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A COMPARATIVE-HISTORICAL STUDY OF THE MANENGUBA LANGUAGES

(BANTU A.15, MBO CLUSTER) OF CAMEROON

by

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### ABSTRACT

The Manenguba languages are a group of closely related Bantu languages spoken on the north-western edge of the Bantu area. The main goals of this study are to reconstruct Proto-Manenguba (PM) from which the present day languages have developed and to examine how they are related to each other.

In chapter two, the correspondences for consonants, vowels and tones are established and proto-phonemes proposed. In chapter three, the sound changes that have apparently taken place between PM and the different languages are presented and discussed. Several diagrams are included to highlight the kinds of splits and mergers that have occurred.

Chapter four is devoted to a comparison and partial reconstruction of the morphology of the noun class and concord system.

In chapter five, PM roots are compared with Proto-Bantu (PB) reconstructions in order to examine the sound correspondences between the two proto-languages. Special attention is given to the apparent double reflexes of voiceless PB stops in North West Bantu languages which have recently been attributed to a former lenis/non-lenis distinction. Apparent non-productive morphophonemic alternations in one of the languages (Akoose) are brought to light involving reflexes of the above stops, although we are not able to provide a satisfactory answer as to their origin.

Chapter six is concerned with the classification of the Manenguba languages. Previous classifications and some recent lexicostatistical classifications are surveyed. We then present and discuss our own lexicostatistical sub-grouping of the Manenguba languages plus their relationship to some adjacent languages. This classification is then related to the previous classifications and to shared sound and morphological changes established in chapters three and four.

The data on which the main part of this study is based is appended comprising some 700 comparative word lists from fourteen languages/dialects. Also included where possible are PB and proposed PM reconstructions of the lexical items.

To  
the people who speak the  
Manenguba languages

### ACKNOWLEDGEMENTS

Ek'ää àh'óg èk'ää'è dyòm.

One hand cannot tie a bundle.

Akoose proverb.

The above proverb expresses very well the fact that this study would have been impossible by exclusively my own efforts. I would therefore like to express my thanks to all those who, in one way or another, were instrumental in bringing this study to fruition.

I would like first of all to express my gratitude to the many speakers of the Manenguba languages who made this study possible by their enthusiasm, their encouragement, by making houses available to us and patiently working through lengthy lists of words with me.

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In order not to omit my ultimate appreciation, I would like to end with the Psalmist's words:

"To you alone, O Lord, to you alone, and not to us,  
must glory be given because of your constant love  
and faithfulness." Psalm 115:1.

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ABBREVIATIONS AND SYMBOLSAbbreviations of language names used in this study

AKO	Akɔɔse, Bakossi
BBO	Babong
BFU	Bafun
BKM	Bakem
BLN	Belon, Balondo
BLO	Balong
BNK	Bongkeng
ELU	Elug, Elung
KIT	Kitchui
KNY	Kenyang
LEF	Lefɔ?, Bafaw
LEK	Lɛkɔŋɔ, Nkongho
MBA	Mba?, Bareko
MBE	Mbo of Ekanang, Mbouroukou
MBM	Mbo of Mboébo, Kekem
MBN	Mbo of Ngwatta
MHE	Mwahɛd, Manehas
MKA	Mkaa?, Bakaka
MNG	Manenguba, Manengouba
MWK	Mwaneka, Baneka
MWM	Mwamenam, Mouamenam
MYE	Myɛngɛ, Mbo of Nguti, Mienge
NGE	Ngemengɛ, Ngemengoe
NGW	Ngwe, Bangwa
NNE	Nnɛnɔŋ, Nninong
NSW	Nswasɛ, Basossi

Other Abbreviations

A.15, A.44, etc.	Guthrie's referential classification of Bantu languages
(A1)-(A709)	numbers referring to comparative word lists in appendix I
AssNP	associative noun phrase
BCCW	Benue-Congo Comparative Wordlist
CB	Common Bantu
CS	Comparative Series of Guthrie (1967-71)
IPA	International Phonetic Alphabet
M	Meeussen (1967, 1969)
PB	Proto-Bantu
PBC	Proto-Benue-Congo
PBK	Proto-Benue-Kwa
PEK	Proto-Ekoid
PI	Proto-Ijɔ
PM	Proto-Manenguba
PNC	Proto-Niger-Congo
ps	"partial series" of Guthrie (1967-71)
SCNC	South Central Niger-Congo
adj.	adjective
cl.	class
n.	noun
pl	plural
ps	person
sg	singular
v.	verb

## Numbers after morphemes:

1	noun class one
2	noun class two
1/2	noun class gender 1/2
[ant]	anterior
[cons]	consonantal
[cont]	continuant
[cor]	coronal
[fr]	front
[hi]	high, height
[lab]	labial
[lat]	lateral
[nas]	nasal
[rd]	round
[son]	sonorant
[syll]	syllabic
[voil]	voiced

Symbols used

C	consonant
V	vowel
VV	long vowel
:	vowel length
G	glide
N	nasal
N, ṃ	syllabic nasal
T	tone
[ ]	phonetic brackets
/ /	phonemic brackets
b	voiced bilabial fricative [β]
g	voiced velar fricative [ɣ]
ph, th, kh	in language data: aspirated stops, or in reconstructions: lenis stops
't, 'd, etc.	in reconstructions: lenis stops
bʰ	voiced bilabial aspirated stop
C'	unreleased stop
C?	consonant ending in a glottal stop
y	palatal glide [j]
w̄	rounded palatal glide [ɥ]
ny	palatal nasal [ɲ]
ʔ	glottal stop
š	voiceless palato-alveolar fricative [ʃ]
ž	voiced palato-alveolar fricative [ʒ]
c	voiceless palato-alveolar affricate [tʃ] (or voiceless palatal stop [c])
j	voiced palato-alveolar affricate [dʒ] (or voiced palatal stop [ɟ])
o	open back vowel
a	open front vowel [a]
ə	half open central vowel
ø	half close central vowel
ü	close rounded front vowel [y]
ö	half close rounded front vowel [ø]
∅	zero
*	asterisks indicate hypothetical reconstructions

H	high tone
ˊ	high tone
ˊˊ	high tone on long vowel
L	low tone
ˋ	low tone
ˋˋ	low tone on long vowel
HL	high-low tone glide
ˊˋ	high-low tone glide on short vowel
ˊˋˊ	high-low tone glide on long vowel
LH	low-high tone glide
ˋˊ	low-high tone glide on short vowel
ˋˊˊ	low-high tone glide on long vowel
ˋ	downstep
HˋH	high followed by downstepped high tone
ˊˋˊ	high followed by downstepped high tone
X > Y	X has become Y
Y < X	Y is derived from X
X → Y	X becomes Y
/_	in the environment of
+	morpheme boundary
/_+Ø	morpheme boundary pre-pause

Conversion of vowels and consonants

<u>This study</u>	<u>Meeussen</u>	<u>Guthrie</u>
i	ɨ	ɨ
e	i	i
ɛ	e	e
a	a	a
ɔ	o	o
o	u	u
u	ʊ	ʊ
ny	ɲ	ny

## CHAPTER ONE

INTRODUCTION1.1 The aim of this study

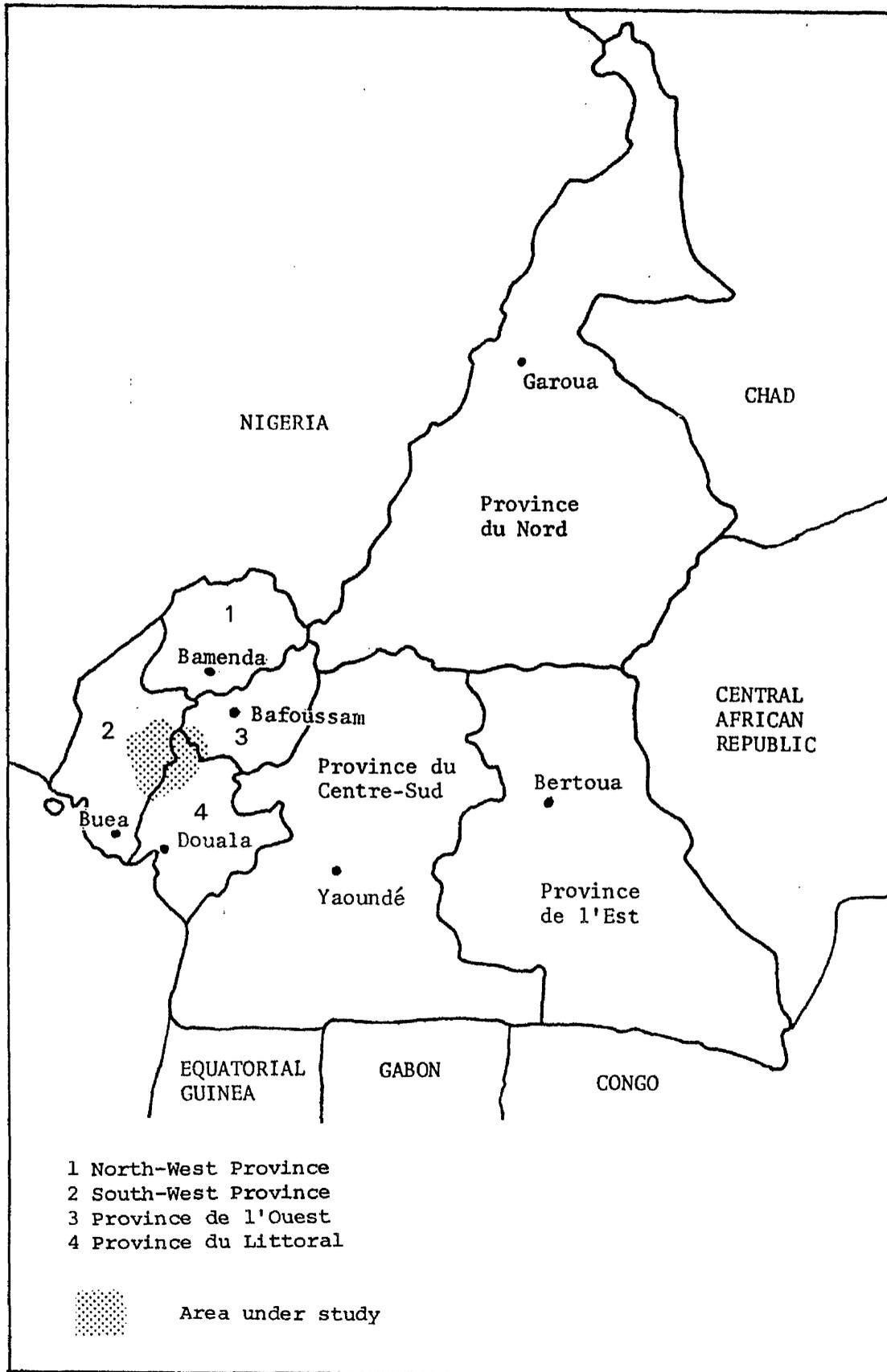
The Manenguba languages are spoken on and around the Manenguba mountain range situated in the south-western part of the Republic of Cameroon.

The aim of this study is to compare the different languages and dialects with a view to reconstructing aspects of the phonology, the noun class concord system and vocabulary of the common proto-language, and to make a classification of the languages and dialects which expresses the relationships between them and their development from the proto-language.

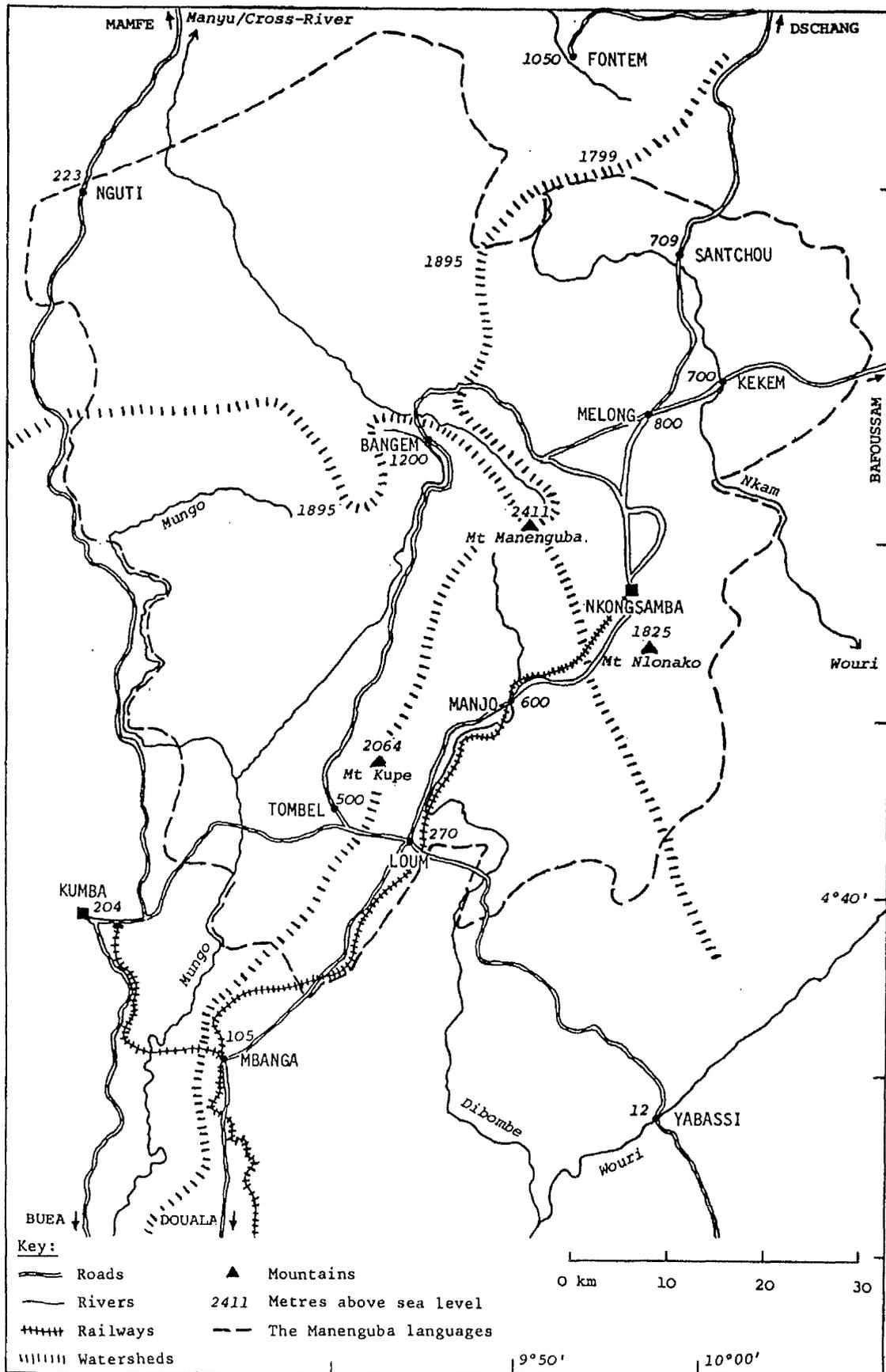
1.2 The location

The Manenguba languages are spoken in the area between longitudes 4°30' and 5°30' north of the equator and latitudes 9°20' and 10°10' east of Greenwich (cf. map 1) with Mount Manenguba at the centre (cf. map 2). Mt. Manenguba is the highest peak in the area (2411m), followed by Mt. Kupe (2064m) and Mt. Nlonako (1825m). They are all part of a chain of volcanic outcrops beginning with a group of islands in the Atlantic Ocean, followed by Mt. Cameroon near the coast and stretching far inland north-eastwards.

Map 1: The location of the Manenguba languages within Cameroon [1]



Map 2: The Manenguba area



The whole area lies within the region of tropical rain forest and large parts are covered by forest. On the slopes of Mt. Manenguba, savannah type vegetation is found. In many places the forest has been cleared for subsistence farming and large plantations.

There is a rainy season and a dry season with rainfall being heaviest from July to September and lowest from November to February. The highest annual rainfall has been measured in Nyasoso on the western slope of Mt. Kupe with 4045mm per year. Nkongsamba has an average annual rainfall of 2762mm (Ejedepang-Koge 1971:13). The area divides into three watershed areas, Mt. Manenguba being at the centre. The north-western part drains off into the Manyu and Cross rivers, the south-western part into the Mungo river and the eastern part into the Nkam and Dibombe rivers which, in turn, carry their water into the Wouri river (cf. map 2).

Two major roads traverse the area in a south-north direction: the Kumba-Mamfe road in the west and the Douala-Bafoussam road in the east. The only west-east connection by major road is the Kumba-Loum road. Many other minor roads provide motorable access to different villages, some of them becoming impassable during the rainy season. During German times, a railway was built between Douala and Nkongsamba which has been operating since 1911. There is also a branch to Kumba on the south-western edge of the area.

### 1.3 The people

Oral history of the Manenguba people begins with the ancestor Ngoe roaming the plains on Mt. Manenguba. There, while hunting, he met a young woman called Sunediang whom he married. They settled on the western slopes from where their offspring later migrated to different parts of the area [2].

There appears to be no recollection of history going back further than the ancestral figure to where the people originally came from.

The more recent history which has been accompanied by tremendous changes begins with the coming of the Europeans to the area. In 1886, two years after Cameroon became a German colony, the first explorer arrived in the southern area reaching Nyasoso [3] just north of Tombel. In 1893, the first Basel missionary arrived in Nyasoso marking the beginning of mission work there.

German administration ended during World War One and Cameroon was divided up to be administered by France and Britain. The dividing line went right through the middle of the Manenguba people following more or less the watershed line from north to south. After independence in 1960, this division is still reflected in provincial boundaries and the predominant use of English and French on the western and eastern side respectively.

