)loosen (A)off CL3-rope  
 [á-kʒhɔ̀ ì-ɕē nábò jī á bā]<sub>LOC</sub>  
 CL6-foot CL9-fowl TOP CL9.DET PREP LOC.on  
 “There’s a woman loosening the rope from the fowl’s feet.” (Missong)
- (10.27) [ù]<sub>SBJ</sub> [ɕòlə fwò bêhɛ]<sub>V</sub> [ú-gbễ wə̃]<sub>OBJ</sub>  
 CL1 (A)loosen (A)off.IPFV (B)exit.IPFV CL3-rope CL3.DET  
 “He’s loosening the rope.” (Munken)

Arguing along similar lines as was done in §10.1 for objects, that obliques which *can* be present are arguments, more or less invalidates the concept of adjunct. Although it is not, *ceteris paribus*, desirable to abolish traditional categories of description, this is what has been done, so as to avoid the necessity of an examination of the distinction between arguments and adjuncts in Mungbam, supposing one exists.<sup>9</sup> All discussion of obliques in the following sections, then, assumes that all oblique phrases are arguments of a clause which can be omitted whenever inferrable from context, just as objects are.

## 10.5 Comitative

Comitative arguments are formed by preposing a comitative morpheme (table 10.3) to the comitative-marked NP. When the noun phrase begins with a vocalic prefix, the comitative marker very frequently fuses with the vocalic prefix.

<sup>9</sup> It is supposed that coming to a principled means of distinguishing arguments from adjuncts would require the development of some kind of elicitation-based test, which would require access to (currently unavailable) Mungbam-speaking consultants.

Munken	bē ~ bō
Biya	bō
Abar	mē ~ mō ~ m̄
Ngun	bō
Missong	kó ~ kú

Table 10.3: Comitative morphemes in Mungbam.

Some common functions of comitative encoding are discussed in §§10.5.1–10.5.6.

### 10.5.1 Low-agency companion in motion event

When used as an optional argument of a motion verb, a comitative argument indicates something that is conveyed along with the referent of the subject. The referent of the comitative argument is frequently inanimate, as in (10.28)–(10.30).

- (10.28) mà bɣé à kwê                      lè              kà [bō wè]  
 then CL2 DS (c)return.home (A)VENT ? COM CL1  
 “Then they came back with her.” (Ngun)

- (10.29) ì-ft              jē              tō                      kpàha              kò                      [mē í-gǔhɔ  
 CL5-head CL5.DET (B)come.IPFV (A)last.IPFV (A)descend.IPFV COM CL5.feather  
 òdàm              á              jī                      dzó],              [mō ú-fǔŋ]  
 CL1.bird.type PREP CL5.LOC.OBJ LOC.mouth COM CL3-slipknot  
 “The head came down last, with a bird’s feather in its mouth, with a slipknot...” (Abar)

- (10.30) bí tō                      [bí-sǒŋ]  
 CL8 (B)come.IPFV COM.CL5-power  
 “They are coming with power. [i.e., in a raucous way]” (Munken)

When the referent of the comitative marked NP is a higher animate, a lowered degree of agency is entailed for this referent. Typically, the referent of the comitative-marked NP is being somehow escorted. In (10.31), the referent of the comitative-marked NP is a man in police custody, while in (10.32), the speaker (a

tortoise) is asking the birds to help him reach a party held in the clouds, a place normally only accessible to birds.

- (10.31) *gendarmes* bɔ̄ē à kwó kò ù-nò ɲwə̀n  
 gendarmes CL2.DET DS (B)catch (A)descend CL1-person CL1.DEM.PROX  
 ò, bɔ́ ɕɛ̀nɔ́ ɲ-kán jí, bɔ́ lánɔ́ mǎ wù i-dúɲ  
 CL1.DET CL2 chain CL6-hand 3SG.POSS CL2 (A)go COM CL1 CL5-bush  
 “The gendarmes caught the man, they chained his hands, and they went  
 with him into the bush.” (Abar)

- (10.32) m̄-bò jē bà nāɲ [bǎ mǎ] í-sé̄he nómò  
 1SG-(A)search.IPFV COMP 2PL (A)go.IRR COM 1SG CL5-place TOP  
 m̄  
 LOC.at  
 “I want for y’all to take me [lit. go with me] to that place.” (Munken)

In (10.33) the speaker is telling her interlocutor about a member of the research team arriving back at the research station in Wum by way of Bamenda (which is at a higher elevation than Wum is), having brought with him as a guest a Mekaf native who normally resides in Bamenda. Finally, in (10.34), the speaker describes how (according to tradition), the Mashi people, fleeing war, were allowed to settle in Missong land after being escorted across a river.

- (10.33) ù sè lè [bē ù-nè bǎ-ɲkāmǎ]  
 CL1 (A)descend (A)VENT COM CL1-person CL2-Mekaf.people  
 “He came with [the] Mekaf man.” (Munken)

- (10.34) sǎ tǎn lǎ kǎ bú  
 1PL (A)cross.IRR (A)VENT(?) COM CL2  
 “We crossed with them. [i.e., welcomed them from across the river]”  
 (Missong)

### 10.5.2 Adornment-indicating NP modifier

A comitative phrase (i.e., the comitative marker followed by a noun phrase) may modify a head nominal indicating some kind of material accompaniment or adornment, as in (10.35)–(10.37).

- (10.35) ù-tɛɔ̃lə ù-lɔ̃ [b=ú-cɛ́ wū kɛ̀] ù ɲân  
 CL1-female CL1-other COM=CL3-knife CL1.LOC.OBJ LOC.hand CL1 (c)slice.IPFV  
 ɲà bí-ɲí  
 (A)stay.IPFV CL8-thing  
 “Some woman with a knife in her hand is slicing things.” (Munken)
- (10.36) ù-ndĩnə ù jêhɛ ɲì [bə̀ ñdù ú m̀  
 CL1-female CL1 (c)stand (A)stay COM CL1.dress CL1.LOC.OBJ LOC.at  
 ù dzə̀ ú tɔ̃n]  
 CL1 (A)tether CL1.LOC.OBJ LOC.bottom  
 “A woman is standing with a dress on her [that] she has tied around her  
 waist.” (Biya)
- (10.37) ù-ndĩnə wə̀ [bə̀ kó-nó ú-wón jǐ́ ú  
 CL1-female CL1.DET COM CL12-thing CL1-fancy.thing 3SG.POSS CL1.LOC.OBJ  
 sú  
 LOC.face  
 “The woman with her headtie on her forehead [lit. her fancy thing on  
 her face]...” (Biya)

### 10.5.3 Instrumental

The comitative particle may be used to mark instruments, as it does in examples (10.38)–(10.40). Formal conflation between marking of the comitative and the instrumental occurs in a significant minority of languages (Stassen, 2011a). One interesting point about Mungbam is that the use of the comitative as an oblique in motion events requires an ascription of low agency to its referent. The connection between the semantics of instrumental and comitative are perhaps more clear in Mungbam than in languages where the meaning of the comitative is less restricted.

- (10.38) bé ɲkə̀ɲkɔ̃ jā mjù fɔ̃ bɛ̀hɛ̀ lə̀  
 CL2 now thus.DS (A)shave.IPFV (A)off.IPFV (B)exit.IPFV (A)VENT.IPFV  
 bə̀-ɲwə̀ jǐ́ bə̀ mī [b=ú-cɛ́ ú-fí]  
 CL2-insides CL9.POSS CL2.LOC.OBJ LOC.at COM=CL3-knife CL3-hair  
 “Now they are shaving [lit. shaving on] its inside parts with a razor.”  
 (Munken)

- (10.39) tsɔŋ à jí-ɲé mǎ-mələ̀ ù tō dzò b=ú-kǎ  
 (B)see.IRR DS CL6a-water CL6a-cold CL1 (B)come.IPFV (A)put.IPFV COM=CL3-hand  
 jí  
 3SG.POSS  
 “That’s cold water that he’s coming and pouring with his hand.” (Munken)
- (10.40) wǎ̀ jì gèhɛ̀ lə̀, mù táam=ǎ̀ jì bǎ́ ú-wóho  
 then CL9 (A)shift (A)VENT.IPFV then.CL1 (B)shoot=PRF CL9 COM CL3-gun  
 jí wē  
 3SG.POSS CL3.DET  
 “So it [a wild animal] crept closer, then he shot it with his gun.” (Ngun)

#### 10.5.4 Theme in transfer event

In a verb indicating transfer of possession, viz., ‘give’, the theme is encoded as a comitative argument if the recipient is encoded as the object.<sup>10</sup> In examples (10.41)–(10.43), the verb translatable as ‘give’ is the main predicate, and the theme is encoded as a comitative.

- (10.41) wán ù-tì-tən ù ɲè fǎ tí-tjú ù-nò  
 CL1.child CL1-small CL1 (A)stay (B)give.IPFV VFOC~(c)also.IPFV CL1-person  
 tí-lə̀ [b=ú-tʃfə̀]  
 (c)grow.up-ADJ COM=CL3-sense  
 “A small child is also able to give wisdom to a grown man.” (Biya)
- (10.42) ā-dzàŋ kǎ nən kwô tō jē  
 CL12-fly CL12.DET (A)go.IPFV (c)return.home.IPFV (B)come.IPFV COMP  
 fī mǎ̀ [mǎ́ ú-tǔn ð̃]  
 (B)give.IRR 1SG COM CL3-bitterleaf CL3.DET  
 “The fly came back [saying] that ‘Give me the bitterleaf.’” (Abar)
- (10.43) bó lǎ fě̀ mǎ̀ [bǎ́ line ù-mwə̀nə̀]  
 CL2 P2/3 (B)give 1SG COM line CL1-one  
 “They gave me one line [i.e., boundary].” (Munken)

Example (10.44) is somewhat curious, since no overt verb in the first clause encodes a transfer of possession, though possession transfer is clearly implied.<sup>11</sup> It

<sup>10</sup> The recipient may also be coded as a dative argument. See § 10.7.2.2, and also § 10.9.

<sup>11</sup> Though the second clause does contain an overt possession-transfer indicating verb (*fě̀* ‘give’).

may be that (10.44) is a valence-shifted form of the benefactive construction usually encoded as in (10.45), on analogy with the dative shift alternation (cf. § 10.9).

- (10.44) m̄ ñ-jí-á wù [b̄ ú-kp̄], m̄ m̄-fí wè [b̄  
 1SG 1SG-build-PRF CL1 COM CL3-house 1SG 1SG-(B)give CL1 COM  
 b̄-mb̄]̄  
 CL2-cow  
 ‘I’ll build him a house, I’ll give him cows.’ (Ngun)

- (10.45) b̄ á f̄h̄ ì-ç̄ á m̄=n̄ ò ò  
 CL2 FUT (A)roast CL9-fowl PREP 1SG=DAT PART  
 ‘They will roast a fowl for me O<sup>12</sup>!’ (Munken)

It is not known whether the theme in an abstract transfer event can be marked with the comitative. Verbs translatable as ‘show’ or ‘tell’, in my corpus, consistently appear with object themes and dative recipients. No directed elicitation has been conducted to determine the extent to which themes may be encoded as comitative arguments in descriptions of abstract transfer events.

### 10.5.5 Joint activity

For verbs whose semantics inherently require two people, the non-subject participant may be coded as a comitative argument. Examples (10.46)–(10.50) illustrate the inclusion of a comitative argument for verbs translatable as ‘learn’, ‘discuss’, ‘quarrel’, ‘fight’, and ‘put [a boundary]’.

- (10.46) à b̄ ù-n̄ kw̄ s̄ j̄ à *learn*  
 2SG (A)search.IPFV CL1-person (B)hold (A)descend COMP 2SG learn  
 bí-mj̄ b̄ w̄  
 CL8-word COM CL1  
 ‘You look for someone [you] can learn things with him.’ (Ngun)

<sup>12</sup> A sentence-final emphatic particle *O* is found in Nigerian and Cameroonian (at least) English. It is not clear what a good American English equivalent would be.



- (10.47) à tɛ̀n dzàn wòŋ ɲkè ú-gbáha mà tsàm=ā bí-mjí bā  
 2SG (A)just (A)stay only as CL3-wind then (A)talk=PRF CL8-word COM  
 wò  
 2SG  
 “[Can] you just stand like that, and the wind will discuss with you?”  
 (Ngun)
- (10.48) ù tí ɛu ù kânə bā tɛ̀ jē wù ɛú:~:  
 CL1 (B)come ().want CL1 (C)quarrel COM CL1.wife 3SG.POSS CL1 (C)insult  
 ì-tù tɛ̀ jī jân  
 CL5-family CL1.wife 3SG.POSS thus  
 “When he is going to quarrel with his wife he INSULTS his wife’s fam-  
 ily.” (Munken)
- (10.49) kwí ú-kpě mjú bó ɲòŋkə bā wò  
 (C)enter.IRR CL3-house lest CL2 (A)fight COM 2SG  
 “°Go in the house lest they fight with you.” (Munken)
- (10.50) bí-ɕûn kà dzā kā Bisan  
 CL8-missong.people P3 (A)put.IRR COM Bisan  
 “Missong put [a boundary] with Bisan.” (Missong)

Verbs indicating events which, though they do not inherently involve two participants, do frequently do so, may optionally take a comitative oblique argument, as in (10.51)–(10.52), this use of comitative marking is probably most in line with what is prototypically understood to be a comitative meaning (cf. Stolz et al. (2006, 2011)).

- (10.51) ɛí lē ɕôə ɲà bā mú-ɲónə mū  
 CL19 P2 (B)eat.IPFV (A)stay COM CL18a-bird CL18a.DET  
 “He [Tortoise] was eating with the birds.” (Munken)
- (10.52) ù-nè ù-lō lē ɲà ɲà bā bó-bjémə  
 CL1-person CL1-other P2 (A)stay.IPFV (A)stay.IPFV COM CL2-children  
 jí bā-tè bā tɛ̀ jī ù-mwónə  
 3SG.POSS CL2-three COM CL1.wife 3SG.POSS CL1-one  
 “A man had been living with his three children and with his one wife.”  
 (Munken)

### 10.5.6 NP coordination

Languages not infrequently use the same means for coordinating NP's as they do for introducing arguments with comitative meaning (Stassen, 2011b). Such is the case in Mungbam, where the comitative morpheme may be used to coordinate two NP's.

- (10.53) [sō kó bájǵkè] dzóŋ sō kánə dā bī-lùŋ  
 1PL COM Mashi VET 1PL (B)hold D.NEG CL8-problem  
 “We and Mashi don't have problems.” (Missong)
- (10.54) à tsā dàha jē [ù bə tɛ̀ù jī wɔ̀ŋɔ̀]  
 DS (A)know.IRR S.NEG COMP CL1 COM CL1.wife 3SG.POSS CL1.DEM.PROX  
 lē dɔ̀hɔ̀ fə  
 P2 (A)start where  
 “You don't know how [lit. where] him and this his wife got started?”  
 (Munken)
- (10.55) [ù mə tɛ̀ù jī] bó kô ɕù tō  
 CL1 COM CL1.wife 3SG.POSS CL2 (c)return.home (A)go.away (B)come.IPFV  
 tã bɛ̀é bɛ̀é-fīn  
 only CL2 CL2-two  
 “Him and his wife left [the bush] and came back just the two of them.”  
 (Abar)

Interestingly, the comitative marker does not appear to be available for the purpose of coordinating two NP's which are non-subject arguments. At least, this usage is not attested in my text corpus. A biclausal construction which functions to coordinate non-subject arguments is attested in examples from Biya and Munken. In this construction, the particle *mə* ‘then’ (see § 12.2.1), which is a clause-level coordinator, is followed by a word translatable as ‘also’. The word meaning ‘also’ differs from the minor coverb with the same gloss (see § 8.2.6.2) in Munken, but in Biya the two words have the same phonological shape. Two examples are given in (10.56)–(10.57).

- (10.56) mú nǎ nàlǎ nàm ɲà mfwàha ù-ljùlǎ  
 CL18a REL (A)hide (A)till.soil (A)stay.IPFV CL1.pepper CL1-spicy.ADJ  
 dī, mǎ kǎhǎ bī-mfě  
 CL17.DET then also CL8-cocoyam  
 “The [skinny people] who secretly farm pepper and cocoyams.” (Munken)
- (10.57) ù-nǎ [ù]-nī àlǎ ɲī bǎ bǎ-mbjǐn jí bǎ-tǎ,  
 CL1-person CL1-some P3 (A)stay.IRR COM CL2-children 3SG.POSS CL2-three  
 mǎ tǐ tǎ ò jí kúmù  
 then (B)also CL1.wife 3SG.POSS one  
 “A man lived with his three children and his one wife.” (Biya)

## 10.6 Locative

Locative arguments are formed according to the formula (*á*)...LOC, where LOC stands for a locative postposition (see table 9.1, p. 257 for a nearly complete list of postpositions). Some of the functions of locative arguments are given in §§10.6.1–10.6.4. Further details on the semantics of the locative phrase are given in §9.1.

### 10.6.1 Source/goal/ground of motion event

As has been emphasized elsewhere (§9.1.2), the locative argument is used to represent the ground in a motion event, and does not carry any lexical or pragmatic meanings associated with direction or manner of motion. Some examples showing the use of locative phrases in various types of motion events are given in (10.58)–(10.61). Example (10.58) contains two conjoined clauses, each with a locative argument. The first depicts motion away from the ground, while the second depicts motion towards the ground.

- (10.58) ɛ́í mà bɛ́hɛ lɔ́ í-ɕ́ílo ɛ́í  
 CL19 (A)take.IPFV (B)exit.IPFV (A)VENT.IPFV CL5-feather CL19.LOC.OBJ  
 mɔ́, ɛ́í bwà̀nə kù áɲkə̀ wū mɔ́  
 LOC.at CL19 (A)pin (C)enter as CL1.LOC.OBJ LOC.at  
 ‘‘He [a bird] then took a feather from his [body], then he pinned it onto  
 him [Tortoise].’’ (Munken)

Examples (10.59) and (10.60) also depict motion away from and towards the ground, respectively. Clearly, the choice of postposition depends on the nature of the ground. In (10.61), the locative phrase indicates the scene where the entire event is framed.

- (10.59) á-dzàɲ kɔ́ mà tá mà fí báha ɕ́ɛ̀lɔ́ kí  
 CL12-fly CL12.DET then only then (B)fly (B)exit (C)go.away CL12.LOC.OBJ  
 ɕ́ɔ́  
 LOC.mouth  
 ‘‘The fly then just flew out from his [the rooster’s] mouth.’’ (Abar)
- (10.60) ì-ɛ̀ù jī mì gbè sè kwínó á dī jī-ɲé  
 CL9-fish CL9.DET then.CL9 (A)fall (A)descend (C)enter PREP there CL6a-water  
 mɔ́ɛ̀ tì  
 CL6a.DET LOC.immersed  
 ‘‘The fish then fell down into the water.’’ (Biya)
- (10.61) wə́ bú búyí ɲòɲɔ́ jī-ɲé mɔ́ɛ̀ tən  
 then CL2 CL2.DS (A)fight.IPFV CL6a-water CL6a.DET LOC.bottom  
 ‘‘Then they were fighting underwater.’’ (Ngun)

### 10.6.2 Standard of comparison

Mungbam follows the well-attested pattern of encoding standards of comparison with locative case marking (Stassen, 2011a), as in (10.62)–(10.63).

- (10.62) fi-mbãnə àlè tɛ̀ùn í-jálə=nó tɛ̀ [kàkwē á  
 CL19-lizard P2 (A)know PREP.CL5.INF-run=DAT (A)pass CL1.frog PREP  
 bóŋ]  
 LOC.at  
 “Lizard knew how to run [faster] than Frog.” (Biya)

- (10.63) à dù tɛ̀à bā-tɛ̀ðlə [bá-ɲóŋhɪ bū á  
 DS (A)be.many (A)surpass CL2-female CL2-male CL2.DET PREP  
 fē]  
 LOC.head  
 “... women are more numerous than men...” (Missong)

Recalling (cf. §8.2.3) that comparative constructions are formed with a right-modifying minor coverb translatable as ‘surpass’, Mungbam would seem to provide anomalous data with respect to Stassen’s (2011a) distinction between “Exceed Comparatives” and “Locational Comparatives”. The standard NP in a comparative construction may also be encoded as a locative argument, and so Mungbam is an instantiation of the logically possible scenario where comparatives are formed both with an ‘exceed’ predicate and with locative case. It might be more appropriate to refer to Exceed Comparatives and Locational Comparatives as complementary (and potentially overlapping) strategies of comparative formation rather than as distinct choices.

While the use of the ‘pass’ coverb is required in forming a comparative construction, the standard NP is sometimes attested not as a locative argument, but as a bare NP object, as in (10.64). Such variability in marking the standard makes an example such as (10.65) potentially ambiguous between a meaning of ‘more than your grinding stone’ and ‘more than your stone you grind upon’.

- (10.64)  $\bar{u}$ -mwenə nómò wə́ nǒm tɛ̀à, à gjèfə tɛ̀i~tɛ̀à  
 CL3-farm TOP CL3.DET (B)be.fat (A)surpass DS (A)be.long VFOC~(A)surpass  
 kí  
 CL13  
 “That farm is broader, it’s longer than them [fences].” (Munken)

- (10.65) ú-kpǒhɔ́ mɔ́ à tɛ̀ā dàha [í-kí à nɔ́ wù  
 CL3-money 1SG.POSS DS (A)pass S.NEG CL5-stone 2sg.poss REL (A)grind  
 jī fə̀mə̀]  
 CL5.LOC.OBJ LOC.head  
 “Is my money not more [important] than your grinding stone?” (Munken)

Although the term “comparative construction” is usually thought to include only unequal comparisons, locative arguments may also represent the standard of comparison in an equal comparison comparative construction, as in (10.66).

- (10.66) ɨ̀kè nɔ́ já tsā sɔ́ í-tómə́ jálə=nɔ́  
 as REL CL10.NEG (A)know.IRR S.NEG PREP.CL5.INF-shoot (C)run=DAT  
 ɨ̀kè [í-wí~wílə mī]  
 as CL10-RED~white LOC.at  
 “Because they don’t know how to run fast like the white ones [do].”  
 (Munken)

This usage extends to locatives as standards of comparison in constructions with a predicate translatable as ‘be like’, as in (10.67).

- (10.67) nàm à à=nɔ́ jè ɨ̀kè wéné mī, ɨ̀kè  
 CL1.husband 2SG.POSS 2SG=DAT (A)stay as CL1.sibling LOC.at as  
 kía mī, ɨ̀kè né mī  
 father LOC.at as mother LOC.at  
 “Your husband to you is like a brother, like a father, [and] like a mother.”  
 (Munken)

### 10.6.3 Reason/means

Locative arguments using the ‘hand’ or ‘head’ postposition are occasionally used to indicate a reason or motivation behind a particular state of affairs, as in (10.69) – (10.70). Note that the more common way of indicating a reason is through a relative clause or associative construction.<sup>13</sup>

- (10.69) ù bò jē nām jī nāŋ fē  
 CL1 (A)want.IPFV COMP CL1.husband 3SG.POSS (A)go.IRR (B)give.IRR  
 bí-ńí á wū fǝmǝ  
 CL8-thing PREP CL1.LOC.OBJ LOC.head  
 “She wants for her [unofficial] husband to go pay a brideprice for her.”  
 (Munken)

- (10.70) í t̥ɔ̄ t̥ù sò wù á fē, ì-ç̄ á  
 2SG (B)knock (A)knock (A)descend CL1 PREP LOC.head CL9-fowl PREP  
 fē  
 LOC.head  
 “You hit him on the head over a fowl.” (Missong)

A related use of the locative is to express the means or enabling entity through which an action is accomplished, as in (10.71).

- (10.71) ù tám lē á wū kǝ  
 CL1 (C)send.IRR (A)VENT.IRR PREP CL1.LOC.OBJ LOC.HAND  
 “She should send [it] through her.” (Munken)

<sup>13</sup> See example (12.76), p. 398 for the former type of construction. The latter type of construction is an associative noun phrase headed by a word meaning ‘matter, problem’, e.g.:

- (10.68) à tsàl=ā jē Jus wù bā nām jī bó ńùnǝ jân  
 2SG (A)know=PRF COMP Justine CL1 COM CL1.husband 3SG.POSS CL2 (A)fight thus  
 á-mjǝ ù-nǝmfǝ ù-wēn è  
 CL12-matter CL1-male CL1.DEM.PROX Q.POLAR  
 “You know that Jus and her husband have fought [so much] because of the boy [with whom J. was thought to be having an affair with].” (Munken)

### 10.6.4 Ablative

A locative-marked argument containing the ‘hand’ postposition corresponds to what is typically referred to as the ablative case.

- (10.72) tsā            ī-ǵám      jí            tām            ɲà,            mǵó ù-nè  
 (A)know.IRR CL5-heart 3SG.POSS (B)shoot.IPFV (A)stay.IPFV lest CL1-person  
 ù-l̄ṣ            á      mē      f̄ḥ      mō á      wū            kè  
 CL1-other FUT (A)take (A)off 1SG PREP CL1.LOC.OBJ LOC.hand  
 “Perhaps his heart is beating [because he’s worried about the possibility  
 of] another man taking me away from him.” (Munken)
- (10.73) ... ú-kp̄ḥo mó            ú            kè            á      bóh̄o      dāsē  
 CL3-money 1SG.POSS LOC.CL1 LOC.hand NEG (c)ask.IRR S.NEG  
 “... [I] will not ask money [lit. my money] of him.” (Ngun)
- (10.74) à      mē      kàŋ            báŋ            wù      ā-ná            ǵā            kè  
 2SG then (A)protect (B)cover CL1 CL2-person (A)steal.ADJ LOC.hand  
 “You will protect him from thieves.” (Abar)

The lexical (i.e., non-postposition) noun ‘hand’ is also attested in an ablative use.

- (10.75) bɥá tē            mà            ú-ǵbāha só,            bó      kēm      f̄ē            ú-ǵbāha  
 CL2 (B)come (A)take CL3-air 1PL.POSS CL2 (A)again (B)give CL3-air  
 ú-kē            bwīn            wē            á      sóŋ  
 CL3-hand CL2.POSS CL3.DET PREP 1PL.DAT  
 “They come and take our air, then they give back the air of their hand  
 to us.” (Ngun)

## 10.7 Dative

### 10.7.1 Marking of the dative

On full noun phrases, the dative (so called because it prototypically encodes recipients) is marked with a preposition-enclitic combination *á . . . =n V̄*.<sup>14</sup> The preposed

<sup>14</sup> V=/ə/ in Munken, Biya, and Ngun, /a/ in Missong, and /ɿ/ in Abar.



portion of the dative marker (glossed PREP ‘preposition’ because it precedes the noun phrase and because the same form is observed in the formation of locative phrases) is often not present or present only as a tonal perturbation. The method of forming the dative applies to pronouns as well in Biya, Missong, and Munken. In Ngun, the first person pronouns have special dative forms *móŋ* ‘1SG.DAT’ and *sóŋ* ‘1PL.DAT’, while other dative pronouns are formed according to the above formula. Abar, on the other hand, has a complete set of dative pronouns, which are for the most part formed with a circumfix  $\acute{N}\dots n$ . A paradigm is given in table 10.4.

1SG	ím-mé-n	CL3	íj-wù-n
1PL	ín-sé-n	CL4,5,9,10	jí-jì-n
2SG	íj-wà-n	CL6,6a	ím-mwè-n
2PL	ím-bà-n	CL8	ím-bì-n
3SG,CL1	íj-wì-n	CL12,13	íj-kì-n
3PL,CL2	ím-bwì-n	CL14	ím-bù-n
		CL19	jí-èi-n
		CL18a	ím-mù-n

Table 10.4: Abar dative pronouns.

The postposed element which marks the dative is treated as involving an enclitic rather than a suffix or separate postposed word because it interacts phonologically with the preceding word (see § 4.1.2 for discussion), and because it occurs at the right edge of the noun phrase rather than at any specific point on a word (*e.g.*, the head noun). In (10.76)–(10.78), the dative enclitic appears at the end of the noun phrase (enclosed in brackets), regardless of whether the final constituent of the NP is a possessive pronoun (10.76), a determiner (10.77), or the head noun (10.78).

- (10.76) s̄anə m̀ò í-ṭéúo ɕí, fí m̀ò [bjáŋ m̀ó]=ní,  
 (c)warm 1SG CL8-things (B)eat.ADJ (B)give 1SG CL2.children 1SG.POSS=DAT  
 ɕí́ b̄yé  
 (B)eat CL2  
 “I warmed food, I gave [it] to my children, and they ate.”<sup>15</sup> (Abar)
- (10.77) b̄yé b̄óxo k̀ò [á-ṭéí k̀ə]=ní  
 CL2 (B)ask IPFV CL12-chameleon CL12.DET=DAT  
 “They asked the chameleon. . .” (Abar)
- (10.78) m̄ə nəŋ f̄an=ā jí [ú-kpóho]=nó  
 1SG (A)go (A)sell=PRF CL9 CL3-money=DAT  
 “. . . I go and sell it for money.” (Munken)

Treating the preposition used to form datives as a proclitic is complicated by two main factors: firstly, the preposition is frequently omitted (it does not appear in (10.76)–(10.78), but see (10.79) below), so natural occurrences of it are not as frequent as for those of the enclitic. Secondly, in the vast majority of attested cases, the first constituent in any noun phrase is the head noun. A few instances of non-head-initial word order have been noted (see §6.4.1), but follow-up elicitation on these turned out to be difficult, and I did not manage to elicit any examples of a dative non-head-initial NP. The result is that I have no examples of the preposition preceding anything other than the head noun.

- (10.79) s=á nəŋ dí á [ṭèú jí]=nó j̄ē  
 1PL=FUT (A)go (C)say PREP CL1.wife 3SG.POSS=DAT COMP  
 “We will go and tell his wife that. . .” (Munken)

The only evidence for treating the preposition as a proclitic is phonological, but does not hold in all dialects. In citation form, the preposition merges phonologically with a vocalic prefix or syllabic nasal in Abar and Munken, but not in Biya (table 10.5). Such evidence of course only supports an argument that the

<sup>15</sup>The use of the subject-focus construction throughout this example, from a prayer, is understood as the speaker’s wish to emphasize her good fortune as opposed to those less fortunate than her and her children. Omission of the dummy subject in a subject-focus construction is less common, but occurs in rapid speech, as in this case.

preposition forms a phonological word with the following word (in Munken and Abar), so the question of whether the preposition should be treated as a prefix or a proclitic is unsolved. Since the phonological evidence is not consistent across all dialects, /á/ is glossed as if it were an independent word (without connecting ‘-’ or ‘=’) in examples.

ABAR		MUNKEN	
á kó-tsû=ní	‘for the cock’	á cì-nsõ=nó	‘for the needle’
á Nǎŋ=ní	‘for Nang’	á bí-cǎha=nó	‘for the bush pineapples’
m̄bān=ní	‘for the shin’	ú-kwè=nó	‘for the female friend’
ú-wī=ní	‘for the moon’	ŋkpàlò=nó	‘for the chair’
m̄fā=ní	‘for the slave’	í-bí=nó	‘for the dogs’
BIYA			
á kó-jě=nó	‘for the intestines’		
á bó-ntɛ̄n=nó	‘for the Munken people’		
á ú-fjĩ=nó	‘for the nkwi <sup>16</sup> ’		
á ì-cũ=nó	‘for the fish’		
á j̄-jé=nó	‘for the water’		

Table 10.5: Coalescence of the dative preposition in Munken and Abar, but not in Biya.

## 10.7.2 Semantics of the dative

There are a large number of semantic functions served at least partly by dative encoding. In the present section I try to collect examples of the most common functions.

### 10.7.2.1 Addressee

In descriptions of speech events (asking, saying), the addressee is coded as a dative argument, as in (10.80)–(10.81).

<sup>16</sup> *Triumfetta annua* L.

- (10.80) wù bōfā ì-ǫì á wà=nó, wǒ wù ǫèfā  
 CL1 (c)ask CL5-voice PREP CL1=DAT then CL1 (A)laugh  
 “He asked her a question and then she laughed.” (Biya)
- (10.81) ù dí ɬù ǫí jē=nó mī m̄-bò  
 CL1 (c)talk CL1.wife CL19.POSS CL9.DET=DAT whether 1SG-(A)look  
 “He said to his [tortoise’s] wife [that] ‘Should I look for...’ ” (Munken)

Internal dialogue or private thoughts may be reported with a sequence translatable as ‘I said to myself that...’, as in (10.82).

- (10.82) because mō lē dī kòm mō=nó jē wù jêhe bǎŋ  
 because 1SG P2 (c)say (A)again 1SG=DAT COMP CL1 (c)stand (B)block  
 jē  
 COMP  
 “Because I had thought that he would oppose [the idea], that...” (Munken)

### 10.7.2.2 Recipient

For verbs indicating a voluntary transfer of possession from the subject, namely ‘give’, ‘send’, the dative may be used, as an alternative to an object, to mark the recipient of the transfer event.<sup>17</sup> Three examples are given in (10.83)–(10.85).

- (10.83) mō mà wán mō mē m̄-fě wù=nó  
 1SG (A)take CL1.child 1SG.POSS then 1SG-(B)give CL1=DAT  
 “I will take my child and give to him...” (Ngun)
- (10.84) à lē tám lē wà jêsu á sō=nó  
 DS P3 (c)send.IRR (A)VENT.IRR 2SG Jesus PREP 1PL=DAT  
 “You sent Jesus to us.” (Munken)
- (10.85) bā-ná bú ǫù ū-tūn, bú tō  
 CL2-REL CL2 (A)grind.IPFV CL3-bitterleaf CL2 (B)carry.on.shoulder.IPFV  
 tē á sō=nó=ná Kwifaŋ á kó  
 (B)come.IPFV PREP 1PL=DAT=DAT Kwifon<sup>18</sup> PREP LOC.country  
 “The ones who prepare bitterleaf, they bring [it] to us in the Kwifon house.” (Missong)

<sup>17</sup> See § 10.9 on valence alternations in the encoding of transfer events.

<sup>18</sup> q.v. Di Carlo (2011: 74).

**10.7.2.3 Benefactive**

The dative may mark an additional (always optional) argument indicating the beneficiary of an action. Three examples are given in (10.86)–(10.88).

- (10.86) m̄ lè k̄m i-bwé [á N̄áŋ=n̄ó]  
 1SG P2 (A)slaughter CL9-goat PREP N.=DAT  
 “I killed a goat for Nang.” (Biya)

- (10.87) à mú b̄ó f̄h̄o [á b̄ā-n̄è=n̄ó] j̄ē  
 DS CL18a CL2 (B)roast PREP CL2-person=DAT thus  
 “Those are the ones [birds] that they are roasting for the people.” (Munken)

- (10.88) b̄q̄ó bàŋɔ [á *spiritual life* bw̄n=n̄í]  
 CL2 (A)pray PREP spiritual life CL2.POSS=DAT  
 “They pray for their spiritual life...” (Abar)

**10.7.2.4 Self-benefactive**

A slightly different function from the benefactive is the self-benefactive (cf. Lichtenberk (2002: 450)). The obvious point of difference between the self-benefactive and the benefactive is that the beneficiary in a self-benefactive construction must be the subject of the clause. The semantics, however, are a bit different: in a normal benefactive construction, it is usually the case that the beneficiary will potentially receive some tangible good (they are, in Lichtenberk’s (2002: 450) terms “possessor-beneficiaries”): e.g., a goat, a roasted bird, a better spiritual life in examples (10.86)–(10.88). In the self-benefactive construction, however, the beneficiary is most commonly a “pure beneficiary” (*ibid.*). That is, that the action carried out will benefit the referent of the subject without him/her actually receiving any material thing. In (10.89), the benefit of eating Hallal food rather than normal food seems to simply be the utility that comes with having variety in one’s diet, while the benefit of killing the rat in (10.90) would appear to be the utility that comes in ridding oneself of a nuisance.

- (10.89) ù tânə kjô jē wə ù-nè ì-kàfə, wù  
 CL1 (B)refuse.IPV (C)also.IPV COMP CL1 CL1-person CL5-fence CL1  
 ɕô kí wù=nó bí-ńí í-bjêṃ  
 (B)eat.IPV (C)also.IPV CL1=DAT CL8-thing CL8-CL8.DEM.PROX  
 bī  
 CL8.DET  
 “... he would also refuse [the regular food, saying] that he was a Hausa  
 (lit. fence person<sup>19</sup>), [and] he would get to eat these things [Halal food].”  
 (Munken)

- (10.90) m=á n̄-tsám kpě tɕí~tɕí móŋ wò  
 1SG=FUT 1SG-(B)slap (B)die VFOC~(C)also 1SG.DAT 2SG  
 “... I will also have an interest in killing you [by beating].” (lit. I will  
 also for myself kill you) (Ngun)<sup>20</sup>

### 10.7.2.5 Purposive

The dative may have purposive function. In such a case, the dative argument is almost always a verb in infinitive form, as in (10.91)–(10.92). One example of a dative-marked noun phrase with purposive function is given in (10.93).

- (10.91) mù nàŋ tálə í-sěhe nó ù mē ú-bjîṃ ú-jálə  
 then.CL1 (A)go (C)show CL5-place REL CL1 (A)take CL3-thing CL3-(A)run.ADJ  
 [í-nāŋ=nó] dī  
 PREP.CL5.INF-(A)go=DAT there  
 “Then he showed [him] the place where he would take the car (lit. run-  
 ning thing) to go there.” (Munken)

- (10.92) bŷé ní bŷé nò [í-fēlɔ=ní] *holiday job* bwīn  
 CL2 REL CL2 (A)go PREP.CL5.INF-work=DAT holiday job CL2.POSS  
 bŷē  
 CL2.DET  
 “Those who are going to work their holiday jobs...” (Abar)

<sup>19</sup> My consultant informs me that Hausas have earned this name because of their practice of fencing in their compounds and having the women remain inside the fence all day without going to the market (even to buy underwear).

<sup>20</sup> See § 11.2 for discussion and examples where an object does not appear immediately after the verb.

- (10.93) bó là kò [án-ɕáha bwīn]=ní jē bɔ́ nōn  
 CL2 (A)go.farm (A)descend CL6-corn CL2.POSS=DAT COMP CL2 (A)go.IRR  
 gāŋ  
 (B)carry.IRR  
 “They went into the bush for their corn, [so] that they should go and  
 carry [it].” (Abar)

### 10.7.2.6 Subject of contemplated event

A clause which reflects a contemplated hypothetical situation appears with the subject in dative form, and the verbal core also nominalized and in dative form. It is well translated by the functionally similar English *for+S<sub>inf</sub>* construction. Both of the examples given below come from relatively younger speakers who are fluent in English, so the possibility of this construction being an English calque cannot be immediately ruled out.

- (10.94) mù dé=á fí-būs fī=né jē [á mój=nó]  
 then.CL1 (C)say=PRF CL19-cat CL19.DET=DAT COMP PREP 1SG.DAT=DAT  
 [í-ɕān=nó] bē fī-mfwēhe fī ú  
 PREP.CL5.INF-(A)stay=DAT COM CL19-rat CL19.DET PREP  
 kpɔ̃  
 LOC.HOUSE  
 “Then he said to the cat that ‘For me to stay in the house with the  
 rat...’ ” (Ngun)
- (10.95) *better* ì-mē tsê *than* [á mō=nó]  
 better CL5.INF-marry (C)finish than PREP 1SG=DAT  
 [í-pí=nó]  
 PREP.CL5.INF-(B)die=DAT  
 “Better for the marriage to end than for me to die.” (Munken)

### 10.7.2.7 Complement of secondary concept

A number of verbs used to express what Dixon (2006: 11–4) calls “secondary concepts” may take as a complement a dative-marked infinitive verb. A distinction is made between what Dixon (2006: 12–3) calls “Secondary-A” verbs (those which

do not introduce semantic roles other than those associated with the verb they modify) and “Secondary-B” verbs (which may introduce an additional semantic role). Verbs of the former type, exemplified in (10.96) – (10.100), only appear with a dative-marked infinitival complement.

- (10.96)  $\dot{\text{i}}\text{-s}\ddot{\text{u}}$      $\text{m}\dot{\text{e}}$      $\text{d}\ddot{\text{h}}\text{o}$     [ $\dot{\text{i}}\text{-j}\acute{\text{a}}=\text{n}\acute{\text{o}}$ ]  
 CL9-fish then (A)start PREP.CL5.INF-sing=DAT  
 “The fish then started singing.” (Munken)
- (10.97)  $\dot{\text{y}}\text{k}\acute{\text{e}}$      $\text{n}\acute{\text{o}}$      $\text{j}\acute{\text{a}}$         $\text{ts}\bar{\text{a}}$         $\text{s}\bar{\text{o}}$     [ $\dot{\text{i}}\text{-t}\acute{\text{o}}\text{m}\bar{\text{a}}$         $\text{j}\acute{\text{a}}\text{l}\bar{\text{a}}=\text{n}\acute{\text{o}}$ ]  
 as REL CL10.NEG (A)know.IRR S.NEG PREP.CL5.ING-shoot (c)run=DAT  
 $\dot{\text{y}}\text{k}\acute{\text{e}}$      $\dot{\text{i}}\text{-w}\acute{\text{i}}\text{-w}\acute{\text{i}}\bar{\text{l}}\bar{\text{o}}$         $\text{m}\bar{\text{i}}$   
 as CL10-RED~white LOC.at  
 “Because they don’t know how to run fast like the white ones [do].”  
 (Munken)
- (10.98)  $\text{j}\bar{\text{e}}$      $\ddot{\text{u}}$      $\text{l}\acute{\text{e}}$         $\ddot{\text{u}}$      $\text{l}\bar{\text{e}}$         $\text{k}\acute{\text{o}}\text{-}\text{n}\acute{\text{i}}$ ,     $\text{t}\ddot{\text{e}}\ddot{\text{x}}\text{o}$         $\text{n}\dot{\text{o}}$      $\text{w}\acute{\text{o}}\eta$ <sup>21</sup>  
 COMP CL1 (B)L.COP CL1 (A)do.IRR CL12-thing CL1.female TOP (c)nil  
 [ $\dot{\text{i}}\text{-b}\text{j}\acute{\text{a}}\eta=\text{n}\acute{\text{i}}$ ]        $\text{k}\acute{\text{i}}$      $\dot{\text{e}}$   
 PREP.CL5.INF-talk=DAT CL12 CLSBRK  
 “... that he could do something and the wife would not tell it.” (Abar)
- (10.99)  $\text{f}\bar{\text{i}}\text{-mfw}\acute{\text{e}}\text{h}\bar{\text{e}}$      $\text{f}\bar{\text{i}}$         $\text{m}\bar{\text{a}}$      $\text{s}\ddot{\text{o}}=\bar{\text{a}}$         $\dot{\text{i}}\text{-b}\ddot{\text{o}}\text{h}\bar{\text{o}}$         $\bar{\text{a}}\text{-n}\dot{\text{d}}\ddot{\text{o}}\eta$   
 CL19-rat CL19.DET then (A)start=PRF CL5-buttocks CL12-cocoyam  
 $\text{k}\bar{\text{e}}$     [ $\dot{\text{i}}\text{-}\text{t}\ddot{\text{x}}\acute{\text{i}}\text{-n}\acute{\text{o}}$ ]  
 CL12.DET PREP-CL5.INF-eat-DAT  
 “The rat then started to eat the bottom of the cocoyam.” (Ngun)
- (10.100)  $\text{b}\acute{\text{o}}$      $\text{n}\acute{\text{a}}\eta$      $\text{t}\acute{\text{a}}\bar{\text{l}}\bar{\text{o}}$         $\dot{\text{i}}\text{-s}\acute{\text{e}}\text{h}\bar{\text{e}}$         $\text{n}\acute{\text{o}}$      $\ddot{\text{u}}$      $\text{k}\text{w}\acute{\text{e}}$   
 CL2 (A)go (c)show CL5-place REL CL1 (B)hold  
 [ $\dot{\text{i}}\text{-ts}\acute{\text{e}}\text{-n}\bar{\text{a}}$ ]  
 CL5.INF-(c)pass.night-INF  
 “They went and showed [him] the place he had to sleep.” (Munken)

For the second type of secondary concept verb, it is possible for the matrix secondary concept verb to have either the same or a different subject from that of the modified verbal core. In the “equi-subject” case, one argument of

<sup>21</sup> This verb, only attested in Abar, is possibly a borrowing from English *won't*. I have indulged in an archaic word for the gloss, which is used in the sense of the following 1447 quotation: *Yf þou nylt, I shal..[thee] neuer more doughtir calle.*



the secondary-concept verb is a nominalized and dative-marked verbal core, as in (10.101)–(10.102). When the subjects are not coreferent, the secondary concept verb instead introduces a complement clause (see § 12.3.2.3 for examples).

- (10.101) í-ǽ́      í-ló      á      bâmə      dà      [í-dzē      gélə=nó]  
 CL10-fowl CL10-other NEG (c)accept D.NEG PREP.CL5.INF-(A)travel (c)go.around=DAT  
 bì-ǽ́      nómò  
 COM.CL9-fowl TOP  
 “The other fowls don’t accept to move around with that [aforesaid] fowl.”  
 (Munken)
- (10.102) ká-mjǔ      nó      jī-pā      kōŋ      dāhà      [í-tón=nó]  
 CL12.CL12-thing REL 1SG-(A)stay.IRR.IPFV (A)like.IRR S.NEG PREP.CL5.INF-rear=DAT  
 kō  
 CL12.DET  
 “That’s the thing [cowpea leaves] that I usually don’t like raising.”  
 (Munken)

### 10.7.2.8 Role fulfillment

An expression translatable as ‘take as one’s wife’ has dative marking on the NP headed by the word translated as ‘wife’. The verb glossed ‘take’ in (10.103)–(10.104) may be interpreted simply as meaning ‘marry’, which is clear in (10.105).

- (10.103) jē      í      wàha      mà      wù      [tɛ̀      bī=ná]  
 COMP 2SG (A)buy (A)take CL1 CL1.wife 2SG.POSS=DAT  
 “. . . that you buy [i.e., pay brideprice] and take her as your wife.” (Mis-  
 song)
- (10.104) à      wòŋ      wè      wè      lè      mà      wò      [á      tɛ̀  
 DS only CL1 CL1 (A)make (A)take 2SG PREP CL1.wife  
 jī=nó]  
 3SG.POSS=DAT  
 “It’s only him [the one who figures out your secret name] who can make  
 you get married as his wife.” (Ngun)
- (10.105) dzoŋ      sō      mò      dā      ì-tɛ̀      bī  
 VET 1PL (A)take.IPFV D.NEG CL5-family 2SG  
 “We don’t [i.e., you shouldn’t] marry [from within] your family.” (Mis-  
 song)

It is not known whether “role fulfillment” is a coherent type of function of the dative, since there are no other examples of expressions using the dative to designate a new role gained by a person. In the two following examples, with predicates translatable as ‘consider’, a complement clause structure is instead used.

- (10.106) m̄ m̄ w̄ j̄ w̄ ù-nò j̄  
 1SG (A)take 2SG COMP 2SG CL1-person crazy  
 “I will consider you to be a madman [lit., I will take you that you are a madman].” (Ngun)
- (10.107) s̄ kó b̄kè s̄ m̄ bú j̄ bú l̄ b̄-wásə  
 1SG COM mashi 1SG (A)take CL2 COMP CL2 (B)L.COP CL2-sibling  
 “[As for] us and Mashi, we consider them our brothers [lit., we take them that they are brothers].” (Missong)

## 10.8 Types of argument frames

Here I exemplify the four basic types of argument frames for verbs. The division is based on the typology presented in Dixon and Aikhenvald (2000), which treats intransitive and transitive as basic and widely-occurring argument frames found in all languages, and adds ‘extended’ variants of these two basic types. The extended variant of an argument frame is one which contains an additional oblique argument.

The basic types, intransitive and transitive, are discussed in this introductory paragraph, and separate subsections (§§10.8.1–10.8.2) are dedicated to the extended types, which contain few enough verbs to be given a description that is close to being representative of the set.

In view of the complications introduced by the frequent omission of non-subject arguments in Mungbam (see discussion in §§10.1, 10.4), discussion of predicates associated with ‘extended’ argument frames in §§10.8.1–10.8.2 is confined to predicates licensing an oblique argument which encodes a participant which is necessarily present in the event referred to. Elsewhere in this dissertation, however,

‘extended intransitive’ will be used to refer to any clause containing an oblique argument but no object, and ‘extended transitive’ will be used to refer to any clause containing both an object and an oblique argument.

Intransitive and transitive argument frames are by far the most common and the verbal predicates witnessing them have broad semantic ranges. Prototypically, they refer to events having one and two participants, respectively. Examples of prototypical intransitive and transitive predicates are given in (10.108)–(10.109), respectively.

- (10.108) [ā-na        bā-léhe]    gùnɔ  
 CL2-person CL2-other (A)sleep.IPFV  
 “... other people are sleeping...” (Abar)

- (10.109) [ù]    bě        wán=ǎ        [ú-fwí    jí]  
 CL1 (B)plait (B)keep=PRF CL3-hair 3SG.POSS  
 “She has plaited her hair.” (Biya)

Exceptions to this generalization are predicates with fixed, lexically-specific arguments. A predicate meaning ‘to rain’ is generally considered to be zero-place, and languages vary in the argument frame used for the corresponding verb. Mungbam uses the fixed subject meaning ‘rain’ for the verb translatable as ‘rain’.

- (10.110) ì-bù        jē        mà        nì~nà        ńkèŋkìn  
 CL5-rain CL5.DET (A)rain VFOC~(A)stay.IPFV now  
 “Now it’s raining... [lit. rain is raining]” (Munken)

As discussed in § 10.2.1, transitive verbs expressing bodily sensations such as hunger and thirst employ fixed objects. Another transitive verb which could be argued to require a fixed object in one of its senses is the verb translated as ‘ask [a question]’;<sup>22</sup> which takes as its object a word translatable as ‘voice’.

- (10.111) ù    bófə        ì-ɕì  
 CL1 (B)ask.IPFV CL5-voice  
 “He’s asking a question.” (Biya)

<sup>22</sup> The same argument could of course be made for the English equivalent.

### 10.8.1 Extended intransitive

The term “extended intransitive” (Dixon and Aikhenvald, 2000: 3) is used to refer to a frame where a verb has a subject argument and an additional non-subject argument other than an object. In Mungbam, the non-subject argument is a locative phrase. Dixon and Aikhenvald’s (2000: 3) remarks on the relative rarity of the extended intransitive (and extended transitive) clause type as compared to the simple intransitive and transitive seem to be appropriate for Mungbam. Only a handful of verbs have been identified which require an extended intransitive frame, including those translated as ‘fear’, ‘shout at’, and ‘take care of’, and ‘remember, think about’. All of the verbs are also witnessed in intransitive frames with meanings ‘be afraid’, ‘shout’, and ‘be careful’, and ‘think’, respectively. Examples are given in (10.112)–(10.115) (non-subject arguments are enclosed in square brackets).

- (10.112) à lé wè à tʃhɔ [á bɥē mī]  
 DS (B)L.COP 2SG 2SG (B)be.careful PREP CL2.LOC.OBJ LOC.at  
 “You are the one who looks after them.” (Abar)
- (10.113) jē n-ɕú [á ñɕì wō kè]  
 COMP 1SG-(B)fear PREP Ndji CL1.DET LOC.hand  
 “... that I’m afraid of Ndji.” (Munken)
- (10.114) à fʃ jè mō, à fʃ jè ù tsām wām [mō  
 DS COND (A)stay 1SG DS COND (A)stay CL1 (A)talk.IRR (B)shout.IRR 1SG  
 m-fāmə]  
 1SG-LOC.head  
 “If it was me [alone], it would have been possible for her to shout at me.” (Munken)
- (10.115) tã kə-jì à mē ñəŋhɔ [bɥé-wíjí só jí bɥé  
 CL1.father CL12-god 2SG then (A)think CL2-sibling 1PL.POSS REL CL2  
 lé úbáá bɥē mī]  
 (B)L.COP LOC.Abar CL2.DET LOC.in  
 “Father God, you will then consider our brothers who are in Abar...”  
 (Abar)

One verb (translatable as ‘touch’) does not appear in both intransitive and extended transitive frames as do the preceding examples, but only in an extended transitive frame. The verb has a figurative meaning, translatable as ‘influence’ (10.116), in addition to its literal meaning (10.117). The same frame is used in both cases.

- (10.116) à wè à tàŋ [ā-bjáŋ] jé ŋən̄  
 DS 2SG 2SG (A)touch CL2-children 2SG.POSS LOC.at  
 “It’s You who touch (i.e., influence) your children. . .” (Abar)
- (10.117) bó ɕú bɛ̃hɛ mjú jí-cám mē á tɔŋ=ā  
 CL2 (c)go.away (B)exit lest CL6a-blood CL6a.DET NEG (A)touch=PRF  
 [á bō mō]  
 PREP CL2.LOC.OBJ LOC.at  
 “They have moved away lest the blood [of the freshly slaughtered pig] touch them.” (Munken)

All verbs with an extended intransitive frame attested so far take as their non-subject argument a locative phrase, with the choice of postposition being fixed by the licensing verb.

### 10.8.2 Extended transitive

Some examples of verbs with extended transitive argument frames are given. These typically involve events of transfer of possession, or of controlled change of location. As noted in §10.1, some verbs which are here considered to have an extended transitive argument frame do often appear without all of their notional arguments. In (10.118), for example, the verb *fɛ̃lɔ* ‘give’ is accompanied by a dative argument, but not an object argument, which is omitted.

- (10.118) bwó tó kó ì-bú jī, bú à tó fɛ̃lɔ á  
 CL2 (B)come COM CL9-goat CL9.DET CL2 DS (B)come (B)give PREP  
 sō=nó  
 1PL=DAT  
 “They bring a goat and they come and give [it] to us.” (Missong)

Examples (10.119)–(10.121) show extended transitive argument frames with an object and a dative argument.

- (10.119) fĩ ñgbàŋ m̀bwĩn  
 (B)give.IRR CL1.power CL2.DAT  
 “Give power to them...” (Abar)
- (10.120) b̀yè mà k̀è t̀aa k̀à ú-tóm ñkúŋ ù=nó  
 CL2 then (A)go (C)show ?? CL3-village CL1.chief CL1=DAT  
 “They then went and showed the chief’s compound to him.” (Ngun)
- (10.121) b̀yè bí-mjĩ gbàŋ á sóŋ á t̀aa d̀asè  
 CL2 CL8-thing all PREP 1PL.DAT NEG (C)show.IRR S.NEG  
 “They have not shown everything to us.” (Ngun)

Example (10.122) shows an extended transitive argument frame with an object and a comitative argument.

- (10.122) ù-kwè jĩ ù-lõ tám lè wè b̀e  
 CL1-female.friend CL1.DET CL1-other (C)send.IRR (A)VENT.IRR CL1 COM  
 bí-ŋá á-ɕě ú-tóm  
 CL8-thing CL6-(B)eat.ADJ CL3-village  
 “... a friend of his should send him traditional foods.” (Munken)

Finally, examples (10.123)–(10.125) show extended transitive argument frames containing an object argument and a locative argument (including a locative proform, as in (10.123)).

- (10.123) ù f̃ ñè ú-ká jí d̃ nām d̀asè  
 CL1 COM (A)stay CL3-hand 3SG.POSS CL17.DEM (A)creep S.NEG  
 “... he would not have been able to put his hand inside...” (Munken)
- (10.124) ŋò b̀yè bâ ɕù jaŋhə k̀ò ñɕáha b̀yè  
 as CL2 (B)pack.in.basket.IPFV (A)put.IPFV quickly IPFV CL6-corn CL2.POSS  
 mĩ ĩ-t̃ɔ̀xò bĩ mĩ  
 LOC.in CL8-corn.basket CL8.DET LOC.in  
 “... as they quickly packed their corn into the baskets...” (Abar)
- (10.125) t̃ú f̃e āŋ-ŋé á wũ k̀è  
 (B)carry.water (B)give CL6a-water PREP CL1.LOC.OBJ LOC.hand  
 “[I] carry water and give it to him.” (Missong)

## 10.9 Valence alternations

A few verbs with extended transitive argument frames, namely the one translated as ‘give’, exhibit two different possible encodings of their arguments. The phenomenon is highly reminiscent of the so-called English ‘dative shift’ alternation. The two possibilities are outlined in table 10.6.

	AGENT	RECIPIENT	THEME
1.	Subject	Object	Comitative
2.	Subject	Dative	Object

Table 10.6: Two different argument frames for ‘give’.

The object-comitative possibility is exemplified in (10.126), and the dative-object possibility is exemplified in (10.127). Clear examples of other verbs participating in this alternation are not found in my text corpus, though it would not be surprising if some were found in subsequent work, as I have not conducted elicitation on valence alternations for verbs other than ‘give’.

(10.126)  $j\bar{e}$      $f\bar{e}$                      $m\grave{e}$   $m\bar{a}$      $\acute{u}$ - $t\grave{o}n$                      $\grave{o}$   
 COMP (B)give.IRR 1SG COM CL3-bitterleaf EXCL  
 “... [saying] that ‘Give me bitterleaf.’ ” (Abar)

(10.127)  $f\bar{e}$                      $b\acute{i}$ - $m\grave{a}l\grave{a}$      $s\bar{o}$ = $n\acute{o}$   
 (B)give.IRR CL8-cold 1PL=DAT  
 “... give cold to us.” (Munken)

As was suggested in § 10.5.4, there is some indication that the valence-shifting alternation can be generalized to encompass benefactive uses of arguments for verbs which do not require datives as part of their argument frames. Example (10.128) shows a comitative-object alignment where object-dative would normally be expected.

- (10.128) mī tíe bɔ́ǒ à fâj, ù-nò nī jí bɔ́ǎ  
 whether father CL2.POSS DS where CL1-person REL CL1.mother CL2.POSS  
 à bī wù bō bɔ́ǒ  
 DS (c)born CL1 COM CL2  
 “Where is [our] father, the man that [our] mother bore [us] unto him?”  
 (Biya)

## 10.10 Complex predicates

In § 10.1 it was stated that an attempt to explain how complex verbal cores get the argument frames that they seem to have would be put off until after all of the main facts about the argument structures of clause-level predicates had been presented. This section outlines a means of classifying complex predicate structures based on regularities in the composition of their argument structures.

For ease of exposition, and to facilitate the expression of generalizations, a semi-formal framework for describing the operation of the complex argument structure system has been developed. It is presented in § 10.10.1. In the system proposed, some types of serial verb construction involve verbs which have a null contribution to the overall argument structure of the clause (§ 10.10.2), while others involve pairs of verbs which combine in one of two ways to generate the argument structure of the clause (§ 10.10.3). Section 10.10.4 illustrates the ways in which the basic types of argument mappings described in §§ 10.10.2–10.10.3 can combine iteratively to yield the argument structure properties of clauses having more than two verbs. The section is concluded with a note on directions for future research (§ 10.10.5).

### 10.10.1 Framework

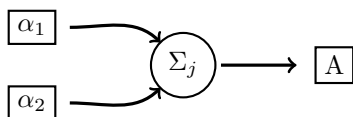
The general goal of the present inquiry is to determine a compact set of rules which can be used to predict the clause-level argument structure of a clause containing



a complex verbal core, given relevant argument structure properties about the individual verbs making up that complex verbal core.

Suppose that for any two verbs (or combinations of verbs) certain relevant argument structure properties are known, and it is also known the order in which the verbs are combined to form the complex verbal core. Suppose it is also possible to map the two “input” argument structures onto one “output” argument structure in a unique manner.

We refer to such a mapping as the function  $\Sigma_j$ , associated with a set of constraints of type  $j$ . Information about the argument structures of the input verbs is represented by the variables  $\alpha_1, \alpha_2, \dots, \alpha_n$  (the indices refer to the linear order of the verbs, such that an index of 1 represents the first verb in the *chaîne parlée*). The variable “A” represents information about the argument structure of the output verb. The mapping relationship can be represented graphically as follows:



A more compact, inline notation which can be used to refer to an equivalent mapping is:

$$A = \Sigma_j (\alpha_1, \alpha_2)$$

$\alpha$  and A are feature structures which, when applied to a verb, place restrictions on the grammatical functions of the arguments of the verb. The statement:

$$\alpha = [s : i]$$

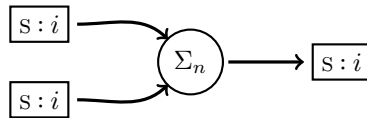
for example, is interpreted to mean that the associated verb must have a subject

argument whose referent is  $i$ .  $\alpha$  and A may only refer to two types of grammatical function: s (“subject”), which represents the subject argument of a transitive or intransitive verb; and A (“absolute”), which the subject of an intransitive verb, or the object of a transitive verb. Other grammatical functions are not relevant to the mapping operation.  $\alpha$  may also be an empty feature structure, represented with the “ $\emptyset$ ” symbol. In such a case  $\alpha$  specifies that the associated verb may not make any contribution to the argument structure.

$\Sigma$  is defined by the licit values of the input variables, the licit values of the output variable, and the mappings between the input and the output. Types of  $\Sigma_j$  differ by the types of restrictions they impose on their input variables, but they all compute the value of the output variable in the same way, by unification (see Carpenter 1992: 46).  $\Sigma_j$  is defined piecewise as follows:

$$\Sigma_j(\alpha_1, \alpha_2) = \begin{cases} \alpha_1 \sqcup \alpha_2 & : \alpha_1, \alpha_2 \text{ satisfy constraint } j \\ \text{undefined} & : \text{elsewhere} \end{cases}$$

The index  $j$  specifies a coreference constraint, a required identity relationship between two  $\alpha$  values. When  $j = n$ , for example, the only licit pairs of  $\alpha$  values are those which index the same referent as their s argument. Using the graphical representation introduced above, this particular version of  $\Sigma_j$  is represented as:



The value of A specifies coreference and grammatical role requirements for a clause. It is not, however, an exhaustive listing of the arguments which will in fact be realized. Object arguments may or may not be realized, regardless of whether their reference is specified in A. Oblique arguments are never specified in A, and may or may not be realized. The realization of optional arguments is subject to

an independent prohibition on the doubling of arguments, and when more than one unique object referent is specified, only one may be realized.

### 10.10.2 Null contributions

In order to analyze the argument structures of certain types of serial verb constructions in a perspicacious way, it was found necessary to assume that some verbs play no part in determining the argument structure of the clause they belong to.

An approach which avoids making this assumption would be to assume that all verbs are associated with an  $\alpha$  value consistent with the argument structure properties they possess when appearing as the only verb in a simple verbal core. The difficulty with such an approach is that it requires assuming that a verb must have all of the same senses in a simple verbal core as it does in a complex verbal core (we call this assumption “sense isotropy”). Allowing for null contributions in complex verbal cores does not require the assumption of sense isotropy.

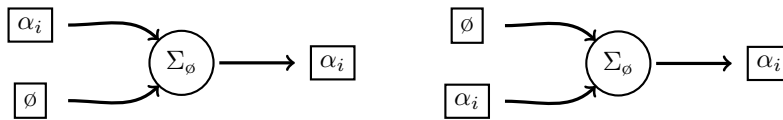
At first glance, the assumption of sense isotropy does seem unwarranted. We consider, for example, the verb glossed as ‘see’. As the only verb in a simple verbal core, it is always transitive, as in (10.129), and refers to an event of visual perception. When functioning as a right-modifying coverb, it marks experiential perfective aspect (cf. § 8.2.5.5), as in (10.130).

- (10.129) bú tsàŋ      bà-nè      bā-tsínsə  
 CL2 (B)see.IRR CL2-person CL2-black.ADJ  
 “They saw black people.” (Missong)

- (10.130) mō lá      tsàŋ      tsàŋ      sō      bú gbè      kì-fī  
 1SG L.COP.NEG (B)see.IRR (B)see.IRR S.NEG CL2 (A)cut COM.CL5-head  
 ù-nò  
 CL1-person  
 “I have never seen a man’s head be cut [off].” (Missong)

It would be counterintuitive to suppose that the verb glossed ‘see’ makes some contribution to the overall argument structure of the verbal core when it imparts an experiential perfective meaning, and that this contribution would be determined based on the subcategorization frame associated with ‘see’ in a simplex verbal core.

It will be allowed that there are some verbs, intuitively determined, which are deprived of their normal argument-licensing potential when they enter into a serial verb construction in a certain capacity. Coverbs which, intuitively, do not offer a contribution to the overall argument structure, and the choice of their argument structure makes no difference will be said to have a null contribution. The relevant constraint on their argument structures is that they have none. Null mappings have the commutative property: it does not matter whether the  $\alpha = \emptyset$  input comes first or second.



The verb *nàm* in example (10.131) is supposed to have a null contribution. By itself, it means ‘tiptoe’, but as a left-modifying manner coverb, it is better understood to mean ‘furtively’. Using the inline notation, the composition of the argument structure in (10.131) is represented as:

$$A = \Sigma_{\emptyset}(\emptyset, \alpha_2)$$

- (10.131) ù-nò      wū      nàm      tsàŋ  
 CL1-person CL1.DET (B)tiptoe.IRR (B)see.IRR  
 “The man spied [on the killers]...” (Missong)

A number of the serial verb constructions described in § 8 involve verbs which make a null contribution to the overall argument structure of their verbal cores.

The major types of serial verb constructions are summarized in table 10.7, according to whether the construction involves a  $\Sigma_\phi$  mapping.

NON-NULL CONTRIBUTION	NULL CONTRIBUTION
Causative	Manner
Custody transfer	Aspectual
Result state	Pragmatic effect
Sequential event	Directional
	Degree and extent

Table 10.7: Types of constructions where the construction-enabling verb lacks a subcategorization frame.

Not included in the list is the comparative construction. In § 8.2.3 some doubt was expressed about whether the comparative coverb should be properly considered a verb due to the fact that it may give rise to an otherwise unattested SVOV constituent order. In that section it was suggested that the comparative coverb might have become partially grammaticalized so that it has the ability to introduce a additional arguments, even in clauses which have already reached their carrying capacities.

- (10.132) m̄ō l̄ǎ          m̄ō n̄-jóxɔ          t̄ɛē          b̄ì  
 1SG (B)L.COP 1SG 1SG-(C)run.IRR (A)exceed.IRR 2SG  
 “I can run more than you.” (Missong)

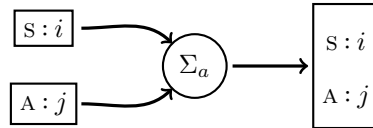
### 10.10.3 Non-trivial combinations

There are two types of mappings which involve non-null inputs. An “absolutive” mapping (represented by  $\Sigma_a$ ) is one which requires coreference between absolutive arguments of at least one  $\alpha$  and A. A “nominative” mapping (represented by  $\Sigma_n$ ) is one which requires coreference between subject arguments in both  $\alpha$  and in A.

The result state and causative constructions (§§10.10.3.1–10.10.3.2) exemplify the absolutive mapping, while the nominative mapping is exemplified in the custody transfer and sequential event constructions (§§10.10.3.3–10.10.3.4).

## 10.10.3.1 Result state

In a result state construction, the absolutive argument of the verb referring to the result state becomes the clause-level object, as depicted below.



In most of the available examples of result state constructions, the major verb (i.e., the first one) is transitive, and the minor verb is intransitive, as in (10.133) – (10.134).

- (10.133) M̀à l̀h̀ [ṭɛ́ám gbè] Nǎŋ  
 M. P2 (B)slap (A)fall N.  
 “◊Ma slapped Nang, [making] him fall.” (Biya)

- (10.134) bú mà ú-tóm mà [ḍô kwàha]  
 CL2 (A)take CL3-village then (c)call (A)gather  
 “The village was called to gather.” (Abar)

The major verb need not be transitive, however. Examples (10.135) – (10.136) illustrate the case where both the major verb and the result state verb are intransitive, combining to form a transitive verbal core.

- (10.135) à gbè ḍù ì-ḍám ī-n̄c̄àŋhə ēī  
 2SG (A)fall (A)break CL5-back CL19-crab CL19.DET  
 “...you fell and broke the crab’s back...” (Abar)

- (10.136) ī-jóŋ àl̀h̀ s̀àn gbè ú-kp̄ó  
 CL5-gale P2 (A)pass (A)fall CL3-house  
 “◊A strong wind blew, [making] a house fall.” (Biya)

Example (10.137) presents an interesting case of a rather long verbal core which, though all of its verbs are intransitive, is transitive. To simplify the analysis, we treat the first five verbs as jointly making up a single intransitive predicate. The final verb represents the result state of the action described the first verb (i.e., death by breaking down and falling).

- (10.137) *ú-kǎn kǎ-tǎ mù [kǎm sǎ lè tǎ gbè*  
 CL3-hand CL12-tree then (A)break (A)descend (A)VENT (B)come (A)fall  
*kpé] kǎ-tsǎ kǎ*  
 (B)die CL12-cock CL12.DET  
 “A tree branch then broke and fell down, killing the cock.” (Biya)

In cases where both the major and minor verb are transitive, and the subject and object arguments of both verbs are coreferent, the construction can be interpreted either as a result state construction (with absolutive mapping) or as a sequential event construction (§ 10.10.3.4) (with nominative mapping). The same holds true for cases where the first verb is intransitive, and the second verb is transitive (with a subject coreferent to the first verb’s). Examples (10.138) – (10.139) are among those which could reasonably be interpreted as involving either nominative or absolutive mappings.

- (10.138) *tǎn sǎn j̄-pé mwē*  
 (A)jump.IRR (A)pass.IRR CL6a-water CL6a.DET  
 “°Jump over the water!” (Biya)

- (10.139) *Mǎ lè sǔ fǔ Nǎŋ bú-kpǎfǎ*  
 M. P2 (B)congratulate (B)give N. COM.CL3-money  
 “°Ma congratulated Nang and gave him money.”

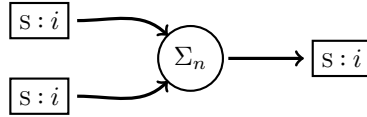
Clear examples of result state constructions where the transitive result state verb has a different subject from the first verb are not found in my corpus.<sup>23</sup>

An apparent exception to the mapping seen in most result state constructions is seen in (10.140), which apparently has a nominative mapping and not an absolutive mapping.<sup>24</sup> This example might, however, be dismissed as a sequential event

<sup>23</sup>It would be interesting to see whether a sentence like (10.139) could be coerced into an absolutive-only interpretation, with a translation like ‘Ma congratulated Nang and had money given to him’. See also discussion in § 10.10.3.4.

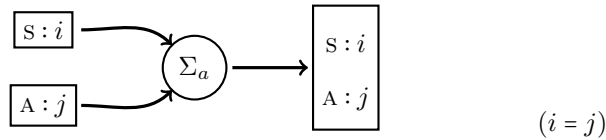
<sup>24</sup>It would be interesting to know whether addition of an object to (10.140) would force a more typical (but semantically odd) mapping, i.e., ‘...that I eat until [someone] gets tired’. The unusualness of this example was not realized until relatively late in the composition of this work, after which it was no longer possible to conduct follow-up elicitation.

construction (i.e., meaning ‘eat and get tired’), and could if we chose to make the absolutive mapping a necessary property of the result state construction.



- (10.140)  $\bar{n}$ - $n\bar{e}$        $\bar{n}$ - $s\bar{a}n$        $\acute{y}g\grave{o}$  à  $d\acute{e}$        $g\grave{o}n$   $m\grave{o}$   $j\bar{e}$        $\bar{n}$ -[ $\text{ḏ}\acute{s}\acute{i}$   
 1SG-(A)stay 1SG-(A)pass.IRR so DS (c)say only 1SG COMP 1SG-(B)eat  
 $b\acute{u}$ - $bw\acute{o}$ ]  
 VFOC~(B)tired  
 ‘If I can pass [the exam], I’ll only be saying that I’m tired of eating.’  
 (Biya)

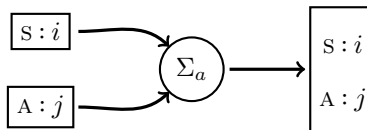
To entertain yet another option, example (10.140) could still be analyzed as involving an absolutive mapping, represented as below.



Such an analysis hinges on the fact that we have not specified whether the  $i$  and  $j$  indices in our diagrams may be equal to each other. It also requires assuming that there is an omitted reflexive object.

### 10.10.3.2 Causative

The causative construction may be seen as a special case of the result state construction. Like the result state construction, it involves an absolutive mapping. However, the major verb is fixed; it must be the transitive verb translated as ‘make, do’.





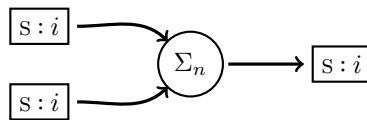
When the verb satisfying the  $A : j$  constraint is transitive, its subject argument (i.e., the causee) may not be expressed in a monoclausal construction (cf. § 8.2.4). In (10.141), the giver of money remains anonymous. When the caused verb lacks an object argument, on the other hand, as in (10.142), its absolutive argument is the same as the causee, and is expressed.

(10.141) Mú kə̀ lè      fǔ      Nǎŋ mú-kpɔ̀bə  
 M. P1 (A)make (B)give N. COM.CL3-money  
 “<sup>◊</sup>Mu made [someone] give Nang money.” (Abar)

(10.142) Mú kə̀ lè      ɕú      Nǎŋ mɔ̀ŋ      kè  
 M. P1 (A)make (B)fear N. 1SG.LOC.OBJ LOC.hand  
 “<sup>◊</sup>Mu made Nang fear me.” (Abar)

### 10.10.3.3 Custody transfer

A custody transfer event prototypically involves a main transitive verb as well as a custody transfer verb. The coreference requirement for a custody transfer event is that the subject argument of the custody transfer verb be the same as the subject of the main verb:



The custody transfer verb glossed as ‘keep’ is commonly associated with an extended transitive frame, having subject, object and locative arguments. Examples (10.143) – (10.144) show custody transfer constructions with ‘keep’. In (10.143), the object of the main verb *tân* ‘dry’ is apparently the same as that of the custody transfer verb *wǎn* ‘keep’. The custody transfer verb additionally licenses a locative argument not licensed by the main verb.

- (10.143)  $\acute{u}$ -gbě́ b́ [tân wǎnə] á-bùŋ ù-tɛ̀lə́  $\acute{u}$   
 CL3-rope CL2 (c)dry (B)keep CL12-dress CL1-female PREP.LOC.OBJ  
 m̀ə̀  
 LOC.at  
 “... a rope that they keep women’s dresses on to dry. [lit. dry and keep]”  
 (Munken)

Example (10.144) is similar to (10.143) in its argument structure properties, except for the fact that the common object is omitted.

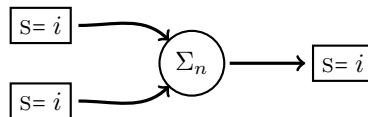
- (10.144) à b̀è [à] m̀ə̀lə́ s̀ə̀, s̀ə́ [dzè wǎn] ū-b̀è m̄  
 DS B.COP DS (A)be.cold (A)descend 1PL (A)put (B)keep CL3-pan LOC.in  
 “When it has cooled down, we reserve [it] in a pan.” (Munken)

Example (10.145) illustrates why no coreference requirement concerning the object is hypothesized. The notional object of the custody transfer verb  $m̄$  ‘take’ (a cup) differs from that of the main verb  $m̀$  ‘drink’ (wine).<sup>25</sup>

- (10.145) [m̄ m̀]  
 (A)take.IRR (B)drink.IRR  
 “°Drink!” (Biyá)

### 10.10.3.4 Sequential event

The sequential event construction, like the custody transfer construction, involves a nominative mapping, requiring that the subjects of the two verbs be the same.



Two examples are given in (10.146)–(10.147).

- (10.146) ì-wùŋə̀ nàŋ kǎ́  $\acute{u}$ -kpóhə́ mẁə̀ ɛ̀i-tòrə́ki k̀ə̀  
 CL9-pig (A)go (B)ask.debt CL3-money TOP CL19-tortoise LOC.hand  
 “Pig went and asked the money of tortoise.” (Munken)

<sup>25</sup> If a drinking vessel is the referent of an argument of the verb meaning ‘drink’, it must be a locative argument.

- (10.147) à ɪ-bí ì bàn ɲè kò-ɲkè m̄  
 DS CL9-dog CL9 (A)climb (A)stay CL12-basket LOC.in  
 “It’s a dog that has climbed [into] and sat in a basket.” (Biya)

A number of interesting cases are found where two or more verbs appear together in a sequential event construction which have dissimilar notional object and oblique arguments. Example (10.148) has four different verbs, each with the same notional subject argument, but all four with different notional object arguments. The object argument which is realized, *á-ɕé* ‘corn’, is associated with the final verb.

- (10.148) Dʒò lē fín nàm bwènə ɕènə á-ɕé  
 D. P2 (B)clear (A)till (A)pierce (A)plant CL6-corn  
 “°Djo cleared [a field], shaped [rows], made holes [in the soil], and planted corn.” (Munken)

When several verbs are present, each having different object arguments, the tendency is to interpret any object which is present as belonging to the final transitive verb. Example (10.149), which realizes only the notional object of the second verb, *nàm* ‘till soil to form [rows]’, was regarded as nonsensical by my Munken consultants, since *bí-káj* ‘rows’, is by default interpreted as the object of *ɕènə* ‘plant’.

- (10.149) Dʒò lē fín nàm bwènə ɕènə bí-káj  
 D. P2 (B)clear (A)till (A)pierce (A)plant CL8-row  
 ??“°Djo cleared [a field], shaped [rows], made holes [in the soil], and planted rows.” (Munken)

In elicitation with two Biya consultants, however, both of (10.150)–(10.151) were judged acceptable. The examples contain two-verb cores with transitive verbs having dissimilar notional objects (we ignore the directional coverb *fwā*, which has a  $\emptyset$  contribution).

- (10.150)  $\bar{m}$ -bò                       $\bar{n}$ -gbē                      mō                      fwā  
 1SG-(A)search.IPFV 1SG-(A)cut.IRR (A)take.IRR (A)off.IRR  
 í-dí<sup>26</sup>  
 CL5-bush.candle  
 “°I want to cut [the canarium tree] and take out the bush candle.”
- (10.151)  $\bar{m}$ -bò                       $\bar{n}$ -gbē                      mō                      fwā                      kō-tô                      í-dí  
 1SG-(A)search.IPFV 1SG-(A)cut.IRR (A)take.IRR (A)off.IRR CL12-tree CL5-bush.candle  
 kō  
 CL12.DET  
 “°I want to cut the canarium tree (lit. ‘bush candle tree’) and take out [the bush candle].”

A comitative argument referring to the instrument used to carry out any of the actions<sup>27</sup> is successfully interpreted in Munken, as is the case with (10.152) – (10.153).

- (10.152) Dɔ̀ò lē fín      nàm bwènə      ɖènə      á-ɖě      bə      ú-ɛ́  
 D. P2 (B)clear (A)till (A)pierce (A)plant CL6-corn COM CL3-machete  
 “°Djo cleared [a field], shaped [rows], made holes [in the soil], and planted corn using a machete [for the clearing and making of holes].” (Munken)
- (10.153) Dɔ̀ò lē fín      nàm bwènə      ɖènə      á-ɖě      bə      ā-kà  
 D. P2 (B)clear (A)till (A)pierce (A)plant CL6-corn COM CL6-hand  
 jí  
 3SG.POSS  
 “°Djo cleared [a field], shaped [rows], made holes [in the soil], and planted corn using his hands [to plant the seeds].” (Munken)

<sup>26</sup> “Bush candle” is the hardened sap of *Canarium schweinfurthii*.

*Canarium schweinfurthii* is a large forest tree with its crown reaching to the upper canopy of the forest, with a long clean, straight and cylindrical bole exceeding 50 m. Diameter above the heavy root swellings can be up to 4.5 m. Bark thick, on young tree fairly smooth, becoming increasingly scaly and fissured with age. The slash is reddish or light brown with turpentine like odour, exuding a heavy, sticky oleoresin that colours to sulphur yellow and becomes solid. ([http://www.worldagroforestry.org/treedb2/AFTPDFS/Canarium\\_schweinfurthii.pdf](http://www.worldagroforestry.org/treedb2/AFTPDFS/Canarium_schweinfurthii.pdf))

<sup>27</sup> Clearing is done with a machete, tilling is done with a hoe, piercing is done with a machete, and planting is done with the hands.

As signaled in § 10.10.3.1, there are examples which might be classified either as result state constructions or sequential event constructions, without affecting their meanings, since they satisfy both the nominative and absolutive mapping coreference constraints. There are examples, however, which could be interpreted either as nominative or absolutive mappings, but for which the two interpretations give different meanings. When elicited, example (10.154) was interpreted with an absolutive mapping, while (10.155), contrary to my expectation, was interpreted with a nominative mapping.

(10.154)  $\bar{n}$ -tsám    fĕ    ĩ-çĕ  
 1SG-(B)slap (B)fly CL9-fowl  
 “I slapped the fowl, making it fly.” (Munken)

(10.155)  $\bar{n}$ -tsám    jâlə    ĩ-çĕ  
 1SG-(B)slap (C)run CL9-fowl  
 “I slapped the fowl while running.” (Munken)

Example (10.155) might also be interpreted as showing a  $\emptyset$  mapping, with *jâlə* ‘run’ being interpreted as a manner coverb.<sup>28</sup> The issue of mapping-based ambiguity has been touched on only very lightly in elicitation, and seems like it would be a fruitful area for future research.

#### 10.10.4 Iterative mappings

For the sake of simplicity in the notational system, the  $\Sigma$  function was defined as mapping two domain variables onto one output variable. Since the input and the output are of the same type, constraints on argument realization in verbal cores with more than two arguments can be represented as deriving from multiple applications of the  $\Sigma$  function. A few examples are briefly illustrated with inline notations for their mappings.

<sup>28</sup> The sentence might then be translated as ‘I took a running slap at the fowl’.