The people speaking the various Manenguba languages belong to the following clans or ethnic groups: Mienge, Mbo, Basossi, Bakossi, Elung, Nninong, Mouamenam, Manengouba, Bareko, Manehas, Bakaka, Balondo, Babong and Bafun. Nkongho, Bafaw, Upper and Lower Balong, Bongkeng and Bakem are

sometimes included as part of this group (Ngoula n.d.), but we exclude them on linguistic grounds (cf. 6.3.2.3 and map 3).

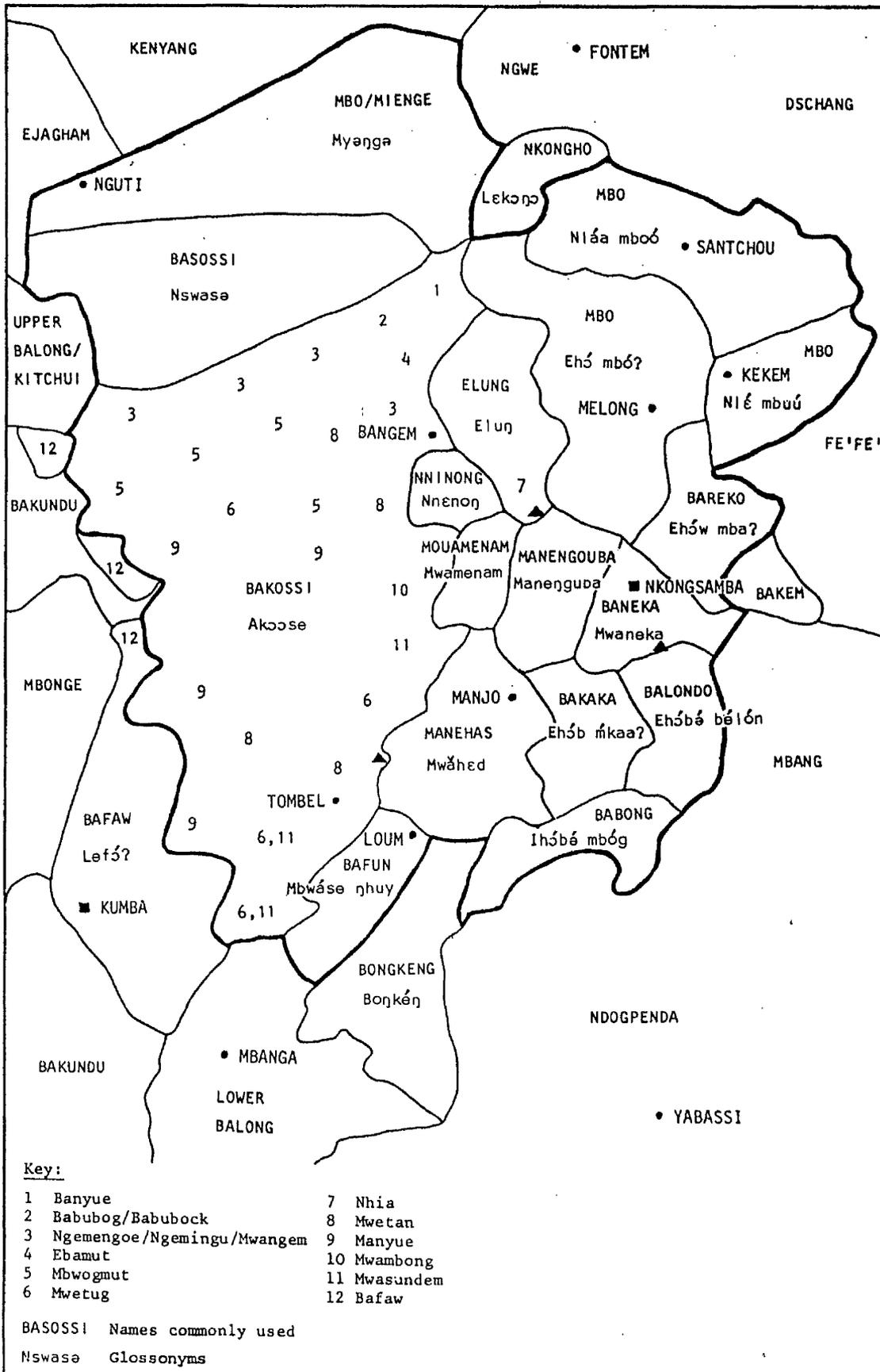
Population figures are estimated at somewhere around 200,000 people. It is, however, difficult to be certain of precise figures because the most recent survey made no difference between the native population and people from other ethnic groups who live in the territory of the people speaking the Manenguba languages [4]. Ngoula (1980) refers to Nloungh who estimated that the population including Upper and Lower Balong, Bafaw, Bakem and Bongkeng, was 230,000 in 1971 [5]. Adding up the figures given in Franqueville (1971:89-90) and the Dictionnaire des villages de la Meme (1973:9-10) leads to a similar conclusion.

Traditionally the people have been farming, hunting and fishing in the various small rivers. The introduction of cash crops such as coffee and cocoa as well as modern education has brought many changes to traditional life. Many people left their villages and are now working in different parts of Cameroon as teachers, pastors, civil servants, doctors, etc.

They used to build round houses with low walls and a high conical roof which is unique in this area. The women carry their loads in baskets on their backs with a band suspended over their heads. This is another feature which distinguishes them from most of their neighbours, the exceptions being the Bangwa and the Mundani to the north who use the same method.

The social organization has been based on family and descent groups expressed in such terms as àbòm á ndáb

Map 3: Ethnonyms and glossonyms

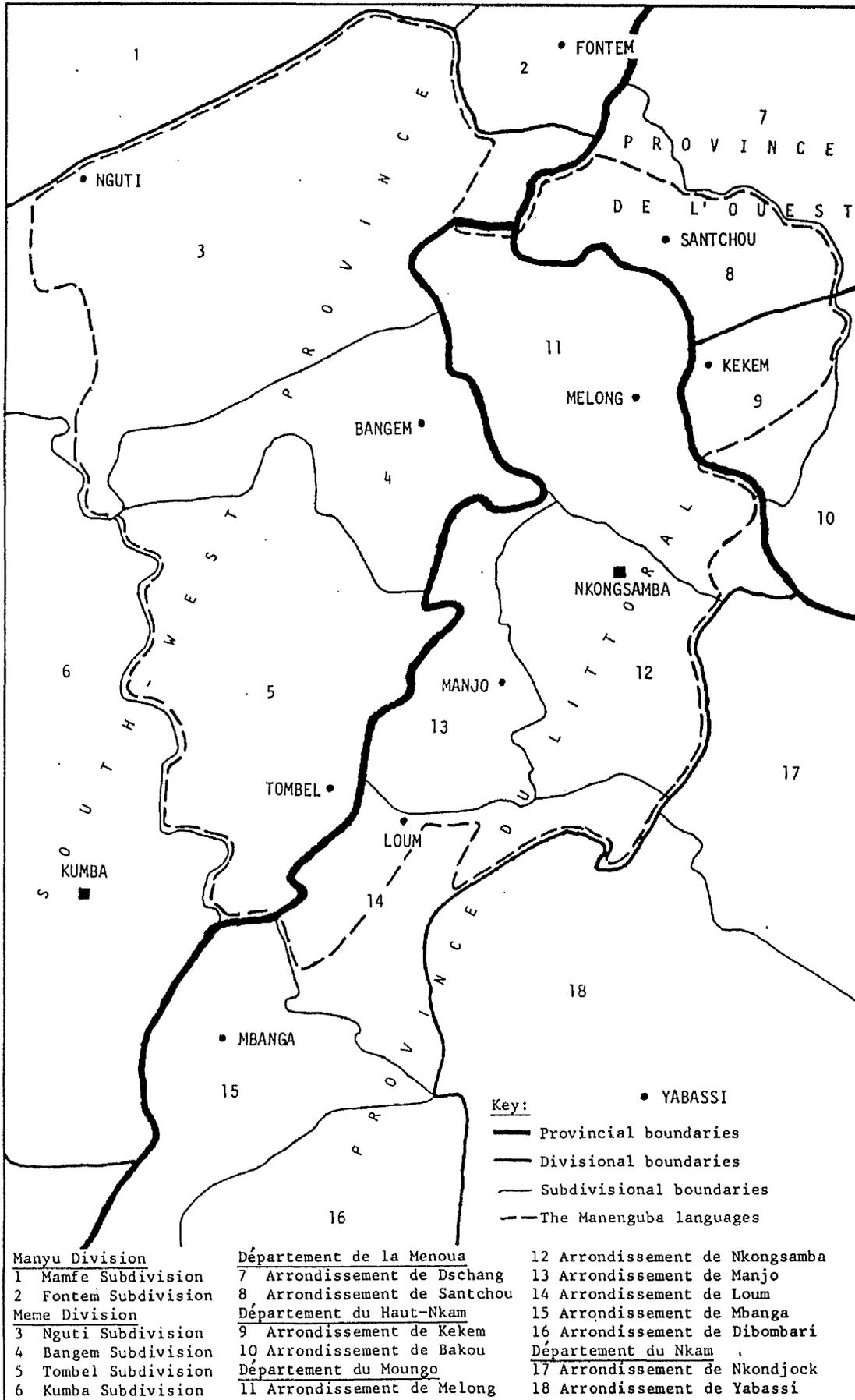


based on *Dictionnaires des Villages, Ejedepang-Koge (1971), Ngoula (n.d.), etc.*

"family" (lit. 'abdomen of house'), túmbé "family" and the different clan names. Village organization was egalitarian with the elders, who were also members of the various traditional societies being the decision makers, rather than hierarchical with a chief at the top as is found in the Grassfields area to the north. Although there are chiefs at village level and for larger groupings, these chieftaincies do not have the same status and power as those found in the Grassfields. It is very likely that the concept of a chief was absent before the colonial period [6].

The clan was probably conceived of as the largest definable unit since each clan has its own name (e.g. Mwetan, Manehas, Mbwogmut, etc.). There was clearly cooperation between clans in pre-colonial times (e.g. trade, marriage, etc.) and there is a certain feeling of oneness. This may be due to a shared common ancestry claimed by all, but there is no evidence that there was any larger political organisation embracing several clans. It was largely along clan lines that administrative boundaries were established during colonial times. Therefore, the modern divisions into various administrative units appear to largely [7] reflect the traditional divisions into groups of common descent but help to reinforce existing divisions [8]. Clearly it is the international boundary, which was placed through the middle of these related groups at the end of World War One, which had the most far-reaching influence. Not only did it stop trade and marriage between traditional partners, it also produced a previously non-existent language barrier. On the western side, people now speak English and on the eastern side, French (cf. maps 4 and 6). Other cultural influences

Map 4: Administrative divisions



based on Map of Cameroon

can be observed. For example, on the western side it is common to be served tea for breakfast whereas on the eastern side, to be offered a glass of red wine with a meal is not at all unusual. The division is also reflected in the form of loanwords in the various Manenguba languages from English and French.

The colonial administrative divisions were continued after independence and after some modifications are now as on map 4 [9]. The Manenguba languages are therefore now spoken in three different provinces (cf. maps 1 and 4).

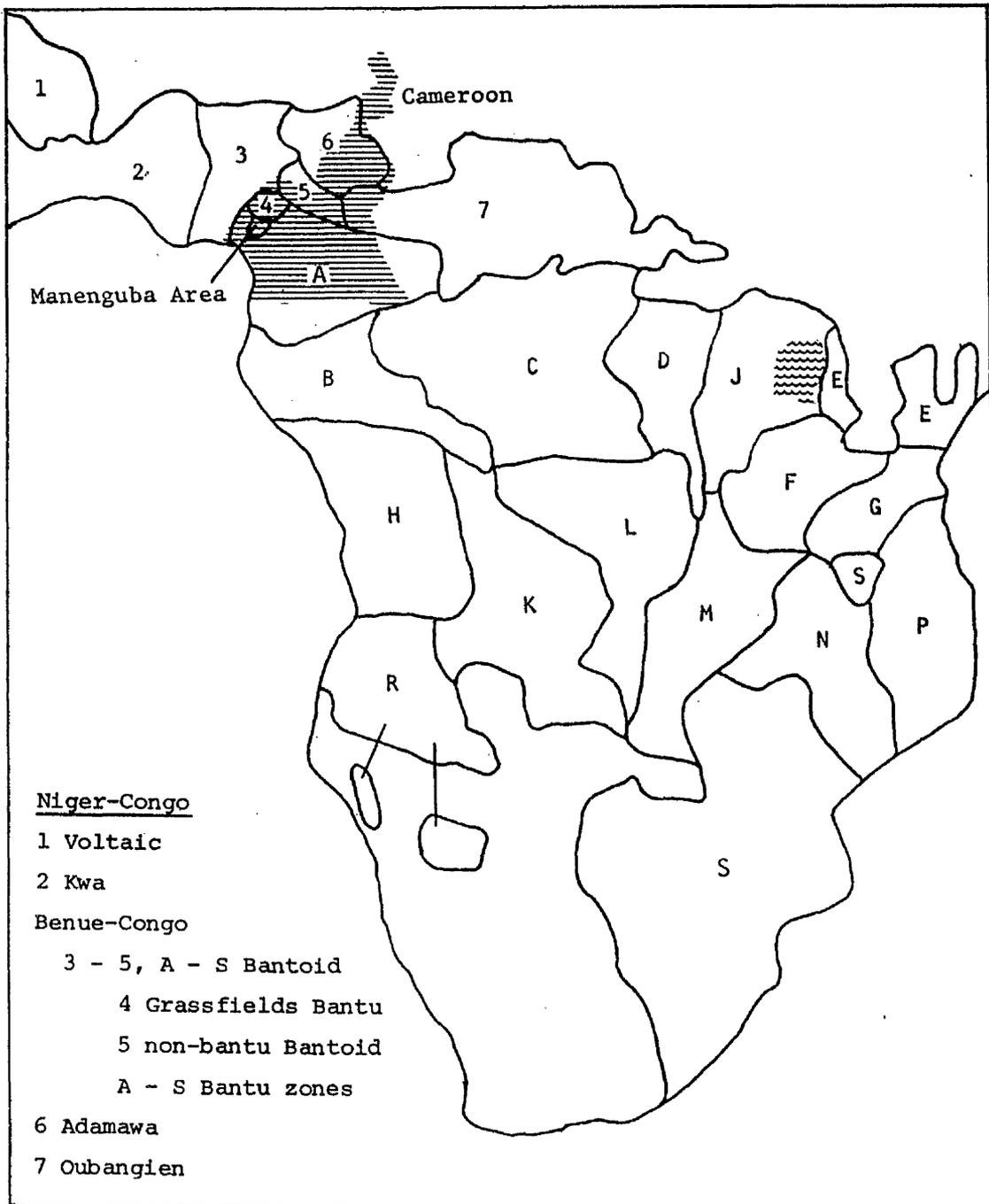
#### 1.4 The languages

##### 1.4.1 General comments

The Manenguba languages belong to the large group of Bantu languages spoken over most of Southern Africa (cf. map 5). The Bantu languages are in turn classified as Bantoid, Benue-Congo and Niger-Congo with Niger-Kordofanian as the highest category in the classification (Greenberg 1963). Geographically, the Manenguba languages are surrounded by other Bantu languages. To the west, south and east, languages of Guthrie's (1948, 1953, 1967-71) zone A are spoken. To the north-west, north and north-east are found languages classified as Ekoid Bantu, Mamfe Bantu (Williamson 1971:276) [10], and Grassfields Bantu, or more specifically, Eastern Grassfields or Mham-Nkam. More details of classification are given in chapter 6.