Example (10.156) shows a sequential event construction in the outer mapping, and a directional construction in the inner, null mapping.

$$A = \Sigma_n(\alpha_1, \Sigma_\emptyset(\alpha_2, \emptyset))$$

- (10.156) n̄      dzó      lē      ù-nò      ù-dzù      w̄  
 (A)go.IRR (c)call.IRR (A)VENT.IRR CL1-person CL1-DEM.DIST CL1.DET  
 “Go and call forth that man.” (Biya)

Example (10.157) shows an outer nominative mapping, with two inner null mappings.

$$A = \Sigma_n(\alpha_1, \Sigma_\emptyset(\Sigma_\emptyset(\alpha_2, \emptyset), \emptyset))$$

- (10.157) ì    tsè    [kú    gànɔ    fə]    jì  
 2SG (A)go (B)hold (A)scrub (A)off CL9  
 “You go and furtively catch it away [i.e., you steal the chicken].” (Mis-  
 song)

The two words glossed ‘break’ (examples (10.158)–(10.159)) are not attested as transitive verbs, while the word glossed ‘scatter’ is attested alone both in transitive and intransitive variants. The appearance of these verbs in result state constructions illustrates a way that a grammatical marker of transitivity might arise: if verbs with inchoative semantics cannot undergo a causative/inchoative alternation by themselves, they can be given a causative interpretation when combined with a “light” transitive verb, such as the one glossed ‘hold’.

$$A = \Sigma_n(\alpha_1, \Sigma_a(\alpha_2, \alpha_3))$$

- (10.158) à fwē ù jôxò m̀è ǹèn t̀ì ɕ̀ù ì-bàha  
 DS CL16.DET CL1 (C)run then (A)go (A)step (A)break CL5-rock  
 “That’s why he ran and then went and stepped on the rock, breaking  
 it.” (Abar)

$$A = \Sigma_a(\alpha_1, \Sigma_a(\alpha_2, \alpha_3))$$

- (10.159) bú à kó kàm tàha kí  
 CL2 DS (B)hold (A)break (A)scatter CL7  
 “They broke it off.” (Missong)

$$A = \Sigma_n(\alpha_1, \Sigma_a(\alpha_2, \alpha_3))$$

- (10.160) bué gbà ɕ̀ù táha k̀è ẁò  
 CL2 (A)cut (A)throw (B)scatter ?? 2SG  
 “They will cut you down and throw you away.” (Ngun)

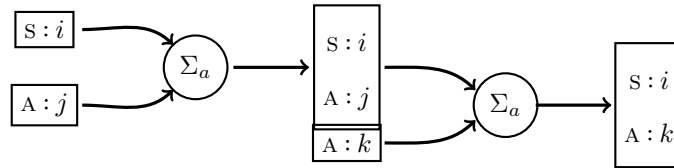
### 10.10.5 Conclusion

One interesting aspect of the analysis presented in this section is that there is no reference made to object or oblique arguments. In fact, the present approach would have failed if objects had been included in the feature structures, since inputs with inconsistent object specifications are permitted.

$$\left[ \begin{array}{l} s : i \\ o : j \end{array} \right] \sqcup \left[ \begin{array}{l} s : i \\ o : k \end{array} \right] = \text{undefined}$$

An interesting topic for future research would be a more thorough investigation of the extent to which a full analysis of Mungbam argument structure could proceed if only the categories S and A were used in the analysis.

Also suggestive, for future research, is an implication about possible multiple iterations of of the  $\Sigma$  function.  $\Sigma$  is defined in such a way that mappings of the type  $\Sigma_a(\Sigma_a(\alpha_1, \alpha_2), \alpha_3)$ , where  $\alpha_2$  and  $\alpha_3$  have different referents, ought to be grammatical (so long as they have a reasonable interpretation in context):



Concretely, it would be predicted that a sentence such as (10.161), if given a proper context, would be grammatical. Testing this prediction will have to wait for future studies where Mungbam consultants are accessible.

- (10.161) Nǎŋ tǎm kàm gbè ɛí-bús  
 N. (B)shoot (A)break (A)fall CL19-cat  
 ?? “Nang shot [the tree branch] [making it] break, [making] the cat fall.”  
 (Hypothetical Munken)



# Chapter 11

## Focus

### 11.1 Introduction

Languages of Cameroon have in recent times attracted considerable attention for the elaborateness of their formal focus-marking systems. A pioneering study by Watters (1979) on the focus-marking system in Aghem preceded the now classic paper by Hyman and Watters (1984), which heavily influences the presentation in this chapter. Descriptions of other Cameroonian languages, including Thwing and Watters (1987); Good (2010); Kießling (2010) have revealed comparable elaborateness in a number of Grassfields languages other than Aghem. In this context it would be rather surprising if there was little to say on focus-marking in Mungbam. Mungbam has an extensive formal apparatus for the marking of information structure properties. Some of the properties of the focus-marking system are suggested by what has been found for neighboring languages, while other aspects give it its novel flavor.

The remainder of this introductory section is dedicated to explaining two terminological distinctions that have been adopted: the distinction between assertive

and contrastive focus, and the distinction between constituent and auxiliary focus. The remainder of the chapter is organized partly along formal lines, and partly along functional lines. Section 11.2 presents monoclausal constructions used to focus any of the arguments of a clause (subject, object or oblique). Section 11.3 presents focus and related constructions having the effect of emphasizing the lexical meaning of the verbal core. Section 11.4 discusses the use of verbal reduplication to mark *verum focus*, which is assertive or contrastive focus on the truth value of a clause. Thetic sentences, which are not specially marked for focus, are discussed briefly in § 11.5. The biclausal clefting construction is discussed in § 11.6. Section 11.7 (where Hyman and Watters's concept of pragmatic vs. grammatical control of focus marking plays a part) treats interactions between the major focus-marking strategies presented in §§11.2–11.6. Section 11.8 lists some functional categories which are (often or necessarily) correlated with focus marking. Three constructions which use serial verb constructions to achieve focus-like effects have been discussed above in § 8.2.7.

### 11.1.1 Assertive and contrastive focus

Following Hyman and Watters (1984: 239–41), I refer separately to 'assertive focus' and 'contrastive focus' when discussing the functional properties of some of the focusing constructions. As Hyman and Watters (1984) define the terms, assertive focus projects new information against a neutral informational background, while contrastive focus projects new information against a background of conflicting information. The distinction is useful since some constructions are only used to mark contrastive focus, while others are used to mark both assertive and contrastive focus. The distinction is also especially useful given the difficulty of producing accurate free translations: English does not have focus constructions which can be interpreted as either assertive or contrastive, depending on the context.

### 11.1.2 Scope of focus-marking

Discussion on the scope of a focus operator tends to (at least implicitly) refer to scope within the sentence as translated into a logical- or predicate calculus-like representation, rather than within the sentence's morpho-syntactic form. Thwing and Watters (1987:102), for example, illustrate the difference in scope between auxiliary focus and constituent focus with a logical representation of the English sentence *Yaya comforted Alima* as in (11.1). The transitive verb is represented as a two-place predicate, with its subject and object arguments in parentheses; tense, aspect and truth value are treated as operators on the verbal predicate and its arguments as a whole. Auxiliary and constituent focus are then distinguished by whether they apply to the outer functors or to the verb and/or its arguments.

$$(11.1) \quad (\text{TRUE, PAST, PERFECTIVE (comfort (Yaya, Alima))})$$

$$\text{AUX FOC} \longrightarrow \dots \longleftarrow \text{CONST FOC}$$

$$\text{Yaya comforted Alima.}$$

In typologically-informed approaches to grammar such as Dik (1997); Van Valin (2005), a basic unit is recognized which consists of the predicate and its arguments<sup>1</sup> which may be successively modified by different operators<sup>2</sup> such as those expressing tense, aspect, mood, polarity, and illocutionary force. In Dik (1997); Van Valin (2005), as well as the informal presentation in Thwing and Watters (1987), focus is not itself an operator. This is apparently because (according to the theory) operators have a fixed hierarchy which specifies their scope in a universal way (cf. Dik (1997: 50), Van Valin (2005: 8–11)), but focus may have under its scope the predicate and/or its arguments as well as any of the operators, but lower levels of clause structure are not automatically under the scope of focus when some higher level is in focus. This fact necessitates the decoupling of focus from operator

<sup>1</sup> The “nuclear predication” (Dik, 1997: 51) or the “core” (Van Valin, 2005: 5).

<sup>2</sup> Called “ $\pi$ -operators” by Dik (1997: 50–1).

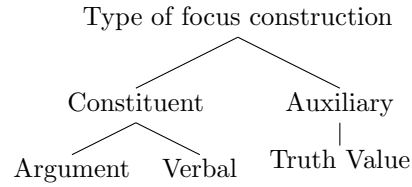


Figure 11.1: Formally encoded types of focus in Mungbam, according to the scope of focus

structure.

Categories of focusing constructions in Mungbam are distinguished according to the scope of focus. The distinction between constituent and auxiliary focus (Hyman and Watters, 1984)<sup>3</sup> is observed. Mungbam, however, lacks the inherently focused tenses which have been reported for other African languages; the only type of auxiliary focus present is verum focus. Constituent focus may be divided into argument focus and verbal focus (focus on the event described by the verb, or the lexical meaning of the verb), and these types of focus constructions are presented separately. Since, however, verbal focus requires the creation of a cognate argument from a nominalized verb, it could be argued that the formal difference between argument focus and verbal focus is rather slight. The foregoing categorization is schematized in figure 11.1.

<sup>3</sup> Hyman and Watters (1984: 233) define the term as “... the interaction between focus and the semantic features of tense, aspect, mood and polarity.” Auxiliary focus may refer to a focusing construction where a TAMP specification is what is in focus, or a construction where focus-marking appears on TAMP-marking morphemes (whence the term “auxiliary”). Hyman and Watters (1984: fn. 1) are more cautious about being neutral on the issue of the universal category AUX (cf. e.g., Akmajian et al. (1979)) than they are about avoiding a transparently English-inspired descriptive term, writing as follows:

In using the term “auxiliary” we do not necessarily commit ourselves to a view of grammar which recognized the auxiliary as a category distinct from the category “verb”, although we shall need to refer to the above semantic features as a natural class.

## 11.2 Argument focus

Argument focus comprises monoclausal constructions used to focus or defocalize any of the five basic argument types presented in § 10: subjects, objects; and comitative, dative, and locative arguments (these last three being collectively referred to as obliques). All such constructions have in common that they involve the dislocation of arguments away from their canonical position, and so focus-related dislocation is treated in a general fashion in § 11.2.1. Individual constructions are grouped according to the type of word-order changes they involve. The subject focus construction, which involves dislocation to the position immediately after the verbal core (IAV), is presented in § 11.2.2. Defocalisation of object and oblique arguments, which involves dislocation to the position immediately before the verbal core (IBV), is presented in § 11.2.3. Focus of oblique arguments, which occurs when these appear in IAV position, or are clefted, is presented in § 11.2.4. Finally, what is here termed ‘modifier focus’, which involves partial dislocation of an argument to IAV, is discussed in § 11.2.5.

### 11.2.1 Departures of canonical word order

The default constituent order for an intransitive clause is SV, and the default constituent order for a transitive clause is SVO. Oblique arguments canonically appear after the verb in an extended intransitive clause (SVX), and after the object in an extended transitive clause (SVOX). Examples of these four basic clause types are given in § 10.8.

I treat the verbal core as a fixed point in constituent linearization, and only

consider dislocations as being possible for arguments.<sup>4</sup> The two types of possible dislocations are dislocation to the position immediately after the verb (IAV), and dislocation to the position immediately before the verb (or more precisely, before the verbal complex) (IBV). Following various scholars since Watters (1979), IAV is treated as an inherently focused position, and IBV is treated as an inherently defocalised position. This means that a standard SVO clause can be interpreted as having the object as part of the focus, and the subject out of focus.<sup>5</sup>

### 11.2.1.1 Dislocation to IAV

Dislocation to IAV is associated with focalisation of an argument. In (11.2), the class 19 subject pronoun, referring to Tortoise, is in focus in order to emphasize the fact that Tortoise was the one who ate all of the food, although the food was to be for him to share with the birds. In (11.3), the subject ‘Moses’ is in focus in order to emphasize that Moses is somebody who is a good dancer, while there are other people among his peers who may not be good dancers.

- (11.2) à tí      ǫ́í    tsê      fê    [éí]    bí-ńǎ      á-ǫ́éłə      á  
 DS (B)come (B)eat (C)finish (A)off CL19 CL8-thing CL?-(B)eat.ADJ PREP  
 bē                      sè  
 CL2.LOC.OBJ LOC.face  
 “He [tortoise] came and ate up all of the food in front of their [the birds’]  
 faces.” (Munken)

<sup>4</sup> The reasoning for this choice is as follows: the concept of dislocation presupposes the ability to diagnose dislocation, which is possible only if a fixed reference point is taken; the reference point must be an element which is linearly contiguous and always present in most types of clause. The only elements fitting this description are the verbal core and the subject. Matters of tradition aside, it will hopefully be seen in the course of the analyses presented below that it would be difficult to formulate simple analyses if the subject was used as a fixed reference point instead of the verbal core: conditions on the appearance of the dummy subject, and the special status of IAV position, would be difficult to describe if the subject rather than the verbal core were used as a reference point.

<sup>5</sup> See qualifying remarks by Good (2010: §5.3.4) on focus in clauses with default word order in Naki, which would also apply generally to Mungbam.

- (11.3) à môŋ              ɕôŋɔ              kò [Moses]  
 DS (B)dance.IPFV (B)be.good.IPFV IPFV M.  
 “°Moses is a good dancer.” (Abar)

When a subject is dislocated to IAV, the dummy subject à (cf. §6.2) must, with very few exceptions, stand in its canonical place. One exception is in rapid speech, where the dummy subject is occasionally omitted. The second, and more substantial, exception, is in Missong clauses which have a preverbal tense marker present: subject focus constructions based on such clauses must *not* contain a dummy subject ((11.4)–(11.5)).

- (11.4) à kà gbè mō  
 DS P2 (A)fall 1SG  
 “°I fell.” (Abar)

- (11.5) kà gbè mō  
 P2 (A)fall 1SG  
 “°I fell.” (Missong)

Since IAV is the canonical position of an object, no such operation is available for objects. Obliques may appear in IAV, either by dislocation to that position, or as a side effect of defocalization (or omission) of the object argument (see §11.2.4).

### 11.2.1.2 Dislocation to IBV

Non-subject arguments may be dislocated to the position immediately before the verbal complex. Such a dislocation is associated with defocalization of these arguments. A clause with multiple non-subject arguments may have multiple terms dislocated to IBV. Two examples are given in (11.6)–(11.7).

- (11.6) Moses [i-bwé] bàha mō cǐ-cǎ  
 M. CL9-goat (A)butcher COM CL19-knife  
 “°Moses butchered a goat with a knife.” (Abar)

- (11.7) Moses [i-bwé] [mā ɛí-ɛá] bàha ú-kpé fi  
 M. CL9-goat COM CL19-knife (A)butcher CL3-house LOC.head  
 “°Moses butchered a goat with a knife on top of the house.” (Abar)

When a preverbal tense marker is present, and a term has been dislocated to IBV, the dummy subject is present.<sup>6</sup>

- (11.8) Nǎŋ í-wōŋ mɔ à kè tsám òtù  
 N. CL10-pig 1SG.POSS DS P2 (B)beat yesterday  
 “°Nang beat my pigs yesterday.” (Abar)

Since IBV is the canonical position of a subject, no such operation is available for subjects. It might be argued, however, in light of commentary on the previous example, that clauses with canonical word order and a nominal subject, which also contain a dummy subject (e.g., (11.9)), are in fact examples of subject defocalization, contrasting with examples with a nominal subject and also a coreferential pronoun (e.g., (11.10)). This question, if answerable, will be left for future research.

- (11.9) ù-nè à tsám bɛ́hɛ lò dà  
 CL1-person DS (A)talk (B)exit (A)VENT D.NEG  
 “The man didn’t say anything.” (Munken)

- (11.10) ù-nè wō ù fàha pàŋ bɛ́hɛ lò  
 CL1-person CL1.DET CL1 (A)extract.IPFV (B)good.IPFV (B)exit.IPFV (A)VENT.IPFV  
 á-tóŋ ì-wùŋə kō mī  
 CL12-ear CL9-pig CL12.DET LOC.in  
 “The man is thoroughly removing [the hairs] from the pig’s ear.” (Munken)

### 11.2.2 Subject focus

The subject is the only type of argument which canonically occurs before the verbal complex. When it is focused via word order changes it is dislocated to IAV position, and the dummy subject *à* stands in the preverbal position.

<sup>6</sup> At least in Biya, Abar and Munken. Data on this point is not available for Missong or Ngun.



- (11.11) à dī wè jē à dzē bī-kpà  
 DS (c)say 2SG COMP 2SG.TOP (A)wear.IRR CL8-shoe  
 “You said that you should wear shoes.” (Munken)
- (11.12) à tí ǫǫ́ tsê fè cí bí-ńǎ á-ǫǫ́lə á  
 DS (B)come (B)eat (c)finish (A)off CL19 CL8-thing CL12-eat.ADJ PREP  
 bē sè  
 CL2.LOC.PRO LOC.face  
 “He (the tortoise) came and finished all of the food right in front of  
 them (the birds).” (Munken)

Subject questions, where the subject is inherently focused, require the question word to be in IAV or clefted (cf. § 11.8.5), making word-for-word translations of English subject questions ungrammatical.

- (11.13) \*nē tsám í-wǫŋ mó  
 who (B)beat CL10-pig 1SG.POSS  
 intended: who beat my pigs? (Abar)

### 11.2.3 Object/oblique defocalization

An object or oblique can be especially defocalised (or topicalized) when it is dislocated to IBV position. Defocalisation is typically used to direct focus away from its usual position onto a different constituent (i.e., the verbal core or a different non-subject argument), as in examples (11.14) – (11.15). There are also examples from texts where it seems that the defocalization construction is being used for its own sake, to topicalize an argument (e.g., § 11.16).

- (11.14) Nǎŋ í-wǫŋ mó kpààn tsín~tsám  
 N. CL10-pig 1SG.POSS five VFOC~(B)beat  
 “<sup>◊</sup>Nang beat my five pigs.” (Abar)
- (11.15) Nǎŋ í-wǫŋ mó tsám kpààn  
 N. CL10-pig 1SG.POSS (B)beat five  
 “<sup>◊</sup>Nang beat my five pigs.” (Abar)

- (11.16) jí            mǎ dé=á            jē      bó bǎ bi-kpǎ      á      ɛ̀lǎ  
 CL1.mother then (c)say=PRF COMP CL2 COM CL8-shoe NEG (A)work.farm  
 dà      ɪ-mwǎlǎ      mǐ  
 D.NEG CL5-farm LOC.in  
 “The mother said that farmwork is not done with shoes.” (Munken)<sup>7</sup>

### 11.2.4 Oblique focus

Oblique arguments may be focused either by clefting (11.17) or by their appearance in IAV position. In the latter case, the oblique may appear in IAV as a ‘side effect’ of defocalization or omission of the object argument, or with the object still in the focus field, but its position and that of the oblique inverted (11.18).

- (11.17) à lé            ú-kpé            á      fù            Moses bàha      ì-bwé      mǎ  
 DS (B)L.COP CL3-house PREP LOC.head M.      (A)butcher CL9-goat COM  
 ɛ́-ɛ́ǎ  
 CL19-knife  
 “°It’s on top of the house that Moses butchered a goat with a knife.”  
 (Abar)
- (11.18) Moses bàha      mǎ ɛ́-ɛ́ǎ      ì-bwé  
 M.      (A)butcher COM CL19-knife CL9-goat  
 “°Moses butchered a goat with a knife.” (Abar)

### 11.2.5 Modifier focus

Modifier focus is an interesting type of construction wherein a head nominal and one of its modifiers (cf. §6.3) are on opposite sides of the verbal complex. More specifically, a noun is in the topic field, and some constituent showing agreement with it is in the focus field. Modifiers which can appear alone in IAV position are adjectives, numerals, the definite quantifier ‘all’, and the associative proform.

Demonstratives, determiners, and the indefinite quantifier ‘some, other’ cannot

<sup>7</sup> Context: A woman and her daughter went to the farm together, and the daughter had been pestering her mother about how her feet hurt, and how she would only help if she were allowed to wear shoes. Wearing shoes in a patch of groundnuts can damage the crop, so it is avoided.

appear in IAV position by themselves. For ease of discussion, I call the first type of modifier ‘separable’, and the second type ‘non-separable’.

Begin by considering the sentence in (11.19). The sentence instantiates a focus construction where a modifier of the object head nominal (but not the whole object) is in focus. The part of the object which is not in focus, *í-gʷŋ mǎ* ‘my pigs’, is dislocated from its normal position to immediately before the verb, and the part of the object which is in focus, *í-tē* ‘CL10-three’ stands in the IAV position.

- (11.19) [Nǎŋ í-gʷŋ mǎ] [à tǎm] [í-tē]  
 N. CL10-pig 1SG.POSS DS (B)beat CL10-three  
 “◊Nang beat three of my pigs.” (Biya)

For comparison, consider (11.20), which observes canonical constituent order.

- (11.20) [Nǎŋ] tǎm [í-gʷŋ mǎ í-tē]  
 N. (B)beat CL10-pig 1SG.POSS CL10-three  
 “◊Nang beat my three pigs.” (Biya)

The two sentences differ in their information structure properties, as well as other pragmatic properties. While in (11.20) it is implicated that the speaker has only three pigs, the sentence in (11.19) instead implicates that there are other pigs belonging to the speaker which were not beaten by Nang. A similar distinction holds when the separated modifier is an adjective. Example (11.20) implies that the speaker has other pigs which are not fat, and which were not beaten by Nang.

- (11.21) [Nǎŋ í-wŋŋ mǎ] fǝ tsǎm [í-nǝmǝ jē]  
 N. CL10-pig 1SG.POSS P1 (B)beat CL10-fat CL10.DET  
 “◊Nang beat the fat ones of my pigs.” (Munken)

In sentences of the type shown in (11.21), the “separated” NP’s have a particular semantic relationship, *viz.*, their referents are in a set–subset relationship. The construction could be classified as a type of partitive focus construction where the two NP’s are in an apposition relationship.

There are cases where the set–subset relation holds only in the trivial sense that the two NP’s are coreferent. The quantifier translatable as ‘all’ can modify any nominal, and the resultant quantified NP may stand alone in the topic field, as in (11.22).

- (11.22) [bà-ntìhi gbùŋ] à dù=ǎ fǔ-tófə  
 CL2-pot all DS (A)burn=PRF CL16-fireside  
 “All of the pots burned on the cooking fires.” (Biya)

Not infrequently, however, with this quantifier, an NP consisting of a pronoun and the quantifier appears in the focus field, with the remainder of the nominal material in the topic field, as in (11.23)–(11.24).

- (11.23) [bà-nò ú-tám bɥǎ] nè bjén [bú gbèŋ]  
 CL2-person CL3-village CL2.DET (A)go (B)dance CL2 all  
 “All of the villagers went and danced.” (Biya)
- (11.24) ì-cù jī jè ì tē lā jē bú nè  
 CL9-fish CL9.DET (A)stay CL9 (B)come.IRR (A)VENT.IRR COMP CL2 (A)go  
 ú-kpǎ bú gbèŋ  
 CL3-house CL2 all.Q.POLAR  
 “Is the fish able to come so that they [can] all go to the house together?”  
 (Biya)
- (11.25) jēbə bé è ì-cělə bó gbùŋ ú-wáha ntì  
 today CL2 (A)work CL5.INF-(A)work CL2 all CL3-sun LOC.immersed  
 “Today they all do work under the sun.” (Munken)

Separated numerals are observed in existential constructions, where their purpose is not to narrow the reference of a topic nominal, but instead to indicate the total number present, as in (11.26)–(11.27).

- (11.26) bú fē bɥé bə-jì  
 CL2 there CL2 CL2-four  
 “There’s four of them there. [lit. They are there four]” (Biya)
- (11.27) [kí] lē jē fē [á-mwə̀nə]  
 CL12 P3 (A)stay.IRR there CL12-one  
 “There was one [cocoyam] there. [lit. It stayed there one.]” (Munken)

Another operator which (perhaps) can be separated from the head noun when focused is the word translatable as ‘some, other’ (cf. §6.3.6.1). My consultants would not accept as grammatical elicited sentences such as (11.28) type, where the word meaning ‘some, another’ is separated.

- (11.28) \*ŋgáŋ ā-jī      ɕù      ā-ní  
 no CL6-egg (A)break CL6-some  
 °Intended: No, some eggs broke. (Biya)

There are, however, at least two examples in texts of this word appearing alone in the focus field where its proper translation is ‘other’. I have not been able to investigate into this mismatch between the elicited and naturalistic data, but suppose that the real issue is my inability to evoke a suitable context for interpreting the constructed examples.

- (11.29) ù      dzò      sà      ù-l̩      ì-wùŋ      jē  
 CL1 (A)put.IPFV (A)descend.IPFV CL1-other CL9-pig CL9.DET  
 “The other [man] is putting the pig down.” (Munken)

- (11.30) [ù-nè]      ù      kəm tō      mà      jī      [ù-l̩]  
 CL1-person CL1 again (B)come.IPFV (A)take.IPFV (C)ascend CL1-other  
 j̩-j̩é      b=ú-kā      jí  
 CL6a-water COM=CL3-hand 3SG.POSS  
 “Another man is coming back bringing up water with his hand.” (Munken)

### 11.3 Verb focus

There are two main constructions which emphasize the lexical meaning of the verbal core. The cognate argument construction places focus on a verb by placing a nominalized verb in IAV as either an object (in Missong) or a locative argument (other dialects) (§11.3.1). Constructions involving the word glossed as ‘only’ may be aided in their interpretation by the placement of focus, such that the verb

is generally not within the scope of only when some other constituent is overtly focused. These are discussed in § 11.3.2.

### 11.3.1 Cognate argument construction

When it is necessary to place the lexical meaning of a verb or verbal core within the scope of focus, a nominalized version of the verb must appear in IAV position. In Missong, the nominalized verb is realized as an object, as was first discussed in § 10.3.2. Two examples are given in (11.31)–(11.32).

- (11.31) ú-sǒ lǎ dā ntī lé, bú á tsǎŋ tâ  
 CL3-case (B)L.COP D.NEG LOC.inside FRUST CL2 FUT (B)see only  
 ñ-tsǎŋ-nè-nè  
 CL1.INF-(B)see-INF-INF  
 “There is no case inside. (i.e., we have no way of winning by conventional means) We will only see (i.e., wait for an opportunity instead of taking direct action).” (Missong)

- (11.32) úkè wò wū à jélò kì fǎ-ŋkǎnə, wà  
 as CL1.child CL1.DET DS (c)ascend.IRR IPFV CL16-compound CL1.DS  
 tò pī tâ ñ-pī-nè  
 (B)come.IRR (B)die.IRR only CL1.INF-(B)die-INF  
 “As the child came up into the compound, he would just come and die.” (Missong)

In other dialects, as noted in § 10.3.2, the same function is achieved with a cognate locative argument. The word translated as ‘only’ is not used. The effect of the cognate object/cognate locative construction is to place the lexical meaning of the verb within the scope of focus. Three examples are given in (11.33)–(11.35).

- (11.33) à hó pè bó tè fà jì, bó kòm mjù jē  
 DS P1 (A)stay CL2 (A)clean (A)off CL9 CL2 (A)again (A)shave.IPFV CL9  
 ì-mī mī  
 CL5.INF-(A)shave LOC.at  
 “It was that they had cleaned it [the pigs’ bristles], [but] they just shaving again.” (Munken)

- (11.34) à wà jì ù fù~fù ì-fù mī  
 DS only CL5 CL1.DS VFOC~rot CL5.INF-(A)rot LOC.in  
 ‘It’s only that one (waterleaf) which just rots (instead of drying out).’  
 (Munken)
- (11.35) ì-bjén nó bí tí bí kwê<sup>8</sup> ì-kwé  
 CL5.INF-(B)dance REL CL8 (B)come CL8 (C)return.from.bush CL5.INF-(C)return.from.bush  
 mī è  
 LOC.in CLSBRK  
 ‘The [kind of] dancing that when they’re about to celebrate.’ (Munken)

### 11.3.2 Focus and the scope of ‘only’

The word translated as ‘only’ (with diverse forms between the dialects), may appear between the verbal core and any argument appearing in IAV position. It is not attested in clause-final position, nor in preverbal position. Although ‘only’ is not properly considered a focus marker, the interpretation of its scope is to some extent suggested by focus-marking otherwise obtaining in the sentence.

In examples (11.36) – (11.38), which have a subject argument dislocated to IAV, it is the focused subject alone which is reasonably considered to be the constituent under the scope of ‘only’.<sup>9</sup> I.e., the examples could have just as accurately been translated as:

- Isn’t it the case that no one but her sews all the women’s dresses in Bati and our side?
- No one but you and I know that what I have buried here is the man whom I’ve killed.
- No one but me would blow the whistle if I could not go and change clothing.

<sup>8</sup> See footnote associated with the same example sentence, (6.2), at its first appearance (p. 148).

<sup>9</sup> Although no examples are found suggesting otherwise, it would probably be too hasty a generalization to claim that it is never possible to have a sentence where the scope of focus differs from the scope of ‘only’. Dryer (1994), for example, argues that in English, the scope of ‘only’ need not coincide with the constituent bearing a focal accent.

- (11.36) *all* bā-ndú bā-ndīnə bā-ní bāti, kə-báha sǒ kā,  
 all CL2-dress CL2-female.ADJ CL2-REL Bati CL12-side 1PL.POSS CL12.DET  
 ǰgǎ gbàǰ, à tǰəm gǎǰ wə nǎ  
 as all DS (A)sew only CL1 Q.POLAR.POS  
 “All women’s dresses in Bati and in our side like that, Isn’t she the only  
 one who sews them?” (Biya)
- (11.37) à ù-nò wǎnə n-lè pǐ mǎ bù ǰì.  
 DS CL1-person CL1.DEM.PROX 1SG-(A)make (B)die 1SG (A)dig (A)plant  
 à tsà tǎ mǎ mǎ wè  
 DS (A)know only 1SG COM 2SG  
 “What I’ve buried is this man whom I’ve killed. Only you and I know.”  
 (Abar)
- (11.38) m-fǎ ǰè nǎ tē nǎ, jē wísə  
 1SG-COND (A)stay (A)go.IRR (A)undress.IRR FRUST COMP CL1.whistle  
 wǎ, à tǎǰ gǎǰ mǎ wǎ  
 CL1.DET DS (B)blow.horn only 1SG CL1  
 “[They said that] if I cannot go and change, that the whistle would be  
 blown only by me.” (Biya)

When ‘only’ appears before an *in situ* object, the most natural interpretation for the scope of ‘only’ is sometimes the object, as in (11.39). I.e., “I like nothing other than groundnuts” is a more reasonable translation of (11.39) than is “I do nothing other than like groundnuts”, or “The only thing that has happened is that I liked groundnuts.”

- (11.39) á mǎ=nǎ ǰ-kǎǰ wà bí-ntǎǰ bī  
 PREP 1SG=DAT 1SG-(A)like only CL8-groundnut CL8.DET  
 “As for me, I only like groundnuts.” (Munken)

In other sentences where no constituent is overtly focused, however, the most natural interpretation of the scope of ‘only’ is the IAV constituent *and* the verbal core. Examples (11.40)–(11.42), for example, are reasonably translated as:

- The woman does nothing other than opening her eyes.
- She did nothing other than disturbing her mother.
- He did nothing other than looking for trouble with the wife.



- (11.40) ù-tɛɔ̃lɔ́ nɔ́ sɔ́ kwɔ́ ū-gjãlɔ́ bɔ́ wà, ù-tɛɔ̃lɔ́  
 CL1-woman REL 1PL (B)hold.IPFV CL3-boundary COM CL1 CL1-woman  
 wú nàŋkò wà á-dzɛ́hɛ  
 (c)open (A)go.IPFV only CL6-eye  
 “The woman that we share a boundary with, the woman is only opening  
 her eyes. [i.e., being overly fastidious concerning the property line]”  
 (Munken)
- (11.41) ù fwɔ̃mfɔ́ wà jí mù dé=á jí=nɔ́  
 CL1 (c)worry.IPFV only CL1.mother then.CL1 (c)say=PRF CL1.mother=DAT  
 jɛ́  
 COMP  
 “She was only disturbing [her] mother, then she said to [her] mother  
 that...” (Munken)
- (11.42) ù bɔ́xɔ́ tá bí-pú mɛ́ ù-tɛɛ́lɔ́ ñwòno  
 CL1 (B)search only CL8-matter COM CL1-female ??  
 “He just looked for trouble with the wife...” (Abar)

In other cases where no constituent is overtly focused (especially when the IAV constituent is not an object), the interpretation of the scope of ‘only’ is difficult to determine with certainty without detailed knowledge of the context. Put another way, most of examples (11.43)–(11.46) have reasonable paraphrases with or without the verb under the scope of ‘only’.

- (11.43) wà dá gòŋ jɛ́ *one week after*  
 CL1 (c)say.IPFV only COMP one week after  
 “He only says ‘one more week’.” (Biya)
- (11.44) ù ká ñà gòŋ bɔ́-kɔ́fɔ́, ù ká ñà  
 CL1 (c)fry.IPFV (A)stay.IPFV only CL2-bone CL1 (c)fry.IPFV (A)stay.IPFV  
 bɔ́-kɔ́fɔ́  
 CL2-bone  
 “She’s just frying bones, she’s frying bones.” (Biya)
- (11.45) bɔ́ǒ bɔ́hɔ́ kò á-dzàŋ kɔ́=ní, kó jɛ́lɔ́ kò  
 CL2 (B)ask (A)descend CL12-fly CL12.DET=DAT CL12 (c)be.quiet (A)descend  
 tá mɔ́  
 only IDEO  
 “They asked the fly, and he remained completely quiet.” (Abar)

- (11.46) wǎ fǎŋ wà ú kpè  
 CL1.FUT (B)remain only PREP LOC.house  
 “It will remain only in the house.” (Munken)

## 11.4 Verum focus

All verbs can be reduplicated according to a productive morphological process (described in §7.3), with the normal function being to mark assertive or contrastive focus on the truth value of the clause. In a multi-verb clause, the final verb of the verbal core is the one which is reduplicated. Examples of contrastive verum focus are given in (11.47)–(11.48).

- (11.47) mǎ lē dí jē n-ɕú~ɕú  
 1SG P3 (c)say.IRR COMP 1SG-VFOC~(B)fear  
 “I said that I was afraid.” (Munken)
- (11.48) à dè gôŋ mǎ jē n-ɕí bú-bwó  
 DS (c)say only 1SG COMP 1SG-(B)eat VFOC~(B)be.tired  
 “I’ll only be saying that I’m tired of eating.” (Biya)

In (11.47) the speaker is reporting how she refused to attend a type of traditional dance performance which is normally open to the public and which the majority of people can watch without feeling fear. In (11.48) the speaker is explaining what she might say to her family members who will be offering her special foods (*viz.* roast chicken) to celebrate her (hoped for) passing score in the O-Level Examinations. In normal situations, where fatigue from overeating is not at issue, Biya people are very eager to eat foods such as chicken.

Assertive verum focus is typically used when all of a statement represents new information, as in a neutral polar question, or an out of the blue report. The latter type of sentence is very frequently obtained (whether or not the linguist wants it) in elicitation.<sup>10</sup> Two examples are given in (11.49)–(11.51).

<sup>10</sup> See Hyman and Watters’s (1984: 270) remarks on this topic.

- (11.49) ù fǝ nɛ̀ kpú~kpé jǐ ì  
 CL1 P1 (A)make VFOC~(B)die CL10 Q.POLAR  
 “‘Did he kill them?’” (Biya)
- (11.50) n̄-lē bì~bjǎfə  
 1SG-P2 VFOC~(A)belch  
 “‘I burped.’” (Munken)
- (11.51) ù-nò ù fwôm jù~jà wǎ wòn  
 CL1-person CL1 (B)struggle.IPFV VFOC~(A)stay.IPFV CL1.NEG (A)sleep  
 dà nó  
 D.NEG FRUST  
 “‘The man is suffering from inability to sleep [lit. suffering that he cannot sleep].’” (Biya)

As will be discussed below, there are classes of constructions where verbal reduplication is under grammatical control.<sup>11</sup>

## 11.5 Thetic sentences

Thetic sentences, or sentences which contain only new information (cf. Hyman and Watters (1984: 239–40)),<sup>12</sup> are not specially marked in Mungbam with respect to their constituent order, appearing with default SV(O) constituent order. This type of ‘out of the blue’ sentence is not commonly attested. One example, (11.52), is the first line of a folk tale. A second example, (11.53), comes from a conversation where one of the participants abruptly switches topic. A scan through the transcript of a different conversation of approximately 45 minutes found almost no places where the topic switched abruptly. Topic changes always preserved some thread

<sup>11</sup> I.e., some constructions are only well-formed if the verb is reduplicated.

<sup>12</sup> That is, all of the constituents represent new information, as do all of the operators.

of continuity with the previous topic.<sup>13</sup>

- (11.52) ù-nò            ù-nī            lō mā            bə-tə̀ù    jǐ            bā-fín  
 CL1-person CL1-other P3 (A)take.IRR CL2-wife 3SG.POSS CL2-two  
 “A man married his two wives.” (Ngun)

- (11.53) á            mǎ=nǎ    jè            n-ɕǐ            ì-cì            ò,    *Nellis*  
 PREP 1SG=DAT (A)stay 1SG-(B)eat.IRR CL9-meat EMPH N.  
 “For me it’s that I should [i.e., want to] just eat meat, Nellis.” (Munken)

As noted above in §11.4, out of the blue reports may contain a reduplicated verb which marks assertive verum focus. One way of interpreting this fact would be to say that reduplication has as one of its functions the marking of theticity.

## 11.6 Clefting

The cleft construction is a biclausal construction consisting of a copula clause, often lacking a copula verb in the dialects which make use of a copula, followed by a full clause. The copula clause has a dummy subject.

- (11.54) [à wù] [ù    cù                    jà                    ɲkə̀ŋkɪn]  
 DS CL1 CL1 (B)scrape.IPFV (A)stay.IPFV now  
 “It’s he who is scraping now.” (Munken)

- (11.55) [à wè] [à    tǎhɔ                    kò    mǎ                    mī]  
 DS 2SG 2SG (B)be.careful.IPFV IPFV 1SG.LOC.OBJ LOC.at  
 “It’s you who looks after me.” (Abar)

<sup>13</sup> For example, two women are talking about church. The topic shifts to one researcher who attended church on Easter, and how he brought cured meat from Italy and gave it to the author’s wife. The topic switches to how the author and his wife were inside the house talking to each other quietly. The topic switches to how the author was compelling them to discuss in order to create a recording, and that they should avoid gossip and not switch conversation topics abruptly for the sake of a good recording. The topic resumes with the researcher who returned from Italy, and was carrying a photograph of another woman who lived in the house. The topic switches to how the woman from the photograph is lazy, because she only does household chores and cares for a child without going to the farm. The topic switches to a general discussion about how people may differ in their overall levels of energy, regardless of their ambition levels.

- (11.56) [à lé í-ǎ̀ ì] Náj kàm  
 DS (B)L.COP CL10-fowl CL10.DET N. (A)slaughter  
 “It’s the fowls that Nang slaughtered.” (Abar)

A ‘reverse’ cleft, where the clefted constituent follows the main clause, is frequently found in content questions (cf. §11.8.5).

- (11.57) mù búfə nə mī nām à fā  
 then.CL1 (B)ask ?? whether CL1.husband DS where  
 “Then he asked where [her] husband was.” (Biya)

## 11.7 Interaction of focus-marking strategies

Verum focus marking (or verbal reduplication, in neutral terms) is in some cases optional, but in other cases it is not optional whether or not a verb is reduplicated, regardless of whether the truth value of the clause is, by some construal, in focus. Either it is mandatory and its absence results in ungrammaticality; or it is forbidden and its presence results in ungrammaticality.<sup>14</sup> The restrictions for main clauses without any overt tense marker are summarized as follows:

- (11.58) If a verb is the final element in a clause, it must be reduplicated.
- (11.59) In a negated clause, the verb must not be reduplicated.
- (11.60) If a subject argument is dislocated to IAV, the verb must not be reduplicated.
- (11.61) Otherwise, reduplication is under pragmatic control.

Restriction (11.58) applies when no object argument is present, as in (11.62), or when an object argument is present but defocalised, as in (11.63). Corresponding

<sup>14</sup>In the terminology of Hyman and Watters (1984:243), focus is in the former case under “pragmatic control”, and in the latter case under “grammatical control”.

sentences with a non-reduplicated verb, such as (11.64)–(11.65), are ungrammatical.

- (11.62) Nǎŋ gbù~gbè  
 N. VFOC~a.fall  
 °“Nang has fallen.” (Biya)
- (11.63) Nǎŋ í-bwé jī kàŋ~kòm  
 N. CL10-goat CL10.DET VFOC~a.slaughter  
 °“Nang did slaughter the goats.” (Biya)
- (11.64) \*Nǎŋ gbè  
 N. (A)fall  
 intended: Nang fell. (Biya)
- (11.65) \*Nǎŋ í-bwé jī kòm  
 N. CL10-goat CL10.DET (A)slaughter  
 intended: Nang slaughtered the goats. (Biya)

Spatial or temporal adjunct elements can count as ‘final’, exempting a verb from requirement (11.58), as examples (11.66)–(11.67), where spatial and temporal adjuncts are underlined, suggest.

- (11.66) *because* sóŋ m̄-báha wû pén è, à dēn à-nā  
 because as 1SG-(B)exit (C)ascend today CLSBRK DS D.NEG CL2-person  
 gbəŋ bɔ́ báha wû lá  
 all CL2 (B)exit (C)ascend FRUST  
 “Because as I woke up today, not everyone managed to wake up.” (Abar)
- (11.67) à pè à tǰəm tɕən pā dīn  
 2SG (A)stay 2SG (A)sew.IRR (A)just.IRR (A)stay.IRR.IPFV CL17.DET  
 “You can just be sewing there.” (Biya)

The ban on reduplication in negated clauses is illustrated in (11.68)–(11.69).

- (11.68) Nǎŋ á bām hō  
 N. NEG (C)accept.IRR NEG  
 “Nang did not accept.” (Abar)

- (11.69) \*Nǎŋ á búm~bām hō  
 N. NEG VFOC~(c)accept.IRR S.NEG  
 intended: Nang did not accept. (Abar)

Interestingly, relative clauses do not show any aversion to clause-final non-reduplicated verbs, as main clauses do, admitting simple intransitive clauses with a non-reduplicated verb (11.70).

- (11.70) ù-nò ù-nī [ù gbè] wā ù kpú~kpé  
 CL1-person CL1-REL CL1.TOP (A)fall CL1.DET CL1.TOP VFOC~(B)die  
 “The man who fell died.” (Biya)

Relative clause-final reduplicated verbs are in fact very rare in texts, and my two Abar consultants did not agree in accepting sentences like the reduplicated version of (11.75) (below) as grammatical. Biya consultants do not accept a reduplicated version of (11.70) either. The dispreference for verum focus marking in relative clauses extends to clefts (arguably a type of relative clause), where consultants uniformly reject clefts with reduplicated verbs. The marginal status of verum focus marking in relative clauses is likely explainable by appeal to pragmatic factors: relative clauses in most contexts contain assertions whose truth is presupposed, or readily accommodated. It might be argued that a relative clause is defocalised *in toto*.

Restriction (11.60) helps to draw a formal distinction between focused subjects in IAV and objects in IAV, which are probably interpretable as either in or out of focus: a focused subject blocks reduplication (cf. the ungrammaticality of (11.73)), but an object argument in IAV does not affect the possibility of verum focus marking (cf. the grammaticalness of (11.74)).

- (11.71) à gbè Nǎŋ  
 DS (A)fall N.  
 °“Nang fell.” (Biya)

- (11.72) Nǎŋ kəm í-bwé jī fǒ-fjôŋ  
 N. (A)slaughter CL10-goat CL10.DET CL16-stream  
 “◊Nang killed the goats at the stream.” (Biya)
- (11.73) \*à gbù~gbè Nǎŋ  
 DS VFOC~(A)fall N.  
 intended: Nang did fall. (Biya)
- (11.74) Nǎŋ kìŋ~kəm í-bwé jī fǒ-fjôŋ  
 N. VFOC(A)slaughter CL10-goat CL10.DET CL16-stream  
 “◊Nang did kill goats at the stream.” (Biya)

Whereas in main clauses, it can be argued that an *in situ* object is unspecified for focus, even though it is in IAV position, a different situation obtains in relative clauses. Here it can be argued that an object representative nominal is treated as being in focus if it is in IAV position, since it behaves analogously to a focused subject in IAV. Examples (11.75)–(11.76) show two relative clauses which differ only by the presence or absence of a representative nominal in the relative clause. When the representative nominal is absent, the verb may or may not be reduplicated (11.75).<sup>15</sup> However, when the representative nominal is present, the verb may not be reduplicated (11.76).

- (11.75) m̀b̀òŋ jí [Nǎŋ há {lìŋ / lìŋ~lìŋ}] ò ù  
 CL1.cow REL N. P1 ((A)look / VFOC~(A)look) CL1.DET CL1  
 pí~pí  
 VFOC~b.die  
 “◊The cow that Nang {looked for / did look for} died.” (Abar)
- (11.76) m̀b̀òŋ jí [Nǎŋ há {lìŋ / \*lìŋ~lìŋ}] ẁù] ù ù  
 CL1.cow REL N. P1 {(A)look / VFOC~(A)look} CL1 CL1.DET CL1  
 pí~pí  
 VFOC~b.die  
 “◊The cow<sub>i</sub> that Nang (looked for / \*did look for) it<sub>i</sub> died.” (Abar)

<sup>15</sup> Cf. the caveat about the grammaticality of reduplicated verbs in relative clauses in the previous paragraph.



## 11.8 Inherently focused categories

Certain types of construction are likely to bear focus marking even when it is not obvious that some constituent or operator is in focus. Except for the case of untensed clauses lacking postverbal arguments, focus-marking appears to be losing its functional content, but is still present only optionally. It might be said that grammatical control of focus marking in these cases would be the endpoint as the system evolves.

### 11.8.1 Present progressive

The present progressive is a functional category which is frequently inherently marked for focus in African languages (Güldemann, 2003). The present progressive is marked with a right-modifying auxiliary verb, either the copula, or a verb meaning ‘stay’ or ‘go’ (cf. figure 14.1, p.432). While it is not required to be reduplicated, this is more often than not the case, in both texts and elicitation. Two examples of progressive auxiliary verbs with verum focus marking are given in (11.77)–(11.78).

- (11.77) *ù ɲwà lá èi jē ù bàlə ɲì-ɲàŋ jà*  
 CL1 (A)stay ?? seem(?) COMP CL1 (A)count VFOC~(A)stay.IPFV thus  
 “So she seems to be counting.” (Missong)

- (11.78) *bó fwâm ɲì-ɲà jē ù-ndīnə wē ù*  
 CL2 (B)struggle.IPFV VFOC~(A)stay.IPFV COMP CL1-female CL1.DET CL1  
 bí  
 (c)give.birth.IRR  
 “They are suffering [i.e., overly anxious] that the woman should bear [a child].” (Biya)

### 11.8.2 Present perfect

Verbal cores marked with the perfect enclitic =á (see § 7.5) are considered to be inherently focused because perfect marking patterns as if it were paradigmatically opposed to verum focus marking, as the following elicited examples show. Verum focus-marked and perfect-marked verbal cores in intransitive clauses can both stand without any consituent in IAV, while such an unmarked clause would be ungrammatical ((11.79)–(11.81)).

(11.79) ì-ɕě́            jē            gbù~gbè  
 CL10-fowl CL10.DET VFOC~(A)fall  
 “◊The fowls fell.” (Munken)

(11.80) ì-ɕě́            jē            gbè=ā  
 CL10-fowl CL10.DET (A)fall=PRF  
 “◊The fowls have fallen.” (Munken)

(11.81) \*ì-ɕě́            jē            gbè  
 CL10-fowl CL10.DET (A)fall  
 intended: the fowls fell (Munken)

IAV subject focus constructions cannot contain a verum focus-marked verbal core, nor can they contain a perfect-marked verbal core ((11.82)–(11.84)).

(11.82) à gbè ì-ɕě́            jē  
 DS (A)fall CL10-fowl CL10.DET  
 “◊The fowls fell.” (Munken)

(11.83) \*à gbè=ā            ì-ɕě́            jē  
 DS (A)fall=PRF CL10-fowl CL10.DET  
 intended: the fowls have fallen (Munken)

(11.84) \*à gbù~gbè            ì-ɕě́            jē  
 DS VFOC~(A)fall CL10-fowl CL10.DET  
 intended: the fowls did fall (Munken)

Finally, a verbal core may not be simultaneously verum focus-marked and perfect-marked (11.85).

- (11.85) \*i-ɕé jē gbù-gbē=á  
 CL10-fowl CL10.DET VFOC(A)fall=PRF  
 intended: the fowls fell (Munken)

### 11.8.3 Negation

Hyman and Watters's (1984:260–2) suggestion that negated clauses should be treated as having the negation operator as under the scope of focus is consistent with a tendency for negation in transitive clauses to be accompanied by object defocalization, as in (11.86)–(11.87).<sup>16</sup>

- (11.86) bɥó ú-tù bwâmbù á tsàŋ dēnhō  
 CL2 CL14-day CL14.DEM.PROX NEG (B)see.IRR S.NEG  
 “They have not seen this day.” (Abar)

- (11.87) ù dē jē tɛ̀ù jī w=á kōŋ hō  
 CL1 (c)say COMP CL1.wife 3SG.POSS CL1=NEG (A)love.IRR S.NEG  
 “He said that his wife did not love him.” (Abar)

Objects, however, may remain *in situ* in negated clauses. At this stage it is not fully clear what the functional difference is between negated transitive clauses with *in situ* vs. IBV objects.

- (11.88) á-mjú kō à mōŋhə ɕì-ɕɛ̀lə ī-mwè mī,  
 CL12-matter CL12.DET 2SG (A)must VFOC~(A)work.farm CL5-farm LOC.in  
 ă ɕē dàha bī-kpā  
 2SG.NEG (A)wear.IRR S.NEG CL8-shoe  
 “... because [if] you have to work on the farm, you don't wear shoes.”  
 (Munken)

The flexibility in having either an IBV or an *in situ* object places negated transitive clauses in the same class with verum focused transitive clauses. Simultaneous negation and reduplication is ungrammatical as well:

<sup>16</sup> See also § 13.3 on this phenomenon.

(11.89) Nǎŋ á bām h̄  
 N. NEG (c)accept.IRR S.NEG  
 “Nang did not answer.” (Abar)

(11.90) \*Nǎŋ á bím~bām h̄  
 N. NEG VFOC~(c)answer S.NEG  
 intended: Nang did not answer (Abar)

#### 11.8.4 Polar questions

Not surprisingly, polar questions often, though not always, contain verum focus-marked verbal cores. Marking of the perfect, which has been argued to be an inherently focused category itself (§ 11.8.2), is also found on polar questions. Most focus-marked polar questions found in texts are additionally marked with a positive leading polar question marker, as is the case in the following three examples.

(11.91) n̄can jē bí á bím~bj̄n, n̄  
 LOC.Munken COMP CL8 FUT VFOC~(B)dance Q.POLAR.POS  
 “[It’s] in Munken that they [the Jujus] will dance, right?” (Biya)

(11.92) à t̄s̄ŋ=á, n̄  
 2SG (B)see=PRF Q.POLAR.POS  
 “You see, don’t you?” (Biya)

(11.93) baà dé jē m̄-búm~bj̄n nà  
 2PL (c)say COMP 1SG-VFOC~(B)talk Q.POLAR.POS  
 “Y’all say that I should talk?” (Missong)

#### 11.8.5 Content questions

The final inherently focused construction type to be discussed is the content question. Content questions are inherently focused constructions *par excellence*, and are routinely used as a diagnostic for learning about the focus system of a language. In Mungbam, the interrogative words in content questions must be either clefted or in IAV position. The two examples below containing clefts, (11.94) – (11.95) are

“reverse” clefts, with the clefted constituent following the main clause rather than preceding it.

- (11.94) ú-ʈôm wū à sâlə n̂  
 CL3-village CL3.DET DS (c)decide who  
 “Who will guide the village?” (Missong)
- (11.95) ù-nò ù t̃é á m̄ n-t̄ən w̄  
 CL1-person CL1 (B)come PREP 1SG.LOC.OBJ 1SG-LOC.waist CL1.DET  
 ǎ n̂  
 DS.COP who  
 “The man at my waist is whom? [i.e., which brother immediately follows me in birth order?]” (Biya)
- (11.96) à j̄xə k̄ b̄  
 2SG (c)run.IPFV IPFV what  
 “Why were you running?” (Abar)
- (11.97) á-ǰí nó s̄à l̄è b̄ w̄ k̄ ǎ b̄  
 CL12-thing REL 1PL.FUT (A)do COM CL1 CL12.DET DS.COP what  
 “The thing that we will do with him is what? [i.e., what will we do with him?]” (Munken)

Subject questions must have the question word either in IAV or clefted, not *in situ*.

- (11.98) à tsám n̄é í-w̄ŋ m̄  
 DS (B)beat who CL10-pig 1SG.POSS  
 “°Who beat my pigs?” (Abar)
- (11.99) à n̄é ù tsám í-w̄ŋ m̄  
 DS who CL1 (B)beat CL10-pig 1SG.POSS  
 “°It’s who that beat my pigs?” (Abar)
- (11.100) \*n̄é tsám í-w̄ŋ m̄  
 who (B)beat CL10-pig 1SG.POSS  
 intended: who beat my pigs?” (Abar)

Even object questions pattern as if they were focused in that they do not permit concurrent verum focus-marking.

- (11.101) Nǎŋ ɕà bē  
N. (A)steal what  
“◊What did Nang steal?” (Munken)
- (11.102) \*Nǎŋ ɕì~ɕà bē  
N. VFOC~(A)steal what  
intended: what did Nang steal? (Munken)

## Chapter 12

# Clause combination and relative clauses

This chapter concerns sentences containing more than one clause. Two clauses may be combined together in a coordinating or subordinating construction, or a clause may be embedded within a noun phrase (which itself belongs to a higher clause) in a relative clause construction. The possibilities are summarized with tree diagrams in figure 12.1 (note that combination of VP's is not included, because VP is not recognized as a major constituent type).

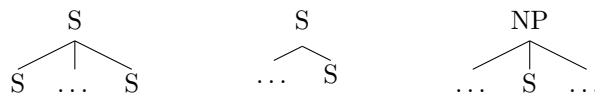


Figure 12.1: Generic structure of coordination, subordination, and relativization (left to right).

A short note will be beneficial at the outset on the basis for distinguishing coordination and subordination. Subordination, as the term is used here, is intended to cover a multi-clause construction containing a clause which either:

(12.1) ... is restricted with respect to the choice of lexical verb or inflectional category; or

(12.2) ... is an argument of a verb in another clause.

Coordination constructions are understood to be clause-combining constructions for which neither of (12.1)–(12.2) applies. Relative clauses are understood to be clauses which are syntactically embedded in a noun phrase.<sup>1</sup> Arguments for the embeddedness of relative clauses are given in § 12.4.2.

A set of more principled or more rigorous criteria for identifying subordinating constructions in Mungbam will not be given. This is partly because the data available are probably not sufficient for such an undertaking, but also because a simple two- or three-way distinction between types of clause combining constructions cross-linguistically represents more of a heuristic tool for grammarians than it does a model of the universal architecture of human languages (see, e.g., Haiman and Thompson (1984); Bickel (2010)). The distinction here mainly serves as an organizational principle for a chapter which is more or less a catalog of different functionally-defined clause combining constructions. A similar statement could be made about relative clauses. As will be noted in § 12.4.5, some constructions referred to as relative clauses in this chapter would not fit into proposed definitions of relative clauses intended to apply to all languages.

The chapter is divided into three main sections corresponding to coordination (§ 12.2), subordination (§ 12.3), and relative clauses (§ 12.4). Section 12.2 is organized by construction, each of which is functionally defined. Section 12.3 has two main divisions, corresponding to conjoined subordinate clauses (§ 12.3.1), and complement clauses (§ 12.3.2). Within these subsections the material is presented on a construction by construction basis. The section on relative clauses condenses

<sup>1</sup> Note that relative clauses are not treated as formed from a subordination construction.



information originally prepared for Lovegren and Voll (2013). A note on boundaries between clauses appears first (§12.1), since it will facilitate presentation of later material, and does not fit in to the overall subordination-coordination-relativization scheme.

## 12.1 Separation of linked clauses

A boundary between two clauses, regardless of how they are connected to each other syntactically, may be indicated by particle *è*, glossed ‘CLSBRK’ (‘clause break’). This particle often coalesces with a preceding vowel and gets realized only as a low boundary tone, similar to the polar question marker. It may therefore be considered to be prosodically associated with the first of the two clauses it serves to divide.

The particle is shown in (12.3) separating a relative clause from its matrix clause. In (12.4)–(12.5) the particle divides coordinated clauses. The particle is not attested in subordinate clause constructions where the general-purpose subordinating particle *jē* is used. An example where the particle coalesces with a preceding vowel is given in (12.6) (the expected sequence *bē è* is realized as *bè*).

- (12.3) *ì-wùŋ mō nó [Nǎŋ tsám] è [ì pí-pí]*  
 CL9-pig 1SG.POSS REL N. (B)slap CLSBRK CL9.TOP VFOC~(B)die  
 “°My pig which Nang slapped died.” (Munken)

- (12.4) [*à tē à tē wán*] *è*, [*à*  
 2SG.TOP (B)come.IPFV 2SG.TOP (A)direct.IRR CL1.child CLSBRK 2SG.TOP  
*dà ì-kwǎn mó*]  
 D.NEG CL5.INF-(A)shout FRUST  
 “[When] you are to direct a child, it is not [through] shouting. . .” (Ngun)

- (12.5) [wǎ tǎ tsám kǎ-mǐ á-né à=ní] è  
 CL1.FUT (B)come (A)speak CL12-word CL12-some 2SG=DAT CLSBRK  
 [à bē kǎ tsǐnə sē]  
 2SG B.COP CL12 (A)know.IRR S.NEG  
 “He will come and tell you something, which you know not.” (Ngun)

- (12.6) [bǎ-mbǎŋə mǎ nǎ Nǎŋ tsám bē], [bǎ  
 CL2-cow 1SG.POSS REL N. (B)beat CL2.DET.CLSBRK CL2  
 pí~pí]  
 VFOC~(B)die  
 “°My cows which Nang slapped died.” (Munken)

## 12.2 Coordination

Three types of coordination constructions are considered. The consecutive construction (§ 12.2.1) links together two clauses depicting events which are (iconically) temporally sequenced. The *kǎ* backgrounding construction (§ 12.2.2) is used to mark one clause as establishing a conversational background (Kratzer, 1981) for the interpretation of a second clause. Sentences formed from this construction are usually translated into English as “*As/since X, Y*”. Finally, the comment construction (§ 12.2.3) is similarly used to establish a conversational background, though in this case it better corresponds to English “*X, whereas/yet/however Y*”. A construction translatable with the English conjunction “*or*” is discussed in § 12.2.4, and a construction apparently calqued from English which uses the English word *but* is briefly discussed in § 12.2.5. Asyndetic coordination is discussed in § 12.2.6.

### 12.2.1 Consecutive construction

The consecutive construction, which appears frequently in narratives, is used to indicate that one event is followed by another. The coordinator *mǎ* ‘then’ appears immediately after the subject NP and before the preverbal pronoun in the second

clause. When the agreement pronoun is vocalic, the coordinator fuses with that agreement pronoun. The two possibilities are illustrated by the two examples in (12.7)–(12.8). In (12.7), the preverbal pronoun starts with a consonant, so no fusion takes place, while in (12.8) (which continues (12.7)) and (12.9) the class 1 and 9 preverbal pronouns *ù* and *ì* fuse with the coordinator.

- (12.7) [kāk̄wē dè=ō ñgī wā ù-dǝŋ-lā wā ú  
 CL1.frog (A)cook=PRF CL1.own CL1.POSS CL1-dirty-ADJ CL1.DET PREP  
 ɕíh̄t̄] [fī-mbānə m̄è fí dè=ō ñgī fī wā  
 LOC.eyelizard then CL19 (A)cook=PRF CL1.own CL19.POSS CL1.DET  
 ù-bóŋbə-tá ú ɕíh̄t̄]  
 CL1-clean-ADJ PREP LOC.eyelizard  
 “Frog cooked his own [food] dirty in appearance. Lizard then cooked his  
 own, clean in appearance.” (Biya)

- (12.8) [kāk̄w-ē m̄ù s̄àn=ā fī-mbānə á kp̄ô]  
 CL1.frog then.CL1 (A)pass=PRF CL19-lizard PREP LOC.house  
 “Frog then passed to lizard’s house” (Biya)

- (12.9) [kú n̄è h̄è í-dú=nó j̄-j̄É  
 as.CL1 (A)go (A)descend PREP.CL5.INF-(B)carry.water=DAT CL6a-water  
 mwē], [ì-ç̄ù j̄ m̄ì s̄ù ì-jám=nó]  
 CL6a.DET CL9-fish CL9.DET then.CL9 (A)start CL5.INF-(C)sing=DAT  
 “So he went down [to the stream] to carry [water], then the fish started  
 singing.” (Biya)

### 12.2.2 *kó* backgrounding

In the backgrounding construction, a background clause is preceded by a particle *kó/ká* ‘as’, and provides context for interpreting the other coordinated clause. Since the backgrounded clause usually contains old or presupposed information, and the other clause usually contains new information, I consider this construction to be a type of focus construction. The backgrounded clause usually precedes the focused clause, as in (12.10), though this order is occasionally reversed, as in (12.11).

- (12.10)  $\underline{kó}$  [ $\bar{n}$ - $\text{t}\bar{e}\bar{u}$   $k\bar{u}\bar{o}$   $n\bar{o}$   $k\acute{o}$ - $n\acute{o}$   $k\bar{o}$   
 as 1SG-(A)look.IPFV (C)enter.IPFV (A)go.IPFV CL12-thing CL12.LOC.OBJ  
 $m\bar{u}$ ] [ $\check{a}$   $\bar{i}$ - $bw\bar{o}m$   $n\bar{u}$   $\bar{i}$   $\text{t}\bar{e}\bar{e}h\bar{e}$   $\bar{l}\bar{o}$   
 LOC.in DS.COP CL5-cup CL5.REL CL5.TOP (A)show.IPFV (A)VENT.IPFV  
 $\eta\bar{e}$   $\bar{i}$   $\text{t}\bar{s}\bar{i}$ - $\text{t}\bar{s}\bar{u}$ ]  
 ?? CL5.TOP VFOC~break  
 “As I am looking at this thing, it [seems to] be a cup that is showing  
 that it has broken.” (Biya)
- (12.11) [ $\check{a}$   $k\bar{o}$ - $m\bar{f}\bar{o}n$   $f\check{o}$ - $f\check{o}\eta$   $k\acute{o}$   $g\acute{o}\eta$   $t\bar{a}n$   $b\bar{o}$ - $n\bar{o}$ ],  
 DS CL12-canoe CL16-stream CL12.TOP (B)carry.IPFV (A)cross.IPFV CL2-people  
 $\underline{kó}$  [ $\bar{n}$ - $\text{t}\bar{e}\bar{u}$   $k\bar{u}\bar{o}$   $n\bar{o}$ ]  
 as 1SG-(A)look.IPFV (C)enter.IPFV (A)go.IPFV  
 “It’s a canoe in the stream, it carries people across, as I look at it.”  
 (Biya)

The backgrounding construction is employed stylistically in narratives: to emphasize the continuity of events, an event is described once, and then repeated as a backgrounded clause when the following event is described, as in (12.12).

- (12.12)  $\eta\bar{u}$   $w\bar{a}n$   $\bar{u}$ - $m\bar{u}$   $m\bar{a}$   $k\bar{p}\acute{e}=\acute{a}$ .  $\underline{kó}$  [ $\eta\bar{u}$   $w\bar{a}n$   
 CL1.mother CL1.child CL1-one then (B)die=PRF as CL1.mother CL1.child  
 $\bar{u}$ - $m\bar{u}$   $k\bar{p}\acute{e}=\acute{a}$   $j\bar{e}$ ], [ $\bar{u}$ - $\text{t}\bar{e}\bar{u}$   $\bar{u}$ - $n\bar{e}$   $w\bar{e}$ ...]  
 CL1-one (B)die=PRF thus CL1-wife CL1-other CL1.DET  
 “The mother of one child then died. The mother of one child having  
 died so, the other wife...” (Ngun)

The backgrounded clause may be followed by a *mà*-conjoined clause, as in (12.13).

- (12.13) [ $\underline{kú}$   $n\bar{o}$   $\text{t}\bar{e}\acute{o}\eta$   $j\bar{e}$   $\eta\bar{t}\bar{i}h\bar{i}$   $w\bar{o}$   $d\bar{i}$ - $d\bar{u}$   $f\bar{e}$   $f\check{o}$ - $t\bar{o}f\bar{o}$ ],  
 as.CL1 (A)go (B)see COMP CL1.pot CL1.DET VFOC~(A)burn there CL16-fireside  
 $m\bar{u}$  [ $d\acute{e}=\acute{a}$   $b\bar{o}$   $\bar{i}$ - $\text{c}\bar{u}$   $j\bar{i}$   $j\bar{e}$   $w\check{a}$   $k\bar{o}m$   
 then.CL1 (C)say=PRF COM CL9-fish CL9.DET COMP CL1.FUT (A)slaughter  
 $\text{t}\bar{s}\bar{i}$ - $\text{t}\bar{s}\bar{i}$   $\bar{i}$ - $\text{c}\bar{u}$   $j\bar{i}$ ]  
 VFOC~(B)eat CL9-fish CL9.DET  
 “As he went and saw that the pot had burned there on the fire, he then  
 said to the fish that he would slaughter and eat the fish.” (Biya)

### 12.2.3 Comment construction

When the function of a clause is to provide some further information about the event described in the preceding clause, especially information which draws attention to a latent aspect of the event described by the preceding clause, it may be introduced by the expression *à bɛ̃/bò* (*jɛ̃*), which consultants tend to render as ‘of which’, or ‘meaning that’ in Cameroonian English. I term it the ‘comment construction’ since it is used to provide additional commentary on an initial description. As will be discussed in § 14.1, the word *bɛ̃/bò* may be (at least historically) a copula verb. It is glossed B.COP (in order to distinguish it from two other copula verbs). Two examples are given below. In the first, the second clause is meant to clarify that the person who died did not die without leaving a successor behind. In the second example, the second clause illustrates how the wife deceived her interlocutor by concealing the presence of her husband (who is a turtle). Additional examples are found at the end of § 14.1.

- (12.14) [mù tɛ́ kpé=ǎ] à bò [bà-tɛ̀ù jí búé  
 then.CL1 (B)come (B)die=PRF DS B.COP CL2-wife 3SG.POSS CL2  
 bí=ǎ]  
 (c)give.birth=PRF  
 “Then he died. Notwithstanding, his wives gave birth.” (Ngun)

- (12.15) [mù ɛ̃ jɛ́ nám jí bú~bɛ̃ɛ]. à bò  
 then.CL1 (c)say COMP CL1.husband 3SG.POSS VFOC~(B)exit DS B.COP  
 jɛ́ [í-tí ní ú kô wū kə  
 COMP CL5-stone REL CL1.TOP (B)hold.IPFV CL1.LOC.OBJ LOC.hand  
 jí ù wù pà ñfwàha wē bō  
 CL5.DET CL1.TOP (A)grind.IPFV (A)stay.IPFV CL1.pepper CL1.DET COM  
 jí, ǎ nám jí wē]  
 CL5 DS.COP CL1.husband 3SG.POSS CL1.DET  
 “Then she said that her husband had gone out. Meanwhile, the stone  
 that she was holding in her hand grinding the pepper with, that was  
 [really] her husband.” (Biya)

### 12.2.4 Coordination with *mī* ‘or’

A particle *mī*, translatable as ‘or’, can be used to coordinate clauses in Munken.

It is not known whether the same particle is found in the other four dialects.

Examples (12.16)–(12.17) show the particle coordinating two full clauses.

- (12.16) [ù tí lè] mī [ù wàha lè ì-ɕè mò]  
 CL1 (B)come (A)VENT or CL1 (A)buy (A)VENT CL9-fowl TOP  
 “Did he come [with it] or did he buy the fowl?” (Munken)

- (12.17) bé ɲà tsàmə bə ù-fən mī à kwé í-bē=nó  
 CL2 (A)stay.IPFV (A)talk.IPFV COM CL1-mouth or DS (B)hold PREP.CL5.INF-(A)search=DAT  
 bə-nɔmfə bān  
 CL2-male LOC.outside  
 “They always talk with the mouth, or you have to look for boys outside.”  
 (Munken)<sup>2</sup>

The particle is also attested coordinating noun phrases, again with a meaning like English ‘or’, as in (12.18). A curious example is (12.19), where a noun is apparently coordinated with a clause. The irrealis form of the verb meaning ‘know’ is used with a meaning like ‘who knows whether...’ (see footnote 14, p. 470). The whole example may be a calque on English *whether...or...*. The English loan ‘or’ is found in all dialects. An example is given in (12.20), which calques English *whether...or...*, using the English function words.

- (12.18) ù lè béh=ǎ ɲgè, à tsələ á-ɲúm ā-fè mī á-ɲúm  
 CL1 (A)make (B)exit=PRF thus 2SG (A)know CL6-year CL6-two or CL6-year  
 ā-tè í-kpé kī-nôŋ-ə mī  
 CL6-three CL4-house CL13-iron-CL13 LOC.in  
 “He’s done, you know, two or three years in prison.” (Munken)

<sup>2</sup> This obscure statement is interpreted more or less as follows. The topic of discussion is a woman who is living with her boyfriend and has given birth to four children by him, yet the man has yet to propose marriage to her. The couple frequently argues because of this tension between them. The woman has resorted to taking a second boyfriend because of her frustration with the first one, who she must still live with. The example sentence is an attempt to reason out why the woman in question might have started having an affair. People can pass all their time talking with their mouths [i.e., bickering without any resolution], or, as an alternative, someone could go outside of the unhappy household and look for a more pleasing boyfriend.

- (12.19) tsā [ú-kpé] mī [à fē]  
 (A)know.IRR CL3-house or DS where  
 “[Who] knows [whether it’s in] the house or it’s where.” (Munken)
- (12.20) *whether* [kǒ dzàn òtɛ̀hɛ] *or* [kǒ dzàn ú-kán ú-ɕí-lə]  
 whether CL12 (A)stay left.ADJ or CL12 (A)stay CL3-hand CL3-(B)eat-ADJ  
 wē á fē]  
 CL3.DET PREP LOC.head  
 “. . . whether it is right or wrong. . .” [lit. whether it is left or it’s on top  
 of the eating hand] (Ngun)

### 12.2.5 Coordination with English *but*

No native Mungbam construction is known of which coordinates clauses in a similar way to English *but* (though the ‘Comment construction’ (§ 12.2.3) has a broad range of meanings which can include the equivalent of ‘but’). This word is, however, frequently used as a loan in a calque construction. Three examples are given below.

- (12.21) à jâu jì,<sup>3</sup> *but* á-mjí mǒ né n̄-nò kē, mō  
 2SG madman *but* CL12-thing 1SG.POSS REL 1SG-(A)do CL12.DET 1SG  
 ĩ-kù bō k̄n ǎ-súsú  
 1SG-(A)go COM CL12 CL16-LOC.face  
 “. . . you are a madman, but my things that I do, I move forward with  
 them.” (Ngun)
- (12.22) mǒ ĩ-kjìmə *but* mǒ *steady* dàha dān  
 1SG.FUT 1SG-(A)sew *but* 1SG.FUT be.steady S.NEG CL17.here  
 “I’ll sew [doing occasional jobs as a seamstress], but I won’t be steady  
 here [maintaining a full dressmaker’s shop].” (Munken)
- (12.23) *yes, but* nām jī àlō *even* dé jē ù dé  
 yes *but* CL1.husband 3SG.POSS P3 even (c)say.IRR COMP CL1 (c)say.IRR  
 bǒle ĩgòŋ  
 (A)prove.IRR only  
 “Yes, but her husband even said that she should just confess.” (Biya)

<sup>3</sup> This odd-shaped word may come from the so-called disability construction (cf. § 7.6.2), with the second part (*jì*) perhaps corresponding to the locative for ‘intestines’. As noted in § 7.6.2, however, the relationship between prefixless noun-like elements in disability constructions, and postpositions, is not certain. Another possible but still unanalyzed example (from Munken) is *jò kè* ‘lazy (?? LOC.hand).’

### 12.2.6 Asyndetic coordination

Asyndetic coordination, where two coordinated clauses are separated by a pause, and no overt coordinating particles, is quite frequent. The pause can usually be translated with a pause in English, or with English ‘and’, ‘then’. Three examples are given below.

- (12.24) *ńsónj wè mō dí jē [i-jə̀nə lé i-jì*  
 as CL1.child 1SG.POSS (c)say COMP CL5-DEM.PROX (B)L.COP CL5-honey  
*jè], [i lé i-ḡ̀ngbə-téi]*  
 2SG.POSS CL5 (B)L.COP CL5-(A)sweet-ADJ  
 “As my child has said, this is your honey, it is sweet.” (Abar)
- (12.25) [*mà kpənə nāj tìtì*], [*bú à tǒ ḡ̀â bíjì*]  
 then.DS (A)roll thus long.time CL2 DS (B)come (c)go.away (c)stand  
 “And they rolled along for some time [disguised as bees inside of a  
 woven jar], then they left [the jar] and stood up [from the bees’ bodies,  
 returning to human form]. . .” (Missong)
- (12.26) [*à ū-bī ū-wōj wə bɔ́ǒ tʃim mbòlɔ*], [*ū-bī*  
 DS CL3-year CL3-DEM.PROX CL3.DET CL2 (A)sew CL1.Mbolo<sup>4</sup> CL3-year  
*wōj wə bɔ́ǒ wàha mbòlɔ*]  
 CL3.DEM.PROX CL3.DET CL2 (A)buy CL1.Mbolo  
 “It’s this year that they sew Mbolo [costumes], and it’s this year that  
 they buy [fabric for] Mbolo.” (Biya)

## 12.3 Subordination

As noted at the beginning of this chapter, the term “subordination” is mostly one of convenience for describing a family of constructions containing a clause (the subordinate clause) which is either part of the argument structure of another clause, or is lexically or inflectionally restricted.<sup>5</sup> The number of constructions surveyed in this section outnumbers the number of coordinating constructions, so

<sup>4</sup> A traditional women’s dance.

<sup>5</sup> Clauses with inflectional restrictions may be referred to as ‘non-finite’ in this chapter.



some further division into subsections is deployed for the sake of better organization. Section 12.3.1 deals with subordinating constructions where a subordinate clause is adjoined to a main clause. Section 12.3.2 concerns clauses which function as an argument of the verbal complex.

### 12.3.1 Conjoined subordinate clauses

The basic schema for conjoined subordination constructions is given in (12.3.1). Generally, the main clause appears first, and the subordinate clause may or may not be introduced by a subordinating marker, depending on the construction.

(12.27)  $S_{\text{main}}$  (SUBORD)  $S_{\text{sub}}$

Construction Name	Governed category	Section
Purposive	Mood = IRR	§ 12.3.1.1
Simultaneous Event	Aspect = IPFV	§ 12.3.1.2
Aversive	Mood = IRR	§ 12.3.1.3
Manner	Choice of subordinate clause verb	§ 12.3.1.4

Table 12.1: Conjoining subordination constructions surveyed in this section.

The constructions surveyed in this section are summarized in table 12.1. As noted at the beginning of the chapter, one of the ways that a clause is recognized as subordinate is by the lack of availability of some marking category. Thus, for the purposive, simultaneous event, and aversive constructions, the mood or aspect category of the subordinate clause is governed by the construction. The fourth entry on table 12.1 is for a construction where the choice of lexical verb is likely restricted. It is supposed that the subordinate clause of the manner construction must have the same verb as that of the main clause, but data is lacking to be certain.

**12.3.1.1 Purposive construction**

A purposive construction is made by placing an irrealis clause at the end of a matrix clause. There is no apparent restriction on the type of verb which may appear in the matrix clause. In this construction the use of the complementizer *jē* is optional.

- (12.28) Nǎŋ bǎn [ù jí fī-kpáfə fi]  
 N. climb.IPFV CL1 lick.IRR CL19-shed CL19.DET  
 “°Nang is climbing in order to lick the shed.” (Biya)

- (12.29) kú nè bō kō-dě kō jē [ù gōŋ  
 as.CL1 (A)go COM CL12-machete CL12.DET COMP CL1.TOP (B)carry.IRR  
 jé ú-kǎn jí úŋíŋé], ú-kǎn jí mà  
 (c)ascend.IRR CL3-hand 3SG.POSS LOC.up CL3-hand 3SG.POSS then  
 fáŋ=á  
 (B)remain=PRF  
 “As he brought the cutlass to carry his hand up [with it], his hand froze.”  
 (Biya)

**12.3.1.2 Simultaneous event construction**

A type of subordinating construction termed the simultaneous event construction is used to indicate two events, a main event, represented by a finite clause, and a second event, represented by a non-finite clause, which was taking place concurrently at the time the main event happened. The non-finite clause must be in imperfective form, and the two clauses must share the same subject. The subject is repeated in the second clause, and not omitted. Three examples are given in (12.30)–(12.32).

- (12.30) à bós jē ì-tī nū [ù kô ū  
 DS B.COP COMP CL5-stone CL5.REL CL1.TOP (B)hold.IPFV CL1.LOC.OBJ  
 kò jī] [ù wù ɲà m̀fwàha wè  
 LOC.hand CL5.DET CL1.TOP (A)grind.IPFV (A)stayIPFV CL1.pepper CL1.DET  
 bō jī]. . .  
 COMMIT CL5  
 “Meanwhile, the stone that she was holding in her hand grinding pepper  
 with it. . .” (Biya)
- (12.31) [wōŋ wē à ɲè fē] [ù bjên]  
 CL1.child CL1.DET DS (A)stay there CL1.TOP (B)dance.IPFV  
 “The child stayed there dancing.” (Biya)
- (12.32) [Náŋ fǒ wám á Mà ā fē] [ù tsô  
 N. P1 (B)shout PREP M. LOC.OBJ LOC.head CL1.TOP (B)tie.IPFV  
 ɲà ú-gbǒ]  
 (A)stay.IPFV CL3-rope  
 “°Nang shouted at Ma [while] tying a rope.” (Biya)

### 12.3.1.3 Aversive construction

In the aversive construction, where a subordinate clause depicts a potential event which is to be avoided through means of the event depicted in the main clause, a different subordinating marker is used to introduce the subordinate clause: the subordinator *mjV́* (glossed ‘lest’) introduces the subordinate clause, which is in irrealis mood. An example is given in (12.33).

- (12.33) bō ì-bí fī, ú-fjě ú-kpǒ sú, ì tɛ̀  
 COM CL9-dog there CL3-door CL3-house LOC.face CL9.TOP (A)look  
 dzèn nò mjú [ù-no ù-ɕ̀ tɛ̀-tò  
 (A)search (A)go.IPFV lest CL1-person CL1-thief.ADJ VFOC~come.IPFV  
 tē kwí]  
 come.IRR enter.IRR  
 “. . . with a dog there, in front of the door, it’s watching and looking lest  
 a thief be coming to come and enter.” (Biya)

- (12.34) *nè kàbà sè j̄-pé mɔ̄ē mj̄ kàkwē tē*  
 (A)go (A)dirty (A)descend CL6a-water CL6a.DET lest CL1.frog (B)come.IRR  
*dò*  
 (B)carry.water.IRR  
 “... [he] went and made the water muddy so that Frog could not come  
 and fetch [water].” (Biya)

The subordinator *mjú* is likely derived from *á-mjú* / *kV-mjú* ‘word, problem’, which, in a relative construction, is used to form the translation equivalent of the English Fact-S construction, an example of which appears in (12.35).

- (12.35) *á-mjú nó [bó-kjú bē ɕà ì-cē mǎ]*  
 CL12-matter REL CL2-children CL2.DET (A)steal CL9-fowl 1SG.POSS  
*kā fwǒmfə mǎ*  
 CL12.DET (B)worry 1SG  
 “The fact that the children stole my fowl concerns me.” (Munken)

#### 12.3.1.4 Manner construction

The particle *ká* ‘as’, which may be used to coordinate clauses (cf. §12.2.2), can introduce a clausal adjunct which describes the manner in which the event depicted by the main clause occurred. Two examples are given in (12.36)–(12.37).

- (12.36) *ká lánbà ì-kpé, ù lánbà ká*  
 as (B)shout.wildly.IPFV CL5.INF-(B)die CL1.TOP (B)shout.wildly.IPFV as  
*[à lánbà ì-kpé]*  
 DS (B)shout.wildly.IPFV CL5.INF-(B)die  
 “As death shouts, he shouts as death shouts.” (Ngun)
- (12.37) *bí tsámə b̄-tú ì-pí ǰkà bí tsámə b̄-tú*  
 CL8 (c)dance CL14-day CL5.INF-(B)die as CL8 (c)dance CL14-day  
 “They [jujus] dance [during] a death occasion [i.e., funeral] as they dance  
 the day [of Ndji].” (Munken)

This construction is not well attested, but it is presently supposed that the verb(s) of the subordinate clause must be the same as that of the main clause. There is an overlap in function with a “way” relative clause of the type seen

in (12.38), which also requires identity between two verbs. A second example is found in the discussion of accessibility to relativization in § 12.4.5, example (12.104).

- (12.38) í-kwáha                    ní    bú   kwâha   kè   ñkúŋ   wē   á  
 CL5.INF-(c)gather REL CL2 (c)gather IPFV CL1.chief CL1.DET PREP  
 fjèhɛ                            jī  
 LOC.compound CL5.DET  
 “...the way they were gathering in the chief’s palace ... [lit. the gathering that they were gathering. . .] ” (Ngun)

### 12.3.2 Complementization

I use the term “complementization” to refer to a family of constructions wherein a subordinate clause acts as an argument of the verbal complex of the matrix clause. Complement clauses may be non-finite in the sense that they are restricted to a particular inflectional marking or argument structure, or they may be non-finite by virtue of being nominalized. Complement clauses are not in all cases non-finite, however. The major case of a finite complement clauses is in the reported speech construction. Complementization-type constructions covered here include the event perception construction (§ 12.3.2.1), where a verb of perception takes a complement clause, a proximate construction (§ 12.3.2.2), a “secondary concept”<sup>6</sup> complement construction (§ 12.3.2.3), a purposive construction with a nominalized subordinate clause (§ 12.3.2.4), and the reported speech construction (§ 12.3.2.5).

#### 12.3.2.1 Event perception construction

In the event perception construction, which describes a situation where somebody witnesses an event, a verb of visual perception glossed as ‘see, look’ takes a clausal complement depicting the witnessed event. Specific inquiry as to whether other

<sup>6</sup>The term is due to Dixon (2006: 11–4), and is first discussed in § 10.7.2.7.

types of perception verbs (viz., ‘hear’) can be involved in this construction has not been made. Examples are given in (12.39)–(12.41).

- (12.39) m̀̀ ǹ̀ ṭ́́ [ṭ́́ torokí w̄ ù ẁ̀  
 then.CL1 (A)go (B)see=PRF wife CL1.tortoise CL1.DET CL1.TOP (A)grind.IPFV  
 ǹ̀ m̀̀wàha ì-t̄́ á f̄́  
 (A)stay.IPFV CL1.pepper CL5-stone PREP LOC.on.top  
 “Then he went and saw the wife of Tortoise grinding pepper on a stone.”  
 (Biya)

- (12.40) ts̄́ [b̀- ǹ b̄-b̄-t̄́ b́ t̄́=á] ... s̄́ dz̄  
 (B)see.IRR CL2-person CL2-red-ADJ CL2.TOP (B)come=PRF ... 1PL (c)call.IPFV  
 j̄́ á b̀- ǹ b̄-mwél̄  
 COMP DS.COP CL2-person CL2-white  
 ‘See how red men have come. We are calling [them] ‘white men’.’  
 (Ngun)

- (12.41) ù ṭ́-ṭ́ k̀ [í-f̄́ í ɛ̀́],  
 CL1 VFOC~(A)look.IPFV (A)go.IPFV CL10-animal CL10.TOP (c)play.IPFV  
 ù dz̄ ẁ́h̄ ū w̄́n̄ è  
 CL1.TOP (A)stay (A)think CL1.LOC.OBJ LOC.on CLSBRK  
 “He’s looking at the animals playing, [and] he sits and thinks to him-  
 self...” (Ngun)

In an example such as (12.40), there is the possibility of interpreting the utterance as exemplifying a relative clause construction lacking a relativizer, rather than an event argument construction. The two possible interpretations are schematized in (12.42).

- (12.42)
- S

├── V

└── S

├── |

└── ───

ts̄́́ b̀- ǹ...

S

├── V

└── NP<sub>rel</sub>

├── |

└── ───

├── N

└── S

├── |

└── ───

b̀- ǹ b́ t̄́=á

The event argument interpretation, however, is probably preferable on discourse-pragmatic grounds. The context of (12.40) is a speech where the chief of Ngun is reminding his audience that the way of life in the village has changed drastically since the time of their forefathers. He names several signs of approaching modernity: the advent of better-yielding species of oil palms, the wane in the influence of certain secret societies, and the pressing need to reserve one's earnings for the payment of school fees. It seems likely that the chief was casting the arrival of "colored people" in the village as a similar type of development. On the other hand, the purpose may have been to draw attention to the people to make some kind of linguistic observation, i.e., that the people who have come who are colored ("red") are customarily called ("white"), even though they are more properly described as "red." Example (12.39) would be more difficult to recast as a relative clause construction due to the placement of the class 1 determiner immediately after *tɛ̀ù* *tòròkí* 'tortoise's wife' rather than at the end of the complement clause, which is where the determiner appears in the large majority of relative clause constructions.

The event perception construction does not place a restriction on the aspectual marking of the subordinate clause, though there is a difference in interpretation for imperfective as opposed to perfective subordinate clauses. In contrast to the examples given above, when the subordinate clause is in perfective aspect, the verb in the main clause can usually be best translated as 'notice, discover', as in (12.43)–(12.44).

- (12.43) mù      tsóŋ=ǎ      ù      wən=ō      bù-tɛ̀ùlɔ  
 then.CL1 (B)see=PRF CL1.TOP (A)sleep=PRF COM.CL1-female  
 wē  
 CL1.DET  
 "Then he realized that he had slept with the woman." (Ngun)

- (12.44) ù kú~kwɛ̀ ìt̩lɛ̀ mù tsɔ́ŋ fī-mfwêhe à ɕí=ǎ  
 CL1.TOP VFOC~(c)return tomorrow then.CL1 (B)see CL19-rat DS (B)eat=PRF  
 bī-nɛ́ɔ́ŋ jí  
 CL8-groundnuts 3SG.POSS  
 “He comes back the next day and sees that the rat has eaten his ground-  
 nuts.” (Ngun)

### 12.3.2.2 Proximate construction

The set B verb glossed as ‘come’ may take a complement clause. When the complement clause is in irrealis form, it indicates an action which is about to happen. When the complement clause is in realis form, and the matrix verb bears the perfect suffix, the complement clause refers to an event which has just been completed. The construction additionally requires identity of reference between the subject of the matrix clause and the subject of the embedded clause. Since the construction may have either a prospective or retrospective meaning, the term “proximate” is selected to emphasize the nearness in time of the two events, rather than any particular sequential relationship between them. The prospective sense is exemplified in (12.45) – (12.46), and the retrospective sense in (12.47). In the first two examples, the proximate construction is used in the first of two coordinated clauses to establish a reference time frame, with the clause break marker separating the two main coordinated clauses.

- (12.45) à t̩ɛ̀ [à t̩ɛ̀ wán] è, à  
 2SG.TOP (B)come.IPFV 2SG.TOP (A)direct.IRR CL1.child CLSBRK 2SG.TOP  
 dà ì-kwǎn mɔ́  
 D.NEG CL5.INF-shout FRUST  
 “[When] you are to direct a child, it is not [through] shouting. . .” (Ngun)



- (12.46) mù tē [ù nā tí] è, kàkwē  
 then.CL1 (B)come.IPFV CL1.TOP (A)go.IRR (c)meet.IRR CLSBRK CL1.frog  
 mù nà mà lè sò m̀fwàha ù-kjī wō  
 then.CL1 (A)go (A)take (A)VENT (A)descend CL1.soup CL1-ASSOC CL1.DET  
 kàkwē  
 CL1.frog  
 “[When] he was about to meet [him], Frog went and took down his,  
 Frog’s, [real] soup. . .”<sup>7</sup>(Biya)

- (12.47) bó mà té=ǎ [bó b̃hɛ lè] mà jōŋ tām wǎn  
 CL2 then (B)come=PRF CL2 (B)exit (A)VENT then (c)forget (c)send (B)keep  
 wèjí bē ù-tɛðlə ù-l̄  
 CL1.sibling CL2.POSS CL1-female CL1-other  
 “They had just come out [of the bush] and [realized] they forgot one of  
 their sisters.” (Munken)

### 12.3.2.3 Secondary concept complement construction

Complement clause constructions may be used to express desire, obligation, or ability, when a suitable matrix clause verb is chosen. These functions are grouped under the umbrella label “secondary concept.” The complement clause must be in irrealis form, and there is no option of equi-subject deletion.<sup>8</sup> As in the prospective construction, an additional requirement of identity between the subjects of the matrix clause and the complement clause holds. All of the constructions in this class are robustly attested across dialects, though in some cases the actual complement-taking verbs differ between dialects. Coverage in this section has some overlap with §10.7.2.7.

The verb glossed as ‘(B)hold/catch’, takes an irrealis complement clause, and is used to express obligation as in (12.48). Expression of obligation by means of a

<sup>7</sup> In this story, Frog, in order to impress his guests, had stolen Lizard’s soup to serve to the guests. When Lizard demanded to be entertained as well, Frog said that he would serve Lizard after the guests left. The excerpted sentence describes Frog’s switching of the soups right before lizard came to be entertained, so that Lizard would not know that his soup had been used to entertain the guests.

<sup>8</sup> Though an alternate to the construction used to express obligation is the nominalization of the verb of the complement clause (see example (10.100), p. 312).

verb which otherwise indicates possession is of course frequent cross-linguistically (Heine and Kuteva, 2002:243–5), noted in familiar languages such as English, German, and Spanish.

- (12.48) á-mjǐ né sō kwě [sō nō] kē  
 CL12-thing REL 1PL (B)hold 1PL (A)do.IRR CL12.DET  
 “...the thing we have to do...” (Ngun)

A verb translatable as ‘stay, be’ takes an irrealis complement clause which expresses ability in all dialects, excepting Abar and Missong (see also §14.5.3). The verb root in Ngun is *dzan* (A)‘stay’ (12.49), while in Munken (with cognates in Missong and Biya), it is (A)*ɲɛ*. In Abar, the copula verb *ɛ* ‘(B)L.COP’ is employed in an otherwise identical construction (12.50).

- (12.49) ǎ dzàn hō [ǎ tsɪnə dǎ]  
 2SG.TOP.NEG (A)stay S.NEG 2SG.TOP (A)know.IRR D.NEG  
 “You cannot know.” (Ngun)

- (12.50) ù-nè wòŋ wō ɲè [ù ɛé  
 ù-nò wēŋ ò lé [ù sú  
 CL1-person CL1.DEM.PROX CL1.DET (A)stay / (B)COP CL1.TOP (c)insult.IRR  
 Nǎŋ] (Munken)  
 Nǎŋ] (Abar)  
 N.  
 “◊This man is able to insult Nang.”

A complement clause construction used to express desire or intention uses a verb translatable as ‘look for’. As with the ability complement construction, the construction holds across dialects with etymologically unrelated roots, and the complement clause must be in irrealis mood. The Biya root (A)*bə* (12.51) has cognates in Munken, Abar, and Ngun, while Missong employs a different root, (B)*laha* (12.52), which is not attested outside of this construction.

- (12.51) à í-séhe bú bō [bó jí ú-kpé]  
 DS CL5-place CL2.TOP (A)search.IPFV CL2.TOP (c)build.IRR CL3-house  
 “It’s a place [where] they want to build a house.” (Biya)

- (12.52)  $\bar{n}$ -lâha       $\bar{m}$ -pî  
 1SG-(B)want 1SG-(B)die.IRR  
 “I want to die.” (Missong)

When there is no identity between the subject of the matrix clause and the subject of the embedded volitional clause (i.e., in a situation where someone wants someone else to do something), the irrealis complement clause must be introduced by the complementizer  $j\bar{e}$ .

- (12.53)  $\bar{m}$ -bò                       $j\bar{e}$       à dī                      tēā  
 1SG-(A)want.IPFV COMP DS (A)be.many.IRR (A)surpass.IRR  
 $\bar{a}$ -mbá  
 CL6-young.palms  
 “I want that young palms be more plentiful than [dead palms]...” (Ngun)

#### 12.3.2.4 Purposive construction with a nominalized complement clause

A subordinate clause may be nominalized and marked as a dative adjunct to express the purpose or goal of the action described in the main clause (cf. § 10.7.2.5). Two examples are given in (12.54)–(12.55).

- (12.54)  $b\bar{a}$ -kjîŋ      bó m̀ wé=á                      [í-nāŋ                      gbē=nó  
 CL2-children CL2 then (c)go.farm=PRF PREP.CL5.INF-(A)go (A)guide.corn=DAT  
 á-ǫǫé      nē]  
 CL6-corn CL6.DET  
 “The children then went to the farm to go and guide the corn.” (Munken)
- (12.55) bé m̀ kwî      ī-tē                      [í-nām                      bē=nó                      bí-ŋǎ  
 CL2 then (c)enter CL5-side.path CL5.INF-(A)go (A)search=DAT CL8-thing  
 ǫǫé-lə      bē]  
 (B)eat-ADJ CL2.POSS  
 “They then went into a side path to go and look for their food. (i.e., food for themselves)” (Munken)

### 12.3.2.5 Reported speech

Reported speech is one of the most widely attested subordinating constructions found in in texts and discourse. The complement clause in a reported speech construction is not inflectionally restricted, and is usually introduced by the complementizer *jē*.

Two properties of reported speech in Mungbam are reported on. The first is a brief note on the range of verbs which can take quotatives as complements (§12.3.2.5.1). The second, reported on in more detail, concerns the distinction between direct and indirect reports in reported speech (§12.3.2.5.2).

**12.3.2.5.1 Verbs with reported speech complements** While the most common verb used to introduce reported speech is *de/di* ‘(c)say’, as in (12.56), other verbs may also be used.

- (12.56) *but* *nām*            *jī*            *àlō* *even* *dé*            *jē*    *ù*    *dé*  
 but CL1.husband 3SG.POSS P3 even (c)say.IRR COMP CL1 (c)say.IRR  
*bōle*            *ŋgòŋ*  
 (A)prove.IRR only  
 “But her husband even said that she should just tell the truth.” (Biya)

Examples of reported speech introduced by verbs other than ‘say’ are given in (12.57)–(12.59), which involve posture and gesture verbs.

- (12.57) *à*            *mà* *bíjá*    *jē*            *à*            *bò*            *à*            *ḡī*  
 2SG.TOP then (c)stand COMP    2SG.TOP want.IPFV 2SG.TOP eat.IRR  
*mò*  
 1SG  
 “You will then stand up that you want to eat me.” (Biya)
- (12.58) *teù*            *jī*            *mà* *nò* *tá*    *jē*            *gòŋ* *à* *wè* *jē*    *ù*  
 CL1.wife 3SG.POSS then (A)go (c)show COMP only DS CL1 COMP CL1.TOP  
*ní-nǎn*            *mǒ*            *mò*            *wè*  
 VFOC~(B)big 1SG.FUT (A)take CL1  
 “His wife then went and showed that ‘Only it’s this man that he’s big I’ll marry him.’ ” (Biya)

- (12.59) à mà dzàn=ā jē mǎ m̄-bwôm nòŋkè  
 DS then (A)stay=PRF COMP 1SG.FUT 1SG-leave thus  
 ‘It stayed that [i.e., the situation became such that he announced] ‘I  
 will then leave’.’ (Ngun)

**12.3.2.5.2 Directness and reported speech** In Mungbam it is possible to report speech directly (using more or less the same words that the original speakers did) or indirectly (using a paraphrase of the original utterance).

Examples (12.60)–(12.61) illustrate the two types of report. Example (12.60) is presented as a direct report; since the narrator of the story knew that Frog did not actually cook the food which the guests were complimenting, the quote might have been phrased directly if an indirect report were intended. Example (12.61) contains an indirect report. The situation described is one where a visitor requests drinking water shortly after arriving in an unknown country. Requests for favors from strangers typically include shows of politeness, and these might have been present in a direct report. It will be noted that in both cases, the complementizer *jē* is used to introduce the reported speech clause.

- (12.60) bú ǫí=ǎ bú sú=ǎ bí-nó ǫí-nó  
 CL2.TOP (B)eat=PRF CL2.TOP (B)congratulate=PRF CL8-thing (B)eat-ADJ=DAT  
 jē kǎkwē ʦìn~ʦūɔn í-dè-tó=nó  
 COMP CL1.frog VFOC~(A)know PREP.CL5.INF-cook-INF=DAT  
 ‘They ate and complimented the food that ‘Frog really knows cooking!’”  
 (Biya)

- (12.61) mù dé=á jē bú fē wù bā  
 then.CL1 (c)say=PRF COMP CL2.TOP (B)give.IRR CL1 COM  
 j̄-né  
 CL6a-water  
 ‘Then he told them to give him water.’ (Ngun)

Another feature shared by direct and indirect reported speech is that there is flexibility as to the interpretation of the pronouns contained in the reported speech clause. Example (12.62) contains a report of a statement made by a fish to a man.

- (12.62) ì-ɕù<sub>i</sub> jī mì dé=á jē [jíɕì m̄<sub>i</sub>-fǒ dé=á  
 CL9-fish CL9.DET then.CL9 say=PRF COMP Q.LEAD.POS 1SG-P1 say=PRF  
 jē kó ù-nò<sub>j</sub> wō á mō dà wē<sub>i</sub>]  
 COMP VET CL1-person DET NEG take.IRR D.NEG CL1  
 “The fish<sub>i</sub> then said [to the man<sub>j</sub>] ‘Didn’t I<sub>i</sub> say that the man<sub>j</sub> should  
 not take him<sub>i</sub>?’ ” (Biya)

The first person pronoun is used to refer to the speaker of the reported utterance, even though the storyteller is someone other than a fish, and the hodiernal past tense marker is employed even though the story is set in the remote past. The first person pronoun and the tensor marker in the reported clause can be said to be interpreted with respect to the situation within the story, and not the situation of the telling of the story.

The report in (12.62) also contains two other referring terms: a full NP *ùnò wō* ‘the man’, who is being addressed (rather than a second person pronoun), and a third person (class 1) pronoun, referring to the speaker (rather than a first person pronoun). These two referring expressions are interpreted with respect to the situation of the telling of the story, and not the situation within the story.

A similar ‘mixing’ of interpretive perspectives is noted in (12.65). Both a first person pronoun and a third person (class 2) pronoun are used to index the same group of people. It might also be argued that (12.65) represents an instance of the pseudopassive construction,<sup>9</sup> where a class 2 subject pronoun is used to refer to

<sup>9</sup> For example,

- (12.63) bú à wā Nsujki  
 CL2 DS (B)keep.IRR N.  
 “... [then] Nsujki was enthroned.” (Missong)
- (12.64) mò lò kī-lāŋ-nə kī jē bú á bī wə,  
 (A)take.IPFV (A)VENT.IPFV CL13-happiness-CL13 CL13 COMP CL2 FUT (C)bear CL1.child  
 wù á tɛ̀lò kī, wō tó  
 CL1 FUT (A)look IPFV CL1.FUT (B)come  
 “[Traditional celebrations] bring happiness that a child will be born, he [the unborn child] will be watching [the good time people are having], he will come [to be born].”  
 (Missong)

an unknown or de-emphasized agent. In this case the report would still contain a mixing of interpretive perspectives since the unspecified agent of *mu* ‘(A)take’ and the first person agent of *baha sə* ‘cut open’ would still be treated as coreferent.

- (12.65) ù-n̄ mù dé=á jè bó m̄ ì-fì j̄,  
 CL1-other then.CL1 (c)say=PRF COMP CL2 (A)take.IRR CL5-head CL5.DET  
 s̄ b̄ha s̄ j̄  
 1PL (A)butcher.IRR (A)descend.IRR CL5  
 “One [of them] then said that they<sub>i</sub> should take the head and we<sub>i</sub> open it up.” (Biya)

Further examples of mixed-perspective reported speech from a different dialect are given in (12.66)–(12.67). Example (12.66) is from a narrative, while (12.67) is from an extemporaneous oration made at a secret society meeting by the Chief of Ngun.

- (12.66) mù dé=á bw̄n=né j̄ [ká ŋ-kp̄ n̄ŋk̄, à  
 then.CL1 (c)say=PRF CL2=DAT COMP as 1SG-(B)die.IPFV thus DS  
 b̄n b̄ t̄m í-w̄ho j̄]  
 2PL 2PL.TOP (B)shoot.IPFV CL4-fire 3SG.POSS  
 “Then he<sub>i</sub> said to them<sub>j</sub> that ‘As I<sub>i</sub> am dying, it is y’all<sub>j</sub> who<sub>j</sub> will be shooting his<sub>i</sub> guns.’” (Ngun)
- (12.67) ù-n̄ né t̄ ù dê lè múŋ j̄ ŋǎŋ  
 CL1-person REL (B)come CL1.TOP (c)say (A)VENT 1SG.DAT COMP no  
 ŋk̄úŋ, á-mj̄ né n̄-nè k̄<sup>10</sup> kó dà à j̄  
 CL1.chief CL12-thing REL 1SG-(A)do CL12.DET CL12.TOP D.NEG thus  
 m̄  
 FRUST  
 “[If] someone wants to say to me<sub>i</sub> that ‘No, chief<sub>i</sub>, the thing I<sub>i</sub> have done is not [done] like that...’ ” (Ngun)

<sup>10</sup> As it was originally spoken, the class 6 determiner *nē* was used, apparently under influence from the class 12 prefix used, which is homophonous with the class 6 prefix. The consultant who helped me to transcribe the text corrected it to reflect appropriate agreement. See Good (2012: §4.6) for discussion on this type of variability in Mungbam agreement patterns.

In English, mixed-perspective reported speech constructions are generally not found.<sup>11</sup> Consistency of perspective in interpreting deictics provides a means of distinguishing direct and indirect reports in that language. Huddleston and Pullum (2002: 1025) describe the English situation as follows:

The major difference between direct and indirect reported speech... is that in the direct type deictic expressions are interpreted relative to the original text, whereas in the indirect type they are, at least for the most part, interpreted relative to the report. (Huddleston and Pullum, 2002: 1025)

Most likely based on analogy to traditional analyses of English,<sup>12</sup> mixed-perspective reported speech constructions in languages other than English have been labeled “semi-direct speech” (see, e.g., Aikhenvald (2008: §3)). An example of semi-direct speech from Obolo (Lower Cross) is given in (12.68).

- (12.68) mè íbé jêi, áwàjì kàñ, ìrè kpàsì ìnyòñ ké òwù óròm òmô  
 and 3S.said wow God 3S be what? world that 2S 2S.created 3S  
 ísìbí ìkèyì yê  
 come.out like.this ?  
 “And she<sub>i</sub> said ‘Her<sub>i</sub> God<sub>j</sub>, why have you<sub>j</sub> brought her<sub>i</sub> into a world like this?’” (Aaron, 1992: 232)

So called semi-direct speech is not a phenomena wholly restricted to a handful of underdocumented languages, as it can be observed in certain registers in more

<sup>11</sup> It might be noted in passing that the English requirement to consistently interpret deictics may be relaxed for stylistic purposes in some registers. In the following passage, from a television program, proforms are incompletely shifted for comic effect:

“Where in the bible does it say that a man<sub>i</sub> can’t fire off some knuckle children in the privacy of his<sub>i</sub> own neighbor’s living room while his<sub>i</sub> neighbor’s at work because I<sub>i</sub> don’t have a DVD player? Well, I don’t know where it says it because the Bible was way too long to read!” (Janetti et al., 2006)

<sup>12</sup> Credit is due Matthew Dryer for suggesting a similar observation.



familiar languages. In addition to the English example mentioned in footnote 11, the following example, taken from a novel written in Spanish, can be added.<sup>13</sup>

- (12.69) ... apareció Florita Almada acompañada de algunas  
 ... appear-PST.3SG F. A. accompany-PST.PPL.F.SG of some-F.PL  
 activista-s de-l MSDP ... Luego dieron gracias a-l  
 activist-PL of-ART.M.SG MSDP ... later give-PST.3PL thanks to-ART.M.SG  
 amable público y a nuestr-a amiga Florita Almada  
 dear public and to 1PL.POSS-F.SG friend-F.SG F. A.  
 "...Florita Almada appeared [on a television program] accompanied  
 by some MSDP activists... after [their speech] they gave thanks to the  
 beloved [viewing] public and to our friend Florita Almada... (Bolaño,  
 2666)

A more language-independent approach to classifying reported speech constructions (than the direct—indirect—semi-direct classification) might be to identify two logically independent (though frequently correlated) functional scales:

- A scale concerning the directness of a report, or the extent to which a report is intended to be a faithful reproduction of the reported utterance, or merely a paraphrase; and
- A scale concerning the overall degree of conceptual remoteness between the context of the report and the actual conversational context.

The formal distinction between text-based perspective and report-based perspective, reflected in the choice of deictic expressions, could be used to signal either or both of the two functional distinctions. So-called “indirect speech” languages would be those allowing for finer gradation of conceptual remoteness at the expense of having fewer resources for marking the directness of a report.

<sup>13</sup> *Florita Almada*, referred to as *nuestra amiga* ‘our friend’, is a fictional character and the first person possessive pronoun clearly refers to the mentioned *activists del MSDP* ‘MSDP activists’ and not to the author and the reading public.

## 12.4 Relative clauses

Mungbam makes use of one main construction in which a noun is modified by a clause. As in (12.70), a head noun (underlined in the example) is modified by a following finite clause (in square brackets).

- (12.70) ù-nò ná [ù kà gb̄ f̄anə f̄ā] wū,  
 CL1-person REL CL1 P3 (A)establish.IRR CL16.DEM CL16.DET CL1.DET  
 ù pī  
 CL1 (B)die.IRR  
 ‘The man who established [this compound] here, he died.’ (Missong)

Though all constructions in this section are lumped under the general label “relative clause construction”, a more fine-grained classification would distinguish relative clause (*sensu stricto*) constructions, cleft constructions, and more general modifying scenarios which are not recognizable as relativization proper.

The particle linking a noun to the modifying clause, called the relativizer, is discussed in §12.4.1. Word order in relative clauses is dealt with in §12.4.2, and differences between main and relative clauses are discussed in §12.4.3. The representative of the head nominal within the relative clause is discussed in §12.4.4. The section concludes with a discussion of the accessibility of different types of nouns to relativization, depending on their grammatical function (§12.4.5). It will be argued in this final section that relative clauses in Mungbam are not likely to be profitably analyzed as involving extraction.

### 12.4.1 The relativizer

All types of relative clause constructions have the possibility of introducing the relative clause with a particle which is glossed as ‘REL(ativizer)’. In all of the dialects, the relativizer is a CV syllable with a nasal consonant. I consider some

possible accounts for the historical origin of the relativizer, and briefly discuss its optionality.

#### 12.4.1.1 Possible sources for grammaticalization of the relativizer

In Biya, the relativizer shows concord with the head nominal. In that variety, the relativizer coincides exactly in form with the word *-ni* ‘some, another’, which takes a noun class prefix and whose tone is also controlled by the class of the noun it agrees with.<sup>14</sup> An example showing the word meaning ‘some, another’ is given in (12.71), examples showing the relative clause marker appear in (12.72) – (12.73). The only difference between the relativizer and ‘some, other’ is that the prefix of the relativizer is occasionally omitted in casual speech, as in (12.73). Since the agreement facts between the two morphemes are identical, it seems likely that the relativizer in Biya has grammaticalized from *-ni* ‘some, another’.

- (12.71)  $\bar{i}$ - $\epsilon\bar{e}$      $j\bar{i}$      $\grave{a}$      $t\grave{u}=\bar{a}$      $\bar{i}$ - $\epsilon\bar{e}$      $\grave{i}$ - $n\bar{i}$   
 CL9-fowl CL9.DET SBJ (A)peck=PRF CL9-fowl CL9-other  
 ‘‘The fowl has pecked the other fowl.’’ (Biya)

- (12.72)  $\bar{u}$ - $b\bar{i}$      $\bar{u}$ - $n\acute{u}$     [ $\acute{u}$ - $kp\acute{o}$      $k\bar{o}$ - $\eta w\bar{a}a$      $s\bar{u}$      $kw\acute{i}$      $\acute{a}$   
 CL3-year CL3-REL CL3-house CL7-book (A)start.IRR (c)enter.IRR PREP  
 $w\acute{a}h\acute{a}$ ]  $w\bar{i}$   
 Zhoa CL3.DET  
 ‘‘The year when the school at Zhoa was opened...’’ (Biya)

- (12.73)  $w\check{o}$      $k\acute{o}$ - $mj\acute{i}$      $n\acute{u}$     [ $j\acute{i}$ - $\epsilon\bar{i}$      $\acute{n}$ - $d\acute{e}$      $\epsilon\bar{i}$      $\bar{l}\bar{e}$   
 then CL12-matter REL 1SG-(B)want 1SG-(C)talk.IRR (A)discuss.IRR VENT.IRR  
 $k\bar{o}$      $j\grave{a}$ ]  
 CL7 thus  
 ‘‘That’s the problem that I want to talk about...’’ (Biya)

As in Biya, the relativizer in Ngun takes the same form as the word translatable as *some, another*, and frequently appears with a concordant prefix. This suggests

<sup>14</sup> It bears a mid tone for agreement with class 1, 5 and 9, nouns, and a high tone for all agreement with nouns of all other classes (cf. §6.3.6.1).

a similar analysis for the Ngun relativizer, though the available data on relative clauses in that dialect, consisting entirely of texts, is insufficient to say with as much certainty.

In the other three dialects, where concord between the relativizer and the head nominal is not observed, the forms of the relativizer are quite similar to the relativizers found in Biya and Ngun, though the forms of the ‘some, other’ morpheme tend to vary (see table 12.2, p.397). This makes it more difficult to argue for grammaticalization from the word meaning ‘some, other’ in Munken, Abar and Missong. In table 12.2 are given forms for two other morphemes which might be candidates for grammaticalization sources.

In Abar, the word translatable as ‘(one’s) own’, a type of emphatic associative marker, coincides in segmental form (though not in tone) with the relativizer. Other Cameroonian languages apparently having a relativizer related to an associative marker are Vute (Mambiloid) (Maxey, 1994: §3.1) and the neighboring language Naki. In Naki, formally identical particles serve as both a pre-relative clause relativizer and an associative marker (see (12.74)).

- (12.74)  $\underline{\text{ŋkúŋ}}$  wì [l' àjī wə̀ ūnə̀]  
 CL1.chief CL1.ASS 3s a.eat.IPFV.P1.DSF CL1.DET CL14.fufu  
 ‘◊the chief that was eating fufu’ (Naki) (Jeff Good p.c.)

The root of the word meaning ‘reason, problem, matter’ in Missong coincides with the relativizer in that language. The root  $-mj\check{V}$  in Biya, Munken, and Ngun also means ‘word’<sup>15</sup> (similar forms with that meaning are attested in Abar and Missong), and it appears to have supplanted the original term in Ngun and Biya. Biya and Munken retain roots  $k\acute{o}-n\acute{o}$ ,  $\acute{a}-p\acute{i}$  ‘thing’, of the same noun class as Abar  $k\acute{o}-p\acute{i}$ .

<sup>15</sup> Interestingly, in Munken, a subordinating particle  $mj\check{u}$ , clearly related to  $\acute{a}-mj\check{u}$ , is attested in a type of aversive construction, translatable as ‘lest’.

variety	relativizer	‘some, another’	‘reason’	‘own’ (associative)
Munken	nó	-le	á-mjǔ	-ɲəmə
Ngun	né	-nu	kó-mjǔ	
Biya	-nu	-nu	kó-mjǔ	-kju
Abar	ɲí	-lehe	kó-ɲǔ	-ɲi
Missong	ná	-le	kí-nǎ	-nō

Table 12.2: Forms of relativizer, and of three suspected grammaticalization sources for the relativizer in Mungbam. Lack of tone marking indicates that the tone of the form depends on the prefix it bears. Shaded cells indicate missing data.

A possible scenario for grammaticalization of the relativizer from a word meaning ‘matter’, which at this point remains speculative, is as follows: The word translatable as ‘reason, problem, matter’, was originally found in all five varieties in a form close to that observed in Missong or Abar. This form was the original source for the relativizer in all of the dialects, and possibly was the source for the emphatic associative marker translated as ‘own’ in Abar, Missong and Munken. Since the prefix in the original word was fixed, the relativizer never showed concord with the head noun, and this prefix was eventually lost. Some time after the grammaticalization of the relativizer from  $*kV-nV$ , the original root meaning ‘matter’, was replaced in Biya, Munken, and Ngun by the root whose original meaning was ‘word’. The relativizer in Biya was eventually reanalyzed as an instantiation of the morpheme *-nu* ‘other’ (which fact would explain its concordance). Heine and Kuteva (2002: 211–2, 295) note that a word with the meaning ‘thing’ or ‘matter’ tends to be the grammaticalization source for a complementizer, though no such source is reported for a relativizer.

In summary, I have identified two of the most likely historical sources for the relativizer in Mungbam: an emphatic associative marker, and a lexical item ‘thing, matter’. At present it is not clear which of these is more likely to lead to a correct reconstruction.

### 12.4.1.2 Optionality of the relativizer

The presence of the relativizer is optional in Mungbam. There are, however, differences between different types of relative clauses with respect to the rate of its omission. While the relativizer is usually omitted in cleft sentences, it is usually not omitted in non-cleft constructions. Examples (12.75)–(12.76) show two repetitions of the same line in a folk tale told by different speakers, which differ by the presence vs. the absence of the relativizer. In (12.75), the original telling of the story, the relativizer is omitted from the cleft construction, and the copula verb is reduced. In (12.76), a careful repetition of the same line by a different speaker, the relativizer is present.

- (12.75) ǎ      fwé    [ù    ɛô                      fwôm                      lànɔ                      kɔ̃  
 DS.COP there CL1 (B)stay.day.IPFV (B)struggle.IPFV (A)walk.IPFV IPFV  
 mɛ̀    bì-dzāŋ    bī                      fwəmhɔ̃    wə̀    í-dāŋ                      ì  
 COM CL8-fly CL8.DET (A)disturb CL1 LOC.CL5-comb CL5.DET  
 ŋə̀n]  
 LOC.on  
 ‘‘It’s there [i.e. that’s why] he is constantly struggling with flies disturb-  
 ing him [landing] on his comb.’’ (Abar)

- (12.76) à    lɛ́    fwé    jí    [ù    ɛô                      fwôm                      lànɔ  
 DS COP there REL CL1 (B)stay.day.IPFV (B)struggle.IPFV (A)walk.IPFV  
 kɔ̃    mɛ̀    bì-dzāŋ    bī                      í-dāŋ                      ì                      ŋə̀n]  
 IPFV COM CL8-fly CL8.DET LOC.CL5-comb CL5.DET LOC.on  
 ‘‘It is there that [i.e. that’s why] he is constantly struggling with flies  
 on his comb.’’ (Abar)

### 12.4.2 Position of the modifying clause with respect to the modified noun

The order of the relative clause with respect to other nominal constituents is schematized in (12.77) (see also §6.4), and an example is given in (12.78). Since the relative clause almost always appears after the head nominal, but before the

definite determiner, as in (12.78), it is rather straightforward to argue that the relative clause is internal to the matrix NP.

(12.77) N – POSS – DEM – REL – DET

(12.78)  $\dot{\text{i}}\text{-s}\dot{\text{e}}\text{h}\epsilon$      $\text{m}\acute{\text{o}}$      $\text{j}\dot{\text{e}}\text{n}$      $\text{n}\acute{\text{o}}$      $[\text{j}\acute{\text{i}}\text{-}\text{p}\acute{\text{e}}$      $\text{m}\bar{\text{e}}$      $\text{p}\dot{\text{e}}]$   
 CL5-place 1SG.POSS CL5.DEM.PROX REL CL6a-water CL6A.DET (A)stay.PFV  
 $\text{j}\bar{\text{e}}$   
 CL5.DET  
 “°This my place where there is water...” (Munken)

Departures from the determiner-final constituent order given in (12.77) are found under different scopal interpretations of definiteness with respect to other constituents of the NP. While the normal state of affairs is for either all or none of the information in the NP to be given a definite interpretation, corresponding to either the appearance of the determiner NP-finally or its complete absence, some cases are possible where the head nominal is given a definite interpretation, but one of its modifiers is given an indefinite interpretation (see § 6.4.1). Example (12.79), for example, where the relative clause follows the definite determiner, is felicitously uttered in a context where the listener is familiar with the group of fowls being discussed, and familiar with the set of red fowls within that group, and also familiar with the fact that some fowls within the group fell, but did not know beforehand that the fowls having fallen were the red ones.

(12.79)  $\dot{\text{i}}\text{-}\text{g}\acute{\text{e}}$      $\text{j}\bar{\text{e}}$      $\text{n}\acute{\text{o}}$      $[\dot{\text{i}}$      $\text{g}\text{b}\bar{\text{e}}]$      $\dot{\text{i}}\text{-b}\text{w}\acute{\text{i}}\text{n}\text{s}\bar{\text{o}}$      $\text{j}\bar{\text{e}}$   
 CL10-fowl CL10.DET REL CL10 (A)fall.PFV CL10-red CL10.DET  
 “°The fowls which fell are the red ones.” (Munken)

### 12.4.3 Asymmetries between main and relative clauses

A well-attested phenomenon in African languages is for relative clauses and main clauses to have different inflectional or focus-marking possibilities. A typical scenario is for fewer inflectional categories to be available in relative clauses, or for

in-focus marking to be restricted in relative clauses with respect to main clauses (Hyman and Watters, 1984). Furthermore, in some languages there are “relative tenses,” or differences between the marking of tense in relative clauses vs. in main clauses. In light of observations of this type, it is warranted to make comparison of main and relative clauses even in areas where the two show no differences in behavior. The larger part of the discussion is of course dedicated to the part of the grammar where differences between the two clause types are observed, *viz.*, in focus marking (§ 12.4.3.2).

### 12.4.3.1 Tense, aspect, mood, polarity

In Mungbam, the inflectional possibilities available to verbs are the same in relative clauses as they are in main clauses, with both the realis/irrealis and the perfective/imperfective distinction available to verbs in a relative clause. While most examples of relative clauses in this section have verbs in their perfective realis forms, imperfective and irrealis forms may be found in examples (12.94), and (12.100), respectively. It should also be added that no inflectional categories have been attested which are found in relative clauses, but not in main clauses.

Furthermore, no differences between main and relative clauses have been found as concerns the marking of tense and aspect, whether by verb stem changes or the presence of tense markers. Examples (12.80)–(12.82) show relative clauses in each of the past tenses P1–P3.

- (12.80) ì-jǝn                      dà ì-bwó                      ì-nū                      [Nǎŋ fǝ bwó]  
 CL5-DEM.PROX NEG CL5.INF-(B)tired CL5-other N.    P1 (B)tired  
 nǝ  
 FRUST  
 “°This is not the fatigue that Nang was tired [i.e. that Nang experienced].” (P1, Biya)



- (12.81)  $\check{a}$   $\check{u}$ - $n\check{o}$   $n\acute{i}$  [M $\acute{u}$   $k\grave{e}$   $l\grave{e}$   $t\acute{u}$   $i$ - $bw\acute{e}$   
 DS.COP CL1-person REL M. P2 (A)make (c)show CL9-goat  
 K $\acute{u}l\acute{o}$ - $n\acute{e}$ ]  
 K.-DAT  
 “This is the person<sub>i</sub> by whom<sub>i</sub> Mu made the goat be shown to Kulo.”  
 (P2, Abar)
- (12.82)  $f\check{e}$   $w\grave{u}$   $b=\check{u}$ - $t\check{f}\check{e}$   $n\acute{o}m\bar{o}$   $w\bar{e}$ ,  $\check{u}$   $n\acute{o}$  [ $\check{a}$   
 b.give.IRR CL1 COM=CL3-sense TOP CL3.DET CL1.TOP REL 2SG.TOP  
 $l\bar{e}$   $f\check{e}$   $d\bar{a}$ ]  $w\bar{e}$   
 P3 (B)give.IRR before CL3.DET  
 “Give him that wisdom, the one which you have given before [to others].”  
 (P3, Munken)

Negation is not restricted or differentially expressed in relative clauses (see (12.85) for an example). The possibility of non-declarative illocutionary force in relative clauses has not been investigated.

### 12.4.3.2 Focus marking

As for focus-marking, all of the types of focus constructions which are grammatical in main clauses are also permitted in relative clauses, but there are different restrictions on their expression between the two clause types.

The representative nominal may be focalized or defocalized within the relative clause. The examples (12.83) show relative clauses wherein the subject has been focused by displacement to IAV position. In (12.83) the representative of the head nominal itself is in focus,<sup>16</sup> while in (12.84) the representative of the head nominal is not the term which is in focus.

- (12.83)  $\check{u}$ - $n\check{e}$   $n\acute{o}$  [ $\check{a}$   $gb\grave{e}$   $w\grave{u}$ ]  $w\bar{e}$   $\check{u}$   $p\acute{i}$ - $p\acute{i}$   
 CL1-person REL DS (A)fall CL1 CL1.DET CL1 VFOC~(B)die  
 “The man<sub>i</sub> that he<sub>i</sub> fell died.” (Munken)

<sup>16</sup> My consultants claim that (12.83) would be used in a situation where it is common knowledge that somebody has fallen, and the only information the speaker has about the dead man is that he is the one who fell. A suitable free translation of (12.83) might be ‘The man who was the one who fell died.’

- (12.84)  $\dot{u}$ -nĕ      nó    [à    ɕĕ      Náj wù] wā      ù    pí~pǐ  
 CL1-person REL DS (c)insult N.    CL1 CL1.DET CL1 VFOC~(B)die  
 °“The man<sub>i</sub> that Nang insulted him<sub>i</sub> died.” (Munken)

The representative of the head nominal may also be defocalised within the relative clause. Objects in Mungbam are defocalized when they are dislocated *away from* IAV position. In example (12.85), the representative nominal is a defocalized object within the relative clause. It displays the areally prevalent SOV word order found in some negated clauses (Güldemann, 2007: §2.3).

- (12.85)  $\dot{u}$ -nĕ      nó    [Náj wù    á    ɕĕ      hō] wā      ù  
 CL1-person REL N.    CL1 NEG (A)insult.IRR NEG2 CL1.DET CL1  
 pí~pǐ  
 VFOC~b.die  
 °“The man<sub>i</sub> that Nang did not insult him<sub>i</sub> died.” (Munken)

The area in the focus-marking system where differences between relative clauses and main clauses have been found is in the expression of verum focus. Whereas in main clauses, it can be argued that an *in situ* object is unspecified for focus, even though it is in IAV position, a different situation obtains in relative clauses. Here it can be argued that an object representative nominal is treated as being in focus if it is in IAV position, since it behaves analogously to a focused subject in IAV. Examples (12.86)–(12.87) shows two relative clauses which differ only by the presence or absence of a representative nominal in the relative clause. When the representative nominal is absent, the verb may or may not be reduplicated (12.86). However, when the representative nominal is present, the verb may not be reduplicated (12.87).

- (12.86)  $\dot{m}$ bòŋ    jí    [Náj há {lĭŋ / lĭn~lĭŋ}]      ò      ù  
 CL1.cow REL N.    P1 {(A)look / VFOC~(A)look} CL1.DET CL1  
 pí~pǐ  
 VFOC~(B)die  
 °“The cow that Nang {looked for / did look for} died.” (Abar)

- (12.87)  $\dot{m}b\ddot{o}ŋ$  ní [Náŋ há {lìŋ / \*lìŋ~lìŋ}  $\dot{w}\ddot{u}$ ] ù<sup>17</sup> ù  
 CL1.cow REL N. P1 {(A)look / VFOC~(A)look} CL1 CL1.DET CL1  
 pí~pí  
 VFOC~(B)die  
 °‘The cow<sub>i</sub> that Nang (looked for / \*did look for) it<sub>i</sub> died.’ (Abar)

It will be recalled that in main clauses, *in situ* objects are associated with pragmatic control of verum focus, omitted objects force reduplication, and focalised subjects block reduplication. In relative clauses, on the other hand, an object representative nominal is not associated with the same properties as an object in main clauses: when the representative nominal is omitted, reduplication is under pragmatic control, and when the representative nominal is present and *in situ*, reduplication is blocked. From these facts it can be argued that the absence of an object representative nominal is associated with the relativized noun being focus neutral, while an overt representative object nominal (in IAV position) is considered to be in focus.

Further support for treating an object representative nominal as in focus comes from an interesting type of construction where the representative nominal is not a pronoun, but instead a modifier of the head nominal, as exemplified by (12.88). Here the representative nominal is not strictly coreferential with the head noun, but instead refers to a subset of the entities referred to by the head noun, thereby narrowing its reference. This kind of construction has a main clause counterpart wherein part of an object NP is fronted (and defocalised), and one of its modifiers remains in IAV. This type of construction, exemplified in (12.89), has the effect of putting in focus only the part of the NP which is in IAV. Example (12.89) could be used, for example, in a situation where the listener was unaware of the number of pigs which were beaten, or mistakenly believed that some number of pigs other than three were beaten.

<sup>17</sup> See footnote associated with (12.93).

- (12.88) í-jôn jī í-gǔŋ mǎ ī-ní [Nǎŋ fǒ tǎám  
 CL10-10.DEM CL10.DET CL10-pig 1SG.POSS CL10-REL N. P1 (B)beat  
 í-tē] jī  
 CL10-three CL10.DET  
 “°These are my pigs that Nang beat three [of them].” (Biya)

- (12.89) Nǎŋ í-gǔŋ mǎ à tǎám í-tē  
 N. CL10-pig 1SG.POSS DS (B)beat CL10-three  
 “°Nang beat three of my pigs.” (Biya)

The representative nominal in (12.88) can be recognized as being in focus by considering that the new information is not that the number of beaten pigs is three, but rather the identification of the head nominal ‘my pigs’ with the three beaten pigs.

Relative clauses also do not show the same aversion to clause-final non-reduplicated verbs that main clauses do, admitting simple intransitive clauses with a non-reduplicated verb, as in (12.90).

- (12.90) ù-nò ù-nī [ù gbè] wā ù kpú~kpé  
 CL1-person CL1-REL CL1.TOP (A)fall CL1.DET CL1.TOP VFOC~b.die  
 “°The man who fell died.” (Biya)

In fact, relative clause-final reduplicated verbs are very rare in texts, and the two Abar consultants did not agree in accepting sentences like the reduplicated version of (12.86) as grammatical. Biya consultants do not accept a reduplicated version of (12.90) either. The dispreference for verum focus marking in relative clauses extends to clefts, where consultants uniformly reject clefts with reduplicated verbs.

The marginal status of verum focus marking in relative clauses (which complicates the analysis given above for object representative nominals) is likely explainable by appeal to pragmatic factors: relative clauses in most contexts contain assertions whose truth is presupposed, or readily accommodated.

### 12.4.4 The representative of the head nominal

All relative clauses in Mungbam may contain a representative of the head nominal, though its presence is only mandatory when the representative nominal functions as the subject of the relative clause.<sup>18</sup> In a subject relative clause such as (12.91), a pronoun will always follow the relativizer.<sup>19</sup>

- (12.91) kpòa ná [bú gbà] b̄u  
 five REL CL2 (A)fall CL2.DET  
 “°The five that fell. . .” (Missong)

For all other types of relative clauses, inclusion of the representative nominal is optional. Example (12.92) shows two sentences containing an object relative clause which differ only by the presence or absence of a representative nominal in the relative clause.

- (12.92) m̀b̀ù jí [Nǎŋ há h̄ŋ] ò ù pí-pí  
 CL1.cow REL N. P1 (A)look.for CL1.DET CL1 VFOC~(B)die  
 “°The cow that Nang looked for died.” (Abar)

- (12.93) m̀b̀ù jí [Nǎŋ há h̄ŋ ẁù] ù<sup>20</sup> ù pí-pí  
 CL1.cow REL N. P1 (A)look.for CL1 CL1.DET CL1 VFOC~(B)die  
 “°The cow that Nang looked for [it] died.” (Abar)

Example (12.94) contains a relative clause where the representative nominal may or may not appear as the object of the locative phrase *á . . . m̄* ‘inside of. . .’. As (12.94) shows, locative phrases may be “stranded” in relative clauses. Object-less locative phrases, however, are grammatical in main clauses as well (see (12.98), below).

<sup>18</sup> A similar asymmetry between extracted subject and non-subjects is reported for Vata (Kru), which requires an overt representative nominal for subject relatives, but requires its absence for non-subject relatives (Koopman and Sportiche, 1986: 361).

<sup>19</sup> This is also the case for the dummy subject *à*. Although no examples are found in the text corpus of a relative clause with a dummy subject, elicited examples of such a sort are found (e.g., example (12.84), where the relative clause has the subject in focus).

<sup>20</sup> The form of the class 1 determiner in Abar is sensitive to the presence of a preceding vowel (cf. § 6.3.3).

- (12.94)  $\bar{a}$ -kâŋ kè lé á-káŋ n' [bwé çù í-lím  
 CL12-DEM.PROX CL7.DET (B)L.COP CL7-pan REL CL2 (A)put.IPFV CL5-nkwi.bark  
 è á (kī) mī] kè  
 CL5.DET PREP CL7 LOC.in CL7.DET  
 “°This is the dish that nkwi bark is put inside of.” (Abar)

In the case of comitative and dative relatives, if the representative nominal is omitted from the relative clause, then so must the comitative or dative marker itself (12.95).

- (12.95)  $\bar{m}$ -fǒ tsín~tsǒŋɔ ú-çé nó [Náŋ fǒ kəm í-çé jē  
 1sg-P1 VFOC~(B)see CL3-knife REL N. P1 (A)slaughter CL10-fowl CL10.DET  
 (bə wú)]  
 (COM CL3)  
 “°I did see the knife that Nang slaughtered the fowls (with it).” (Munken)

When the head nominal refers to a place where the event described by the relative clause took place, the relative clause may optionally contain a locative phrase formed from the class 16 determiner (cf. § 9.2.1.4), as in (12.96).

- (12.96)  $\bar{m}$ -fǒ tsín~tsǒŋɔ í-séhe nó [Náŋ fǒ kəm í-çé  
 1sg-P1 VFOC~(B)see CL5-place REL N. P1 (A)slaughter CL10-fowl  
 jē (á fē)]  
 CL10.DET PREP CL16.DET  
 “°I did see the place that Nang slaughtered the fowls (there).” (Munken)

The conditions on the appearance of a representative nominal within a relative clause exactly parallel the conditions on the presence of overt arguments in main clauses. Just as subject relative clauses are the only type of relative clause which must contain a representative nominal, subjects are the only argument which is not omissible from a main clause. The behavior of comitative and dative arguments is also parallel: in both relative and main clauses, a comitative or dative argument may be omitted, provided that the comitative/dative marker is itself omitted. Examples (12.97)–(12.99) show main clauses with an omitted object, locative complement, and dative, respectively.



- (12.102)  $\underline{ú-έ}$   $mò$  [ $\grave{a}$   $ὲèl\grave{a}$   $b\bar{o}$   $\underline{wú}$   $ú-kpé$   $ú-gjèl\grave{a}$   $m\bar{e}$ ]  
 3-knife TOP 2SG (A)work COM CL3 3-house 3-a.cook.ADJ LOC  
 ‘‘That knife that you work with in the kitchen’’ (Munken)
- (12.103)  $\underline{ù-n\grave{e}}$   $n\bar{o}$  [ $m\bar{o}$   $l\bar{e}$   $f\grave{e}$   $ú-έ$   $\underline{wù=n\bar{o}}$ ]  $w\check{o}$   $f\check{o}$   $gb\grave{e}$   
 1-person REL 1SG P2 (B)give 3-knife CL1=DAT CL1.then P1 (A)fall  
 ‘‘◊The man whom I gave a knife to fell.’’ (Munken)
- (12.104)  $\acute{a}$   $f\bar{e}$ ,  $\underline{\acute{a}-jí}$   $n\acute{o}$  [ $b\acute{o}$   $w\grave{a}n=ó$   $\acute{a}-jí$   $\acute{a}-\check{c}í-l\grave{a}$ ]  
 PREP CL16.DET CL12-thing REL CL2 (B)keep=PRF CL12-thing CL12-(B)eat-ADJ  
 $\acute{a}$   $\underline{k\bar{i}}$   $f\check{o}m\grave{a}$ ]  
 PREP CL12.LOC.OBJ LOC.top  
 ‘‘... there, the thing that they keep food on top of [a table].’’ (Munken)
- (12.105)  $uw\grave{e}n\grave{o}$   $\grave{u}$   $l\acute{e}$   $\underline{\grave{u}-n\grave{o}}$   $j\bar{i}$  [ $\acute{u}=\check{c}\acute{a}$   $\bar{i}-ὲ\grave{e}$ ]  
 1-DEM.PROX CL1 (B)COP CL1-person REL 1SG=a.steal.IRR CL9-fowl  
 $\underline{j\grave{i}}$   
 3SG.POSS  
 ‘‘◊This one is the man whose fowl I stole.’’ (Abar)

A relative clause may also be formed from a noun heading an adjunct NP, as in (12.106) (a corresponding main clause is given in (12.107)).

- (12.106)  $\bar{n}-ts\grave{ì}ts\grave{a}$   $\underline{\acute{a}-mjú}$   $n\acute{o}$  [ $N\acute{a}ŋ$   $f\check{o}$   $p\grave{u}n\grave{a}$   $b\bar{o}$   $\acute{i}-w\acute{o}ŋ$ ]  
 1SG-VFOC~(A)know CL7-matter REL N. P1 (A)fight COM CL10-pig  
 $\underline{j\bar{e}}$   $k\bar{o}$ ]  
 CL10.DET CL7.DET  
 ‘‘I know the reason that Nang was fighting with the pigs.’’ (Munken)
- (12.107)  $\bar{m}-b\acute{o}f\grave{a}$   $\acute{a}-mjú$   $ú-kp\acute{o}f\grave{a}$   $m\acute{o}$   
 1SG-(B)ask.IPFV CL12-matter CL3-money 1SG.POSS  
 ‘‘I’m asking because of my money.’’ (Munken)

Relative clauses may also be formed where the referent of the head nominal has an obvious logical connection with the meaning expressed by the relative clause, but the grammatical role is not obvious, as in (12.108).



- (12.108)  $\dot{\text{i}}\text{-j}\bar{\text{a}}\text{n}\bar{\text{a}}$        $\dot{\text{i}}\text{-j}\bar{\text{i}}$        $\text{n}\acute{\text{o}}$      $[\dot{\text{u}}\text{-n}\bar{\text{e}}$        $\text{j}\bar{\text{e}}$        $\dot{\text{u}}$   
 CL5-DEM.PROX CL5-honey REL CL1-person (A)stay.PFV CL1  
 ts̄n̄]  
 (B)be.drunk.IRR  
 “This is the honey that a person can get drunk [on].” (Munken)

There exist further cases of sentences with an identical structure to relative clauses, in texts and elicited, where the relativized noun does not play a semantic or syntactic role *within* the relative clause,<sup>21</sup> but instead refers to the event itself or some logical consequence of it. These cannot be translated into idiomatic English with a relative clause. Some examples are given in (12.109)–(12.110).

- (12.109)  $\dot{\text{i}}\text{-}\dot{\text{c}}\bar{\text{i}}$        $\dot{\text{i}}\text{-n}\bar{\text{u}}$        $[\text{b}\acute{\text{u}}$   $\text{g}\bar{\text{b}}\bar{\text{a}}$        $\text{j}\bar{\text{a}}$        $\text{k}\bar{\text{a}}\text{-t}\bar{\text{a}}$        $\text{k}\bar{\text{a}}]$   
 CL5-sound CL5-REL CL2 (A)cut.IPFV (A)stay.IPFV CL7-tree CL7.DET  
 $\text{n}\bar{\text{o}}$        $\text{b}\bar{\text{a}}\eta$        $\text{j}\bar{\text{a}}$        $\text{m}\bar{\text{o}}$   
 (A)make.IPFV (B)block.IPFV (A)stay.IPFV 1SG  
 “The sound of them cutting the tree disturbs me.” (Biya)
- (12.110)  $\text{b}\acute{\text{o}}$   $\text{k}\bar{\text{w}}\acute{\text{e}}$      $\dot{\text{i}}\text{-t}\bar{\text{u}}$        $\dot{\text{u}}\text{-k}\bar{\text{p}}\acute{\text{e}}$      $[\text{b}\acute{\text{o}}$   $\text{k}\bar{\text{w}}\acute{\text{e}}$      $\dot{\text{u}}\text{-k}\bar{\text{p}}\acute{\text{o}}\text{h}\bar{\text{o}}]$   
 CL2 (B)have CL5-species CL3-house CL2 (B)have CL3-money  
 “They have the kind of house that makes it seem like they have money.”  
 (Munken)

As Comrie (1998: §3.2) argues on the basis of similar facts for Japanese, there are languages for which the relative clause construction is not a formally distinct construction, but instead is subsumed under a larger noun-modifying clause construction. Comrie suggests that in such languages extraction (and therefore accessibility to relativization) is not a very useful concept for analyzing relative

<sup>21</sup> This is taken to be a defining characteristic of relative clauses by most commentators, e.g., Downing (1978: 378), Lehmann (1986: 664), Andrews (2007: 206).

clauses.<sup>22</sup> There are several facts indicating that Mungbam may be such a language. Foremost of these is the presence of relative clauses which would have to be analyzed, in an extraction analysis, as being derived from an *ungrammatical* sentence in a main clause.

Example (12.111) illustrates how the verb *ban* ‘(A)climb’, when it takes a complement, must take a locative phrase and not simply a bare NP. Example (12.112) shows that the same verb may appear in a clause with no complement at all (provided that it is reduplicated when clause-final, (cf. § 12.4.3.2)). When the same verb appears in a relative clause (12.113), the relative clause may or may not contain a locative complement with a representative of the head nominal. If the version of (12.113) lacking the locative complement were to be treated as derived from a main clause \**Nǎŋ bǎn ú-kpě wə*, with the noun *ú-kpě* ‘house’ extracted, it would leave us with the unhappy prospect of deriving a relative clause from a main clause which is in fact ungrammatical. When the relative clause is simply modeled as a noun modified by a clause, with no extraction relationship between the two, no such difficulty arises.

(12.111) Nǎŋ fǒ bǎn ú-kpě wə \*(á fǒmə)  
 N. P1 (A)climb CL3-house CL3.DET PREP LOC.TOP  
 “°Nang climbed \*(on top of) the house.” (Munken)

(12.112) Nǎŋ fǒ bǎm~bǎn  
 N. P1 VFOC~(A)climb  
 “°Nang climbed.” (Munken)

<sup>22</sup> One committee member has noted that the requirement in a language that the head nominal play some role within the relative clause is logically independent of whether an extraction analysis is viable for that language. On the other hand, for relative clauses where the modified noun lacks any role within the relative clause, an extraction analysis is rendered otiose. It may be that there are languages which do not require the head nominal to play some role within the relative clause, but which are nevertheless very elegantly analyzed with the assumption of extraction in the case of relative clauses where the head nominal *does* play a role within the relative clause. A linguist studying such a language could reasonably argue that extraction was a definitional property of relative clauses in the language, since it neatly separates relative clauses from noun-modifying constructions for which an extraction analysis is otiose. The discovery of such a language would be epistemically blocked.

- (12.113) m-fǒ tsǒŋ ú-kpé nó [Nǎŋ fǒ bàn (á wū fǐmǎ)]  
 1SG-P1 (B)see CL3-house REL N. P1 (A)climb PREP CL3 LOC.TOP  
 wǎ  
 CL3.DET  
 “I saw the house that Nang (climbed / climbed on top of).” (Munken)



## Chapter 13

# Negation

The present chapter contains a short overview of negation in Mungbam. Section 13.1 presents the two basic syntactic processes available for negating a clause or a part of a clause. Section 13.2 introduces the two different negating morphemes, termed for the convenience the ‘s’ and ‘D’ negators. Section 13.3 discusses word order in negated clauses. Section 13.4 briefly discusses how scope between negation and quantifiers is interpreted. Section 13.5 details some constraints on tense and aspect marking in negated clauses. Section 13.6 discusses negation of a particular type of construction which is otherwise discussed in § 14, below. Frustrative and vetitive constructions are discussed in §§13.7–13.8. Short discussion on the equivalents for English negative concord *anyone*, *anything*, etc., is found in the chapter on interrogatives (§ 15.3).

### 13.1 Verbal negation and cleft negation

Negating constructions can be divided into two main types: one where negating morphemes flank a verbal core, called *verbal negation*, and one where a cleft

sentence is negated, called *cleft negation*. Verbal negation is used to negate full clauses, while cleft negation may be used to specifically negate either full clauses or sub-clausal constituents.

A clarifying note should be added here about what is intended when it is said that verbal negation is used to negate full clauses. In a verbal negation construction, it is often clear on pragmatic grounds that one constituent or another is the one for which the effect of negation is intended (call this constituent the one under the ‘pragmatic scope of negation’). Example (13.1) comes from a folk tale about a woman who punishes her jealous husband by solicitously demanding sex from him. The two are traveling to the market, and the woman refuses to continue walking until her demands are met. As no other sexual partners have been contemplated (i.e., the woman is not demanding that the husband sleep with her rather than someone else), it could be said that the verb is under the pragmatic scope of negation.

- (13.1) à pè [à] wòn dà nò bā mǎ, mǎ í-séhe ì-nǎ  
 2SG (A)stay 2SG (A)sleep D.NEG FRUST COM 1SG 1SG CL5-place CL5-some  
 nǎ dà nò  
 (A)go D.NEG FRUST  
 “[If] it’s that you won’t sleep with me, I won’t go anywhere [i.e., any further].” (Biya)

Example (13.2) comes from a series of short recordings of Missong villages, who were asked to introduce themselves and tell a brief story about their lives. The speaker, noticing that others had been introducing themselves with their English names, started her contribution by stating that she had no English name, and went on to give her actual birth name. From the context, the phrase meaning ‘English name’ could be considered as under the pragmatic scope of negation.

- (13.2)  $\text{ɖóŋ} \text{ŋ-kánə} \quad \text{dā} \quad \text{ì-jē} \quad \text{nàsàra}^1 \dots$   
 NEG 1SG-(B)have D.NEG CL5-name CL1.English  
 “I don’t have an English name...” (Missong)

The preceding two examples, however, do not show any formal difference in marking corresponding to the difference in pragmatic scope of negation. Negation is specified only at a fixed position in the clause, and if pragmatic factors are ignored, the best generalization is that verbal negation has the full clause under its scope.

### 13.1.1 Verbal negation

A clause which is negated by verbal negation is canonically marked by a negative particle *á* immediately preceding the verbal core,<sup>2</sup> and another negative particle, either the ‘D’ or the ‘S’ negative morpheme (cf. § 13.2), whose forms vary by dialect, immediately following the verbal core. Two examples are given in (13.3)–(13.4).

- (13.3)  $\text{ùjà} \quad \text{mā} \text{ì-tù} \quad \text{dīn} \quad \text{á} \quad \text{kù} \quad \text{dàsən}$   
 LOC.Biya 1SG CL5-family CL17.DET NEG (B)have.IRR S.NEG  
 “... in Biya I don’t have family.” (Biya)

- (13.4)  $\text{í-cě} \quad \text{ī-ló} \quad \text{á} \quad \text{bāmə} \quad \text{dà} \quad \text{í-ɖē}$   
 CL10-fowl CL10-other NEG (C)accept D.NEG PREP.CL5.INF-(A)travel  
 $\text{gélə=nó} \quad \text{bì-cě} \quad \text{nómò}$   
 (C)go.around=DAT COM.CL9-fowl TOP  
 “The other fowls don’t accept to walk around with that fowl.” (Munken)

The preverbal negative morpheme *á* is often omitted without any difference in meaning, as in (13.5).

<sup>1</sup> Such a word is found in Fulfulde, and it is the most common way of referring to white people in the north of the country. The word would probably be understood by most Cameroonians, regardless of their linguistic background. It is not clear by exactly what means the word entered Missong.

<sup>2</sup> A second option is found only in Missong (exemplified in (13.2), where a particle *ɖóŋ* appears at the beginning of a negated clause, before the subject argument.

- (13.5) ɲǵǵɲ, bɥó nò tǎa dà ð  
 no, CL2 (A)go (C)show D.NEG 2SG  
 “No, they won’t go and show you. [i.e., they won’t show a video of you to other people]” (Biya)

Less frequently, verbal negation is accomplished with *only* the preverbal negative marker, the postverbal marker being omitted, as in (13.6). This reduced marking of negation<sup>3</sup> is rather restricted, and examples only exist for verbs of perception (i.e., hearing, seeing).

- (13.6) ù-nè ì-fɛ̃ ū-mwêlɔ mɔ́, mɛ̀ wǎ wǒ  
 CL1-person CL5-head CL3-farm 1SG.POSS then CL1.NEG (B)hear  
 “... [to call out to] a person at the top of my farm, he will not hear.”  
 (Munken)

### 13.1.2 Cleft negation

In cleft negation, a negated cleft construction (q.v. § 11.6) is used primarily for the purpose of negating a subclausal constituent, such as an argument (as in (13.7)–(13.8)) or adjunct (as in (13.9)).

- (13.7) à dèn í-wɔ̃ɲ mɔ́ Mú tsǎm lá  
 DS D.NEG CL10-pig 1SG.POSS M. (B)beat FRUST  
 “°It’s not my pigs that were beaten by Mu.” (Abar)
- (13.8) à dà ð m̄-fǒ dɛ̀ jɛ̀ mɔ̀ mɛ̀ nɔ́  
 DS D.NEG 2SG 1SG-P1 (C)say COMP 1SG (A)marry FRUST  
 “It’s not you who I said I would marry.” (Biya)
- (13.9) mɔ́ ɲ-wû dān, but à dà ɲk̀k̀k̀k̀n ló, mɔ́ ɛ̀i-ɛ̀lɔ  
 1SG.FUT 1SG-(C)open here but DS D.NEG now FRUST 1SG VFOC~(A)work  
 ì-ɛ̀lɔ *september*  
 CL5.INF-(A)work September  
 “I will open here, but not today, I will work the September work.”  
 (Munken)

<sup>3</sup> The preverbal marker is homophonous with the future marker (cf. § 7.4), and so the construction is also ‘reduced’ in the sense that it is not free from ambiguity in meaning.



Cleft negation lacks the preverbal negator *á*, and requires the clause-final frustrative marker (cf. § 13.7). It is only compatible with ‘D’ negation (§ 13.2). All of these properties are shared by various non-verbal predicate constructions (see § 14.4 for further discussion).

## 13.2 ‘S’ and ‘D’ negation

Two main postverbal negating morphemes are observed in all Mungbam dialects. The first has a form  $s\bar{V}(n)$  (which may be reduced to  $h\bar{V}$ ), and requires verbs negated by it to be in their irrealis form. It appears in verbal negation and not in cleft negation. This morpheme will be referred to as the ‘S’ negator, and glossed S.NEG. The second, with segmental form *den* (Abar) or *da* (other dialects),<sup>4</sup> may be used in both verbal and cleft negation. It is usually associated with the realis forms of verbs, but has been observed with irrealis forms as well (cf. § 13.5.1). This morpheme will be referred to as the ‘D’ negator, and glossed D.NEG. A form *daha* or *dasən*, which joins both the ‘S’ and ‘D’ negators, is also attested, and this behaves identically to the ‘S’ negator. Examples of the two types of negating morpheme are given in (13.10)–(13.11).

- (13.10) Nǎŋ á sŏŋ dà m̀è  
 N. NEG (c)invite D.NEG 1SG  
 “°Nang has not invited me.” (Biya)

- (13.11) Nǎŋ á sóŋ s̄ən m̀è  
 N. NEG (c)invite.IRR S.NEG 1SG  
 “°Nang did not invite me.” (Biya)

<sup>4</sup>With a mid tone in Missong and Abar and a low tone in the other dialects.

### 13.2.1 Meaning differences between ‘s’ and ‘D’ negating morphemes

In negated simple declarative clauses in P0 tense, the differences between ‘s’ and ‘D’ negation are most clear. In this case consultants with a good command of English tend to insist on translating negated sentences with the ‘D’ negator with English ‘have not,’ and those with the ‘s’ negator with English ‘do not.’<sup>5</sup> The main meaning difference concerns the finality of the state of affairs described. In a situation where (13.10) is uttered, the speaker still believes that there is a probability, however small, that Nang might still invite him. In a situation where (13.11) is uttered, on the other hand, the speaker does not believe that there is any possibility at all that he will eventually be invited by Nang. Some reflection on the part of the English-speaking reader will suggest that the translations suggested by my consultants are good choices.

Another simple example from elicitation should make the difference more clear. Of the two sentences given in (13.12)–(13.13), the sentence in (13.12) is canonically uttered in a situation where Nang is still likely to die. It may be used, however, when the probability of his dying is quite small. Uttering (13.13), on the other hand, commits the speaker to expressing a belief that although Nang may have at one point risked dying, he is no longer in any foreseeable danger of dying.<sup>6</sup>

(13.12) Nǎŋ á kpé dà  
 N. NEG (B)die D.NEG  
 “<sup>◊</sup>Nang hasn’t died.” (Biya)

(13.13) Nǎŋ á kpè s̄n  
 N. NEG (B)die.IRR S.NEG  
 “<sup>◊</sup>Nang didn’t die.” (Biya)

<sup>5</sup> Where the auxiliary is appropriately inflected.

<sup>6</sup> A committee member has suggested that ‘D’ negation might be seen as negating the result state of an action, and ‘s’ negation as negating all parts of the action.

The difference in meaning seems reasonable in light of the verbal inflectional differences: it seems natural that a verb describing an event which is expected to have no chance of happening should be in irrealis rather than realis form. However, when a wider range of constructions is considered, it becomes more difficult to see clear functional motivations for the patterning of the ‘s’ and ‘d’ type of negation. One clear stumbling block involves the vetitive construction (discussed below, § 13.8): since its affirmative counterpart, the jussive, requires verbs to be in their irrealis forms, it might be expected that the vetitive should use ‘s’ negation, which is associated with the irrealis. Instead, it is ‘d’ negation which is used.

(13.14) sām  
 (B)celebrate.IRR  
 “°Celebrate!” (Biya)

(13.15) kā sām dà  
 VET.2SG (B)celebrate D.NEG  
 “°Don’t celebrate!” (Biya)

Further restrictions on the distribution of ‘s’ and ‘d’ negative morphemes will be noted in § 13.5.

### 13.3 Word order in negated clauses

As has been noted in § 11.8.3, negated clauses (those negated by verbal negation) frequently involve defocalisation of non-subject arguments, such that SOV constituent order appears roughly as frequently as SVO order in negated transitive clauses. Examples (13.16) – (13.18) show negated clauses with fronted non-subject terms (in square brackets).

- (13.16) kó á-ḡéhe ú-bá~báŋ pè, jē sō [ú-kpáha] á  
 as CL6-eye CL6-VFOC~(B)lock.ADJ (A)stay COMP 1PL CL3-money NEG  
 gòm dà nó  
 (A)pay D.NEG FRUST  
 “...since [his] eyes are blind, we can not [i.e., cannot be required to]  
 pay money.” (Biya)<sup>7</sup>
- (13.17) m[ú-sé] jí á tsóŋo  
 1SG.CL3-face 3SG.POSS NEG (B)see  
 “I’m not seeing his face...” (Munken)
- (13.18) mō [mâki] á kòm fànə dà  
 1SG LOC.market NEG (A)again (A)sell D.NEG  
 “I don’t sell in the market anymore.” (Munken)

Examples (13.19)–(13.20) show negated transitive clauses with *in situ* objects.

- (13.19) bā kàm kòŋ dā [ú-dî ú-báha]  
 2PL (A)again (A)like D.NEG CL3-world CL3-(C)spoil.ADJ  
 “Y’all don’t like a bad world...” (Missong)
- (13.20) à dzē dàha [bí-kpā]  
 DS (A)wear S.NEG CL8-shoe  
 “...you won’t wear shoes.” (Munken)

Intransitive clauses do not permit word order changes when negated. SV constituent order is preserved, as in (13.21)–(13.22).

- (13.21) So mō lá nāŋ dàha, mō lō kwè í-čí  
 so 1SG P2/3.NEG (A)go.IRR S.NEG 1SG P2/3 (B)hold.IRR PREP.CL5.INF-(B)stay.day  
 pē=nó  
 (A)stay=DAT  
 “So I didn’t go, I had to be staying [at home].” (Munken)
- (13.22) í-púm ī-ló jē, má nām bàn dàha  
 CL5-year CL5-other CL5.DET 1SG.NEG (A)work (A)really S.NEG  
 “... the other year I didn’t really work.” (Munken)

<sup>7</sup> According to the narrator of this story, there has been a policy in Cameroon waiving school fees for the children of blind parents.

Generally, a subject cannot be placed in focus by dislocation to IAV in a negated clause (13.23); the closest equivalent meaning is rendered with the cleft negation construction (13.24).

(13.23) \*à kēm sōn Nǎŋ í-bwé jī  
 DS (A)slaughter.IRR S.NEG N. CL10-goat CL10.DET  
 [intended: Nang didn't slaughter the goats.] (Biya)

(13.24) à dà Nǎŋ ù kēm í-bwé jī nó  
 DS D.NEG N. CL1 (A)slaughter CL10-goat CL10.DET FRUST  
 "It's not Nang who killed the goats." (Biya)

### 13.4 Scope of negation in clauses with quantifier or numeral

When a negated clause contains quantified arguments, it is possible to achieve different scoping configurations through separation (q.v. § 6.4.1.2) of the quantifier from the nominal it modifies. When the quantifier translated 'all' is not separated from the rest of the nominal, negation has narrow scope. When the quantifying modifier is separated, negation has broad scope.

(13.25) í-é' ì gbèŋ á pī hō  
 CL10-fowl CL10.DET all NEG (B)die.IRR S.NEG  
 "°None of the fowls have died."  $\forall x [\text{fowl}(x) \rightarrow \neg \text{die}(x)]$  (Abar)

(13.26) í-é' ì á pī hō gbèŋ  
 CL10-fowl CL10.DET NEG (B)die.IRR S.NEG all  
 "°Not all the fowls have died."  $\exists x [\text{fowl}(x) \wedge \text{die}(x)] \wedge \neg [\forall x [\text{fowl}(x) \rightarrow \text{die}(x)]]$   
 (Abar)

A similar pattern holds for numeral modifiers, as (13.27)–(13.28) show.

- (13.27) í-ǵě́      ī-tè      á      pī      hē  
 CL10-fowl CL10-three NEG (B)die.IRR S.NEG  
 “°Three fowls have not died.” (i.e., there are three fowls which did not die.) (Munken)
- (13.28) í-ǵě́      jē      á      pī      hē      ī-tè  
 CL10-fowl CL10.DET NEG (B)die.IRR S.NEG CL10-three  
 “°Not three fowls died.” (Munken)

In Cameroonian English, quantifiers and numerals may appear in the same position as adverbs, permitting (13.26) to be translated almost word for word, and without ambiguity: ‘The fowls have not died all.’ Example (13.28) is likewise unambiguously rendered in Cameroonian English as ‘The fowls have not died three.’ A sentence such as (13.26) cannot be used when no fowls have died, nor can (13.28).

## 13.5 Tense and aspect marking and negation

Negated clauses which have an overt tense marker, or which are in imperfective aspect, may have restrictions as to the type of negation (‘s’ or ‘D’) which is possible. Negation and marking of the irrealis mood interact rather directly, as has been noted in § 13.2: ‘s’ negation governs irrealis mood in verbs.

### 13.5.1 Tense

Palpable differences are noted between dialects where clausal negation and marking of the past tenses (P1–P3). In Missong, negated clauses in P1–P3 require ‘D’ negation. The distinction between P2 and P3 is preserved,<sup>8</sup> as ‘D’ negation is compatible with either realis or irrealis forms of verbs.

<sup>8</sup> It will be recalled that in all dialects except for Biya, P2 and P3 are only distinguished by the verb being in realis vs. irrealis form. (cf. § 7.4).

- (13.29) Nǎŋ kà fwám dā á-dê  
 N. P2 (B)scatter D.NEG CL6-bean  
 “°Nang didn’t scatter beans (P2).” (Missong)
- (13.30) Nǎŋ kà fwàm dā á-dê  
 N. P3 (B)scatter.IRR D.NEG CL6-bean  
 “°Nang didn’t scatter beans (P3).” (Missong)

In contrast with Missong, Munken requires ‘s’ negation in P1–P3. As examples (13.31)–(13.32) show, ‘D’ negation is not grammatical. Since ‘s’ negation governs irrealis mood, the realis/irrealis distinction is not available in negative clauses to mark the contrast between P2 and P3 tense. Sentences such as (13.34) are therefore ambiguous as to their time reference.

- (13.31) \*Nǎŋ fǝ gbè dà  
 N. P1 (A)fall D.NEG  
 intended: Nang didn’t fall (P1). (Munken)
- (13.32) \*Nǎŋ lá gbè / gbē dà  
 N. P2/3.NEG (A)fall / (A)fall.IRR D.NEG  
 intended: Nang didn’t fall (P2/3) (Munken)
- (13.33) Nǎŋ fǝ gbē hō  
 N. P1 (A)fall.IRR S.NEG  
 “Nang didn’t fall (P1).” (Munken)
- (13.34) Nǎŋ lá gbē hō  
 N. P2/3.NEG (A)fall.IRR S.NEG  
 “°Nang didn’t fall (P2/3) (Munken)

Abar also appears to require ‘s’ negation in P1–P3 negated clauses, though some uncertainties remain in deciding whether the same tenses found in positive polarity clauses are also available in negative clauses.

My Abar consultants do not accept as grammatical simple ‘s’-negated P1–P3 clauses (13.35), suggesting as a correction the use of an entirely different particle in the tense marker slot, as in (13.36).

- (13.35) \*Nǎŋ há bũ̀ h̄  
 N. P1 (A)dig.IRR S.NEG  
 intended: Nang did not dig (P1). (Abar)

- (13.36) Nǎŋ à l̄ bũ̀ h̄  
 N. DS DEB (A)dig.IRR S.NEG  
 “<sup>◊</sup>Nang did not dig (P1/2<sup>9</sup>).” (Abar)

This particle, which I have glossed DEB ‘debitive’, can appear in positive polarity clauses such as (13.37) (where it governs irrealis mood), with a suggested translation ‘Nang would have fried plantains’. Examples (13.37)–(13.38) can have a deontic interpretation (i.e., Nang failed to fry plantains, though he was supposed to), but in the short time I spent eliciting on this topic I was not able to determine whether an epistemic interpretation would also be possible. Since the debitive governs irrealis mood, it cancels the distinction between P2 and P3 tense.<sup>10</sup>

- (13.37) Nǎŋ há l̄ k̄ m̄-nt̄án  
 N. P1 DEB (B)fry.IRR CL18a-plantain  
 “Nang should have fried plantains (P1).” (Abar)

- (13.38) Nǎŋ k̄ l̄ m̄ ĵ-ĵá  
 N. P2/3 DEB (B)drink.IRR CL6a-water  
 “Nang should have drunk water (P2/3).” (Abar)

The P2/3 distinction is likewise collapsed in a negated clause with two irrealis-governing units (debitive and ‘s’ negator).

- (13.39) Nǎŋ à k̄ l̄ bũ̀ h̄  
 N. DS P2/3 DEB (A)dig.IRR S.NEG  
 “<sup>◊</sup>Nang did not dig (P2/P3)” (Abar)

Marking of the future in negated clauses is complicated by the fact that the preverbal negative marker is homophonous with the future marker, as (13.40)

<sup>9</sup> Although my consultant offered (13.36) as a correction to (13.35), she went on to clarify that it should have a time reference of ‘around yesterday’.

<sup>10</sup> It is not known whether the concurrent use of the P1 tense marker and the debitive particle is grammatical in a negated clause.



shows. As will be discussed in §13.7, the frustrative marker may be used to disambiguate where a future meaning is intended.

- (13.40) Nǎŋ á            bũũ            h̄  
 N.    FUT/NEG (A)dig.IRR S.NEG  
 “°Nang (will not/did not) dig.” (Abar)

### 13.5.2 Aspect

While data on the interaction between negation and aspect is not very extensive, it seems that imperfective aspect is incompatible with ‘s’ negation, as (13.41)–(13.43) show.

- (13.41) \*Nǎŋ á    gb̄                    s̄n  
 N.    NEG (A)fall.IPFV.IRR S.NEG  
 intended: Nang doesn’t fall. (Biya)
- (13.42) \*Nǎŋ á    gb̄                    ɲā                    s̄n  
 N.    NEG (A)fall.IPFV.IRR (A)stay.IPFV.IRR S.NEG  
 intended: Nang isn’t falling. (Biya)
- (13.43) Nǎŋ á    gb̄                    dà  
 N.    NEG (A)fall.IPFV D.NEG  
 “°Nang doesn’t fall.” (Biya)

## 13.6 A note on ‘still’

An interesting difference in meaning has been noted in negated versions of the ‘still’ construction (cf. §14.5.2), formed with the ‘L’ copula verb (cf. §14.1). It was not possible to do follow-up elicitation on this issue, so I will limit myself to presenting the examples with a few brief comments. In Missong and Munken, the ‘still’ copula construction, when negated, has a meaning of ‘still not’, as in (13.44)–(13.46).

- (13.44) Nǎŋ lá pī sō  
 N. COP.NEG (B)neg.IRR S.NEG  
 “°Nang still hasn’t died.” (Missong)
- (13.45) mō lá wó dàha  
 1SG COP.NEG (c)hear S.NEG  
 “I hadn’t [up until now] heard...” (Munken)
- (13.46) ù dí mō=nó jē ýkò ù lē nāŋ dī è, ù  
 CL1 (c)say 1SG=DAT COMP as CL1 P3 (A)go.IRR there CLSBRK CL1  
 lā tsā dàha í-sěhe nó ù nàŋkè á jī  
 (A)L.COP.IRR (A)know.IRR S.NEG CL5-place REL CL1 (A)go PREP CL5.LOC.OBJ  
 mī è  
 LOC.at CLSBRK  
 “He said to me that when he went there, he still didn’t know where he  
 would go [i.e., didn’t know the place that he would go to it].” (Munken)

The example available of what appears to be the same construction type in Ngun, however, has a meaning of ‘not anymore’.

- (13.47) má ñ-džàn ndəm bō wò, ñ-lá bē fí-mfwèhe  
 1SG.FUT 1SG-(A)stay only COM 2SG 1SG-(B)COP.NEG COM CL19-rat  
 džàn sē  
 (A)stay.IRR S.NEG  
 “I will stay only with you, I will no longer stay with the rat.” (Ngun)

## 13.7 Frustrative

A particle which is usually sentence-final, labeled the ‘frustrative’ marker (glossed FRUST), has forms as given in table 13.1. In non-negated clauses (§ 13.7.1), the particle appears clause finally and is used to indicate that an event happened in vain.<sup>11</sup> The particle has a different meanings in negated clauses, where its use is somewhat grammaticalized (§ 13.7.2).