In the area of Mbanga, Loum and Nkongsamba, there are now many people who are of Bamileke origin, i.e. who speak Eastern Grassfields languages. This influx from the

Map 5: Manenguba within Niger-Congo and Bantu



based on Bastin (1978) and Barreteau (1978)

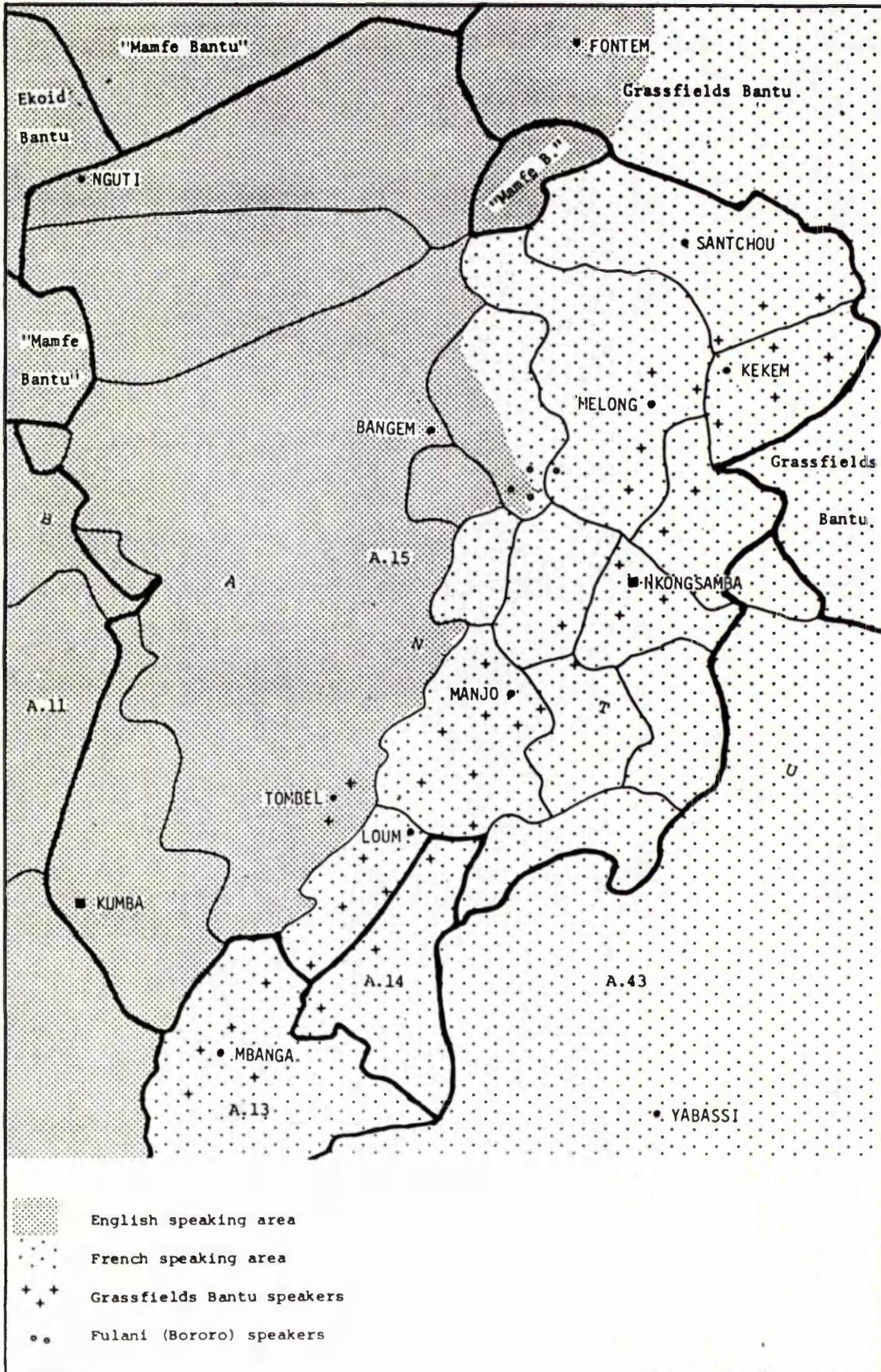
area to the north started early this century when they left their heavily populated homeland to come and work on the cocoa farms of the autochthonous population. They began to settle permanently in the early thirties when the economic crisis forced the native planters to pay their immigrant labourers by giving them part of their plantations (Dugast 1949b) (cf. map 6).

On the top of Mt. Manenguba, there are some small settlements of Fulanis, also called "Bororos", who speak a dialect of Fulfulde. They are Moslems and graze their herds of cattle and horses on the upper slopes and on the large crater plain of Mt. Manenguba, having come to the area in the 1950's (Balz 1984:135).

#### 1.4.2 The Manenguba languages

Turning now to the Manenguba languages more specifically, two questions need to be raised. The first is whether each different clan speaks a separate language or whether they are only dialects of one single language. The situation may be described as follows. Clearly not every form of speech dealt with in this study is a separate language if mutual intelligibility is taken as the main criterion. Several are mutually intelligible and therefore can be considered as dialects of one language (e.g. Bakaka and Manehas). Others are not mutually intelligible and therefore have to be considered separate languages (e.g. Bafaw and Bakossi). The intelligibility relationship is not, however, always clearcut but is rather a matter of degree. This makes it difficult to draw the dividing lines as absolute language boundaries. The lexicostatistical study in

Map 6: General linguistic map



chapter 6 will provide at least a partial answer to this question. The above issue also raises the question of when to use the term "dialect" or "language" when referring to any of the forms of speech under consideration. We have chosen to use the term language throughout this study, except when specifically discussing the distinction between the two, thus using the term in the sense of "form of speech" without prejudging the question of where to draw dialect and language boundaries.

The second question to be raised is, which languages are to be included in or excluded from the Manenguba languages? One purpose of this study is to provide an answer to this question. The languages used in this study are indicated on map 7. The languages defined lexico-statistically as the Manenguba languages in 6.3 are surrounded by a solid line on the map.

#### 1.4.3 Ethnonyms and glossonyms

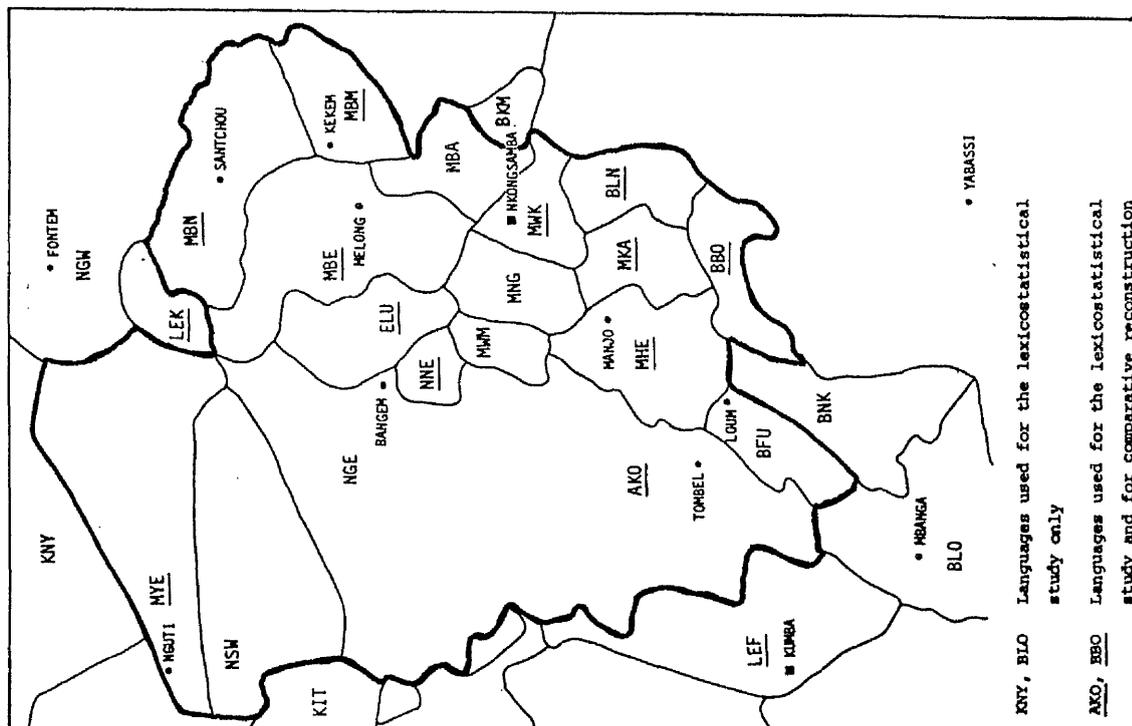
The area of nomenclature both for ethnic entities (ethnonyms) and for referring to the various languages (glossonyms) is very complex due to a variety of factors. In the different languages there are usually ethnonyms but there is not always a glossonym. In some cases, instead of a single word, there is a descriptive phrase used as a glossonym, e.g. èhó mbó? 'speech of the village' or èhóbé bélón 'speech of the Balondo people'. In many cases, there are Europeanized versions of the ethnonyms and glossonyms which are either distortions of the real pronunciation going back to when they were first written down in German, English or French, or they may reflect the form given by

Map 7: Languages/dialects used in this study

<u>Place of origin of speaker(s)</u>
Nyasoso
Badjoki, Ngondo, Salaka/Wkongbasi
Loum
Ndom
Nlonako
Mbanga
Njombe/Bonandam
Nkikoh
Manyemen
Tali II
Kumba
Mbetta
Ebouch
Ekanang, Mbouroukou
Mboôbo, Kekem
Ngwatta
Manjo
Ebone
Manengouba
Nkongasamba
Nsoung
Nguti
Babubock
Fossong Elieleg I
Nkack
Ekenge

Abbreviations of Glossonyms

AKO	Alcouze, Bakossi
BBO	Baboug
BFU	Bafun
BKM	Bakem
BLN	Belon, Balondo
BLO	Balong
BNK	Bongkeng
ELU	Eluô, Elung
KIT	Kitchui
KNY	Kenyang
LEF	Lefô?, Bafaw
LEK	Lekô?, Nkongho
MBA	Mba?, Bareko
MBE	Mbo
MBM	Mbo
MBN	Mbo
MHE	Mwahed, Manchas
MKA	Mkaa?, Bakaka
MNG	Manengouba, Manengouba
MWK	Mwaneka, Baneka
MMM	Mwamenam, Mousamenam
MYE	Myôgô, Mbo, Miengé
NCE	Ngemenge, Ngemengoe
NGW	Ngwe, Bangwa
NNE	Nncno?, Nninong
NSW	Nswase, Basossi



KNY, BLO Languages used for the lexicostatistical study only

AKO, BBO Languages used for the lexicostatistical study and for comparative reconstruction study only

neighbouring groups. Some authors use the glossonyms with the noun class prefix, others for some reason omit them (cf. 1.4.3.1). Jacquot and Richardson (1956) used a detailed phonetic transcription which is found in modified form in later authors. A list of names bringing together as many of the variations as possible is given below.

#### 1.4.3.1 List of ethnonyms and glossonyms

The list below is a summary of the nomenclature found in the literature as far as the languages used in this study are concerned. First, the name by which the group or language is commonly known in English or French is given. The rest of the information is organized as follows:

- 1) glossonym (as recorded from native speakers)
- 2) ethnonym (as recorded from native speakers)
- 3) abbreviation used in this study
- 4) linguistic classification
- 5) alternative names and spellings found in the literature

If 1) or 2) is absent, this indicates that I do not have the relevant information.

Babong 1) ìhóbbě mbóg 3) BBO 4) Bantu A.15a/f 5) Babong, Kaka-Babong.

Bafaw 1) lèfɔ? 2) bàfɔ? (sg. ìfɔ?) 3) LEF  
4) Bantu A.15a 5) Bafo, Bafɔ, Bafɔ, Fɔ, Fo, Nho.

Bafun 1) mbwásè ghuy 2) myámíɔ?, bàfùn 3) BFU  
4) Bantu A.14 or A.15f? 5) Miamilo, Bongkeng, Penda.

- Bakaka** 1) èhɔ̄ m̀kàà? 2) mkàà? 3) MKA 4) Bantu A.15f  
5) Kaa, Kaka.
- Bakem** 3) BKM 4) Bantu A.43a.
- Bakossi** 1) àkɔ́'ɔ́sɛ́ 2) bèkɔ́'ɔ́sɛ́ (sg. òkɔ́'ɔ́sɛ́) 3) AKO  
4) Bantu A.15b 5) Bakosi, Akose, Akɔ́sɛ́, Nkɔ́si,  
Nkosi, Kɔ́si, Kossi, Kosse, Koose, Bafaramani.
- Balondo** 1) èhɔ́bɛ́ bɛ́lɔ́n 2) bèlɔ́n (sg. òlɔ́n) 3) BLN  
4) Bantu A.15 a/g 5) Balondo (but not Lundu or  
(Ba-)Londo (Kuperus 1982) which is Bantu A.11a).
- Balong** 3) BLO 4) Bantu A.13 5) Balung, Balug,  
S. Balong, Balon, Balon, Balong Bayi, Bai, Long,  
Loung?, Melong?, Bilong?.
- Baneka** 1) mwaneka 3) MWK 4) Bantu A.15g 5) Mboo,  
Mūaneka, Muaneka.
- Bareko** 1) èhɔ́w mbà? 2) mbà? 3) MBA 4) Bantu A.15g  
5) Mbo, Mbo, Bareko-Baneka, Minahe.
- Basossi** 1) nswasə, ngǎn 3) NSW 4) Bantu A.15c  
5) Basosi, Bassossi, Sosi, Nswosə, Nswosə, Nswose,  
Swose.
- Bongkeng** 3) BNK 4) Bantu A.14 5) Bonken, Bonkeng,  
Bonkenge, Bonken, Bonken, Bonken, Bongkeng-Pendia.
- Elung** 1) akɔ́sɛ́ 2) élɔ́n 3) ELU 4) Bantu A.15d  
5) Elong, Elɔ́n, Elɔ́n, Long, (but not Balong,  
cf. above).
- Kenyang** 3) KNY 4) "Mamfe Bantu", Bantu A. 5) Banyang,  
Banyangi, Banjangi, Nyang.
- Kitchui** 3) KIT 4) "Mamfe Bantu", Bantu A. 5) Kitwii,  
Twii, Kitchoue, North Balong, Bakoni.
- Manehas** 1) mwāhèd', mwāhès, mwāhèy? 3) MHE 4) Bantu  
A.15f 5) Mwahed, Wahet, Wahet, Mvae.

- Manengouba 3) MNG 4) Bantu A.15 5) Manenguba, Mwanenguba.
- Mbo 1) ṅlǎǎ mbòǒ 3) MBN 4) Bantu A.15g 5) Mbo, Mbo of Dschang.
- Mbo 1) ṅlǎǎ mbòǒ 3) MBM 4) Bantu A.15.
- Mbo 1) èhǎ mbòǒ, èhǎ mbò 3) MBE 4) Bantu A.15g 5) Mbo, Mbo, Sambo, Mbo of Mbouroukou.
- Mienge 1) myǎngǎ, èhwǎ ngǎn 2) myǎngǎ 3) MYE 4) Bantu A.15g 5) Mien'ge, Miengge, Miyangen, Mangen, Ngén, Ngen, Mbo, Lower Mbo, Mbo, Mbo Mi-or, Bug.
- Mouamenam 1) akòǒse 2) mwamenam 3) MWM 4) Bantu A.15f/b 5) Mwamenam, Muamenam, Akòǒsə.
- Ngemengoe 3) NGE 4) Bantu A.15 5) Ngemingu, Mwangem, Bangem.
- Nowe 3) NGW 4) Eastern Grassfields, Mbam-Nkam 5) Bangwa.
- Nkongho 1) lekòǒ 2) ñkòǒ 3) LEK 4) Bantu A ("Mamfe Bantu") 5) Nkongwa, Nkongoa, Mbo, Upper Mbo, Mbo, Kongoa, Mbo-Kongoa, Kinkwa, Nkinkwa, Nkwa, Mangen Konkwa.
- Nninong 1) akòǒse 2) ṅnǎnòǒ 3) NNE 4) Bantu A.15e 5) Ninong, Nnenǎ.

#### 1.4.3.2 The term "Manenguba"

Although there is considerable variation of names at the lower level, there is generally no argument about what a particular group or language should be called. However, as soon as one is looking for a term to refer to several groups together or to the group as a whole, no agreement can be found as to what term should be used. Terms such as Mbo (Etame 1981), Mòvo (Ebu n.d.), Mi-or, Min-or, Mine-eh (Njang

1972), Mwanengoe (Ejedepang 1971) have been proposed but none has found universal popular acceptance. Part of the explanation seems to lie in that

"no 'tribal' consciousness among the Bamileke or Mbo could be said to have existed before colonial occupation... It should be remembered that Bamileke, Mbo, ..., Bantoid, North-West Bantu are all names and concepts introduced by European linguists or administrators. It was the colonial and modern situation which in most cases made Cameroonian cultural groups aware of themselves." (Eyongetah and Brain 1974:8).

Several proposals have been made to date but they have usually been met with indifference or rejected. This is not totally surprising especially when an attempt is made to use the name of one sub-group to cover several sub-groups or the Manenguba group as a whole.

One problem encountered against this background was what name to adopt for the purpose of this study.

"Mine-eh", and related terms, which are based on the expression "I say" have been rejected by Ebu (n.d.) and have not found acceptance even amongst the closely related groups Baneka, Bakaka, Manehas, etc.

"Mwanengoe", which literally means the 'son' or 'offspring of Ngoe' has been rejected on the grounds that Ngoe, according to some tradition, is the founder of only one part and not of the group as whole. As Ebu (n.d.:3) states, "The Mbo people consider him as their son or at best their brother since he emigrated from them."

The term "Mbo" was first used by Guthrie (1953) in

the expression "Mbo Cluster" to refer to the Manenguba languages as a whole. The earliest reference to the term "Mbo" [11] appears to be the one in Manenguba-Expedition (1905) where it is used to refer to the people north-east of Nninong. Tessmann (1932a) extended its use southwards to include the populations to the east of the Kupe-Manenguba mountain range right down beyond Loum. Both Tessmann and Guthrie extended the use of the term for one sub-group to several sub-groups and the group as a whole. It is this extended application that is objectionable to people from a different sub-group (cf. Ejedepang-Koge 1971:313). In the most recent publication on what we term the Manenguba group, Balz (1984:1) uses the term "Bakossi" for the group as a whole, which clearly will not be acceptable to the people in the north and east.

Etame (1981) argues for the use of the term "Mbo" and Ebu (n.d.) for the cognate term "Mbvo" on the basis that they are terms found in all the sub-groups with meanings such as 'home', 'village', 'country', etc. (cf. (A182-5) in appendix 1). This is obviously an attempt at looking for a shared feature which is unique to these languages and marks them off from all other languages which did not have this item. The main problem with this proposal is that this term is not exclusive to the Manenguba group but is found in many other surrounding languages. Equivalent words are used in Douala: mbôâ 'chez soi, maison, famille' (Helmlinger 1972:277), 'homestead, home' (Ittmann 1976:325); in Ewondo: mvóg 'chez soi, village' (Abega n.d.); and in Bakoko: mbóh [= mbóg R.H.] 'maison, famille, groupe, lineage, clan, tribu, ethnie' (Buhan 1979:402). In fact, these cognate

terms go back to Proto-Bantu for which the common root has been reconstructed as \*-bǒgà 'village' (Guthrie 1967-71.III:63) [12].