<sup>11</sup> Whence the choice of term. cf. Latin *frustra* ‘in vain’.

Munken	ĺ
Missong	lé
Abar	lá
Biya	ń
Ngun	ḿ

Table 13.1: Forms of the frustrative marker.

### 13.7.1 In positive clauses

When used in positive polarity clauses, it shows that an action was carried out in vain, without the desired result. The verb meaning ‘look’ appears as a right-modifying coverb (cf. § 8.2) in such clauses (as in (13.48)–(13.50)).

- (13.48) ɣ̀k̀è ù gbè t̀ì jí bē w̄ ĺ  
 as CL1 (A)wait (A)look CL1.mother COM CL1.DET FRUST  
 “... as he waited [in vain] for their mother...” (Munken)

- (13.49) bɣ́é ɖ̀ɔ̀ wè à̀lám̀bú à̀lám̀bw̄, bɣ́ó ɖ̀ɔ̀ fw̄ám  
 CL2 (c)call.IPFV CL1 Alambuo.VOC CL2 (c)call.IPFV (B)struggle.IPFV  
 t̀è ḿ à̀lám̀bú à̀lám̀bw̄  
 (A)look.IPFV FRUST Alambuo.VOC  
 “They were calling her, ‘Alambuo!’ They were calling out to her in vain, ‘Alambuo!’ ” (Ngun)

- (13.50) Nǎ̀ɣ̀ wù t̀è lànò mwé-ndé lá  
 N. (A)grind.IPFV (A)look.IPFV (A)stay.IPFV CL6-bean FRUST  
 “°Nang is grinding the beans. [but failing to grind them to the desired consistency, failing to get the grinder to work smoothly, etc.]” (Abar)

### 13.7.2 In negative clauses

The frustrative is also found in certain types of negated clauses. The negated form of a copula clause must have a frustrative marker at the end:

- (13.51) Nǎ̀ɣ̀ lé ù-nò ù-kám-ɔ̀  
 N. (B)L.COP CL1-person CL1-(A)butcher-ADJ  
 “°Nang is the butcher.” (Abar)

- (13.52) Nǎŋ lě dēn ù-nò ù-kām-ɔ lá  
 N. (B)L.COP D.NEG CL1-person CL1-(A)butcher-ADJ FRUST  
 “°Nang is not the butcher.” (Abar)

This requirement extends to grammatical use of the copula in an ‘ability’ construction (q.v. § 14.5.3), as (13.53)–(13.54) show, and to cleft negation, as examples in § 13.1.2 attest.

- (13.53) Nǎŋ lě ù kām í-ǎí  
 N. L.COP CL1 (A)slaughter.IRR CL10-animal  
 “°Nang is able to slaughter animals.” (Abar)
- (13.54) Nǎŋ lě dēn ù kām í-ǎí lá  
 N. L.COP D.NEG CL1 (A)slaughter.IRR CL10-animal FRUST  
 “°Nang is not able to slaughter animals.” (Abar)

The frustrative marker can also appear at the end of ‘D’-negated sentences, where it provides some pragmatic strengthening, suggesting that the event referred to is very unlikely or impossible.

- (13.55) bí-tsâ òsùŋ bīn lì jē kó sō lè dā  
 CL8-juju Ngun CL8.DEM.PROX (A)make COMP VET 1PL (A)go.farm D.NEG  
 lé  
 FRUST  
 “These Ngun jujus are making it so that we won’t go to the farms. [by bringing an excessive amount of rain]” (Missong)

Finally, the frustrative marker may appear after a verb in clauses marked as future tense,<sup>12</sup> with a meaning corresponding to the negation of the clause. The ‘D’ negator is optional. Examples from elicitation and texts are given below in (13.56)–(13.59).

<sup>12</sup> As noted at the end of § 13.5.1, p. 424, the future marker is homophonous with the preverbal future marker. Therefore it cannot be ruled out that the *á* in this usage is a preverbal negator rather than a future marker. In any case, the presence of the frustrative marker immediately after the verb or the ‘d’ negator unambiguously marks the clause as involving future tense.

- (13.56) Nǎŋ á sŋ́ nŋ́ m̀̀  
 N. FUT (c)invite FRUST 1SG  
 “°Nang will not invite me.” (Biya)
- (13.57) Nǎŋ á kpé nŋ́  
 N. FUT (B)die FRUST  
 “°Nang will not die.” (Biya)
- (13.58) kàkwē jē m̄-fí dà nŋ́  
 CL1.frog COMP 1SG-(B)give D.NEG FRUST  
 “Frog [said] that ‘I will not give.’ ” (Biya)
- (13.59) mŋ́ m̄-fìlŋ́ gbè lŋ́  
 1SG.FUT 1SG-(c)tangle (A)fall FRUST  
 “I will not get wrapped up and fall.” (Munken)

## 13.8 Vetitive

A vetitive meaning is achieved by a sentence-initial particle form *kŋ́*. As was mentioned in § 13.2.1, ‘D’ negation is used in the vetitive construction (though the ‘D’ negator may be omitted), ‘S’ negation being ungrammatical.

- (13.60) kŋ́ Nǎŋ á jám dà  
 VET N. NEG (c)sing D.NEG  
 “°Nang shouldn’t sing.” (Biya)
- (13.61) \*kŋ́ Nǎŋ á jám sŋ́  
 VET N. NEG (c)sing.IRR S.NEG  
 [intended: Nang shouldn’t sing] (Biya)
- (13.62) ká k̀̀m tsàm dzŋ́ jē ā-fwómə nē bú á  
 VET.2SG (A)again (A)speak again thus CL6-day CL6.DET CL14 NEG  
 kpán dà  
 (B)be.correct D.NEG  
 “Don’t speak again like that [discussing Ndji], the days are not yet right.”  
 (Munken)

- (13.63) kó bā lì dā jē bā lì bí-ŋkùnə lé<sup>13</sup>  
 VET 2PL (A)make D.NEG COMP 2PL (A)make CL8-(A)fight.INF FRUST  
 “Don’t y’all do [things] so that you make fights.” (Missong)

A vetitive meaning is also achieved with a verb translatable as ‘be careful’ (‘take time’ in Pidgin English). In regular use, the verb usually means ‘take care of’ (see example (10.112), p. 316) or ‘be punctilious’, as in (13.64).

- (13.64) à tsóŋ ù-nò wē tóhə tsóŋ náŋ ù-sú  
 2SG (B)see CL1-person CL1.DET (B)be.careful (B)see (B)fine CL3-face  
 jí  
 3SG.POSS  
 “You see the man has taken care to beautify his face.” (Biya)

When used as a vetitive marker, the verb takes a full clause as its complement. As the textual examples in (13.65)–(13.65) suggest, the construction appears to be somewhat grammaticalized, since activities like fighting or eating fish are not among those which happen out of carelessness, but instead are done willfully.

- (13.65) kí-tífə só bì-ɕūn lâ jē tófə à  
 CL7-law 1PL.POSS CL8-Missong (B)L.COP COMP (B)be.careful.IRR 2SG  
 bíju dā ìkànə bí á fi  
 (c)stand.up D.NEG CL1.chair 2SG.POSS PREP LOC.head  
 “The law of we the Missong is that you should not stand up on your chair [and start disrupting a meeting].” (Missong)
- (13.66) ì-ɕù jī mì dé=á wə jē tóhə wə  
 CL9-fish CL9.DET then.CL9 (c)say=PRF CL1 COMP (B)be.careful CL1  
 nə kəm ɕí dà wə  
 (A)go (A)again (B)eat D.NEG CL1<sup>14</sup>  
 “The fish<sub>i</sub> then said to him that he shouldn’t instead go and eat him<sub>i</sub>.”  
 (Biya)

<sup>13</sup> Here it is not clear whether the frustrative marker applies to the negated matrix clause or the positive embedded clause.

<sup>14</sup> The fish is referred to with a class 1 proform rather than class 9 here.

## Chapter 14

# Copula verbs and nonverbal predicates

This chapter deals with clauses whose notional predicate is not a verb or verb complex. Since clauses with a nonverbal predicate are not necessarily clauses which lack a verb, this chapter must begin with a presentation of the copula verbs (§§ 14.1, 14.2). Once copula verbs are discussed, the main types of non-verbal predicate constructions are catalogued by their function (§ 14.3). Properties of negated clauses with nonverbal predicates are discussed in § 14.4. Lexical verbs which function as copulas may have some non-copula functions; they may function either as freestanding verbs, as will be noted where applicable in § 14.1, or as minor coverbs in asymmetric serial verb constructions. The latter type of function is discussed in § 14.5, which overlaps slightly in coverage with the discussion on asymmetric serial verb constructions in § 8.2.

## 14.1 Copula verbs

Any verb which optionally or necessarily appears in a non-verbal predicate construction, and which is translated into English as ‘be’, is here considered a copula. Functionally, copula verbs may serve as markers of identity of reference (Benveniste, 1966:187), or as an indicator that the referent of some noun phrase is at a certain location or is associated with a certain property. Verbs fitting this description are presented in table 14.1.

Form	Dialect(s)	Comment
(B)IV	Abar, Ngun, Missong	Copula verb, likely cognate in other dialects with restricted function.
(A)dɔ	Missong	Copula verb, no obvious cognates found in other dialects.
(A)lɔ, la	Biya, Munken	Restricted use. See §14.5.2.
(A)dzan	Abar, Ngun	As main verb, means ‘sit, stay’, used as copula verb for nominal predicate constructions in future tense, and as optional copula in predicate adjective constructions. Also used as progressive coverb.
(A)ɲɛ	Biya, Munken, Missong	As main verb, means ‘sit, stay’. Optionally used as copula verb in Biya and Munken, used also as progressive converb.
á, ´	Biya, Munken	For nominal predicates.
∅	All dialects	Common in locative construction and negative existential.
bè, bò, bò	Ngun, Biya, Munken, Abar	Sparsely attested as copula verb, frequently used with dummy subject to establish a conversational background, ‘whereas, meanwhile’; unclear whether it has full verbal status.

Table 14.1: Copular words, with notes on distribution. Forms above the dashed line are known to be verbs.

The distribution of copula verbs is somewhat complicated. Abar, Ngun and Missong have copula verbs which do not have any known lexical senses, though a verb with lexical meaning ‘sit, stay’ is used as a copula on a restricted basis.



Missong appears to have two alternate copula verbs with overlapping distribution, neither of which has a known lexical sense.<sup>1</sup> These first two copula verbs are glossed ‘L.COP’ and ‘D.COP’, since it is not clear what difference there is between them other than their phonological form.

Munken and Biya do not have any copula verb in general use which lacks an associated lexical meaning. A verb which may be related to the copula in Abar, Ngun, and Missong, does however appear, with meaning ‘to still be’ (cf. § 14.5.2). The verb meaning ‘sit, stay’ may function as a copula in these dialects, though nominal predicates frequently lack a copula, or have a nonsegmental high tone with copula function. Examples of these copula verbs, and the tonal copular element, will be found throughout § 14.3.

## 14.2 The ‘B’ copula

A final copular word, which may or may not be a verb, is attested in only two examples as a copula, shown in (14.1)–(14.2). Following the precedent set with the ‘L’ and ‘D’ copula verbs, this word is glossed ‘B.COP’.

- (14.1) ù-nò          ù-nē          lè lē,                  ù    bē          ŋkúŋ  
 CL1-person CL1-some P3 (B)L.COP.IRR CL1 B.COP CL1.chief  
 “There was a man. He was a chief.” (Ngun)

- (14.2) ì-kànə          bə          á-kǒbɔ          kə                  mē  
 CL9-monkey B.COP CL12-forest CL12.LOC.OBJ LOC.at  
 “The monkey was in the forest...” (Abar)

However, the word appears very frequently elsewhere with a semigrammaticalized meaning, functioning to establish a “realistic” conversational background (in the sense of Kratzer (1981:44)), setting the event depicted by one clause event

<sup>1</sup> Since an alternation between *d* and *l* is not infrequent in Grassfields languages, it does seem possible that the two Missong copula verbs are related historically.

against some relevant fact guiding its interpretation. There are two possible associated structures. The first possibility is for the word to appear in an unusual linear position, *after* the subject pronoun, as in (14.3)–(14.4). The second possibility, is for the word to form a kind of subordinating particle with the dummy subject which precedes a full clause, possibly introduced by the complementizer *jē*, as in (14.5)–(14.6).

- (14.3) wè tǎ m̄-bò even sister m̄ á kú sep,<sup>2</sup>  
 CL1 (B)come 1SG-B.COP even sister 1SG.POSS PREP LOC.country even  
 ní bē  
 CL1.mother baby.HYP  
 “He [the addressee’s older brother] came when I was even [i.e., by coincidence] at my sister’s compound, [the one who is] the mother of the newborn.” (Biya)
- (14.4) à-jì kō fūŋ ǎ jè m̄-bò lè  
 CL12-god CL12.DET (A)help.IRR DS.FUT (A)stay 1SG-B.COP (A)L.COP  
 tsé=á  
 (c)finish=PRF  
 “God willing [lit. God should help] it will be once I’ve already finished.” (Munken)
- (14.5) à bè jē sō kó í-fí ú-fwí á sē  
 DS B.COP COMP 1PL as CL10-animal CL3-hair PREP 1PL.LOC.OBJ  
 wánə kwè dāsē  
 LOC.on (B)hold.IRR S.NEG  
 “...yet we do not, as animals do, have fur on our bodies.” (Ngun)
- (14.6) ù tsǎŋ hò kō-tǎi ū kpè, à b̀ò  
 CL1 (B)see (A)descend CL12-chameleon CL1.LOC.OBJ LOC.house DS B.COP  
 kí ū kpè tɔ́ŋ tí dēnhō  
 CL12 CL1.LOC.OBJ LOC.house (c)travel.IRR (c)meet.IRR S.NEG  
 “He saw Chameleon in his house, though Chameleon didn’t [usually] visit his house.” (Abar)

Two further examples are given in (14.7)–(14.8).

<sup>2</sup> The Pidgin scalar focus particle *sep* is usually interchangeable with English *even*, but follows rather than precedes the focused constituent. In this curious example, the locative phrase *sister m̄ á kú* ‘in my sister’s village/compound’ is twice focus-marked with foreign-language focus-marking particles, although Mungbam lacks any general-purpose focus-marking particle.

- (14.7) jē à b̀̀ là á-ǫ́é mī  
 so DS B.COP (A)L.COP<sup>3</sup> CL6-corn Q.POL.NEG  
 “So then was it actually corn?” (Munken)

- (14.8) mù té kpé=á. à b̀̀ b̄-ṭèù jī b̄ē  
 then.CL1 (B)come (B)die=PRF DS B.COP CL2-wife 3SG.POSS CL2.DET  
 bí=á  
 (c)give.birth=PRF  
 “Then he died. Notwithstanding, his wives gave birth.” (Ngun)

### 14.3 Non-verbal predicate constructions

Five functional types of constructions involving a non-verbal predicate are discussed in this section. The equative and existential constructions (§§ 14.3.1–14.3.2) both involve a predicate nominal. The locative construction (§ 14.3.3) has a predicate locative phrase, and the predicate adjective construction has a predicate adjective, as its name suggests (§ 14.3.4). Finally, the gesture-framing construction (§ 14.3.5) has a non-linguistic element, a gesture, as its predicate.

#### 14.3.1 Equative

An equative construction expresses identity of reference between two noun phrases. In a simple equative constructions in P0 tense with positive polarity, there are different possibilities for marking the nominal predicate. The simplest method is to have no overt element indicating the predicate nominal, as in (14.9).

- (14.9) tsǫ́ ì-j̄n jī ì-tī ì-ṭēū  
 (B)see.IRR CL5-DEM.PROX CL5.DET CL5-stone CL5-law.juju  
 “See, this is a law stone.” (Ngun)

The second option, which is the most frequent option in simple P0 positive clauses in Biya and Munken, is to mark the predicate nominal with a morph

<sup>3</sup> See § 14.5.2 on the use of this copula-like word in Munken.

analyzable as /á/. This form is observed in (14.10), though by the process of vowel elision (cf. § 4.2.2) it is frequently realized instead as a non-segmental high tone which forms a contour with a preceding L tone word, as in (14.11)–(14.12).

- (14.10) ð á Nǎŋ  
2SG COP N.  
“°You are Nang.” (Biya)

- (14.11) ù-nè ù-kəm-ə ǎ Nǎŋ  
CL1-person CL1-(A)slaughter-ADJ DS.COP N.  
“°The butcher is Nang.” (Munken)

- (14.12) ũ ɛí-wán  
CL1.COP CL19-child  
“°He/she is a small child.” (Munken)

In Biya and Munken another possibility is to use the verb *jɛ* ‘(A)sit, stay’ as a copula, as in (14.13).

- (14.13) Kətɛ̀à bàn jè ù-nè jǎ  
K. (A)really (A)stay CL1-person thus.Q.POLAR  
“So Ketcha is really a man, huh?” (Munken)

- (14.14) ǎ jē ì-jám ù-tɛ̀lɔ̀ nómò wō jè è  
DS.COP thus CL5-name CL1-female TOP CL1.DET (A)stay Q.POLAR  
“That’s what the woman’s name is?” (Munken)

In Abar and Missong predicate nominals in equative constructions are most frequently indicated by the ‘L’ copula verb. This verb is also found in Ngun. Two examples are given in (14.16)–(14.17). Curiously, the copula verb in Abar is the only attested CV noun or verb stem with the vowel *ɛ*.

- (14.15) bì lǎ ù-nò Mutengene  
2SG (B)COP CL1-person M.  
“°You are a person from Mutengene.” (Missong)<sup>4</sup>

<sup>4</sup> Mutengene is a coastal town in Cameroon’s Southwest Region which is a popular destination for Lower Fungom expatriates. Regrettably, the town has a reputation for smuggling and other criminal activity due to its location at crossroads leading to Doula, Buea, and Limbe.

- (14.16) ù-nò            ù-kàm-ɔ            lě      Náj  
 CL1-person CL1-(A)slaughter-ADJ (B)COP N.  
 “◊The butcher is Nang.” (Abar)

Some differences in the marking of predicate nominals are noted in equative clauses containing an overt tense marker. In Ngun, the ‘L’ copula verb is found very frequently in clauses in P3 tense, as in (14.17).

- (14.17) fī-būs    fī            bē    fī-mfwēhe fī            bwó lē lē  
 CL19-cat CL19.DET COM CL19-rat CL19.DET CL2 P3 (B)L.COP.IRR  
 bə̀-bì  
 CL2-friends  
 “The cat and the rat were friends.” (Ngun)

On the other hand, future tense copula clauses in Ngun (and also Abar) are associated with the set A verb *dzan*, otherwise means ‘sit, stay’. A verb with the same translation, though a different form, is the main copula verb in Munken and Biya. Examples of the verb meaning ‘sit, stay’ functioning as a copula in future tense clauses in Ngun and Abar are given in (14.18)–(14.19).

- (14.18) ù-nò            ù-kàm-ɔ            á    dzàn    Náj  
 CL1-person CL1-slaughter-ADJ FUT (A)stay N.  
 “◊The butcher will be Nang.” (Abar)

- (14.19) wò ă            dzàn    bī            mə̀  
 2SG DS.FUT (A)stay CL1.friend 1SG.POSS  
 “You will be my friend.” (Ngun)

The Missong ‘D’ copula, seen in (14.20)–(14.22), is for the most part restricted to tensed clauses.

- (14.20) à dǔ            kì    jē    à    kwàta    bí-ḡun  
 DS (A)D.COP.IRR IPFV thus DS quarter CL8-missong  
 “It was when it was a quarter of Missong.” (Missong)

<sup>4</sup> This is the case for Abar as well.

(14.21) ì-jē wù à kà dṣ̄ Àkânə  
 CL5-name CL1.POSS DS P3 (A)D.COP.IRR A.  
 “His name was Akanə.” (Missong)

(14.22) ǎ dṣ̄ dā wà wàní lé  
 DS.FUT (A)D.COP D.NEG CL1.child CL1.sibling FRUST  
 “It won’t be your brother’s child.” (Missong)

The verb *ɲɛ* ‘(A)sit, stay’ is required in future tense equative clauses in Munken and Biya, though as noted above this verb may also serve as a copula in P0-tensed equative clauses.

(14.23) ǎ ɲɛ ì-ç̄inə  
 DS.FUT (A)stay CL5.INF-play  
 “It will be playing [why she does poorly in school].” (Munken)

### 14.3.2 Existential

Existential constructions are used simply to indicate the presence of a referent. Existential constructions are formed in much the same way as equative constructions are. An existential construction may be formed with no overt verbal predicate in Biya and Munken, provided that the noun phrase does not appear in a clause by itself: in (14.25) the general purpose class 16 locative proform translatable as ‘there’ follows the noun phrase, while the class 17 proform is found in examples (14.26)–(14.24).

(14.24) bə-nè dī ú-kpé ā-ɲwātə nómò dī, ù  
 CL2-people CL17.DET CL3-house CL12-book TOP CL17.DET CL1.TOP  
*exist* ɲà<sup>5</sup>  
 exist (A)stay.IPFV  
 “People are there, that school is there existing.” (Munken)

<sup>5</sup> The existential clause of interest is the first clause, while the second clause seems to be a pleonasm.

- (14.25) kó-nó ní kó fē ī-bwōm  
 CL12-thing REL CL12 CL16.DET CL5-cup  
 “The thing that’s there is a cup.” (Biya)

- (14.26) *machine* dà<sup>6</sup> dī ló, nò  
 sewing.machine D.NEG CL17.DET FRUST QPOLAR.POS  
 “There’s no sewing machine there, right?” (Munken)

Existential constructions without the general locative proform are found, so long as a copula verb is present. Some examples are given in (14.27)–(14.28).

- (14.27) ù-nò ù-nē lè lē  
 CL1-person CL1-some P3 (B)L.COP.IRR  
 “There was a man.” (Ngun)

- (14.28) tɛ́ánā kí-mjě́ kí-báha lǒ lé  
 none CL7-thing CL7-(B)bad.ADJ (B)L.COP FRUST  
 “There is not any bad thing.” (Missong)

The same holds for Biya and Munken, which lack a dedicated copula verb. Two examples are given in (14.29)–(14.30).

- (14.29) jē í-sě́hɛ́ í-tálə-nó í ɲè  
 CL5.DS<sup>7</sup> CL5-place CL5-(c)show-ADJ CL5.TOP (A)stay  
 “That’s the outstanding [problematic] area that there is.” (Munken)

- (14.30) mù dé=á jē ɲgǎ́ɲ, kó-mjǔ́ fō ɲè, sō nō  
 then.CL1 (c)say=PRF COMP no CL12-matter COND (A)stay 1PL (A)go.IRR  
 kǵĩ gòɲ kó ɲgòɲgə  
 (B)finish.IRR only (12) now  
 “Then he said ‘No, If there is a problem, let’s go and just finish it right now.’ ” (Biya)

Existential constructions having a complex verbal core, with the copula as the major verb, are possible. Attested examples have a minor verb with quantifying function, as in (14.31)–(14.32).

<sup>6</sup> Use of the ‘D’ negator as a copula element is discussed below, § 14.4.

<sup>7</sup> This is a case of vowel elision between underlying *jì à* ‘CL5 DS’.

- (14.31) à tsà ì-nǎ̀nɔ̄ ā-bántàn<sup>8</sup> bɔ̄ē lé tɔ̄ŋ  
 DS (A)know CL5.INF-(A)fight CL2-devil CL2.DET (B)L.COP be.much  
 “You know the fighting of the devils is much.” (Abar)

- (14.32) bí-nǎ́ lé ěi  
 CL8-thing (B)COP (C)be.many  
 “There are many things. . .” (Ngun)

It should also be noted here that there are quite a few examples of clauses with existential-like meanings which use verbs other than those identified as copula verbs. Two examples are given in (14.33)–(14.34).

- (14.33) múp-ná mà bǎ́hɛ kà ěi  
 CL18a-bird then (B)exit ?? (C)be.full  
 “Then there were many birds.” (Ngun)

- (14.34) ɣ̀kà *machine* tɛ̀ɛn dī è  
 as sewing.machine (A)be.lacking there CLSBRK  
 “Since a sewing machine is lacking there. . .” (Munken)

Another way of forming existential expressions is with a verb translatable as ‘see’ or ‘look’ in its irrealis form followed by a clause whose subject is the noun the existence of whose referent is being attributed. Existential constructions of this type are only used deictically, to refer to an object actually present. Sentences of this type need not contain a clause with a non-verbal predicate, and a literal translation often sounds idiomatic in English (example (14.37) could just as well be translated ‘look, the money is in my hand.’) Examples (14.35)–(14.37) are included here since they have a similar function to the existential constructions described so far in this section.

- (14.35) tsɔ̄ŋ bə̀-tɔ̄lɔ̄ bə̀-fɛ́ bɔ́ tɔ́ ɪdzəmə  
 (B)see.IRR CL2-female CL2-two CL2 (B)come.IPFV LOC.back  
 “There’s two women coming [from] the back.” (Munken)

<sup>8</sup> This word has an unusual phonetic shape. It is not certain whether it originates in a compound, or is a loan.



- (14.36) tsɔ̃ŋ      ù-nè      ù      kô      jî      wū  
 (B)see.IRR CL1-person CL1 (B)hold.IPFV (C)ascend.IPFV CL1.LOC.OBJ  
 kò  
 LOC.hand  
 “There’s a man holding [it] up in his hands.” (Munken)

- (14.37) tɕī      ú-kpáha      wē      mō      kò  
 (A)look.IRR CL3-money CL3.DET 1SG.LOC.OBJ LOC.hand  
 “Here’s the money in my hand.” (Biya)

### 14.3.3 Locative

Locative constructions have as a predicate a constituent with spatial reference, i.e., a locative phrase. Marking strategies are more or less identical to those found in the existential construction. The first possibility is to have no overt copula element, as in (14.38)–(14.40).

- (14.38) ī-tī      jī      kə-kpē      kə      á      sú  
 CL5-stone CL5.DET CL12-shoe CL12.DET PREP LOC.face  
 “°The stone is in front of the shoe.” (Biya)

- (14.39) ā-dzāŋ      ì-fē      ì-kòŋ      á      mò  
 CL12-fly CL5-head CL5-funnel PREP LOC.at  
 “°There’s a fly on the rim of the funnel.” (Munken)

- (14.40) Ñɕì=í      fǒ-nɕòŋ  
 N.=COP CL16-stream  
 “°Nji is at the stream.” (Munken)

Copula verbs are frequently employed in locative constructions. Examples are given in (14.41)–(14.45).

- (14.41) í-sòŋ      á      jē      jóŋ      dàhà      á      mō  
 CL5-power NEG (A)stay.IRR (C)forget.IRR S.NEG PREP 1SG.LOC.OBJ  
 mī  
 LOC.at  
 “Power is not even in my body.” [i.e., I don’t even have any energy.]  
 (Munken)

- (14.42) Mbòŋ lě á-cǎŋ  
 M. (B)L.COP CL16-stream  
 “°Mbong is at the stream.” (Abar)
- (14.43) í-tì lě á kǎ-kpa sú  
 CL5-stone (B)L.COP PREP CL12-shoe LOC.face  
 “°The stone is in front of the shoe.” (Abar)
- (14.44) nā kà dǎ ɕámàn ā làn  
 as P3 D.COP.IRR CL1.Germans PREP LOC.under  
 “°When it was under German [rule]...” (Missong)
- (14.45) lâ ú-tǎm bú kà dǎ á nōa jē  
 as CL3-village CL2 P3 D.COP.IRR PREP CL17.DEM thus  
 “°While the villagers were there [at their farms]...” (Missong)

### 14.3.4 Predicate adjective construction

Constructions used to attribute some property to a referent may be formed with either a verbal or nonverbal (i.e., adjectival) predicate. Most frequent is attribution with a verbal predicate. In (14.46), for example, clauses whose English translation has a predicating adjective instead have an intransitive verb as predicate.

- (14.46) bí ŋú-ŋǎm  
 CL8 VFOC~(B)dry  
 “°They are dry.” (Abar)

Such verbal constructions are frequently formed with an auxiliary whose normal meaning is ‘sit, stay’. These differ from the use of *ɲɛ* as a right-modifying progressive auxiliary in that it appears in its perfective stem form. Examples are given in (14.47)–(14.49).

- (14.47) à jē à tsóŋ ì-dzǎm ɕí kjànə ɲè  
 DS thus 2SG (B)see CL5-back CL19.POSS (A)rough (A)stay  
 “°So you see his back is rough.” (Munken)

- (14.48) ā-tī kí jêhe nè, kí jêhe<sup>9</sup> fǒ-ŋkwàno ú-ǎú  
 CL12-tree CL12 (c)stand (A)stay, CL12 (c)stand CL16-compound CL3-door  
 ú-kpě à-jì m̀ò  
 CL3-house CL12-god LOC.at  
 “A tree which is standing, it’s standing in a compound at the door of  
 the church.” (Munken)

- (14.49) ǎ ŋk̀ò nó í-séhe nó m̀ò jē gbábò òì-òè  
 DS.COP as REL CL5-place TOP DET (B)strong RED~(A)STAY  
 “It’s because [the soil in] that place is hard.” (Munken)

In simple clauses with an adjectival predicate, the structure is in some sense formally the same as the equative construction, since adjectives pattern formally as nouns (see § 6.3.1). Example (14.50) shows a clause where an adjective is the main predicating unit, and there is no class 8 noun in the context governing the concord. Class 8 prefixes may serve as default concords in such situations.

- (14.50) òè bí-ííí  
 (A)stay.IRR CL8-new  
 “°Be new [lit. be new things]!” (Biya)

A default class 13 prefix on a predicate adjective is also attested. in (14.51)–(14.52). Given the status of class 13 as an ‘imperialistic’ class (cf. § 5.4.7), this seems an appropriate choice of default concord class for predicating adjectives.

- (14.51) s̄ə l̄ó kí-lí-láŋ-nó kó bú, lá b̄ā-w̄əsə  
 1PL (B)L.COP CL13-(B)happy-ADJ COM CL2 (B)L.COP.IPFV CL2-sibling  
 s̄ó j̄à  
 1PL.POSS thus  
 “We are still happy with them, [they] are our brothers.” (Missong)
- (14.52) à b̄əsə ù-nò b̄ā-ŋk̀è mà jē ù d̄e k̄i  
 DS (B)exit CL1-person CL2-Mashi.people then COMP CL1 (c)say IPFV  
 jē ù l̄ó kí-báha k̄ə s̄ò  
 COMP CL1 (B)L.COP CL13-(c)spoil.ADJ COM 1PL  
 “If there comes a Mashi man and it’s that he says that he’s on bad terms  
 with us...” (Missong)

<sup>9</sup> A committee member has pointed out that the verb meaning ‘stand’ could be treated as a copula in this case.

Also possible are predicate adjectives with concordant class prefixes, as in (14.53).

- (14.53) í-gǔŋ bwĩnə í-nìn~nām jĩ  
 CL10-pig CL2.POSS CL10-VFOC~fat.ADJ CL10.DET  
 “Their pigs are fat (lit. their pigs are the fat ones).” (Biya)

Predicate adjectives are also found in complex clauses additionally containing verbal predicates. In (14.54)–(14.56), an abstract noun with default class 8 concord prefix appears in the focus position.

- (14.54) bí ŋgè tō sò bí-ńíńé  
 CL8 then (B)come.IPFV 1PL CL8-new  
 “They are then coming to us new.” (Biya)
- (14.55) *so that* sō mē sān ú-tú bwôm bũ  
 so that 1PL then (A)pass.IRR CL14-day CL14.DEM.PROX CL14.DET  
 bí-ńúńú  
 CL8-good.ADJ  
 “So that we will pass this day fine.” (Abar)
- (14.56) à bē bú tē bí-bālə, à kú wòŋ bwé tám  
 DS B.COP CL2 (B)come CL8-bad.ADJ DS (B)catch only CL2 (C)send.IRR  
 wān  
 (B)keep.IRR  
 “...yet should they come badly (i.e., with bad intentions), it is only they who are entrapped (by their wicked designs). Allow it.” (Ngun)

A construction related to the predicate adjective construction is one which has as its predicate a word translatable as ‘thus’, usually referring to some salient state of affairs which is part of the common ground, though it may also be a gesture (cf. § 14.3.5). Two examples with simple clauses having a ‘thus’ predicate are given in (14.57)–(14.58).

- (14.57) bí jē lē lē sē  
 CL8 thus P3 (B)L.COP.IRR S.NEG  
 “They (things) were not like that.” (Ngun)

- (14.58) wǎ ì-kp̄nə náβ̄ jē nàŋkí  
 then CL5-story TOP CL5.DET thus  
 “So the story is like that...” (Missong)

Numerals, which resemble adjectives most closely in their formal properties, may also function as predicates. Though numerals normally modify nouns within the noun phrase, there are two types of examples of numerals functioning as predicates. The numeral may serve as predicate of a simple clause whose only predicate is the numeral, as in (14.59), or the numeral may function as the abstract nouns in (14.54)–(14.56) do, appearing in IAV position (example (14.60)).

- (14.59) bə-tɛ̄lə nóm̄ bə bé bə-tɛ̄, bə kp̄ò jà  
 CL2-female TOP CL2.DET CL2 CL2-three CL2 (B)cut.on.block.IPFV (A)stay.IPFV  
 ì-wùŋ  
 CL9-pig  
 “The women are three, they are cutting up the pig.” (Munken)
- (14.60) bɛ́ kàha kwí=á bɛ́ bɛ́-f̄, ha!  
 CL2 (A)tie (C)enter=PRF CL2 CL2-two EXCLAM  
 “They have tied them [wrappers] two! (i.e., worn two wrappers rather than one)” (Biya)

### 14.3.5 Gesture-framing construction

A type of construction which is attested frequently in conversation has as its predicate a hand gesture. The gesture is accompanied by a word translatable as ‘thus’. The examples contained in my text collection involve iconic gestures, as in (14.61) where the speaker makes a gesture indicating the height of the corn plants at her farm, or as in (14.62), where the speaker uses her hand to indicate the size of the sickly ear of corn that she would be harvesting had she skipped her farm work on a particular day during planting season.

- (14.61) *hey!* á-ɕɛ́ nómò nē, né jān  
 EXCLAM CL6-corn TOP CL6.DET CL6 thus  
 “Hey! That corn, it’s like this [holding up hand to show its height]!”  
 (Munken)
- (14.62) á há ɲè mō lè nāŋ fòmō bā bà-nè bú-tù  
 DS COND (A)stay 1SG P3 (A)go.IRR LOC.on.top COM CL2-person CL14-day  
 bú-mwêṇə, jē à há ɲà á-ɕɛ́ mó nómò jān  
 CL14-one THUS DS COND (A)stay.IPFV CL6-corn 1SG.POSS TOP thus  
 “If it had been that I had gone up with the people on that one day, then  
 it would be [now] that my corn would be like this [holding hand to show  
 size of a diminutive ear of corn].” (Munken)

Some conventionalized gestures are also used in conversation, though these have not been investigated in any detail, nor have any examples been recorded. One example is a gesture that is made by positioning the left hand as if a bottle is being held by the neck in it, and then holding the right hand open and slapping it on the left hand, where the mouth of the bottle would be. Such a gesture is used to indicate that something is of a large quantity, and is found at least throughout Southern Cameroon.

## 14.4 Negation in non-verbal predicate clauses

As was first noted with reference to the cleft negation construction (§ 13.1.2), when a predicate nominal clause is negated, it differs at a few points from the behavior under negation of verbal predicate clauses. The main points of difference are the mandatory presence of the frustrative particle in some cases (§ 14.4.1) and the position of the negating particle (§ 14.4.2).

### 14.4.1 Frustrative complement

A negated clause with a nominal predicate requires that the frustrative particle be present in clause-final position if the ‘D’ negating morpheme (cf. § 13.2) is used.

Examples are given in (14.63)–(14.65). When prompted with negated predicate nominal clauses lacking the frustral, the most common reaction from consultants is that ‘the sentence is not yet finished’. This seems like a reasonable assessment, since in a sentence like (14.63), on hearing *à dà mbǝŋ...*, a listener would most likely expect a relative clause to follow (i.e., ‘It’s not a cow that...’).

- (14.63) à dà mbǝŋ ló  
 DS.NEG D.NEG CL1.cow FRUST  
 “‘It is not a cow.’ (Munken)

- (14.64) Nǎŋ lé dēn ù-nò ù-kǎm-ɔ lá  
 N. (B)COP D.NEG CL1-person CL1-butcher-ADJ FRUST  
 “‘Nang is not the butcher.’ (Abar)

- (14.65) Nǎŋ lǒ dā ù fwām dā á-dê lé  
 N. (B)COP D.NEG CL1 (B)scatter.IRR D.NEG CL6-bean FRUST  
 “‘Nang is not able to scatter beans.’ (Missong)

Negated clauses as the first clause of a cleft construction (such as (14.66)) are very common, since a cleft is the only way to focus a subject in a negated clause.

- (14.66) à dà Nǎŋ ù kǎm í-bwě jī nó  
 DS D.NEG N. CL1.COP (A)slaughter CL10-goat CL10.DET FRUST  
 “‘It’s not Nang who killed the goats.’ (Biya)

The usual method of focusing a subject, dislocating it to IAV, is not possible.

- (14.67) \*à kǎm sǎn Nǎŋ í-bwě jī  
 DS (A)slaughter.IRR N. CL10-goat CL10.DET  
 intended: Nang did not kill the goats. (Biya)

Negation of a clause with a nominal predicate with the ‘s’ negative morpheme does not trigger the mandatory frustrative particle, as example (14.68) shows.

- (14.68) ù-nè ù-lǒ á kǎm jē dāsē  
 CL1-person CL1-other NEG (A)again.IRR (A)stay.IRR S.NEG  
 “‘There is no other person.’ (Munken)

## 14.4.2 Position of negator

In a basic verbal clause, morphemes associated with negation appear in two positions: one immediately before the verb, and one immediately after the verb. The postverbal negator may be either the ‘s’ negator or the ‘d’ negator. The discussion is focused on the negators which appear canonically after the verb, as in (14.69)–(14.70).

- (14.69) Nǎŋ á gbè dà  
 N. NEG (A)fall D.NEG  
 “°Nang has not fallen.” (Munken)

- (14.70) Nǎŋ á gbè h̄  
 N. NEG (A)fall S.NEG  
 “°Nang did not fall.” (Munken)

When a predicate nominal construction contains a copula verb, the placing of the negator<sup>10</sup> is after the copula verb, and before the predicate nominal, as in (14.71)–(14.72).

- (14.71) à lé dēn í-tám lá  
 DS (B)COP D.NEG CL5-axe FRUST  
 “°It is not an axe.” (Abar)

- (14.72) ú-sǒ ló dā n̄tì lé  
 CL3-lawsuit (B)COP D.NEG LOC.inside FRUST  
 “There is no case inside. (i.e., there is no remedy to this situation)”  
 (Missong)

- (14.73) wǎŋ wē á pē sōn kó ù-n̄ b̄-nò  
 CL1.DEM.PROX CL1.DET NEG (A)stay.IRR S.NEG as CL1-REL CL2-person  
 b̄qē f̄ ǭûə ɲà  
 CL2.DET P1 (B)eat.IPFV (A)stay.IPFV  
 “This one is not like the one that people were eating.” (Biya)

<sup>10</sup>The copula verb which otherwise means ‘sit, stay’ is attested with both ‘s’ and ‘d’ negators. Examples of a clause with ‘L’ or ‘D’ copula are only found with the ‘D’ negator. It is not known whether the ‘L’ or ‘D’ copula is compatible with the ‘s’ negator.



- (14.74) kó ì-tsēnə ɲè dà í-wúm-nó ló  
 VET CL5-path (A)stay D.NEG CL5.INF-dry-DAT FRUST  
 “There’s no method for drying [it].” (Munken)
- (14.75) Nǎŋ á ɲē dàsən ù kī ū-kwān  
 N. NEG (A)stay.IRR S.NEG CL1.COP (A)chop.IRR CL3-firewood  
 “°Nang is not able to chop firewood.” (Biya)

When a verbless predicate nominal construction is used, the positioning of the ‘D’ negator is still immediately before the predicate nominal, though there is no overt verbal element. The negator now appears immediately after the subject nominal.

- (14.76) ì-jǎn dà ì-bwó ì-nī Nǎŋ fǒ bwó  
 CL5-DEM.PROX D.NEG CL5.INF-(B)be.tired CL5-REL N. P1 (B)be.tired  
 nó  
 FRUT  
 “This is not the tiredness that Nang was tired (i.e., that Nang experienced).” (Biya)
- (14.77) Nǎŋ dà ù gbè nó  
 N. D.NEG CL1.TOP (A)fall.IRR FRUST  
 “Nang cannot fall.” (Biya)

However, in verbless constructions only the ‘D’ negator is permitted. The verbless version of (14.75) is ungrammatical.

- (14.78) \*Nǎŋ dàsən ù kī ū-kwān  
 N. S.NEG CL1 (A)chop.IRR CL3-firewood  
 intended: Nang is not able to chop firewood. (Biya)

## 14.5 Other grammatical functions of copula verbs

Copula verbs may have a grammatical function in constructions other than those with a non-verbal predicate. Such uses are discussed in the present section. Functions covered include use as a progressive and habitual auxiliary (§ 14.5.1), function

as an aspectual auxiliary translated as ‘still’ (§ 14.5.2), and the “ability” construction, which indicates ability or possibility (§ 14.5.3).

### 14.5.1 Progressive and habitual auxiliaries

The use of verbs otherwise used as copulas in marking the aspectual progressive and habitual is discussed in §§ 8.2.5.2–8.2.5.3 in the presentation of serial verb constructions. In Munken and Biya, the verb translated as ‘sit, stay’ may be used both as a right-modifying progressive coverb and as a left-modifying habitual coverb. In Abar and Ngun, a verb translated as ‘go’ is the most frequent right-modifying progressive auxiliary. Interestingly, Ngun also uses a verb identical to the Abar progressive auxiliary, though *lan* does not appear to be used as a main verb meaning ‘go’ in that dialect. The verb translated as ‘sit, stay’ is used as a (left-modifying) progressive auxiliary in Missong, and as a (right-modifying) habitual auxiliary in Ngun.

Dialect	Prog. Aux.		Hab. Aux.	
Munken	ɲɛ	(A)stay	ɲɛ	(A)stay
Biya	ɲɛ	(A)stay	ɲɛ	(A)stay
Ngun	lan / kə <sup>11</sup>	(A)PROG / (A)go	dzan	(A)stay
Abar	lan	(A)go	kɔ̃	IPFV
Missong	ɲɛ	(A)stay	kì	IPFV <sup>12</sup>

Table 14.2: Uses of verbs having copula function as progressive and habitual auxiliaries. Cells in bottom right corner indicate nonverbal marking strategy.

Abar and Missong do not appear to have a left-modifying verb used as a habitual auxiliary, but instead use the verbal-core final particle associated with imperfective meaning. These possibilities are summarized in table 14.2. Examples of progressive and habitual auxiliaries may be found in §§ 8.2.5.2–8.2.5.3.

<sup>11</sup> Ngun uses the word which in Abar means ‘go’ as an auxiliary, but has itself a separate word, *kə* with the lexical meaning ‘go’.

<sup>12</sup> These two words could conceivably be related to the Ngun word for ‘go’, as one committee member has pointed out.

## 14.5.2 ‘still’

The ‘L’ copula verb in Missong may function as a right-modifying aspectual coverb signalling a meaning ‘still, already’, as exemplified in (14.79).

- (14.79) Nǎŋ kà lǝ                    pǝù                    ɲàŋ                    là                    í-bí  
 N. P1 (A)make.IPFV (B)die.IPFV (A)stay.IPFV (B)L.COP.IPFV CL10-dog  
 “°Nang was still killing dogs.” (Missong)

No specific elicitation was made to determine whether a similar construction is available in Abar or Ngun, which also have the ‘L’ copula verb, and no clear examples are found in the text corpus.

Interestingly, however, a very similar construction is found in Biya and Munken, where the ‘L’ copula verb is otherwise not attested.<sup>13</sup> In Biya and Munken the verb is in set A rather than in set B, as it is in Ngun, Missong and Abar. Though it is glossed ‘L.COP’, suggesting it is cognate with the copula verbs in the other three dialects, the difference in tone places a small amount of doubt in such a reconstruction. Two examples of the construction in Biya and Munken are given in (14.80)–(14.81).

- (14.80) nàm                    jī                    wə̄                    wâlə                    ɲà  
 CL1.husband 3SG.POSS CL1.DET (c)hear.IPFV (A)stay.IPFV  
 là  
 (A)L.COP.IPFV  
 “Her husband was still listening.” (Biya)

- (14.81) ù    *still* ɲà                    là                    ì-ɲúm    ì-mwêṇə  
 CL1 still (A)stay.IPFV (A)L.COP.IPFV CL5-year CL5-one  
 “She’s still in year one. . .” [i.e., still classified as a freshman despite having studied for more than one year] (Munken)

<sup>13</sup> However, when first encountering the construction and asking my main Biya consultant whether he knew what the *là* in this sentence meant, he said that it meant ‘to be’, and volunteered an infinitive form *ì-lə̄*, anticipating that I would ask for this in order to verify that it was a set A verb.

Although no regular ‘L’ copula exists in Biya and Munken, the verb can be found by itself, where it is best translated as ‘to still be’. Such an interpretation of the ‘L’ copula in Missong is also possible. Three examples are given in (14.82)–(14.84).

(14.82) bə-nè      ì-wùŋ    bē      bó    ì-lā  
 CL2-person CL9-pig CL2.DET CL2 RED~(A)L.COP  
 “The pig men [i.e., the men who were butchering a pig] are still there.”  
 (Munken)

(14.83) wù    í-lā                      kwáta<sup>14</sup>      nóbò wū  
 CL1.DS VFOC~(B)L.COP.IPFV CL1.quarter TOP CL1.DET  
 “That quarter is still there.” (Missong)

(14.84) àfwō à              kwé              ɛ̀lɔ              wù sō              kà,  
 as    2SG.TOP (B)catch.IRR (A)loosen.IRR CL1 1PL.LOC.OBJ LOC.hand,  
 ù              lā                      bō      sō  
 CL1.TOP (A)L.COP.IRR COM 1PL  
 “As you took him (Jesus) away from us, he was still with us.” (Munken)

One final note to be made on the construction is that it may be interpreted to mean either that an action is ongoing, as in the preceding examples, or that an action is still to happen, though not immediately, as in (14.85). As with English ‘still’, use of the future tense seems to trigger the second interpretation.

(14.85) sā              bɔ́hɔ    ì-lā                      á      wù=nó  
 1PL.FUT (B)ask VFOC~(A)L.COP PREP CL1=DAT  
 “We’ll still ask him.” (Munken)

A similar meaning of ‘still’ seems to be possible with the use of a left-modifying ‘L.COP’. However, adequate data is not available to be certain as to how to classify the three examples given below: one is from a text (14.86), and the two elicited examples, shown in (14.87)–(14.88), are in negated clauses.

<sup>14</sup> Pidgin pronunciation of *quarter*.

- (14.86) m̄fwín né à lé́ tsóŋ tjà, ǎ́ m̄fwín né  
 CL1.day REL 2SG (B)COP (B)see father.2SG.POSS DS.COP CL1.day REL  
 à lé́ kpé wē  
 2SG (B)COP (B)die CL1.DET  
 “The day you eventually see your father, it is the day you will eventually die.” (Ngun)
- (14.87) Nǎŋ lá pī sō  
 N. L.COP.NEG (B)die.IRR S.NEG  
 “°Nang hasn’t died (yet).” (Missong)
- (14.88) n̄-lǎ́ bē fī-mfwêhe fī dzān sē  
 1SG-COP.NEG COM CL19-rat CL19.DET (A)stay.IRR S.NEG  
 “I will not stay with the rat any longer.” (Ngun)

### 14.5.3 Ability construction

The ‘L’ copula in Abar and Missong may be found in a construction denoting ability. In Ngun, Biya and Munken, the same construction is attested, with the verb translatable as ‘sit, stay’ used instead. Three examples from elicitation are given in (14.89)–(14.91), and further discussion may be found in § 12.3.2.3.

- (14.89) Nǎŋ lǎ́ ù tōn ì-çà jī  
 N. (B)L.COP CL1 (B)refuse.IRR CL9-meat CL9.DET  
 “°Nang is able to refuse the meat.” (Missong)
- (14.90) Nǎŋ lé́ ù wū bī-kpā  
 N. (B)L.COP CL1 (A)wash CL8-shoe  
 “°Nang is able to wash shoes.” (Abar)
- (14.91) ŋkúŋ wō à pè dāsən Nǎŋ gōŋ wì  
 CL1.chief CL1.DET DS (A)stay S.NEG N. (B)carry.IRR CL1  
 “°The chief cannot be carried by Nang.” (Biya)

Elicited examples of the ability construction all involve a root (or circumstantial) interpretation of the modal meaning, but examples from text show that the construction may have an epistemic reading as well. In (14.92), the speaker, who was planning to travel from Wum to Biya, is discussing whether she would have

a chance to see the listener's brother, who was planning to travel to Wum from Munken on the same day. Both of them would be travelling on Yemgeh market day, and Lower Fungom residents often use Yemgeh as a loading/unloading point for trips to/from Wum, making up the rest of the trip on foot. Example (14.92) comes from a Biya speaker who tends to mix a large number of Pidgin words into her speech, so it shouldn't be ruled out completely (though it seems unlikely) that the epistemic interpretation of the ability construction is here a calque.<sup>15</sup>

- (14.92) *some time*  $\bar{y}$ - $\eta\bar{e}$   $\bar{m}$ -*bypass*  $b\bar{a}$   $w\bar{e}$  *or*  $\bar{y}$ - $\eta\bar{e}$   $\bar{n}$ - $t\bar{i}$   
 maybe 1SG-(A)stay 1SG-cross.paths COM CL1 *or* 1SG-(A)stay 1SG-(c)meet.IRR  
 $w\bar{e}$  *Yemgeh*  
 CL1 Yemgeh  
 "I might pass him [on the road] or meet him in Yemgeh." (Biya)

<sup>15</sup> It might be noted that there is no doubt that the speaker in question has a clear mastery of Biya; she has lived in or near Biya all of her life, and routinely produces sentences containing elaborate constructions with no obvious counterparts in English or Pidgin, e.g.,

- (14.93)  $\eta g\bar{a}\bar{y}$   $\bar{a}$   $\bar{i}$ - $n\bar{a}$   $t\bar{c}\bar{o}\eta=n\bar{o}$   $k\bar{o}$   $d\bar{m}$   $f\bar{e}$ - $k\bar{o}\bar{n}\bar{a}$   $j\bar{i}$   $\eta\bar{e}$ ,  
 no DS CL5.INF-(A)go (B)see=DAT how CL17.DET GEN.LOC-LOC.village CL5.DET (A)stay  
 $n\bar{o}$ ?  
 QP.POS  
 "No, it's [a question of] going and seeing how [things are] there in the village, isn't it?"  
 (lit. it is how [the going and seeing how the village is] is) (Biya)

## Chapter 15

# Questions and question words

This final chapter concerns the formation of questions. The coverage is divided between polar questions (§ 15.1) and content questions (§ 15.2). A final section discusses the use of question words in non-interrogative clauses, where these function as a sort of indefinite pronoun (§ 15.3).

### 15.1 Polar questions

The most frequent question type in texts is the polar question. Polar questions question the truth value of an entire clause, and can accordingly be answered with the equivalent of a ‘yes’ (*m̄* ‘yes’, *ǎ jē* ‘it is so’) or ‘no’ (*ɣgáŋ* ‘no’, *ǎj* ‘no’, *ú-ɬú* ‘CL3-lie’, *í-lám* ‘lie [lit. CL5-tongue]’).<sup>1</sup> Polar questions can be divided into neutral and leading. Neutral polar questions (§ 15.1.1) do not have any indication in their form that one answer or the other is more likely, while in leading questions (§ 15.1.2)

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<sup>1</sup> See § 9.4 on these words.

either a positive or negative response is expected. Leading polar questions are frequently formed for rhetorical purposes with no expectation of an answer, as in (15.1). Example (15.1) also shows a content question asked rhetorically: as in English, rhetorical questions in Mungbam may be either of the polar or content type.

- (15.1) jíèì                    á-mjǔ                    ú-kpé                    kí-nôŋ-ɔ                    mī                    ù                    lē  
 Q.POLAR.POS CL12-matter CL3-house CL13-iron-CL13 LOC.at CL1 P3  
 dǔhɔ?                    à                    éì                    jē                    wù wù lē tsɔŋ                    fɔ  
 (A)start.IRR 2SG (C)think COMP CL1 CL1 P3 (B)see.IRR where  
 “Didn’t he start the thing [the relationship] while in prison? Where  
 [else] do you think he took notice of her?” (Munken)

### 15.1.1 Neutral

Neutral polar questions do not by virtue of their form indicate one answer or another as more probable. They are marked by a sentence final marker *è*, as in (15.2).

- (15.2) bjáŋ                    bûn                    ná pjû                    fã,                    à lò  
 CL2.children CL2.DEM.PROX REL (B)die.IPFV CL16.here DS (A)make.IPFV  
 pjû                    baà bú è  
 (B)die.IPFV 2PL CL2 Q.POLAR  
 “These children who are dying here, is it y’all who are killing them?”  
 (Missong)

The question marker is frequently realized simply as a low boundary tone. In the which case, there is concomitant lengthening of the final vowel when the sentence ends in a vowel. The process can be considered as falling into the general process of vowel elision described in § 4.2.2. In (15.3), for example the vowel on the class 12 pronoun is lengthened and the normal high tone is perturbed to a high falling tone. A similar process is noted on (15.4).



- (15.3) à kwě́ kǐ̀ ì  
 DS (B)hold CL12 Q.POLAR  
 “You have it?” (Munken)

- (15.4) *Seraphine* kwě́ kǐ̀-kǐ̀̀ ì  
 S. (B)hold VFOC~also Q.POLAR  
 “Seraphine also had [it]?” (Munken)

When the sentence ends in a consonant, and the final syllable has a low tone, a polar question may be formally indistinct from a simple declarative sentence. That (15.5) is a question can only be inferred from context.

- (15.5) ǎ̀ nsəm̄  
 DS.COP CL1.dance.type.Q.POLAR  
 “Is it Nsəm? (traditional dance for women who have given birth)”  
 (Munken)

## 15.1.2 Leading

Leading polar questions, or those with an expected positive or negative response are very frequent in the transcribed conversations in my text corpus. Leading questions are divided into positive (‘yes’ answer expected) and negative (‘no’ answer expected).

### 15.1.2.1 Positive leading

One type of positive leading question is formed with a sentence initial marker *jǐcǐ̀*, which my consultants have credibly suggested to be transparently derived from *j̄̀-c̄̀* ‘I think, I tell’. Leading polar questions formed with this particle may or may not contain a sentence-final question marker. Two examples are given in (15.6)–(15.7).

- (15.6) bú mà dé=á jē ... jíè ñkè kjá à  
 CL2 then (c)say=PRF COMP ... Q.POLAR.POS as father.2SG.POSS DS  
 lē dé è  
 P3 (c)say.IRR Q.POLAR  
 “They then say ... ‘Was it not so that your father spoke?’ ” (Ngun)

- (15.7) jíè m̄-fǒ fǐ ò bú-kpáha  
 Q.POLAR.POS 1SG-P1 (B)give 2SG COM.CL3-money  
 “‘Didn’t I give you money?’” (Biya)

A second type of leading question construction, marked with sentence final *nò*, which appears often in my text corpus appears to be taken over from English via Pidgin English ‘No’. Two examples are given in (15.8)–(15.9).

- (15.8) ì-jām ì-kúkwálò jē, nò  
 CL5-song CL5-old CL5.DET Q.POLAR.POS  
 “The old song, no?” (Munken)

- (15.9) *technical* á bǝhɛ ū-wɛ wónò mǎ, nò  
 technical FUT (B)exit CL3-moon CL3.DEM.PROX LOC.at Q.POLAR.POS  
 “Technical [School O-level results] will come out this month, no?” (Munken)

### 15.1.2.2 Negative leading

The most widely attested manner of forming negative leading questions is by inclusion of the sentence-final particle *m̄*. An elicited example is given in (15.10). Examples (15.11)–(15.12) show negated clauses used in forming negative leading questions. In example (15.11), the context makes it clear that the speaker believes that she has spoken for a sufficiently long time, while in (15.12) the speaker wishes to emphasize her lack of experience in tying wrappers.<sup>2</sup> Follow-up elicitation was not conducted on the mechanics of forming negative leading questions from negated

<sup>2</sup> A wrapper (French *pagne*) is a large, thin piece of fabric, about the size of a double bed sheet, usually decorated with some kind of pattern, which women tie about their bodies as a traditional dress. Younger women tend to be less skilled in tying wrappers on their bodies, since they are more accustomed to wearing western-style blouses and skirts. The wrapper may be referred to by elderly Pidgin speakers as a *kaba*, supposedly since early Christian missionaries encouraged their use in making women “cover” their bodies.

clauses, so it is not certain exactly how clause-level negation interacts with negative leading question formation. An additional example, lacking negating marking, is given in (15.13).

- (15.10) jē n-ɕì            ɪ-ɕē            à            mī  
 so 1SG-(A)steal CL9-fowl 2SG.POSS Q.POLAR.NEG  
 “°Did I steal your fowl? (negative response expected)” (Biya)

- (15.11) sá            tsàm    kpán            dà            mī  
 1PL.NEG (A)talk (B)be.sufficient D.NEG Q.POLAR.NEG  
 “Have we not talked enough?” (Munken)

- (15.12) bē?    mǒ            ŋ-kèhɛ            tsɔŋ            hō    wrapper  
 what 1SG.NEG 1SG-(A)tie.IRR (B)see.IRR S.NEG CL1.wrapper  
 mī  
 Q.POLAR.NEG  
 “What? Had I ever tied wrappers?” (Munken)

- (15.13) jē à    bò            là            á-ɕé            mī  
 so DS B.COP (A)COP? CL6-corn Q.POLAR.NEG  
 “Was it [actually] corn?” (Munken)

Attested also is the use of the Pidgin negative leading polar question marker [éske], which I write as *Est-ce que* to mark it off as a foreign word. Consultants recognize this and other Pidgin words as intrusive, but this attitude does not prevent this and other Pidgin grammatical words from diffusing into the speech of competent Mungbam speakers.

There are two attestations of the use of *Est-ce que*. In (15.14) the speaker is asking a rhetorical question, referring to the fact that the addressee had never shown her some pictures which had been taken some time previously. In (15.15), the particle appears to be used as part of a politeness strategy: the speaker is apparently fond of Rodrigo and wishes to inquire about him from the addressee, Rodrigo’s younger sister, without giving the impression that she is especially interested in hearing news about him.

- (15.14) *Est-ce que* à fě tsóŋ=ǎ bā-picture à á  
 Q.POLAR.NEG 2SG.TOP (B)give (B)see=PRF CL2-picture 2SG.POSS PREP  
 mō=nó  
 1SG=DAT  
 “Have you ever given me the pictures of you?” (Munken)
- (15.15) kó Rodrigo<sup>3</sup> à tē bā tēi mō ñtū è, *Est-ce que*  
 as R. DS (B)come (A)search (A)look 1SG yesterday CLSBRK Q.POLAR.NEG  
 wà là dē kó-mjí  
 CL1 P2 (c)say CL12-word  
 “When Rodrigo came to look for me yesterday, did he say anything?”  
 [i.e., he didn’t say anything, did he?] (Biya)

### 15.1.3 Indirect polar questions

Indirect polar questions, which are not used to directly solicit information, and are not used rhetorically to present obvious information, are introduced by a particle *mī* ‘whether’. The particle bears a noteworthy resemblance to that used in negative leading questions (§ 15.1.2.2). Two examples are given in (15.16) – (15.17).

- (15.16) má n̄-tsā hō mī Nǎŋ á tī  
 1SG.NEG 1SG-(A)know.IRR S.NEG whether N. FUT (B)come.IRR  
 úkpê  
 LOC.house  
 “◊I don’t know whether Nang will come to the house.” (Munken)
- (15.17) bē mà tsóŋ=ǎ jē mī à gè jānè  
 CL2 then (B)see=PRF COMP whether DS (A)be.heavy how.Q  
 “They [would] then see how much it weighed [lit., see whether it weighed how].” (Munken)

## 15.2 Content questions

A relatively small portion of elicitation time was dedicated to content questions, so coverage in this section is by necessity largely descriptive. Only two general

<sup>3</sup> Name altered to preserve anonymity, given the sensitive context.

issues are discussed briefly at the outset. First is the issue of tone in content questions (§ 15.2.1), which remains as of now only partly explained.<sup>4</sup> Second is the issue of word order in content questions (§ 15.2.2). As was first discussed in §§ 11.8.4–11.8.5, questions contain departures from canonical SVO constituent order indicative of their status as constructions used to inquire about new (in focus) information. The remainder of the section is dedicated to giving a number of examples of each of the types of question markers in use (§ 15.2.3).

The various question words employed in content questions are summarized in table 15.1.

	MUNKEN	BIYA	ABAR	MISSONG	NGUN
‘who’	ɲí	nì	né	ná	né
‘what’	bê	bê	bê	bâ	bê
‘where’	fə	fá	(fú~)fwê	nónə	
‘when’	ɲón	ɲɔ̃n	ɲɪ̃n		ɲɛ̃n
‘how’	jân	nɔ̃ ~ nɪ̃	jân	jùŋwà	nî
‘how’ <sup>5</sup>	—	—	kí jè	jè	—
‘which’	-mɔ̃n	-mwɪ̃n	-mwɪ̃n	-mān	-mwɔ̃n
‘how many’	-mɔ̃ŋ	-mɔ̃ŋ		-mùŋ	

Table 15.1: Content question words. Shaded cells indicate missing data. Forms with preceding dash require concordant noun class prefix.

### 15.2.1 Tone in content questions

Tonal phenomena in content questions have not been subject to as much attention as have other tonal phenomena in the language. The main relevant generalization seems to be that, like polar questions, content questions may be associated with a sentence-final low tone. Two complications make this generalization tentative

<sup>4</sup> As illustrated by Hyman (2007: 12), a satisfying analysis of any subpart of a language’s tonal system usually requires old-fashioned rigorous and systematic elicitation; accidental exposure to all relevant examples would simply take too long. Lack of clarity at some points in the tonal system will have to be admitted as a tradeoff for the gains brought by the largely text-oriented approach taken in the present description.

<sup>5</sup> As will be noted in § 15.2.3.7, two different words translatable as ‘how’ are attested in some dialects.

at the moment: first, there are examples in my notes of content questions lacking a low boundary tone; and second, there is no sentence-final segmental material associated with content questions. What motivates the sentence-final low tone analysis is the fact that some of the question words (especially the one translated as ‘who’) are associated with two possible tones: a high tone when non-sentence final, and an HL tone when sentence-final, as in elicited examples (15.18)–(15.19).

- (15.18) à gəm jí Ñǵì  
 DS (A)pay who N.  
 “◊Who paid Ndji?” (Munken)

- (15.19) ù-nè bù-tì ù gǵəm jí  
 CL1-person CL14-medicine CL1 (A)cure who.Q  
 “◊Who did the doctor cure?” (Munken)

When a question word has two different forms differing as described above, the one with a falling tone is glossed ‘wh-.Q’, suggesting a non-segmental tonal morpheme associated with questions. As mentioned above, there are examples of content questions where the sentence-final question word does not seem to be associated with a sentence-final low tone (compare examples (15.20) and (15.21)). A similar glossing convention is employed in these cases.

- (15.20) bú wè àlǝ bí à fá  
 CL2 CL1 P2 (c)give.birth DS where  
 “◊Where was he born? [lit. They bore him where?]” (Biya)

- (15.21) ù-n̄ wə ɛê jē ì-ǵì kǝ-bǝn jē  
 CL1-other CL1.DET (c)say COMP CL5-hole CL12-rat.mole CL5.DET  
 fâi<sup>6</sup>?  
 where.Q  
 “Another asked where the rat mole’s hole was [lit. another said that the rat mole’s hole is where?].” (Biya)

<sup>6</sup> It is not entirely certain why a different segmental form is present in this case. One explanation is that *fâi* is derived from *fá è*, where *è* is the generic sentence-final question marker. If this is true, then the analysis presented above might be revised to treat the generic question marker as underlain by *è* (the same as the polar question marker), rather than a non-segmental low tone.

### 15.2.2 Word order in content questions

There is no clear asymmetry as far as constituent order goes between content questions and the corresponding declarative clauses. The only difference is that question words are more likely to be focused (because questions are inherently focusing constructions), and in subject questions the question word must be in focus, either by clefting (15.22) or by dislocation to IAV (15.23). There is, to put it another way, no ‘movement’ of question words which regular noun phrases are not subject to.

(15.22) à nḁ ɕù nì ā-ŋī wḁ  
 DS (A)make (A)break who CL6-egg CL6.DET  
 “◊Who broke the eggs?” (Biya)

(15.23) ǎ nì ù nḁ ɕù ā-ŋī wḁ  
 DS.COP who CL1 (A)make (A)break CL6-egg CL6.DET  
 “◊Who broke the eggs?” (Biya)

### 15.2.3 Examples of content questions

In what follows a number of examples are given showing different types of content questions attested in the text corpus. Brief comments may be made at the outset of each subsection about interesting features of the particular question word.

#### 15.2.3.1 ‘who’

Examples of questions containing the content question word translatable as ‘who’ are given below. Questions used to inquire about somebody’s name use the question word translated as ‘who’ rather than the one translated as ‘what’.

- (15.24) b̀̀b́́á f̃́ d̀̀e t̃́é<sup>7</sup> j̃́e ì-já ḿ́o à ñ́e  
 father.HYP P1 (c)say (c)meet COMP CL5-name 1SG.POSS DS who.Q  
 mù d̃́é=á b̃́h̃e...  
 then.CL1 (c)call=PRF (B)exit  
 “What did Father say my name was? Then she called [it] out...” (Ngun)
- (15.25) ù-nò ù-tí ù-n̄ ù j̀̀è f̀̀àn w̄̀e  
 CL1-person CL1-(B)grow.up.ADJ CL1-REL CL1 (A)stay CL16.DEM CL1.DET  
 ǎ n̄̀  
 DS.COP who  
 “Who is the oldest person here? [lit. The grown up person that is here is who?].” (Biya)
- (15.26) n̄̀-tsàmə ǎ=nó, à ẁ̀, à ẁ̀ ǐ̀k̀è  
 1SG-(A)talk.IPFV 2SG=DAT 2SG (A)grind.IPFV 2SG (A)grind.IPFV as  
 [à] jí m̄̀  
 2SG who Q.POLAR.NEG  
 “I’m talking to you, [and] you’re grinding [and ignoring me], you’re grinding like you’re who there?!” (Munken)
- (15.27) ì-j̃́e bí l̃́ n̄̀a  
 CL5-name 2SG.POSS (B)L.COP who.Q  
 “◊What is your name?” (Missong)

### 15.2.3.2 ‘what’

When the question word translated as ‘what’ is used to question the content of a statement, the complementizer remains, as in examples (15.28)–(15.30). That is, a question of this type would be literally translated as ‘He said that what?’ rather than ‘He said what?’.

- (15.28) b́́e dí=á j̃́e, j̃́e *Glory* f̃́e ... bó d̃́ô  
 CL2 (c)say=PRF COMP COMP G. (B)give.IRR ... CL2 (c)call.IPFV  
 j̃́e b̃́e  
 COMP what  
 “They said that, that *Glory* should give — What’s it called? [lit. they call it that what?]” (Munken)

<sup>7</sup> See § 8.2.7.3 on the probable meaning of this word in this example.



- (15.29) s̄o d̄e k̄o-mj̄ú b̄í-ná b̄ê  
 1PL (c)say CL12-thing CL8-REL.DS what  
 “What are we going to talk about? [lit. We will talk the thing(s) which are what?]” (Biya)
- (15.30) bó ɲà mà ɣ̀k̄ò ù-n̄è ɲà mà b̄ō-nsàn  
 CL2 (A)stay.IPFV then.DS as CL1-person (A)stay.IPFV then.DS CL2-ligby<sup>8</sup>  
 j̄ē, à d̄í j̄ē b̄ê  
 thus DS (c)say COMP what  
 “They’re staying and it’s like a person staying like it’s boyfriend and girlfriend like that, I can’t believe what you’re saying [lit. you said that what?].” (Munken)
- (15.31) w̄ɔ́ bú ɕ̄ɛ̄ŋ mà b̄jáŋ b̄ùn ɲ̄j̄ú  
 then CL2 (c)doubt then(?) CL2.children CL2.DEM.PROX (B)die.IPFV  
 b̄á  
 what  
 “Then they were perplexed, why were these children dying?” (Missong)

As example (15.31) shows, the question word translated as ‘what’ can appear after an intransitive verb, where it has a meaning close to English ‘why’. A similar meaning in transitive clauses is gotten by introducing a second object translated as ‘what thing’ or ‘what matter’.<sup>9</sup> An example is given in (15.32).

- (15.32) à d̄á j̄ē m̄ō n̄è w̄àh̄a d̄à á-cám à  
 2SG (c)say.IPFV COMP 1SG (A)make (A)scatter D.NEG CL6-heart 2SG.POSS  
 á-mj̄ú b̄ê  
 CL12-thing what  
 “How can you say that I shouldn’t worry your heart [about your husband’s long overdue debt]?” (Biya)

### 15.2.3.3 ‘which’

The question word translated as ‘which’ is one of two question words (the other being ‘how many’) which requires a noun class prefix showing concord with the

<sup>8</sup> Archaic gloss used for lack of a better word meaning ‘boyfriend or girlfriend’. *OED* definition is ‘A bedfellow; a mistress, concubine’.

<sup>9</sup> A similar usage is found in Pidgin, where ‘why’ questions can be formed by adding *na weti?* ‘FOC what’ to the end of an affirmative clause.

antecedent noun phrase. This word falls into the set of ‘prefix only’ (cf. § 5.6.1) concordant items, since the stem tone does not appear to change depending on whether a ‘high’ or ‘low’ noun class prefix is attached.

- (15.33) à kjàmə̀ ù-mən style<sup>10</sup>, mṑ n̄-tsóŋ tsóŋ<sup>11</sup> dà kí<sup>12</sup>  
 2SG (A)sew CL1-which CL1.style 1SG 1SG-(B)see (B)see D.NEG CL12  
 ā mĩ  
 2SG.LOC.OBJ Q.POLAR.NEG  
 “You sewed which style? I don’t think I’ve ever seen it on you.” (Munken)

- (15.34) à bò à ì-tù ù-wón ù-mən  
 DS B.COP DS CL5-type CL1-nyanga<sup>13</sup> CL1-which  
 “So what kind of fancy thing is that?” (Munken)

- (15.35) ù-nè ù-nónānə̀ ù-mən  
 CL1-person CL1-big CL1-which  
 “Which big (i.e., important) man?” (Munken)

- (15.36) kō-mbāŋbə̀? kō-mwīn?  
 CL12-caterpillar CL12-which  
 “A caterpillar? Which [kind]?” (Biya)

#### 15.2.3.4 ‘how many’

The question word translated as ‘how many’ also shows concord, requiring a concordant noun class prefix.

- (15.37) mṑ pè hè fǒ-ŋkwānə̀ ā-fú  
 1SG.FUT (A)stay (A)descend CL16-village CL6-day  
 ā-mə̀ŋ  
 CL6-how.many  
 “How many days will I stay down in the village?” (Munken)

<sup>10</sup> Unusual word order of noun and question word may be an English calque.

<sup>11</sup> See § 8.2.5.5 on the use of the verb meaning ‘see’ to form an experiential perfective construction.

<sup>12</sup> Though no explicit antecedent is present in the text, agreement is probably for the word *ā-búŋ* ‘CL12-dress’.

<sup>13</sup> The closest translation for the Pidgin word *nyangá* is the English slang word *bling*, i.e., a fancy or ostentatious kind of thing.

- (15.38) ākú, bǎ-bjēmǎ ākú à bǎ-mǎŋ  
 Kok.people CL2-children Kok.people DS CL2-how.many  
 “The Kok, how many Kok children are there? [lit. the Kok children are how many?]” (Munken)
- (15.39) bǎ bǎ-kjēŋ bǎ-mǎŋ  
 COM CL2-child CL2-how.many  
 “... with how many children?” (Munken)
- (15.40) ŋ-kàhǎ bǎhǎ wǎ ā-fwé [ǎ]-mǎŋ? gǎŋ ā-fwé [ǎ]-fǎ  
 1SG-(A)tie (B)exit CL1 CL6-time CL6-how.many only CL6-time CL6-two  
 “How many times have I tied it? Only two times.” (Biya)
- (15.41) bí lǎ á-ŋǎm à-mǎŋ  
 2SG (B)COP CL6-year CL6-how.many  
 “°How old are you?” (Missong)

### 15.2.3.5 ‘where’

The content question word translated as ‘where’ has a form *fV* in every dialect save Missong, suggesting a possible connection with locative class 16 (cf. § 9.2.1.1).

- (15.42) ù-tǎlǎ mò wǎ tí ɲè jē á wǎ=nǎ fǎ  
 CL1-female TOP CL1.FUT (B)come (A)stay thus PREP CL1=DAT where  
 “That woman [the cowife] will come and stay like that for herself [i.e., in her own, separate kitchen] where?” (Munken)
- (15.43) mù bóh=ǎ jē nām ǎ fǎ?  
 then.CL1 (B)ask=PRF COMP CL1.husband 2SG.POSS where  
 “Then he asked, ‘Where is your husband?’ ” (Munken)
- (15.44) Nǎŋ kǎ gbǎ ànǎnǎ  
 N. P1 (A)fall where  
 “°Where did Nang fall?” (Missong)
- (15.45) à nǎŋ=ǎ ... bó dǎǎ jē fǎ  
 2SG (A)go=PRF ... CL2 (C)call.IPFV COMP where  
 “[If] you go to ... it [the place] is called where?” (Munken)

## 15.2.3.6 ‘when’

- (15.46) *Nene* à lè tsê ɲón? í-ɲúm í-jòŋò  
 N. DS (A)do (C)finish when CL5-year CL5-DEM.PROX.Q.POLAR  
 “When will Nene finish? This year?” (Munken)
- (15.47) wǎ jûə à ɲān  
 CL1.FUT (C)ascend DS when  
 “When will he come up [to Wum]?” (Biya)
- (15.48) à tɛ̀n dzàn wòŋkē, ú-gbáha mà tsàm=ā bí-mjí bā  
 DS (A)just (A)stay thus(?) CL3-wind then (A)talk=PRF CL8-thing COM  
 wò? ɲén?  
 2SG when  
 “Do you just stand there and the wind will discuss with you? When [would that happen]?” (Ngun)

## 15.2.3.7 ‘how’

Two different roots seem to be possible for a question word translated as ‘how’, given that two different translations of interrogative ‘how’ are found in Abar and Missong (see table 15.1) It is not known whether both roots are found in all dialects, and it is not known whether there is any discernible meaning difference between the two.

- (15.49) jē fǝ-ŋkwǎnə ɲè hè jān  
 COMP CL16-village (A)stay (A)descend how  
 “... that the village is how?” (Munken)
- (15.50) ù gbò mī ù lò jān è  
 CL1 (A)fall.IPFV LOC.in CL1 (A)do.IPFV how Q.POLAR  
 “... [make her] have seizures there [lit. be falling], what is she doing?” (Munken)
- (15.51) sō dòə ɲà, mī ù ɕúə jānə, ù ɕúə  
 1PL (A)cry.IPFV (A)stay.IPFV whether CL1 (B)eat.IPFV how CL1 (B)eat.IPFV  
 jān è  
 how Q.POLAR  
 “... we were crying, [wondering] ‘How is he eating? How is he eating?’ ” (Munken)

- (15.52) bú à dê ‘jè’, bjáŋ bú tsè lè ná  
 CL2 DS (c)say how CL2.children CL2.POSS (A)go ?? today  
 “They said ‘How?’, [Where] have their children gone today?” (Missong)
- (15.53) sō ŋgōŋgō kú bī-bōn bī-tōtè, sō bí à ɕè né  
 1PL now (B)catch CL8-rat.mole CL8-six 1PL CL8 DS (A)share how  
 “Now we have caught six rat moles. How do we share them?” (Biya)
- (15.54) à fɛŋ jùŋwà  
 2SG (A)sell.IPFV how  
 “How [much] are you selling [for]?” (Missong)

### 15.3 Non-interrogative uses of question words

Question words used to form content questions also may also be used with a function other than to solicit information; they may form rhetorical questions, or function as indefinite pronouns translatable as ‘whoever’, ‘whatever’, etc., An example of indefinite usage is given in (15.55), and rhetorical questions are shown in (15.56)–(15.57).

- (15.55) à ɲà wà jē à ɲè kòm wè ɲì  
 DS (A)stay.IPFV only COMP DS (A)stay again 2SG who  
 “It’s only that no matter who you are...” (Munken)
- (15.56) bó nē-nāmə kô, à ɕô bó ɕô bê  
 CL2 VFOC~(A)work.farm (B)also 2SG (c)think.IPFV CL2 (B)eat.IPV what  
 nòjân  
 how  
 “They also do farmwork. How do you think they are eating? [lit. You think they are eating what how?]” (Munken)
- (15.57) tsā<sup>14</sup> ì-ɕì bó lē wán kwîŋə á-ɲí kō  
 (A)know.IRR CL9-mean CL2 P2 (B)keep (c)enter CL12-thing CL12.DET  
 mì ... mī à [á-]ɲí nó bê  
 LOC.at ... or DS CL12-thing REL what  
 “[Who] knows if it’s meat they put in the thing...or what...” (Munken)

In clauses with negative meaning, question words are not used as equivalents of ‘anything’, ‘anyone’, ‘anywhere’, etc. Instead is used a lexical noun with generic reference, i.e., something translatable as ‘thing’, ‘place’, ‘person’. Some examples are given in (15.59)–(15.64).

- (15.59) wù á-jǐ kō á mē jí dà  
 CL1 CL12-thing CL12.DET NEG (A)take (c)ascend D.NEG  
 “She hasn’t picked anything up yet.” (Munken)
- (15.60) á-jǐ dà fē ló  
 CL12-thing D.NEG CL16.DET FRUST  
 “There’s nothing there.” (Munken)
- (15.61) mǎŋhə wǎŋ jì tǎlə dí ěī jì ú-nò  
 (A)think.IRR only CL5 (B)be.careful.IRR (c)say.IRR (A)tell.IRR CL5 CL1.PREP-person  
 ù-nē=nó  
 CL1-other=DAT  
 “Think only of it [your name], make sure you don’t tell it to anyone.”  
 (Ngun)
- (15.62) mō í-sésə ì-nǎ-nə dà nó  
 1SG.TOP CL5-place CL5.INF-go-INF D.NEG FRUST  
 “I won’t go anywhere.” (Biya)
- (15.63) bǐ déə jē sē kū sē ì-gǎm-nó ú-kpáha  
 CL2 (c)say COMP 1PL (B)have.IRR S.NEG CL5.INF-(A)pay-INF CL3-money  
 ū-ní  
 CL3-some  
 “They said that we don’t have to pay any money.” (Biya)

<sup>14</sup>The verb meaning ‘know’ may appear sentence-initially in irrealis form with an approximate translation of ‘who knows...’ or ‘God knows...’. Cf. a similar construction in Spanish:

- (15.58) ... porque es un hombre serio, muy exigente. Pero si él no fuera así  
 because is a man serious very demanding but if he NEG be.IPFV.SBJV thus  
vaya a saber dónde estaría yo ahora  
 go.SBJV to know where? be.COND I now  
 “... because he’s a serious man, very demanding. But if he wasn’t, [God] knows [lit. go to know] where I would be now.” ([http://www.unfpa.org/webdav/site/global/shared/documents/publications/2008/swp\\_youth\\_08\\_spa.pdf](http://www.unfpa.org/webdav/site/global/shared/documents/publications/2008/swp_youth_08_spa.pdf); SBJV=subjunctive, COND=conditional)

- (15.64) á-pá      á-ɕé      ná      kòŋ      k̄,      kí      fē  
 CL12-thing CL12-eat.ADJ REL.2SG (A)love CL12.DET CL12 CL16.DET  
 “Whatever your preferred food [lit. food that you like], it was there.”  
 (Munken)





# Appendix A

## Sample text

The following sample text is an excerpt of a conversation between two Munken speakers, one a woman of about 30 years of age, and one a woman of about 40 years of age. The conversation was recorded on May 14, 2010.

Belta:

- (A.1) mà bàn úkè à há nè à dzè ā-bóhɔ bī-ndɔŋ  
then.DS (A)really as DS COND (A)stay 2SG (A)plant CL6-buttocks CL8-cocoyam  
bī-lɔ í-núm ī-jòŋò mī  
CL8-other CL5-year CL5-CL5.DEM.PROX.CL5.DET LOC.in  
“...so it’s just like you would plant some cocoyam bulbs this year,”  
(Munken)

- (A.2) í-núm í-cóŋ ā-bóhɔ nómò nē ǎ gî  
CL5-year CL5-next CL6-buttocks TOP CL6.DET DS.FUT (c)be.many  
bí-běhe, à fē à dzē bànò  
VFOC~(B)exit DS CL16.DET 2SG (A)plant (A)really.CLSBRK  
“... [and then] next year those bulbs will have multiplied, [and] from  
(Munken) there you really plant.”

Esther:

- (A.3) ìn, ǎ gî běhe  
yes DS.FUT (c)be.many (B)exit  
“Yes, they will multiply.” (Munken)

Belta:

- (A.4) à jē ɲè. n̄-dī í-sě́he nó̀m̀, á-ɕ́éé m̀ ñē á  
 DS so (A)stay 1SG-(C)say CL5-place TOP CL6-corn TOP CL6.DET FUT  
 ɲí~ɲáŋə  
 VFOC~(B)be.good  
 “So it is [i.e., yes]. I say, [in] that place,<sup>1</sup> the corn will thrive.” (Munken)

- (A.5) *but* ǎ jē ŋ̀kè í-sě́he ní̀m̀ ñē ɲè, à  
 but DS.COP COMP as CL5-place TOP CL5.DET (A)stay DS  
 nǎ́hə  
 (B)excessive  
 “But it’s that as that place is, it’s too...” (Munken)

Esther:

- (A.6) ì-ɕè̀lò nó̀ dān jē nǎ́fə gbábə  
 CL5.INF-(A)work REL CL17.DEM CL5.DET (B)excessive (C)strong  
 ú-kpǒ́fə  
 CL3-money  
 “The work that’s there [in Aghem country] is too cost-intensive. [i.e., the cost of hired labor is quite high]” (Munken)

- (A.7) ǎ ɲè s̄ kwé, bó dz̄ŋə ì-dz̄əŋ  
 DS.COND (A)stay 1PL.LOC.OBJ LOC.country CL2 (C)call CL5-labor.collective  
 mī à mà ɲí~ɲáŋə  
 LOC.in DS then (B)be.good  
 “If it was in our country [Munken], communal labor would be convened [lit. they call into labor group],<sup>2</sup> and it would go off smoothly.” (Munken)

Belta:

- (A.8) ǎ jē  
 DS.COP thus  
 “It is so.” (Munken)

<sup>1</sup> Referring to a garden plot aside a stream bed, which is very fertile.

<sup>2</sup> Referring to a traditional system prevalent in rural Cameroon where small cooperatives are formed which rotate in assisting the members on days where farmwork is labor-intensive (e.g., clearing and tilling soil for planting, harvesting, cooking palm nuts). The incentive system usually works in such a way that everyone will have the group help when it is needed on their farm, and the beneficiary on a community labor day must provide a meal, and a jug of palm wine or corn beer for the labor crew.

Esther:

- (A.9) à ɲáŋ, ì-çèlò tùmə nànkò dān jān  
 DS (B)be.good CL5.INF-(A)work (A)be.fast (A)go CL17.DEM thus  
 “It’s good, the work is moving along here like that.” (Munken)

- (A.10) ǎ tçèn ú-kpóhɔ, à-bà ǎ mī kwé sē,  
 2SG.COND (A)lack CL3-money CL12-bag 2SG.POSS LOC.in (B)hold S.NEG  
 mà ɲè à fā ɲà àŋwánə  
 then.DS (A)stay 2SG (B)suffer.IPFV (A)stay.IPFV 2SG.alone  
 “If you lack money, [if] your bag doesn’t hold [any], then it’s [that] you  
 suffer alone.”<sup>3</sup> (Munken)

Belta:

- (A.11) à fā ɲà, but à tsóŋ=ǎ jē ì-nām  
 DS (B)suffer.IPFV (A)stay.IPFV but DS (B)see=PRF COMP CL5.INF-(A)work.farm  
 nó sō lē nām í-ɲúm ī-ló jē, ì lè  
 REL 1PL P3 (A)till.field.IRR CL5-year CL5-other CL5.DET CL5 (A)do  
 ɲí-ɲáŋə, nò  
 VFOC~(B)be.good Q.POLAR.POS  
 “You suffer. But you see the way we worked the other year, it went very  
 well.” (Munken)

Esther:

- (A.12) ì lè nófə ɲáŋ  
 CL5 (A)do (B)excessively (B)be.good  
 “It went very well.” (Munken)

Belta:

- (A.13) ì lè ɲáŋ soté,<sup>4</sup> sō lá wó kām hō  
 CL5 (A)do (B)be.good until 1PL P3.NEG (c)hear.IRR (A)again.IRR S.NEG  
 jē sō lē nām í-mwèlə  
 COMP 1PL P3 (A)work.farm.IRR CL4-farm  
 “It went really well. It didn’t even feel like we were working. [lit. we  
 didn’t hear again that we worked the farms]” (Munken)

<sup>3</sup> This statement is most likely a comment on the difficulty of living in Wum’s cash-based economy, as opposed to living in Munken.

<sup>4</sup> See footnote on p. 202 concerning this Pidgin word.

Esther:

- (A.14) à jē à tí lè báfə sè wà ɲkò bó lē bàha wè  
 DS COMP DS (B)come (A)do (B)spoil 1PL only as CL2 P2 (A)operate 2SG  
 bó m̀è bàha t̥ɛ̀ M̥arsha  
 CL2 then (A)operate CL1.wife M.  
 ‘‘It’s that what came bad for us was only how you had surgery, and  
 Marsha’s<sup>5</sup> wife had surgery.’’ (Munken)

Belta:

- (A.15) bó bàha m̀è, ǎ jē  
 CL2 (A)operate 1SG DS.COP so  
 ‘‘I had surgery, yes.’’ (Munken)

Esther:

- (A.16) á-mjũ nó m̀ə k̄ə m̀è k̀əm t̄óm f̄ənə  
 CL12-thing REL 1SG CL12.DET then (A)again (B)shoot (A)invert  
 wí=á  
 (c)be.clean=PRF  
 ‘‘My affairs were turned completely upside down.’’ (Munken)

Belta:

- (A.17) m̀è k̄h̄ə t̥ɛ̀ K̄ə̀ṭə̀ ɲkò ù lē ɲè b̄ā-b̄è è  
 then also CL1.wife K. as CL1 P2 (A)stay COM.CL12-belly CLSBRK  
 ‘‘And also Ketcha’s wife got pregnant.’’ (Munken)
- (A.18) à tsàl̄ə ù bí=á, ǹè  
 2SG (A)know CL2 (c)give.birth=PRF Q.POLAR.POS  
 ‘‘You know that she gave birth, right?’’ (Munken)
- (A.19) ǎ w̄ə dà? ù bí=á wán [à] l̄è b̄éh=ǎ  
 2SG.NEG (c)hear D.NEG CL1 (c)give.birth=PRF CL1.child DS (A)do (B)exit=PRF  
 ú-t̄únə ú-mwónə  
 CL3-week CL3-one  
 ‘‘You haven’t heard? She bore a child, it’s been a week.’’ (Munken)
- (A.20) ɲk̄ə̀ɲk̄èn wán j̄ì l̀ə n̄à̀ɲk̀ò ú-t̄únə ú-mwónə  
 now CL1.child 3SG.POSS (A)do.IPFV (A)go.IPFV CL3-week CL3-one  
 ‘‘Her child is now making one week.’’ (Munken)
- (A.21) ù bí=á wán ù-n̄ǒmf̄ə  
 CL1 (c)give.birth=PRF CL1.child CL1-male.ADJ  
 ‘‘She has born a son.’’ (Munken)

<sup>5</sup> Apparently a man’s name.

Esther:

- (A.22) há  
EXCL  
“Ha!” (Munken)

Belta:

- (A.23) ù bí=á  
CL1 (c)give.birth=PRF  
“She gave birth.” (Munken)

Esther:

- (A.24) jē nē ù-lō wè lē nē kí  
so (A)stay CL1-other CL1.child P3 (A)stay.IRR (c)also.IRR  
ù-nǎmfə  
CL1-male.ADJ  
“And so the other child was also a boy.” (Munken)

Belta:

- (A.25) ù-wǎŋ ù nó ù bí tǎnə ù-wǎŋ  
CL1-CL1.DEM.PROX CL1 REL CL1 (c)give.birth LOC.ground CL1-CL1.DEM.PROX  
wə á wū tǎnə  
CL1.DET PREP CL1.LOC.OBJ LOC.under  
“This one, the one she bore after [lit. under] this one...” (Munken)

- (A.26) ù-nǎmfə, ŋkǎŋkèn ù kwé bǎ-kjêŋ bǎ-tǎlǎ bǎ-fè,  
CL1-male.ADJ now CL1 (B)hold CL2-children CL2-female.ADJ CL2-two  
bǎ-kjêŋ bǎ-nǎmfə bǎ-fè  
CL2-children CL2-male.ADJ CL2-two  
“... [was] a boy, now she has two girls and two boys.” (Munken)

Esther:

- (A.27) bàn đǎ sè fǎ-ŋcām  
(A)really (A)share (A)descend CL16-LOC.heart  
“[It is] really split down the middle [i.e., evenly].” (Munken)

Belta:

- (A.28) wán nó m̀b̀òŋɔ́ á wán ù-tǎlǎ, ù nó  
CL1.child REL first.CL1.DET COP CL1.child CL1-female.ADJ CL1 REL  
ù kúnə á wò ù-tǎlǎ, *and then* wǎŋɔ́  
CL1 (c)follow(?) COP CL1.child CL1-female.ADJ and then CL1.DEM.PROX  
ù nó ù bí dz̀òŋɔ́ á wò ù-nǎmfə  
CL1 REL CL1 (c)give.birth (A)again COP CL1.child CL1-male.ADJ  
“The child that [was] first is a girl, the one that followed was a girl, and then this one that she gave birth to again is a boy...” (Munken)

- (A.29) *and then* ù-wǝŋǝ                      ù    nó    ù    bì                      tǝnǝ  
 and then CL1-CL1.DEM.PROX CL1 REL CL1 (c)give.birth LOC.ground  
 ǵkǝn wǝ              ǎ              wǝ              ù-nǝmfǝ,              ǎ              jǝ    ù    bì  
 now CL1.DET DS.COP CL1.child CL1-male.ADJ DS.COP thus CL1 (c)give.birth  
 è  
 CLSBRK  
 “... and then this one that she bore after, now, it’s a boy. That’s how  
 she has born [her children].” (Munken)

Esther:

- (A.30) Kǝtǝà bàn              jǝ              ù-nǝ              jǎ  
 K. (A)really (A)stay CL1-person thus  
 “So Ketcha is really a man.” (Munken)

Belta:

- (A.31) à jǝ    ù    lò                      kǝm    jǎn lá  
 DS thus CL1 (A)do.IPFV (A)again so ??  
 “That’s how he is [lit. he does].” (Munken)
- (A.32) à tsǎlə    ǵkǝ wǎn              ù-tǝǝlə                      wǝ              fǎ                      nǎŋ  
 DS (A)know as CL1.child CL1-female.ADJ CL1.DET (B)suffer.IPFV (A)go.IPFV  
 jǎ                      ú-kpǝ<sup>6</sup>              è  
 (A)stay.IPFV CL3-house Q.POLAR  
 “You know how the girl is suffering in the [marriage] house?” (Munken)

Esther:

- (A.33) mǎ              ǵ-kǝm                      tsǝŋ    bànǝ              dà              wù    ù    fǎnǝ  
 1SG.NEG 1SG-(A)again (B)see (A)really D.NEG CL1 CL1 (A)sell.IPFV  
 “I don’t really see her selling anymore [i.e., at the market stall she used  
 to work at].” (Munken)

Belta:

- (A.34) ǎ              jǝ—    ǎ              jǝ              wǎn              ù-tǝǝlə                      mwǝ— tsǎ  
 DS.COP COMP DS.COP COMP CL1.child CL1-female.ADJ TOP (A)know.IRR  
 jǝ              á-jǝ                      kǝŋkǝ                                      jǎn kí              kǝŋ              búŋǝ  
 COMP CL12-thing CL12.DEM.PROX.CL12.DET so CL12 (B)cover (B)lock  
 bǝ-nǝ  
 CL2-people  
 “It’s that— it’s that the girl— one wonders whether this thing [mar-  
 riage] like that covers people up [i.e., grants them respectability while  
 obscuring their problems].” (Munken)

<sup>6</sup> The word translatable as ‘house’ has metaphorical senses, and is sometimes better translated as ‘organization’, ‘corporation’, ‘union’. In this case, ‘house’ refers to the marriage between the two young people who are being discussed, or more literally, their conjugal dwelling.

- (A.35) à há wô bí-mjú bē è, wò ù-ṭɛɔlɔ  
 DS COND (c)hear CL8-word CL2.POSS CLSBRK CL1.child CL1-female.ADJ  
 fâ ɲkò ù ɲà— ù ɲà tó ljèn  
 (B)suffer.IPFV as CL1 (A)stay.IPFV CL1 (A)stay.IPFV (B)come.IPFV (B)tell.story.IPFV  
 ɛɔ mō=nó  
 (c)say.IPFV 1SG=DAT  
 “If you heard their problems, the girl suffers, how she always— how she  
 always comes and tells me about it.” (Munken)
- (A.36) ù dí mō=nó jē ú-kpé wôŋɔ, sã tsóŋ ɲkò  
 CL1 (c)say 1SG=DAT COMP CL3-house CL3.DEM.PROX 1PL (B)see as  
 wú ɲè  
 CL3 (A)stay  
 “She said to me that this [marriage] house, we see how it is.” (Munken)
- (A.37) jē à ɲáŋ ù-nè nàlɔ wán nàŋkò ì-fā jī  
 COMP DS (B)be.good CL1-person (A)hide (B)keep (A)go CL5-head 3SG.POSS  
 í-séhe í-ló mī, jē ù mē nám  
 CL5-place CL5-other LOC.in COMP CL1 (A)take CL1.husband  
 “... that it’s good for someone to hide their head in some place, that  
 she should take a husband.”<sup>7</sup> (Munken)

Esther:

- (A.38) bó mú kòm ń-bé á wù fòmò  
 CL2 (B)drink (A)again CL6a-wine PREP CL1 LOC.top.Q.POLAR  
 “Have they even drunk wine on top of her? [i.e., celebrated her mar-  
 riage]” (Munken)

Belta:

- (A.39) bó ń-bé á mú dà  
 CL2 CL6a-wine NEG (B)drink D.NEG  
 “They have not drunk wine.” (Munken)
- (A.40) à wú ɲú á-dzéhã fân jân, à  
 2SG (B)open.IPFV (c)ascend.IPFV CL6-eye.2SG.POSS CL16.DEM thus 2SG  
 lá wú hō  
 L.COP.NEG (c)hear S.NEG  
 “[reacting to facial expression] You are wide-eyed here like this, you have  
 not yet heard?” (Munken)

<sup>7</sup> The intended meaning is that the status of being a married woman “hides a woman’s head,” or shields her from gossip and judgement, so it may be beneficial to take a husband, even if the husband is not the best choice.

(A.41) bó ɲà mà ɲkò ù-nè ɲà mà bā-nsàn jē,  
 CL2 (A)stay.IPFV then as CL1-person (A)stay.IPFV then CL2-ligby thus  
 à dī jē bē  
 2SG (c)say COMP what  
 “They are staying as a person stays, as bedfellows, what are you saying?  
 [i.e., how could you think they were married?] ” (Munken)

(A.42) bó mú=ǎ ń-bé fó  
 CL2 (B)drink=PRF CL6a-wine where  
 “Where [i.e., where do you think] they have drunk wine?” (Munken)

Esther:

(A.43) Ícè Nēsè  
 I. N.  
 “Ishe of Nese!”<sup>8</sup> (Munken)

(A.44) à bām mē  
 DS (c)accept 1SG  
 “I accept it [as true].” (Munken)

Belta:

(A.45) mǒ ñ-tsā dàha whether wàɲà  
 1SG.NEG 1SG-(A)know.IRR S.NEG whether ??  
 “I don’t know whether. . .” (Munken)

Esther:

(A.46) bā bā-kjēɲ bā-mèɲ  
 COM CL2-children CL2-how.many  
 “With how many children?” (Munken)

Belta:

(A.47) mǒ ñ-tsā dàha mī ù-nè mò wā,  
 1SG.NEG 1SG-(A)know.IRR S.NEG whether CL1-person TOP CL1.DET  
 ù-nǒmfə wē, à bú-tí ù lè á wè  
 CL1-male.ADJ CL1.DET DS CL14-medicine CL1 (A)make PREP CL1.child  
 ù-tcǒlə wē mō  
 CL1-female.ADJ CL1.DET LOC.at  
 “I don’t know whether that man, the boy, [if] it’s medicine that he used  
 on the girl.” (Munken)

<sup>8</sup> Apparently a type of oath, where one calls their father’s name as a way of expressing surprise.



- (A.48) mǎ      n̄-t̄sā                      hō  
 1SG.NEG 1SG-(A)know.IRR S.NEG  
 ‘I don’t know.’ (Munken)
- (A.49) ǎ      jē      n̄-kòŋ      kī      wù, *because*  
 DS.COP thus 1SG-(A)like (c)also CL1 because  
 ‘That’s why I like her too, because...’ (Munken)
- (A.50) n̄-wô                      jē      wù      á      bō      wè,      ù-t̄ɕòlò                      mò      ù      bō  
 1SG-(c)hear COMP CL1 COP COM CL1 CL1-female.ADJ TOP CL1 COM  
 nám                      jī                      ú                      mō  
 CL1.husband 3SG.POSS PREP LOC.at  
 ‘I hear that he’s with her, the girl, she’s with her husband there.’  
 (Munken)

Esther:

- (A.51) jē n̄è      jē      nám                      jī                      bō                      n̄àŋkə      kí~kjú  
 so (A)stay COMP CL1.husband 3SG.POSS (c)flirt.IPFV (A)go.IPFV VFOC~(c)also.IPFV  
 gǎ<sup>9</sup>  
 Q.POLAR.POS  
 ‘Like that it [means] that her husband also flirts?’ (Munken)

Belta:

- (A.52) bō                      n̄àŋkə,      bō                      n̄àŋkə      kí~kjú  
 (c)flirt.IPFV (A)go.IPFV (c)flirt.IPFV (A)go.IPFV VFOC~(c)also.IPFV  
 nò  
 Q.POLAR.POS  
 ‘[She’s] flirting also, [she’s] flirting also, right?’ (Munken)

Esther:

- (A.53) *and* à      n̄àŋ                      dàha      jē  
 and DS (B)be.good.IRR S.NEG thus  
 ‘And it’s not good like that.’ (Munken)
- (A.54) ù      mà      ì-gòbə      jē      ù      n̄è      f̄ómə      bō      nám  
 CL1 (A)take CL5-body COMP CL1 (A)stay LOC.top COM CL1.husband  
 jī  
 3SG.POSS  
 ‘And she assumes that she should stay with her husband.’ (Munken)

<sup>9</sup> The use of this particle is not attested elsewhere. It is provisionally glossed as a leading polar question marker, following my informant’s recommendation.

Belta:

- (A.55) ù jē lò ɲkò nó ù bò jē nám  
 CL1 thus (A)do.IPFV as REL CL1 (A)want.IPFV COMP CL1.husband  
 jī nāŋ fē bí-ńí á wū fómə,  
 3SG.POSS (A)go.IRR (B)give.IRR CL8-thing PREP CL1.LOC.OBJ LOC.top  
 mjē jē nò  
 ?? so Q.POLAR.POS  
 “She’s behaving this way because she wants for her husband to go and  
 give things [i.e., pay dowry] on top of her head. That’s how it is, isn’t  
 it?” (Munken)

Esther:

- (A.56) bé ɲà tsàmə bō ū-fən, mī à kwě í-bě=nó  
 CL2 (A)stay.IPFV (A)talk COM CL3-mouth or 2SG (B)hold PREP.CL5.INF-(A)search=DAT  
 bō-nòmfo bān  
 CL2-male.ADJ outside  
 “They always talk with their mouths [i.e., with no tangible results],  
 or [if no better outlook exists] you have to go look for boys outside.”  
 (Munken)

Belta:

- (A.57) bó tsàm tɛ̀=ā ló. ū-fən ū-bálə nó nám  
 CL2 (A)talk (A)look=PRF FRUST CL3-mouth CL3-spoil.ADJ REL CL1.husband  
 jī kwě  
 3SG.POSS (B)hold  
 “They have talked [with no result]. The bad mouth that her husband  
 has...” (Munken)
- (A.58) ū-fən ū-bálə nám jī kwě, ă wô  
 CL3-mouth CL3-spoil CL1.husband 3SG.POSS (B)hold 2SG.COND (c)hear  
 nám jī ɛ̀ú ù ɛ̀é  
 CL1.husband 3SG.POSS (c)want.IPFV CL1 (c)insult.IRR  
 “... the bad mouth that her husband has, if you her hear husband [when  
 he’s] wanting to insult [somebody]...” (Munken)
- (A.59) à dí kòm ù-nè fǒ ɛ̀í ù mē  
 2SG (c)say (A)again CL1-person COND (c)want CL1 (A)marry.IRR  
 kòm  
 (A)again  
 “You say that if someone ever wants to get married...” (Munken)

Esther:

- (A.60) ù-nè fǒ báfə kəm jā  
 CL1-person COND (B)spoil (A)again thus  
 “If someone is bad...” (Munken)

Belta:

- (A.61) mà ɛɛnə bì-tù jī  
 then.DS (c)insult COM.CL5-family CL5.DET  
 “...and [that person] insults the family...” (Munken)

Esther:

- (A.62) bā ì-tù ú-kpé ǎ  
 COM CL5-family CL3-house 2SG.POSS  
 “... [someone is bad] with your family house...” (Munken)
- (A.63) wó jē, òlènə ù-nè fǒ báfə kəmə jā  
 (c)hear.IRR COMP CL1.fashion CL1-person COND (B)spoil (A)again thus  
 “Look, if someone’s character is bad...” (Munken)
- (A.64) ɲkà kòŋ dà wù è  
 as.2SG (A)love previously CL1 CLSBRK  
 “Since you loved him before...” (Munken)
- (A.65) à ɲè ɲáŋ ɲè wòŋ bā wù  
 2SG (A)stay (B)be.good (A)stay only COM CL1  
 “You will ever be content only with him.” (Munken)
- (A.66) ɲkà nó sā hǒ nàŋ wà ɲlènə=nó  
 as REL 1PL COND (A)go only PREP.CL1.fashion=DAT  
 “Because if we go only by character...” (Munken)
- (A.67) bā só bā-tɛ̀lə bā-ló sā kwé òlènə ù-bálo  
 COM 1PL CL2-female.ADJ CL2-other 1PL (B)hold CL1.fashion CL1-(B)spoil.ADJ  
 sā=nə sā kwí ɲè dà ló  
 1PL=DAT 1PL (c)enter (A)stay D.NEG FRUST  
 “With some of us women we have bad fashion [lit. unto ourselves], we  
 cannot persist [in a relationship].” (Munken)

Belta:

- (A.68) ǎ jē  
 DS.COP so  
 “Yes.” (Munken)

- (A.69) bā-nǝmfə bē bā-ló jè kí-kí jē  
 CL2-male.ADJ CL2.DET CL2-other (A)stay VFOC~(C)also thus  
 “Some of the boys are the same.” (Munken)
- (A.70) tsǝŋ ù-tǝǝlǝ ù-lǝ bàn lǝ bāfə  
 (B)see.IRR CL1-female.ADJ CL1-other (A)really (A)do.IPFV (B)spoil.IPFV  
 nàŋkə jān nǝ  
 (A)go.IPFV so ??  
 “Consider some woman really behaving badly in that way.” (Munken)
- (A.71) ù-nǝmfə bàn tsǝŋ nàŋkə  
 CL1-male.ADJ (A)really (B)see.IPFV (A)go.IPFV  
 “The boy is really seeing.” (Munken)
- (A.72) mà jà jē ŋkù kǝŋ tǝù jī è,  
 then.DS (A)stay.IPFV COMP as.CL1 (A)love CL1.wife 3SG.POSS CLSBRK  
 ù bwǝ ŋwǝŋ á-kǝ<sup>10</sup>  
 CL1 (B)clap.IPFV only CL6-hand  
 “Then it will be that as he loves his wife, he will only be begging her.”  
 (Munken)
- (A.73) ù bú á-kǝ, ù lǝ kǝŋ bǝŋhǝ  
 CL1 (B)clap CL6-hand CL1 (A)make.IPFV (A)drape.over (B)close.IPFV  
 “He will beg, he will be making [her transgressions] be covered up.”  
 (Munken)
- Esther:
- (A.74) ù jà bǝŋhǝ  
 CL1 (A)stay.IPFV (A)close.IPFV  
 “He[’ll be] sitting and covering up [her transgressions].” (Munken)
- Belta:
- (A.75) á-mjú nó n-dí jē ù-nè mǝ bāfə kǝ,  
 CL12-thing REL 1SG-(C)say COMP CL1-person TOP (B)spoil CL12.DET  
 à dà kǝ-mjú bā-tǝǝlǝ lǝ  
 DS D.NEG CL12-thing CL2-female.ADJ FRUST  
 “The reason I said that that man is bad, it’s not [because of] women.”  
 (Munken)
- (A.76) ù dzé bā-tǝǝlǝ tǝn lé jǝ  
 CL1 (B)travel CL2-female.ADJ LOC.under FRUST thus  
 “He doesn’t follow after women like that.” (Munken)

<sup>10</sup> The expression relates to a common gesture used throughout Cameroon where one indicates supplication by holding one hand with the palm up, and clapping the back of the other hand against it.

Esther:

- (A.77) ǎ-mjú í-ǎé  
 DS.CL12-thing CL5.INF(c)insult  
 “It’s the problem of insulting.” (Munken)

Belta:

- (A.78) ù nàŋ ù ǎé, wǎ ǎô dà wà tɛ̀ù  
 CL1 (A)go CL1 (c)insult.IRR CL1.NEG (c)insult.IPFV D.NEG only CL1.wife  
 jĩ ò  
 3SG.POSS EMPH  
 “[When] he wants to insult, he doesn’t insult only his wife O!” (Munken)

- (A.79) ù tǎn ǎô nàŋkə ì-tù tɛ̀ù  
 CL1 (A)jump (c)insult.IPFV (A)go.IPFV CL5-family CL1.family  
 jĩ  
 3SG.POSS  
 “He’ll instead be insulting his wife’s family.” (Munken)

Esther:

- (A.80) jě í-sěhe ɪ-bálə nó í jè  
 CL5.COP CL5-place CL5-(B)spoil.ADJ REL CL5 (A)stay  
 “It’s the only bad area that is there.” (Munken)

- (A.81) ká á-mjú ā-bálə námò kǎ  
 CL12.COP CL12-thing CL12-(B)spoil.ADJ TOP CL12.DET  
 “That is the bad thing.” (Munken)

Belta:

- (A.82) ù ǎô tǎfə bàn hò ù-mjèhe  
 CL1 (c)insult (A)pluck.feathers (A)really (A)descend CL1-mother.in.law  
 jĩ mǎ kǎhə ù-wàn jĩ  
 3SG.POSS then also CL1-father.in.law 3SG.POSS  
 “He really viciously insults his mother- and father-in-law.” (Munken)

Esther:

- (A.83) mǎ jē á kǎŋ dàha  
 1SG thus NEG (A)love.IRR S.NEG  
 “I don’t like [things] like that.” (Munken)

- (A.84) à há jè bàn wà òlènə ú-kpě wǎnə  
 DS COND (A)stay (A)really only CL1.fashion CL3-house CL3.DEM.PROX  
 “If it’s only the fashion of the house...” (Munken)

Belta:

- (A.85) ù kwě jě̀lə̀ ò̀lèn ù̀-̀bá̀lə̀ soté even jí  
 CL1 (B)hold (B)excessively CL1.fashion CL1-spoil.ADJ until even CL1.mother  
 ù̀-̀sə̀se<sup>11</sup>, jí ù̀-̀nǝ̀mfə̀ nómò bwá̀l=ǎ́ wū  
 CL1-very CL1.mother CL1-male.ADJ TOP (B)be.tired=PRF CL1.LOC.OBJ  
 kə̀  
 LOC.hand  
 “He has very bad fashion, to the point that even his very own mother,  
 the mother of that boy has grown tired on his account.” (Munken)

Esther:

- (A.86) ǎ́ jḗ  
 DS.COP thus  
 “Yes.” (Munken)
- (A.87) jí nómò kwà̀nə̀ kjồ bə̀ wù lá  
 CL1.mother TOP (A)shout.at (c)also.IPFV COM CL1 ??Q  
 “The mother is also yelling at him?” (Munken)

Belta:

- (A.88) wǝ́ɔ̀ɔ̀j, à há́ jḗ dà̀ha jḗ wè̀ ù̀-̀tə̀ðlə̀  
 EXCLAM DS COND (A)stay.IRR S.NEG COMP CL1.child CL1-female.ADJ  
 mò wə̀, jí mò kí bə̀ wù  
 TOP CL1.DET CL1.mother TOP (c)also COM CL1  
 “Vae! If it’s not that [he is fighting with] the girl, the mother also [will  
 be fighting] with him.” (Munken)

Esther:

- (A.89) mǝ́ jǎ́ kǝ́ŋ̀ dà̀sə̀<sup>12</sup> kí hə̀, wè̀jínà ù̀-̀lǝ́ lḗ  
 1SG.NEG thus (A)love.IRR S.NEG (c)also S.NEG CL1.uncle CL1-other P2  
 jè́ kí~kí́ jḗ  
 (A)stay VFOC~(c)also thus  
 “I also don’t like [things] like that. One [of my] uncle[s] was also the  
 same.” (Munken)

<sup>11</sup> This stem has an unusual phonological shape. It seems likely a borrowing of Pidgin *sep sep*, which has a meaning similar to Latin *ipse*.

<sup>12</sup> The sentence as written is ungrammatical, based on the description presented where a clause has a single postverbal negator following all of the verbs. Though I didn’t query the consultant on it when transcribing this line, the simple way of dealing with this exception is to treat the occurrence of *dàsə̀* as an error of the type which frequently occur in conversation.

(A.90) ù tí ɛ̀ô ù kânə b̄ə ɬù j̄ɛ,  
 CL1 (B)come (C)insult.IPFV CL1 (C)quarrel COM CL1.wife 3SG.POSS.CLBRK  
 wù ɛ̀oóooo ì-tù ú-kpé ɬù j̄i j̄àn  
 CL1 (C)insult.IPFV CL5-family CL3-house CL1.wife 3SG.POSS thus  
 “When he wants to quarrel with his wife, he just INSULTS [all] of his  
 wife’s household!” (Munken)

(A.91) ǎj, n̄-dî j̄ɛ m̄ə j̄á kòŋ dà  
 no 1SG-(C)say COMP 1SG thus.NEG (A)like D.NEG  
 “No, I say I don’t like it.” (Munken)

(A.92) ɲkà ɛ̀ô j̄ɛ, nám m̄ə f̄ɔ ɛ̀ɛ k̄i  
 as.2SG (C)insult.IPFV thus CL1.husband 1SG.POSS COND (C)insult (C)also  
 ì-tù ú-kpé s̄ə, má lè á j̄àn  
 CL5-family CL3-house 1PL.POSS 1SG.FUT (A)do COP how  
 “As you’re insulting like that—If my husband also insulted our family  
 house, what would I do?” (Munken)

(A.93) m̄ó ɲ-kɔŋ dàha  
 1SG.NEG 1SG-(A)love.IRR S.NEG  
 “I don’t like it.” (Munken)

Belta:

(A.94) ǎ j̄ɛ k̄ò  
 DS.COP thus ??  
 “Yes.” (Munken)

Esther:

(A.95) ɲ-kɔŋ dàha  
 1SG.NEG-(A)love.IRR S.NEG  
 “I don’t like it.” (Munken)

Belta:

(A.96) ìlènə nómò w̄ə ǎ j̄àŋ dàha  
 CL1.fashion TOP CL1.DET DS.NEG (B)be.good.IRR S.NEG  
 “That behavior is no good.” (Munken)

Esther:

(A.97) à mè ù-ɬɔ̀lə  
 2SG (A)take CL1-female.ADJ  
 “[When] you marry a woman. . .” (Munken)

Belta:

- (A.98) ǎ tsóŋə ɬè jī jàn  
 2SG.FUT (B)see CL1.wife 3SG.POSS thus  
 “You’ll see his wife like that...” (Munken)

Esther:

- (A.99) ù-ɬɔ̀lə à=nó ɲè ɲkè wēné mī  
 CL1-female.ADJ 2SG=DAT (A)stay as CL1.sibling.2SG.POSS? LOC.at  
 “The woman to you is like a sister.” (Munken)
- (A.100) nám ǎ à=nó ɲà ɲkè wēné  
 CL1.husband 2SG.POSS 2SG=DAT (A)stay.IPFV as CL1.sibling.2SG.POSS?  
 mī, ɲkè kī ǎ mī, nē mī  
 LOC.at as CL1.father 2SG.POSS LOC.at mother.VOC LOC.at  
 “Your husband to you is like a brother, like your father, your mother.”  
 (Munken)

Belta:

- (A.101) ɛ̀ nàŋkə bē-wējí ɬè jī, bé ɲkè bó  
 (c)insult.IPFV (A)go.IPFV CL2-sibling CL1.wife 3SG.POSS CL2 as CL2  
 tō ú kpè bó tí ɲè ú kpè  
 (B)come.IPFV PREP LOC.house CL2 (B)come (A)stay PREP LOC.house  
 “[He’s] insulting the siblings of his wife as they are coming to the house  
 to stay in the house.” (Munken)
- (A.102) ǎj  
 no  
 “No.” (Munken)

Esther:

- (A.103) ǎ ɲàŋ dàha  
 DS.NEG (B)be.good.IRR S.NEG  
 “It’s not good.” (Munken)



Belta:

- (A.104) à jē à bāmbe<sup>13</sup> bó ɲà dī jē ù-nè nó  
 DS COMP DS true CL2 (A)stay.IPFV (c)say COMP CL1-person REL  
 ù kwô ú-kpě kī-nôŋə mī, ù-nè ù-mwónə  
 CL1 (c)enter.IPFV CL3-house CL13-iron LOC.in CL1-person CL1-one  
 ù-mwónə ù běhe dī ù ɲà ɲáŋə  
 CL1-one CL1 (B)exit CL17.DET CL1 (A)stay.IPFV (B)be.good  
 ù-nè  
 CL1-person  
 “It’s that it’s true what they always say how a man who goes to prison  
 [lit. iron house], [it’s] just one here and there [lit. one one person]<sup>14</sup>  
 who comes out from there and goes on to lead the life of a good man.”  
 (Munken)

Esther:

- (A.105) ù kwí tsín~tsǒŋò  
 CL1 (c)enter VFOC~(B)see.Q.POLAR  
 “He has been [to prison]?” (Munken)

Belta:

- (A.106) à tsā dàha jē ù bō tɛ̀ù jī wǒŋə  
 DS (A)know S.NEG COMP CL1 COM CL1.wife 3SG.POSS CL1.DEM.PROX  
 lō dǒhə fə  
 P3 (A)start.IRR where  
 “You don’t know where he and his wife got started?” (Munken)
- (A.107) jíè á-mjú ú-kpě kī-nôŋə mī ù lē dǒhə  
 Q.POLAR.POS CL12-thing CL3-house CL13-iron LOC.in CL1 P3 (A)start  
 à çé wù wù lō tsǒŋə fə  
 2SG (c)think CL1 CL1 P3 (B)see.IRR where  
 “Didn’t the thing start in prison? Where do you think he saw her?”  
 (Munken)
- (A.108) ù nàŋ=ā ú-kpě kī-nôŋə fān á-mjú ì-çǎ  
 CL1 (A)go=PRF CL3-house CL13-iron CL16.DEM CL12-thing CL5.INF(A)steal  
 ǎ wô dà  
 2SG.NEG (c)hear D.NEG.Q  
 “He went to prison for stealing. You haven’t heard?” (Munken)

<sup>13</sup> Sic in fieldnotes. See example (8.116) for the likely ‘full’ form.

<sup>14</sup> In Pidgin as in Mungbam, repeated numerals may have a distributive meaning. e.g., a price quoted in the market as *one one hundred* is to be interpreted as ‘one hundred [francs] each’. The meaning here, ‘one by one’, seems to be a related adverb-like sense.

- (A.109) wéj  
EXLAM  
“Vae!” (Munken)
- (A.110) náha nā ù-fèn fān  
(c)open.IRR (A)stay.IPFV.IRR CL1-mouth CL16.DEM  
“Here be opening your mouth. [i.e., go ahead and drop your jaw in shock]” (Munken)
- Esther:
- (A.111) wù jān ù-tɛɔlɔ lē tsɔŋ ú-kpé kī-nôŋɔ mī à  
CL1 thus CL1-female.ADJ P3 (B)see.IRR CL3-house CL13-iron LOC.in DS  
bò ù ɕǎ  
(A)B.COP CL1 (A)steal.IRR  
“So he saw the woman in prison, having stolen.” (Munken)
- (A.112) só, [à] bò ù bɛhe lɔ, à bò ù  
EXCLAM DS (A)B.COP CL1 (B)exit.IRR (A)VENT.IPFV DS (A)B.COP CL1  
tsɔŋ=ɔ wù  
(B)see=PRF CL1  
“Ohh, as he was coming out, then he saw her.” (Munken)
- (A.113) à há wô ɣkò bó lénə ā-ŋgjɔŋ nómò kə  
DS COND (c)hear as CL2 (B)tell.story CL12-story TOP CL12.DET  
“If you heard how they tell the story...” (Munken)

## Appendix B

# Glossary of noun and verb forms appearing in examples

Although mention is made in several places of individual wordlists used to inform generalizations about certain lexical and morphological properties of the language, to this point no single database unifying all known Mungbam words has been maintained. Though more limited in usefulness than a proper lexicon, the present glossary lists all words appearing in example sentences, with their glosses, and links to examples where they appear. Words have not been fully lemmatized, so in many cases different morphological variants of the same lexeme appear in separate entries. Entries of cognate words corresponding to different dialects have not been consolidated either, and so words with the same spelling and gloss may appear, if they are represented by different dialects. Finally, pronunciation variants of the same word may appear as distinct entries.

The words appear in two lists. In the first list (§B.1), they are sorted by Mungbam stem, and in the second (§B.2) by English gloss.

### B.1 Sorted by Mungbam stem

- ɕ-ágè** (MK): *n* CL19-maggi; (5.8)  
**ásó** (MK): *n* CL2-Isu; (8.74)  
**b=á** (MK): *n* CL2=NEG; (6.98)  
**bəh=a** (MK): *v* (B)exit=PRF; (8.16)  
**bəh=a** (MK): *v* (B)exit=PRF; (A.19)  
**bì~bèhɛ** (MK): *v* (B)VFOC~exit; (A.2)  
**bìm~bjun** (BY): *v* (B)VFOC~dance; (11.91)  
**bìm~bam** (AB): *v* (C)VFOC~answer; (11.90)  
**í-bú** (AB): *n* CL10-dog; (10.17)  
**ì-bí** (BY): *n* CL9-dog; (6.94)  
**ù-bóŋbə-té** (BY): *n* CL1-clean-ADJ; (12.7)  
**ù-bálə** (MK): *n* CL1-bad.ADJ; (7.12)  
**ù-bálə** (MK): *n* CL1-spoil.ADJ; (A.85)  
**ū-bálə** (MK): *n* CL3-spoil; (A.58)  
**ū-bálə** (MK): *n* CL3-spoil.ADJ; (A.57)  
**i-balə** (MK): *v* (B)spoil; (A.80)  
**bə~bɛ́-té** (NG): *n* CL2-red-ADJ; (12.40)  
**bɛ́** (AB): *n* CL2; (11.45)  
**bɛ́** (BY): *n* CL2.POSS; (10.128)  
**bɛ́** (NG): *n* CL2; (10.160)  
**bɛ́** (AB): *n* CL2; (10.92)  
**bɛ́** (AB): *n* CL2.DET; (10.92)  
**bɛ́** (AB): *n* CL2-LOC.OBJ; (10.112)  
**bɛ́** (AB): *n* CL2.POSS; (10.124)  
**bɛ́** (AB): *n* CL2; (11.86)  
**bɛ́** (BY): *n* CL2.DET; (11.23)  
**bɛ́** (BY): *n* CL2.POSS; (10.128)  
**bɛ́** (NG): *n* CL2; (13.49)  
**bɛ́** (BY): *n* CL2; (15.63)  
**bɛ́** (NG): *n* CL2-DS; (10.61)  
**bəhɛ** (NG): *v* (B)exit; (9.23)  
**bələ** (MS): *v* (B)exit; (9.11)  
**bəsə** (MS): *v* (B)exit; (8.23)  
**bəhɛ** (MK): *v* (B)exit; (10.117)  
**bəhɛ** (MK): *v* (B)exit; (8.107)  
**í-bí** (MS): *n* CL10-dog; (14.79)  
**bí** (AB): *n* CL8; (14.46)  
**bu** (BY): *v* (B)plait; (4.23)  
**bɔhɔ** (AB): *v* (B)ask; (11.45)  
**m-bɔhɔ** (NG): *v* (B)1SG-want; (9.3)  
**bɔxɔ** (AB): *v* (B)ask; (10.77)  
**bɔxɔ** (AB): *v* (B)search; (11.42)  
**bafə** (MK): *v* (B)spoil; (A.60)  
**baha** (AB): *v* (B)exit; (11.66)  
**m-baha** (AB): *v* (B)1SG-exit; (11.66)  
**baŋ** (MK): *v* (B)block; (10.82)  
**baŋ** (AB): *v* (B)cover; (10.74)  
**be** (BY): *v* (B)plait; (10.109)  
**boŋ** (MK): *v* (B)bind; (8.93)  
**boŋ** (MK): *v* (B)join; (8.110)  
**bú** (MS): *n* CL2; (6.39)  
**bu** (MK): *v* (B)clap; (A.73)  
**bufə** (BY): *v* (B)ask; (11.57)  
**buŋə** (MK): *v* (B)lock; (A.34)  
**bə~bì** (NG): *n* CL2-friends; (14.17)  
**bī** (MS): *n* CL8.DET; (4.21)  
**bì=a** (MK): *v* (C)give.birth=PRF; (10.16)  
**bì~bjafə** (MK): *v* (A)VFOC~belch; (11.50)  
**biju** (MS): *v* (C)stand.up; (13.65)  
**bìm~ban** (MK): *v* (A)VFOC~climb; (12.112)  
**í-bìm~bwínə** (MK): *n* CL10-red; (8.47)  
**m-bìm~banə** (MK): *v* (A)??-VFOC~really; (8.116)  
**i-bə=nə** (MK): *v* (A)PREP.INF-search=DAT; (A.56)  
**bəle** (BY): *v* (A)prove; (12.56)  
**bəle** (BY): *v* (A)prove; (12.23)  
**í-bàa** (AB): *n* CL8-bad; (8.71)  
**baha** (BY): *v* (A)butcher; (12.65)  
**bí~bālə** (NG): *n* CL8-bad.ADJ; (14.56)  
**buu** (AB): *v* (A)dig; (13.35)  
**bələ** (MS): *v* (B)exit; (6.80)  
**ū-bɛ́** (MK): *n* CL3-pan; (10.144)  
**bəhɛ** (MK): *v* (B)exit; (5.10)  
**kī~bàn** (MS): *n* CL7-shit; (6.17)  
**bā~bè** (MK): *n* CL12-COM.belly; (A.17)  
**bè** (MK): *n* CL2.DET.CLSBRK; (12.6)  
**ì-bú** (BY): *n* CL5-rain; (9.63)  
**ì-bí** (BY): *n* CL9-dog; (10.147)  
**bɔh=a** (MK): *v* (B)ask=PRF; (15.43)  
**à-bà** (MK): *n* CL12-bag; (A.10)  
**bá** (MK): *n* CL2-FUT; (7.18)  
**ba** (AB): *v* (B)arrange.in.basket; (8.135)  
**u-ba~baŋ** (BY): *v* (B)VFOC~lock; (13.16)  
**bafə** (MK): *v* (B)spoil; (A.75)  
**kə~báha** (BY): *n* CL12-side; (11.36)  
**ì-bàha** (AB): *n* CL5-rock; (10.158)  
**baha** (AB): *v* (A)butcher; (11.18)  
**baha** (MK): *v* (A)operate; (A.15)  
**ki-baha** (MS): *v* (B)bad; (14.28)  
**u-baha** (MS): *v* (C)spoil; (13.19)  
**balə** (MS): *v* (A)count; (11.77)  
**bam** (MK): *v* (C)accept; (A.44)  
**bam** (AB): *v* (C)accept; (11.68)  
**bamə** (MK): *v* (C)accept; (6.98)  
**ban** (BY): *v* (A)climb; (7.7)  
**ban** (MK): *v* (A)really; (A.84)  
**m-ban** (MK): *v* (A)1SG-really; (5.6)  
**ā-bántàn** (AB): *n* CL2-devil; (14.31)  
**banə** (MK): *v* (A)really; (6.18)  
**banə** (MK): *v* (A)really.CLSBRK; (A.2)  
**m̄-bāŋ** (BY): *n* CL1-NMLZ2-lock; (7.32)  
**baŋ** (AB): *v* (A)pray; (6.12)  
**baŋ** (BY): *v* (B)block; (12.109)  
**baŋɔ** (AB): *v* (A)pray; (10.88)  
**bé** (MK): *n* CL2; (8.42)  
**bē** (MK): *n* CL2.DET; (A.69)  
**bē** (MK): *n* CL2.POSS; (A.35)  
**ì-bé** (MK): *n* CL9-goat; (8.96)  
**bə~bjémə** (MK): *n* CL2-children; (15.38)

- bē-bjáŋhə** (NG): *n* CL2-children; (6.23)  
**bé-bjěmə** (MK): *n* CL2-children; (10.52)  
**bjɛn** (BY): *v* (B)dance; (11.23)  
**bě-bjaəŋ** (MK): *n* CL2-Ajumbu.person; (6.84)  
**bjɪnhə** (MK): *v* (B)dance; (9.4)  
**í-bjáŋ=ní** (AB): *n* CL5-PREP.INF-talk=DAT; (10.98)  
**ú-bjâm** (BY): *n* CL3-hunting; (4.33)  
**bjáŋ** (AB): *n* CL2-children; (10.76)  
**m-bjaŋ** (MS): *v* (B)1SG-talk; (8.24)  
**bjɪ** (MK): *v* (C)give.birth; (8.110)  
**bí-bjɛn** (BY): *n* CL8-DEM.PROX; (6.55)  
**í-bjêm** (MK): *n* CL8-CL8.DEM.PROX; (10.89)  
**bjɛn** (BY): *v* (B)dance; (12.31)  
**i-bjɛn** (MK): *v* (B)INF-dance; (11.35)  
**ú-bjîm** (MK): *n* CL3-thing; (10.91)  
**i-bjɪn** (MK): *v* (B)INF-dance; (6.2)  
**ú-bjîm** (MK): *n* CL3-thing; (10.21)  
**ì-bòho** (NG): *n* CL5-buttocks; (10.99)  
**bohə** (MS): *v* (B)ask; (10.19)  
**bohə** (MK): *v* (A)close; (A.74)  
**bohə** (MK): *v* (B)close; (A.73)  
**bú** (MK): *n* CL14; (13.62)  
**bū** (MK): *n* CL14.DET; (8.42)  
**bú** (MS): *n* CL2; (10.130)  
**bū** (MS): *n* CL2.DET; (6.80)  
**bú** (MS): *n* CL2.POSS; (9.40)  
**bú** (BY): *n* CL2-TOP; (12.50)  
**ì-bū** (MS): *n* CL5-rain; (9.65)  
**ì-bù** (BY): *n* CL9-chimpanzee; (8.75)  
**ì-bú** (MS): *n* CL9-goat; (10.118)  
**bu** (AB): *v* (A)dig; (8.121)  
**fī-bú-bá-lə** (NG): *n* CL19-REDBAD-ADJ; (9.29)  
**fī-bú-bálə** (NG): *n* CL19-spoil.ADJ; (5.7)  
**bu-bɛhɛ** (BY): *v* (B)VFOC-exit; (12.15)  
**bu-bwɔ** (BY): *v* (B)VFOC~be.tired; (11.48)  
**bu-bwɔ** (BY): *v* (B)VFOC~tired; (8.133)  
**bum~bam** (AB): *v* (C)VFOC~accept; (11.69)  
**bûn** (MS): *n* CL2-DEM.PROX; (15.2)  
**fī-bús** (BY): *n* CL19-cat; (8.29)  
**buu** (AB): *v* (A)dig; (9.32)  
**á-bûŋ** (MK): *n* CL12-dress; (12.98)  
**bí-bûŋ** (MK): *n* CL8-dress; (12.98)  
**m-bum~bjaŋ** (MS): *v* (B)1SG-VFOC~talk; (11.93)  
**bwɛl=a** (MK): *v* (B)be.tired=PRF; (7.12)  
**bwə** (BY): *v* (B)be.tired; (14.76)  
**bwɪn** (MK): *v* (B)write; (8.36)  
**bwɔ** (MK): *v* (B)tired; (12.80)  
**í-bwě** (BY): *n* CL10-goat; (11.63)  
**í-bwě** (BY): *n* CL10.DET; (14.67)  
**ù-bwîhu** (MK): *n* CL1-red; (6.36)  
**bwé** (NG): *n* CL2; (14.56)  
**bwē** (AB): *n* CL2.DET; (6.40)  
**bwē** (BY): *n* CL2.POSS; (4.33)  
**ì-bwé** (AB): *n* CL9-goat; (11.18)  
**bwé** (MS): *n* CL2; (10.118)  
**bwɛl=a** (MK): *v* (B)be.tired=PRF; (A.85)  
**bwəm** (AB): *n* CL14-DEM.PROX; (14.55)  
**ì-bwəm** (BY): *n* CL5-cup; (12.10)  
**bwəmbù** (AB): *n* CL14-DEM.PROX; (11.86)  
**bwən** (BY): *v* (A)pierce; (8.40)  
**bwən=nə** (MK): *n* CL14-DEM.PROX=DAT; (10.13)  
**bwənə** (MK): *v* (A)pin; (10.58)  
**bwě** (AB): *n* CL2; (12.94)  
**bwîn** (AB): *n* CL2.POSS; (10.92)  
**bwîn=né** (NG): *n* CL2=DAT; (12.66)  
**bwîn=ní** (AB): *n* CL2.POSS=DAT; (10.93)  
**í-bwînsə** (MK): *n* CL10-red; (12.77)  
**bwînə** (BY): *n* CL2.CL2.POSS; (14.53)  
**bwînə** (BY): *n* CL2.POSS; (6.68)  
**bwɪnə** (MK): *v* (A)pierce; (8.120)  
**bwɔ** (MK): *v* (B)clap; (A.72)  
**i-bwɔ** (BY): *v* (B)INF-be.tired; (14.76)  
**i-bwɔ** (MK): *v* (B)INF-tired; (12.80)  
**bé** (MK): *n* CL2; (15.45)  
**bé** (MK): *n* CL2.DET; (8.42)  
**bē** (MK): *n* CL2-LOC.OBJ; (10.117)  
**bé** (BY): *n* CL2-TOP; (12.50)  
**bə** (BY): *v* (A)search; (15.15)  
**kə-bən** (BY): *n* CL12-rat.mole; (15.21)  
**bī-bən** (BY): *n* CL8-rat.mole; (15.53)  
**bé** (MK): *n* CL2; (11.25)  
**bē** (MK): *n* CL2-LOC.OBJ; (11.2)  
**bē** (MK): *n* CL2-LOC.PRO; (11.12)  
**bē** (MK): *n* CL2.POSS; (2.1)  
**ń-bé** (MK): *n* CL6a-wine; (A.38)  
**bɛ=nə** (MK): *v* (A)search=DAT; (12.55)  
**i-bɛ=nə** (MK): *v* (A)PREP.INF-search=DAT; (12.17)  
**bɛh=a** (MK): *v* (B)exit=PRF; (12.18)  
**bɛhɛ** (BY): *v* (B)exit; (8.15)  
**bɛhɛ** (MK): *v* (B)exit; (11.10)  
**bɛhɛ** (MK): *v* (B)exit; (A.112)  
**bɛhɛ=nə** (MK): *v* (B)exit; (8.86)  
**bɛŋ** (MS): *v* (A)climb; (7.19)  
**bī** (NG): *n* CL1-friend; (14.19)  
**ū-bí** (BY): *n* CL3-year; (12.72)  
**bí** (NG): *n* CL8; (14.57)  
**bī** (AB): *n* CL8.DET; (12.75)  
**ì-bí** (BY): *n* CL9-dog; (8.15)  
**bí** (MS): *v* (C)bear; (12.64)  
**bí** (BY): *v* (C)born; (10.128)  
**bí** (BY): *v* (C)give.birth; (6.94)  
**bí** (BY): *v* (C)give.birth; (11.78)  
**i-bu=nu** (BY): *v* (B)INF-plait=DAT; (4.31)  
**biji** (MS): *v* (C)stand; (12.25)  
**bīn** (MS): *n* CL8-DEM.PROX; (13.55)  
**bija** (BY): *v* (C)stand; (12.57)  
**ā-bō** (MK): *n* CL12-heavens; (6.21)  
**bu** (AB): *v* (A)B.COP; (8.66)

- bó** (MK): *n* CL2; (14.35)  
**bɔ** (BY): *v* (A)search; (12.50)  
**bɔ** (MK): *v* (A)want; (8.96)  
**m-bɔ** (MK): *v* (A)1SG-search; (4.41)  
**m-bɔ** (NG): *v* (A)1SG-want; (12.53)  
**m-bɔ** (MK): *v* (A)1SG-look; (10.81)  
**m-bɔ** (MK): *v* (A)1SG-search; (10.32)  
**bɔ** (MK): *v* (A)B.COP; (A.111)  
**bɔ** (MK): *v* (c)flirt; (A.51)  
**bɔfə** (BY): *v* (B)ask; (10.111)  
**m-bɔfə** (MK): *v* (B)1SG-ask; (12.107)  
**bɔfə** (BY): *v* (c)ask; (10.80)  
**ā-bóhɔ** (MK): *n* CL6-buttocks; (A.2)  
**bɔhɔ** (NG): *v* (c)ask; (10.73)  
**bɔnə** (MK): *v* (A)prove; (8.86)  
**ba** (AB): *v* (B)pack.in.basket; (10.124)  
**bafə** (MK): *v* (B)spoil; (A.70)  
**bam** (MK): *v* (c)accept; (8.136)  
**bamə** (MK): *v* (c)accept; (10.101)  
**ban** (MK): *v* (A)really; (A.70)  
**m-bāŋ** (BY): *n* CL1-NMLZ2-lock.IRR; (7.27)  
**m-bo** (MK): *v* (A)1SG-dig; (9.44)  
**boŋ** (MK): *v* (B)cover; (5.9)  
**á-ǰám** (MK): *n* CL12-heart; (6.33)  
**í-ǰám** (MK): *n* CL5-heart; (8.62)  
**ǰe** (MK): *v* (c)insult; (A.78)  
**í-ǰe** (MK): *v* (c)INFinsult; (A.77)  
**í-ǰé** (MK): *n* CL10-fowl; (11.82)  
**ú-ǰé** (MK): *n* CL3-knife; (12.95)  
**b=ú-ǰé** (MK): *n* CL3-COM=knife; (10.35)  
**í-ǰé** (MK): *n* CL4-knife; (5.10)  
**í-ǰéhe** (BY): *n* CL5-thirst; (10.8)  
**í-ǰí** (AB): *n* CL10-animal; (13.54)  
**ǰí** (MK): *n* CL19.POSS; (14.47)  
**ǰi** (MK): *v* (B)stay.day; (8.60)  
**í-ǰí** (AB): *n* CL10-fowl; (13.26)  
**ǰí-ǰá** (AB): *n* CL19-knife; (11.18)  
**á-ǰám** (BY): *n* CL6-heart; (15.32)  
**ǰá-ǰǎŋ** (AB): *n* CL16-stream; (14.42)  
**á-ǰǎŋ** (NG): *n* CL6-sand; (8.7)  
**í-ǰéhe** (AB): *n* CL5-fireside; (8.66)  
**ú-ǰú** (MK): *n* CL3-door; (14.48)  
**ǰi=aa** (MK): *v* (B)stay.day=PRF.Q.POLAR; (8.55)  
**ǰi-ǰelə** (MK): *v* (A)VFOC-work; (13.9)  
**ǰi-ǰelə** (MK): *v* (A)VFOC-work.farm; (11.88)  
**ì-ǰélə** (MK): *n* CL5-INF-work; (8.103)  
**í-ǰelə** (MK): *v* (A)INF-work; (A.9)  
**í-ǰelə** (MK): *v* (A)INF-work; (9.21)  
**ǰələ** (MK): *v* (A)loosen; (14.84)  
**ì-ǰùnə** (MK): *n* CL5-INF-play; (14.23)  
**ī-ǰé** (MK): *n* CL9-fowl; (10.155)  
**bì-ǰé** (MK): *n* COM.CL9-fowl; (10.101)  
**bì-ǰé** (MK): *n* CL9-COM.fowl; (8.136)  
**ǰì** (MK): *n* CL19.POSS; (8.93)  
**ì-ǰì** (BY): *n* CL9-fowl; (8.129)  
**ì-ǰù** (BY): *n* CL9-fish; (6.32)  
**ì-ǰù<sub>i</sub>** (BY): *n* CL9-fish; (12.62)  
**í-ǰəŋə=nə** (NG): *n* CL5-PREP.INF-play=DAT; (8.81)  
**ì-ǰà** (MS): *n* CL9-meat; (14.89)  
**ǰí-ǰám** (MK): *n* CL6a-blood; (10.117)  
**ǰo** (AB): *v* (B)stay.day; (12.75)  
**ǰo** (MK): *v* (c)insult; (A.90)  
**ǰoa** (MS): *v* (A)loosen; (6.3)  
**ǰoooo** (MK): *v* (c)insult; (A.90)  
**ǰu** (MK): *v* (B)scrape; (11.54)  
**ǰu** (MK): *v* (c)want; (A.58)  
**í-ǰéŋ** (MK): *n* CL5-next; (A.2)  
**ī-ǰē** (BY): *n* CL9-fowl; (12.71)  
**ǰe** (MK): *v* (A)insult; (12.85)  
**ǰe** (MK): *v* (c)insult; (12.84)  
**ǰe** (BY): *v* (c)say; (15.21)  
**ǰe** (MK): *v* (c)think; (A.107)  
**ǰefə** (MK): *v* (A)laugh; (9.1)  
**ǰelə** (MK): *v* (A)work.farm; (11.16)  
**í-ǰelə** (MK): *v* (A)INF-work; (13.9)  
**ǰenə** (MK): *v* (c)insult; (A.61)  
**ǰefə** (BY): *v* (A)laugh; (10.80)  
**ǰí** (MK): *n* CL19; (10.51)  
**ǰī** (AB): *n* CL19.DET; (10.135)  
**ǰī** (MK): *n* CL19-LOC.OBJ; (10.58)  
**ì-ǰì** (MK): *n* CL9-mean; (15.57)  
**ì-ǰì** (MK): *n* CL9-meat; (11.53)  
**ǰi** (BY): *v* (A)discuss; (12.73)  
**ǰi** (NG): *v* (A)tell; (15.61)  
**ǰi** (MK): *v* (A)want; (8.92)  
**ǰi** (MK): *v* (A)work; (11.25)  
**ǰ-ǰi** (BY): *v* (B)1SG-want; (12.73)  
**í-ǰi** (MK): *v* (B)PREP.INF-stay.day; (13.21)  
**ǰi** (NG): *v* (c)be.full; (14.33)  
**ǰi** (NG): *v* (c)be.many; (14.32)  
**ǰi** (MK): *v* (c)think; (15.1)  
**ǰi** (MK): *v* (c)want; (A.59)  
**ǰ-ǰi** (BY): *v* (c)1SG-say; (9.43)  
**ì-ǰī** (MS): *n* CL9-fowl; (10.70)  
**ǰu** (NG): *v* (B)stay.day; (8.69)  
**ǰu** (NG): *v* (B)stay.day; (8.59)  
**ǰo** (MK): *v* (c)insult; (A.82)  
**ǰo** (MK): *v* (c)insult; (A.79)  
**ǰo** (MK): *v* (c)say; (A.35)  
**ǰo** (BY): *v* (c)stay.day; (5.4)  
**ǰəŋə** (NG): *v* (c)play; (12.41)  
**ī-ǰám** (MK): *n* CL5-heart; (10.72)  
**bú-ǰôn** (MK): *n* CL14-cowpea.leaves; (10.13)  
**ī-ǰù** (BY): *n* CL10-fish; (8.37)  
**ǰu:::** (MK): *v* (c)insult; (10.48)  
**ǰo** (MK): *v* (c)think; (15.56)  
**ī-ǰé** (AB): *n* CL9-fowl; (12.105)  
**ǰelə** (MK): *v* (A)work; (12.102)

- dīm** (AB): *v* (B)deep; (8.132)  
**danə=nə** (BY): *v* (C)go.away=DAT; (7.25)  
**de** (BY): *v* (C)say; (12.23)  
**i-du=nə** (BY): *v* (B)PREP.INF-carry.water=DAT; (12.9)  
**dī=a** (MK): *v* (C)say=PRF; (15.28)  
**dī~du** (BY): *v* (A)VFOC~burn; (12.13)  
**ù-dəŋ-lə** (BY): *n* CL1-dirty-ADJ; (12.7)  
**dɔ** (MS): *v* (A)D.COP.; (14.21)  
**dɔhɔ** (MK): *v* (A)start; (A.107)  
**dɔhɔ** (MK): *v* (A)start; (A.106)  
**dɔhɔ** (MK): *v* (A)start; (15.1)  
**i-dee-tə** (BY): *v* (A)INF-cook-; (6.31)  
**í-dè-tó=nó** (BY): *n* CL5-PREP.INF-cook-INF=DAT; (12.60)  
**dān** (MK): *n* CL17-DEM; (6.8)  
**do** (BY): *v* (B)carry.water; (12.34)  
**í-dùŋ** (AB): *n* CL5-bush; (9.30)  
**kə-dé** (BY): *n* CL12-machete; (12.29)  
**dɔhɔ** (MK): *v* (A)start; (10.96)  
**da** (AB): *v* (C)say; (8.106)  
**da** (AB): *v* (C)say.PREP; (8.121)  
**da** (BY): *v* (C)talk; (6.67)  
**dān** (MK): *n* CL17-here; (12.22)  
**dān** (MK): *n* CL17-DEM; (9.21)  
**í-dāŋ** (AB): *n* CL5-LOC.comb; (12.75)  
**de** (NG): *v* (A)cook; (8.123)  
**de** (BY): *v* (A)cry; (8.131)  
**de** (MS): *v* (C)cry; (6.65)  
**de** (NG): *v* (C)say; (12.67)  
**de** (BY): *v* (C)say; (12.23)  
**n-de** (BY): *v* (C)1SG-talk; (12.73)  
**de=a** (MK): *v* (C)say=PRF; (11.41)  
**de=ə** (BY): *v* (A)cook=PRF; (12.7)  
**deə** (BY): *v* (C)say; (15.63)  
**dō** (NG): *n* CL17.DET; (9.29)  
**doə** (MK): *v* (A)cry; (15.51)  
**du** (MS): *v* (A)be.many; (10.63)  
**kə-du-lə** (BY): *v* (B)carry.water-; (12.99)  
**du=ə** (BY): *v* (A)burn=PRF; (11.22)  
**bə-duckfowl** (BY): *n* CL2-duck; (6.92)  
**í-dùŋ** (AB): *n* CL5-bush; (10.31)  
**dzen** (BY): *v* (A)search; (12.33)  
**dzin-dzɔŋ** (MS): *v* (B)VFOC~be.good; (8.23)  
**í-dzísə** (MS): *n* CL5-eye; (9.45)  
**í-dzísə** (MS): *n* CL5-place; (9.65)  
**dzə** (BY): *v* (C)call; (10.156)  
**á-dzéhà** (MK): *n* CL6.eye.2SG.POSS; (A.40)  
**á-dzéhɛ** (MK): *n* CL6-eye; (11.40)  
**dze** (MK): *v* (B)travel; (A.76)  
**n-dzelɔ** (MK): *v* (B)1SG-travel; (10.24)  
**dzɔŋ** (MS): *v* (B)be.fine; (6.19)  
**dzi-dza** (MK): *v* (A)VFOC~lack; (5.6)  
**í-dzəmə** (NG): *n* CL5-back; (6.66)  
**í-dzàn** (MK): *n* CL5-hunger; (10.9)  
**ā-dzàŋ** (AB): *n* CL12-fly; (11.45)  
**ì-dzām** (AB): *n* CL5-back; (10.135)  
**dzan** (NG): *v* (A)stay; (12.41)  
**dzan** (NG): *v* (A)stay; (14.88)  
**n-dzan** (NG): *v* (A)1SG-stay; (13.47)  
**dzan=a** (NG): *v* (A)stay=PRF; (12.59)  
**dzan=a** (NG): *v* (C)stay=PRF; (8.101)  
**i-dzan=nə** (NG): *v* (A)PREP.INF-stay=DAT; (10.94)  
**dze** (MK): *v* (A)plant; (5.5)  
**dze** (BY): *v* (A)pour; (8.32)  
**dze** (BY): *v* (A)put; (8.40)  
**dze** (MK): *v* (A)put; (6.35)  
**dze** (MK): *v* (A)wear; (13.20)  
**dze** (MK): *v* (A)wear; (11.88)  
**i-dze** (MK): *v* (A)PREP.INF-travel; (8.136)  
**i-dze** (MK): *v* (A)PREP.INF-travel; (13.4)  
**i-dzelə** (MK): *v* (B)INF-travel; (10.24)  
**dzɛɔ** (AB): *v* (C)go.away; (10.59)  
**dzi~dzi** (BY): *v* (B)VFOC~eat; (12.13)  
**á-dzā** (MK): *n* CL6-corn; (14.62)  
**a-dzi-lə** (MK): *v* (B)eat-; (12.104)  
**u-dzu-lə** (BY): *v* (B)fear-; (6.28)  
**á-dzě** (MK): *n* CL12-eat.ADJ; (15.64)  
**á-dzě** (MK): *n* CL6-corn; (14.7)  
**dzɛ** (MS): *v* (A)share; (4.19)  
**a-dzɛ** (MK): *v* (B)CL6-eat; (10.122)  
**á-dzěɛ** (MK): *n* CL6-corn; (12.54)  
**dzi** (AB): *v* (B)eat; (10.76)  
**n-dzi** (BY): *v* (B)1SG-eat; (11.48)  
**n-dzāha** (AB): *n* CL6-corn; (8.135)  
**á-dzěhe** (BY): *n* CL6-eye; (13.16)  
**dzɔ** (MS): *v* (B)fear; (7.26)  
**dzɔ** (AB): *v* (B)fear; (10.142)  
**n-dzɔ** (MK): *v* (B)1SG-fear; (10.113)  
**dzi=a** (NG): *v* (B)eat=PFV; (9.48)  
**dzi-dza** (MK): *v* (A)VFOC~steal; (11.102)  
**ù-dzì** (BY): *n* CL1-thief.ADJ; (12.33)  
**dzɔ** (MK): *v* (A)steal; (A.111)  
**i-dzɔ** (MK): *v* (A)INFsteal; (A.108)  
**i-dzɔŋgbə-tɛi** (AB): *v* (A)sweet-; (12.24)  
**n-dzi** (MK): *v* (B)1SG-eat.; (11.53)  
**ì-dzāha** (AB): *n* CL5-hole; (8.132)  
**n-dzɔ-nə** (MS): *v* (B)INF-fear-INF; (7.26)  
**dzum** (MS): *v* (B)jump; (6.80)  
**dzɔ** (MK): *v* (A)share; (A.27)  
**dzɔ** (MK): *v* (A)steal; (11.101)  
**dzɔ** (AB): *v* (A)steal; (10.74)  
**dzɔ** (MS): *v* (C)go.away; (12.25)  
**dzámàn** (MS): *n* CL1-Germans; (14.44)  
**dzɔ** (NG): *v* (B)eat; (8.65)  
**dzɔ** (MK): *v* (B)eat.IPV; (15.56)  
**bā-dzóhó** (MS): *n* CL2-ten; (6.44)  
**dzɔə** (MK): *v* (B)eat; (10.51)

- ɕu** (AB): *v* (A)break; (10.135)  
**ɕu** (AB): *v* (A)go.away; (10.55)  
**ɕu** (MS): *v* (A)grind; (10.85)  
**ɕu** (AB): *v* (A)put; (8.135)  
**ɕu** (AB): *v* (A)put; (10.124)  
**ɕu** (NG): *v* (A)throw; (10.160)  
**ɕu** (BY): *v* (B)eat; (10.8)  
**ɕu** (MK): *v* (C)go.away; (10.117)  
**n-ɕu-ɕu** (MK): *v* (B)1SG-VFOC~fear; (11.47)  
**ɕu~ɕu** (BY): *v* (A)VFOC~break; (6.63)  
**bì-ɕūn** (MS): *n* CL8-Missong; (13.65)  
**bí-ɕūn** (MS): *n* CL8-missong; (9.22)  
**bí-ɕūn** (MS): *n* CL8-missong.people; (10.50)  
**ɕun=a** (MK): *v* (C)go.away; (7.20)  
**ɕunə** (BY): *v* (C)go.away; (6.31)  
**ɕuə** (MK): *v* (B)eat; (15.51)  
**ɕuə** (BY): *v* (B)eat; (6.68)  
**ɕən** (BY): *v* (A)just; (9.28)  
**ɕəŋ** (MS): *v* (C)doubt; (15.31)  
**ɕɛ** (BY): *v* (A)share; (15.53)  
**á-ɕélə** (MK): *n* CL12-eat.ADJ; (11.12)  
**a-ɕelə** (MK): *v* (B)CL?-eat; (11.2)  
**ɕen** (AB): *v* (C)go.away; (9.30)  
**í-ɕúlə** (MK): *n* CL5-feather; (10.58)  
**ì-ɕì** (BY): *n* CL5-hole; (15.21)  
**ì-ɕì** (BY): *n* CL5-sound; (12.109)  
**ì-ɕì** (BY): *n* CL5-voice; (10.80)  
**ɕi** (AB): *v* (A)bury; (9.32)  
**ɕi** (AB): *v* (A)put; (8.121)  
**ɕi** (AB): *v* (B)eat; (10.76)  
**n-ɕi** (BY): *v* (B)1SG-eat; (8.133)  
**n-ɕi** (BY): *v* (A)1SG-steal; (15.10)  
**í-ɕí-nó** (NG): *n* CL5-PREP-INF-eat-DAT; (10.99)  
**ɕi** (AB): *v* (A)plant; (11.37)  
**ɕi=a** (BY): *v* (B)eat=PRF; (12.60)  
**bí-ɕun** (MS): *n* CL8-missong; (14.20)  
**ɕu** (AB): *v* (A)put; (12.94)  
**dzo** (MK): *v* (A)put; (10.39)  
**ì-dzòm** (MS): *n* CL5-war; (6.65)  
**ù-dzù** (BY): *n* CL1-DEM.DIST; (10.156)  
**ɕu** (BY): *v* (A)put; (8.134)  
**ɕu** (NG): *v* (A)travel; (8.59)  
**ɕə** (MS): *v* (A)put; (10.50)  
**ɕə** (BY): *v* (A)tether; (10.36)  
**ì-ɕəm** (MK): *n* CL5-back; (14.47)  
**í-ɕə̀sə** (MS): *n* CL5-place; (6.13)  
**ì-ɕə̀ŋ** (MK): *n* CL5-labor.collective; (A.7)  
**ɕɛ** (NG): *v* (C)call; (8.14)  
**ɕɛ** (NG): *v* (C)call; (12.100)  
**ɕɛ=a** (NG): *v* (C)call=PRF; (15.24)  
**bə̀-ɕèn** (AB): *n* CL2-DEM.DIST; (6.88)  
**ɕə** (MK): *v* (A)plant; (8.120)  
**dzo** (NG): *v* (C)call; (12.40)  
**ɕə̀** (MK): *v* (C)call; (15.45)  
**ɕə̀ŋ** (MK): *v* (A)again; (8.90)  
**ɕə̀ŋ=ə** (BY): *v* (A)again=PRF; (8.89)  
**ɕə̀ŋ=ə** (MK): *v* (A)again=PRF; (8.88)  
**ɕə̀ŋə** (MK): *v* (C)call; (A.7)  
**ɕə̀ŋə** (MK): *v* (A)again; (A.28)  
**ɕə̀ŋə** (AB): *v* (B)be.good; (11.3)  
**bì-dzāŋ** (AB): *n* CL8-fly; (12.75)  
**ɕo** (AB): *v* (C)call; (10.134)  
**dən** (BY): *v* (C)go.away; (6.92)  
**dən** (BY): *v* (C)leave; (9.10)  
**dənə** (BY): *v* (C)leave; (9.35)  
**á-dê** (MS): *n* CL6-bean; (4.14)  
**dī** (MK): *n* CL17-DEM; (10.123)  
**dī** (MK): *n* CL17.DET; (14.24)  
**ú-dí** (MS): *n* CL3-world; (13.19)  
**dí** (NG): *v* (A)be.many; (12.53)  
**dí** (NG): *v* (C)be.many; (8.44)  
**dí** (MK): *v* (C)say; (8.87)  
**dí** (MK): *v* (C)say; (11.47)  
**dí** (MK): *v* (C)stay; (8.124)  
**dí** (MK): *v* (C)talk; (10.81)  
**n-dí** (MK): *v* (C)1SG-say; (A.75)  
**n-dí** (MK): *v* (C)1SG-say; (8.126)  
**n-dí** (MK): *v* (C)1SG-say; (8.86)  
**dīm** (BY): *n* CL17.DET; (11.67)  
**díə** (MK): *v* (C)say; (8.9)  
**də** (MS): *v* (A)D.COP; (14.22)  
**də̀hə** (MK): *v* (A)again; (9.39)  
**də̀hə** (MK): *v* (A)start; (9.39)  
**kək-w-ē** (BY): *n* CL1-frog; (12.8)  
**è** (AB): *n* CL5.DET; (12.94)  
**fə=a** (MK): *v* (B)give=PRF; (8.94)  
**í-fələ=ní** (AB): *n* CL5-PREP-INF-work=DAT; (10.92)  
**fí-fələ** (BY): *v* (C)VFOC-entangle; (6.67)  
**bí-ffé** (BY): *n* CL8-new; (14.54)  
**bí-ffí** (BY): *n* CL8-new; (14.50)  
**bā-ffá=ná** (MS): *n* CL2-two=DAT; (6.44)  
**fə** (NG): *v* (B)give; (10.75)  
**m-fə** (NG): *v* (B)1SG-give; (10.83)  
**fí** (AB): *v* (B)give; (10.141)  
**m-fí** (BY): *v* (B)1SG-give; (13.58)  
**fəŋ** (MK): *v* (B)remain; (11.46)  
**m-fəŋ** (MK): *v* (B)1SG-remain; (10.24)  
**fə** (MS): *v* (B)give; (10.125)  
**fələ** (MS): *v* (B)give; (10.118)  
**ú-fūŋ** (AB): *n* CL3-slipknot; (10.29)  
**bí-fūŋ** (MS): *n* CL8-new.ADJ; (6.24)  
**i-fələ** (AB): *v* (A)INF-work; (6.64)  
**i-fələ** (AB): *v* (A)INF-work; (6.9)  
**ū-fən** (MK): *n* CL3-mouth; (A.58)  
**ì-fē** (MK): *n* CL5-head; (14.39)  
**fə** (AB): *v* (B)give; (10.126)  
**ì-fí** (BY): *n* CL5-head; (6.54)  
**fí** (AB): *v* (B)give; (10.42)



- bā-fūn** (NG): *n* CL2-two; (6.23)  
**fā** (MS): *n* CL16-here; (15.2)  
**fā** (MS): *n* CL16.DET; (9.24)  
**bā-fā** (MS): *n* CL2-two; (10.20)  
**ì-fā** (MK): *n* CL5-head; (A.37)  
**fa** (BY): *v* (B)give; (10.41)  
**fa** (MK): *v* (B)give; (10.21)  
**fān** (MK): *n* CL16-here; (9.34)  
**fānə** (MS): *n* CL16-DEM; (12.70)  
**fānə** (MS): *n* CL16-here; (9.33)  
**fānɔ** (AB): *n* CL16-here; (6.9)  
**fānɔ** (AB): *n* CL16-DEM; (9.19)  
**fāŋ** (AB): *n* CL16-CL16.here; (9.32)  
**fā** (MS): *n* CL16.DET; (12.70)  
**bā-fā** (MS): *n* CL2-two; (6.80)  
**fa** (MK): *v* (A)off; (10.25)  
**fa** (MK): *v* (B)suffer; (A.35)  
**fāŋ=a** (BY): *v* (B)remain=PRF; (12.29)  
**faha** (MK): *v* (A)extract; (11.10)  
**faha** (MK): *v* (A)fold; (8.96)  
**fān** (MK): *n* CL16-DEM; (A.108)  
**fān=a** (MK): *v* (A)sell=PRF; (10.78)  
**fana** (MK): *v* (A)sell; (6.18)  
**fānə** (MK): *v* (A)sell; (A.33)  
**fē** (MK): *n* CL16.DET; (12.96)  
**bā-fē** (MK): *n* CL2-two; (A.26)  
**fe** (MK): *v* (A)off; (11.2)  
**fe** (MK): *v* (A)off; (8.9)  
**fē** (MK): *n* CL16.DET; (8.36)  
**ú-fjě** (BY): *n* CL3-door; (6.53)  
**fjê** (MS): *n* CL19.POSS.CLSBRK; (6.17)  
**fjɛfə** (BY): *v* (C)blow; (8.134)  
**fjé** (MS): *n* CL19-COND; (6.17)  
**fě-fjəŋ** (BY): *n* CL16-stream; (6.31)  
**fě-fjəŋ** (BY): *n* CL16-stream; (8.37)  
**ā-fú** (MK): *n* CL6-day; (15.37)  
**fu** (MK): *v* (A)off; (5.10)  
**i-fu** (MK): *v* (A)INF-rot; (11.34)  
**fuj** (MK): *v* (A)help; (14.4)  
**fwəmfə** (MK): *v* (B)worry; (12.35)  
**ú-fwĩ** (BY): *n* CL3-hair; (4.23)  
**bú-fwĩ** (BY): *n* CL3-COM.hair; (4.29)  
**í-fwĩ** (BY): *n* CL4-hair; (4.31)  
**fwam** (MS): *v* (B)scatter; (13.29)  
**fwam** (MS): *v* (B)scatter; (13.30)  
**fwam** (MS): *v* (B)scatter; (14.65)  
**fwē** (AB): *n* CL16.DET; (9.31)  
**ā-fwé** (BY): *n* CL6-time; (15.40)  
**fwolə** (MK): *v* (A)borrow; (8.16)  
**fwom** (AB): *v* (B)struggle; (12.75)  
**fwələ** (MK): *v* (A)borrow; (8.94)  
**fwəm** (BY): *v* (B)struggle; (11.78)  
**fwəmho** (AB): *v* (A)disturb; (12.75)  
**ā-fwómə** (MK): *n* CL6-day; (13.62)  
**ā-fwómə** (MK): *n* CL6-days; (8.91)  
**ā-fwónə** (MK): *n* CL6-day; (8.17)  
**ā-fwúnə** (NG): *n* CL6-day; (8.123)  
**fwom** (NG): *v* (B)struggle; (8.83)  
**fwómfə** (MK): *v* (C)worry; (11.41)  
**ā-fwé** (BY): *n* CL6-time; (15.40)  
**fə** (MS): *v* (A)off; (9.11)  
**m-fələ** (MK): *v* (C)1SG-tangle; (13.59)  
**ù-fən** (MK): *n* CL1-mouth; (12.17)  
**fənə** (MK): *v* (A)invert; (A.16)  
**bā-fè** (MK): *n* CL2-two; (7.17)  
**ā-fè** (MK): *n* CL6-two; (12.18)  
**fələ** (AB): *v* (A)work; (6.64)  
**fəŋ** (MS): *v* (A)sell; (15.54)  
**fí** (BY): *n* CL19; (12.7)  
**fī** (NG): *n* CL19.DET; (10.99)  
**fī** (BY): *n* CL19.POSS; (12.7)  
**kī-fī** (MS): *n* CL5-COM.head; (6.6)  
**ì-fī** (BY): *n* CL9-meat; (9.12)  
**fū** (BY): *v* (A)work; (9.25)  
**bā-fūn** (NG): *n* CL2-two; (11.52)  
**fī=né** (NG): *n* CL19.DET=DAT; (10.94)  
**m-fīn** (AB): *n* CL6(?)two; (6.46)  
**fīn** (MK): *v* (B)clear; (8.120)  
**bā-fō** (BY): *n* CL2-two; (6.92)  
**ā-fō** (BY): *n* CL6-two; (15.40)  
**fō** (MK): *v* (A)off; (8.9)  
**fōho** (MK): *v* (A)roast; (10.45)  
**fōho** (MK): *v* (B)roast; (10.87)  
**í-fē** (MK): *n* CL10-two; (6.85)  
**bó-fē** (MK): *n* CL2-two; (6.84)  
**foa** (MS): *v* (A)sell; (4.17)  
**í-gǔhu** (AB): *n* CL5-feather; (10.29)  
**í-gǔŋ** (BY): *n* CL10-pig; (6.68)  
**í-gǔho** (AB): *n* CL4-fire; (8.19)  
**kí-gúŋ** (BY): *n* CL13-spear; (8.40)  
**í-gúŋ** (BY): *n* CL5H-spear; (4.2)  
**gɔŋ** (BY): *v* (B)carry; (14.91)  
**gaŋ** (AB): *v* (B)carry; (10.93)  
**ganɔ** (MS): *v* (A)scrub; (10.157)  
**ú-gbáha** (NG): *n* CL3-air; (10.75)  
**ú-gbǒ** (BY): *n* CL3-rope; (12.32)  
**ú-gbě** (MK): *n* CL3-rope; (6.26)  
**gbabə** (MK): *v* (B)be.strong; (9.21)  
**gbabə** (MK): *v* (B)be.strong.Q.POLAR; (8.56)  
**gbabə** (MK): *v* (B)strong; (14.49)  
**ú-gbáha** (BY): *n* CL3-air; (8.134)  
**ú-gbáha** (NG): *n* CL3-wind; (15.48)  
**u-gbe-lə** (MK): *v* (A)fall-; (6.26)  
**gbe** (MK): *v* (A)fall; (14.70)  
**gbe** (BY): *v* (A)fall; (14.77)  
**u-gbe-lə** (MK): *v* (A)fall-; (6.25)  
**gbee** (MK): *v* (A)fall; (4.9)  
**gbée** (BY): *v* (A)fall; (4.5)