Another problem with any word of this type is the fact that the forms vary from language to language which calls for a choice of one over another "spelling" as expressed by the difference between Mbo, Mbvo, Mbwo, etc.

Because of the difficulties associated with all the above terms, we have chosen the term "Manenguba" as a cover term for the group as a whole.

The term "Manenguba" was first used by Johnston (1919 and 1922) to refer to approximately the same languages. It is taken from the mountain which is at the geographical centre of the whole group and being a geographical term, it is therefore more neutral than the ones discussed so far. Cook (1969) set out some general principles for choosing names for sub-groups of languages:

"When possible it seems best to choose names which refer to some obvious and permanent geographical feature. In this respect, the names of rivers, seas, deserts, etc., are preferable to purely political names ... or names of towns, because they are less likely to change."

The term "Manenguba" therefore, fits into the set of linguistic terminology which includes terms such as Niger-Congo, Benue-Congo, Sanaga, Mbam-Nkam, Grassfields, etc.

One potential objection to the geographical term "Manenguba" would be that it is homophonous with the name of a clan living on the southern slopes of Mt. Manenguba. The

relationship of the two homophonous names is best explained by assuming that the name for the mountain is derived from the people living on its slopes rather than the other way round [13].

Throughout this study, the term "Manenguba" will be used to refer to the languages spoken in the geographical area at the centre of which lies Mt. Manenguba. By this choice, we do not assume that this will be the last word on this subject.

#### 1.4.4 The sociolinguistic situation

There is considerable complexity with regard to the number of languages used in different contexts. In the home and between speakers of the same clan, the mother tongue is used as it is between different groups or clans as long as intelligibility permits. For example, Nninong, Elung, Mouamenam and Bakossi readily use their own language to communicate with each other. Similarly, the Manehas, Bakaka, Balondo and Babong would not switch to another language. On the other hand, a person from Nguti does not understand someone from Nkongsamba and so has to switch to French or English.

German was introduced in the early colonial days as a means of communication but this came to a halt when Germany lost her colony in 1916. Today, only very few old men are living who can still speak it.

Duala, a related Bantu language spoken at the coast, was introduced as the language of education and for church use by some protestant missions and enjoyed widespread use as a lingua franca both in the South-west and Littoral

Provinces. After independence in 1960, Duala was abandoned for use in schools in favour of English and French. Duala has therefore gradually lost ground in this area with the young generation no longer learning it. It is to varying degrees still being used in the church services of the Presbyterian Church and the Eglise Evangélique for hymns and the liturgy, but it appears to be more so in the latter church than in the former. It is being replaced in the churches by various combinations of the local language plus English, French or Pidgin English.

Pidgin English is spoken in the whole area. Kisop (1963) mentions that 75% of the population speak it. Feral (1978:352) points out that there are two distinct kinds, one spoken by the anglophones, one by the francophones. Pidgin English was introduced as a lingua franca during the German colonial period, not as a chosen policy but rather spontaneously in spite of the fact that the authorities of that time wanted to see everyone use the German language (Stumpf 1979:37).

Today, children are educated in English or French, resulting in an increasing number of people who speak one or both of these languages with varying degrees of competence.

In several border areas, people are bilingual in their own and the neighbouring language. In Nguti, where there is considerable intermarriage with Banyang women, virtually everybody speaks both Myəŋgə and Kenyang. In a village called Bayang, south of Kekem, it was found that the Mbo minority was totally bilingual with Fe?fe?, an Eastern Grassfields language. We have heard reports that people in Santchou speak two languages but we have not been able to

ascertain the truth of this. Brain (1967:4) states that the Nkinkwa, here called Nkongho, "linguistically related to the Mbo, but ... intermarrying with the Bangwa ... all speak nwe from an early age". In the Nkongho village of Mbetta, this was denied and so Brain's comment may refer to villages further north.

In urban centres such as Nkongsamba, Tombel, etc., a variety of other languages are spoken in informal contexts. However, in more formal contexts, (government offices, banks, hospitals, etc.) either French or English is used, or where the person lacks competence in either of these, Pidgin English. The choice of language always depends on who is addressed, who else is present, whether the topic spoken about is private or official, whether other listeners are to be included or excluded from the topic of conversation, etc.

### 1.5 Previous linguistic work

The first published written record of material on the Manenguba languages dates back to 1828. This pre-dates the arrival of European explorers in the Kupe-Manenguba region by about sixty years. There are three published works from the pre-colonial period which are discussed below. Each is a collection of vocabularies collected from freed slaves living in Sierra Leone (Kilham 1828 and Koelle 1854) or collected "in the West Indies, Fernando Po, Cameroons (and occasionally elsewhere on the West African coast)" (Clarke 1848).

Kilham's Specimens of African languages (1828) is a collection of vocabularies from 30 different languages, each

vocabulary containing up to 79 words. The purpose of the book was to serve as a guide for children in Sierra Leone in learning to write their own language as well as English. Unfortunately, no details about the informant(s) are given making identification of their origin difficult. However, the list labelled "No. 23 Moko" [14] was identified by Hair (1966:216) as part of Bantu A.10. It seems most closely related to the languages from the south-east of the Manenguba area. On the basis of the word dis 'eye' MHE, MKA, BLN and BBO seem to be the most likely candidates. Kilham's list is reproduced as appendix 3.

Clarke's Specimens of dialects (1848) was the next collection of words to be published containing samples from the Manenguba languages. It contains vocabularies from several hundred languages, but not all collected by him. Because the lists are so short, containing only either the numerals 'one' to 'ten' or ten nouns, identification is not easy. Clarke lists languages with names such as Moko [14], 'Mwanjo, 'Ndiang, Abunggen [15], Bakumkum, Lomlom, Kosse, Kikke, Maneboki and Barihoh, and Hair (1966:216) identifies lists with these names as Bantu A.10. The ones which appear to have a close resemblance to the Manenguba languages have been reproduced as appendix 4. 'Mwanjo, and Barihoh resemble the modern place names Manjo and Barehock, and Kosse the glossonym Akosse.

Koelle's Polyglotta Africana (1854) is the best known early collection of vocabularies. It went beyond Kilham and Clarke in several respects. Each of his lists contains nearly 300 words or phrases. He employed a method of transcription which allowed him to include many phonetic

details. In addition to listing the words, Koelle attempted to classify the languages on the basis of linguistic features and geographical distribution. He also included valuable biographical information about the freed slaves, their places of origin and how they originally became slaves (cf. appendix 6).

Koelle collected three word lists from speakers of Manenguba languages labelled Ngɔtɛŋ, Melonɔ or Melommesie and Nhaalemooɛ. They were correctly identified as belonging to the group of Manenguba languages by Johnston (1919:630, 1922:9) [16]. Tessmann (1932a:185) and Guthrie (1964:60) [17] agreed with Johnston's identification but were using the term "Mbo" or "Mbo-Cluster". Tessmann came closest to a precise identification referring to them as "Southern-Mbo". Koelle included them under the "Mokoo" [14] languages, a term which has not been used in the literature since.

On the basis of Koelle's geographical description (cf. appendix 6) both Ngɔtɛŋ and Melonɔ [18] come from the Manehas area but a linguistic comparison of these word lists (reproduced in appendix 5) with the lists in appendix 1 makes MHE, MKA and BLN possible candidates.

The geographical description places Nhaalemooɛ [19] clearly into Mouamenam. Linguistically, it is closest to AKO and NNE with which it forms a closely-knit unit (cf. (MWM) in chart 6.16).

Our conclusion is that Koelle's first two lists (Ngɔtɛŋ and Melonɔ) come from what we define in chapter 6 as the Eastern cluster, probably MHE, and the third (Nhaalemooɛ) from our Western cluster, most likely MWM.

The following authors who have been mainly concerned

with language classification have included the Manenguba languages in their work: Johnston (1919 and 1922), Talbot (1926), Tessmann (1932) and Meyer (1942) as well as Doke (1945), Guthrie (1948, 1953), Jacquot and Richardson (1956), Richardson (1957) and Bryan (1959) (cf. chapter 6.2).

Descriptive work began with Basedow (Dorsch 1910/11:241) and was continued by Dorsch who completed his Grammatik der Nkosi-Sprache in 1900/01, published as Dorsch (1910/11). Dorsch also produced a vocabulary Akɔɔse-German (Dorsch 1911-1913) and a vocabulary German-Akɔɔse (Dorsch 1915). The first contains about 1,500 entries including illustrative sentences, the second has about 2,800 entries without example sentences.

Ittmann made numerous contributions in the area of linguistics and of the social and cultural anthropology of several peoples in this part of Cameroon, including Bakossi. Many of his publications have transcriptions of texts and songs, etc., and notes on the vocabulary and grammar showing his keen interest in the languages. Of interest to the student of the Manenguba languages are, for example, his collections of Bakossi riddles (Ittmann 1930) and proverbs (Ittmann 1936). His collection of games (Ittmann 1961) also contains ten pages of comments on the vocabulary contained in the transcribed text.

The Benue Congo Comparative Wordlist (Williamson and Shimizu 1968 and Williamson 1973) contains a partial word list of Mbo of Nguti (= MYE).

Ejedepang-Koge (1971:317) "put down a few aspects of [the Bakossi] language" with a wish to "throw a challenge to

linguists to study the language." In his 23 page sketch (316-339), he looks at language classification, the relationship to Proto-Bantu, and presents a sketch of the grammatical structure, morphology and tone, etc. Njang (1972) published a "Key to the Mienge language" as a guide to the alphabet.

Both these last two contributions are significant in that they were the first to have been produced by native speakers rather than by outsiders. Unfortunately, vowel length and tone distinctions are not marked which makes it difficult to determine the exact pronunciation of the words and sentences.

Angenot et al. (1973) is best described as a contribution to a certain type of generative semantics using data from Akɔɔse to illustrate the rules.

Wamunshiya (1973) is a study based on a variety of Akɔɔse close to Nninong. It presents the phonology and morphophonology in an early generative phonology framework. The author uses very abstract underlying forms. The underlying forms of the noun class concord prefixes and the vowel system, for example, are virtually identical with Proto-Bantu (PB) reconstructions. Had he worked from his language data only without knowledge of PB, his underlying forms and the underlying vowel system would, no doubt, have looked less like PB.

Our own work on the Manenguba languages began in 1974 with a preliminary survey of the western area. This was followed by a detailed study of Akɔɔse while resident in Ndom and Nyasoso until 1978. Work on Mwaneka (Mboo) began in 1980 with a speaker from Nkongsamba. The material for this

study (presented in appendix 1 and chapter 4) was collected in 1982/83 on field trips throughout the Manenguba area while resident in Ekanang-Mbouroukou. (The names of the various informants are given in footnote [20] to this chapter and their places of origin beside map 7.)

Our previous work on Akɔɔse (AKO) and Mwaneka (MWK) may be summarized under three headings: descriptive, lexicographical and practical works.

1. Descriptive works on Akɔɔse are papers on the phonology (Hedinger and Hedinger 1977), the noun classes (Hedinger 1980), the pronouns (1981), locatives (1983a), the verb morphology (1983b) and reported speech (1984).
2. Lexicographical work has resulted in a preliminary draft of an Akɔɔse-English dictionary (Hedinger and Hedinger 1983), and an English-Akɔɔse word list (Hedinger and Hedinger 1982).
3. Practical items intended for the speakers of Akɔɔse are (Hedinger, Hedinger and Metuge (1977a)), a guide to reading and writing Akɔɔse, and (1977b), a collection of traditional stories with English translation. Hedinger and Hedinger (1980) is an introduction to the alphabet of several Mbo varieties and Hedinger et al. (1981) is a brief summary of aspects of Mwaneka grammar.

As will have been noticed, almost all the descriptive and practical work has focussed on Akɔɔse with the few exceptions mentioned above. This situation has been slightly rectified by Nzanga (1980) and Atioge (1983). Both are theses written at Yaoundé University [21]. The first is based on Mbo of Mbouroukou (cf. MBE), the second on Mbo of Santchou (cf. MBN). Thomas and Behaghel (1980:34) indicate

that M. Dieu is engaged in research on "A.15f mwahet (= mvae)" but so far no results of this have come to our attention.

#### 1.6 This study

For many years, linguists have been explicit about the fact that the north-western area of Bantu is less well known than the rest of the Bantu area. In 1923, Bourquin limited the scope of his work in the following words "mit Ausnahme der Nordwestecke und der Mitte des Kongostaates [ist] fast jeder grössere Teil des Bantugebietes irgendwie vertreten" (1923:3). (With the exception of the north-western area and the Congo state, nearly every larger part of the Bantu area is represented in some way. My translation R.H.)

Bastin (1978:132) remarks that "les langues du nord-ouest sont encore mal connues". Such sentiments are frequently echoed in recent works. Dalby, commenting on Guthrie's comparative work on Bantu, points out that the languages of the north-west are insufficiently represented in his work (Dalby 1975:488). This under-representation is surprising since it has long been recognized that there is considerable diversity between the languages in the north-west.

In 1977, this situation led to a call for action by the following resolution:

"...compte tenu, également, de l'importance capitale des langues de la zone A pour la reconstruction du proto-bantou; les participants au Colloque du CNRS

sur L'EXPANSION BANTOUE, réunis à Viviers (France) du 4 au 16 avril 1977 ... soulignent l'urgence d'entreprendre une étude approfondie des langues de la zone A et souhaitent qu'un libre échange d'idées et de données s'établisse entre les organismes scientifiques concernés." (Hyman and Voorhoeve 1980:27)

As for the Manenguba languages which belong to this linguistic area, there is not only a lack of synchronic descriptions but also a lack of knowledge of the precise nature of the relationships between these languages. The relationship of these languages to the adjacent ones also needs further clarification.

This study is intended to make a contribution to the knowledge of the Manenguba languages. The first aim is to reconstruct the phonology, aspects of the noun class morphology and part of the lexicon of the proto-language from which the present day languages are derived. To achieve this aim, the comparative method will be applied to fourteen languages.

The second aim is to define what constitutes the Manenguba languages as well as producing a classification which shows both the relationships internal to the Manenguba group of languages as well as their relationship to some adjacent languages. The method employed for this is the lexicostatistical method, supplemented by taking into consideration changes in the phonology and morphology.

For data collection, three questionnaires were used. The first contained Swadesh's first and second hundred basic vocabulary items, to be used for the lexicostatistical

analysis. The second was a word list of 770 items specially compiled for this study to form the basis for the comparative reconstruction of Proto-Manenguba phonology and vocabulary. The third was a questionnaire containing material needed to elicit the information on the noun class concord system.

Chapter two presents the sound correspondences as found in cognate items of the fourteen languages underlined on map 7. On the basis of the sound correspondences, the consonants, vowels and tones of Proto-Manenguba (PM) are reconstructed. This chapter may be viewed as a projection backwards in time based on the languages spoken today.

Chapter three focusses on the sound changes that must have occurred between the reconstructed PM sounds and the individual languages.

Chapter four contains the material on the noun class concord system. An attempt is made at reconstructing some of its morphology. There, the relationship between noun prefix shape and stem initial sound is also discussed.

In chapter five, Proto-Manenguba is compared with Proto-Bantu (PB). Special attention is given to the alleged "double reflexes" of PB stops in PM which have been reinterpreted by some writers as reflecting an earlier lenis/non-lenis distinction. Lexical items of Akose apparently related by a non-productive morphophonemic relationship are examined in this context as well. These relationships had previously gone unnoticed and no satisfactory explanation has yet been found.

Chapter six is concerned primarily with language classification. First, classifications of different authors

are presented and discussed. In 6.3, we focus on classifications arrived at by the lexicostatistical method. The results arrived at by previous authors help to place the Manenguba languages in the larger context of the zone A languages. The results of our study provide largely an internal classification of the Manenguba languages. In the remaining sections, shared sound and morphological changes and lexical isoglosses are examined in order to evaluate the classification arrived at lexicostatistically.

## FOOTNOTES TO CHAPTER ONE

[1] The North and Centre-South Provinces have recently been divided into three and two new provinces respectively. I have not yet seen an official map with these new administrative divisions and so have given this now partially outdated map.

[2] There is another tradition according to which Ngoe is a descendant of Mbo (Balz 1984:56) (Mbo is also the name of the descendants in the north and north-east). According to this tradition, Ngoe would be the father of some but not all the descendants as claimed in the other tradition. Balz thinks that "its truth seems more to be in the early co-existence of a Mbo-group and a Ngoe-group than in Mbo having the priority and being the "father" of Ngoe." (Balz 1984:57)

[3] The first spellings of this name appear to be Nyánsoso (Zintgraff 1895:map) and N'yánsosso (1895:30).

[4] Balz, whose study covers the same group (he uses the term "Bakossi" for the group as a whole) estimates that they "number not more than 100.000 and not less than 80.000 people." (1984:23)

[5] Ngoula actually has the date 1917, which must be a mistake.