- gba** (NG): *v* (A)cut; (10.160)  
**gba** (MK): *v* (A)cut.down; (9.27)  
**gba** (BY): *v* (A)cut; (12.109)  
**gbabə** (MK): *v* (C)be.strong; (8.74)  
**gbabə** (MK): *v* (C)strong; (A.6)  
**gbe** (MS): *v* (A)chop; (6.6)  
**gbe** (MS): *v* (A)cut; (10.130)  
**gbe** (MK): *v* (A)fall; (11.82)  
**gbe** (MK): *v* (A)fall; (13.33)  
**gbe** (MK): *v* (A)fall.PFV; (12.77)  
**gbe** (MK): *v* (A)wait; (8.82)  
**i-gbe** (MK): *v* (A)INF-see; (9.50)  
**gbe=a** (MK): *v* (A)fall=PRF; (11.83)  
**gbe=nə** (MK): *v* (A)guide.corn=DAT; (12.54)  
**ḡ-gbò** (BY): *n* CL1-NMLZ2-cut.off; (7.30)  
**gbo** (BY): *v* (A)fall.IRR; (13.42)  
**gbo** (MK): *v* (A)fall; (15.50)  
**gbo** (MK): *v* (A)wait; (8.42)  
**gbu-gbe** (MK): *v* (A)VFOC~fall; (11.84)  
**gbu-gbe=a** (MK): *v* (A)VFOCfall=PRF; (11.85)  
**gbu-gbo** (BY): *v* (A)VFOC~wait; (6.70)  
**gbu-gbe** (BY): *v* (A)VFOC~fall; (7.4)  
**gbùkan** (BY): *n* CL1-papaya; (8.40)  
**gbu-gbe** (BY): *v* (A)VFOC~fall; (11.73)  
**gbə** (MS): *v* (A)establish; (12.70)  
**gbə** (MS): *v* (A)fall; (6.39)  
**i-gbəsə** (MS): *n* CL5-wound; (6.52)  
**ú-gbê** (MS): *n* CL3-rope; (6.3)  
**i-gbe** (BY): *v* (A)INF-fall; (7.23)  
**gee** (MK): *v* (C)go.around; (9.14)  
**gelə** (MK): *v* (C)go.around; (6.1)  
**gelə=nə** (MK): *v* (C)go.around=DAT; (10.101)  
**gjelə** (MK): *v* (A)cook; (12.97)  
**gjelə** (MK): *v* (A)cook; (9.51)  
**ū-gjālə** (MK): *n* CL3-boundary; (11.40)  
**gjəfə** (MK): *v* (A)be.long; (10.64)  
**gjəfə** (MK): *v* (A)long; (8.48)  
**gjəm** (MK): *v* (A)cure; (15.19)  
**ì-gobə** (BY): *n* CL5-body; (8.34)  
**gun** (AB): *v* (A)sleep; (8.66)  
**gunə** (AB): *v* (A)sleep; (10.108)  
**gəm** (MK): *v* (A)pay; (15.18)  
**i-gəm-nə** (BY): *v* (A)INF-pay-INF; (15.63)  
**gəm=a** (MK): *v* (A)pay=PRF; (7.20)  
**gɛ** (MK): *v* (A)be.heavy; (15.17)  
**gɛhɛ** (NG): *v* (A)shift; (10.40)  
**gi** (MK): *v* (C)be.many; (A.2)  
**gə** (MK): *v* (A)be.lazy; (8.104)  
**gəŋ** (BY): *v* (B)carry; (12.11)  
**gelə=nə** (MK): *v* (C)go.around=DAT; (8.136)  
**ha** (AB): *v* (A)descend; (9.60)  
**ú** (BY): *n* CL1-PREP.LOC.OBJ; (9.12)  
**hə** (AB): *v* (A)descend; (14.6)  
**hɛ** (MK): *v* (A)descend; (15.49)  
**ĩ** (BY): *n* CL10; (8.37)  
**í** (BY): *n* CL10; (6.68)  
**í** (NG): *n* CL10-TOP; (12.41)  
**ì** (BY): *n* CL5; (9.63)  
**ì** (AB): *n* CL5.DET; (12.75)  
**ì** (BY): *n* CL5-TOP; (12.10)  
**ì** (BY): *n* CL9; (8.15)  
**ì** (BY): *n* CL9-TOP; (12.33)  
**ì** (AB): *n* CL10.DET; (13.26)  
**jbdiŋ** (NG): *v* (B)stand.still; (8.59)  
**ji** (BY): *v* (C)build; (12.50)  
**u-ji-lə** (MK): *v* (C)build-; (6.30)  
**n-jəxə** (MS): *v* (C)1SG-run; (10.132)  
**jelə** (MK): *v* (B)excessively; (A.85)  
**jelə** (MK): *v* (B)very; (7.12)  
**jĩ** (BY): *n* CL10; (11.49)  
**jĩ** (MK): *n* CL9.POSS; (10.38)  
**kó-jǒhə** (BY): *n* CL12-jaw; (10.11)  
**jì** (BY): *n* CL5; (12.15)  
**jī** (MS): *n* CL5.DET; (4.17)  
**ji-ju** (MS): *v* (C)VFOC~ascend; (8.2)  
**ì-jə̀n** (BY): *n* CL5-DEM.PROX; (14.76)  
**ì-jə̀nə** (AB): *n* CL5-DEM.PROX; (12.24)  
**ì-jə̀n** (NG): *n* CL5-DEM.PROX; (14.9)  
**jì** (MK): *n* CL9; (8.99)  
**ā-jǒŋə** (AB): *n* CL12-thanks; (1.2)  
**ì-jǎ** (NG): *n* CL5-name; (15.24)  
**jě** (MK): *n* CL5-COP; (A.80)  
**já** (MK): *n* CL10-NEG; (10.97)  
**ì-jā** (NG): *n* CL5-name; (12.100)  
**ŋ-ja** (MK): *v* (C)1SG-sing; (6.62)  
**ì-jǎ=nó** (MK): *n* CL5-PREP-INF-sing=DAT; (10.96)  
**jaŋhə** (AB): *v* (C)quickly; (8.135)  
**u-jalə** (MK): *v* (A)run; (10.91)  
**jalə** (MK): *v* (C)run; (10.155)  
**ì-jǎlə=nó** (BY): *n* CL5-PREP-INF-run=DAT; (10.62)  
**jalə=nə** (MK): *v* (C)run=DAT; (10.97)  
**ì-jám** (MK): *n* CL5-name; (14.14)  
**ì-jām** (MK): *n* CL5-song; (15.8)  
**jam** (BY): *v* (C)sing; (13.60)  
**jam** (BY): *v* (C)sing; (13.61)  
**ì-jám=nó** (BY): *n* CL5-PREP-INF-sing=DAT; (8.89)  
**i-jam=nə** (BY): *v* (C)INF-sing=DAT; (12.9)  
**ì-jàŋ** (AB): *n* CL5-arm; (9.60)  
**jaŋhə** (MK): *v* (C)quickly; (8.139)  
**juə** (BY): *v* (C)ascend; (15.47)  
**juə** (MK): *v* (A)cut.vegetables; (12.97)  
**ŋ-juən** (BY): *v* (C)1SG-forget; (4.45)  
**jə** (BY): *v* (C)ascend; (8.26)  
**ì-jə̀n** (BY): *n* CL10-10.DEM; (12.88)  
**ì-jə̀n** (MK): *n* CL5-DEM.PROX; (12.80)  
**ì-jə̀nə** (MK): *n* CL5-DEM.PROX; (12.108)  
**jəŋ** (MS): *v* (C)forget; (8.138)  
**ì-jə̀ŋə** (MK): *n* CL5-DEM.PROX.Q.POLAR; (15.46)

- jē** (MK): *n* CL10.DET; (11.82)  
**ì-jē** (MS): *n* CL5-name; (15.27)  
**jē** (MK): *n* CL5.DET; (9.21)  
**jē** (MK): *n* CL5-DS; (14.29)  
**jē** (MK): *n* CL9; (10.25)  
**jē** (BY): *n* CL9.DET; (9.12)  
**jē** (MS): *v* (c)ascend; (8.72)  
**jē** (BY): *v* (c)ascend; (12.29)  
**jē=nó** (MK): *n* CL9.DET=DAT; (10.81)  
**jehē** (MK): *v* (c)stand; (10.82)  
**jehē** (MK): *v* (c)stand; (14.48)  
**jelə** (MK): *v* (A)be.quiet; (8.127)  
**jelə** (MS): *v* (c)ascend; (11.32)  
**jelə** (AB): *v* (c)be.quiet; (11.45)  
**jelə** (AB): *v* (A)be.quiet; (9.62)  
**í-jên** (NG): *n* CL5-DEM.PROX; (6.96)  
**ú-jenə** (MK): *n* CL3-tail; (8.142)  
**jī** (MK): *n* CL1.DET; (10.122)  
**jí** (BY): *n* CL10; (6.68)  
**jī** (BY): *n* CL10.DET; (6.68)  
**kə-jì** (AB): *n* CL12-god; (10.115)  
**jì** (BY): *n* CL5; (12.65)  
**ì-jì** (AB): *n* CL5-honey; (12.24)  
**jī** (NG): *n* CL5.CL5.DET; (14.9)  
**jī** (BY): *n* CL5.DET; (9.63)  
**jī** (MK): *n* CL5-LOC.OBJ; (10.65)  
**jì** (NG): *n* CL9; (10.40)  
**jī** (BY): *n* CL9.DET; (9.7)  
**jí** (MK): *n* CL9.POSS; (7.13)  
**jì** (MS): *v* (c)ascend; (6.24)  
**kə-jì** (AB): *n* CL12-god; (1.2)  
**ji=nə** (MK): *v* (A)cut.vegetables=DAT; (8.104)  
**ji=nə** (MK): *v* (c)cut.vegetables=DAT; (8.70)  
**jīn** (MS): *n* CL5-DEM.PROX; (9.65)  
**ì-jō** (MS): *n* CL5-honey; (4.17)  
**ì-jō** (MS): *n* CL5-honey; (4.15)  
**bə-jəŋ-ɔ** (NG): *v* (c)forget-; (8.105)  
**jəhə** (MS): *v* (c)run; (10.23)  
**n-jəhə-nə** (MS): *v* (c)INF-run-INF; (10.23)  
**jəxə** (AB): *v* (c)run; (10.158)  
**jəxə** (AB): *v* (c)run; (11.96)  
**ī-jōŋ** (BY): *n* CL5-gale; (10.136)  
**jəŋ** (MK): *v* (c)forget; (12.47)  
**jəŋ** (MK): *v* (c)forget; (8.61)  
**jəŋ** (MK): *v* (c)forget; (14.41)  
**ī-jōŋə** (MK): *n* CL5.CL5.DEM.PROX.CL5.DET; (A.1)  
**kələ** (MS): *v* (c)gather; (6.44)  
**ŋ-kəm** (BY): *n* CL1-NMLZ2-break; (7.31)  
**ù-kí** (MK): *n* CL1-small; (4.32)  
**ú-ká** (MK): *n* CL3-hand; (10.123)  
**b=ú-ká** (MK): *n* CL3-COM=hand; (11.30)  
**i-ku** (BY): *v* (c)PREP-INF-return; (7.25)  
**kó** (NG): *n* CL12; (12.20)  
**ú-kě** (NG): *n* CL3-hand; (10.75)  
**á-kě** (MK): *n* CL6-hand; (A.73)  
**á-kě** (MK): *n* CL6-hand; (A.72)  
**kí** (MS): *n* CL7; (6.17)  
**kə** (NG): *v* (B)hold; (8.7)  
**kəŋ** (MK): *v* (B)cover; (A.34)  
**á-kǒbə** (AB): *n* CL12-forest; (14.2)  
**ú-kǎ** (MK): *n* CL3-hand; (8.142)  
**b=ú-kǎ** (MK): *n* CL3-COM=hand; (10.39)  
**ka** (MK): *v* (B)ask.debt; (10.146)  
**bi-kaha-təi** (AB): *v* (A)tie-; (6.29)  
**ú-kǎn** (NG): *n* CL3-hand; (12.20)  
**kanə** (MS): *v* (B)hold; (10.53)  
**ŋ-kanə** (MS): *v* (B)1SG-have; (13.2)  
**kasə** (MS): *v* (A)tie; (4.20)  
**á-kǎŋ** (AB): *n* CL7-pan; (12.94)  
**ko** (MS): *v* (B)hold; (10.159)  
**ú-kóho** (BY): *n* CL3-foot; (6.90)  
**í-kú** (MS): *n* CL5-raphia; (9.22)  
**ku** (NG): *v* (B)catch; (14.56)  
**ku** (MK): *v* (B)hold; (10.1)  
**ki-ki** (MK): *v* (c)VFOC~also; (6.50)  
**ki-ki** (MK): *v* (c)VFOC~also; (A.69)  
**ki-kju** (MK): *v* (c)VFOC~also; (A.52)  
**ki-kju** (MK): *v* (c)VFOC~also; (A.51)  
**kí-kam** (MS): *v* (A)VFOC-break; (10.19)  
**kíŋ-kəm** (BY): *v* (A)VFOCslaughter; (11.74)  
**ì-kìkǎfə** (MK): *n* CL5-fence; (9.14)  
**u-kəm-ə** (MK): *v* (A)slaughter-; (14.11)  
**ŋ-kəhə** (MK): *v* (A)1SG-tie; (15.12)  
**kǎkwē** (BY): *n* CL1-frog; (13.58)  
**àŋ-kǎlə** (MS): *n* CL6a-corn.beer; (8.58)  
**ù-kǎm-ɔ** (AB): *n* CL1-butcher-ADJ; (14.64)  
**ù-kǎm-ɔ** (AB): *n* CL1-slaughter-ADJ; (14.18)  
**u-kam-ɔ** (AB): *v* (A)butcher-; (13.51)  
**u-kam-ɔ** (AB): *v* (A)slaughter-; (14.16)  
**āŋ-kē** (AB): *n* CL6-times; (6.46)  
**ī-kī** (MK): *n* CL5-stone; (10.65)  
**bə-kǒfə** (BY): *n* CL2-bone; (11.44)  
**kan** (MS): *v* (B)hold; (6.97)  
**ke** (AB): *v* (B)fry; (13.37)  
**ku** (BY): *v* (B)have; (13.3)  
**bū-kūm** (MS): *n* CL1-cottonwood; (10.19)  
**kī-kūn-nə** (MS): *n* village-CL13; (6.65)  
**ŋ-kəŋ** (MK): *v* (A)1SG-love; (A.93)  
**kəŋ** (AB): *v* (A)love; (8.118)  
**kəhə** (MK): *v* (A)just; (8.86)  
**ká** (MK): *n* CL12-COP; (A.81)  
**ka** (BY): *v* (c)fry; (11.44)  
**kafə** (MS): *v* (A)shout; (9.36)  
**kaha** (BY): *v* (A)tie; (14.60)  
**ŋ-kaha** (BY): *v* (A)1SG-tie; (15.40)  
**kam** (MS): *v* (A)again; (13.19)  
**kam** (AB): *v* (A)again; (9.55)  
**kam** (MS): *v* (A)break; (10.159)

- kam** (AB): *v* (A)slaughter; (11.56)  
**kam** (AB): *v* (A)slaughter; (13.54)  
**ḡ-kán** (AB): *n* CL6-hand; (10.31)  
**kan** (MK): *v* (B)scrape; (8.13)  
**ì-kànə** (AB): *n* CL9-monkey; (14.2)  
**kanə** (MS): *v* (B)hold; (8.6)  
**kanə** (MK): *v* (C)quarrel; (A.90)  
**kasə** (MS): *v* (A)tie; (4.21)  
**ḡ-kasə** (BY): *v* (A)1SG-tie; (9.49)  
**bi-kaŋ** (MK): *n* CL8-ridge; (8.120)  
**kaŋ** (AB): *v* (A)protect; (10.74)  
**bə-kjêŋ** (MK): *n* CL2-child; (15.39)  
**bə-kjêŋ** (MK): *n* CL2-children; (A.46)  
**bə-kjũŋ** (MK): *n* CL2-children; (12.35)  
**kjo** (MK): *v* (B)also; (8.102)  
**kju** (BY): *v* (B)finish; (14.30)  
**kjanə** (MK): *v* (A)rough; (14.47)  
**kjo** (MK): *v* (C)also; (A.87)  
**kje** (NG): *v* (C)finish; (8.97)  
**kjemə** (MK): *v* (A)sew; (15.33)  
**bə-kjêŋ** (MK): *n* CL2-children; (A.26)  
**ù-kjĩ** (BY): *n* CL1-ASSOC; (12.46)  
**bə-kjĩ** (MK): *n* CL2-children; (10.21)  
**ḡ-kjumə** (MK): *v* (A)1SG-sew; (12.22)  
**bə-kjũŋ** (MK): *n* CL2-children; (6.47)  
**ko** (MK): *v* (B)hold; (14.36)  
**koŋ** (MS): *v* (A)like; (9.61)  
**ú-kpǎfə** (MK): *n* CL3-money; (12.107)  
**fĩ-kpǎfə** (BY): *n* CL19-shed; (7.7)  
**bi-kpe-lə** (BY): *v* (B)die-; (6.27)  
**bi-kpelə** (BY): *v* (B)die; (6.42)  
**ú-kpǎ** (BY): *n* CL3-house; (10.136)  
**ú-kpǎ** (BY): *n* CL3-house; (9.5)  
**ú-kpǎ** (MS): *n* CL3-money; (4.30)  
**ú-kpǎbə** (AB): *n* CL3-money; (8.49)  
**mú-kpǎbə** (AB): *n* CL3-COM.money; (10.141)  
**ú-kpǎfə** (MK): *n* CL3-money; (9.21)  
**ú-kpǎhə** (MK): *n* CL3-money; (10.65)  
**ú-kpǎhə=nə** (MK): *n* CL3-money=DAT; (10.78)  
**kpaə** (MS): *v* (A)correct; (10.14)  
**ú-kpǎfə** (BY): *n* CL3-money; (8.80)  
**bú-kpǎfə** (BY): *n* COM.CL3-money; (10.139)  
**ú-kpǎha** (BY): *n* CL3-money; (14.37)  
**bú-kpǎha** (BY): *n* CL3-COM.money; (15.7)  
**kpaħa** (MS): *v* (A)last; (4.21)  
**kpan** (MK): *v* (B)be.correct; (13.62)  
**kpan** (MK): *v* (B)be.sufficient; (15.11)  
**kpan** (MK): *v* (B)correct; (10.13)  
**kpaŋħə** (AB): *v* (B)be.correct; (9.30)  
**ú-kpǎ** (BY): *n* CL3-house; (8.15)  
**í-kpǎ** (MK): *n* CL4-house; (12.18)  
**kpe** (BY): *v* (B)die; (4.8)  
**ú-kpǎ** (MK): *n* CL3-house; (A.32)  
**ì-kpũnə** (MS): *n* CL5-story; (6.91)  
**bĩ-kpǎ** (MK): *n* CL8-shoe; (11.88)  
**kpalə** (MS): *v* (B)be.sufficient; (6.48)  
**kpe** (BY): *v* (B)die; (13.13)  
**ḡ-kpǎ** (MK): *n* CL1-NMLZ2-cut.off; (7.34)  
**kpaŋ** (NG): *v* (A)shout; (7.5)  
**kə-kpa** (AB): *n* CL12-shoe; (14.43)  
**kpaħa** (MK): *v* (A)be.last; (8.108)  
**kpaħa** (MK): *v* (A)be.last; (8.107)  
**kpaħa** (AB): *v* (A)last; (10.29)  
**kpanə** (AB): *v* (A)roll; (9.60)  
**i-kpe** (NG): *v* (B)INF-die; (12.36)  
**kpe=a** (BY): *v* (B)die=PRF; (6.22)  
**kpe=a** (NG): *v* (B)die=PRF; (14.8)  
**kpo** (MK): *v* (B)cut.on.block; (14.59)  
**kpu~kpe** (BY): *v* (B)VFOC~die; (11.70)  
**kpanə** (MS): *v* (A)roll; (12.25)  
**kə-kpə** (BY): *n* CL12-shoe; (14.38)  
**kpelə** (NG): *v* (A)be.lat; (6.66)  
**kpuḡ** (AB): *v* (A)overstay; (7.6)  
**ḡ-kpə** (NG): *v* (B)1SG-die; (12.66)  
**í-fĩ** (NG): *n* CL10-animal; (12.41)  
**fĩ** (BY): *n* CL19; (8.21)  
**ú-fĩ** (MK): *n* CL3-hair; (10.38)  
**fũ** (AB): *v* (B)fly; (10.59)  
**fũ** (AB): *v* (B)give; (10.76)  
**m-fũ** (NG): *v* (B)1SG-give; (10.44)  
**ũ-fəŋ** (MK): *n* CL3-mouth; (A.56)  
**ì-fə** (MK): *n* CL5-head; (13.6)  
**fə** (NG): *v* (B)give; (12.61)  
**kĩ-fĩ** (MS): *n* CL5-COM.head; (10.130)  
**fũ** (BY): *v* (B)give; (12.99)  
**fũlə** (BY): *v* (B)give; (6.70)  
**fəŋ** (BY): *n* CL16-DEM; (15.25)  
**bə-fə** (MS): *n* CL2-two; (6.69)  
**fanə** (MK): *v* (A)sell; (13.18)  
**fə** (MK): *n* CL16.DET; (15.60)  
**bə-fə** (MK): *n* CL2-two; (A.26)  
**ù-fəŋ** (MK): *n* CL1-mouth; (A.110)  
**fə** (MK): *v* (A)off; (8.12)  
**fĩ** (NG): *n* CL19; (8.100)  
**fĩ** (BY): *n* CL19.DET; (7.7)  
**ì-fĩ** (BY): *n* CL5-head; (12.65)  
**bqé-fĩ** (AB): *n* CL2-two; (10.55)  
**bqé-fə** (BY): *n* CL2-two; (14.60)  
**kú** (BY): *n* as.CL1; (12.9)  
**kú** (BY): *n* as.CL1; (12.29)  
**kú** (AB): *n* VET.CL1; (8.95)  
**bĩ-kú** (MS): *n* CL8-Koshin; (6.6)  
**ku** (NG): *v* (A)go; (6.11)  
**ḡ-ku** (NG): *v* (A)1SG-go; (12.21)  
**ku** (MK): *v* (C)enter; (10.58)  
**ku** (AB): *v* (C)return; (9.30)  
**ku** (BY): *v* (C)return.from.bush; (9.41)  
**ku-kwə** (NG): *v* (C)RED~return.from.bush; (9.48)

- bí-kúŋ=nó** (MK): *n* CL8-bed-DAT; (8.57)  
**kuo** (BY): *v* (B)keep; (6.90)  
**kuo** (BY): *v* (c)enter; (12.11)  
**ku-kwe** (NG): *v* (c)VFOC~return; (12.44)  
**ì-kúkwálə** (MK): *n* CL5-old; (15.8)  
**i-kwaha** (NG): *v* (c)INF-gather; (12.38)  
**kwε** (MK): *v* (B)catch; (10.3)  
**kwε** (MK): *v* (B)have; (12.110)  
**kwε** (MK): *v* (B)hold; (7.12)  
**ŋ-kwε** (NG): *v* (B)1SG-hold; (7.14)  
**á-kwěhε** (MK): *n* CL6-foot; (7.13)  
**kwɔ** (AB): *v* (B)catch; (10.31)  
**ú-kwómə** (MK): *n* CL3-knife; (7.18)  
**kwi=a** (MK): *v* (c)enter=PRF; (8.93)  
**kwi=a** (BY): *v* (c)enter=PRF; (14.60)  
**ì-kwàn** (NG): *n* CL5-INF-shout; (12.45)  
**i-kwan** (NG): *v* (A)INF-shout; (12.4)  
**kwε** (MK): *v* (B)hold; (8.17)  
**n-kwε** (MK): *v* (B)1SG-hold; (6.33)  
**ū-kwàn=ná** (MS): *n* CL3-tree=DAT; (8.1)  
**ū-kwā=ná** (MS): *n* CL3-tree=DAT; (7.19)  
**kwaha** (AB): *v* (A)gather; (10.134)  
**kwaha** (MK): *v* (c)gather; (6.93)  
**ì-kwàm** (BY): *n* CL5-cowife; (6.55)  
**ū-kwān** (BY): *n* CL3-firewood; (14.78)  
**kwan** (MK): *v* (A)plan; (8.42)  
**kwanə** (MK): *v* (A)shout.at; (A.87)  
**kwáta** (MS): *n* CL1-quarter; (14.83)  
**à-kwē** (AB): *n* CL2-friend; (9.55)  
**á-kwē** (AB): *n* CL2-male.friend; (8.95)  
**kwo** (AB): *v* (c)return.home; (10.42)  
**ù-kwē** (MK): *n* CL1-female.friend; (10.122)  
**kí-kwē** (MK): *n* CL13-village; (6.47)  
**kwε** (MK): *v* (B)catch; (14.84)  
**kwε** (MK): *v* (B)hold; (8.142)  
**kwε** (MK): *v* (c)return.from.bush; (6.2)  
**kwε** (NG): *v* (c)return.home; (10.28)  
**i-kwε** (MK): *v* (c)INF-return.from.bush; (6.2)  
**kī-kwé-nó** (MK): *n* village-CL13; (8.46)  
**kwε=a** (MK): *v* (B)hold=PRF; (7.15)  
**à-kwèhε** (MK): *n* CL6-foot; (8.96)  
**ì-kwèhε** (NG): *n* CL9-bird.type; (7.5)  
**kwε** (MK): *v* (c)return.from.bush; (11.35)  
**kwi** (MK): *v* (c)enter; (A.105)  
**kwi** (MK): *v* (c)enter; (10.49)  
**bō-kwīn** (MK): *n* CL2-ten; (6.45)  
**kwīn=a** (BY): *v* (c)enter.PRF; (9.10)  
**kwīn=a** (MK): *v* (c)enter=PRF; (7.18)  
**kwīnə** (MK): *v* (c)enter; (15.57)  
**kwīnə** (MK): *v* (c)enter.CLSBRK; (7.13)  
**kwīnə** (MK): *v* (c)enter; (9.13)  
**kwɔ** (MK): *v* (B)catch; (8.109)  
**kwɔ** (MK): *v* (B)hold; (8.12)  
**kwɔ** (MK): *v* (c)enter; (A.104)  
**kwɔ** (MK): *v* (c)return.from.bush; (8.20)  
**kwɔ** (MK): *v* (c)return; (5.9)  
**kō** (BY): *n* CL1-PREP.LOC.OBJ; (6.90)  
**kó** (AB): *n* CL12; (11.45)  
**kō** (MK): *n* CL12.DET; (A.16)  
**kō** (BY): *n* CL12-LOC.OBJ; (12.10)  
**kó** (NG): *n* CL12-TOP; (12.67)  
**kō** (BY): *n* CL2; (6.90)  
**kō** (BY): *n* CL7; (12.73)  
**kō** (BY): *n* CL7.DET; (12.109)  
**kə** (AB): *v* (A)descend; (11.45)  
**kə** (NG): *v* (A)go; (10.120)  
**kə** (NG): *v* (A)go; (12.41)  
**kə** (MK): *v* (B)also; (15.56)  
**kō<sub>OBJ</sub>** (MK): *n* CL12.DET; (10.1)  
**kō=ní** (AB): *n* CL12.DET=DAT; (11.45)  
**kō=ní** (AB): *n* CL12.DET=DAT; (10.77)  
**kəbə** (BY): *v* (A)dirty; (12.34)  
**ì-kəfə** (MK): *n* CL5-fence; (10.89)  
**kəfə** (AB): *v* (A)shout; (8.45)  
**ŋ-kəm** (MK): *n* CL1-NMLZ2-break; (7.33)  
**kəm** (MK): *v* (A)again; (A.16)  
**kəm** (MK): *v* (A)again; (14.68)  
**kəm** (MK): *v* (A)back; (8.96)  
**kəm** (MK): *v* (A)break; (10.161)  
**kəm** (MK): *v* (A)slaughter; (12.96)  
**kəm** (BY): *v* (A)slaughter; (14.67)  
**ŋ-kəm** (MK): *v* (A)1SG-again; (6.18)  
**kəmə** (MK): *v* (A)again; (A.63)  
**kō-kən** (BY): *n* CL12.DEM.PROX; (9.17)  
**ú-kən** (MS): *n* CL3-hand; (10.19)  
**ā-kəŋ** (AB): *n* CL12-DEM.PROX; (12.94)  
**kəŋkə** (MK): *n* CL12.DEM.PROX.CL12.DET; (A.34)  
**kè** (AB): *n* CL12.DET; (10.7)  
**ì-kè** (MK): *n* CL5-basket; (8.102)  
**kè** (AB): *n* CL7.DET; (12.94)  
**kəh=a** (MK): *v* (A)tie=PRF; (7.13)  
**kē** (NG): *n* CL12.DET; (12.67)  
**kī** (MK): *n* CL1-father; (A.100)  
**kí** (AB): *n* CL12; (14.6)  
**kī** (MK): *n* CL12-LOC.OBJ; (12.104)  
**kī** (MS): *n* CL13; (12.64)  
**kī** (MK): *n* CL13.DET; (8.46)  
**kí** (MS): *n* CL7; (10.159)  
**kī** (AB): *n* CL7; (12.94)  
**kī** (MK): *v* (A)step; (6.98)  
**kī** (MK): *v* (c)also; (A.89)  
**kī** (MK): *v* (c)also; (10.89)  
**kī** (MK): *v* (c)also; (A.24)  
**kī** (AB): *n* CL12.DET; (8.117)  
**kū** (BY): *v* (A)chop; (14.78)  
**kūn** (NG): *n* CL12; (12.21)  
**kīb** (MS): *n* CL1-scale; (8.2)  
**kí** (MK): *n* CL12; (15.33)

- kī** (AB): *n* CL12-LOC.OBJ; (8.19)  
**ku** (NG): *v* (A)go; (5.11)  
**kɔ** (AB): *v* (A)descend; (10.93)  
**kɔ** (AB): *v* (A)descend; (8.135)  
**kɔ** (MS): *v* (c)return.from.bush; (9.36)  
**kɔhɔ** (MK): *v* (A)just; (8.87)  
**kɔhɔ** (BY): *v* (A)just.now; (9.35)  
**ì-kòŋ** (MK): *n* CL5-funnel; (14.39)  
**kɔŋ** (MK): *v* (A)drape.over; (A.73)  
**kɔŋ** (MS): *v* (A)like; (13.19)  
**kɔŋ** (MK): *v* (A)like; (10.102)  
**kɔŋ** (AB): *v* (A)love; (8.106)  
**kɔŋ** (MK): *v* (A)love; (A.83)  
**ŋ-kɔŋ** (MS): *v* (A)1SG-like; (7.26)  
**ŋ-kɔŋ** (MK): *v* (A)1SG.NEG-love; (A.95)  
**ŋ-kɔŋ** (MK): *v* (A)1SG-like; (A.49)  
**kɔŋ** (BY): *v* (c)drive; (5.4)  
**kanə** (MK): *v* (c)quarrel; (10.48)  
**ko** (BY): *v* (B)hold; (12.30)  
**ko** (AB): *v* (c)return.home; (10.55)  
**kunə** (MK): *v* (c)follow(?); (A.28)  
**kuɔ** (BY): *v* (c)enter; (12.10)  
**ki-li-laŋ-nə** (MS): *v* (B)happy-; (14.51)  
**li-la** (MS): *v* (B)VFOC~L.COP.; (14.83)  
**í-líŋ** (AB): *n* CL5-nkwi.bark; (12.94)  
**lə** (MS): *v* (B)COP; (14.65)  
**lə** (MS): *v* (B)L.COP; (10.132)  
**n-le** (AB): *v* (B)1SG-L.COP; (9.19)  
**n-le** (AB): *v* (B)1SG-L.COP; (6.9)  
**le** (NG): *v* (B)COP; (14.32)  
**le** (AB): *v* (B)L.COP; (13.51)  
**í-lám** (MS): *n* CL4-tongue; (9.58)  
**bí-lúŋ** (MK): *n* CL8-peel; (7.22)  
**li-la** (MK): *v* (A)RED~L.COP; (14.82)  
**li-la** (MK): *v* (A)VFOC~L.COP; (14.85)  
**liŋ** (AB): *v* (A)look.for; (12.93)  
**lanə** (MK): *v* (A)learn; (8.126)  
**le** (NG): *v* (B)L.COP.; (9.29)  
**le** (NG): *v* (B)L.COP; (14.17)  
**kī-láŋ-nə** (MS): *n* happiness-CL13; (12.64)  
**n-len** (MK): *v* (B)1SG-tell.story; (4.41)  
**bī-lúŋ** (MS): *n* CL8-problem; (10.53)  
**la** (AB): *v* (A)go.farm; (10.93)  
**la** (MK): *v* (A)COP?; (15.13)  
**la** (MK): *v* (A)L.COP.; (14.81)  
**la** (MK): *v* (A)L.COP.; (14.84)  
**la** (BY): *v* (A)L.COP; (14.80)  
**la** (MK): *v* (A)L.COP; (13.46)  
**la** (MK): *v* (A)L.COP; (14.7)  
**n-la** (NG): *v* (B)1SG-COP.NEG; (13.47)  
**la** (MS): *v* (B)L.COP.; (14.51)  
**la** (MS): *v* (B)L.COP; (13.65)  
**laha** (MS): *v* (B)search; (6.20)  
**n-laha** (MS): *v* (B)1SG-want; (12.52)  
**lan** (NG): *v* (A)go; (8.65)  
**lanə** (NG): *v* (c)learn; (6.23)  
**lanɔ** (AB): *v* (A)go; (8.67)  
**lanɔ** (AB): *v* (A)go; (8.66)  
**lanɔ** (AB): *v* (A)stay; (13.50)  
**lanɔ** (AB): *v* (A)walk; (12.75)  
**ɛì-lápi** (MK): *n* CL19-wrapper; (5.9)  
**kə-laŋ** (BY): *n* CL12-law; (6.53)  
**laŋbə** (NG): *v* (B)shout.wildly; (12.36)  
**le** (MS): *v* (A)come; (8.23)  
**le** (MK): *v* (A)do; (A.19)  
**le** (AB): *v* (A)do; (10.98)  
**le** (MK): *v* (A)make; (12.18)  
**le** (MK): *v* (A)make; (6.21)  
**n-le** (AB): *v* (A)1SG-make; (8.121)  
**le** (BY): *v* (A)VENT.; (10.156)  
**le** (BY): *v* (A)VENT; (4.23)  
**bə-léhe** (AB): *n* CL2-other; (10.108)  
**lenə** (MK): *v* (B)tell.story; (A.113)  
**í-létè** (MK): *n* CL4-six; (9.52)  
**bā-létè** (MS): *n* CL2-six; (10.15)  
**li** (MS): *v* (A)make; (13.55)  
**ù-ljùlə** (MK): *n* CL1-spicy.ADJ; (10.56)  
**ljen** (MK): *v* (B)tell.story; (A.35)  
**bī-lùŋ** (MS): *n* CL8-problem; (6.97)  
**lə** (MK): *v* (A)VENT.; (10.21)  
**lə** (MS): *v* (A)VENT; (9.11)  
**lə** (MS): *v* (A)VENT(?); (10.34)  
**ɖɛ-lə** (MK): *v* (B)eat-; (12.55)  
**ɖɛ-lə** (NG): *v* (B)eat; (8.123)  
**tɪ-lə** (BY): *v* (c)grow.up-; (10.41)  
**ù-lē** (MK): *n* CL1-other; (7.11)  
**le** (MS): *v* (A)go.farm; (13.55)  
**le** (MK): *v* (A)L.COP; (14.4)  
**le** (MK): *v* (A)VENT.; (5.10)  
**le** (MK): *v* (A)VENT; (9.44)  
**le** (NG): *v* (B)L.COP; (14.57)  
**li** (MS): *v* (A)make; (13.63)  
**ù-lɔ** (MK): *n* CL1-other; (A.89)  
**í-lɔ** (MK): *n* CL10-other; (8.136)  
**á-lɔ** (MK): *n* CL12-other; (8.79)  
**ā-lɔ** (MK): *n* CL12-some; (12.98)  
**mú-lɔ** (MK): *n* CL18a-other; (6.58)  
**ɛì-lɔ** (MK): *n* CL19-other; (9.34)  
**bə-lɔ** (MK): *n* CL2-other; (A.69)  
**ī-lɔ** (MK): *n* CL5-other; (A.37)  
**bī-lɔ** (MK): *n* CL8-other; (A.1)  
**lɔ** (MK): *v* (A)do; (15.50)  
**lɔ** (MS): *v* (A)make; (6.20)  
**lɔ** (MS): *v* (A)vent; (9.36)  
**lɔ** (BY): *v* (A)VENT.; (12.10)  
**lɔ** (MS): *v* (A)VENT.; (8.24)  
**lɔ** (BY): *v* (A)VENT; (8.15)  
**lɔ** (NG): *v* (A)VENT; (10.40)

- la** (MS): *v* (B)L.COP; (14.79)  
**bə-m-bâŋ** (BY): *n* CL2-NMLZ2-lock.IRR; (7.28)  
**mu=nə** (BY): *v* (B)drink=DAT; (7.24)  
**mɥɛ** (BY): *v* (B)be.pregnant; (8.76)  
**mɥē** (BY): *n* CL6a.CL6a.DET; (12.34)  
**mɥɛ** (NG): *v* (c)pregnant; (7.21)  
**mɥə̄** (BY): *n* CL6a.CL6a.DET; (10.60)  
**ú-mǝŋ** (MK): *n* CL3-neck; (9.39)  
**moŋ** (MS): *v* (B)dance; (10.15)  
**mu** (MK): *v* (B)drink; (A.38)  
**muŋ** (MS): *v* (B)dance; (6.44)  
**bī-mfē** (MK): *n* CL8-cocoyam; (10.56)  
**bí-mǝlə** (MK): *n* CL8-cold; (10.127)  
**bi-mələ** (MK): *v* (A)cold; (6.35)  
**mi** (BY): *v* (A)take; (12.65)  
**mɔŋhə** (NG): *v* (A)think; (15.61)  
**bū-mēm** (BY): *n* CL14-fufu; (8.52)  
**mu** (BY): *v* (B)drink; (8.32)  
**mu** (BY): *v* (B)drink; (8.26)  
**ma** (NG): *v* (A)marry; (6.95)  
**ma** (MK): *v* (A)rain; (10.110)  
**ma** (AB): *v* (A)rain; (9.64)  
**ma** (NG): *v* (A)take; (10.75)  
**ma** (MK): *v* (A)take; (8.9)  
**ma** (NG): *v* (A)take; (11.52)  
**ma** (MK): *v* (A)1SG-take; (7.22)  
**ma** (MS): *v* (c)soak; (4.10)  
**ì-mān** (MS): *n* CL5-which; (10.19)  
**ma** (BY): *v* (A)take; (8.33)  
**bī-mbǝnə** (MS): *n* CL8-peaceful.ADJ; (8.24)  
**ñbǝŋ** (BY): *n* CL1-cow; (4.2)  
**ñbǝŋ** (MK): *n* CL1-cow; (14.63)  
**bə-mbǝŋ** (AB): *n* CL2-cow; (6.88)  
**bə-mbǝŋə** (MK): *n* CL2-cow; (12.6)  
**fī-mbǝnə** (BY): *n* CL19-lizard; (12.7)  
**ñbī** (MK): *n* CL1-world; (6.21)  
**bī-mbūn** (NG): *n* CL8-dead.palms; (8.44)  
**ñbǝŋ** (AB): *n* CL1-cow; (12.93)  
**ñbǝŋ** (BY): *n* CL1-cow; (4.1)  
**bə-mbǝŋ** (NG): *n* CL2-cow; (10.44)  
**ā-mbá** (NG): *n* CL6-young.palms; (12.53)  
**kə-mbǝŋbə** (BY): *n* CL12-caterpillar; (15.36)  
**bə-mbjīn** (BY): *n* CL2-children; (10.57)  
**fī-mbjī** (BY): *n* CL19-puppy; (6.94)  
**ñbwīn** (AB): *n* CL2-DAT; (10.119)  
**ñbǝŋ** (AB): *n* CL1-cow; (7.8)  
**bə-mbǝŋə** (MK): *n* CL2-cow; (12.101)  
**ñbǝlɔ** (BY): *n* CL1-Mbolo; (12.26)  
**ñbǝlɔ** (BY): *n* CL1-Mbolo; (12.26)  
**ñbǝŋ** (MK): *n* CL1-cow; (6.25)  
**ñbǝŋɔ** (MK): *n* CL1.first.DET; (A.28)  
**mē** (MK): *n* CL6a.CL6a.DET; (10.117)  
**me** (MS): *v* (A)rain; (9.65)  
**bī-mfé** (MK): *n* CL8-cocoyam; (9.44)  
**fī-mfēhe** (NG): *n* CL19-rat; (9.59)  
**fǝ-mfjən** (NG): *n* CL16-stream; (8.4)  
**ñfū** (BY): *n* CL1-day; (8.18)  
**ñfū** (MK): *n* CL1-time; (9.39)  
**ñfwáha** (NG): *n* CL1-pepper; (7.10)  
**ñfwàha** (BY): *n* CL1-soup; (12.46)  
**fī-mfwēhe** (NG): *n* CL19-rat; (10.99)  
**ñfwīn** (NG): *n* CL1-day; (14.86)  
**kə-mfən** (BY): *n* CL12-canoe; (12.11)  
**ñfú** (MK): *n* CL1-occasion; (8.70)  
**á-mjǝ** (NG): *n* CL12-reason; (8.69)  
**kí-mjě** (MS): *n* CL7-thing; (14.28)  
**bí-mjě** (MS): *n* CL8-thing; (9.58)  
**bí-mjě** (MS): *n* CL8-word; (8.24)  
**kó-mjǐ** (BY): *n* CL12-matter; (14.30)  
**á-mjǐ** (NG): *n* CL12-thing; (12.67)  
**kó-mjǐ** (BY): *n* CL12-word; (15.15)  
**bí-mjǐ** (MK): *n* CL8-matter; (8.98)  
**bí-mjǐ** (BY): *n* CL8-problem; (6.55)  
**bí-mjǐ** (NG): *n* CL8-thing; (10.121)  
**bí-mjǐ** (MS): *n* CL8-word; (6.91)  
**ká-mjǔ** (MK): *n* CL12-thing; (10.102)  
**á-mjǔ** (MK): *n* CL12-matter; (10.68)  
**kó-mjǔ** (BY): *n* CL12-thing; (4.40)  
**bí-mjǔ** (MK): *n* CL8-word; (6.62)  
**á-mjǔ** (MK): *n* CL12-matter; (11.88)  
**á-mjǔ** (MK): *n* CL12-thing; (A.16)  
**ǎ-mjǔ** (MK): *n* CL12-DS.thing; (A.77)  
**á-mjǔ** (MK): *n* CL7-matter; (12.106)  
**bí-mjǔ** (MK): *n* CL8-word; (A.35)  
**mju** (MK): *v* (A)shave; (10.25)  
**ù-mjèhe** (MK): *n* CL1-mother.in.law; (A.82)  
**ù-mù** (NG): *n* CL1-one; (12.12)  
**mù** (MK): *n* then.CL1; (11.41)  
**mù** (BY): *n* then.CL1; (12.8)  
**mú** (MK): *n* CL18a; (6.58)  
**mū** (MK): *n* CL18a.CL18a.DET; (10.51)  
**mū** (MS): *n* CL6a.CL6a.DET; (6.13)  
**mu** (BY): *v* (B)drink; (9.26)  
**mu=a** (MK): *v* (B)drink=PRF; (A.42)  
**bū-mùm** (MK): *n* CL14-fufu; (8.79)  
**mùú** (MK): *n* CL1-then.FUT; (12.97)  
**à-mùŋ** (MS): *n* CL6-how.many; (15.41)  
**ù-mwǝnə** (MK): *n* CL1-one; (10.52)  
**mwe** (AB): *v* (B)beat; (10.17)  
**ù-mwǝnə** (MK): *n* CL1-one; (10.43)  
**ɛī-mwǝnə** (MK): *n* CL19-one; (7.15)  
**ì-mwǝnə** (MK): *n* CL9-one; (8.109)  
**ū-mwǝnə** (MK): *n* CL3-farm; (8.48)  
**ú-mwèlə** (MK): *n* CL3-farm; (9.13)  
**í-mwèlə** (MK): *n* CL4-farm; (A.13)  
**ī-mwèlə** (MK): *n* CL5-farm; (11.16)  
**mwē** (AB): *n* CL6.DET; (8.135)  
**mwē** (BY): *n* CL6a.CL6a.DET; (10.138)

- ū-mwêlə** (MK): *n* CL3-farm; (13.6)  
**ū-mwenə** (MK): *n* CL3-farm; (10.64)  
**mwə** (MS): *n* CL6a.CL6a.DET; (9.11)  
**á-mwə̀nə** (MK): *n* CL12-one; (11.27)  
**bú-mwə̀nə** (MK): *n* CL14-one; (14.62)  
**ú-mwə̀nə** (MK): *n* CL3-one; (A.19)  
**ì-mwə̀nə** (MK): *n* CL5-one; (14.81)  
**kə-mwīn** (BY): *n* CL12-which; (15.36)  
**ù-mwə̀nə** (MK): *n* CL1-one; (8.108)  
**ī-mwē** (MK): *n* CL5-farm; (11.88)  
**mwə** (NG): *v* (c)hear; (9.59)  
**bə-mwélə** (NG): *n* CL2-white; (12.40)  
**mə** (BY): *v* (A)marry; (13.8)  
**mə** (AB): *v* (A)take; (8.121)  
**mə** (BY): *v* (A)take; (8.26)  
**mə́-mələ** (MK): *n* CL6a-cold; (10.39)  
**mələ** (MK): *v* (A)be.cold; (10.144)  
**mələ** (NG): *v* (A)sink; (8.53)  
**ù-mə̀n** (MK): *n* CL1-which; (15.35)  
**bə-mə̀ŋ** (MK): *n* CL2-how.many; (15.38)  
**ā-mə̀ŋ** (MK): *n* CL6-how.many; (15.37)  
**ā-mə̀ŋ** (BY): *n* CL6-how.many; (15.40)  
**ì-mē** (MK): *n* CL5-INF-marry; (10.95)  
**mē** (MK): *v* (A)marry; (8.85)  
**mē** (MK): *v* (A)marry; (A.59)  
**mē** (MK): *v* (A)take; (A.37)  
**mē** (MK): *v* (A)take; (8.9)  
**mḗe** (AB): *n* CL10.1SG.POSS.DET; (10.17)  
**mì** (BY): *n* then.CL9; (10.60)  
**mì** (BY): *n* then.CL9; (13.66)  
**mì** (MS): *v* (A)shit; (6.17)  
**i-mi** (MK): *v* (A)INF-shave; (10.25)  
**mələ** (MK): *v* (A)cold; (6.33)  
**mə** (MS): *v* (A)take; (10.105)  
**mə** (MS): *v* (c)soak; (4.14)  
**mə̀ŋ** (AB): *v* (B)dance; (11.3)  
**mə̀ŋhə** (MK): *v* (A)must; (11.88)  
**bə-ncə̀ŋə** (MK): *n* CL2-trumpet; (2.1)  
**ī-ncə̀ŋhə** (AB): *n* CL19-crab; (10.135)  
**fə́-ncám** (MK): *n* CL16-LOC.heart; (A.27)  
**fə́-ncə̀ŋ** (MK): *n* CL16-stream; (14.40)  
**ńǵǵáha** (AB): *n* CL6-corn; (10.124)  
**nì-nan** (BY): *v* (B)VFOC~big; (12.58)  
**í-ńín-ńám** (BY): *n* CL10-RED~fat.ADJ; (6.68)  
**naha** (MK): *v* (c)open; (A.110)  
**í-ńámə** (AB): *n* CL10-fat; (6.79)  
**nəfə** (MK): *v* (B)be.excessive; (9.21)  
**nəfə** (MK): *v* (B)excessive; (A.6)  
**nəfə** (MK): *v* (B)excessively; (A.12)  
**nəhə** (MK): *v* (B)excessive; (A.5)  
**n-nəhə** (MK): *v* (B)1SG-be.excessive; (8.104)  
**nəm** (MK): *v* (B)be.fat; (10.64)  
**nəm** (MK): *v* (B)fat; (8.48)  
**bí-ńámə** (MK): *n* CL8-grass; (9.57)  
**nanə** (MK): *v* (B)big; (6.58)  
**ńǵŋ** (BY): *n* CL10-goat; (14.67)  
**naŋ** (BY): *v* (B)be.fine; (8.34)  
**naŋ** (BY): *v* (B)fine; (13.64)  
**kə́-ńǵ** (BY): *n* CL12-thing; (4.28)  
**kí-ńǵ** (MS): *n* CL7-thing; (9.45)  
**bí-ńǵ** (BY): *n* CL8-thing; (12.60)  
**bí-ńú** (NG): *n* CL8-thing; (8.123)  
**ńí-ńə** (BY): *v* (A)VFOC~go; (10.11)  
**ì-ńín-ńámə** (MK): *n* CL9-fat.ADJ; (8.99)  
**í-ńín-ńám** (BY): *n* CL10-VFOC~fat.ADJ; (14.53)  
**bí-ńínì** (AB): *n* CL8-eight; (6.43)  
**ì-ńə-ńə** (BY): *n* CL5-INF-go-INF; (15.62)  
**í-ńəmə** (MK): *n* CL10-fat; (11.21)  
**ù-ńǵmfə** (MK): *n* CL1-male; (7.12)  
**ù-ńǵmfə** (MK): *n* CL1-male.ADJ; (A.21)  
**bə-ńǵmfə** (MK): *n* CL2-male; (12.17)  
**bə-ńǵmfə** (MK): *n* CL2-male.ADJ; (A.69)  
**ù-ńəhe** (NG): *n* CL1-male; (8.81)  
**bə-ńəhe** (NG): *n* CL2-male.ADJ; (6.23)  
**fī-ńò** (MS): *n* CL19-person; (6.52)  
**ńə̀ŋhə** (MK): *v* (A)think; (8.98)  
**bī-ńtə̀ŋə** (NG): *n* CL8-groundnuts; (8.65)  
**mū-ńtə̀án** (AB): *n* CL18a-plantain; (13.37)  
**bí-ńtə̀ŋ** (NG): *n* CL8-groundnut; (9.48)  
**bī-ńtə̀ŋ** (NG): *n* CL8-groundnuts; (12.44)  
**ńá** (AB): *n* CL1-mother; (6.7)  
**ā-ńá** (AB): *n* CL2-people; (6.40)  
**ā-ńá** (AB): *n* CL2-person; (6.88)  
**bā-ńá** (MS): *n* CL2-REL; (10.85)  
**bí-ńá** (BY): *n* CL8-REL.DS; (15.29)  
**i-naŋ=nə** (MK): *v* (A)PREP.INF-go=DAT; (8.112)  
**i-naŋ=nə** (MK): *v* (A)PREP.INF-go=DAT; (10.91)  
**naŋkə** (MK): *v* (A)go; (6.51)  
**nafə** (MK): *v* (B)sick; (10.12)  
**nalə** (MK): *v* (A)hide; (A.37)  
**ńám** (BY): *n* CL1-husband; (12.23)  
**nam** (MK): *v* (A)creep; (10.123)  
**nam** (MK): *v* (A)till.field; (A.11)  
**nam** (MK): *v* (A)till.soil; (10.56)  
**nam** (MK): *v* (A)work; (7.13)  
**nam** (MK): *v* (A)work.farm; (8.120)  
**nam** (MK): *v* (A)work.farm; (A.13)  
**i-nam** (MK): *v* (A)INF-go; (12.55)  
**i-nam** (MK): *v* (A)INF-work.farm; (A.11)  
**ńán** (BY): *n* CL17-DEM; (9.16)  
**nankə** (MK): *v* (A)go; (A.9)  
**naŋ** (MK): *v* (A)go; (10.146)  
**naŋ** (MK): *v* (A)go; (10.32)  
**i-naŋ** (MK): *v* (A)PREP.INF-go; (8.104)  
**i-naŋ** (MK): *v* (A)PREP.INF-go; (8.70)  
**naŋ=a** (MK): *v* (A)go=PRF; (15.45)  
**naŋkə** (MK): *v* (A)go; (A.37)  
**naŋkə** (MK): *v* (A)go; (A.79)



- naŋke** (MK): *v* (A)go; (13.46)  
**mwé-ndě** (AB): *n* CL6-bean; (13.50)  
**ù-ndīnə** (BY): *n* CL1-female; (8.3)  
**ù-ndīnə** (BY): *n* CL1-female; (6.90)  
**ndīnə** (MS): *n* CL1-problem; (6.20)  
**bə-ndīnə** (BY): *n* CL2-female.ADJ; (11.36)  
**ā-ndōŋ** (NG): *n* CL12-cocoyam; (10.99)  
**bī-ndōŋ** (MK): *n* CL8-cocoyam; (A.1)  
**bə-ndú** (BY): *n* CL2-dress; (11.36)  
**ā-ndjōŋ** (AB): *n* CL12-story; (7.6)  
**ndù** (BY): *n* CL1-dress; (10.8)  
**ndəm** (AB): *n* CL1-bird.type; (10.29)  
**ndēn** (NG): *n* CL17-DEM; (9.23)  
**mū-ndóŋ** (MK): *n* CL18a-macabo.cocoyam; (5.5)  
**bī-ndóŋ** (MK): *n* CL8-macabo.cocoyam; (5.6)  
**ndù** (BY): *n* CL1-dress; (6.53)  
**ù-nē** (NG): *n* CL1-other; (12.12)  
**ù-nē** (NG): *n* CL1-some; (14.27)  
**á-né** (NG): *n* CL12-some; (12.5)  
**bū-né** (NG): *n* CL14-other; (5.11)  
**fī-né** (NG): *n* CL19-other; (9.29)  
**nē** (MK): *n* CL6.DET; (8.96)  
**ù-nē=né** (NG): *n* CL1-other=DAT; (15.61)  
**ŋi-ŋafə** (BY): *v* (B)VFOC-sick; (10.10)  
**ŋu** (BY): *v* (B)plant.tree; (9.5)  
**ŋaha** (BY): *v* (B)sick; (10.11)  
**kə-ŋaha-tə** (NG): *v* (B)sick-; (5.20)  
**ŋan** (MK): *v* (C)slice; (7.18)  
**ŋan** (MK): *v* (C)slice; (10.35)  
**ŋu-ŋom** (AB): *v* (B)VFOC-dry; (14.46)  
**ŋkù** (MK): *n* as.CL1; (A.72)  
**ŋwìn** (AB): *n* DAT.CL1; (8.106)  
**ŋkúŋ** (MK): *n* CL1-chief; (6.21)  
**ŋkúŋ** (NG): *n* CL1-chief; (12.67)  
**ŋəŋhə** (AB): *v* (A)think; (10.115)  
**ŋgbàŋ** (AB): *n* CL1-power; (10.119)  
**ŋḡ** (BY): *n* CL1-own; (12.7)  
**ŋkànə** (MS): *n* CL1-chair; (13.65)  
**ŋkjèhə** (MK): *n* CL1-cooking.pot; (8.68)  
**ŋkpàlə** (MK): *n* CL1-placenta; (8.110)  
**ŋkè** (MK): *n* CL1-part; (8.39)  
**ŋḡ** (BY): *n* CL1-own; (12.7)  
**fǎ-ŋkðnə** (MS): *n* CL16-compound; (8.72)  
**bə-ŋkāmə** (MK): *n* CL2-Mekaf.people; (10.33)  
**bi-ŋkunə** (MS): *v* (A)fight.INF; (13.63)  
**fǎ-ŋkwànə** (MK): *n* CL16-compound; (14.48)  
**fǎ-ŋkwànə** (MK): *n* CL16-village; (15.49)  
**ŋwən** (AB): *n* CL1-DEM.PROX; (10.31)  
**ā-ŋwātə** (MK): *n* CL12-book; (6.51)  
**bə-ŋwə** (MK): *n* CL2-insides; (10.38)  
**bà-ŋwè** (MS): *n* CL2-calabash; (8.6)  
**kə-ŋwāa** (BY): *n* CL7-book; (12.72)  
**á-ŋgómə** (MK): *n* CL12-plantain; (7.22)  
**á-ŋgjōŋ** (MK): *n* CL12-story; (7.20)  
**ā-ŋgjōŋ** (MK): *n* CL12-story; (A.113)  
**bi-ŋkunə** (MS): *v* (A)fight; (6.34)  
**bi-ŋkwənə** (MK): *v* (C)be.happy; (6.33)  
**á-ŋgjōŋ** (MK): *n* CL12-story; (8.78)  
**ŋgunə** (MS): *n* CL1-anger; (6.19)  
**fǎ-ŋkðnə** (MS): *n* CL16-compound; (11.32)  
**bā-ŋkè** (MS): *n* CL2-Mashi.people; (14.52)  
**ā-ŋkjàŋ** (MK): *n* CL12-cap; (10.1)  
**mū-ŋkjém** (MK): *n* CL18a-earth; (6.21)  
**fǎ-ŋkwànə** (MK): *n* CL16-village; (15.37)  
**kə-ŋkè** (BY): *n* CL12-basket; (10.147)  
**kə-ŋwāa** (BY): *n* CL12-book; (8.38)  
**nlèn** (MK): *n* CL1-fashion; (A.85)  
**nlēn** (MK): *n* CL1-manner; (7.12)  
**nlènə** (MK): *n* CL1-fashion; (A.63)  
**nlènə=né** (MK): *n* CL1-PREP.fashion=DAT; (A.66)  
**nlènə** (MK): *n* CL1-fashion; (A.84)  
**ù-nò** (MS): *n* CL1-person; (10.130)  
**ú-nò** (NG): *n* CL1-PREP-person; (15.61)  
**ké-nó** (BY): *n* CL12-thing; (10.37)  
**fī-nò** (NG): *n* CL19-person; (9.29)  
**bə-nò** (BY): *n* CL2-people; (12.11)  
**bə-nò** (NG): *n* CL2-person; (12.40)  
**no** (AB): *v* (A)go; (10.92)  
**no** (NG): *v* (A)make; (8.53)  
**n-no** (NG): *v* (A)1SG-do; (12.21)  
**ù-nò<sub>j</sub>** (BY): *n* CL1-person; (12.62)  
**kī-nsəm** (MS): *n* CL7-Kinsam; (8.6)  
**nsàn** (MK): *n* CL1-ligby; (8.86)  
**bə-nsàn** (MK): *n* CL2-ligby; (A.41)  
**bə-nsàn** (MK): *n* CL2-ligby; (15.30)  
**nsəm** (MK): *n* CL1-dance.type.Q.POLAR; (15.5)  
**ntçèhə** (MK): *n* CL3-left; (8.142)  
**ntām** (MS): *n* CL1-hour; (10.14)  
**bà-ntām** (MS): *n* CL2-hour; (10.15)  
**ntìhi** (BY): *n* CL1-pot; (12.13)  
**bə-ntìhi** (BY): *n* CL2-pot; (11.22)  
**fǎ-ŋçōŋ** (MK): *n* CL16-stream; (9.27)  
**mún-ŋá** (NG): *n* CL18a-bird; (14.33)  
**mú-ŋónə** (MK): *n* CL18a-bird; (10.51)  
**bá-ŋóŋŋ** (MS): *n* CL2-male; (10.63)  
**á-ŋí** (AB): *n* CL12-thing; (10.7)  
**bí-ŋí** (MK): *n* CL8-thing; (10.69)  
**bí-ŋá** (MK): *n* CL8-thing; (11.2)  
**ŋ-ŋaha** (AB): *v* (B)1SG-be.excessive; (8.106)  
**ŋam** (NG): *v* (B)do.secretly; (8.14)  
**ŋaŋ** (MS): *v* (A)stay..IRR; (4.18)  
**ŋaŋ** (MK): *v* (B)be.fine; (8.141)  
**ŋaŋ** (MK): *v* (B)be.good; (A.37)  
**ŋaŋə** (MK): *v* (B)be.good; (A.104)  
**ŋaŋə** (MK): *v* (B)good; (9.34)  
**í-ŋóm** (NG): *n* CL5-year; (6.96)  
**á-ŋú** (AB): *n* CL12-thing; (8.117)  
**bí-ŋú** (AB): *n* CL8-matter; (11.42)

- í-púm** (MK): *n* CL5-year; (A.11)  
**á-púm** (MK): *n* CL6-year; (12.18)  
**ni~ne** (MK): *v* (A)VFOC~stay; (6.58)  
**ni~na** (BY): *v* (A)VFOC~stay; (8.63)  
**ni~na** (BY): *v* (A)VFOC~stay; (11.51)  
**ni~na** (BY): *v* (A)VFOC~stay; (11.78)  
**ni~naŋ** (MS): *v* (A)VFOC~stay; (11.77)  
**i-punɔ** (AB): *v* (A)INF-fight; (14.31)  
**ɛ̀i-pùnə** (MK): *n* CL19-bird; (7.15)  
**ì-nì** (NG): *n* CL5-bee; (5.19)  
**ì-nì** (MK): *n* CL5-honey; (12.108)  
**kə̀-nì-lə** (NG): *n* bee-CL13; (5.20)  
**nam** (NG): *v* (B)secretly; (12.100)  
**nam** (MS): *v* (B)tiptoe; (10.131)  
**naŋ** (MK): *v* (B)be.good; (8.79)  
**naŋ** (MK): *v* (B)be.good; (A.96)  
**nuɔnə** (MK): *v* (A)fight; (12.106)  
**á-pá** (MK): *n* CL12-thing; (15.64)  
**ñ-pá** (AB): *n* CL6a-water; (13.38)  
**na** (MK): *v* (A)stay; (10.51)  
**na** (BY): *v* (A)stay..IRR; (9.28)  
**na** (MK): *v* (A)stay; (12.97)  
**na** (MK): *v* (A)stay;; (8.62)  
**na** (BY): *v* (A)stay..IPFV; (11.67)  
**na** (MK): *v* (A)stay; (9.57)  
**na** (BY): *v* (A)stay; (12.30)  
**n-na** (MK): *v* (A)1SG-stay..IPFV; (10.102)  
**na** (BY): *v* (A)stay; (14.80)  
**ì-pàm** (BY): *n* CL9-leopard; (9.7)  
**nam** (MS): *v* (B)be.furtive; (8.1)  
**naŋ** (MS): *v* (A)sit; (6.19)  
**naŋ** (MS): *v* (A)stay; (9.65)  
**á-póm** (MS): *n* CL6-year; (15.41)  
**í-pú** (AB): *n* CL8-thing; (8.71)  
**nu** (MK): *v* (c)ascend; (A.40)  
**bɛ̀é-púpɔ** (AB): *n* CL2-good; (9.47)  
**bí-púpó** (AB): *n* CL8-good.ADJ; (9.31)  
**bí-púpú** (AB): *n* CL8-good.ADJ; (14.55)  
**ì-púm** (MK): *n* CL5-year; (14.81)  
**nuɔnə** (MK): *v* (A)fight; (10.68)  
**mú-pónə** (MK): *n* CL18a-bird; (6.58)  
**ān-pé** (MS): *n* CL6a-water; (9.11)  
**ne** (BY): *v* (A)sit; (8.3)  
**ne** (MK): *v* (A)stay; (15.42)  
**ne** (MK): *v* (A)stay;; (14.48)  
**ne** (MK): *v* (A)stay; (A.88)  
**ne** (MK): *v* (A)stay.PFV; (12.108)  
**n-ne** (BY): *v* (A)1SG-stay; (14.92)  
**n-ne** (BY): *v* (A)1SG-stay; (8.133)  
**ne** (NG): *v* (c)ascend; (8.7)  
**ne** (MK): *v* (A)stay; (A.4)  
**ne=nə** (MK): *v* (A)stay=DAT; (13.21)  
**ní** (MK): *n* CL1-mother; (7.12)  
**mū-ní** (MK): *n* CL18a-mother; (5.5)  
**bə̀-nì** (BY): *n* CL2-four; (11.26)  
**bá-ní** (MS): *n* CL2-mother; (6.19)  
**ā-nī** (BY): *n* CL6-egg; (11.28)  
**ā-nī** (BY): *n* CL6-eggs; (6.63)  
**bī-nī** (BY): *n* CL8-four; (6.42)  
**ni** (NG): *v* (c)ascend; (7.21)  
**ni** (MK): *v* (c)ascend; (14.36)  
**ā-nī** (BY): *n* CL6-eggs; (6.61)  
**nu** (BY): *v* (A)stay; (10.36)  
**nu** (BY): *v* (A)stay; (10.57)  
**nuɔ** (AB): *v* (A)fight; (8.71)  
**ni=nə** (MK): *n* CL1-mother=DAT; (11.41)  
**ni~naŋə** (MK): *v* (B)be.good; (A.7)  
**ni~naŋə** (MK): *v* (B)VFOC~be.good; (A.11)  
**ni~ne** (MK): *v* (A)RED~STAY; (14.49)  
**nuŋkə** (MK): *v* (A)fight; (10.49)  
**nuŋɔ** (NG): *v* (A)fight; (10.61)  
**na** (MK): *v* (A)stay; (14.81)  
**naŋ** (MS): *v* (A)stay; (6.3)  
**naŋ** (MK): *v* (B)good; (11.10)  
**nao** (MS): *v* (A)stay; (6.44)  
**nwa** (MS): *v* (A)stay; (11.77)  
**nwa** (MS): *v* (A)stay; (9.61)  
**ni-nə** (MK): *n* CL1-mother-DAT; (10.12)  
**ì-nə** (BY): *n* CL5-some; (13.1)  
**nə** (MK): *n* CL6.DET; (8.68)  
**nə** (BY): *v* (A)go; (13.1)  
**nə** (BY): *v* (A)go; (10.156)  
**nə** (BY): *v* (A)make; (8.50)  
**i-nə** (BY): *v* (A)INF-go; (14.93)  
**i-nə** (BY): *v* (A)PREP.INF-go; (7.24)  
**ɕi-nə** (BY): *v* (B)eat=DAT; (12.60)  
**bə̀he-nə** (MK): *v* (B)exit-?; (8.96)  
**bə̀he-nə** (MK): *v* (B)exit-??; (8.128)  
**nə~namə** (MK): *v* (A)VFOC~work.farm; (15.56)  
**n-nəfə** (MK): *v* (A)1SG-uproot; (5.5)  
**nən** (AB): *v* (A)go; (10.158)  
**nən** (AB): *v* (A)go; (10.42)  
**nən** (AB): *v* (A)go; (10.93)  
**ù-nónánə** (MK): *n* CL1-big; (15.35)  
**ù-nè** (MK): *n* CL1-person; (12.84)  
**bə̀-nè** (MK): *n* CL2-people; (A.34)  
**bā-nè** (MS): *n* CL2-person; (6.80)  
**né** (MK): *n* CL6; (14.61)  
**nē** (MK): *n* CL6.DET; (8.107)  
**n-ne** (NG): *v* (A)1SG-do; (12.67)  
**bə̀-nè=nə** (MK): *n* CL2-person=DAT; (10.87)  
**ní** (MS): *n* CL1-mother; (6.41)  
**ù-nī** (BY): *n* CL1-other; (8.18)  
**ù-nī** (BY): *n* CL1-some; (10.57)  
**ù-nī** (BY): *n* CL1-REL; (15.25)  
**ī-ní** (BY): *n* CL10-REL; (12.88)  
**kə̀-ní** (BY): *n* CL12-REL; (9.17)  
**bə̀-ní** (BY): *n* CL2-REL; (11.36)

- ū-ní** (BY): *n* CL3-some; (15.63)  
**ū-ní** (BY): *n* CL3-REL; (12.72)  
**ī-ní** (BY): *n* CL5-other; (9.63)  
**nī** (BY): *n* CL5-REL; (12.10)  
**ā-ní** (BY): *n* CL6-other; (6.60)  
**ā-ní** (BY): *n* CL6-some; (11.28)  
**ì-nī** (BY): *n* CL9-other; (12.71)  
**ì-nī** (BY): *n* CL9-REL; (6.99)  
**ni** (AB): *v* (A)go; (10.17)  
**nu** (NG): *v* (A)do; (12.48)  
**no** (BY): *v* (A)do; (9.63)  
**no** (BY): *v* (A)go; (12.10)  
**no** (BY): *v* (A)make; (12.109)  
**kī-nôŋ-ə** (MK): *n* iron-CL13; (12.18)  
**kí-nôŋ-ə** (MK): *n* iron-CL13; (15.1)  
**kī-nôŋə** (MK): *n* CL13-iron; (A.107)  
**kī-nôŋə** (MK): *n* CL13-iron; (A.111)  
**naŋ** (MK): *v* (A)go; (A.32)  
**naŋ** (MK): *v* (A)go; (9.46)  
**i-naŋ** (MK): *v* (A)PREP.INF-go; (12.54)  
**bə-nò** (NG): *n* CL2-person; (12.40)  
**nōa** (MS): *n* CL17-DEM; (9.22)  
**ò** (AB): *n* CL1.DET; (12.92)  
**ò** (AB): *n* CL3.DET; (10.42)  
**i-pi** (MK): *v* (B)INF-die; (12.37)  
**bi-pilo** (AB): *v* (B)die; (6.43)  
**pi** (AB): *v* (B)die; (8.121)  
**pi** (MS): *v* (B)die; (9.33)  
**pi=a** (MK): *v* (B)die=PRF; (12.101)  
**i-pi=nə** (MK): *v* (B)PREP.INF-die=DAT; (10.95)  
**pi~pi** (AB): *v* (B)VFOC~die; (12.93)  
**pi~pi** (MK): *v* (B)VFOC~die; (12.84)  
**pi** (AB): *v* (B)die; (13.26)  
**pi** (MS): *v* (B)neg; (13.44)  
**m-pi** (MS): *v* (B)1SG-die; (12.52)  
**m-pi-nə** (MS): *v* (B)INF-die-INF; (11.32)  
**bə-picture** (MK): *n* CL2-picture; (8.77)  
**pju** (MS): *v* (B)die; (15.2)  
**pju** (MS): *v* (B)die; (14.79)  
**principal** (BY): *n* CL1-principal; (5.4)  
**ì-pí** (MS): *n* CL5-death; (10.19)  
**pi~pi** (MK): *v* (B)VFOC~die; (12.6)  
**í-səŋ** (MK): *n* CL5-power; (8.47)  
**bí-səŋ** (MK): *n* CL5-COM.power; (10.30)  
**səŋ** (BY): *v* (C)invite; (4.7)  
**səŋ** (BY): *v* (C)invite; (13.11)  
**an-salə** (MS): *v* (C)CL6a-hot; (9.11)  
**í-sěhe** (MK): *n* CL5-place; (12.96)  
**í-sěhe** (MK): *n* CL5-place; (10.32)  
**səŋ** (BY): *v* (B)scratch; (8.29)  
**ú-sǔ** (MS): *n* CL3-case; (10.22)  
**ú-sǔ** (MS): *n* CL3-lawsuit; (14.72)  
**səm** (BY): *v* (B)celebrate; (13.15)  
**sa** (MS): *v* (A)descend; (4.10)  
**í-sěhe** (BY): *n* CL5-place; (12.50)  
**í-sěsə** (BY): *n* CL5-place; (15.62)  
**som** (AB): *v* (B)start; (10.7)  
**su** (BY): *v* (B)congratulate; (10.139)  
**ù-sìsé** (MK): *n* CL1-true(?); (7.12)  
**sə** (BY): *v* (A)descend; (12.65)  
**ù-səse** (MK): *n* CL1-very; (A.85)  
**ù-sù** (BY): *n* CL3-face; (8.38)  
**mú-sě** (MK): *n* CL3-1SG.face; (13.17)  
**ù-sú** (BY): *n* CL3-face; (13.64)  
**səm** (BY): *v* (B)celebrate; (13.14)  
**ì-sù** (MK): *n* CL9-fish; (10.96)  
**sa** (MS): *v* (A)descend; (6.17)  
**saa** (BY): *v* (C)decide; (4.33)  
**á-sáha** (MK): *n* CL6-three.stones; (8.68)  
**salə** (MS): *v* (C)decide; (11.94)  
**i-salə-tə=nə** (BY): *v* (C)INF-decide=DAT; (6.67)  
**i-salə-tə=nə** (BY): *v* (C)INF-decide-INF=DAT; (8.137)  
**san** (AB): *v* (A)pass; (9.31)  
**san** (AB): *v* (A)pass; (14.55)  
**n-san** (BY): *v* (A)1SG-pass; (8.133)  
**san=a** (MS): *v* (A)pass=PRF; (7.19)  
**san=a** (BY): *v* (A)pass=PRF; (12.8)  
**sanə** (MK): *v* (A)pass; (8.86)  
**sanə** (AB): *v* (C)warm; (10.76)  
**kə-sāŋ** (BY): *n* CL12-basket; (9.2)  
**saŋ** (MK): *v* (A)remain; (8.108)  
**se** (NG): *v* (A)descend; (10.46)  
**se** (BY): *v* (C)insult; (5.4)  
**sehe** (AB): *v* (A)issue(?); (8.19)  
**se=a** (NG): *v* (A)descend=PRF; (8.4)  
**so=a** (NG): *v* (A)start=PRF; (10.99)  
**bə-spaghetti** (MK): *n* CL2-spaghetti; (9.57)  
**style** (MK): *n* CL1-style; (15.33)  
**ǎ-sú** (NG): *n* CL16-face; (6.11)  
**su** (BY): *v* (A)start; (6.31)  
**su** (BY): *v* (A)start; (12.72)  
**su=a** (BY): *v* (B)congratulate=PRF; (12.60)  
**sə** (MK): *v* (A)descend; (8.36)  
**sə** (BY): *v* (A)descend; (8.8)  
**sə** (BY): *v* (A)descend; (8.27)  
**í-səŋ** (MK): *n* CL5-power; (14.41)  
**ì-səŋə** (MK): *n* CL5-power; (6.8)  
**sə** (MK): *v* (A)descend; (5.6)  
**ǎ-súsú** (NG): *n* CL16-LOC.face; (12.21)  
**sə** (MS): *v* (A)descend; (4.14)  
**səŋ** (BY): *v* (C)invite; (13.10)  
**saŋ** (MK): *v* (C)hang; (8.39)  
**ú-títǒfə** (MK): *n* CL3-tailfeather; (7.15)  
**ú-túna** (NG): *n* CL3-country.sunday; (9.3)  
**ú-túnə** (MK): *n* CL3-week; (A.20)  
**u-ti** (BY): *v* (B)grow.up; (15.25)  
**kī-tífə** (MS): *n* CL7-law; (6.20)  
**i-talə-nə** (MK): *v* (C)show-; (14.29)

- tɔŋ** (AB): *v* (c)travel; (14.6)  
**təm** (MK): *v* (B)shoot; (A.16)  
**bí-tǒm** (MK): *n* CL8-vegetables; (12.97)  
**təŋ** (MK): *v* (B)count; (8.46)  
**tɛ** (MK): *v* (B)fell; (8.39)  
**bú-tǐ** (MK): *n* CL14-medicine; (7.20)  
**tí** (BY): *v* (B)also; (10.57)  
**tí** (MK): *v* (B)come; (15.42)  
**tí** (MS): *v* (B)come; (9.9)  
**tí** (MK): *v* (B)come; (7.11)  
**b=ú-tǒfə** (BY): *n* CL3-COM=sense; (10.41)  
**tɔhɔ** (AB): *v* (B)be.careful; (10.112)  
**ú-tǒm** (NG): *n* CL3-village; (8.114)  
**á-tǒŋ** (MK): *n* CL12-ear; (11.10)  
**á-tǒŋ** (MK): *n* CL6-ear; (8.107)  
**bí-tǒŋ** (BY): *n* CL8-ear; (7.27)  
**tɔŋ** (BY): *v* (B)blow.horn; (11.38)  
**tǎba** (MK): *n* CL1-cigarette; (8.35)  
**tǎbə** (MK): *n* CL1-cigarette; (6.89)  
**taha** (NG): *v* (B)scatter; (10.160)  
**ú-tám** (BY): *n* CL3-village; (11.23)  
**í-tám** (MK): *n* CL4-axe; (5.10)  
**í-tám** (AB): *n* CL5-axe; (14.71)  
**te** (NG): *v* (B)come; (12.67)  
**n-te** (BY): *v* (B)1SG-come; (7.16)  
**to** (MS): *v* (B)come; (12.64)  
**ú-tóm** (AB): *n* CL3-village; (9.30)  
**ti-ti** (BY): *v* (c)VFOC~also; (4.45)  
**ti-tju** (BY): *v* (c)VFOC~also; (10.41)  
**ù-tì-tèn** (BY): *n* CL1-small; (10.41)  
**ɛí-tǒki** (MK): *n* CL19-tortoise; (8.16)  
**ɛí-tǒki** (MK): *n* CL19-tortoise; (10.6)  
**ɛí-tǒrɔki** (MK): *n* CL19-tortoise; (10.146)  
**tɛ** (MS): *v* (B)grow.up; (6.48)  
**ā-tí** (MK): *n* CL12-tree; (14.48)  
**bù-tǐ** (MK): *n* CL14-medicine; (15.19)  
**ì-tǐ** (NG): *n* CL5-stone; (14.9)  
**bī-tǐ** (MK): *n* CL8-tree; (9.13)  
**tí** (MK): *v* (B)come; (15.16)  
**í-tǐ** (AB): *n* CL10-three; (6.87)  
**bǎ-tǐ** (AB): *n* CL2-three; (6.88)  
**kǎ-tǐ** (BY): *n* CL12-tree; (10.137)  
**bī-tǐ** (BY): *n* CL8-tree; (9.5)  
**tɔfə** (MS): *v* (B)be.careful; (13.65)  
**tɔhɔ** (BY): *v* (B)be.careful; (13.66)  
**tɔlə** (NG): *v* (B)be.careful; (15.61)  
**tǎ** (AB): *n* CL1-father; (10.115)  
**taha** (MS): *v* (B)remove.honey; (4.17)  
**bā-tɛ** (MS): *n* CL2-three; (6.41)  
**te** (BY): *v* (B)come; (12.34)  
**to** (MS): *v* (B)come; (11.32)  
**ú-tón** (AB): *n* CL3-bitterleaf; (10.126)  
**ton** (MS): *v* (B)refuse; (14.89)  
**ú-tù** (AB): *n* CL14-day; (11.86)  
**tu** (MS): *v* (B)come; (6.97)  
**ū-tùn** (MS): *n* CL3-bitterleaf; (10.85)  
**tɔŋ=a** (MK): *v* (A)touch=PRF; (10.117)  
**ta** (BY): *v* (c)show; (12.58)  
**taa** (NG): *v* (c)show; (10.120)  
**taa** (NG): *v* (c)show; (10.121)  
**taha** (MS): *v* (A)scatter; (10.159)  
**n-taha** (MS): *v* (c)1SG-scatter; (6.17)  
**talə** (MK): *v* (c)grow.up; (6.16)  
**talə** (MK): *v* (c)show; (10.100)  
**tám** (MK): *n* CL1-hour; (8.108)  
**tam** (MK): *v* (B)shoot; (10.72)  
**tam** (MK): *v* (c)send; (9.15)  
**tam** (MK): *v* (c)send; (6.10)  
**n-tam** (MK): *v* (c)1SG-send; (8.125)  
**tam=a** (NG): *v* (B)shoot=PRF; (10.40)  
**tan** (BY): *v* (A)cross; (12.11)  
**tan** (MS): *v* (A)cross; (10.34)  
**tan** (MK): *v* (A)jump; (A.79)  
**tan** (MK): *v* (A)jump; (8.96)  
**tan** (MS): *v* (c)abandon; (9.9)  
**tan** (MK): *v* (c)dry; (10.143)  
**tan=a** (MK): *v* (A)dry=PRF; (7.22)  
**taŋ** (AB): *v* (A)touch; (9.19)  
**ɬɛn** (MK): *v* (A)be.lacking; (14.34)  
**á-tɛí** (AB): *n* CL12-chameleon; (10.77)  
**ú-tɛí** (AB): *n* CL3-different; (9.30)  
**í-tɛí** (AB): *n* CL5-different; (9.30)  
**ɬii** (BY): *v* (c)contribute; (4.6)  
**ɬei** (NG): *v* (B)also; (7.14)  
**ɬɔŋ** (BY): *v* (B)see; (9.49)  
**ɬɛam** (BY): *v* (B)beat; (11.19)  
**ɬɛam** (BY): *v* (B)slap; (8.131)  
**ú-ɬóm** (MS): *n* CL3-village; (14.45)  
**ú-ɬú** (MK): *n* CL3-mouth; (9.57)  
**bí-ɬú** (BY): *n* CL8-caterpillar; (8.129)  
**ɬɛu** (MS): *v* (B)carry.water; (10.125)  
**ɬei=a** (MK): *v* (A)look=PRF; (A.57)  
**ɬei-ɬei** (NG): *v* (c)VFOC~also; (10.90)  
**ɬei-ɬei** (MK): *v* (A)VFOC~look; (8.125)  
**ɬei-ɬɛa** (MK): *v* (A)VFOC~pass; (6.8)  
**ɬei-ɬɛa** (MK): *v* (A)VFOC~surpass; (10.64)  
**ɬɛin-ɬɔŋ** (BY): *v* (B)VFOC~see; (8.76)  
**ɬei-ɬɛa** (MK): *v* (A)VFOC~pass; (8.48)  
**ɬei-ɬɛu** (NG): *v* (A)VFOC~look; (12.41)  
**ɬɛin-ɬɛuɔn** (BY): *v* (A)VFOC~know; (12.60)  
**ɬɛŋɔ** (AB): *n* CL1-female; (10.98)  
**ù-ɬɛlə** (AB): *n* CL1-female; (11.42)  
**bù-ɬɛlə** (NG): *n* CL1-COM.female; (8.81)  
**ù-ɬɛlə** (MK): *n* CL1-female; (15.42)  
**ù-ɬɛlə** (MK): *n* CL1-female.ADJ; (A.111)  
**ù-ɬɛlə** (MK): *n* CL1-woman; (11.40)  
**bə-ɬɛlə** (MK): *n* CL2-female; (14.59)  
**bǎ-ɬɛlə** (MK): *n* CL2-female.ADJ; (A.76)