[6] Ejedepang (1971:86-88) thinks that chiefs go back to the pre-colonial period, being called "keng" (87). However, there is evidence which would call this into question. There are the words kɛn or kin and nhɛn and variants used to refer to a chief. If chieftaincy were an old institution, then it would be strange that two different terms were used. kan/kin is most certainly derived from the English word 'king' and probably introduced via Pidgin English early during the German period, (cf. 1.4.4) or possibly even before that time through contact with the coastal Duala people. Nhɛn also means 'rich man' and a member of the powerful ahɛn society and so it is not unreasonable that this term acquired the meaning of 'chief'. In the north of the area, the influence of the Grassfields term for chief fon which is cognate with nhɛn should not be ruled out. Early published vocabularies also appear to speak against a pre-colonial institution. Koelle (1854:27) has the following entries under 'King': ngiunmood [lit: old man, R.H.], moangiom-paa (i.e. chief, old man) [lit: big, i.e. important man, R.H.], and tetsɛ (i.e. father). Koelle's three informants used neither of the modern terms nor did they respond with the same term which one would expect if there were a term for chief. Dorsch (1911-13) does not have the term kan and only lists 'Reicher, Reichtum' [= rich man, riches, R.H.] under nhɛn (42). Dorsch (1915) gives 'Hauptling' [= chief, R.H.] as san e-ɔkɔn [= father of village, R.H.] and nowona diaad [= owner of village, R.H.]. And Ittmann (1936) has only one proverb about chiefs with the words kin and ngumna [= governor or government, R.H.] as alternatives. Perhaps it is also

significant that Ejedepang does not have a section on chieftaincy under his "Institutions of Bakossi" but discusses it under the heading of "The European Rule".

[7] Cf. maps 3 and 4. Note especially the relationship of the broken line to the administrative boundaries.

[8] Ndi (1980:1) expresses the sentiment that breaking up the Mbo people into small administrative units by the colonial powers was the cause of disintegration, "déséquilibre", and a minority complex leading to a lack of initiative, etc. However, it should be noted that what the Germans on their first visits to the area found was considerable fragmentation as seen from the following expedition reports.

"Ebensowenig ... bildet (die) Bevölkerung (des Manenguba-Gebirges) ein politisch in sich geschlossenes Staatswesen. Vielmehr besteht eine Menge unabhängiger, durch gleiche Interessen keineswegs verbundene Stämme. ... eine solche Zersplitterung." Manenguba-Expedition (1905:502). [Neither does the population of the Manenguba mountain range constitute a politically united state-like unit. Rather, there is a multiplicity of independent tribes, which are not even linked through common interests. ... such a fragmentation. (my translation, R.H.)]

"Bemerkenswert ist hier ferner die Zersplitterung der Bevölkerung in viele kleine, voneinander unabhängigen Dorfschaften ..." Mbo-Expedition (1906:775). [Notable here in addition is the fragmentation of the population into many small, mutually independent village entities ... (my translation, R.H.)]

[9] Recently, the administrative boundaries east of Santchou have been modified. However, I have not yet seen these adjustments in print.

[10] Mamfe Bantu is said to be a geographical classification without any claim to precise linguistic relationships.

[11] The term "Mbo" most probably has its origin in expressions for family quarters inside a village, such as Mbojɛlam, Mbóábí and Mbóànkí frequently found in the north-east and which gave rise to village names like Mbokambo, Mboango and Mboassoum (Map of Cameroon, Mamfe). It is conceivable that the first explorers were struck by the frequent occurrence of Mbo in these names and might, therefore, have started to refer to the people of that area as "Mbo".

[12] There are two further problems connected with the term "Mbo". First, what is the relationship with the alleged common ancestor Mbo? Two, we have recorded the term with three different tone patterns: mbó?, mbò and mbòó. To date, we have not been able to define the reasons for the differences.

[13] Etymologically, the term "Manenguba" is derived from mwan e nguba, lit. 'child/son of Nguba' meaning the 'offspring of Nguba'. The Manenguba clan lives on the slopes of the mountain facing the side where the Germans built the railway. It is conceivable that the mountain received the name from the people who lived on its side during that period.

[14] The term "Moko" or "Mokoo" is used by Kilham (1828) and Clarke (1848) for individual languages. Koelle (1854) used it as a cover term for several languages. It was apparently used in Sierra Leone to refer to people speaking those languages (Koelle 1854:11) and Curtin and Vansina (1964:208) refer to it as "the generic term for people from Cameroon". I have not come across this term in more modern times except as the name for a village and a river south of Mundemba near the coast in an area where Cross River languages are spoken (Map of Cameroon, Buea-Douala). According to Hair (1966:211, 215), the term is attested in the West Indies in 1767 for referring to a language of the Ibibio-Efik group (a Cross River language). Moco, which may be the Portuguese spelling for Moko, appears south of Oron in Nigeria on a map (in Bouchaud 1952) drawn by DeL'Isle who lived between 1675 and 1726 (1952:210).

[15] Abunggen is perhaps Bonkeng prefixed by the locative marker a-.

[16] Johnston identified Ngotɛŋ with Bangante, Melonj with Baluŋ and Nhaalemooɛ with Bakosi (1919:630, 112; 1922:150-151), the first two identifications being incorrect. Bangante, as was pointed out to Johnston by Bernhard Struck (Johnston 1922:172) is a Grassfields Bantu language. Struck stated that Ngotɛŋ is "the dialect of a small tribe called 'Mane Ngotɛŋ'", but Johnston did not appear to have accepted Struck's comment.

[17] Guthrie (1964:60) suggested that Melonj may be identified with Elung (A.15d) but recognized that he did not have enough information available to identify it with any certainty. Curtin and Vansina (1964:202) identify Melonj with Bongkeng which is strange since Koelle reported that "Melonj is situated west of Bonkenj" (Koelle 1854:13, cf. appendix 6).

[18] Ngotɛŋ must be from Manehas. There is today a village called Manengoteng containing the same root. Other neighbouring places mentioned by Koelle's informant are 'Nkooad (= Bakwat ?), Ekanjaate (= Ekangte ?) and Mansoog (= Manjo ?), all place names in Manehas. According to the statement of Koelle's informant, Melonj lies between Nkaa (most likely Bakaka) and Bonkenj. This is where Manehas is found today.

[19] Nhaalemooɛ is said to be spoken in the Ndjumpaŋ district which lies between Nkooat and Moaanehat. Njoumbeng (= Ndjumpaŋ ?) is the modern name of a Mouamenam village. Bakwat (= Nkooat ?) of a Bakaka village to the south-east. Moaanehat must refer to Manehas which lies to the south of

the Mouamenam area. Koelle's two informants travelled to the coast via Koaase/Nkoaase/Nkooase, which must refer to Bakossi, the western neighbours of Mouamenam.

[20] The following people very kindly cooperated in the collection of the material used in this study.

AKO Godfred Elong Metuge Roggy  
 BBO Songuë David, Etoubé Samuel, Ngondo Ewane Emmanuel, Matike Fénélon Silas, Ekobo Ndima Manfred, Komo Ekwelle Paul  
 BFU Njoumé Komlé Samuel (Conseiller Municipal), Enongué Guillaume  
 BKM Essongo Marcel Florian  
 BLN Billé François, Ekouelle Madjike Maurice (chef supérieur)  
 BLO Ndando Ewane Fabien (chef supérieur), Essembe Ndike David  
 BNK Ngoh Lebe Robert, Sonne Jean, Mpacko Lebe Valentin  
 ELU Ngulle Nkolime Emmanuel  
 LEF Prince Ndoki Esoka Mukete  
 LEK Foka Andrew Fontem, Fontem Nicholas  
 MBA Ndoki Mbangue Christine, Motto Essebe Jacqueline  
 MBE Nnoko Ehobouel Thomas, Penda Abel, Ebene Eso Francois, Ndjalla Ewane Duhamel, Nnoko Mbondian Issac, Ngoh Njalla Caroline  
 MBM Langa Laurent and the village chief plus other men, Chef Maya, Ngange Nzale Rigobert, Mfondong Raymond, Amongue Eugene  
 MBN Assoute Mila (chef supérieur), Nsamin Jean, Essampe Ewane, Nkop Séraphin, Assoug Denis, Mila Polycarp, Sakam Gerard  
 MHE Ebang Charles (chef), Elalé Ekonlé Eugène  
 MKA Ebongue Ekobe (chef supérieur)  
 MNG Ekoume Etienne  
 MWK Ekandjoum Joseph  
 MWM Nguebe François  
 MYE Rev. Samuel Nyatua Njang  
 NGE Joseph E. Njume  
 NNE Chief Lucas Nzuonkwelle, Ebongekane Wang  
 NSW Max Akpo Anang

[21] Alobwede d'Epie (1982) is another recent study by a speaker of Akoose but I have not been able to read it. However, I am told that it does not focus strictly speaking on the linguistic side of Akoose but rather on language in traditional medicine.

## CHAPTER TWO

RECONSTRUCTION OF PROTO-MANENGUBA2.1 Introduction

In this chapter, my reconstruction of the consonants, vowels and tones of Proto-Manenguba will be presented. These reconstructions form the basis for the reconstructed PM roots in appendix 1. The focus in this chapter is on the present day sounds from which we can project back into the past to establish what the original PM sounds probably must have been. In chapter 3, the reverse perspective will be in focus: taking the reconstructed sounds as the starting point, we will look at the sound changes that have taken place between PM and the present day languages.

The following method was used in the reconstruction: First, the data was collected in the field with the aid of a word list containing about 770 words. A near phonemic transcription was used. With the exception of AKO and MWK, no thorough phonemic analysis was made. Then, for each gloss, the words given by the speakers of the different languages were collated, as presented in appendix 1. This provided sets of cognate items from which recurrent sound correspondences could be abstracted. The sets of sound correspondences were then examined to determine which proto-phoneme they probably represent, and each

correspondence set given a label in the form of a starred symbol. Care was taken to ensure that similar correspondence sets were not set up as representing different proto-phonemes if they are clearly in complementary distribution.

## 2.2 The consonants

In this section, the consonant sound correspondences as well as the reconstructed sounds will be presented. The reconstructions are primarily based on noun and verb roots, a large number of which have the structure CVC. Other structures are CVV, CV and CVCV, CVCV being limited to nouns only [1]. A distinction is made between the root initial consonant (labelled C1) and the second consonant (labelled C2) for the following reason. In morpheme final position, there is no voicing contrast and no nasal/prenasalised stop contrast. It is clear from a comparison with Proto-Bantu that such contrasts existed but disappeared before PM where C2 is morpheme finally (/\_\_+). Such contrasts in C2 position are still found in noun roots which have retained a final vowel, i.e. which have the structure CVCV. The range of sounds occurring in C2 is generally more restricted compared with C1.

In each chart below, the top row labelled PM represents the phonemes reconstructed for Proto-Manenguba. Below each starred proto-phoneme are listed the set of sounds corresponding from language to language and on which the reconstruction at the top is based. In a number of cases, the proto-phoneme is identical with the reflex in

most or all of the languages. However, in others, what should be set up as the proto-phoneme for the set of correspondences is not so clear. These will be discussed where necessary.

### 2.2.1 Consonants in C1 position

Chart 2.1: Voiceless stops and fricatives

PM	*p	*t	*k	*s	*f	*fy
MRM	p	t	k	s	f/š	(šy/šw/ɣ)
MBN	p	t	k	s/š	f	(šw/s)
MYE	p	t	k	s	h	(sw/sy/s)
MBE	p	t	k	s/š	h	s/šw/šy
ELU	p	t	k	s	h	hy/hw
NNE	p	t	k	s	h	hy
AKO	p	t	k	s	h	hy
MHE	p	t	k	s	h	y
MWK	p	t	k	s	h	š/sy
MKA	p	t	k	s	h	y
BLN	p	t	k	s	h	y
RBO	p	t	k	s	h/f/v	y
LEF	p	t	k	s/š	f	fy
LEK	p	t	k	s	f	šw

The s/š set has been reconstructed as \*s because the main reflex is an alveolar s. A few of the languages also have the palato-alveolar š in some roots. The phonemic status of š is not clear: it may be allophonic, either due to the environment or in free variation with s as one example in MBE appears to indicate. The uncertainty here

might be explained if one takes into consideration the corresponding PB reconstruction which is the palatal stop \*c [2]. The development from a palatal stop to s was probably via intermediate steps including a palatal or palato-alveolar affricate and fricative. It appears not unreasonable to think that in PM \*s might still have been palato-alveolar or that [s] and [ʃ] were in free variation in all or some contexts. At this point, it is not possible to come to a more definite conclusion. Perhaps only a thorough phonemic analysis of each language could shed more light on this point.

The set with mainly h is reconstructed as \*f because the sound change f > h is phonetically more plausible than h > f. Also, there is a correspondence of this PM \*f with PB \*p which suggests that there was a labial sound in the ancestor language which developed into h via f. The BBO sounds h/f/v are further dealt with in 3.2.2.

The \*fy sequence consisting of f plus the glide y is included here because of the variety of reflexes which have come from this sequence. The sounds or sound sequences in MBM, MBN and MYE are put in brackets to indicate that we have only one or two examples each. This sequence of C + G (glide) is an example of the fact that the morpheme structure given above is somewhat more complex. A glide y or w may be present in the position C\_\_V. For more details, see 2.4.

Chart 2.2: Voiced stops

PM	*b	*d	*j		*g	
			/m+__ /n+__	/__ /n+__	/__ /n+__	/n+__
MBM	b	d	z	z	y	g
MBN	b	d	j/z	z	y/ž	g
MYE	b/bh	d	j	z	j	g
MBE	b	d	j	z/ž/d	j/ž	g
ELU	b	d	j	z	j	g
NNE	b	d	j	z	j/c	g
AKO	b	d	j	z	c	g
MHE	b	d	j	z	j	g
MWK	b	d	j	z	j	g
MKA	b	d	j	j	j	j
BLN	b	d	j	j	j	g
BBO	b	d	j	z	j	g
LEF	b	d	j/y	ž/j	y/j	g
LEK	b/p	d	z/ž	z	z/š	g/k

The reconstruction of \*b, \*d and \*g appears to be clear except that LEK has a b in some correspondence sets and p in others where all the other languages have b, and similarly with g and k. So far, we have no explanation for this. The possibility that there was an earlier distinction which has disappeared in all other languages should not be ruled out, especially in the light of the discussion in 5.2 - 5.3. Since we exclude LEK from our definition of Manenguba, what we find in LEK does not affect the PM reconstructions. The \*g set only occurs following the class 9 and 10 nasal prefix [3] but contrasts in that context with \*b, \*d and \*j. The limited occurrence of \*g in C1 is due to

an earlier rule \*g > \*k which applied in all environments except following the class 9/10 prefix (cf. 5.3.3).

There are three correspondence sets, each reconstructed as \*j in PM. The three sets are in complementary distribution. The first set is found following the class 3 and 4 nasal prefix  $\tilde{m}$ -, the second set following the class 9 and 10 nasal prefix  $\tilde{n}$ -, and the third set elsewhere.

Chart 2.3: Nasals, laterals and \*w

PM	*m	*n	*ny	*l	*w
MBM	m	n	ny	l/d	(w)
MBN	m	n	ny	l/d	g/w
MYE	m	n	ny	l	w
MBE	m	n	y	l	w
ELU	m	n	ny	l	w
NNE	m	n	ny/y	l	w
AKO	m	n	ny/y	l	w
MHE	m	n	ny/y	l	w
MWK	m	n	y	l	w
MKA	m	n	ny/y	l	w
BLN	m	n	ny/y	l	w
BBO	m	n	ny(y)	y	w
LEF	m	n	ny	l/d	w
LEK	m	n	ny	l/d	g

The evidence for the nasals is straightforward except in the case of the palatal set [4] where there is variation in the sets of correspondences with no regular pattern determining the presence of palatal nasal ny versus

palatal glide *y*. A reconstruction of these as *\*ny*, however, does not seem unreasonable.

The lateral set presents a problem. MBM, MBN, LEF and LEK have in some cases *l* and in others *d*. At the moment it is not possible to come to a conclusion as to whether the presence of *d* in this set is due to a conditioned split and merger of *\*l* with *d*, or whether two separate proto-phonemes are responsible for the presence of *l* and *d*. If two phonemes were set up, it would not be possible in many cases to determine which of the two phonemes is present in a given proto-root because of the frequent absence of a cognate in all the four languages. For the moment, therefore, the two sets are reconstructed as one proto-phoneme with the realization that it may eventually be necessary to set up two proto-phonemes.

In the set reconstructed as *\*w*, the majority of the languages have *w*. Only LEK and MBN (and occasionally MYE) have a *g*. Comparison with PB suggests that *\*w* has come from a voiceless velar stop (cf. 5.3.1) which raises the question of what the phonetic value of *\*w* was, especially in the light of the presence of *g* in some present day languages. The fact that Atioge (1983:98,99) has both /gɔ̃n/ and /wɔ̃n/ for 'to plant' in his version of MBM shows that it is possible that both [g] and [w] might have coexisted in PM.

There is no *\*y* as CI at the PM stage to parallel the *\*w*. The latter derived from a velar stop whereas there has been no parallel development from a stop to a *\*y* (cf. 5.3.1).

### 2.2.2 Consonants in C2 position

Consonants found morpheme finally in CVC-roots (/\_\_+) are displayed in charts 2.4 and 2.5. Consonants in C2 position in CVCV-roots are relatively rare and are discussed at the end of this section.

Chart 2.4: Stops and laterals in morpheme final position

PM	*b	*d	*j	*g	*l
MBM	b'	d'	d'	k/g'	n/l
MBN	b'	l/d'	yg'/y?/Ø	?/g'	l
MYE	Ø/?	?	?/Ø	?	n
MBE	Ø/?	?/Ø/l	?/Ø	?	l
ELU	Ø/?/b'	?/d'/Ø	k/?	?/k	l/Ø
NNE	b'/?	d'/?	g'	?/g'	l
AKO	b'	d'	d'	g'	l
MHE	b'	d'/l/?	d'/y?/s	g'/?	l
MWK	w	l	y?	?	l
MKA	b'	d'	y?/s	g'/?	l
BLN	b'	d'	y?/d'/s	g'/?	l
BBO	b'	t/d	t'/s	k/g	y
LEF	Ø/?	?/Ø/l	?	?	?/Ø
LEK	?	?	?	k	:Ø/Ø

Due to the nature of the elicitation process, the consonants in chart 2.4 represent the pre-pause realizations of the respective phonemes with the exception of s in MHE, MKA, BLN and BBO, which is the sound found when followed by a vowel. Stops, in most cases, are unreleased (b', d', etc.) and devoiced before pause but they are voiced when followed by a vowel and there is close transition when followed by a

consonant. Intervocally, *d* is frequently realized as a flapped [ɾ]. Glottal stop often drops out when followed by a vowel. However, more work would need to be done to determine when the glottal stop is not deleted.

PM \*b is reconstructed for the set where there is predominantly an unreleased [b̚]. In ELU, some words have ∅, others have [ʔ] and still others [b̚]. It seems to be typical for ELU to have dropped final consonants in some words but not (yet?) in others (cf. also the nasals below).

As for \*d, the correspondences are all alveolar sounds with the exception of the glottal stop. The [t] versus [d] in BBO is allophonic (free variation) since there is no voicing opposition between root final stops. The presence of *l* versus *d* has no explanation so far, nor is it possible to separate the one set into two different sets representing two different PM sounds.

The set reconstructed as \*j contains both alveolar and velar sounds plus a palatal glide and glottal stop, and so a palatal stop seems the best choice as the proto-phoneme from which all the present day sounds are derivable. \*j occurs following any vowel.

The /s/ in MHE, MKA, BLN and BBO represents the morpheme final variant when occurring intervocally and is found in these four languages only. The /s/ is a separate phoneme both in the present day languages as well as at PM level. The question this raises is whether \*s should be posited as an alternant to \*j in morpheme final position in PM. My answer would be negative since no trace of such an alternation is found in the other languages. The question

then is how this alternation arose in MHE, etc. This point will be discussed in 3.2.1.

The reconstructions of \*g and \*l do not present any problems.

Chart 2.5: Nasals in morpheme final position

PM	*m	*n	*ny	*ŋ
MBM	m	n(∅)	∅	ŋ
MBN	m	n	ŋ	ŋ
MYE	m/∅	n/∅	ŋ/n	ŋ
MBE	m	n(∅)	∅	ŋ
ELU	∅/m	∅/n	∅/ŋ	∅/ŋ
NNE	m	n(∅)	ŋ	ŋ
AKO	m	n	n	ŋ
MHE	m	n	:∅	ŋ
MWK	m	n	:∅	ŋ
MKA	m	n	:∅	ŋ
BLN	m	n	:∅	ŋ
BBO	m	n	:∅	ŋ
LEF	m	n	n	ŋ
LEK	∅/n	∅		ŋ

On the whole, nasals do not present any problems. Zero in brackets after n indicates that the nasal has been dropped in the numerals 'three' to 'five'.

A palatal nasal is reconstructed even though no palatal nasal is found in this position in the present day languages (but cf. C1 nasals). As a set of correspondences, it clearly contrasts with the \*n-set and the \*ŋ-set and there does not appear to be any distributional restriction.

Since both alveolar and velar nasals occur in this set paralleling the palatal oral stop, the reconstruction of a palatal nasal is the most reasonable solution. Colons in MHE etc. indicate compensatory lengthening of the vowel preceding the lost palatal nasal.

ELU is interesting because it has dropped some of the nasals at each point of articulation. There appears to be a connection between the loss of nasal and a preceding open vowel. For more details, see 3.2.3.

Certain roots (non-verbal) are in some languages CVCV, i.e. C2 is followed by a vowel rather than occurring in final position. On the basis of such morphemes, it is possible to reconstruct some additional consonants for C2 position: voiceless stops and prenasalised voiced stops. There also appears to be \*s and \*f, but these may be due to reduplication of the root. Voiceless stop correspondences are the same as in C1 position. Prenasalised stops, on the other hand, do not otherwise exist [5]. The problem for reconstruction of sounds in non-final C2 position is that there are relatively few such roots due to the loss of earlier final V's and correspondence sets are often incomplete. Therefore, instead of giving a chart of sound correspondences, a list of references to individual cognate sets in appendix 1 is given here which may be referred to:

\*p (A51?, A426?) \*t (A150, A159, A319) \*k (A64, A217, A512) \*s (A84?, A393?) \*f (A76?) \*mb (A42, A157) \*nd (A96, A198) \*nj (A171?) \*ng (A15, A121).

There is no medial \*j set and evidence for \*p, \*s, \*f, \*ny, \*ŋ and \*nj is minimal or problematic.

2.2.3 The PM consonants

The consonants reconstructed above may be arranged as in the following chart:

Chart 2.6: PM consonant phonemes

	<u>labial</u>	<u>alveolar</u>	<u>palatal</u>	<u>velar</u>
voiceless stops	*p	*t		*k
voiced stops	*b	*d	*j	*g
continuants	*f	*l	*s	*w
nasals	*m	*n	*ny	*ŋ
prenasalised stops	*mb	*nd	(*n.j)	*ŋg

There are four points of articulation: labial, alveolar, palatal and velar. Consonants at the different points of articulation can be further classified as voiceless and voiced stops, continuants, nasals and prenasalised stops. There are only three voiceless stops in the set compared with four voiced stops. The absence of a voiceless palatal stop makes the system non-symmetrical. This is surprising since for PB a symmetrical system with a voiceless palatal stop [ç] has been reconstructed. The PB \*c has become PM \*s, but why PB \*j has not changed in parallel fashion is not apparent.

There are two voiceless continuants \*f and \*s, a voiced lateral \*l and a labio-velar glide \*w. There is a nasal at each point of articulation and either three or four prenasalised stops. The evidence for the palatal prenasalised stop is rather slim, the reason for the brackets around it in the chart.

There are several restrictions in the distribution

of these reconstructed consonants, which can be best seen by taking into consideration the different positions in the word roots. In chart 2.7, the PM consonants are shown according to their occurrence in the first or second consonant positions in word roots.

Chart 2.7: PM consonant phonemes in different positions

<u>C1-position</u>				<u>C2-position: root finally</u>			
*p	*t		*k	*b	*d	*j	*g
*b	*d	*j	*g		*l		
*f	*l	*s	*w				
*m	*n	*ny		*m	*n	*ny	*ŋ
				<u>C2-position: root medially</u>			
				(*p)	*t		*k
				*b	*d		*g
				(*f)	*l	(*s)	
				*m	*n	(*ny)	(*ŋ)
				*mb	*nd	(*nj)	*ng

In C2 position before a root final vowel, the largest range of consonants occurs. It is only in this position that the prenasalised stops are found. However, it should be noted that the number of examples for many of these consonants is extremely small due to the loss of the final V in many roots [7].

In root final position, on the other hand, the smallest range of consonants is found. This is due to the fact that the voiceless stops have merged with the voiced stops and the prenasalised stops have merged with the nasals prior to PM in this context (cf. 5.3.2). This must now be

considered a morpheme structure constraint to which all roots which do not have a final vowel have to conform. In C1 position, the voicing distinction for stops is fully retained. Of the continuants, \*w occurs in C1 position only whereas \*l occurs in both C1 and C2 position. Whether \*f and \*s should be included as C2 is not certain. The velar nasal does not occur in C1 position. Not apparent from both charts 2.6 and 2.7 is the fact that the occurrence of \*g in C1 position is restricted to the position after the nasal prefix in nouns of classes 9 and 10 as pointed out above (cf. 2.2.1). It does not occur morpheme initially in any other context.

It was stated above that prenasalised stops only occur in C2 position root medially. However, some nouns of classes 9 and 10 have a nasal prefix preceding the initial voiced stop, e.g. n-dáb 'house' (cf. 4.5). The existing combinations are the following: \*n-b, \*n-d, \*n-j and \*n-g. The nasals are in the present day languages phonetically non-syllabic. These sequences could equally well be regarded as a series of prenasalised stops in C1 position with a zero prefix rather than considering them as two elements with a morpheme boundary between them. This would parallel the nouns in these classes beginning with voiceless stops which have a zero prefix: e.g. ʔ-kúb 'hen'. This is a common synchronic analysis for related languages (e.g. Bot Ba Njock (1970) and Dimmendaal (1976) which are quoted in Janssens (1982:12-13) and Renaud (1976)). Under this analysis, the prenasalised stops would then also occur in C1 position. As a consequence, the proto-phoneme \*g would only occur in C2 position. However, the distribution of prenasalised stops in

C1 position would be strictly limited to nouns of classes 9 and 10. I will not adopt this analysis here in order to facilitate the comparative study. For further discussion, see 4.5.

### 2.3 The vowels

Short and long vowels are reconstructed for PM. The long vowels are mainly found in roots of type CVV. Short vowel correspondences which allow for reconstruction with any certainty are found mainly in (V1 position of) roots with the structure CVCV, CVC and CV. First, the sound correspondences for short vowels are presented and then those for the long vowels. V2 of CVCV roots have in many cases been lost (cf. 3.3.4 and 6.4.2) or have undergone a variety of changes since PM, such as assimilation to the quality of V1, raising, lowering, etc., making the reconstruction of their quality impossible. Also, the reconstruction of vowels in affixes presents considerable difficulties (cf. 4.4.2ff for class prefixes) and affixes are therefore not taken into consideration here.

2.3.1 Short vowelsChart 2.8: Short front vowels and \*a

PM	*i	*e	*ɛ	*a	*a	*a	*a
				/__*j	/__*ny	/+C__+	/__
MBM	e/i	e	ɛ/e/i	ɛ	i	e/ee	a
MBN	e/i	ɛ/e/e	ɛ/c/e	ɛ	ɛ	e(e)/ɛɛ	a
MYE	i	e/i	e/c	ɛ	ɛ	ɛ/e	a/a
MBE	i/e	e/e	ɛ/e/ɛ	ɛ	e	ɛ/e	a/a
ELU	e/ɛ	e/e/ɛ	ɛ/e/ɛ	ɛ	ɛ	ɛ/e	a/a
NNE	ɛ/e	e/i/ɛ	e/i/e/ɛ	ɛ	ɛ	ɛ/e	a
AKO	i/e/e	e/i/e/ɛ	ɛ/e/i/e	ɛ	e	ɛ	a
MHE	i	e/ɛ	ɛ/e/e	ɛ	a	ɛ/a	a/a
MWK	i(i)	e	ɛ/e	ɛ	a	a	a
MKA	i	e	ɛ	a	a	a	a
BLN	i	e	ɛ	a	a	a	a
BBO	i	e	ɛ	a	a	a	a
LEF	i	e/e/i	e	ɛ	ɛ	a	a
LEK	i	e/ɛ		ɛ	e	a	a

On the basis of some of the languages (e.g. BBO), it is relatively easy to group the different vowel sets and reconstruct the proto-vowels. Where two or more vowels are present in a correspondence set separated by a slash, this indicates different reflexes of the same PM sound. The conditioning factors for these are dealt with in chapter 3. Four clearly distinct sets of vowels are reconstructed as \*a. The first set occurs before \*j, the second set before \*ny, the third set in CV roots and the fourth set elsewhere. The underlined a represents a low front vowel.

Chart 2.9: Short back vowels

PM	*ɔ	*ɔ	*ɔ	*o	*u
	/__*g	/__*ŋ	/__		
MBM	ɔ	ɔ	ɔ	o/u/wɔ	u/o
MBN	ɔ	ɔ	ɔ	o/ø/u	u/ə/ø/e
MYE	ɔ	ɔ	wo	wɔ/o/ɪ	u/o/i
MBE	ɔ	ɔ	o/ɔ	o/ø/ə/u	u/o/ü/i
ELU	ɔ	ɔ	ɔ/wɔ/wɛ	o/ø/ü/u	u/o/ə/ɔ
NNE	ɔ	o	ɔ/ə/wɛ	o/ø/ə/wɔ/a/ɛ	u/ɛ/ə/wɔ/a/ɔ
AKO	ɔ	o	ɔ/ə/wɛ	o/ə/wɔ/yɔ	u/o/i
MHE	ɔ	ɔ	ɔ	o/ø/ə	u
MWK	ɔ	ɔ	ɔ	o/u	u/i
MKA	ɔ	ɔ	ɔ	o	u
BLN	ɔ	ɔ	ɔ	o	u
BBO	ɔ	ɔ	ɔ	o	u
LEF	ɔ	ɔ	ɔ/wɛ	o	u/i
LEK	ɔ	ɔ	ɔ	u/o	ø/ɔ/i

There are three sets of correspondences reconstructed as \*ɔ, the first set occurring before \*g, the second before \*ŋ and the third set elsewhere.

In several languages, a glide (mostly w but also y) is found in the correspondences of back vowels. The conditions under which these were introduced are discussed in 3.3.2.5ff. The introduction of these glides essentially made the syllable structure more complex, changing CV... to CGV... (cf. also 2.4).

2.3.2 Long vowelsChart 2.10: Long front vowels and \*aa

PM	*ii	*ee	*ɛɛ	*aa
MBM	ii	i/i	ii/i	ɛɛ/ə/ee
MBN	ii	yə	yə/yɛ	əɛ/ɛɛ/ə
MYE	ii	yə	yə/əə	ə/ə/ə
MBE	ii/i	e/ee	e/ye	ə/ɛ
ELU	ii/i	ii/i	i/ii	ə
NNE	ii	ii	ii	aa
AKO	ii	ii	ii	aa
MHE	ii	ee	ee/e/ye	aa/aa
MWK	ii	ee	ɛɛ	aa
MKA	ii	ee	ɛɛ	aa
BLN	ii	ee	ɛɛ	aa
BBO	ii	ee	ɛɛ	aa
LEF	ii			ɛ
LEK	ii/i	ii/i	yɛ/ɛɛ	ya/a

The long vowels are relatively easy to reconstruct because some of the languages seem to have kept, with few exceptions, the original vowel quality. In MBN, etc., some long VV's have become glide plus short vowel, thus restructuring the syllable pattern from CVV to CGV. In the case of front vowels (and LEK < \*aa), the glide is y; in the case of back vowels, it is w. As can be seen from the correspondence sets, some languages have a short vowel where the reconstruction is long.

Chart 2.11: Long back vowels

PM	*ɔɔ	*oo	*uu
MBM	ɔɔ	u/uu/ɔ(ɔ)/ii	uu
MBN	wə	uu/wə	uu/wə
MYE	wɔɔ/wɔ	wə/wə	uu/u
MBE	əə	ɔ	uu/ɔ
ELU	wə/ə	u	u/wi/uu
NNE	ɔɔ	uu	uu
AKO	ɔɔ	uu	uu
MHE	ɔɔ	oo/uu/üü	uu
MWK	ɔɔ	oo/o	u/u
MKA	ɔɔ	oo	uu
BLN	ɔɔ	oo	uu
BBO	ɔɔ	oo	uu
LEF	wɛ	wɛ	u
LEK	wɔ	ɔ/ugu	

In LEK, a velar stop is found in some reflexes of long \*VV the origin of which is not clear.

2.3.3 The PM vowels

In spite of the great variety of vowels in these languages (cf. Richardson 1957:8), a simple seven vowel system emerges when working comparatively.

Chart 2.12: PM vowel phonemes

<u>Short vowels</u>		<u>Long vowels</u>	
*i	*u	*ii	*uu
*e	*o	*ee	*oo
*ɛ	*ɔ	*ɛɛ	*ɔɔ
*a		*aa	

Two sets of vowels, short and long, need to be recognized. In each set, there are three front vowels, three back vowels and one low central vowel. This is exactly parallel to what different authors have reconstructed for Proto-Bantu (Meinhof 1910:20ff, Guthrie 1967-71.I:46, 61 and Meeussen 1967:82). We know from wider range comparison that in many cases, the long vowels of PM are the result of a disyllabic root in which C2 has been lost, for example, PB \*-bèdú corresponds to PM \*-bèè 'colanut' showing that at some point in the past there was a C2 (cf. 5.3.2). Other long vowels probably were long in the common proto-language (cf. PB \*-táànǎ and PM \*-táàn 'five'). Still other long vowels are the result of compensatory lengthening in CVC-roots where the C2 was dropped, e.g. PM \*-fíny > MHE -híí 'pus'.

There are very few roots where it might be possible or necessary to reconstruct two unlike short V's rather than one long V: CV1V2 (cf. (A277) \*súè 'fish').

#### 2.4 Glides between C and V

There are roots in which a \*w or a \*y glide can be reconstructed for PM between C1 and V1, e.g. \*-bwá 'dog', but never between C2 and V2.

These glides also occur in some of the noun class prefixes with the structure consonant plus glide: CG-. Prefixes with this structure occur exclusively before V-initial roots, e.g. \*dy`-ém 'pregnancy' (cf. 5.6). In some cases, such prefixes were later reanalysed as part of the

root to which another prefix was added, cf. (A70) PM \*mw<sup>h</sup>-<sup>h</sup>ēē  
> MHE ē<sup>h</sup>-mwēē 'finger'.

The reconstruction of these glides consequently makes the structure of PM morphemes more complex. Instead of the syllable onset consisting of a simple C, it may be complex consisting of C plus G, thus giving patterns like: CGVC, CGVV, CGVCV and CGV.

Since PM, certain roots in several languages have acquired a glide where previously there was none (cf. 2.3.1, 2.3.2 and 3.3.2.5ff), and some glides have undergone various changes (cf. (35) - (38) in 3.2.2).