- bə-tɛɔ̃lə** (MK): *n* CL2-woman; (5.2)  
**bā-tɛɔ̃lə** (MS): *n* CL2-female; (10.63)  
**ù-tɛ̀ùlə** (NG): *n* CL1-female; (7.21)  
**ù-tɛ̀ùlə** (MS): *n* CL1-woman; (5.3)  
**bù-tɛ̀ùlə** (NG): *n* CL1-COM.female; (12.42)  
**bù-tɛ̀ùlə** (NG): *n* CL1-COM.female; (7.21)  
**bə-tɛ̀ùlə** (NG): *n* CL2-female; (8.22)  
**n-tɛo=na** (MS): *v* (B)INF-carry.water=DAT; (7.19)  
**ī-tɛ̀òxo** (AB): *n* CL8-corn.basket; (10.124)  
**ī-tɛ̀òxo** (AB): *n* CL8-corn.cage; (8.135)  
**bi-tɛ̀ɔ̃ɲbə** (MS): *n* CL8-groundnut; (4.21)  
**tɛa** (MK): *v* (A)pass; (10.65)  
**tɛa** (MS): *v* (A)surpass; (10.63)  
**tɛa** (NG): *v* (A)surpass; (8.44)  
**tɛo** (MS): *v* (B)knock; (10.70)  
**ú-tɛ̀óm** (MS): *n* CL3-village; (11.94)  
**tɛ̀ù** (MK): *n* CL1-family; (A.79)  
**tɛ̀ù** (AB): *n* CL1-wife; (8.106)  
**bə-tɛ̀ù** (NG): *n* CL2-wife; (14.8)  
**ì-tɛ̀ù** (MS): *n* CL5-family; (10.105)  
**tɛu** (NG): *v* (A)direct; (12.4)  
**tɛu** (MS): *v* (A)knock; (10.70)  
**tɛu** (BY): *v* (A)look; (8.15)  
**tɛu** (BY): *v* (A)look; (8.21)  
**n-tɛu** (BY): *v* (A)tie; (6.90)  
**n-tɛu** (BY): *v* (A)1SG-look; (12.10)  
**n-tɛu** (BY): *v* (A)1SG-look; (12.11)  
**ú-tɛ̀úm** (MS): *n* CL3-village; (9.61)  
**ì-tɛ̀ũɲ** (NG): *n* CL5-law.juju; (14.9)  
**í-tɛ̀úɔ** (AB): *n* CL8-things; (10.76)  
**tɛuɔn** (BY): *v* (A)know; (10.62)  
**tɛələ** (MS): *v* (A)look; (12.64)  
**tɛəɲ** (MK): *v* (A)just; (8.110)  
**tɛəɲ** (BY): *v* (A)just; (11.67)  
**tɛəɲ** (MK): *v* (A)lack; (8.111)  
**tɛè** (MS): *n* CL1-wife; (10.103)  
**tɛɛ** (MS): *v* (A)exceed; (10.132)  
**tɛɛ** (BY): *v* (A)pass; (10.62)  
**tɛɛhɛ** (BY): *v* (A)show; (12.10)  
**tɛɛn** (NG): *v* (A)just; (15.48)  
**tɛɛn** (MK): *v* (A)lack; (A.10)  
**n-tɛɛn** (MK): *v* (A)1SG-just; (9.1)  
**kə-tɛ̀í** (AB): *n* CL12-chameleon; (14.6)  
**bì-tɛ̀í** (BY): *n* CL8-juju; (9.41)  
**tɛi** (MK): *v* (A)look; (8.82)  
**tɛi** (BY): *v* (A)look; (14.37)  
**tɛi=a** (NG): *v* (B)also=PRF; (7.14)  
**tɛi-tɛi** (NG): *v* (B)VFOC-also; (8.101)  
**tɛɔ** (MS): *v* (B)fry..IRR; (4.18)  
**tɛɔɲ=a** (BY): *v* (B)see=PRF; (12.39)  
**tɛɔɲ=nə** (BY): *v* (B)see=DAT; (14.93)  
**tɛa** (MK): *v* (A)pass; (6.47)  
**tɛ̀ù** (MK): *n* CL1-wife; (A.90)  
**bə-tè** (NG): *n* CL2-three; (8.22)  
**te** (BY): *v* (B)come; (5.4)  
**te** (NG): *v* (B)come; (12.4)  
**te** (MS): *v* (B)come; (5.3)  
**i-te-lə** (BY): *v* (B)INF-come-; (6.32)  
**te=a** (NG): *v* (B)come=PRF; (12.40)  
**time** (MK): *n* CL1-time; (10.13)  
**bá-tjǎɲ** (NG): *n* CL2-children; (8.22)  
**tju** (AB): *v* (A)peck; (9.54)  
**tjəm** (BY): *v* (A)sew; (11.36)  
**tjəm** (BY): *v* (A)sew; (11.67)  
**tjum** (BY): *v* (A)sew; (12.26)  
**tō** (AB): *n* CL17.DET; (9.30)  
**to** (MS): *v* (B)come; (8.23)  
**to** (MK): *v* (B)come; (A.35)  
**to** (AB): *v* (C)show; (8.54)  
**fǎ-tófə** (BY): *n* CL16-fireside; (11.22)  
**tom** (MK): *v* (A)hammer; (8.142)  
**tomə** (MK): *v* (A)hammer; (8.141)  
**torokí** (BY): *n* CL1-tortoise; (12.39)  
**i-toə-nə** (MK): *v* (B)INF-carry.water-; (10.21)  
**tse=a** (MK): *v* (C)finish=PRF; (14.4)  
**ì-tɛ̀ɛnə** (MK): *n* CL5-path; (14.74)  
**tsin-tɛ̀ɔ̃ɲə** (MK): *v* (B)VFOC~see; (12.96)  
**tsin-tɛ̀ɔ̃ɲə** (MK): *v* (B)VFOC~see; (12.95)  
**tsin-tɛ̀samə** (MK): *v* (B)VFOC~beat; (10.18)  
**tsin-tɛ̀sam** (AB): *v* (B)VFOC~beat; (11.14)  
**tsin-tɛ̀ɔ̃ɲə** (MK): *v* (B)VFOC~see.Q.POLAR; (A.105)  
**bā-tɛ̀ínsə** (MS): *n* CL2-black.ADJ; (10.129)  
**bí-tɛ̀sá** (MK): *n* CL8-juju; (8.86)  
**tsɔɲə** (MK): *v* (B)see; (13.17)  
**tsɔɲ** (NG): *v* (B)see; (8.81)  
**n-tɛ̀ɔ̃ɲ** (MK): *v* (B)1SG-see; (15.33)  
**tsɔɲ** (MK): *v* (B)see; (15.33)  
**tsɔɲə** (MK): *v* (B)see; (A.98)  
**tsam** (AB): *v* (B)beat; (6.88)  
**tsam** (MK): *v* (B)talk; (8.60)  
**n-tɛ̀sam** (NG): *v* (B)1SG-slap; (10.90)  
**n-tɛ̀sam** (MK): *v* (B)1SG-slap; (10.155)  
**tsaɲ** (AB): *v* (B)see; (14.6)  
**tse** (MS): *v* (B)pass.night; (8.58)  
**tse** (MK): *v* (B)stay.night; (8.56)  
**tse** (BY): *v* (B)stay.overnight; (9.41)  
**n-tɛ̀sitsa** (MK): *v* (A)1SG-VFOC~know; (12.106)  
**tsunə** (NG): *v* (A)know; (12.49)  
**tsa** (MK): *v* (A)know; (A.34)  
**i-tsa=nɪ** (AB): *v* (A)PREP.INF-know=DAT; (8.118)  
**mən-tɛ̀ðbə** (MK): *n* CL6a-hot.ADJ; (5.21)  
**ì-tɛ̀ðn** (BY): *n* CL5-road; (9.25)  
**tsən** (MK): *v* (B)be.drunk; (12.108)  
**tsɔɲə** (NG): *v* (B)see; (12.40)  
**ũ-tɛ̀ɔ̃ɲ** (MS): *n* CL3-pot; (5.3)  
**tsɔɲ** (MK): *v* (B)see; (8.79)  
**tsɔɲ** (MK): *v* (B)see; (A.111)  
**tsam** (MK): *v* (B)talk; (8.41)

- tsaŋ** (MS): *v* (B)see; (10.130)  
**n-tsaŋ-nə-nə** (MS): *v* (B)INF-see-INF-INF; (11.31)  
**n-tsaŋ-nə-nə** (MS): *v* (B)INF-see-INF-INF; (10.22)  
**tse** (MK): *v* (B)pass.night; (8.57)  
**tsɔŋ=ə** (MK): *v* (B)see=PRF; (A.112)  
**tsɔŋ=a** (MK): *v* (B)see=PRF; (8.77)  
**bí-tsâ** (MS): *n* CL8-juju; (13.55)  
**tsa** (AB): *v* (A)know; (8.121)  
**tsa** (MK): *v* (A)know; (8.62)  
**n-tsa** (MK): *v* (A)1SG-know; (A.48)  
**n-tsa** (MK): *v* (A)1SG-know; (8.115)  
**n-tsa** (MK): *v* (A)1SG-know; (A.45)  
**tsal=a** (MK): *v* (A)know=PRF; (10.68)  
**tsalə** (MK): *v* (A)know; (12.18)  
**n-tsalə** (MK): *v* (A)1SG-know; (10.24)  
**tsam** (NG): *v* (A)speak; (12.5)  
**tsam** (MK): *v* (A)talk; (A.57)  
**tsam** (MK): *v* (A)talk; (10.114)  
**i-tsam** (MK): *v* (B)INF-talk; (8.60)  
**i-tsam** (MK): *v* (B)INF-talk; (8.60)  
**tsam=a** (NG): *v* (A)talk=PRF; (15.48)  
**tsamə** (MK): *v* (A)talk; (A.56)  
**tsamə** (MK): *v* (A)talk; (12.17)  
**n-tsamə** (MK): *v* (A)1SG-talk; (15.26)  
**tsamə** (MK): *v* (C)dance; (12.37)  
**tsa** (MK): *v* (A)know; (15.57)  
**tse** (MS): *v* (A)go; (10.157)  
**tse** (MS): *v* (A)go; (4.21)  
**i-tse-nə** (MK): *v* (C)INF-pass.night-INF; (10.100)  
**n-tse** (MS): *v* (A)1SG-know; (6.91)  
**tse** (MK): *v* (C)finish; (11.2)  
**tse=a** (MK): *v* (C)finish=PRF; (8.99)  
**tsɯ=a** (AB): *v* (C)finish=PRF; (7.6)  
**kó-tsô** (BY): *n* CL12-cock; (6.22)  
**bí-tsô** (BY): *n* CL8-rooster; (6.27)  
**tsɔ** (MS): *v* (A)go; (8.6)  
**tsɔ** (BY): *v* (B)tie; (12.32)  
**n-tsɔ** (MK): *v* (B)1SG-stay.night; (8.61)  
**tsɔŋ=a** (MK): *v* (B)see=PRF; (A.11)  
**tsɔŋ** (MK): *v* (B)see; (A.71)  
**tsɔŋ=a** (NG): *v* (B)see=PRF; (7.21)  
**tsa** (MK): *v* (A)know; (10.97)  
**tsam** (MK): *v* (A)talk; (15.11)  
**bú-tû** (MK): *n* CL14-day; (8.42)  
**bú-tû** (AB): *n* CL14-night; (9.31)  
**tû** (AB): *n* CL17-CL17.there; (9.31)  
**ì-tû** (MK): *n* CL5-family; (10.48)  
**ì-tû** (MK): *n* CL5-species; (12.110)  
**ì-tû** (MK): *n* CL5-type; (15.34)  
**bì-tû** (MK): *n* COM.CL5-family; (A.61)  
**tu** (BY): *v* (A)peck; (8.129)  
**tu=a** (BY): *v* (A)peck=PRF; (12.71)  
**tumə** (MK): *v* (A)be.fast; (A.9)  
**ú-túnə** (MK): *n* CL3-week; (A.19)  
**təfə** (MK): *v* (A)pluck.feathers; (A.82)  
**təfə** (MK): *v* (B)pluck; (7.18)  
**təm** (MK): *v* (B)shoot; (8.62)  
**təm** (BY): *v* (B)shoot; (8.8)  
**í-tómə** (MK): *n* CL5-PREP-INF-shoot; (10.66)  
**í-tómə** (MK): *n* CL5-PREP.ING-shoot; (10.97)  
**tən** (BY): *v* (C)rear; (6.99)  
**í-tén=nó** (MK): *n* CL5-PREP-INF-rear=DAT; (10.102)  
**bī-tōtè** (BY): *n* CL8-six; (15.53)  
**bó-təŋ** (BY): *n* CL2-child; (8.134)  
**á-təŋ** (AB): *n* CL2-children; (9.47)  
**ī-tè** (MK): *n* CL10-three; (13.27)  
**bō-tè** (BY): *n* CL2-three; (10.57)  
**ā-tè** (MK): *n* CL6-three; (12.18)  
**tɛ** (MK): *v* (A)clean; (10.25)  
**tɛ** (MK): *v* (A)clean; (8.139)  
**tɛ** (MK): *v* (A)undress; (8.99)  
**tɛ** (BY): *v* (A)undress; (11.38)  
**tɛ** (MS): *v* (C)grow.up; (6.24)  
**tɛ** (MS): *v* (C)grow.up; (8.24)  
**tɛ** (NG): *v* (C)meet; (15.24)  
**tɛŋ** (MS): *v* (A)climb; (8.1)  
**tɛŋ** (MS): *v* (A)jump; (8.138)  
**bú-tî** (MK): *n* CL14-medicine; (A.47)  
**ì-tī** (BY): *n* CL5-stone; (12.39)  
**tī** (AB): *v* (A)step; (10.158)  
**tī** (MK): *v* (C)hang; (12.98)  
**tū** (AB): *v* (C)meet; (10.7)  
**tū** (AB): *v* (C)meet; (14.6)  
**n-tū** (BY): *v* (C)1SG-grow.up; (9.16)  
**n-tū** (BY): *v* (C)1SG-meet; (14.92)  
**tī-tī** (BY): *v* (B)VFOC~also; (6.14)  
**kí-tífə** (MS): *n* CL7-law; (13.65)  
**ī-tē** (MK): *n* CL5-side.path; (12.55)  
**ā-tó** (MK): *n* CL12-rafters; (7.22)  
**kā-tō** (BY): *n* CL7-tree; (12.109)  
**tɔ** (MS): *v* (B)carry.on.shoulder; (10.85)  
**fǝ-tǝfə** (BY): *n* CL16-fireside; (12.13)  
**tɔhɔ** (AB): *v* (B)be.careful; (11.55)  
**Tɔrɔkí** (BY): *n* CL1-tortoise; (9.10)  
**ɛí-tǝrɔkí** (MK): *n* CL19-tortoise; (8.41)  
**talə** (MK): *v* (C)show; (10.91)  
**tam** (MK): *v* (C)send; (12.47)  
**tanə** (MK): *v* (B)refuse.IPV; (10.89)  
**te** (BY): *v* (B)come; (12.46)  
**to** (MK): *v* (B)come; (10.39)  
**ù** (NG): *n* CL1; (12.41)  
**ù** (BY): *n* CL1; (12.28)  
**ù** (BY): *n* CL1-COP; (14.75)  
**ù** (AB): *n* CL1-DS; (9.31)  
**ú** (NG): *n* LOC.CL1; (10.73)  
**ū** (NG): *n* CL1-LOC.OBJ; (12.41)  
**ú** (NG): *n* PREP.CL1; (8.59)  
**ù** (NG): *n* CL1-TOP; (12.41)

- ù (MK): *n* CL2; (A.18)  
 ú (NG): *n* CL3-PREP.LOC.OBJ; (8.69)  
 ù (AB): *n* CL5.DET; (9.64)  
 ù<sub>SBJ</sub> (MK): *n* CL1; (10.1)  
 ù=**nó** (NG): *n* CL1=DAT; (10.120)  
 ù (AB): *n* CL1.DET; (12.93)  
 ù (MK): *n* CL1-COP; (14.12)  
 w=**á** (AB): *n* CL1=NEG; (11.87)  
 wè**ní** (MK): *n* CL1-sibling; (12.47)  
 wē**né** (MK): *n* CL1.sibling.2SG.POSS?; (A.99)  
 ù-w**ón** (MK): *n* CL1-nyanga; (15.34)  
 í-w**ón** (AB): *n* CL10-pig; (11.14)  
 ú-w**óho** (NG): *n* CL3-gun; (10.40)  
 ú-w**ón** (BY): *n* CL1-fancy.thing; (10.37)  
 í-w**ú** (MK): *n* CL10-pig; (6.83)  
 í-w**ú** (MK): *n* CL10-pig; (10.18)  
 w**ɔ** (MK): *v* (c)hear; (A.63)  
 w**u** (MK): *v* (c)hear; (A.40)  
 í-w**ěhe** (MK): *n* CL4-fire; (8.20)  
 w**ɔ** (MK): *v* (B)hear; (13.6)  
 í-w**ó** (MK): *n* CL10-pig; (12.106)  
 w**ɔ** (MS): *v* (A)squeeze; (4.16)  
 ñ-w**a** (MS): *v* (B)1SG-keep; (6.13)  
 ú-w**áha** (MK): *n* CL3-sun; (11.25)  
 w**am** (BY): *v* (B)shout; (12.32)  
 w**an** (BY): *v* (B)keep; (4.23)  
 w**an** (MK): *v* (B)keep; (8.42)  
 w**an**<sub>v</sub> (MK): *v* (B)keep; (10.1)  
 w**anə** (MK): *v* (B)keep; (10.143)  
 w**o** (MK): *v* (B)hear; (8.78)  
 í-w**óho** (NG): *n* CL4-fire; (12.66)  
 w**ú** (MK): *n* CL3; (12.102)  
 w**u** (AB): *v* (B)wash; (7.8)  
 í-w**ú** (MK): *n* CL10-pig; (6.1)  
 í-w**ú** (MK): *n* CL4-spear; (5.10)  
 b**ɛ**-w**í** (AB): *n* CL2-sibling; (10.115)  
 í-w**í-wí** (MK): *n* CL10-RED~white; (10.97)  
 b**ā**-w**àsə** (MS): *n* CL2-sibling; (14.51)  
 w**ù**=**nó** (MK): *n* CL1=DAT; (15.42)  
 ù-w**ən** (BY): *n* CL1-CL1.DEM.PROX; (6.70)  
 w**ən** (AB): *n* CL1-DEM.PROX; (8.121)  
 ū-w**ē** (MK): *n* CL3-moon; (15.9)  
 ī-w**ē** (MK): *n* CL4-moon; (9.52)  
 w**ɔ** (MK): *n* CL1-DEM.PROX; (A.28)  
 ù-w**ɔn** (MK): *n* CL1-decoration; (6.47)  
 ū-w**ɔn** (MK): *n* CL1-ornaments; (8.46)  
 w**ɔ** (AB): *n* CL1-DEM.PROX; (11.37)  
 ù-w**ɔ** (MK): *n* CL1-CL1.DEM.PROX; (A.25)  
 w**ɔ** (MK): *n* CL1-DEM.PROX; (6.21)  
 ù-w**ɔ** (MK): *n* CL1-CL1.DEM.PROX; (A.29)  
 w**ɔ** (MK): *n* CL1-DEM.PROX; (A.106)  
 w**a** (MS): *v* (B)keep; (12.63)  
 w**am** (MK): *v* (B)shout; (10.114)  
 w**an** (BY): *v* (B)keep; (9.49)  
 ā-w**é** (BY): *n* CL6-white; (6.59)  
 w**ɔ** (BY): *n* CL1-child; (12.31)  
 w**ě** (MS): *n* CL1-FUT; (12.64)  
 w**ě** (BY): *n* CL1-NEG; (11.51)  
 w**ě** (NG): *n* CL1-FUT; (6.95)  
 w**ă** (MK): *n* CL1-FUT; (15.42)  
 w**ă** (MK): *n* CL1-NEG; (13.6)  
 w**à** (MS): *n* CL1-child; (14.22)  
 w**à** (MS): *n* CL1-DS; (11.32)  
 w**aha** (MK): *v* (A)buy; (12.16)  
 w**aha** (MS): *v* (A)buy; (10.20)  
 w**aha** (BY): *v* (A)scatter; (15.32)  
 w**alə** (BY): *v* (c)hear; (14.80)  
 w**án** (MK): *n* CL1-child; (10.16)  
 ù-w**àn** (MK): *n* CL1-father.in.law; (A.82)  
 u-w**an** (BY): *n* CL1-parent.in.law; (8.34)  
 ɛ**í-wán** (MK): *n* CL19-child; (14.12)  
 w**an** (MK): *v* (B)keep; (12.98)  
 w**an**=**ə** (MK): *v* (B)keep=PRF; (12.104)  
 w**an**=**a** (BY): *v* (B)keep=PRF; (10.109)  
 w**án**=**nó** (NG): *n* CL1-child=DAT; (6.95)  
 w**anhə** (MK): *v* (B)keep; (12.98)  
 w**à** (MS): *n* CL1-sibling; (14.22)  
 b**ā-wásə** (MS): *n* CL2-sibling; (10.107)  
 w**è** (BY): *n* CL1; (8.8)  
 w**ē** (BY): *n* CL1.DET; (8.3)  
 w**ē** (BY): *n* CL3.DET; (14.37)  
 w**ē**<sub>i</sub> (BY): *n* CL1; (12.62)  
 b**ā-wilə** (MK): *n* CL2-white; (8.47)  
 w**ō** (MS): *n* CL6.CL6.DET; (4.10)  
 w**ō** (MS): *n* CL6.DET; (4.14)  
 w**o**=**a** (MK): *v* (c)hear=PRF; (8.41)  
 n-w**o** (MS): *v* (A)1SG-thing; (9.58)  
 w**o** (BY): *v* (A)squeeze.honey; (8.34)  
 w**rapper** (MK): *n* CL1-wrapper; (15.12)  
 w**ù** (BY): *n* CL1; (10.11)  
 w**ù** (MK): *n* CL1; (12.84)  
 w**ū** (AB): *n* CL1.DET; (8.45)  
 w**ù** (MS): *n* CL1-DS; (14.83)  
 w**ū** (MK): *n* CL1-LOC.OBJ; (7.12)  
 w**ù** (MS): *n* CL1.POSS; (14.21)  
 w**ú** (MK): *n* CL3; (A.36)  
 w**ú** (MK): *n* CL3; (12.95)  
 w**ū** (MS): *n* CL3.DET; (11.94)  
 w**u** (MK): *v* (A)grind; (10.65)  
 w**u** (MK): *v* (A)grind; (15.26)  
 w**u** (AB): *v* (A)wash; (14.90)  
 w**u** (MK): *v* (B)open; (A.40)  
 w**u** (AB): *v* (c)ascend; (11.66)  
 w**u** (MK): *v* (c)open; (11.40)  
 ñ-w**u** (MK): *v* (c)1SG-open; (13.9)  
 w**ù**=**nó** (MK): *n* CL1=DAT; (10.89)  
 í-w**úm-nó** (MK): *n* CL5-INF-dry-DAT; (14.74)  
 ì-w**ù** (MK): *n* CL9-pig; (14.59)

- ì-wùŋə** (MK): *n* CL9-pig; (10.146)  
**wù=nə̄** (MK): *n* CL1=DAT; (12.103)  
**wə̄** (BY): *n* CL1; (15.40)  
**wə̄** (BY): *n* CL1; (13.66)  
**wə̄** (MS): *n* CL1-child; (12.64)  
**wə̄** (AB): *n* CL1; (12.75)  
**wə̄** (MK): *n* CL1.DET; (6.21)  
**wə̄** (NG): *n* CL1-LOC.PRO; (8.97)  
**wə̄** (BY): *n* CL1.POSS; (12.7)  
**wə̄** (MK): *n* CL3.DET; (9.13)  
**wə̄** (MK): *n* CL3-LOC.OBJ; (9.39)  
**wə̄** (BY): *n* CL6.DET; (6.63)  
**wə̄=nə̄** (BY): *n* CL1=DAT; (10.80)  
**wən** (BY): *v* (A)lie.down; (8.3)  
**wən** (BY): *v* (A)sleep; (13.1)  
**wən** (MK): *v* (A)sleep; (8.61)  
**wən=ə̄** (NG): *v* (A)sleep=PRF; (7.21)  
**wənə̄** (MK): *n* CL3-DEM.PROX; (A.84)  
**wənə̄** (BY): *v* (A)lie.down; (6.5)  
**wè** (NG): *n* CL1; (10.104)  
**wè** (MK): *n* CL1-child; (A.88)  
**wē** (BY): *n* CL1.DET; (5.4)  
**ŋ-wɛ** (MK): *v* (c)1SG-go.farm; (5.5)  
**wɛ=a** (MK): *v* (c)go.farm=PRF; (12.54)  
**bə̄-wɛŋí** (MK): *n* CL2-sibling; (A.101)  
**wɛŋínà** (MK): *n* CL1-uncle; (A.89)  
**ù-wɛn** (NG): *n* CL1-CL1.DEM.PROX; (6.95)  
**ù-wɛn** (MK): *n* CL1-DEM.PROX; (10.68)  
**wɛn** (NG): *n* CL3-DEM.PROX; (9.3)  
**wɛné** (MK): *n* CL1-sibling; (10.67)  
**wɛné** (MK): *n* CL1.sibling.2SG.POSS?; (A.100)  
**wi** (MK): *v* (c)bright; (8.139)  
**wì** (BY): *n* CL1; (14.91)  
**wī** (BY): *n* CL3.DET; (12.72)  
**wi=a** (MK): *v* (c)be.clean=PRF; (A.16)  
**wihi** (MS): *v* (A)scatter; (10.15)  
**ì-wilə̄** (MK): *n* CL5-skin; (8.12)  
**wilə̄** (MK): *v* (c)peel; (8.12)  
**wisə̄** (BY): *n* CL1-whistle; (11.38)  
**wḍ** (MK): *n* CL1-child; (A.35)  
**wḍ** (MK): *n* CL1.DET; (8.115)  
**wḍ** (MK): *n* CL1-child; (8.88)  
**wḍ** (MK): *v* (c)hear; (A.35)  
**wḍ** (MK): *v* (c)hear; (A.13)  
**ŋ-wḍ** (MK): *v* (c)1SG-hear; (A.50)  
**wḍŋ** (AB): *v* (c)nil; (10.98)  
**wḍŋ** (NG): *n* CL1-DEM.PROX; (8.114)  
**wḍŋ** (BY): *n* CL3-DEM.PROX; (12.26)  
**wḍŋhə̄** (NG): *v* (A)think; (12.41)  
**wḍŋḍ** (MK): *n* CL3-DEM.PROX; (A.36)  
**wḍ** (MK): *n* CL1-then; (12.103)  
**wan=ə̄** (MK): *v* (B)keep=PRF; (8.43)  
**wē** (BY): *n* CL1.DET; (8.8)  
**wū** (BY): *n* CL1-LOC.OBJ; (12.15)



## **B.2 Sorted by English gloss**

- bó-bjà̀n** (MK): *n* CL2-Ajumbu.person; (6.84)  
**ɕámàn** (MS): *n* CL1-Germans; (14.44)  
**ásó** (MK): *n* CL2-Isu; (8.74)  
**kī-nsəm** (MS): *n* CL7-Kinsam; (8.6)  
**bī-kú** (MS): *n* CL8-Koshin; (6.6)  
**bā-ŋkɛ̃** (MS): *n* CL2-Mashi.people; (14.52)  
**mbòlɔ** (BY): *n* CL1-Mbolo; (12.26)  
**mbòlɔ** (BY): *n* CL1-Mbolo; (12.26)  
**bā-ŋkámə** (MK): *n* CL2-Mekaf.people; (10.33)  
**bì-ɕūn** (MS): *n* CL8-Missong; (13.65)  
**tan** (MS): *v* (c)abandon; (9.9)  
**bam** (MK): *v* (c)accept; (A.44)  
**bam** (AB): *v* (c)accept; (11.68)  
**bamə** (MK): *v* (c)accept; (6.98)  
**bum~bam** (AB): *v* (c)VFOC~accept; (11.69)  
**bam** (MK): *v* (c)accept; (8.136)  
**bamə** (MK): *v* (c)accept; (10.101)  
**dɔhɔ** (MK): *v* (A)again; (9.39)  
**kam** (MS): *v* (A)again; (13.19)  
**kam** (AB): *v* (A)again; (9.55)  
**kəm** (MK): *v* (A)again; (A.16)  
**kəm** (MK): *v* (A)again; (14.68)  
**ŋ-kəm** (MK): *v* (A)1SG-again; (6.18)  
**kəmə** (MK): *v* (A)again; (A.63)  
**ɕɔŋ** (MK): *v* (A)again; (8.90)  
**ɕɔŋ=ə** (BY): *v* (A)again=PRF; (8.89)  
**ɕɔŋ=ɔ** (MK): *v* (A)again=PRF; (8.88)  
**ɕɔŋɔ** (MK): *v* (A)again; (A.28)  
**ú-gbáha** (NG): *n* CL3-air; (10.75)  
**ú-gbǎha** (BY): *n* CL3-air; (8.134)  
**ki~ki** (MK): *v* (c)VFOC~also; (6.50)  
**ki~ki** (MK): *v* (c)VFOC~also; (A.69)  
**ki~kju** (MK): *v* (c)VFOC~also; (A.52)  
**ki~kju** (MK): *v* (c)VFOC~also; (A.51)  
**kjo** (MK): *v* (B)also; (8.102)  
**kjo** (MK): *v* (c)also; (A.87)  
**kə** (MK): *v* (B)also; (15.56)  
**ki** (MK): *v* (c)also; (A.89)  
**ki** (MK): *v* (c)also; (10.89)  
**ki** (MK): *v* (c)also; (A.24)  
**ti** (BY): *v* (B)also; (10.57)  
**ti-ti** (BY): *v* (c)VFOC~also; (4.45)  
**ti-tju** (BY): *v* (c)VFOC~also; (10.41)  
**ɕɛi** (NG): *v* (B)also; (7.14)  
**ɕɛi-ɕɛi** (NG): *v* (c)VFOC~also; (10.90)  
**ɕɛi=a** (NG): *v* (B)also=PRF; (7.14)  
**ɕɛi-ɕɛi** (NG): *v* (B)VFOC~also; (8.101)  
**ti-ti** (BY): *v* (B)VFOC~also; (6.14)  
**ŋgunə** (MS): *n* CL1-anger; (6.19)  
**í-fĩ** (NG): *n* CL10-animal; (12.41)  
**í-ɕĩ** (AB): *n* CL10-animal; (13.54)  
**bim~bam** (AB): *v* (c)VFOC~answer; (11.90)  
**ì-jàŋ** (AB): *n* CL5-arm; (9.60)  
**ba** (AB): *v* (B)arrange.in.basket; (8.135)  
**ji~ju** (MS): *v* (c)VFOC~ascend; (8.2)  
**juə** (BY): *v* (c)ascend; (15.47)  
**jə** (BY): *v* (c)ascend; (8.26)  
**je** (MS): *v* (c)ascend; (8.72)  
**je** (BY): *v* (c)ascend; (12.29)  
**jelə** (MS): *v* (c)ascend; (11.32)  
**ji** (MS): *v* (c)ascend; (6.24)  
**ju** (MK): *v* (c)ascend; (A.40)  
**je** (NG): *v* (c)ascend; (8.7)  
**ji** (NG): *v* (c)ascend; (7.21)  
**ji** (MK): *v* (c)ascend; (14.36)  
**wu** (AB): *v* (c)ascend; (11.66)  
**ka** (MK): *v* (B)ask.debt; (10.146)  
**bufə** (BY): *v* (B)ask; (11.57)  
**bɔh=a** (MK): *v* (B)ask=PRF; (15.43)  
**boho** (MS): *v* (B)ask; (10.19)  
**bɔfə** (BY): *v* (B)ask; (10.111)  
**m-bɔfə** (MK): *v* (B)1SG-ask; (12.107)  
**bɔfə** (BY): *v* (c)ask; (10.80)  
**bɔhɔ** (NG): *v* (c)ask; (10.73)  
**bɔhɔ** (AB): *v* (B)ask; (11.45)  
**bɔxɔ** (AB): *v* (B)ask; (10.77)  
**ù-kjĩ** (BY): *n* CL1-ASSOC; (12.46)  
**í-tám** (MK): *n* CL4-axe; (5.10)  
**í-tám** (AB): *n* CL5-axe; (14.71)  
**kəm** (MK): *v* (A)back; (8.96)  
**í-ɕəmə** (NG): *n* CL5-back; (6.66)  
**ì-ɕám** (AB): *n* CL5-back; (10.135)  
**ì-ɕəm** (MK): *n* CL5-back; (14.47)  
**í-bǎa** (AB): *n* CL8-bad; (8.71)  
**bí-bǎlə** (NG): *n* CL8-bad.ADJ; (14.56)  
**ki-baha** (MS): *v* (B)bad; (14.28)  
**ù-bǎlə** (MK): *n* CL1-bad.ADJ; (7.12)  
**à-bà** (MK): *n* CL12-bag; (A.10)  
**ì-kè** (MK): *n* CL5-basket; (8.102)  
**kə-ŋkè** (BY): *n* CL12-basket; (10.147)  
**kə-sǎŋ** (BY): *n* CL12-basket; (9.2)  
**tɔhɔ** (AB): *v* (B)be.careful; (10.112)  
**tɔfə** (MS): *v* (B)be.careful; (13.65)  
**tɔhɔ** (BY): *v* (B)be.careful; (13.66)  
**tɔlə** (NG): *v* (B)be.careful; (15.61)  
**tɔhɔ** (AB): *v* (B)be.careful; (11.55)  
**wi=a** (MK): *v* (c)be.clean=PRF; (A.16)  
**mələ** (MK): *v* (A)be.cold; (10.144)  
**kpan** (MK): *v* (B)be.correct; (13.62)  
**kpanhɔ** (AB): *v* (B)be.correct; (9.30)  
**tsən** (MK): *v* (B)be.drunk; (12.108)  
**nəfə** (MK): *v* (B)be.excessive; (9.21)  
**n-nəhə** (MK): *v* (B)1SG-be.excessive; (8.104)  
**ŋ-ŋaha** (AB): *v* (B)1SG-be.excessive; (8.106)  
**tumə** (MK): *v* (A)be.fast; (A.9)  
**nəm** (MK): *v* (B)be.fat; (10.64)  
**naŋ** (BY): *v* (B)be.fine; (8.34)  
**naŋ** (MK): *v* (B)be.fine; (8.141)

- dzɔŋ** (MS): *v* (B)be.fine; (6.19)  
**ɛi** (NG): *v* (C)be.full; (14.33)  
**nam** (MS): *v* (B)be.furtive; (8.1)  
**naŋ** (MK): *v* (B)be.good; (A.37)  
**naŋə** (MK): *v* (B)be.good; (A.104)  
**naŋ** (MK): *v* (B)be.good; (8.79)  
**naŋ** (MK): *v* (B)be.good; (A.96)  
**ni~naŋə** (MK): *v* (B)be.good; (A.7)  
**ni~naŋə** (MK): *v* (B)VFOC~be.good; (A.11)  
**dzin~dzɔŋ** (MS): *v* (B)VFOC~be.good; (8.23)  
**dzɔŋə** (AB): *v* (B)be.good; (11.3)  
**bi~ŋkwənə** (MK): *v* (C)be.happy; (6.33)  
**gɛ** (MK): *v* (A)be.heavy; (15.17)  
**ɬɛn** (MK): *v* (A)be.lacking; (14.34)  
**kpaha** (MK): *v* (A)be.last; (8.108)  
**kpaha** (MK): *v* (A)be.last; (8.107)  
**kpələ** (NG): *v* (A)be.lat; (6.66)  
**gɔ** (MK): *v* (A)be.lazy; (8.104)  
**gɟɛfə** (MK): *v* (A)be.long; (10.64)  
**di** (NG): *v* (C)be.many; (8.44)  
**gi** (MK): *v* (C)be.many; (A.2)  
**ɛi** (NG): *v* (C)be.many; (14.32)  
**du** (MS): *v* (A)be.many; (10.63)  
**di** (NG): *v* (A)be.many; (12.53)  
**mɟɛ** (BY): *v* (B)be.pregnant; (8.76)  
**jələ** (MK): *v* (A)be.quiet; (8.127)  
**jələ** (AB): *v* (C)be.quiet; (11.45)  
**jələ** (AB): *v* (A)be.quiet; (9.62)  
**gbabə** (MK): *v* (B)be.strong.Q.POLAR; (8.56)  
**gbabə** (MK): *v* (B)be.strong; (9.21)  
**gbabə** (MK): *v* (C)be.strong; (8.74)  
**kpan** (MK): *v* (B)be.sufficient; (15.11)  
**kpələ** (MS): *v* (B)be.sufficient; (6.48)  
**bu~bwɔ** (BY): *v* (B)VFOC~be.tired; (11.48)  
**bwəl=a** (MK): *v* (B)be.tired=PRF; (7.12)  
**bwə** (BY): *v* (B)be.tired; (14.76)  
**bwəl=a** (MK): *v* (B)be.tired=PRF; (A.85)  
**i~bwɔ** (BY): *v* (B)INF~be.tired; (14.76)  
**mwé~ndě** (AB): *n* CL6-bean; (13.50)  
**á~dê** (MS): *n* CL6-bean; (4.14)  
**bi** (MS): *v* (C)bear; (12.64)  
**mwe** (AB): *v* (B)beat; (10.17)  
**ɬɛm** (BY): *v* (B)beat; (11.19)  
**tsin~tsamə** (MK): *v* (B)VFOC~beat; (10.18)  
**tsin~tsam** (AB): *v* (B)VFOC~beat; (11.14)  
**tsam** (AB): *v* (B)beat; (6.88)  
**bí~kúŋ=nó** (MK): *n* CL8-bed-DAT; (8.57)  
**ì~nì** (NG): *n* CL5-bee; (5.19)  
**bi~bjafə** (MK): *v* (A)VFOC~belch; (11.50)  
**ni~nan** (BY): *v* (B)VFOC~big; (12.58)  
**nanə** (MK): *v* (B)big; (6.58)  
**ù~nónánə** (MK): *n* CL1-big; (15.35)  
**boŋ** (MK): *v* (B)bind; (8.93)  
**ì~kwèhɛ** (NG): *n* CL9-bird.type; (7.5)  
**ndəm** (AB): *n* CL1-bird.type; (10.29)  
**múŋ~nǎ** (NG): *n* CL18a-bird; (14.33)  
**mú~nǎnə** (MK): *n* CL18a-bird; (10.51)  
**ɛi~nùnə** (MK): *n* CL19-bird; (7.15)  
**mú~nǎnə** (MK): *n* CL18a-bird; (6.58)  
**ú~tòn** (AB): *n* CL3-bitterleaf; (10.126)  
**ū~tùn** (MS): *n* CL3-bitterleaf; (10.85)  
**bā~tsínsə** (MS): *n* CL2-black.ADJ; (10.129)  
**baŋ** (BY): *v* (B)block; (12.109)  
**baŋ** (MK): *v* (B)block; (10.82)  
**ǰi~ɛám** (MK): *n* CL6a-blood; (10.117)  
**tɔŋ** (BY): *v* (B)blow.horn; (11.38)  
**fjɛfə** (BY): *v* (C)blow; (8.134)  
**ì~gobə** (BY): *n* CL5-body; (8.34)  
**bā~kɔ̃fə** (BY): *n* CL2-bone; (11.44)  
**ā~ŋwátə** (MK): *n* CL12-book; (6.51)  
**kā~ŋwāa** (BY): *n* CL7-book; (12.72)  
**kā~ŋwāa** (BY): *n* CL12-book; (8.38)  
**bi** (BY): *v* (C)born; (10.128)  
**fwolə** (MK): *v* (A)borrow; (8.16)  
**fwələ** (MK): *v* (A)borrow; (8.94)  
**ū~gǰǎlə** (MK): *n* CL3-boundary; (11.40)  
**ki~kam** (MS): *v* (A)VFOC~break; (10.19)  
**kam** (MS): *v* (A)break; (10.159)  
**kəm** (MK): *v* (A)break; (10.161)  
**ɟu** (AB): *v* (A)break; (10.135)  
**ɟu~ɟu** (BY): *v* (A)VFOC~break; (6.63)  
**wi** (MK): *v* (C)bright; (8.139)  
**ji** (BY): *v* (C)build; (12.50)  
**u~ji~lə** (MK): *v* (C)build-; (6.30)  
**dí~du** (BY): *v* (A)VFOC~burn; (12.13)  
**du=ə** (BY): *v* (A)burn=PRF; (11.22)  
**ɟi** (AB): *v* (A)bury; (9.32)  
**í~dùŋ** (AB): *n* CL5-bush; (9.30)  
**i~dùŋ** (AB): *n* CL5-bush; (10.31)  
**baha** (BY): *v* (A)butcher; (12.65)  
**ù~kām~ɔ** (AB): *n* CL1-butcher-ADJ; (14.64)  
**u~kam~ɔ** (AB): *v* (A)butcher-; (13.51)  
**baha** (AB): *v* (A)butcher; (11.18)  
**ì~bòho** (NG): *n* CL5-buttocks; (10.99)  
**ā~bóhɔ** (MK): *n* CL6-buttocks; (A.2)  
**waha** (MK): *v* (A)buy; (12.16)  
**waha** (MS): *v* (A)buy; (10.20)  
**bà~ŋwè** (MS): *n* CL2-calabash; (8.6)  
**dzə** (BY): *v* (C)call; (10.156)  
**dzɛ** (NG): *v* (C)call; (8.14)  
**dzɛ** (NG): *v* (C)call; (12.100)  
**dzɛ=a** (NG): *v* (C)call=PRF; (15.24)  
**dzɔ** (NG): *v* (C)call; (12.40)  
**dzɔə** (MK): *v* (C)call; (15.45)  
**dzɔŋə** (MK): *v* (C)call; (A.7)  
**dzɔ** (AB): *v* (C)call; (10.134)  
**kā~mfən** (BY): *n* CL12-canoe; (12.11)  
**ā~ŋkjāŋ** (MK): *n* CL12-cap; (10.1)

- tɔ** (MS): *v* (B)carry.on.shoulder; (10.85)  
**tɛu** (MS): *v* (B)carry.water; (10.125)  
**n-tɔ=na** (MS): *v* (B)INF-carry.water=DAT; (7.19)  
**i-toə-nə** (MK): *v* (B)INF-carry.water-; (10.21)  
**i-du=nə** (BY): *v* (B)PREP.INF-carry.water=DAT; (12.9)  
**do** (BY): *v* (B)carry.water; (12.34)  
**kə-du-lə** (BY): *v* (B)carry.water-; (12.99)  
**gɔŋ** (BY): *v* (B)carry; (14.91)  
**gaŋ** (AB): *v* (B)carry; (10.93)  
**gɔŋ** (BY): *v* (B)carry; (12.11)  
**ú-sɔ̃** (MS): *n* CL3-case; (10.22)  
**fī-būs** (BY): *n* CL19-cat; (8.29)  
**ku** (NG): *v* (B)catch; (14.56)  
**kwe** (MK): *v* (B)catch; (10.3)  
**kwɔ** (AB): *v* (B)catch; (10.31)  
**kwe** (MK): *v* (B)catch; (14.84)  
**kwɔ** (MK): *v* (B)catch; (8.109)  
**kə-mbāŋbə** (BY): *n* CL12-caterpillar; (15.36)  
**bī-tɛú** (BY): *n* CL8-caterpillar; (8.129)  
**sɔm** (BY): *v* (B)celebrate; (13.15)  
**sɔm** (BY): *v* (B)celebrate; (13.14)  
**ŋkànə** (MS): *n* CL1-chair; (13.65)  
**á-tɛí** (AB): *n* CL12-chameleon; (10.77)  
**kə-tɛí** (AB): *n* CL12-chameleon; (14.6)  
**ŋkúŋ** (MK): *n* CL1-chief; (6.21)  
**ŋkúŋ** (NG): *n* CL1-chief; (12.67)  
**bə-kjɛŋ** (MK): *n* CL2-child; (15.39)  
**bə-təŋ** (BY): *n* CL2-child; (8.134)  
**wɔŋ** (BY): *n* CL1-child; (12.31)  
**wà** (MS): *n* CL1-child; (14.22)  
**wán** (MK): *n* CL1-child; (10.16)  
**ɛí-wán** (MK): *n* CL19-child; (14.12)  
**wán=nó** (NG): *n* CL1-child=DAT; (6.95)  
**wə** (MS): *n* CL1-child; (12.64)  
**wè** (MK): *n* CL1-child; (A.88)  
**wò** (MK): *n* CL1-child; (A.35)  
**wò** (MK): *n* CL1-child; (8.88)  
**bə-kjɛŋ** (MK): *n* CL2-children; (A.46)  
**bə-kjɛŋ** (MK): *n* CL2-children; (12.35)  
**bə-kjɛŋ** (MK): *n* CL2-children; (A.26)  
**bə-kjɛ** (MK): *n* CL2-children; (10.21)  
**bə-kjɛŋ** (MK): *n* CL2-children; (6.47)  
**bə-bjɛmə** (MK): *n* CL2-children; (15.38)  
**bə-bjɛŋhə** (NG): *n* CL2-children; (6.23)  
**bə-bjɛmə** (MK): *n* CL2-children; (10.52)  
**bjáŋ** (AB): *n* CL2-children; (10.76)  
**bə-mbjɛn** (BY): *n* CL2-children; (10.57)  
**bə-tjɛŋ** (NG): *n* CL2-children; (8.22)  
**á-tɔŋ** (AB): *n* CL2-children; (9.47)  
**ì-bù** (BY): *n* CL9-chimpanzee; (8.75)  
**gbe** (MS): *v* (A)chop; (6.6)  
**ku** (BY): *v* (A)chop; (14.78)  
**tába** (MK): *n* CL1-cigarette; (8.35)  
**tábə** (MK): *n* CL1-cigarette; (6.89)  
**fáŋ** (AB): *n* CL16-CL16.here; (9.32)  
**tū** (AB): *n* CL17-CL17.there; (9.31)  
**bu** (MK): *v* (B)clap; (A.73)  
**bwɔ** (MK): *v* (B)clap; (A.72)  
**ù-bóŋbə-tó** (BY): *n* CL1-clean-ADJ; (12.7)  
**tɛ** (MK): *v* (A)clean; (10.25)  
**tɛ** (MK): *v* (A)clean; (8.139)  
**fin** (MK): *v* (B)clear; (8.120)  
**bim-ban** (MK): *v* (A)VFOC~climb; (12.112)  
**ban** (BY): *v* (A)climb; (7.7)  
**bɛŋ** (MS): *v* (A)climb; (7.19)  
**tɛŋ** (MS): *v* (A)climb; (8.1)  
**boŋhə** (MK): *v* (A)close; (A.74)  
**boŋhə** (MK): *v* (B)close; (A.73)  
**kó-tsô** (BY): *n* CL12-cock; (6.22)  
**bī-mfɛ** (MK): *n* CL8-cocoyam; (10.56)  
**bī-mfɛ** (MK): *n* CL8-cocoyam; (9.44)  
**ā-ndôŋ** (NG): *n* CL12-cocoyam; (10.99)  
**bī-ndôŋ** (MK): *n* CL8-cocoyam; (A.1)  
**bī-mələ** (MK): *n* CL8-cold; (10.127)  
**bi-mələ** (MK): *v* (A)cold; (6.35)  
**mə-mələ** (MK): *n* CL6a-cold; (10.39)  
**mələ** (MK): *v* (A)cold; (6.33)  
**bā-bɛ** (MK): *n* CL12-COM.belly; (A.17)  
**bù-tɛülə** (NG): *n* CL1-COM.female; (8.81)  
**bù-tɛülə** (NG): *n* CL1-COM.female; (12.42)  
**bù-tɛülə** (NG): *n* CL1-COM.female; (7.21)  
**bì-ɛɛ** (MK): *n* CL9-COM.fowl; (8.136)  
**bú-fwí** (BY): *n* CL3-COM.hair; (4.29)  
**kī-fí** (MS): *n* CL5-COM.head; (6.6)  
**kì-fí** (MS): *n* CL5-COM.head; (10.130)  
**mú-kpɔ̃bə** (AB): *n* CL3-COM.money; (10.141)  
**bú-kpáha** (BY): *n* CL3-COM.money; (15.7)  
**bí-səŋ** (MK): *n* CL5-COM.power; (10.30)  
**le** (MS): *v* (A)come; (8.23)  
**ti** (MK): *v* (B)come; (15.42)  
**ti** (MS): *v* (B)come; (9.9)  
**ti** (MK): *v* (B)come; (7.11)  
**te** (NG): *v* (B)come; (12.67)  
**n-te** (BY): *v* (B)1SG-come; (7.16)  
**to** (MS): *v* (B)come; (12.64)  
**ti** (MK): *v* (B)come; (15.16)  
**te** (BY): *v* (B)come; (12.34)  
**to** (MS): *v* (B)come; (11.32)  
**tu** (MS): *v* (B)come; (6.97)  
**te** (BY): *v* (B)come; (5.4)  
**te** (NG): *v* (B)come; (12.4)  
**te** (MS): *v* (B)come; (5.3)  
**i-te-lə** (BY): *v* (B)INF-come-; (6.32)  
**te=a** (NG): *v* (B)come=PRF; (12.40)  
**to** (MS): *v* (B)come; (8.23)  
**to** (MK): *v* (B)come; (A.35)  
**te** (BY): *v* (B)come; (12.46)

- to** (MK): *v* (B)come; (10.39)  
**fǎ-ŋkðnə** (MS): *n* CL16-compound; (8.72)  
**fǎ-ŋkwǎnə** (MK): *n* CL16-compound; (14.48)  
**fǎ-ŋkðnə** (MS): *n* CL16-compound; (11.32)  
**fjé** (MS): *n* CL19-COND; (6.17)  
**su** (BY): *v* (B)congratulate; (10.139)  
**su=a** (BY): *v* (B)congratulate=PRF; (12.60)  
**tcii** (BY): *v* (C)contribute; (4.6)  
**í-dè-tó=nó** (BY): *n* CL5-PREP-INF-cook-INF=DAT; (12.60)  
**gjèlə** (MK): *v* (A)cook; (12.97)  
**gjələ** (MK): *v* (A)cook; (9.51)  
**i-dee-tə** (BY): *v* (A)INF-cook-; (6.31)  
**de** (NG): *v* (A)cook; (8.123)  
**de=ə** (BY): *v* (A)cook=PRF; (12.7)  
**ŋkjèhə** (MK): *n* CL1-cooking.pot; (8.68)  
**li-la** (MS): *v* (B)VFOC~L.COP.; (14.83)  
**le** (NG): *v* (B)L.COP.; (9.29)  
**la** (MK): *v* (A)L.COP.; (14.81)  
**la** (MK): *v* (A)L.COP.; (14.84)  
**la** (MS): *v* (B)L.COP.; (14.51)  
**də** (MS): *v* (A)D.COP.; (14.21)  
**n-la** (NG): *v* (B)1SG-COP.NEG; (13.47)  
**də** (MS): *v* (A)D.COP; (14.22)  
**jě** (MK): *n* CL5-COP; (A.80)  
**ká** (MK): *n* CL12-COP; (A.81)  
**lə** (MS): *v* (B)COP; (14.65)  
**lə** (MS): *v* (B)L.COP; (10.132)  
**n-le** (AB): *v* (B)1SG-L.COP; (9.19)  
**n-le** (AB): *v* (B)1SG-L.COP; (6.9)  
**le** (NG): *v* (B)COP; (14.32)  
**le** (AB): *v* (B)L.COP; (13.51)  
**li-la** (MK): *v* (A)VFOC~L.COP; (14.85)  
**le** (NG): *v* (B)L.COP; (14.17)  
**la** (BY): *v* (A)L.COP; (14.80)  
**la** (MK): *v* (A)L.COP; (13.46)  
**la** (MK): *v* (A)L.COP; (14.7)  
**la** (MS): *v* (B)L.COP; (13.65)  
**le** (MK): *v* (A)L.COP; (14.4)  
**le** (NG): *v* (B)L.COP; (14.57)  
**la** (MS): *v* (B)L.COP; (14.79)  
**ù** (BY): *n* CL1-COP; (14.75)  
**ũ** (MK): *n* CL1-COP; (14.12)  
**bv** (AB): *v* (A)B.COP; (8.66)  
**bə** (MK): *v* (A)B.COP; (A.111)  
**í-tə̀oxo** (AB): *n* CL8-corn.basket; (10.124)  
**àŋ-kàlə** (MS): *n* CL6a-corn.beer; (8.58)  
**í-tə̀oxo** (AB): *n* CL8-corn.cage; (8.135)  
**ńđǎha** (AB): *n* CL6-corn; (10.124)  
**á-đǎ** (MK): *n* CL6-corn; (14.62)  
**á-đǎ** (MK): *n* CL6-corn; (14.7)  
**á-đǎ** (MK): *n* CL6-corn; (12.54)  
**n-đǎha** (AB): *n* CL6-corn; (8.135)  
**kpaá** (MS): *v* (A)correct; (10.14)  
**kpaan** (MK): *v* (B)correct; (10.13)  
**bū-kùm** (MS): *n* CL1-cottonwood; (10.19)  
**balə** (MS): *v* (A)count; (11.77)  
**təŋ** (MK): *v* (B)count; (8.46)  
**ú-túna** (NG): *n* CL3-country.sunday; (9.3)  
**kəŋ** (MK): *v* (B)cover; (A.34)  
**boŋ** (MK): *v* (B)cover; (5.9)  
**baŋ** (AB): *v* (B)cover; (10.74)  
**ńbðŋ** (BY): *n* CL1-cow; (4.2)  
**ńbðŋ** (MK): *n* CL1-cow; (14.63)  
**bə-mbðŋ** (AB): *n* CL2-cow; (6.88)  
**bə-mbðŋə** (MK): *n* CL2-cow; (12.6)  
**ńbùŋ** (AB): *n* CL1-cow; (12.93)  
**ńbðŋ** (BY): *n* CL1-cow; (4.1)  
**bə-mbðŋ** (NG): *n* CL2-cow; (10.44)  
**ńbùŋ** (AB): *n* CL1-cow; (7.8)  
**bə-mbðŋə** (MK): *n* CL2-cow; (12.101)  
**ńbðŋ** (MK): *n* CL1-cow; (6.25)  
**ì-kwàm** (BY): *n* CL5-cowife; (6.55)  
**bú-çôn** (MK): *n* CL14-cowpea.leaves; (10.13)  
**í-ncə̀ŋhə** (AB): *n* CL19-crab; (10.135)  
**nam** (MK): *v* (A)creep; (10.123)  
**tan** (BY): *v* (A)cross; (12.11)  
**tan** (MS): *v* (A)cross; (10.34)  
**de** (BY): *v* (A)cry; (8.131)  
**de** (MS): *v* (C)cry; (6.65)  
**doə** (MK): *v* (A)cry; (15.51)  
**ì-bwə̀m** (BY): *n* CL5-cup; (12.10)  
**gjəm** (MK): *v* (A)cure; (15.19)  
**gba** (MK): *v* (A)cut.down; (9.27)  
**kpo** (MK): *v* (B)cut.on.block; (14.59)  
**juə** (MK): *v* (A)cut.vegetables; (12.97)  
**ji=nə** (MK): *v* (A)cut.vegetables=DAT; (8.104)  
**ji=nə** (MK): *v* (C)cut.vegetables=DAT; (8.70)  
**gba** (NG): *v* (A)cut; (10.160)  
**gba** (BY): *v* (A)cut; (12.109)  
**gbe** (MS): *v* (A)cut; (10.130)  
**nsəm** (MK): *n* CL1-dance.type.Q.POLAR; (15.5)  
**bim-bjun** (BY): *v* (B)VFOC~dance; (11.91)  
**bjən** (BY): *v* (B)dance; (11.23)  
**bjunhə** (MK): *v* (B)dance; (9.4)  
**moŋ** (MS): *v* (B)dance; (10.15)  
**muŋ** (MS): *v* (B)dance; (6.44)  
**bjən** (BY): *v* (B)dance; (12.31)  
**i-bjən** (MK): *v* (B)INF-dance; (11.35)  
**i-bjun** (MK): *v* (B)INF-dance; (6.2)  
**moŋ** (AB): *v* (B)dance; (11.3)  
**tsamə** (MK): *v* (C)dance; (12.37)  
**ńbwín** (AB): *n* CL2-DAT; (10.119)  
**ā-fú** (MK): *n* CL6-day; (15.37)  
**ā-fwómə** (MK): *n* CL6-day; (13.62)  
**ā-fwónə** (MK): *n* CL6-day; (8.17)  
**ā-fwínə** (NG): *n* CL6-day; (8.123)  
**ńfū** (BY): *n* CL1-day; (8.18)

- m̄fwín** (NG): *n* CL1-day; (14.86)  
**ú-tù** (AB): *n* CL14-day; (11.86)  
**bú-tù** (MK): *n* CL14-day; (8.42)  
**ā-fwómə** (MK): *n* CL6-days; (8.91)  
**bī-mbùn** (NG): *n* CL8-dead.palms; (8.44)  
**ì-pí** (MS): *n* CL5-death; (10.19)  
**saa** (BY): *v* (c)decide; (4.33)  
**salə** (MS): *v* (c)decide; (11.94)  
**i-salə-tə=nə** (BY): *v* (c)INF-decide=DAT; (6.67)  
**i-salə-tə=nə** (BY): *v* (c)INF-decide-INF=DAT; (8.137)  
**ù-wǎn** (MK): *n* CL1-decoration; (6.47)  
**dīm** (AB): *v* (B)deep; (8.132)  
**ù-dzù** (BY): *n* CL1-DEM.DIST; (10.156)  
**bə-dzèn** (AB): *n* CL2-DEM.DIST; (6.88)  
**í-jəŋə** (MK): *n* CL5-DEM.PROX.Q.POLAR; (15.46)  
**bwən=nó** (MK): *n* CL14-DEM.PROX=DAT; (10.13)  
**ha** (AB): *v* (A)descend; (9.60)  
**hə** (AB): *v* (A)descend; (14.6)  
**hɛ** (MK): *v* (A)descend; (15.49)  
**kə** (AB): *v* (A)descend; (11.45)  
**kɔ** (AB): *v* (A)descend; (10.93)  
**kɔ** (AB): *v* (A)descend; (8.135)  
**sa** (MS): *v* (A)descend; (4.10)  
**sə** (BY): *v* (A)descend; (12.65)  
**sa** (MS): *v* (A)descend; (6.17)  
**se** (NG): *v* (A)descend; (10.46)  
**se=a** (NG): *v* (A)descend=PRF; (8.4)  
**sə** (MK): *v* (A)descend; (8.36)  
**sə** (BY): *v* (A)descend; (8.8)  
**sə** (BY): *v* (A)descend; (8.27)  
**sɛ** (MK): *v* (A)descend; (5.6)  
**sɔ** (MS): *v* (A)descend; (4.14)  
**ā-bántàn** (AB): *n* CL2-devil; (14.31)  
**bi-kpe-lə** (BY): *v* (B)die-; (6.27)  
**bi-kpelə** (BY): *v* (B)die; (6.42)  
**kpe** (BY): *v* (B)die; (4.8)  
**kpe** (BY): *v* (B)die; (13.13)  
**i-kpe** (NG): *v* (B)INF-die; (12.36)  
**kpe=a** (BY): *v* (B)die=PRF; (6.22)  
**kpe=a** (NG): *v* (B)die=PRF; (14.8)  
**kpu-kpe** (BY): *v* (B)VFOC~die; (11.70)  
**ŋ-kpɔ** (NG): *v* (B)1SG-die; (12.66)  
**i-pi** (MK): *v* (B)INF-die; (12.37)  
**bi-pilɔ** (AB): *v* (B)die; (6.43)  
**pi** (AB): *v* (B)die; (8.121)  
**pi** (MS): *v* (B)die; (9.33)  
**pi=a** (MK): *v* (B)die=PRF; (12.101)  
**i-pi=nə** (MK): *v* (B)PREP.INF-die=DAT; (10.95)  
**pi~pi** (AB): *v* (B)VFOC~die; (12.93)  
**pi~pi** (MK): *v* (B)VFOC~die; (12.84)  
**pi** (AB): *v* (B)die; (13.26)  
**m-pi** (MS): *v* (B)1SG-die; (12.52)  
**m-pi-nə** (MS): *v* (B)INF-die-INF; (11.32)  
**pju** (MS): *v* (B)die; (15.2)  
**pju** (MS): *v* (B)die; (14.79)  
**pi~pi** (MK): *v* (B)VFOC~die; (12.6)  
**ú-tɛ́** (AB): *n* CL3-different; (9.30)  
**í-tɛ́** (AB): *n* CL5-different; (9.30)  
**buu** (AB): *v* (A)dig; (13.35)  
**bu** (AB): *v* (A)dig; (8.121)  
**buu** (AB): *v* (A)dig; (9.32)  
**m-bo** (MK): *v* (A)1SG-dig; (9.44)  
**tɛu** (NG): *v* (A)direct; (12.4)  
**kəbə** (BY): *v* (A)dirty; (12.34)  
**ù-dəŋ-lə** (BY): *n* CL1-dirty-ADJ; (12.7)  
**ɛi** (BY): *v* (A)discuss; (12.73)  
**fwəmhɔ** (AB): *v* (A)disturb; (12.75)  
**ɲam** (NG): *v* (B)do.secretly; (8.14)  
**le** (MK): *v* (A)do; (A.19)  
**le** (AB): *v* (A)do; (10.98)  
**lɔ** (MK): *v* (A)do; (15.50)  
**n-no** (NG): *v* (A)1SG-do; (12.21)  
**n-nɛ** (NG): *v* (A)1SG-do; (12.67)  
**nɯ** (NG): *v* (A)do; (12.48)  
**nɔ** (BY): *v* (A)do; (9.63)  
**í-bí** (BY): *n* CL9-dog; (10.147)  
**í-bú** (AB): *n* CL10-dog; (10.17)  
**ì-bí** (BY): *n* CL9-dog; (6.94)  
**ì-bí** (BY): *n* CL9-dog; (8.15)  
**í-bí** (MS): *n* CL10-dog; (14.79)  
**ú-fjě** (BY): *n* CL3-door; (6.53)  
**ú-ɛú** (MK): *n* CL3-door; (14.48)  
**ɖəŋ** (MS): *v* (c)doubt; (15.31)  
**kɔŋ** (MK): *v* (A)draped.over; (A.73)  
**bə-ndú** (BY): *n* CL2-dress; (11.36)  
**ndù** (BY): *n* CL1-dress; (10.8)  
**ndù** (BY): *n* CL1-dress; (6.53)  
**á-bùŋ** (MK): *n* CL12-dress; (12.98)  
**bí-bùŋ** (MK): *n* CL8-dress; (12.98)  
**mu=nə** (BY): *v* (B)drink=DAT; (7.24)  
**mu** (MK): *v* (B)drink; (A.38)  
**mu** (BY): *v* (B)drink; (8.32)  
**mu** (BY): *v* (B)drink; (8.26)  
**mu** (BY): *v* (B)drink; (9.26)  
**mu=a** (MK): *v* (B)drink=PRF; (A.42)  
**kɔŋ** (BY): *v* (c)drive; (5.4)  
**í-wúm-nó** (MK): *n* CL5-INF-dry-DAT; (14.74)  
**ŋu-ŋom** (AB): *v* (B)VFOC~dry; (14.46)  
**tan** (MK): *v* (c)dry; (10.143)  
**tan=a** (MK): *v* (A)dry=PRF; (7.22)  
**ǎ-mjú** (MK): *n* CL12-DS.thing; (A.77)  
**jě** (MK): *n* CL5-DS; (14.29)  
**ù** (AB): *n* CL1-DS; (9.31)  
**wà** (MS): *n* CL1-DS; (11.32)  
**wù** (MS): *n* CL1-DS; (14.83)  
**búí** (NG): *n* CL2-DS; (10.61)  
**bə-duckfowl** (BY): *n* CL2-duck; (6.92)  
**á-tɔŋ** (MK): *n* CL12-ear; (11.10)

- á-tǝŋ** (MK): *n* CL6-ear; (8.107)  
**bí-tǝŋ** (BY): *n* CL8-ear; (7.27)  
**mū-ŋkjém** (MK): *n* CL18a-earth; (6.21)  
**n-ɕi** (MK): *v* (B)1SG-eat.; (11.53)  
**ɕo** (MK): *v* (B)eat.IPV; (15.56)  
**ɕe-lə** (MK): *v* (B)eat-; (12.55)  
**ɕi-lə** (NG): *v* (B)eat; (8.123)  
**ɕi-nə** (BY): *v* (B)eat=DAT; (12.60)  
**ɕi-ɕi** (BY): *v* (B)VFOC~eat; (12.13)  
**a-ɕi-lə** (MK): *v* (B)eat-; (12.104)  
**á-ɕé** (MK): *n* CL12-eat.ADJ; (15.64)  
**ɕi** (AB): *v* (B)eat; (10.76)  
**n-ɕi** (BY): *v* (B)1SG-eat; (11.48)  
**ɕo** (NG): *v* (B)eat; (8.65)  
**ɕoə** (MK): *v* (B)eat; (10.51)  
**ɕu** (BY): *v* (B)eat; (10.8)  
**ɕuə** (MK): *v* (B)eat; (15.51)  
**ɕuə** (BY): *v* (B)eat; (6.68)  
**á-ɕélə** (MK): *n* CL12-eat.ADJ; (11.12)  
**a-ɕelə** (MK): *v* (B)CL?-eat; (11.2)  
**ɕi** (AB): *v* (B)eat; (10.76)  
**n-ɕi** (BY): *v* (B)1SG-eat; (8.133)  
**ɕi=a** (BY): *v* (B)eat=PRF; (12.60)  
**ɕi=a** (NG): *v* (B)eat=PFV; (9.48)  
**ā-nī** (BY): *n* CL6-egg; (11.28)  
**ā-nī** (BY): *n* CL6-eggs; (6.63)  
**ā-nī** (BY): *n* CL6-eggs; (6.61)  
**bí-nìni** (AB): *n* CL8-eight; (6.43)  
**fí-fələ** (BY): *v* (c)VFOC~entangle; (6.67)  
**kwinə** (MK): *v* (c)enter.CLSBRK; (7.13)  
**ku** (MK): *v* (c)enter; (10.58)  
**kuə** (BY): *v* (c)enter; (12.11)  
**kwi=a** (MK): *v* (c)enter=PRF; (8.93)  
**kwi=a** (BY): *v* (c)enter=PRF; (14.60)  
**kwi** (MK): *v* (c)enter; (A.105)  
**kwi** (MK): *v* (c)enter; (10.49)  
**kwin=a** (BY): *v* (c)enter.PRF; (9.10)  
**kwin=a** (MK): *v* (c)enter=PRF; (7.18)  
**kwinə** (MK): *v* (c)enter; (15.57)  
**kwinə** (MK): *v* (c)enter; (9.13)  
**kwə** (MK): *v* (c)enter; (A.104)  
**kuə** (BY): *v* (c)enter; (12.10)  
**gbə** (MS): *v* (A)establish; (12.70)  
**ɕe** (MS): *v* (A)exceed; (10.132)  
**nəfə** (MK): *v* (B)excessive; (A.6)  
**nəhə** (MK): *v* (B)excessive; (A.5)  
**jələ** (MK): *v* (B)excessively; (A.85)  
**nəfə** (MK): *v* (B)excessively; (A.12)  
**bəhə-nə** (MK): *v* (B)exit-?; (8.96)  
**bəhə-nə** (MK): *v* (B)exit-??; (8.128)  
**bi-bəhə** (MK): *v* (B)VFOC~exit; (A.2)  
**bələ** (MS): *v* (B)exit; (6.80)  
**bəhə** (MK): *v* (B)exit; (5.10)  
**bu-bəhə** (BY): *v* (B)VFOC~exit; (12.15)  
**bəh=a** (MK): *v* (B)exit=PRF; (12.18)  
**bəhə** (BY): *v* (B)exit; (8.15)  
**bəhə** (MK): *v* (B)exit; (11.10)  
**bəhə** (MK): *v* (B)exit; (A.112)  
**bəhə=nə** (MK): *v* (B)exit; (8.86)  
**bəhə** (NG): *v* (B)exit; (9.23)  
**bələ** (MS): *v* (B)exit; (9.11)  
**bəsə** (MS): *v* (B)exit; (8.23)  
**bəhə** (MK): *v* (B)exit; (10.117)  
**bəhə** (MK): *v* (B)exit; (8.107)  
**bəh=a** (MK): *v* (B)exit=PRF; (8.16)  
**baha** (AB): *v* (B)exit; (11.66)  
**m-baha** (AB): *v* (B)1SG-exit; (11.66)  
**bəh=a** (MK): *v* (B)exit=PRF; (A.19)  
**faha** (MK): *v* (A)extract; (11.10)  
**í-ɕǝsə** (MS): *n* CL5-eye; (9.45)  
**á-ɕǝhə** (MK): *n* CL6-eye; (11.40)  
**á-ɕǝhə** (BY): *n* CL6-eye; (13.16)  
**ù-sù** (BY): *n* CL3-face; (8.38)  
**ù-sù** (BY): *n* CL3-face; (13.64)  
**ǎ-sú** (NG): *n* CL16-face; (6.11)  
**gbo** (BY): *v* (A)fall.IRR; (13.42)  
**gbe** (MK): *v* (A)fall.PFV; (12.77)  
**u-gbe-lə** (MK): *v* (A)fall-; (6.26)  
**gbe** (MK): *v* (A)fall; (14.70)  
**gbe** (BY): *v* (A)fall; (14.77)  
**u-gbe-lə** (MK): *v* (A)fall-; (6.25)  
**gbee** (MK): *v* (A)fall; (4.9)  
**gbée** (BY): *v* (A)fall; (4.5)  
**gbe** (MK): *v* (A)fall; (11.82)  
**gbe** (MK): *v* (A)fall; (13.33)  
**gbe=a** (MK): *v* (A)fall=PRF; (11.83)  
**gbo** (MK): *v* (A)fall; (15.50)  
**gbu-gbe** (MK): *v* (A)VFOC~fall; (11.84)  
**gbu-gbe=a** (MK): *v* (A)VFOCfall=PRF; (11.85)  
**gbu-gbe** (BY): *v* (A)VFOC~fall; (7.4)  
**gbu-gbe** (BY): *v* (A)VFOC~fall; (11.73)  
**gbə** (MS): *v* (A)fall; (6.39)  
**i-gbe** (BY): *v* (A)INF-fall; (7.23)  
**ɕù** (MK): *n* CL1-family; (A.79)  
**ì-ɕù** (MS): *n* CL5-family; (10.105)  
**ì-tù** (MK): *n* CL5-family; (10.48)  
**ú-wón** (BY): *n* CL1-fancy.thing; (10.37)  
**ū-mwənə** (MK): *n* CL3-farm; (8.48)  
**ú-mwələ** (MK): *n* CL3-farm; (9.13)  
**í-mwələ** (MK): *n* CL4-farm; (A.13)  
**ī-mwələ** (MK): *n* CL5-farm; (11.16)  
**ū-mwələ** (MK): *n* CL3-farm; (13.6)  
**ū-mwənə** (MK): *n* CL3-farm; (10.64)  
**ī-mwél** (MK): *n* CL5-farm; (11.88)  
**̀̀lèn** (MK): *n* CL1-fashion; (A.85)  
**̀̀lènə** (MK): *n* CL1-fashion; (A.63)  
**̀̀lènə** (MK): *n* CL1-fashion; (A.84)  
**í-námə** (AB): *n* CL10-fat; (6.79)

- nəm** (MK): *v* (B)fat; (8.48)  
**ì-nìnānə** (MK): *n* CL9-fat.ADJ; (8.99)  
**í-nəmə** (MK): *n* CL10-fat; (11.21)  
**ù-wàn** (MK): *n* CL1-father.in.law; (A.82)  
**kì** (MK): *n* CL1-father; (A.100)  
**tā** (AB): *n* CL1-father; (10.115)  
**u-ɕu-lə** (BY): *v* (B)fear-; (6.28)  
**ɕo** (MS): *v* (B)fear; (7.26)  
**ɕu** (AB): *v* (B)fear; (10.142)  
**n-ɕu** (MK): *v* (B)1SG-fear; (10.113)  
**n-ɕo-nə** (MS): *v* (B)INF-fear-INF; (7.26)  
**n-ɕu-ɕu** (MK): *v* (B)1SG-VFOC~fear; (11.47)  
**í-gǘhu** (AB): *n* CL5-feather; (10.29)  
**í-ɕúlə** (MK): *n* CL5-feather; (10.58)  
**tɛ** (MK): *v* (B)fell; (8.39)  
**ù-kwē** (MK): *n* CL1-female.friend; (10.122)  
**ù-ndīnə** (BY): *n* CL1-female; (8.3)  
**ù-ndīnə** (BY): *n* CL1-female; (6.90)  
**bə-ndīnə** (BY): *n* CL2-female.ADJ; (11.36)  
**ɕɛŋə** (AB): *n* CL1-female; (10.98)  
**ù-ɕɛlə** (AB): *n* CL1-female; (11.42)  
**ù-ɕɛlə** (MK): *n* CL1-female; (15.42)  
**ù-ɕɛlə** (MK): *n* CL1-female.ADJ; (A.111)  
**bə-ɕɛlə** (MK): *n* CL2-female; (14.59)  
**bə-ɕɛlə** (MK): *n* CL2-female.ADJ; (A.76)  
**bā-ɕɔlə** (MS): *n* CL2-female; (10.63)  
**ù-ɕùlə** (NG): *n* CL1-female; (7.21)  
**bə-ɕùlə** (NG): *n* CL2-female; (8.22)  
**ì-kìkǎfə** (MK): *n* CL5-fence; (9.14)  
**ì-kǎfə** (MK): *n* CL5-fence; (10.89)  
**bi-ŋkunə** (MS): *v* (A)fight.INF; (13.63)  
**bi-ŋkunə** (MS): *v* (A)fight; (6.34)  
**i-ɲunə** (AB): *v* (A)INF-fight; (14.31)  
**ɲunə** (MK): *v* (A)fight; (12.106)  
**ɲunə** (MK): *v* (A)fight; (10.68)  
**ɲunə** (AB): *v* (A)fight; (8.71)  
**ɲŋkə** (MK): *v* (A)fight; (10.49)  
**ɲŋə** (NG): *v* (A)fight; (10.61)  
**naŋ** (BY): *v* (B)fine; (13.64)  
**kju** (BY): *v* (B)finish; (14.30)  
**kje** (NG): *v* (C)finish; (8.97)  
**tse=a** (MK): *v* (C)finish=PRF; (14.4)  
**tse** (MK): *v* (C)finish; (11.2)  
**tse=a** (MK): *v* (C)finish=PRF; (8.99)  
**tsu=a** (AB): *v* (C)finish=PRF; (7.6)  
**í-góho** (AB): *n* CL4-fire; (8.19)  
**í-wěhe** (MK): *n* CL4-fire; (8.20)  
**í-wóho** (NG): *n* CL4-fire; (12.66)  
**fǝ-tófə** (BY): *n* CL16-fireside; (11.22)  
**fǝ-tǎfə** (BY): *n* CL16-fireside; (12.13)  
**í-ɕéhe** (AB): *n* CL5-fireside; (8.66)  
**ū-kwān** (BY): *n* CL3-firewood; (14.78)  
**ì-sù** (MK): *n* CL9-fish; (10.96)  
**ì-ɕù** (BY): *n* CL9-fish; (6.32)  
**ì-ɕù<sub>i</sub>** (BY): *n* CL9-fish; (12.62)  
**ī-ɕù** (BY): *n* CL10-fish; (8.37)  
**bə** (MK): *v* (C)flirt; (A.51)  
**fɪ** (AB): *v* (B)fly; (10.59)  
**ā-ɕzāŋ** (AB): *n* CL12-fly; (11.45)  
**bì-dzāŋ** (AB): *n* CL8-fly; (12.75)  
**faha** (MK): *v* (A)fold; (8.96)  
**kunə** (MK): *v* (C)follow(?); (A.28)  
**ú-kóho** (BY): *n* CL3-foot; (6.90)  
**á-kwěhe** (MK): *n* CL6-foot; (7.13)  
**à-kwèhe** (MK): *n* CL6-foot; (8.96)  
**á-kǔbə** (AB): *n* CL12-forest; (14.2)  
**ɲ-juən** (BY): *v* (C)1SG-forget; (4.45)  
**jəŋ** (MS): *v* (C)forget; (8.138)  
**bə-jəŋ-ɔ** (NG): *v* (C)forget-; (8.105)  
**jəŋ** (MK): *v* (C)forget; (12.47)  
**jəŋ** (MK): *v* (C)forget; (8.61)  
**jəŋ** (MK): *v* (C)forget; (14.41)  
**bə-ɲì** (BY): *n* CL2-four; (11.26)  
**bī-ɲì** (BY): *n* CL8-four; (6.42)  
**í-ɕě** (MK): *n* CL10-fowl; (11.82)  
**í-ɕǐ** (AB): *n* CL10-fowl; (13.26)  
**ī-ɕè** (MK): *n* CL9-fowl; (10.155)  
**ì-ɕì** (BY): *n* CL9-fowl; (8.129)  
**ī-ɕē** (BY): *n* CL9-fowl; (12.71)  
**ì-ɕī** (MS): *n* CL9-fowl; (10.70)  
**ī-ɕè** (AB): *n* CL9-fowl; (12.105)  
**à-kwē** (AB): *n* CL2-friend; (9.55)  
**bī** (NG): *n* CL1-friend; (14.19)  
**bə-bì** (NG): *n* CL2-friends; (14.17)  
**kǎkw-ē** (BY): *n* CL1-frog; (12.8)  
**kǎkwē** (BY): *n* CL1-frog; (13.58)  
**ɕə** (MS): *v* (B)fry..IRR; (4.18)  
**ke** (AB): *v* (B)fry; (13.37)  
**ka** (BY): *v* (C)fry; (11.44)  
**bū-mēm** (BY): *n* CL14-fufu; (8.52)  
**bū-mùm** (MK): *n* CL14-fufu; (8.79)  
**ì-kǎŋ** (MK): *n* CL5-funnel; (14.39)  
**bá** (MK): *n* CL2-FUT; (7.18)  
**wǎ** (MS): *n* CL1-FUT; (12.64)  
**wě** (NG): *n* CL1-FUT; (6.95)  
**wǎ** (MK): *n* CL1-FUT; (15.42)  
**ī-jǔŋ** (BY): *n* CL5-gale; (10.136)  
**kələ** (MS): *v* (C)gather; (6.44)  
**i-kwaha** (NG): *v* (C)INF-gather; (12.38)  
**kwaha** (AB): *v* (A)gather; (10.134)  
**kwaha** (MK): *v* (C)gather; (6.93)  
**bi=a** (MK): *v* (C)give.birth=PRF; (10.16)  
**bjū** (MK): *v* (C)give.birth; (8.110)  
**bi** (BY): *v* (C)give.birth; (6.94)  
**bi** (BY): *v* (C)give.birth; (11.78)  
**fɛ=a** (MK): *v* (B)give=PRF; (8.94)  
**fɛ** (NG): *v* (B)give; (10.75)  
**m-fɛ** (NG): *v* (B)1SG-give; (10.83)