## 2.5 Tone

The reconstruction of tones is, fortunately, relatively straightforward. Phonetically, there are level and contour tones or tone glides. There is downdrift, which means that when a H follows a L, the H is always lower than a H which precedes the L. The L tones are also gradually lowered. This means that phonetically there is a large number of different pitches. However, if only adjacent tones are considered, then there are very few options. Following a L, there can only be the same or a higher pitch (cf. (1a)). Following a H, there are three possibilities: the same pitch, a slightly lower pitch and a low pitch (cf. (1b)).

(1) a. [       ]                      b. [       ]

This means that phonologically there are only H and L tones which follow each other. The "mid" tone is explained in two

ways. In some of the languages, a lowering of H after H before pause is clearly an intonational feature. Within an utterance, it is not found. This may be expressed as (2).

(2) H → 'H /H\_\_pause

A H becomes downstepped high ('H) after H and before pause. The lowered final H in example (A13) in MBE and MKA is due to this intonational lowering.

The second explanation of the "mid" tone is that it is due to the loss of L between two H tones.

(3)  $\left[ \begin{array}{c} \text{—} \\ \text{—} \end{array} \right] \rightarrow \left[ \begin{array}{c} \text{—} \\ \text{—} \end{array} \right]$  or: H L H → H'H

There is probably a connection between the downdrift rule mentioned above and this phenomenon termed "downstep". Downstep usually results where two or more morphemes fuse thereby reducing the number of tone bearing syllabic elements. This is a synchronic process, but downstep has also been lexicalized in some items such as (A289).

There are falling and rising contour tones, the common ones being /<sup>^</sup>/ and /<sup>~</sup>/. The first is interpreted as a combination of H + L, the second as L + H. There are two much rarer contour tones /<sup>^^</sup>/ and /<sup>~^</sup>/. The first is a combination of L + H + L and has been observed as alternating with the simpler contours given above on the word for "cotton tree" (cf. (A310) AKO). The second is a combination of H + 'H (high plus downstepped high). One example of this contour is found in the ethnonym and glossonym for 'Bakossi' (cf. 1.4.3.1).

Against the background of the tonal phenomena discussed above, it is not surprising that there was the occasional mishearing and therefore mistranscription of tone.

Tone was transcribed using a limited number of accent marks to reflect the tonal system. This is necessarily a near phonemic transcription rather than a precise phonetic one.

In chart 2.13 the sets of tone correspondences plus tone reconstructions are given.

Chart 2.13: Tone correspondences

PM	*H	*H H	*L	*L L	*L H	*L H	*L H	*H L	*H L
MBM	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MBN	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MYE	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MBE	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋˊ	ˋˊ	ˊˋ	ˋˋ
ELU	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋ	ˋˊ	ˊˋ	ˋˋ
NNE	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋ	ˋˊ	ˊˋ	ˋˋ
AKO	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MHE	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
MWK	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋ	ˋˊ	ˊˋ	ˋˋ
MKA	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋˊ	ˋˊ	ˊˋ	ˋˋ
BLN	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋˊ	ˋˊ	ˊˋ	ˋˋ
BBO	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋ	ˋˊ	ˊˋ	ˋˋ
LEF	ˊ	ˊˊ	ˋ	ˋˋ	ˋ	ˋˊ	ˋˊ	ˊˋ	ˋˋ
LEK	ˊ	ˊˊ	ˋ	ˋˋ	ˋˊ	ˋˊ	ˋˊ	ˊˋ	ˋˋ

Correspondence sets with one level or contour tone represent monosyllabic roots, sets with two tones represent disyllabic roots. When a set of cognate roots consists of both mono- and disyllabic roots (e.g.(A362)), then the tone correspondences are partly from one and partly from the other related set.

On long vowels, written as two single vowels (VV), L and H tones have always been written doubly, e.g.  $\tilde{a}\tilde{a}$ . No claim is implied by this convention that this vowel carries two like tones. Usually it is interpreted as just one tone but it may come historically from two separate but like tones. Contour tones on a long vowel are written as two separate tones, e.g.  $\tilde{a}\tilde{a}$ .

There are three sets reconstructed as \*L H and two as \*H L. The rising glides in some of the languages occasionally have simplified to a L and the falling glides to a H tone. This is indicated by the presence of a contour tone and a level tone separated by a slash.

There are two distinct sets with rising tone glides on monosyllables. The first set reconstructed as \*L H which has a rising tone throughout is found predominantly on words analysable into prefix plus V-initial root: C(G)-V(C) e.g.  $mw-\tilde{a}n < mw\tilde{-}\tilde{a}n$  'child'. The best interpretation of this is to consider the L as belonging to the prefix and the H as part of the root both for historical and distributional reasons. In PB, noun prefixes had low tone (Meeussen 1967:97) (cf. chart 5.13). This appears to be confirmed by the fact that all nouns with a CG- prefix plus V-initial root never have a H as first tone in the overall tonal structure.

There are several nouns of the same type (CG-VC) with which the second rather than the first set of \*L H tones is associated (A160, A379, A397 and A415). There are also CVV roots with either the first or the second \*L H set. So far, we have no explanation to account for the difference

between the two sets, both of which we have reconstructed as \*L H.

To conclude, PM clearly had \*H and \*L tones which combined on morphemes in various patterns. Downdrift and downstep were probably also present in PM.

#### FOOTNOTES TO CHAPTER TWO

[1] Other structures are VC and V for nouns as well as more complex ones which are due to compounding and reduplication.

[2] There is no certainty as to the manner and place of articulation of PB \*c and \*j. Meeussen (1967:83) said that \*c could equally well be represented as \*s and \*j as \*z or \*y. Reflexes range from dental to velar and glottal articulation and include stops, fricatives and affricates (Guthrie 1967-71.1:51,62,76,77). The reflexes of PB \*c differ considerably from those of \*j, with s being the most common reflex of \*c. It is only \*j which has a palatal stop among its reflexes.

It would go beyond the scope of this study to resolve this issue. However, it appears possible that \*c and \*j were palatal stops or palato-alveolar affricates from which all the other sounds have developed.

[3] For details of the noun class system, see chapter 4. For classes 9 and 10, see 4.5, 5.3.4 and 5.3.5.

[4] For typographical reasons, we use ny to represent IPA ŋ.

[5] Except, of course, if the sequence of class 9/10 nasal prefix plus root-initial stop is reanalysed as a prenasalised stop (see below and 4.5).

[6] Cf. footnote 2 above.

[7] One or two examples of \*mp and \*nt are also found but there are too few examples to warrant their inclusion.

## CHAPTER THREE

SOUND CHANGES AND REFLEXES OF PM SOUNDS3.1 Introduction

Between Proto-Manenguba and the present day languages, a considerable number of sound changes have taken place, both in consonants and in vowels. Tone has changed relatively little. The purpose of this chapter is to spell out the changes as well as to present the resulting consonant and vowel systems as compared with the proto-system.

For both consonants and vowels, we will use a set of distinctive features to characterize the proto-sounds and the sound changes that must have occurred, as well as the environments in which the changes took place.

Some of the sound changes have clearly taken place in a specific phonetic context and are due to that context. Others cannot be attributed to context and have to be considered as changes which have taken place independently of the context. Abbreviations after the rules indicate in which language(s) a particular rule has taken place. Some changes are shared by two or more present day languages and may therefore indicate a closer genetic relationship between them. This topic will be taken up in chapter 6.

The number and kind of features have been chosen in order to specify both the PM sounds as well as their

development into the sounds of the present day languages. It is clear that for the PM sounds alone, or for the sounds of the individual languages alone, the number of features could be reduced. The aim here is not to work with the smallest number possible, but rather to be able to account for all the sounds and sound changes.

Most of the features used are introduced by including them in the feature charts for consonants (chart 3.1) and vowels (chart 3.17), but some less important ones in the text only.

With most of the rules, ordering does not appear to be necessary. However, there are some cases where the order of their application is important. Or, in other words, one sound change must have taken place before another since the reverse order would have produced a different result. Such cases will be discussed where appropriate.

The inclusion of LEF and LEK which we exclude from our definition of PM is in one sense inconsistent. However, we have done so because the relevant information is available to us and also because it appears that PM and the ancestor language of LEF and LEK were identical in most respects.



Chart 3.1: Feature chart for PM consonants (continued)

	m	n	ny	ŋ	mb	nd	nj	ng	y	w	ɱ
cons(onantal)	+	+	+	+	+	+	+	+	-	-	+
syll(abic)	-	-	-	-	-	-	-	-	-	-	+
son(orant)	+	+	+	+	-	-	-	-	+	+	+
ant(erior)	+	+	-	-	+	+	-	-	-	-	+
hi(gh)	-	-	+	+	-	-	+	+	+	+	-
back	-	-	-	+	-	-	-	+	-	+	-
cor(onal)	-	+	+	-	-	+	+	-	+	-	-
lab(ial)	+	-	-	-	+	-	-	-	-	+	+
voi(ce)	+	+	+	+	+	+	+	+	+	+	+
cont(inuant)	-	-	-	-	-	-	-	-	+	+	-
nas(al)	+	+	+	+	+-	+-	+-	+-	-	-	+
lat(eral)	-	-	-	-	-	-	-	-	-	-	-
r(oun)d	-	-	-	-	-	-	-	-	-	+	-

The feature [labial] is necessary to classify [b] and [w] as well as [kw] and [kp] as a natural class since [b] and [kw] have become [w] and [kp] respectively. [+high] is equivalent to [+height] and [-high] equals [+height] in the vowels (cf. 3.3.1). The feature [coronal] is used to specify both alveolar and palatal consonants (cf. Schane 1973:37, Schachter and Fromkin 1968:9 and Stewart 1976b:96). This has the advantage that the two sound changes \*j > d and \*j > g can be specified as C[+hi +cor] > [-hi] and C[+hi +cor] > [-cor] respectively (cf. (11) and (18) below). If palatals were specified as [-cor], the change \*j > d would need to be specified as involving many more feature changes than the change \*j > g. The first would have to be given as

C[+hi -back -cor -ant] > [-hi +cor +ant] whereas the second would be C[+hi -back] > [+back].

Another reason for specifying palatals as [+cor] is that it makes it possible to specify /k, g, ŋ, w/ and /h/ as [-ant -cor], i.e. as a natural class. That this is a natural class is shown by the fact that nasals become [ŋ] (i.e. [-ant -cor]) before this class of sounds. The feature [anterior] appears to be redundant but it is needed to specify the assimilation of nasals to velars and h as discussed above. If [ant] were dropped, the feature [lab] would have to be substituted for it. However, since in the above class of sounds w is [+lab] and the rest [-lab], a disjunctive specification would be the result. It therefore seems better to retain the feature [ant].

The uncertainty of the phonetic value of \*s and \*w in PM is expressed by question marks besides the feature specification. \*w is repeated in the second part of chart 3.1 for the following reason. The first \*w represents the sound reconstructed in root initial position which has a different origin from the second \*w (cf. (11) in 5.3.1 and (68) - (69) in 5.6). The second \*w, as well as the \*y, represents the glides in the position C\_\_(+)VC (cf. 2.4).

The prenasalised stops are specified as [+nas] which indicates that the segment is complex (Sommerstein 1977:104), it being first [+nas], then [-nas]. There are clearly other theoretical approaches to such complex segments such as introducing a feature [prenasalised]. However, it is not our aim here to discuss the merits or demerits of these different theoretical stances.

The last segment is a syllabic m. This has not been

one of the segments introduced in chapter 2 where the focus is on root morphemes, but it is required to account for various tone bearing prefixes (cf. for example, 4.4.5).

In the discussion of the sound changes, frequent reference will be made to morpheme boundaries, both morpheme initial and morpheme final. The classification of consonants as C1 and C2 is based on their position in roots with C1 being equivalent to C after morpheme initial boundary (/+\_\_) and C2, in the majority of cases, being equivalent to C before morpheme final boundary (/\_\_+). It appears to be easiest to state some of the phonological processes with reference to morpheme structure rather than in purely phonological terms. However, there is probably a connection between morpheme final position (/\_\_+) and pre-pause position (/\_\_+0) since unsuffixed forms of verbs and noun roots ending in a C frequently occur pre-pause, i.e. morphological and phonological contexts coincide.

### 3.2.1 Sound changes involving stops

The voiceless stops \*p, \*t and \*k in C1 position, i.e. morpheme initially (/+\_\_) have not undergone any sound change in any of the languages.

In C2 position, the voiceless stops have merged with their voiced counterparts where V2 has been lost since PM (cf. 3.3.4 below).

(1) \*p, \*t, \*k > b, d, g /\_\_+

In terms of features, this is C[-cont -nas -voil] > [+voil] [l]. This morpheme final merger is best explained in terms of a morpheme structure condition which disallows voiceless stops in morpheme final position. This constraint must have

been introduced before the PM stage as it is found in other NW Bantu languages, in Ekoid, etc. (cf. 6.4.1) and the reason for its introduction must be sought there. It is also expected to provide an innovation which might be important in the classification of the NW Bantu languages in relation to the languages which are related, such as the Ekoid and Grassfields Bantu languages, but not traditionally considered Bantu.

The intervocalic position (V\_\_V) cannot provide the answer since it is precisely there that the voicing distinction is maintained.

An explanation which takes the position within the syllable into account also has its difficulties. It could be said that the voicing distinction is maintained in syllable initial position but was lost in syllable final position.

- (2) a) .CV.CV.  
       ↓  
       b) .CVC.

The loss of final V in (2a) causes C2 to change from syllable initial to syllable final position (2b). Voicing contrasts are only present in syllable initial but not in syllable final position. It is conceivable that in syllable final position, especially pre-pause, voicing could have been lost. However, it is not the voiced stops that have become inherently voiceless but rather the voiceless stops which have become voiced. A further fact, which leads away rather than towards a solution, is that CVC roots frequently occur before another vowel (CVC+V...) synchronically and in PM, the V being either a suffix or the initial V of the following word. This is phonologically comparable to the structure in (2a) where there was a voicing distinction

before V. However, here the merger of voiceless with voiced stops took place before V which is separated by a morpheme or word boundary (/\_\_\_+V). The above discussion also applies to the parallel merger of prenasalised stops with nasals (cf. 3.2.3). We do not know what the ultimate explanation is. However, it is conceivable that the lenis/non-lenis distinction discussed in chapter 5 might have something to do with it. We will not be able to pursue this point any further.

In general, the voiced stops have undergone few changes in C1 position with the exception of the palatal stop \*j which indicates that palatals are the most unstable stops.

(3) \*b, \*g > p, k /n(cl. 9/10)+\_\_\_ LEK

There are several examples of devoicing of \*b and \*g but not of \*d in LEK following the nasal prefix of classes 9 and 10. It is not clear why devoicing should have taken place in this environment.

(4) \*b > bʰ /n(cl. 9/10)+\_\_\_ MYE

In MYE, in the same environment, \*b has become aspirated, the aspiration being voiced: C[-cont -nas +lab +voi] > [+aspiration] [2]. We have noted this sound also in the Western dialect of AKO. Aspirated bʰ is also recorded by Wamunshiya (1973) for a northern dialect of AKO.

It should be pointed out that the phonetic realization of /b/ in most other contexts is imploded [ɓ], but there is no phonemic contrast with the non-imploded [b] [3].

The most common change of \*j in C1 position is (5).

- (5) \*j > z /n(cl. 9/10)+\_\_ MBM, MBN, MYE, (MBE), ELU,  
NNE, AKO, (MHE), BBO, (LEF), LEK.

Brackets around language names indicate that there are some exceptions to the rule, the details of which we have not been able to work out. (5) may be formalized as C[-cont -nas +cor +hi +voil] > [-hi +cont] /C[+nas +cor -hi]+\_\_. This is, in one sense, an assimilation rule in that the stop becomes like the nasal in respect to point of articulation. \*j might already have been affricated in PM, which is not unnatural for [+cor +hi] stops. For it then to have become (completely) [+cont] can be regarded as a weakening of the affricate to a fricative.

- (6) \*j > y /[-nas]+\_\_ MBM, MBN, (LEF)

(6) can be formalized as C[-cont -nas +cor +hi +voil] > [+cont +son]. This appears to have taken place in non-nasal environments.

- (7) \*j > c /[-nas]+\_\_ (NNE), AKO

(7) is implied in chart 2.2 as a historical sound change taking place in non-nasal environments. However, since [j] and [c] do not contrast in AKO (compare A118 with A672), it is better to consider the relationship between \*j and c in (7) to be \*j > j plus the allophonic rule /j/ --> [c] in the environment given [4].

- (8) \*j > ž /+\_\_ (MBN, MBE, LEF, LEK)

(8) which is C[-cont -nas +cor +hi +voil] > [+cont] appears to have occurred in several words in different languages.

However, it is not clear whether [ž] is a phoneme in those languages or whether (8) should rather be \*j > j plus an allophonic rule /j/ --> [ž] in the appropriate environment.

In morpheme final C2 position (/\_\_+) \*b, \*d and \*g often have as reflexes b, d, and g. \*j on the other hand, does not have /j/ as a reflex and therefore has undergone change in every case.

(9) \*b > w /\_\_+ MWK

C[-cont -nas +lab +voil] > [+cont +son +rd +hi] morpheme finally in MWK without exception (cf. the discussion of (13) below).

(10) \*d > l /\_\_+ (MBN, MBE, MHE) MWK and (LEF)

C[-cont -nas +cor -hi +voil] > [+cont +son +lat] in every case in MWK but only in some cases in the other four languages. It is not clear why some but not all \*d's have undergone this change. Other reflexes are d, ? and Ø. Two possible explanations suggest themselves and would need further investigation. One, there was more than one proto-sound, and they have merged irregularly (cf. 5.3.2) and two, rule (10) only applied to some instances of \*d and not to others for as yet unknown reasons.