- fɪ** (AB): *v* (B)give; (10.141)  
**m-fɪ** (BY): *v* (B)1SG-give; (13.58)  
**fɛ** (MS): *v* (B)give; (10.125)  
**felə** (MS): *v* (B)give; (10.118)  
**fɛ** (AB): *v* (B)give; (10.126)  
**fɪ** (AB): *v* (B)give; (10.42)  
**fa** (BY): *v* (B)give; (10.41)  
**fa** (MK): *v* (B)give; (10.21)  
**fɪ** (AB): *v* (B)give; (10.76)  
**m-fɪ** (NG): *v* (B)1SG-give; (10.44)  
**fɛ** (NG): *v* (B)give; (12.61)  
**fɪ** (BY): *v* (B)give; (12.99)  
**fɪlə** (BY): *v* (B)give; (6.70)  
**gee** (MK): *v* (C)go.around; (9.14)  
**gelə** (MK): *v* (C)go.around; (6.1)  
**gelə=nə** (MK): *v* (C)go.around=DAT; (10.101)  
**gelə=nə** (MK): *v* (C)go.around=DAT; (8.136)  
**danə=nə** (BY): *v* (C)go.away=DAT; (7.25)  
**ɖɛlə** (AB): *v* (C)go.away; (10.59)  
**ɖa** (MS): *v* (C)go.away; (12.25)  
**ɖu** (AB): *v* (A)go.away; (10.55)  
**ɖu** (MK): *v* (C)go.away; (10.117)  
**ɖun=a** (MK): *v* (C)go.away; (7.20)  
**ɖunə** (BY): *v* (C)go.away; (6.31)  
**ɖɛn** (AB): *v* (C)go.away; (9.30)  
**dən** (BY): *v* (C)go.away; (6.92)  
**la** (AB): *v* (A)go.farm; (10.93)  
**lɛ** (MS): *v* (A)go.farm; (13.55)  
**ŋ-wɛ** (MK): *v* (C)1SG-go.farm; (5.5)  
**wɛ=a** (MK): *v* (C)go.farm=PRF; (12.54)  
**ku** (NG): *v* (A)go; (6.11)  
**ŋ-ku** (NG): *v* (A)1SG-go; (12.21)  
**kə** (NG): *v* (A)go; (10.120)  
**kə** (NG): *v* (A)go; (12.41)  
**kɯ** (NG): *v* (A)go; (5.11)  
**lan** (NG): *v* (A)go; (8.65)  
**lanɔ** (AB): *v* (A)go; (8.67)  
**lanɔ** (AB): *v* (A)go; (8.66)  
**ni-nɔ** (BY): *v* (A)VFOC-go; (10.11)  
**ì-nɔ-nə** (BY): *n* CL5-INF-go-INF; (15.62)  
**i-naŋ=nə** (MK): *v* (A)PREP.INF-go=DAT; (8.112)  
**i-naŋ=nə** (MK): *v* (A)PREP.INF-go=DAT; (10.91)  
**naŋkə** (MK): *v* (A)go; (6.51)  
**i-nam** (MK): *v* (A)INF-go; (12.55)  
**nankə** (MK): *v* (A)go; (A.9)  
**naŋ** (MK): *v* (A)go; (10.146)  
**naŋ** (MK): *v* (A)go; (10.32)  
**i-naŋ** (MK): *v* (A)PREP.INF-go; (8.104)  
**i-naŋ** (MK): *v* (A)PREP.INF-go; (8.70)  
**naŋ=a** (MK): *v* (A)go=PRF; (15.45)  
**naŋkə** (MK): *v* (A)go; (A.37)  
**naŋkə** (MK): *v* (A)go; (A.79)  
**naŋkɛ** (MK): *v* (A)go; (13.46)  
**no** (AB): *v* (A)go; (10.92)  
**nə** (BY): *v* (A)go; (13.1)  
**nə** (BY): *v* (A)go; (10.156)  
**i-nə** (BY): *v* (A)INF-go; (14.93)  
**i-nə** (BY): *v* (A)PREP.INF-go; (7.24)  
**nən** (AB): *v* (A)go; (10.158)  
**nən** (AB): *v* (A)go; (10.42)  
**nən** (AB): *v* (A)go; (10.93)  
**ni** (AB): *v* (A)go; (10.17)  
**nɔ** (BY): *v* (A)go; (12.10)  
**naŋ** (MK): *v* (A)go; (A.32)  
**naŋ** (MK): *v* (A)go; (9.46)  
**i-naŋ** (MK): *v* (A)PREP.INF-go; (12.54)  
**tse** (MS): *v* (A)go; (10.157)  
**tse** (MS): *v* (A)go; (4.21)  
**tsɔ** (MS): *v* (A)go; (8.6)  
**ì-bé** (MK): *n* CL9-goat; (8.96)  
**Nǎŋ** (BY): *n* CL10-goat; (14.67)  
**ì-bú** (MS): *n* CL9-goat; (10.118)  
**í-bwě** (BY): *n* CL10-goat; (11.63)  
**ì-bwé** (AB): *n* CL9-goat; (11.18)  
**kə-jì** (AB): *n* CL12-god; (10.115)  
**kə-jì** (AB): *n* CL12-god; (1.2)  
**ɲaŋə** (MK): *v* (B)good; (9.34)  
**bɛ́-ɲɪ́ɲɔ́** (AB): *n* CL2-good; (9.47)  
**bí-ɲɪ́ɲɔ́** (AB): *n* CL8-good.ADJ; (9.31)  
**bí-ɲɪ́ɲɔ́** (AB): *n* CL8-good.ADJ; (14.55)  
**ɲaŋ** (MK): *v* (B)good; (11.10)  
**bí-nǎmə** (MK): *n* CL8-grass; (9.57)  
**wu** (MK): *v* (A)grind; (10.65)  
**wu** (MK): *v* (A)grind; (15.26)  
**ɖu** (MS): *v* (A)grind; (10.85)  
**bí-ntɛ́ɔ́ŋ** (NG): *n* CL8-groundnut; (9.48)  
**bí-ntɛ́ɔ́ŋbə** (MS): *n* CL8-groundnut; (4.21)  
**bī-ntɛ́ɔ́ŋɔ** (NG): *n* CL8-groundnuts; (8.65)  
**bī-ntɛ́ɔ́ŋ** (NG): *n* CL8-groundnuts; (12.44)  
**tɪ-lə** (BY): *v* (C)grow.up-; (10.41)  
**u-ti** (BY): *v* (B)grow.up; (15.25)  
**tɛ** (MS): *v* (B)grow.up; (6.48)  
**talə** (MK): *v* (C)grow.up; (6.16)  
**tɛ** (MS): *v* (C)grow.up; (6.24)  
**tɛ** (MS): *v* (C)grow.up; (8.24)  
**n-tɪ** (BY): *v* (C)1SG-grow.up; (9.16)  
**gbe=nə** (MK): *v* (A)guide.corn=DAT; (12.54)  
**ú-wóho** (NG): *n* CL3-gun; (10.40)  
**ú-fwí** (BY): *n* CL3-hair; (4.23)  
**í-fwí** (BY): *n* CL4-hair; (4.31)  
**ú-fí** (MK): *n* CL3-hair; (10.38)  
**tom** (MK): *v* (A)hammer; (8.142)  
**tomə** (MK): *v* (A)hammer; (8.141)  
**ú-ká** (MK): *n* CL3-hand; (10.123)  
**ú-kě** (NG): *n* CL3-hand; (10.75)  
**á-kě** (MK): *n* CL6-hand; (A.73)  
**á-kě** (MK): *n* CL6-hand; (A.72)  
**ú-kǎ** (MK): *n* CL3-hand; (8.142)

- ú-kǎn** (NG): *n* CL3-hand; (12.20)  
**ŋ-kán** (AB): *n* CL6-hand; (10.31)  
**ú-kən** (MS): *n* CL3-hand; (10.19)  
**saŋ** (MK): *v* (c)hang; (8.39)  
**ti** (MK): *v* (c)hang; (12.98)  
**ki-li-laŋ-nə** (MS): *v* (B)happy-; (14.51)  
**ŋ-kanə** (MS): *v* (B)1SG-have; (13.2)  
**ku** (BY): *v* (B)have; (13.3)  
**kwɛ** (MK): *v* (B)have; (12.110)  
**ì-fɛ̃** (MK): *n* CL5-head; (14.39)  
**ì-fǐ** (BY): *n* CL5-head; (6.54)  
**ì-fâ** (MK): *n* CL5-head; (A.37)  
**ì-fɛ̃** (MK): *n* CL5-head; (13.6)  
**ì-fǐ** (BY): *n* CL5-head; (12.65)  
**mwɔ** (NG): *v* (c)hear; (9.59)  
**wɔ** (MK): *v* (c)hear; (A.63)  
**wu** (MK): *v* (c)hear; (A.40)  
**wɔ** (MK): *v* (B)hear; (13.6)  
**wo** (MK): *v* (B)hear; (8.78)  
**walə** (BY): *v* (c)hear; (14.80)  
**wo=a** (MK): *v* (c)hear=PRF; (8.41)  
**wɔ** (MK): *v* (c)hear; (A.35)  
**wɔ** (MK): *v* (c)hear; (A.13)  
**ŋ-wɔ** (MK): *v* (c)1SG-hear; (A.50)  
**á-ɕám** (MK): *n* CL12-heart; (6.33)  
**í-ɕám** (MK): *n* CL5-heart; (8.62)  
**á-ɕám** (BY): *n* CL6-heart; (15.32)  
**ī-ɕám** (MK): *n* CL5-heart; (10.72)  
**ā-bɔ̃** (MK): *n* CL12-heavens; (6.21)  
**fuŋ** (MK): *v* (A)help; (14.4)  
**fâ** (MS): *n* CL16-here; (15.2)  
**fân** (MK): *n* CL16-here; (9.34)  
**fânə** (MS): *n* CL16-here; (9.33)  
**fânɔ** (AB): *n* CL16-here; (6.9)  
**dān** (MK): *n* CL17-here; (12.22)  
**nalə** (MK): *v* (A)hide; (A.37)  
**kɔ** (NG): *v* (B)hold; (8.7)  
**kanə** (MS): *v* (B)hold; (10.53)  
**ko** (MS): *v* (B)hold; (10.159)  
**ku** (MK): *v* (B)hold; (10.1)  
**kan** (MS): *v* (B)hold; (6.97)  
**kanə** (MS): *v* (B)hold; (8.6)  
**ko** (MK): *v* (B)hold; (14.36)  
**kwɛ** (MK): *v* (B)hold; (7.12)  
**ŋ-kwɛ** (NG): *v* (B)1SG-hold; (7.14)  
**kwɛ** (MK): *v* (B)hold; (8.17)  
**n-kwɛ** (MK): *v* (B)1SG-hold; (6.33)  
**kwɛ** (MK): *v* (B)hold; (8.142)  
**kwɛ=a** (MK): *v* (B)hold=PRF; (7.15)  
**kwɔ** (MK): *v* (B)hold; (8.12)  
**ko** (BY): *v* (B)hold; (12.30)  
**ì-ɕǎha** (AB): *n* CL5-hole; (8.132)  
**ì-ɕǐ** (BY): *n* CL5-hole; (15.21)  
**ì-jì** (AB): *n* CL5-honey; (12.24)  
**ì-jɔ̃** (MS): *n* CL5-honey; (4.17)  
**ì-jɔ̃** (MS): *n* CL5-honey; (4.15)  
**ì-jũ** (MK): *n* CL5-honey; (12.108)  
**an-salə** (MS): *v* (c)CL6a-hot; (9.11)  
**mən-tsɔ̃bə** (MK): *n* CL6a-hot.ADJ; (5.21)  
**ntām** (MS): *n* CL1-hour; (10.14)  
**bà-ntām** (MS): *n* CL2-hour; (10.15)  
**tām** (MK): *n* CL1-hour; (8.108)  
**ú-kpɔ̃** (BY): *n* CL3-house; (10.136)  
**ú-kpɔ̃** (BY): *n* CL3-house; (9.5)  
**ú-kpɛ̃** (BY): *n* CL3-house; (8.15)  
**í-kpɛ̃** (MK): *n* CL4-house; (12.18)  
**ú-kpɛ̃** (MK): *n* CL3-house; (A.32)  
**à-mùŋ** (MS): *n* CL6-how.many; (15.41)  
**bə-məŋ** (MK): *n* CL2-how.many; (15.38)  
**ā-məŋ** (MK): *n* CL6-how.many; (15.37)  
**ā-məŋ** (BY): *n* CL6-how.many; (15.40)  
**ī-ɕǎn** (MK): *n* CL5-hunger; (10.9)  
**ú-bjām** (BY): *n* CL3-hunting; (4.33)  
**nām** (BY): *n* CL1-husband; (12.23)  
**bə-ŋwɔ** (MK): *n* CL2-insides; (10.38)  
**se** (BY): *v* (c)insult; (5.4)  
**ɕɛ** (MK): *v* (c)insult; (A.78)  
**ì-ɕɛ** (MK): *v* (c)INFinsult; (A.77)  
**ɕo** (MK): *v* (c)insult; (A.90)  
**ɕoooo** (MK): *v* (c)insult; (A.90)  
**ɕɛ** (MK): *v* (A)insult; (12.85)  
**ɕɛ** (MK): *v* (c)insult; (12.84)  
**ɕɛnə** (MK): *v* (c)insult; (A.61)  
**ɕo** (MK): *v* (c)insult; (A.82)  
**ɕo** (MK): *v* (c)insult; (A.79)  
**ɕu:::** (MK): *v* (c)insult; (10.48)  
**fənə** (MK): *v* (A)invert; (A.16)  
**sɔɔŋ** (BY): *v* (c)invite; (4.7)  
**sɔŋ** (BY): *v* (c)invite; (13.11)  
**sɔŋ** (BY): *v* (c)invite; (13.10)  
**kī-nŋɔ̃** (MK): *n* CL13-iron; (A.107)  
**kī-nŋɔ̃** (MK): *n* CL13-iron; (A.111)  
**sehe** (AB): *v* (A)issue(?); (8.19)  
**ká-jǔhɔ** (BY): *n* CL12-jaw; (10.11)  
**boŋ** (MK): *v* (B)join; (8.110)  
**bì-tɛ́** (BY): *n* CL8-juju; (9.41)  
**bí-tsá** (MK): *n* CL8-juju; (8.86)  
**bí-tsá** (MS): *n* CL8-juju; (13.55)  
**tan** (MK): *v* (A)jump; (A.79)  
**tan** (MK): *v* (A)jump; (8.96)  
**tɛŋ** (MS): *v* (A)jump; (8.138)  
**ɕum** (MS): *v* (B)jump; (6.80)  
**kɔhɔ** (BY): *v* (A)just.now; (9.35)  
**kɔhɔ** (MK): *v* (A)just; (8.86)  
**kɔhɔ** (MK): *v* (A)just; (8.87)  
**tɛən** (MK): *v* (A)just; (8.110)  
**tɛən** (BY): *v* (A)just; (11.67)  
**tɛən** (NG): *v* (A)just; (15.48)

- n-tɕɛn** (MK): *v* (A)1SG-just; (9.1)  
**ɕɕən** (BY): *v* (A)just; (9.28)  
**kuɔ** (BY): *v* (B)keep; (6.90)  
**ŋ-wa** (MS): *v* (B)1SG-keep; (6.13)  
**wan** (BY): *v* (B)keep; (4.23)  
**wan** (MK): *v* (B)keep; (8.42)  
**wan<sub>v</sub>** (MK): *v* (B)keep; (10.1)  
**wanə** (MK): *v* (B)keep; (10.143)  
**wa** (MS): *v* (B)keep; (12.63)  
**wan** (BY): *v* (B)keep; (9.49)  
**wan** (MK): *v* (B)keep; (12.98)  
**wan=ə** (MK): *v* (B)keep=PRF; (12.104)  
**wan=a** (BY): *v* (B)keep=PRF; (10.109)  
**wanhə** (MK): *v* (B)keep; (12.98)  
**wan=ə** (MK): *v* (B)keep=PRF; (8.43)  
**ú-kwɔ́mə** (MK): *n* CL3-knife; (7.18)  
**ú-ɕɛ́** (MK): *n* CL3-knife; (12.95)  
**í-ɕɛ́** (MK): *n* CL4-knife; (5.10)  
**ɕí-ɕǎ́** (AB): *n* CL19-knife; (11.18)  
**ɕo** (MS): *v* (B)knock; (10.70)  
**ɕu** (MS): *v* (A)knock; (10.70)  
**ɕin~ɕuən** (BY): *v* (A)VFOC~know; (12.60)  
**ɕuən** (BY): *v* (A)know; (10.62)  
**n-tsitsa** (MK): *v* (A)1SG-VFOC~know; (12.106)  
**tsunə** (NG): *v* (A)know; (12.49)  
**tsa** (MK): *v* (A)know; (A.34)  
**i-tsa=ni** (AB): *v* (A)PREP.INF-know=DAT; (8.118)  
**tsa** (AB): *v* (A)know; (8.121)  
**tsa** (MK): *v* (A)know; (8.62)  
**n-tsa** (MK): *v* (A)1SG-know; (A.48)  
**n-tsa** (MK): *v* (A)1SG-know; (8.115)  
**n-tsa** (MK): *v* (A)1SG-know; (A.45)  
**tsal=a** (MK): *v* (A)know=PRF; (10.68)  
**tsalə** (MK): *v* (A)know; (12.18)  
**n-tsalə** (MK): *v* (A)1SG-know; (10.24)  
**tsa** (MK): *v* (A)know; (15.57)  
**n-tse** (MS): *v* (A)1SG-know; (6.91)  
**tsa** (MK): *v* (A)know; (10.97)  
**ì-dzəŋ** (MK): *n* CL5-labor.collective; (A.7)  
**ɕən** (MK): *v* (A)lack; (8.111)  
**ɕɛn** (MK): *v* (A)lack; (A.10)  
**ɕi-dza** (MK): *v* (A)VFOC~lack; (5.6)  
**kpaɬa** (MS): *v* (A)last; (4.21)  
**kpaɬa** (AB): *v* (A)last; (10.29)  
**ɕɛfə** (MK): *v* (A)laugh; (9.1)  
**ɕɛfə** (BY): *v* (A)laugh; (10.80)  
**ì-tɕūŋ** (NG): *n* CL5-law.juju; (14.9)  
**kə-laŋ** (BY): *n* CL12-law; (6.53)  
**kī-tífə** (MS): *n* CL7-law; (6.20)  
**kí-tífə** (MS): *n* CL7-law; (13.65)  
**ú-sɔ́** (MS): *n* CL3-lawsuit; (14.72)  
**lanə** (MK): *v* (A)learn; (8.126)  
**lanə** (NG): *v* (c)learn; (6.23)  
**dən** (BY): *v* (c)leave; (9.10)  
**dənə** (BY): *v* (c)leave; (9.35)  
**ntɕèhɛ** (MK): *n* CL3-left; (8.142)  
**ì-ŋàm** (BY): *n* CL9-leopard; (9.7)  
**wən** (BY): *v* (A)lie.down; (8.3)  
**wənə** (BY): *v* (A)lie.down; (6.5)  
**̀nsàn** (MK): *n* CL1-ligby; (8.86)  
**bō-nsàn** (MK): *n* CL2-ligby; (A.41)  
**bō-nsàn** (MK): *n* CL2-ligby; (15.30)  
**koŋ** (MS): *v* (A)like; (9.61)  
**kɔŋ** (MS): *v* (A)like; (13.19)  
**kɔŋ** (MK): *v* (A)like; (10.102)  
**ŋ-kɔŋ** (MS): *v* (A)1SG-like; (7.26)  
**ŋ-kɔŋ** (MK): *v* (A)1SG-like; (A.49)  
**fī-mbànə** (BY): *n* CL19-lizard; (12.7)  
**í-dāŋ** (AB): *n* CL5-LOC.comb; (12.75)  
**ǎ-súsú** (NG): *n* CL16-LOC.face; (12.21)  
**fǒ-ncām** (MK): *n* CL16-LOC.heart; (A.27)  
**jī** (MK): *n* CL5-LOC.OBJ; (10.65)  
**kə** (BY): *n* CL12-LOC.OBJ; (12.10)  
**kī** (MK): *n* CL12-LOC.OBJ; (12.104)  
**kī** (AB): *n* CL12-LOC.OBJ; (8.19)  
**bə** (MK): *n* CL2-LOC.OBJ; (10.117)  
**bē** (MK): *n* CL2-LOC.OBJ; (11.2)  
**ū** (NG): *n* CL1-LOC.OBJ; (12.41)  
**wū** (MK): *n* CL1-LOC.OBJ; (7.12)  
**wə** (MK): *n* CL3-LOC.OBJ; (9.39)  
**wū** (BY): *n* CL1-LOC.OBJ; (12.15)  
**bqē** (AB): *n* CL2-LOC.OBJ; (10.112)  
**ɕī** (MK): *n* CL19-LOC.OBJ; (10.58)  
**bē** (MK): *n* CL2-LOC.PRO; (11.12)  
**wə** (NG): *n* CL1-LOC.PRO; (8.97)  
**buŋə** (MK): *v* (B)lock; (A.34)  
**u-ba~baŋ** (BY): *v* (B)VFOC~lock; (13.16)  
**gɕjɛfə** (MK): *v* (A)long; (8.48)  
**liŋ** (AB): *v* (A)look.for; (12.93)  
**ɕi=a** (MK): *v* (A)look=PRF; (A.57)  
**ɕi-ɕi** (MK): *v* (A)VFOC~look; (8.125)  
**ɕi-ɕu** (NG): *v* (A)VFOC~look; (12.41)  
**ɕu** (BY): *v* (A)look; (8.15)  
**ɕu** (BY): *v* (A)look; (8.21)  
**n-ɕu** (BY): *v* (A)1SG-look; (12.10)  
**n-ɕu** (BY): *v* (A)1SG-look; (12.11)  
**ɕələ** (MS): *v* (A)look; (12.64)  
**ɕi** (MK): *v* (A)look; (8.82)  
**ɕi** (BY): *v* (A)look; (14.37)  
**m-bɔ** (MK): *v* (A)1SG-look; (10.81)  
**ɕələ** (MK): *v* (A)loosen; (14.84)  
**ɕoa** (MS): *v* (A)loosen; (6.3)  
**ŋ-kɔŋ** (MK): *v* (A)1SG-love; (A.93)  
**kɔŋ** (AB): *v* (A)love; (8.118)  
**kɔŋ** (AB): *v* (A)love; (8.106)  
**kɔŋ** (MK): *v* (A)love; (A.83)  
**mū-ndɔŋ** (MK): *n* CL18a-macabo.cocoyam; (5.5)  
**bī-ndɔŋ** (MK): *n* CL8-macabo.cocoyam; (5.6)

- kā-dě** (BY): *n* CL12-machete; (12.29)  
**ɕ-ágè** (MK): *n* CL19-maggi; (5.8)  
**le** (MK): *v* (A)make; (12.18)  
**le** (MK): *v* (A)make; (6.21)  
**n-le** (AB): *v* (A)1SG-make; (8.121)  
**li** (MS): *v* (A)make; (13.55)  
**li** (MS): *v* (A)make; (13.63)  
**lo** (MS): *v* (A)make; (6.20)  
**no** (NG): *v* (A)make; (8.53)  
**nə** (BY): *v* (A)make; (8.50)  
**nɔ** (BY): *v* (A)make; (12.109)  
**á-kwē** (AB): *n* CL2-male.friend; (8.95)  
**ù-nǝmfə** (MK): *n* CL1-male; (7.12)  
**ù-nǝmfə** (MK): *n* CL1-male.ADJ; (A.21)  
**bə-nǝmfə** (MK): *n* CL2-male; (12.17)  
**bə-nǝmfə** (MK): *n* CL2-male.ADJ; (A.69)  
**ù-něhe** (NG): *n* CL1-male; (8.81)  
**bə-něhe** (NG): *n* CL2-male.ADJ; (6.23)  
**bá-póŋhŋ** (MS): *n* CL2-male; (10.63)  
**ñlən** (MK): *n* CL1-manner; (7.12)  
**ma** (NG): *v* (A)marry; (6.95)  
**mə** (BY): *v* (A)marry; (13.8)  
**ì-mē** (MK): *n* CL5-INF-marry; (10.95)  
**mɛ** (MK): *v* (A)marry; (8.85)  
**mɛ** (MK): *v* (A)marry; (A.59)  
**ká-mjǐ** (BY): *n* CL12-matter; (14.30)  
**bí-mjǐ** (MK): *n* CL8-matter; (8.98)  
**á-mjǐ** (MK): *n* CL12-matter; (10.68)  
**á-mjǐ** (MK): *n* CL12-matter; (11.88)  
**á-mjǐ** (MK): *n* CL7-matter; (12.106)  
**bí-pǐ** (AB): *n* CL8-matter; (11.42)  
**ì-ɕì** (MK): *n* CL9-meat; (15.57)  
**ì-fì** (BY): *n* CL9-meat; (9.12)  
**ì-ɕà** (MS): *n* CL9-meat; (14.89)  
**ì-ɕì** (MK): *n* CL9-meat; (11.53)  
**bú-tǐ** (MK): *n* CL14-medicine; (7.20)  
**bù-tǐ** (MK): *n* CL14-medicine; (15.19)  
**bú-tí** (MK): *n* CL14-medicine; (A.47)  
**tɛ** (NG): *v* (c)meet; (15.24)  
**tɪ** (AB): *v* (c)meet; (10.7)  
**tɪ** (AB): *v* (c)meet; (14.6)  
**n-tɪ** (BY): *v* (c)1SG-meet; (14.92)  
**bí-ɕún** (MS): *n* CL8-missong.people; (10.50)  
**bí-ɕún** (MS): *n* CL8-missong; (9.22)  
**bí-ɕun** (MS): *n* CL8-missong; (14.20)  
**ú-kpǝfə** (MK): *n* CL3-money; (12.107)  
**ú-kpǝɔ** (MS): *n* CL3-money; (4.30)  
**ú-kpǝbə** (AB): *n* CL3-money; (8.49)  
**ú-kpǝfə** (MK): *n* CL3-money; (9.21)  
**ú-kpǝhɔ** (MK): *n* CL3-money; (10.65)  
**ú-kpǝhɔ=nə** (MK): *n* CL3-money=DAT; (10.78)  
**ú-kpǝfə** (BY): *n* CL3-money; (8.80)  
**ú-kpǝha** (BY): *n* CL3-money; (14.37)  
**ì-kànə** (AB): *n* CL9-monkey; (14.2)  
**ū-wē** (MK): *n* CL3-moon; (15.9)  
**ī-wē** (MK): *n* CL4-moon; (9.52)  
**ɲí-nə** (MK): *n* CL1-mother-DAT; (10.12)  
**ù-mjǝhɛ** (MK): *n* CL1-mother.in.law; (A.82)  
**nâ** (AB): *n* CL1-mother; (6.7)  
**ɲí** (MK): *n* CL1-mother; (7.12)  
**mū-ɲí** (MK): *n* CL18a-mother; (5.5)  
**bá-ɲí** (MS): *n* CL2-mother; (6.19)  
**ɲí=nə** (MK): *n* CL1-mother=DAT; (11.41)  
**ní** (MS): *n* CL1-mother; (6.41)  
**ū-fən** (MK): *n* CL3-mouth; (A.58)  
**ù-fən** (MK): *n* CL1-mouth; (12.17)  
**ū-fən** (MK): *n* CL3-mouth; (A.56)  
**ù-fən** (MK): *n* CL1-mouth; (A.110)  
**ú-tɕú** (MK): *n* CL3-mouth; (9.57)  
**mɔŋhə** (MK): *v* (A)must; (11.88)  
**ì-já** (NG): *n* CL5-name; (15.24)  
**ì-jā** (NG): *n* CL5-name; (12.100)  
**ì-jám** (MK): *n* CL5-name; (14.14)  
**ì-jē** (MS): *n* CL5-name; (15.27)  
**ú-mɔŋ** (MK): *n* CL3-neck; (9.39)  
**já** (MK): *n* CL10-NEG; (10.97)  
**pí** (MS): *v* (B)neg; (13.44)  
**wǎ** (BY): *n* CL1-NEG; (11.51)  
**wǎ** (MK): *n* CL1-NEG; (13.6)  
**bí-ffé** (BY): *n* CL8-new; (14.54)  
**bí-ffí** (BY): *n* CL8-new; (14.50)  
**bí-fúŋ** (MS): *n* CL8-new.ADJ; (6.24)  
**í-ɕóŋ** (MK): *n* CL5-next; (A.2)  
**bú-tú** (AB): *n* CL14-night; (9.31)  
**wɔŋ** (AB): *v* (c)nil; (10.98)  
**í-lím** (AB): *n* CL5-nkwi.bark; (12.94)  
**ɲ-kəm** (BY): *n* CL1-NMLZ2-break; (7.31)  
**ɲ-kəm** (MK): *n* CL1-NMLZ2-break; (7.33)  
**ɲ-gbò** (BY): *n* CL1-NMLZ2-cut.off; (7.30)  
**ɲ-kpò** (MK): *n* CL1-NMLZ2-cut.off; (7.34)  
**m-bàŋ** (BY): *n* CL1-NMLZ2-lock; (7.32)  
**bə-m-bàŋ** (BY): *n* CL2-NMLZ2-lock.IRR; (7.28)  
**m-bàŋ** (BY): *n* CL1-NMLZ2-lock.IRR; (7.27)  
**ù-wɔŋ** (MK): *n* CL1-nyanga; (15.34)  
**m̄fú** (MK): *n* CL1-occasion; (8.70)  
**fa** (MK): *v* (A)off; (10.25)  
**fe** (MK): *v* (A)off; (11.2)  
**fe** (MK): *v* (A)off; (8.9)  
**fu** (MK): *v* (A)off; (5.10)  
**fə** (MS): *v* (A)off; (9.11)  
**fɔ** (MK): *v* (A)off; (8.9)  
**fə** (MK): *v* (A)off; (8.12)  
**ì-kúkwalə** (MK): *n* CL5-old; (15.8)  
**ù-mù** (NG): *n* CL1-one; (12.12)  
**ù-mwónə** (MK): *n* CL1-one; (10.52)  
**ù-mwənə** (MK): *n* CL1-one; (10.43)  
**ɕí-mwənə** (MK): *n* CL19-one; (7.15)  
**ì-mwənə** (MK): *n* CL9-one; (8.109)

- á-mwə̀nə** (MK): *n* CL12-one; (11.27)  
**bú-mwə̀nə** (MK): *n* CL14-one; (14.62)  
**ú-mwə̀nə** (MK): *n* CL3-one; (A.19)  
**ì-mwə̀nə** (MK): *n* CL5-one; (14.81)  
**ù-mwə̀nə** (MK): *n* CL1-one; (8.108)  
**naha** (MK): *v* (c)open; (A.110)  
**wu** (MK): *v* (B)open; (A.40)  
**wu** (MK): *v* (c)open; (11.40)  
**ḡ-wu** (MK): *v* (c)1SG-open; (13.9)  
**baha** (MK): *v* (A)operate; (A.15)  
**ū-wə̀n** (MK): *n* CL1-ornaments; (8.46)  
**bə́-léhe** (AB): *n* CL2-other; (10.108)  
**ù-lē** (MK): *n* CL1-other; (7.11)  
**ù-lō** (MK): *n* CL1-other; (A.89)  
**í-ló** (MK): *n* CL10-other; (8.136)  
**á-ló** (MK): *n* CL12-other; (8.79)  
**mú-ló** (MK): *n* CL18a-other; (6.58)  
**ɕí-ló** (MK): *n* CL19-other; (9.34)  
**bə́-ló** (MK): *n* CL2-other; (A.69)  
**ī-ló** (MK): *n* CL5-other; (A.37)  
**bī-ló** (MK): *n* CL8-other; (A.1)  
**ù-nē** (NG): *n* CL1-other; (12.12)  
**bū-né** (NG): *n* CL14-other; (5.11)  
**fī-né** (NG): *n* CL19-other; (9.29)  
**ù-nē=nó** (NG): *n* CL1-other=DAT; (15.61)  
**ù-nī** (BY): *n* CL1-other; (8.18)  
**ī-ní** (BY): *n* CL5-other; (9.63)  
**ā-ní** (BY): *n* CL6-other; (6.60)  
**ì-nī** (BY): *n* CL9-other; (12.71)  
**kpum** (AB): *v* (A)overstay; (7.6)  
**ḡgī** (BY): *n* CL1-own; (12.7)  
**ba** (AB): *v* (B)pack.in.basket; (10.124)  
**ū-bē** (MK): *n* CL3-pan; (10.144)  
**á-kǎḡ** (AB): *n* CL7-pan; (12.94)  
**gbùkan** (BY): *n* CL1-papaya; (8.40)  
**u-wan** (BY): *n* CL1-parent.in.law; (8.34)  
**ḡkè** (MK): *n* CL1-part; (8.39)  
**tse** (MS): *v* (B)pass.night; (8.58)  
**tse** (MK): *v* (B)pass.night; (8.57)  
**i-tse-nə** (MK): *v* (c)INF-pass.night-INF; (10.100)  
**san** (AB): *v* (A)pass; (9.31)  
**san** (AB): *v* (A)pass; (14.55)  
**n-san** (BY): *v* (A)1SG-pass; (8.133)  
**san=a** (MS): *v* (A)pass=PRF; (7.19)  
**san=a** (BY): *v* (A)pass=PRF; (12.8)  
**sanə** (MK): *v* (A)pass; (8.86)  
**ɕi-ɕa** (MK): *v* (A)VFOC~pass; (6.8)  
**ɕi-ɕa** (MK): *v* (A)VFOC~pass; (8.48)  
**ɕa** (MK): *v* (A)pass; (10.65)  
**ɕe** (BY): *v* (A)pass; (10.62)  
**ɕa** (MK): *v* (A)pass; (6.47)  
**ì-tsēnə** (MK): *n* CL5-path; (14.74)  
**gəm** (MK): *v* (A)pay; (15.18)  
**i-gəm-nə** (BY): *v* (A)INF-pay-INF; (15.63)  
**gəm=a** (MK): *v* (A)pay=PRF; (7.20)  
**bī-mbə́nə** (MS): *n* CL8-peaceful.ADJ; (8.24)  
**tju** (AB): *v* (A)peck; (9.54)  
**tu** (BY): *v* (A)peck; (8.129)  
**tu=a** (BY): *v* (A)peck=PRF; (12.71)  
**bí-lúḡ** (MK): *n* CL8-peel; (7.22)  
**wilə** (MK): *v* (c)peel; (8.12)  
**ā-ná** (AB): *n* CL2-people; (6.40)  
**bə́-nō** (BY): *n* CL2-people; (12.11)  
**bə́-nè** (MK): *n* CL2-people; (A.34)  
**ḡfwáha** (NG): *n* CL1-pepper; (7.10)  
**fī-nō** (MS): *n* CL19-person; (6.52)  
**ā-ná** (AB): *n* CL2-person; (6.88)  
**ù-nò** (MS): *n* CL1-person; (10.130)  
**ú-nò** (NG): *n* CL1-PREP-person; (15.61)  
**fī-nò** (NG): *n* CL19-person; (9.29)  
**bə́-nò** (NG): *n* CL2-person; (12.40)  
**ù-nò<sub>j</sub>** (BY): *n* CL1-person; (12.62)  
**ù-nè** (MK): *n* CL1-person; (12.84)  
**bā-nè** (MS): *n* CL2-person; (6.80)  
**bə́-nè=nó** (MK): *n* CL2-person=DAT; (10.87)  
**bə́-nò** (NG): *n* CL2-person; (12.40)  
**bə́-picture** (MK): *n* CL2-picture; (8.77)  
**bwən** (BY): *v* (A)pierce; (8.40)  
**bwunə** (MK): *v* (A)pierce; (8.120)  
**í-gǔḡ** (BY): *n* CL10-pig; (6.68)  
**í-wǔḡ** (AB): *n* CL10-pig; (11.14)  
**í-wúḡ** (MK): *n* CL10-pig; (6.83)  
**í-wúḡə** (MK): *n* CL10-pig; (10.18)  
**í-wǔḡ** (MK): *n* CL10-pig; (12.106)  
**í-wúḡ** (MK): *n* CL10-pig; (6.1)  
**ì-wùḡ** (MK): *n* CL9-pig; (14.59)  
**ì-wùḡə** (MK): *n* CL9-pig; (10.146)  
**bwənə** (MK): *v* (A)pin; (10.58)  
**í-sěhe** (MK): *n* CL5-place; (12.96)  
**í-sěhe** (MK): *n* CL5-place; (10.32)  
**í-sěhe** (BY): *n* CL5-place; (12.50)  
**í-sěsə** (BY): *n* CL5-place; (15.62)  
**í-ɕǎsə** (MS): *n* CL5-place; (9.65)  
**í-ɕǎsə** (MS): *n* CL5-place; (6.13)  
**ḡkpàlə** (MK): *n* CL1-placenta; (8.110)  
**i-bi=ni** (BY): *v* (B)INF-plait=DAT; (4.31)  
**bi** (BY): *v* (B)plait; (4.23)  
**be** (BY): *v* (B)plait; (10.109)  
**kwan** (MK): *v* (A)plan; (8.42)  
**ḡi** (BY): *v* (B)plant.tree; (9.5)  
**dze** (MK): *v* (A)plant; (5.5)  
**ɕi** (AB): *v* (A)plant; (11.37)  
**ɕə** (MK): *v* (A)plant; (8.120)  
**mū-ntɕán** (AB): *n* CL18a-plantain; (13.37)  
**á-ḡgómə** (MK): *n* CL12-plantain; (7.22)  
**í-ɕḡḡə=nó** (NG): *n* CL5-PREP-INF-play=DAT; (8.81)  
**ɕḡḡə** (NG): *v* (c)play; (12.41)  
**təfə** (MK): *v* (A)pluck.feathers; (A.82)

- təfə** (MK): *v* (B)pluck; (7.18)  
**ntihi** (BY): *n* CL1-pot; (12.13)  
**bə-ntihi** (BY): *n* CL2-pot; (11.22)  
**ū-tsɔŋ** (MS): *n* CL3-pot; (5.3)  
**dze** (BY): *v* (A)pour; (8.32)  
**ŋgbàŋ** (AB): *n* CL1-power; (10.119)  
**í-səŋ** (MK): *n* CL5-power; (8.47)  
**í-səŋ** (MK): *n* CL5-power; (14.41)  
**ì-səŋə** (MK): *n* CL5-power; (6.8)  
**baŋ** (AB): *v* (A)pray; (6.12)  
**baŋɔ** (AB): *v* (A)pray; (10.88)  
**mɥe** (NG): *v* (c)pregnant; (7.21)  
**í-tómə** (MK): *n* CL5-PREP.ING-shoot; (10.97)  
**ú** (BY): *n* CL1-PREP.LOC.OBJ; (9.12)  
**kə** (BY): *n* CL1-PREP.LOC.OBJ; (6.90)  
**ú** (NG): *n* CL3-PREP.LOC.OBJ; (8.69)  
**principal** (BY): *n* CL1-principal; (5.4)  
**bī-lùŋ** (MS): *n* CL8-problem; (10.53)  
**bì-lùŋ** (MS): *n* CL8-problem; (6.97)  
**bí-mjǐ** (BY): *n* CL8-problem; (6.55)  
**ndĩnə** (MS): *n* CL1-problem; (6.20)  
**kaŋ** (AB): *v* (A)protect; (10.74)  
**bəle** (BY): *v* (A)prove; (12.56)  
**bəle** (BY): *v* (A)prove; (12.23)  
**bənə** (MK): *v* (A)prove; (8.86)  
**fí-mbjǐ** (BY): *n* CL19-puppy; (6.94)  
**dze** (BY): *v* (A)put; (8.40)  
**dze** (MK): *v* (A)put; (6.35)  
**ɕu** (AB): *v* (A)put; (8.135)  
**ɕu** (AB): *v* (A)put; (10.124)  
**ɕi** (AB): *v* (A)put; (8.121)  
**ɕu** (AB): *v* (A)put; (12.94)  
**dzo** (MK): *v* (A)put; (10.39)  
**dzu** (BY): *v* (A)put; (8.134)  
**dzə** (MS): *v* (A)put; (10.50)  
**kanə** (MK): *v* (c)quarrel; (A.90)  
**kanə** (MK): *v* (c)quarrel; (10.48)  
**kwáta** (MS): *n* CL1-quarter; (14.83)  
**jaŋhə** (AB): *v* (c)quickly; (8.135)  
**jaŋhə** (MK): *v* (c)quickly; (8.139)  
**ā-tó** (MK): *n* CL12-rafters; (7.22)  
**ì-bū** (BY): *n* CL5-rain; (9.63)  
**ma** (MK): *v* (A)rain; (10.110)  
**ma** (AB): *v* (A)rain; (9.64)  
**me** (MS): *v* (A)rain; (9.65)  
**ì-bū** (MS): *n* CL5-rain; (9.65)  
**í-kú** (MS): *n* CL5-raphia; (9.22)  
**kə-bən** (BY): *n* CL12-rat.mole; (15.21)  
**bī-bən** (BY): *n* CL8-rat.mole; (15.53)  
**fí-mfəhe** (NG): *n* CL19-rat; (9.59)  
**fī-mfwəhe** (NG): *n* CL19-rat; (10.99)  
**banə** (MK): *v* (A)really.CLSBRK; (A.2)  
**m-bim~banə** (MK): *v* (A)??-VFOC-really; (8.116)  
**ban** (MK): *v* (A)really; (A.84)  
**m-ban** (MK): *v* (A)1SG-really; (5.6)  
**banə** (MK): *v* (A)really; (6.18)  
**ban** (MK): *v* (A)really; (A.70)  
**tən** (BY): *v* (c)rear; (6.99)  
**á-mjǐ** (NG): *n* CL12-reason; (8.69)  
**í-bim~bwínsə** (MK): *n* CL10-red; (8.47)  
**ù-bwǐhi** (MK): *n* CL1-red; (6.36)  
**bə-buqé-tó** (NG): *n* CL2-red-ADJ; (12.40)  
**í-bwínsə** (MK): *n* CL10-red; (12.77)  
**fí-bú~bá-lə** (NG): *n* CL19-REDBAD-ADJ; (9.29)  
**í-nín~nám** (BY): *n* CL10-RED~fat.ADJ; (6.68)  
**ku~kwe** (NG): *v* (c)RED~return.from.bush; (9.48)  
**ji~je** (MK): *v* (A)RED~STAY; (14.49)  
**í-wí~wílə** (MK): *n* CL10-RED~white; (10.97)  
**lí-la** (MK): *v* (A)RED~L.COP; (14.82)  
**tanə** (MK): *v* (B)refuse.IPV; (10.89)  
**ton** (MS): *v* (B)refuse; (14.89)  
**bí-ná** (BY): *n* CL8-REL.DS; (15.29)  
**bā-ná** (MS): *n* CL2-REL; (10.85)  
**ù-nī** (BY): *n* CL1-REL; (15.25)  
**ī-ní** (BY): *n* CL10-REL; (12.88)  
**kə-ní** (BY): *n* CL12-REL; (9.17)  
**bə-ní** (BY): *n* CL2-REL; (11.36)  
**ū-ní** (BY): *n* CL3-REL; (12.72)  
**nī** (BY): *n* CL5-REL; (12.10)  
**ì-nī** (BY): *n* CL9-REL; (6.99)  
**faŋ** (MK): *v* (B)remain; (11.46)  
**m-faŋ** (MK): *v* (B)1SG-remain; (10.24)  
**faŋ=a** (BY): *v* (B)remain=PRF; (12.29)  
**saŋ** (MK): *v* (A)remain; (8.108)  
**taha** (MS): *v* (B)remove.honey; (4.17)  
**ku** (BY): *v* (c)return.from.bush; (9.41)  
**kwe** (MK): *v* (c)return.from.bush; (6.2)  
**i-kwe** (MK): *v* (c)INF-return.from.bush; (6.2)  
**kwe** (MK): *v* (c)return.from.bush; (11.35)  
**kwɔ** (MK): *v* (c)return.from.bush; (8.20)  
**kɔ** (MS): *v* (c)return.from.bush; (9.36)  
**kwo** (AB): *v* (c)return.home; (10.42)  
**kwe** (NG): *v* (c)return.home; (10.28)  
**ko** (AB): *v* (c)return.home; (10.55)  
**i-ku** (BY): *v* (c)PREP.INF-return; (7.25)  
**ku** (AB): *v* (c)return; (9.30)  
**ku~kwe** (NG): *v* (c)VFOC~return; (12.44)  
**kwɔ** (MK): *v* (c)return; (5.9)  
**bi-kaŋ** (MK): *n* CL8-ridge; (8.120)  
**ì-tsən** (BY): *n* CL5-road; (9.25)  
**fɔhɔ** (MK): *v* (A)roast; (10.45)  
**fɔhɔ** (MK): *v* (B)roast; (10.87)  
**ì-bàha** (AB): *n* CL5-rock; (10.158)  
**kpanə** (AB): *v* (A)roll; (9.60)  
**kpənə** (MS): *v* (A)roll; (12.25)  
**bí-tsô** (BY): *n* CL8-rooster; (6.27)  
**ú-gbǎ** (BY): *n* CL3-rope; (12.32)  
**ú-gbɛ** (MK): *n* CL3-rope; (6.26)

- ú-gbê** (MS): *n* CL3-rope; (6.3)  
**i-fu** (MK): *v* (A)INF-rot; (11.34)  
**kjanə** (MK): *v* (A)rough; (14.47)  
**n-jəxə** (MS): *v* (c)1SG-run; (10.132)  
**u-jalə** (MK): *v* (A)run; (10.91)  
**jalə** (MK): *v* (c)run; (10.155)  
**jalə=nə** (MK): *v* (c)run=DAT; (10.97)  
**jəhə** (MS): *v* (c)run; (10.23)  
**n-jəhə-nə** (MS): *v* (c)INF-run-INF; (10.23)  
**jəxə** (AB): *v* (c)run; (10.158)  
**jəxə** (AB): *v* (c)run; (11.96)  
**á-ǽŋ** (NG): *n* CL6-sand; (8.7)  
**di** (MK): *v* (c)say; (8.87)  
**di** (MK): *v* (c)say; (11.47)  
**n-di** (MK): *v* (c)1SG-say; (A.75)  
**n-di** (MK): *v* (c)1SG-say; (8.126)  
**n-di** (MK): *v* (c)1SG-say; (8.86)  
**diə** (MK): *v* (c)say; (8.9)  
**ɕe** (BY): *v* (c)say; (15.21)  
**n-ɕi** (BY): *v* (c)1SG-say; (9.43)  
**ɕə** (MK): *v* (c)say; (A.35)  
**de** (BY): *v* (c)say; (12.23)  
**di=a** (MK): *v* (c)say=PRF; (15.28)  
**da** (AB): *v* (c)say; (8.106)  
**da** (AB): *v* (c)say.PREP; (8.121)  
**de** (NG): *v* (c)say; (12.67)  
**de** (BY): *v* (c)say; (12.23)  
**de=a** (MK): *v* (c)say=PRF; (11.41)  
**deə** (BY): *v* (c)say; (15.63)  
**kílə** (MS): *n* CL1-scale; (8.2)  
**fwam** (MS): *v* (B)scatter; (13.29)  
**fwam** (MS): *v* (B)scatter; (13.30)  
**fwam** (MS): *v* (B)scatter; (14.65)  
**taha** (NG): *v* (B)scatter; (10.160)  
**taha** (MS): *v* (A)scatter; (10.159)  
**n-taha** (MS): *v* (c)1SG-scatter; (6.17)  
**waha** (BY): *v* (A)scatter; (15.32)  
**wihi** (MS): *v* (A)scatter; (10.15)  
**kan** (MK): *v* (B)scrape; (8.13)  
**ɕu** (MK): *v* (B)scrape; (11.54)  
**səŋ** (BY): *v* (B)scratch; (8.29)  
**ganə** (MS): *v* (A)scrub; (10.157)  
**i-bə=nə** (MK): *v* (A)PREP.INF-search=DAT; (A.56)  
**laha** (MS): *v* (B)search; (6.20)  
**bə** (BY): *v* (A)search; (15.15)  
**bə=nə** (MK): *v* (A)search=DAT; (12.55)  
**i-bə=nə** (MK): *v* (A)PREP.INF-search=DAT; (12.17)  
**bə** (BY): *v* (A)search; (12.50)  
**m-bə** (MK): *v* (A)1SG-search; (4.41)  
**m-bə** (MK): *v* (A)1SG-search; (10.32)  
**dzɛn** (BY): *v* (A)search; (12.33)  
**bəxə** (AB): *v* (B)search; (11.42)  
**nam** (NG): *v* (B)secretly; (12.100)  
**n-tsaŋ-nə-nə** (MS): *v* (B)INF-see-INF-INF; (11.31)  
**n-tsaŋ-nə-nə** (MS): *v* (B)INF-see-INF-INF; (10.22)  
**tsin~tsəŋə** (MK): *v* (B)VFOC~see.Q.POLAR; (A.105)  
**i-gbe** (MK): *v* (A)INF-see; (9.50)  
**ɕəŋ** (BY): *v* (B)see; (9.49)  
**ɕein~ɕəŋ** (BY): *v* (B)VFOC~see; (8.76)  
**ɕəŋ=a** (BY): *v* (B)see=PRF; (12.39)  
**ɕəŋ=nə** (BY): *v* (B)see=DAT; (14.93)  
**tsin~tsəŋə** (MK): *v* (B)VFOC~see; (12.96)  
**tsin~tsəŋə** (MK): *v* (B)VFOC~see; (12.95)  
**tsəŋə** (MK): *v* (B)see; (13.17)  
**tsəŋ** (NG): *v* (B)see; (8.81)  
**n-təŋ** (MK): *v* (B)1SG-see; (15.33)  
**tsəŋ** (MK): *v* (B)see; (15.33)  
**tsəŋə** (MK): *v* (B)see; (A.98)  
**tsaŋ** (AB): *v* (B)see; (14.6)  
**tsəŋə** (NG): *v* (B)see; (12.40)  
**tsəŋ** (MK): *v* (B)see; (8.79)  
**tsəŋ** (MK): *v* (B)see; (A.111)  
**tsaŋ** (MS): *v* (B)see; (10.130)  
**tsəŋ=ə** (MK): *v* (B)see=PRF; (A.112)  
**tsəŋ=a** (MK): *v* (B)see=PRF; (8.77)  
**tsəŋ=a** (MK): *v* (B)see=PRF; (A.11)  
**tsəŋ** (MK): *v* (B)see; (A.71)  
**tsəŋ=a** (NG): *v* (B)see=PRF; (7.21)  
**fan=a** (MK): *v* (A)sell=PRF; (10.78)  
**fana** (MK): *v* (A)sell; (6.18)  
**fanə** (MK): *v* (A)sell; (A.33)  
**fəŋ** (MS): *v* (A)sell; (15.54)  
**foa** (MS): *v* (A)sell; (4.17)  
**fanə** (MK): *v* (A)sell; (13.18)  
**tam** (MK): *v* (c)send; (9.15)  
**tam** (MK): *v* (c)send; (6.10)  
**n-tam** (MK): *v* (c)1SG-send; (8.125)  
**tam** (MK): *v* (c)send; (12.47)  
**kjəmə** (MK): *v* (A)sew; (15.33)  
**ŋ-kjumə** (MK): *v* (A)1SG-sew; (12.22)  
**tjəm** (BY): *v* (A)sew; (11.36)  
**tjəm** (BY): *v* (A)sew; (11.67)  
**tjum** (BY): *v* (A)sew; (12.26)  
**ɕɛ** (MS): *v* (A)share; (4.19)  
**ɕa** (MK): *v* (A)share; (A.27)  
**ɕe** (BY): *v* (A)share; (15.53)  
**mju** (MK): *v* (A)shave; (10.25)  
**i-mi** (MK): *v* (A)INF-shave; (10.25)  
**fī-kpáfə** (BY): *n* CL19-shed; (7.7)  
**gɛhɛ** (NG): *v* (A)shift; (10.40)  
**kī-bān** (MS): *n* CL7-shit; (6.17)  
**mi** (MS): *v* (A)shit; (6.17)  
**bī-kpā** (MK): *n* CL8-shoe; (11.88)  
**kā-kpa** (AB): *n* CL12-shoe; (14.43)  
**kā-kpē** (BY): *n* CL12-shoe; (14.38)  
**təm** (MK): *v* (B)shoot; (A.16)  
**tam** (MK): *v* (B)shoot; (10.72)  
**tam=a** (NG): *v* (B)shoot=PRF; (10.40)

- təm** (MK): *v* (B)shoot; (8.62)  
**təm** (BY): *v* (B)shoot; (8.8)  
**í-tómə** (MK): *n* CL5-PREP.INF-shoot; (10.66)  
**kwanə** (MK): *v* (A)shout.at; (A.87)  
**laŋbə** (NG): *v* (B)shout.wildly; (12.36)  
**kafə** (MS): *v* (A)shout; (9.36)  
**kpəŋ** (NG): *v* (A)shout; (7.5)  
**i-kwan** (NG): *v* (A)INF-shout; (12.4)  
**kəfə** (AB): *v* (A)shout; (8.45)  
**wam** (BY): *v* (B)shout; (12.32)  
**wam** (MK): *v* (B)shout; (10.114)  
**i-talə-nə** (MK): *v* (C)show-; (14.29)  
**ta** (BY): *v* (C)show; (12.58)  
**taa** (NG): *v* (C)show; (10.120)  
**taa** (NG): *v* (C)show; (10.121)  
**talə** (MK): *v* (C)show; (10.100)  
**təhe** (BY): *v* (A)show; (12.10)  
**to** (AB): *v* (C)show; (8.54)  
**talə** (MK): *v* (C)show; (10.91)  
**wəŋí** (MK): *n* CL1-sibling; (12.47)  
**bɥé-wíŋí** (AB): *n* CL2-sibling; (10.115)  
**bā-wāsə** (MS): *n* CL2-sibling; (14.51)  
**wàní** (MS): *n* CL1-sibling; (14.22)  
**bā-wāsə** (MS): *n* CL2-sibling; (10.107)  
**bə-wəŋí** (MK): *n* CL2-sibling; (A.101)  
**wéné** (MK): *n* CL1-sibling; (10.67)  
**nafə** (MK): *v* (B)sick; (10.12)  
**ŋi-ŋafə** (BY): *v* (B)VFOC-sick; (10.10)  
**ŋaha** (BY): *v* (B)sick; (10.11)  
**kə-ŋaha-tə** (NG): *v* (B)sick-; (5.20)  
**ī-tē** (MK): *n* CL5-side.path; (12.55)  
**kə-báha** (BY): *n* CL12-side; (11.36)  
**n-ja** (MK): *v* (C)1SG-sing; (6.62)  
**jam** (BY): *v* (C)sing; (13.60)  
**jam** (BY): *v* (C)sing; (13.61)  
**í-jám=nó** (BY): *n* CL5-PREP.INF-sing=DAT; (8.89)  
**i-jám=nə** (BY): *v* (C)INF-sing=DAT; (12.9)  
**mələ** (NG): *v* (A)sink; (8.53)  
**ŋaŋ** (MS): *v* (A)sit; (6.19)  
**ŋe** (BY): *v* (A)sit; (8.3)  
**í-lētē** (MK): *n* CL4-six; (9.52)  
**bā-lētē** (MS): *n* CL2-six; (10.15)  
**bī-tētē** (BY): *n* CL8-six; (15.53)  
**ì-wilə** (MK): *n* CL5-skin; (8.12)  
**təam** (BY): *v* (B)slap; (8.131)  
**n-tsam** (NG): *v* (B)1SG-slap; (10.90)  
**n-tsam** (MK): *v* (B)1SG-slap; (10.155)  
**kiŋ-kəm** (BY): *v* (A)VFOCslaughter; (11.74)  
**u-kəm-ə** (MK): *v* (A)slaughter-; (14.11)  
**ù-kəm-ə** (AB): *n* CL1-slaughter-ADJ; (14.18)  
**u-kam-ə** (AB): *v* (A)slaughter-; (14.16)  
**kam** (AB): *v* (A)slaughter; (11.56)  
**kam** (AB): *v* (A)slaughter; (13.54)  
**kəm** (MK): *v* (A)slaughter; (12.96)  
**kəm** (BY): *v* (A)slaughter; (14.67)  
**gun** (AB): *v* (A)sleep; (8.66)  
**gunə** (AB): *v* (A)sleep; (10.108)  
**wən** (BY): *v* (A)sleep; (13.1)  
**wən** (MK): *v* (A)sleep; (8.61)  
**wən=ə** (NG): *v* (A)sleep=PRF; (7.21)  
**ŋan** (MK): *v* (C)slice; (7.18)  
**ŋan** (MK): *v* (C)slice; (10.35)  
**ú-fúŋ** (AB): *n* CL3-slipknot; (10.29)  
**ù-kí** (MK): *n* CL1-small; (4.32)  
**ù-tì-tən** (BY): *n* CL1-small; (10.41)  
**ma** (MS): *v* (C)soak; (4.10)  
**mə** (MS): *v* (C)soak; (4.14)  
**ā-ló** (MK): *n* CL12-some; (12.98)  
**ù-nē** (NG): *n* CL1-some; (14.27)  
**á-né** (NG): *n* CL12-some; (12.5)  
**ì-nə** (BY): *n* CL5-some; (13.1)  
**ù-nī** (BY): *n* CL1-some; (10.57)  
**ū-ní** (BY): *n* CL3-some; (15.63)  
**ā-ní** (BY): *n* CL6-some; (11.28)  
**ì-jām** (MK): *n* CL5-song; (15.8)  
**ì-çī** (BY): *n* CL5-sound; (12.109)  
**ñfwàha** (BY): *n* CL1-soup; (12.46)  
**bə-spaghetti** (MK): *n* CL2-spaghetti; (9.57)  
**tsam** (NG): *v* (A)speak; (12.5)  
**kí-gúŋ** (BY): *n* CL13-spear; (8.40)  
**í-wúŋ** (MK): *n* CL4-spear; (5.10)  
**ì-tù** (MK): *n* CL5-species; (12.110)  
**ù-ljùlə** (MK): *n* CL1-spicy.ADJ; (10.56)  
**bafə** (MK): *v* (B)spoil; (A.75)  
**u-baha** (MS): *v* (C)spoil; (13.19)  
**ù-bálə** (MK): *n* CL1-spoil.ADJ; (A.85)  
**ū-bálə** (MK): *n* CL3-spoil; (A.58)  
**fī-bú-bálə** (NG): *n* CL19-spoil.ADJ; (5.7)  
**ū-bálə** (MK): *n* CL3-spoil.ADJ; (A.57)  
**i-balə** (MK): *v* (B)spoil; (A.80)  
**bafə** (MK): *v* (B)spoil; (A.70)  
**bafə** (MK): *v* (B)spoil; (A.60)  
**wəŋ** (BY): *v* (A)squeeze.honey; (8.34)  
**wəŋ** (MS): *v* (A)squeeze; (4.16)  
**jbdiŋ** (NG): *v* (B)stand.still; (8.59)  
**biju** (MS): *v* (C)stand.up; (13.65)  
**jehe** (MK): *v* (C)stand; (10.82)  
**jehe** (MK): *v* (C)stand; (14.48)  
**biji** (MS): *v* (C)stand; (12.25)  
**bija** (BY): *v* (C)stand; (12.57)  
**dəhə** (MK): *v* (A)start; (9.39)  
**som** (AB): *v* (B)start; (10.7)  
**so=a** (NG): *v* (A)start=PRF; (10.99)  
**su** (BY): *v* (A)start; (6.31)  
**su** (BY): *v* (A)start; (12.72)  
**dəhə** (MK): *v* (A)start; (A.107)  
**dəhə** (MK): *v* (A)start; (A.106)  
**dəhə** (MK): *v* (A)start; (15.1)



- dɔhɔ** (MK): *v* (A)start; (10.96)  
**ɲa** (MK): *v* (A)stay;; (8.62)  
**ɲɛ** (MK): *v* (A)stay;; (14.48)  
**ɲa** (BY): *v* (A)stay..IPFV; (11.67)  
**ɲ-ɲa** (MK): *v* (A)1SG-stay..IPFV; (10.102)  
**ɲaŋ** (MS): *v* (A)stay..IRR; (4.18)  
**ɲa** (BY): *v* (A)stay..IRR; (9.28)  
**ɛi** (MK): *v* (B)stay.day; (8.60)  
**ɛo** (AB): *v* (B)stay.day; (12.75)  
**i-ɛi** (MK): *v* (B)PREP.INF-stay.day; (13.21)  
**ɛv** (NG): *v* (B)stay.day; (8.69)  
**ɛv** (NG): *v* (B)stay.day; (8.59)  
**ɛɔ** (BY): *v* (C)stay.day; (5.4)  
**ɛi=aa** (MK): *v* (B)stay.day=PRF.Q.POLAR; (8.55)  
**tse** (MK): *v* (B)stay.night; (8.56)  
**n-tso** (MK): *v* (B)1SG-stay.night; (8.61)  
**tse** (BY): *v* (B)stay.overnight; (9.41)  
**ɲɛ** (MK): *v* (A)stay.PFV; (12.108)  
**di** (MK): *v* (C)stay; (8.124)  
**lanɔ** (AB): *v* (A)stay; (13.50)  
**ɲi-ɲɛ** (MK): *v* (A)VFOC~stay; (6.58)  
**ɲi-ɲa** (BY): *v* (A)VFOC~stay; (8.63)  
**ɲi-ɲa** (BY): *v* (A)VFOC~stay; (11.51)  
**ɲi-ɲa** (BY): *v* (A)VFOC~stay; (11.78)  
**ɲi-ɲaŋ** (MS): *v* (A)VFOC~stay; (11.77)  
**ɲa** (MK): *v* (A)stay; (10.51)  
**ɲa** (MK): *v* (A)stay; (12.97)  
**ɲa** (MK): *v* (A)stay; (9.57)  
**ɲa** (BY): *v* (A)stay; (12.30)  
**ɲa** (BY): *v* (A)stay; (14.80)  
**ɲaŋ** (MS): *v* (A)stay; (9.65)  
**ɲɛ** (MK): *v* (A)stay; (15.42)  
**ɲɛ** (MK): *v* (A)stay; (A.88)  
**ɲ-ɲɛ** (BY): *v* (A)1SG-stay; (14.92)  
**ɲ-ɲɛ** (BY): *v* (A)1SG-stay; (8.133)  
**ɲɛ** (MK): *v* (A)stay; (A.4)  
**ɲɛ=nə** (MK): *v* (A)stay=DAT; (13.21)  
**ɲi** (BY): *v* (A)stay; (10.36)  
**ɲi** (BY): *v* (A)stay; (10.57)  
**ɲa** (MK): *v* (A)stay; (14.81)  
**ɲaŋ** (MS): *v* (A)stay; (6.3)  
**ɲoa** (MS): *v* (A)stay; (6.44)  
**ɲwa** (MS): *v* (A)stay; (11.77)  
**ɲwa** (MS): *v* (A)stay; (9.61)  
**dzan** (NG): *v* (A)stay; (12.41)  
**dzan** (NG): *v* (A)stay; (14.88)  
**n-dzan** (NG): *v* (A)1SG-stay; (13.47)  
**dzan=a** (NG): *v* (A)stay=PRF; (12.59)  
**dzan=a** (NG): *v* (C)stay=PRF; (8.101)  
**i-dzan=nə** (NG): *v* (A)PREP.INF-stay=DAT; (10.94)  
**ɕi-ɕa** (MK): *v* (A)VFOC~steal; (11.102)  
**ɕa** (MK): *v* (A)steal; (A.111)  
**i-ɕa** (MK): *v* (A)INFsteal; (A.108)  
**ɕa** (MK): *v* (A)steal; (11.101)  
**ɕa** (AB): *v* (A)steal; (10.74)  
**n-ɕu** (BY): *v* (A)1SG-steal; (15.10)  
**ki** (MK): *v* (A)step; (6.98)  
**ti** (AB): *v* (A)step; (10.158)  
**i-ki** (MK): *n* CL5-stone; (10.65)  
**i-ti** (NG): *n* CL5-stone; (14.9)  
**i-ti** (BY): *n* CL5-stone; (12.39)  
**i-kpùnə** (MS): *n* CL5-story; (6.91)  
**ā-ndjòŋ** (AB): *n* CL12-story; (7.6)  
**á-ŋgjòŋ** (MK): *n* CL12-story; (7.20)  
**ā-ŋgjòŋ** (MK): *n* CL12-story; (A.113)  
**á-ŋgjòŋ** (MK): *n* CL12-story; (8.78)  
**fǝ-fjòŋ** (BY): *n* CL16-stream; (6.31)  
**fǝ-fjòŋ** (BY): *n* CL16-stream; (8.37)  
**fǝ-mfjəŋ** (NG): *n* CL16-stream; (8.4)  
**fǝ-nɛòŋ** (MK): *n* CL16-stream; (14.40)  
**fǝ-nɛòŋ** (MK): *n* CL16-stream; (9.27)  
**ǎ-ɛǎŋ** (AB): *n* CL16-stream; (14.42)  
**gbabə** (MK): *v* (B)strong; (14.49)  
**gbabə** (MK): *v* (C)strong; (A.6)  
**fwom** (AB): *v* (B)struggle; (12.75)  
**fwəm** (BY): *v* (B)struggle; (11.78)  
**fwum** (NG): *v* (B)struggle; (8.83)  
**style** (MK): *n* CL1-style; (15.33)  
**fa** (MK): *v* (B)suffer; (A.35)  
**ú-wáha** (MK): *n* CL3-sun; (11.25)  
**tei-tɛa** (MK): *v* (A)VFOC~surpass; (10.64)  
**tɛa** (MS): *v* (A)surpass; (10.63)  
**tɛa** (NG): *v* (A)surpass; (8.44)  
**i-ɕuŋgbə-tɛi** (AB): *v* (A)sweet-; (12.24)  
**ú-jənə** (MK): *n* CL3-tail; (8.142)  
**ú-títǎfə** (MK): *n* CL3-tailfeather; (7.15)  
**mɪ** (BY): *v* (A)take; (12.65)  
**ma** (NG): *v* (A)take; (10.75)  
**ma** (MK): *v* (A)take; (8.9)  
**ma** (NG): *v* (A)take; (11.52)  
**ma** (MK): *v* (A)1SG-take; (7.22)  
**ma** (BY): *v* (A)take; (8.33)  
**mə** (AB): *v* (A)take; (8.121)  
**mə** (BY): *v* (A)take; (8.26)  
**mɛ** (MK): *v* (A)take; (A.37)  
**mɛ** (MK): *v* (A)take; (8.9)  
**mɔ** (MS): *v* (A)take; (10.105)  
**di** (MK): *v* (C)talk; (10.81)  
**m-bjaŋ** (MS): *v* (B)1SG-talk; (8.24)  
**m-bum~bjaŋ** (MS): *v* (B)1SG-VFOC~talk; (11.93)  
**tsam** (MK): *v* (B)talk; (8.60)  
**tsam** (MK): *v* (B)talk; (8.41)  
**tsam** (MK): *v* (A)talk; (A.57)  
**tsam** (MK): *v* (A)talk; (10.114)  
**i-tsam** (MK): *v* (B)INF-talk; (8.60)  
**i-tsam** (MK): *v* (B)INF-talk; (8.60)  
**tsam=a** (NG): *v* (A)talk=PRF; (15.48)  
**tsamə** (MK): *v* (A)talk; (A.56)

- tsamə** (MK): *v* (A)talk; (12.17)  
**n-tsamə** (MK): *v* (A)1SG-talk; (15.26)  
**tsam** (MK): *v* (A)talk; (15.11)  
**da** (BY): *v* (C)talk; (6.67)  
**n-de** (BY): *v* (C)1SG-talk; (12.73)  
**m-fələ** (MK): *v* (C)1SG-tangle; (13.59)  
**n-len** (MK): *v* (B)1SG-tell.story; (4.41)  
**lenə** (MK): *v* (B)tell.story; (A.113)  
**ljen** (MK): *v* (B)tell.story; (A.35)  
**ei** (NG): *v* (A)tell; (15.61)  
**bā-kwīn** (MK): *n* CL2-ten; (6.45)  
**bā-ḡóhó** (MS): *n* CL2-ten; (6.44)  
**ḡə** (BY): *v* (A)tether; (10.36)  
**ā-jəŋə** (AB): *n* CL12-thanks; (1.2)  
**mùú** (MK): *n* CL1-then.FUT; (12.97)  
**wə** (MK): *n* CL1-then; (12.103)  
**ù-ḡì** (BY): *n* CL1-thief.ADJ; (12.33)  
**ú-bjùm** (MK): *n* CL3-thing; (10.91)  
**ú-bjùm** (MK): *n* CL3-thing; (10.21)  
**kí-mjě** (MS): *n* CL7-thing; (14.28)  
**bí-mjě** (MS): *n* CL8-thing; (9.58)  
**á-mjĩ** (NG): *n* CL12-thing; (12.67)  
**bí-mjĩ** (NG): *n* CL8-thing; (10.121)  
**ká-mjũ** (MK): *n* CL12-thing; (10.102)  
**kə-mjũ** (BY): *n* CL12-thing; (4.40)  
**á-mjũ** (MK): *n* CL12-thing; (A.16)  
**kə-nó** (BY): *n* CL12-thing; (4.28)  
**kí-nó** (MS): *n* CL7-thing; (9.45)  
**bí-nó** (BY): *n* CL8-thing; (12.60)  
**bí-nũ** (NG): *n* CL8-thing; (8.123)  
**kə-nó** (BY): *n* CL12-thing; (10.37)  
**á-nĩ** (AB): *n* CL12-thing; (10.7)  
**bí-nĩ** (MK): *n* CL8-thing; (10.69)  
**bí-nǎ** (MK): *n* CL8-thing; (11.2)  
**á-nũ** (AB): *n* CL12-thing; (8.117)  
**á-ná** (MK): *n* CL12-thing; (15.64)  
**í-nú** (AB): *n* CL8-thing; (8.71)  
**n-woŋhɣ** (MS): *v* (A)1SG-thing; (9.58)  
**í-təúə** (AB): *n* CL8-things; (10.76)  
**məŋhə** (NG): *v* (A)think; (15.61)  
**nəŋhə** (MK): *v* (A)think; (8.98)  
**ŋəŋhə** (AB): *v* (A)think; (10.115)  
**wəŋhə** (NG): *v* (A)think; (12.41)  
**ɕe** (MK): *v* (C)think; (A.107)  
**ei** (MK): *v* (C)think; (15.1)  
**ɕo** (MK): *v* (C)think; (15.56)  
**í-ɕéhe** (BY): *n* CL5-thirst; (10.8)  
**á-sáha** (MK): *n* CL6-three.stones; (8.68)  
**í-tĩ** (AB): *n* CL10-three; (6.87)  
**bā-tĩ** (AB): *n* CL2-three; (6.88)  
**bā-tě** (MS): *n* CL2-three; (6.41)  
**bā-tè** (NG): *n* CL2-three; (8.22)  
**ī-tè** (MK): *n* CL10-three; (13.27)  
**bā-tè** (BY): *n* CL2-three; (10.57)  
**ā-tè** (MK): *n* CL6-three; (12.18)  
**ḡu** (NG): *v* (A)throw; (10.160)  
**bi-kaha-tɛi** (AB): *v* (A)tie-; (6.29)  
**kasə** (MS): *v* (A)tie; (4.20)  
**ŋ-kəhe** (MK): *v* (A)1SG-tie; (15.12)  
**kaha** (BY): *v* (A)tie; (14.60)  
**ŋ-kaha** (BY): *v* (A)1SG-tie; (15.40)  
**kasə** (MS): *v* (A)tie; (4.21)  
**ŋ-kasə** (BY): *v* (A)1SG-tie; (9.49)  
**kəh=a** (MK): *v* (A)tie=PRF; (7.13)  
**n-tɛu** (BY): *v* (A)tie; (6.90)  
**tsə** (BY): *v* (B)tie; (12.32)  
**nam** (MK): *v* (A)till.field; (A.11)  
**nam** (MK): *v* (A)till.soil; (10.56)  
**ā-fwé** (BY): *n* CL6-time; (15.40)  
**ā-fwé** (BY): *n* CL6-time; (15.40)  
**ĩfũ** (MK): *n* CL1-time; (9.39)  
**time** (MK): *n* CL1-time; (10.13)  
**āŋ-kè** (AB): *n* CL6-times; (6.46)  
**ɣam** (MS): *v* (B)tiptoe; (10.131)  
**bu-bwə** (BY): *v* (B)VFOC-tired; (8.133)  
**bwə** (MK): *v* (B)tired; (12.80)  
**i-bwə** (MK): *v* (B)INF-tired; (12.80)  
**í-lám** (MS): *n* CL4-tongue; (9.58)  
**í** (NG): *n* CL10-TOP; (12.41)  
**ì** (BY): *n* CL5-TOP; (12.10)  
**ì** (BY): *n* CL9-TOP; (12.33)  
**kə** (NG): *n* CL12-TOP; (12.67)  
**bú** (BY): *n* CL2-TOP; (12.50)  
**bə** (BY): *n* CL2-TOP; (12.50)  
**ù** (NG): *n* CL1-TOP; (12.41)  
**ɛi-tòḡki** (MK): *n* CL19-tortoise; (8.16)  
**ɛi-tòki** (MK): *n* CL19-tortoise; (10.6)  
**ɛi-tòrəki** (MK): *n* CL19-tortoise; (10.146)  
**torokí** (BY): *n* CL1-tortoise; (12.39)  
**Tòrəki** (BY): *n* CL1-tortoise; (9.10)  
**ɛi-tòrəki** (MK): *n* CL19-tortoise; (8.41)  
**təŋ=a** (MK): *v* (A)touch=PRF; (10.117)  
**taŋ** (AB): *v* (A)touch; (9.19)  
**tɣəŋ** (AB): *v* (C)travel; (14.6)  
**dze** (MK): *v* (B)travel; (A.76)  
**n-dzelo** (MK): *v* (B)1SG-travel; (10.24)  
**i-dze** (MK): *v* (A)PREP.INF-travel; (8.136)  
**i-dze** (MK): *v* (A)PREP.INF-travel; (13.4)  
**i-dzelo** (MK): *v* (B)INF-travel; (10.24)  
**dzu** (NG): *v* (A)travel; (8.59)  
**ū-kwān=ná** (MS): *n* CL3-tree=DAT; (8.1)  
**ū-kwā=ná** (MS): *n* CL3-tree=DAT; (7.19)  
**ā-tĩ** (MK): *n* CL12-tree; (14.48)  
**bī-tĩ** (MK): *n* CL8-tree; (9.13)  
**kā-tō** (BY): *n* CL12-tree; (10.137)  
**bī-tō** (BY): *n* CL8-tree; (9.5)  
**kā-tō** (BY): *n* CL7-tree; (12.109)  
**ù-sisé** (MK): *n* CL1-true(?); (7.12)

- bə-ncəŋə** (MK): *n* CL2-trumpet; (2.1)  
**bā-fífá=ná** (MS): *n* CL2-two=DAT; (6.44)  
**bə-fún** (NG): *n* CL2-two; (6.23)  
**bā-fā** (MS): *n* CL2-two; (10.20)  
**bā-fā** (MS): *n* CL2-two; (6.80)  
**bə-fè** (MK): *n* CL2-two; (A.26)  
**bə-fè** (MK): *n* CL2-two; (7.17)  
**ā-fè** (MK): *n* CL6-two; (12.18)  
**bə-fún** (NG): *n* CL2-two; (11.52)  
**bə-fò** (BY): *n* CL2-two; (6.92)  
**ā-fò** (BY): *n* CL6-two; (15.40)  
**í-fè** (MK): *n* CL10-two; (6.85)  
**bó-fè** (MK): *n* CL2-two; (6.84)  
**bā-fà** (MS): *n* CL2-two; (6.69)  
**bə-fè** (MK): *n* CL2-two; (A.26)  
**bųé-fín** (AB): *n* CL2-two; (10.55)  
**bųó-fò** (BY): *n* CL2-two; (14.60)  
**ì-tù** (MK): *n* CL5-type; (15.34)  
**wèpínà** (MK): *n* CL1-uncle; (A.89)  
**tɛ** (MK): *v* (A)undress; (8.99)  
**tɛ** (BY): *v* (A)undress; (11.38)  
**n-nəfə** (MK): *v* (A)1SG-uproot; (5.5)  
**bí-tóm.** (MK): *n* CL8-vegetables; (12.97)  
**lə** (MS): *v* (A)VENT(?); (10.34)  
**le** (BY): *v* (A)VENT.; (10.156)  
**lə** (MK): *v* (A)VENT.; (10.21)  
**le** (MK): *v* (A)VENT.; (5.10)  
**lɔ** (BY): *v* (A)VENT.; (12.10)  
**lɔ** (MS): *v* (A)VENT.; (8.24)  
**le** (BY): *v* (A)VENT; (4.23)  
**lə** (MS): *v* (A)VENT; (9.11)  
**le** (MK): *v* (A)VENT; (9.44)  
**lɔ** (MS): *v* (A)vent; (9.36)  
**lɔ** (BY): *v* (A)VENT; (8.15)  
**lɔ** (NG): *v* (A)VENT; (10.40)  
**jɛlə** (MK): *v* (B)very; (7.12)  
**ù-səse** (MK): *n* CL1-very; (A.85)  
**kí-kwê** (MK): *n* CL13-village; (6.47)  
**fě-ŋkwànə** (MK): *n* CL16-village; (15.49)  
**fě-ŋkwànə** (MK): *n* CL16-village; (15.37)  
**ú-tóm** (NG): *n* CL3-village; (8.114)  
**ú-tám** (BY): *n* CL3-village; (11.23)  
**ú-tóm** (AB): *n* CL3-village; (9.30)  
**ú-tóm** (MS): *n* CL3-village; (14.45)  
**ú-tóm** (MS): *n* CL3-village; (11.94)  
**ú-túm** (MS): *n* CL3-village; (9.61)  
**ì-đì** (BY): *n* CL5-voice; (10.80)  
**gbe** (MK): *v* (A)wait; (8.82)  
**gbo** (MK): *v* (A)wait; (8.42)  
**gbu-gbo** (BY): *v* (A)VFOC~wait; (6.70)  
**lanɔ** (AB): *v* (A)walk; (12.75)  
**n-laha** (MS): *v* (B)1SG-want; (12.52)  
**bɔ** (MK): *v* (A)want; (8.96)  
**m-bɔ** (NG): *v* (A)1SG-want; (12.53)  
**ɛu** (MK): *v* (c)want; (A.58)  
**ɛi** (MK): *v* (A)want; (8.92)  
**ɲ-ɛi** (BY): *v* (B)1SG-want; (12.73)  
**ɛi** (MK): *v* (c)want; (A.59)  
**m-bəhɔ** (NG): *v* (B)1SG-want; (9.3)  
**ì-dzôm** (MS): *n* CL5-war; (6.65)  
**sanə** (AB): *v* (c)warm; (10.76)  
**wu** (AB): *v* (B)wash; (7.8)  
**wu** (AB): *v* (A)wash; (14.90)  
**ɲ-ɲá** (AB): *n* CL6a-water; (13.38)  
**āɲ-ɲé** (MS): *n* CL6a-water; (9.11)  
**dze** (MK): *v* (A)wear; (13.20)  
**dze** (MK): *v* (A)wear; (11.88)  
**ú-túnə** (MK): *n* CL3-week; (A.20)  
**ú-túnə** (MK): *n* CL3-week; (A.19)  
**ì-mān** (MS): *n* CL5-which; (10.19)  
**kə-mwīn** (BY): *n* CL12-which; (15.36)  
**ù-mən** (MK): *n* CL1-which; (15.35)  
**wisə** (BY): *n* CL1-whistle; (11.38)  
**bə-mwélə** (NG): *n* CL2-white; (12.40)  
**ā-wélə** (BY): *n* CL6-white; (6.59)  
**bə-wilə** (MK): *n* CL2-white; (8.47)  
**ɬù** (AB): *n* CL1-wife; (8.106)  
**bə-ɬù** (NG): *n* CL2-wife; (14.8)  
**ɬè** (MS): *n* CL1-wife; (10.103)  
**ɬù** (MK): *n* CL1-wife; (A.90)  
**ú-gbáha** (NG): *n* CL3-wind; (15.48)  
**ń-bé** (MK): *n* CL6a-wine; (A.38)  
**ù-ɬɔlə** (MK): *n* CL1-woman; (11.40)  
**bə-ɬɔlə** (MK): *n* CL2-woman; (5.2)  
**ù-ɬùlə** (MS): *n* CL1-woman; (5.3)  
**bí-mjě** (MS): *n* CL8-word; (8.24)  
**kó-mjǐ** (BY): *n* CL12-word; (15.15)  
**bí-mjǐ** (MS): *n* CL8-word; (6.91)  
**bí-mjǔ** (MK): *n* CL8-word; (6.62)  
**bí-mjǔ** (MK): *n* CL8-word; (A.35)  
**nam** (MK): *v* (A)work.farm; (8.120)  
**nam** (MK): *v* (A)work.farm; (A.13)  
**i-nam** (MK): *v* (A)INF-work.farm; (A.11)  
**nə-namə** (MK): *v* (A)VFOC~work.farm; (15.56)  
**ɛi-ɛɛlə** (MK): *v* (A)VFOC~work.farm; (11.88)  
**ɛɛlə** (MK): *v* (A)work.farm; (11.16)  
**i-felɔ** (AB): *v* (A)INF-work; (6.64)  
**i-falə** (AB): *v* (A)INF-work; (6.9)  
**felɔ** (AB): *v* (A)work; (6.64)  
**fɪ** (BY): *v* (A)work; (9.25)  
**nam** (MK): *v* (A)work; (7.13)  
**ɛi-ɛɛlə** (MK): *v* (A)VFOC~work; (13.9)  
**ì-ɛɛlə** (MK): *n* CL5-INF-work; (8.103)  
**i-ɛɛlə** (MK): *v* (A)INF-work; (A.9)  
**i-ɛɛlə** (MK): *v* (A)INF-work; (9.21)  
**i-ɛɛlə** (MK): *v* (A)INF-work; (13.9)  
**ɛi** (MK): *v* (A)work; (11.25)  
**ɛɛlə** (MK): *v* (A)work; (12.102)

- ̀mbì** (MK): *n* CL1-world; (6.21)  
**ú-dí** (MS): *n* CL3-world; (13.19)  
**fwəmfə** (MK): *v* (B)worry; (12.35)  
**fwəmfə** (MK): *v* (C)worry; (11.41)  
**i-gbəsə** (MS): *n* CL5-wound; (6.52)  
**èi-lâpi** (MK): *n* CL19-wrapper; (5.9)  
**wrapper** (MK): *n* CL1-wrapper; (15.12)  
**bwun** (MK): *v* (B)write; (8.36)  
**í-ńóm** (NG): *n* CL5-year; (6.96)  
**í-ńúm** (MK): *n* CL5-year; (A.11)  
**á-ńúm** (MK): *n* CL6-year; (12.18)  
**á-ńôm** (MS): *n* CL6-year; (15.41)  
**ì-ńúm** (MK): *n* CL5-year; (14.81)  
**ū-bí** (BY): *n* CL3-year; (12.72)  
**ā-mbá** (NG): *n* CL6-young.palms; (12.53)  
**b=ú-ká** (MK): *n* CL3-COM=hand; (11.30)  
**b=ú-kǎ** (MK): *n* CL3-COM=hand; (10.39)  
**b=ú-ǵě** (MK): *n* CL3-COM=knife; (10.35)  
**b=ú-tǎfə** (BY): *n* CL3-COM=sense; (10.41)  
**la** (MK): *v* (A)COP?; (15.13)  
**í-ǵí-nó** (NG): *n* CL5-PREP-INF-eat-DAT; (10.99)

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