(11) \*j > d /\_\_+ MBM, AKO, (MHE, BLN), RBO

C[-cont -nas +cor +hi +voil] > [-hi] morpheme finally in the above languages. This represents a simplification of the articulation of the palatal sound and resulted in a merger of \*j with /d/. In MHE and BLN, the output of (11) varies with the output of the following rule.

(12) \*j > y /\_\_+ (MBN, MHE,) MWK, MKA, (BLN)

C[-cont -nas +cor +hi +voil] > [+cont +sonl] morpheme finally primarily in MWK where it applied without exception. The relationship between (11), (12) and (14) in MHE, MKA, BLN and BBO will be further elaborated after (14). First, a comment on MWK is in order. In MWK, (9), (10) and (12) have applied without exception which distinguishes MWK from the other languages. What is common to the three rules is (13).

(13) C[-cont -nasl] > [+sonl]

[+sonl] is by implication also [+cont] which could be expressed by a redundancy rule. In the case of the labial (cf. (9)), C > [+rd +hil] was also involved, and in the case of the alveolar (cf. (10)), C > [+latl].

This is one of the few cases where a more general rule applying to several segments could be said to have applied. The question here needs to be raised whether the velar stop \*g was also affected by this rule. (In MWK, \*g > ? /\_\_+.) The question can only be affirmed if the glottal stop is defined as [+sonl]. An alternative analysis of the reflex of MWK \*g is to consider that the application of rule (13) C[-cont -nasl] > [+sonl] led to the complete loss of the \*g and the presence of ? has its origin in (21) which applied prior to (13).

(14) \*j > s /\_\_+V MHE, MKA, BLN, BBO

C[-cont -nas +cor +hi +voil] > [+cont -hi -voil] when the root final sound occurs intervocalically. This sound change requires several comments. First, (14) is not a very natural sound change. Intervocalically, it would be expected that

sounds become or remain voiced, but not that they devoiced. We would also expect the change to have occurred in stages something like  $j > \bar{z} > z > s$ .

There is, however, another aspect which needs to be taken into account and which hopefully will point to an eventual solution. It is the relationship between (14), (11) and (12) that needs some more close examination. The output of (11) and (12) appears to be in free variation in MHE and BLN. Whereas there is a morphophonemic relationship between  $d$  when from (11) and  $y$  when from (12) on the one hand and  $s$  when from (14) on the other: the same morpheme when followed by a vowel has  $s$ , and  $d$  or  $y$  when pre-pause. The question to be answered is how this morphophonemic relationship developed. One hypothesis is as follows.

- (15) /V\_\_(+V) : \*c > c > s > s  
                   \*j > j > d/y     ↓  
   s
- (16) /V\_\_+Ø : \*c > j > d/y > d/y  
                   \*j > j > d/y > d/y

In intervocalic position (15), voiceless palatal PM(?) stops became [s] parallel to the C1 position. The voiced palatal stop became alveolar or a palatal glide (d/y) in all environments. In pre-pause position (16), the \*c became voiced due to the morpheme structure constraint mentioned earlier, and then merged with d/y. The result was that morphemes with the original voiceless stop (\*c) contained an alternation  $s$  /V\_\_(+V) and  $d/y$  /V\_\_+Ø. This alternation was then introduced by analogy into the morphemes with an original voiced stop (\*j).

This hypothesis has several weaknesses. We do not have a \*c reconstructed for PM in C2 position. This would necessitate placing such a scenario before PM implying an alternation with \*s in PM. However, there appears to be no evidence for such an alternation in PM [5]. Also, since the morpheme structure constraint which disallows a voicing distinction in morpheme final position is assumed to have been in operation already in PM, \*c and \*j would have had to have merged by then, thereby blocking the development of the alternation observed. The second hypothesis is the simpler one.

- (17) /V\_\_+V : \*j > (c? >) s  
 /V\_\_+Ø : \*j > d/y

In (17), it is already assumed that there is no \*c/\*j distinction in morpheme final position in PM. The morphophonemic alternation arises due to the separate development of \*j in intervocalic versus pre-pause environment. On the surface, this appears to be the simpler hypothesis but there are also some problems. There is no explanation why \*j should have become a voiceless sound intervocalically. This is even more surprising against the background of the morpheme structure constraint which disallows voiceless sounds in morpheme final position. What might speak in favour of this hypothesis is the fact that there is already a phoneme \*s. It is conceivable that as the palatal stop weakened intervocalically to fricative [ʃ] or [ʒ], it might have then merged with /s/ which was well established as a phoneme.

At the moment we are unable to choose between the two hypotheses.

(18) \*j > g /\_\_+ MBN, ELU, NNE

C[-cont -nas +cor +hi +voi] > [-cor] morpheme finally. This rule merged the palatal stops with the velar stops.

One could ask why it is that the palatal stops were eliminated. It is clear from the feature matrix that palatals are more marked than other stops, being both [+hi] and [+cor], and so the shift "backwards" (cf. (18)) or "forwards" (cf. (11)) is a simplification in its complexity. That \*j is palatal and a stop rather than an alveo-palatal affricate is of course an assumption but in the light of (11) and (18) not an unreasonable one.

All oral stops in final pre-pause position (/\_\_+Ø) are in most of the languages unreleased. This is clearly an allophonic rule in those languages.

(19) b, d, g --> b', d', g' /\_\_+Ø

To express (19), an extra feature [unreleased] appears to be necessary. C[-cont -nas +voi] --> [+unreleased]. However, there are also the "unreleased" glides y? and w?. Pre-pause, these glides end in a glottal closure. They are complex segments phonetically in that they consist of a sequence of two segments but might be called "post-glottalized". On the basis of these post-glottalized glides, it might be better to consider the unreleased stops, which occur in the same position, as post-glottalized as well.

(19a) C[-nas -lat?] --> [+postglott]

This has the advantage of providing an explanation for the next sound change.

(20) \*b, \*d, (\*j), \*g > ? /\_\_+Ø MYE, MBE, (NNE,  
MHE,) LEF, LEK

C[-cont -nas +voil] > [-lab -cor -hi -voil] pre-pause. Rather than proceeding by this one step approach, it is more likely that the process passed via the intermediate step of post-glottalized stops (cf. (19) and (21)).

(21) b, d, g --> b?, d?, g? /\_\_+Ø

The neutralization of the place features due to the presence of a glottal closure would appear to be a natural next step.

(22) b?, d?, g? --> ? /\_\_+Ø

C[-cont -nas +postglott] > [-lab -cor -hi]

In several of the languages, there is a Ø reflex of PM stops morpheme finally.

(23) \*b, \*d, \*j, \*g > Ø /\_\_+ (MYE, MBE, ELU, MWK,  
LEF, LEK)

There is no proto-stop which has Ø as the sole reflex. In most cases, Ø alternates with glottal stop. This is best interpreted as due to an allophonic rule which may delete root final glottal stop, especially intervocalically.

(24) ? --> Ø /...

The status of the glottal stop as a phoneme in some languages is well established, but it also has to be recognized that it is unstable in the sense that it is easily deleted.

There is another sound change which needs a comment.

(25) \*kw > kp / MYE

C[-cont -cor +hi -voil] C[+cont +son +lab +voil] > C[-cont -cor +hi +lab -voil].

In MYE, a sequence of consonant plus glide (CG) has occasionally become one labio-velar C. For an illustrative example, see (A281).

### 3.2.2 Sound changes involving continuants

It has been pointed out in 2.2.1 that it is not clear whether \*s was [+cor +hi] or [+cor -hi] or both at the PM stage. If it is assumed that it was [+cor -hi], then (26) took place in some undetermined environments.

(26) \*s > š /+\_\_ (MBN, MBE, LEF)

C[+cont +cor -hi -voi] > [+hi]

(27) \*f > h / MYE, MBE, ELU, NNE, AKO, MHE, MWK, MKA,  
BLN, BBO

C[+cont +lab -voi] > [-lab]

(27) is a very important consonant change and coincides with the lexicostatistical grouping of the Manenguba languages after MBM - MBN has split off (cf. chart 6.16 and map 8). Only in BBO are /f/ (and [v], an allophone of /f/ after nasals) still found in clearly definable contexts. It appears that /f/ was retained after a prefix ending in a stop.

(28) \*ə̀b-f... (> ə̀ʔ-f...?) > ì-f... cl.8 (cf.4.4.9)

\*ə̀-f... > ì-h... cl.7 (cf.4.4.8)

Cf. also (60) below.

(29) \*f > š /\_\_V[+front] MBM

In MBM, C[+cont +ant -cor -voi] > [-ant +cor +hi] before front vowels.

(30)  $h > \emptyset / \_y$  MHE, MKA, BLN, BBO

In the four languages indicated, after  $*f > h$  (cf. (27)), the  $h$  has been dropped before the palatal glide.

(31)  $*fy > \tilde{s}y/sy/\tilde{s}/s$  / (MBM, MBN, MYE, MBE, MWK, LEK)

The changes in (31) may have arisen in two different ways: with or without passing via  $[hy]$ . In the first case,  $*f$  underwent the change in (27) and then the resulting  $[h]$  underwent the change (32).

(32)  $h > \tilde{s} / \_y$

$C[+cont -ant -cor -hi -voi] > [+cor +hi] / \_C[+cor +hi]$

Another explanation is to consider that there was no intermediate  $h$  as in (33):

(33)  $*f > \tilde{s} / \_y$  (cf. (29) above)

To account for all the reflexes in (31) the following additional rules are necessary.

(34)  $\tilde{s} > s / \_y$

$C[+cont +cor +hi -voi] > [-hi] / \_C[+son +cor +hi]$

(35)  $y > \emptyset / \tilde{s}\_, /s\_\_$

$C[+son +cor +hi] > \emptyset / C[+cont +cor -voi]\_\_$

When these rules did or did not apply is not yet clear. In MBM, MBN and LEK, (33) rather than (32) must have applied since (33) presupposes (27) which did not apply in those languages. In MYE, MBE and MWK, (27) and (32) probably applied.

In  $/C\_\_V$ , various cases of the application of (36), (37) and (38) have been observed in some languages without clear regularity.

(36) \*y > w /C\_\_V  
 C[+son +hi +cor] > [-cor +rd]

(37) \*w > y /C\_\_V  
 C[+son +hi -cor +rd] > [+cor -rd]

(38) \*y > w̄ /C\_\_V  
 C[+son +hi +cor] > [+rd]

(39) \*l > y / BBO  
 C[+son +cor +lat] > [-lat +hi]

In BBO every \*l has changed to y. Morpheme finally, y in turn frequently assimilated completely to the preceding vowel.

(40) y > Vx /Vx\_\_ (where Vx are identical)

(41) \*l > d /+\_\_ (MBM, MBN, LEF, LEK)

There are cases where \*l has d as reflex (cf. (41)). It is not clear, however, whether the two reflexes l and d are due to the environment or whether they require the reconstruction of an earlier distinction (cf. 2.2.1).

(42) \*l > n /\_\_+ (MBM), MYE  
 C[+son +cor +lat] > [+nas -lat] morpheme finally in MYE.  
 In MBM, (42) has affected only some \*l's.

(43) \*l > ∅ /\_\_+ (ELU, LEF, LEK)

The deletion of \*l in three languages is recorded in a few cases.

The \*w has almost exclusively a w reflex but there are also some g and gw reflexes. In the light of the fact that \*w appears to derive from an earlier voiceless velar stop, possibly from a lenis one (cf. 5.3.1), it is not impossible that \*w had the value [g] at the PM level. [w] could have been derived from it by (44) as follows:

(44) C[+cont +hi -cor +voil] > [+son +rd].

A velar stop [g] would have been derived by (45).

(45) C[+cont +hi -cor +voil] > [-cont]. [gw] could be due to (44) and (45). It is, of course, possible that \*w had a range of realizations before it became solely [w].

Cf. Atioge (1983:98, 99) who lists the verb 'to plant' as both gón and wón.

A phenomenon frequently encountered in connection with vowel changes (cf. 3.3.2.5ff and 3.3.5) is w-insertion (46) and y-insertion (47).

(46) Ø > w /C\_\_V

(47) Ø > y /C\_\_V

### 3.2.3 Sound changes involving nasals

Morpheme medial prenasalised stops have become nasal in roots which dropped the final root vowel.

(48) \*mb, nd, ŋg > m, n, ŋ / (V\_\_V+ >) V\_\_+

This is clearly due to a constraint similar to the one which disallows voiceless stops in morpheme final position. This constraint disallows morpheme final prenasalised stops and therefore caused the merger of prenasalised stops with the nasals.

The nasals have generally remained stable with the exception of the palatal \*ny. First, the bilabial nasal:

(49) \*m > n /\_\_+ LEK

C[+nas +ant -cor] > [+cor]

This sound change has no parallel in any of the languages, nor in the non-nasal consonants.

(50) \*m > Ø /\_\_+ (MYE, ELU, LEK)

The loss of final \*m appears to be random. No systematic condition has been found except in ELU where there appears to be a correlation between vowel height and the loss of nasals, but not without exceptions: after the lower vowels, nasals tended to drop but stayed after the high vowels.

(51) \*n > Ø /\_\_+ (MBM, MYE, MBE, ELU, NNE, BBO), LEK

The loss of final \*n seems random except in LEK where all final \*n's have disappeared. MBM, MYE and NNE apparently have dropped \*n in the numerals (cf. (A3) - (A5)).

(52) \*ny > y /+\_\_ MBE, (NNE, AKO, MHE) MWK,

(MKA, BLN, BBO)

C[+nas +cor +hi] > [-nas +cont]

(52) appears to have affected some but not all lexical items. Whether this change will eventually affect all these nasals as in MBE and MWK remains to be seen.

(53) \*ny > n /\_\_+ (MYE), AKO, LEF

C[+nas +cor +hi] > [-hi]

(53) is phonetically the same rule as (11) which affected the oral stops. (53) and (11), however, differ in that they did not apply in all the languages in parallel fashion

except in AKO where both nasal and oral stops became [-hi] (cf. charts 2.4 and 2.5).

(54) \*ny > ŋ /\_\_+ MBN, MYE, (ELU), NNE  
C[+nas +cor +hi] > [-cor]

(54) almost exactly parallels rule (18) which applied in the stops. MYE palatal oral stops, if they have undergone (18), were later reduced to Ø via (20) and (23) (cf. chart 2.4).

(55) \*ny > :Ø /\_\_+ MHE, MWK, MKA, BLN, BBO

This loss of the nasal plus compensatory lengthening may have proceeded as in (55a) or (55b).

(55a) Vny > Vy > VV

(55b) Vny > Ṽny > Ṽỹ > ṼṼ > VV

(56) \*ny > Ø /\_\_+ MBM, (MBE, ELU)

Deletion without compensatory lengthening is found in MBM as well as in isolated cases in MBE and ELU.

(57) \*ŋ > Ø /\_\_+ (ELU)

It appears that the velar nasal is the most stable, it being retained in all the languages except ELU where (57) has taken place in some lexical items. Compare also the 2nd sg. possessive stem for MYE and ELU in chart 4.2.

The bilabial nasal prefixes (cf. 4.4.3 and 4.4.5) have assimilated to the point of articulation of the following consonant in all languages except MKA, BLN and BBO.

(58) \*m >  $\left\{ \begin{array}{l} [-ant -cor +hi] /\_C[-ant -cor] \\ [\alpha ant \beta cor \gamma hi] /\_C[\alpha ant \beta cor \gamma hi] \end{array} \right\}$

The first part of the rule indicates that before velars and /h/ (< \*f),  $\eta$  has become  $\eta$ , the velars being [+hil] and /h/ [-hil]. The second part of the rule takes care of the other cases. An alternative analysis would be to consider the historical change to be as (59).

(59) \* $\eta$  >  $\eta$  /\_\_C

C[+syll +nas +ant -cor] > [+cor] /\_\_C

The assimilation to the following C would then have to be a synchronic rule similar to (58).

### 3.2.4 Consonant systems resulting from the sound changes

Through the consonant sound changes presented in the last section, consonant systems with considerable differences emerged in the different languages. Seven of these are given below for illustrative purposes. The consonants in root medial position (+CV\_\_V+) have been excluded. For convenience, chart 2.7 is repeated in part as chart 3.2.

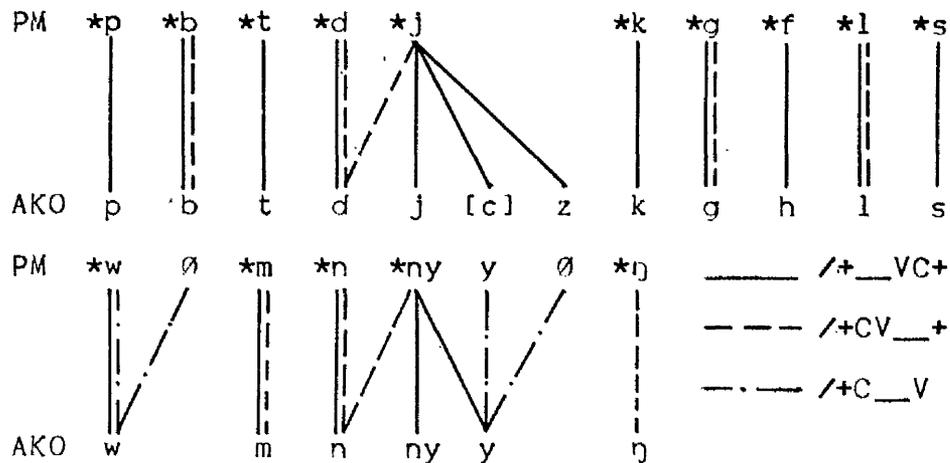
#### Chart 3.2: The PM consonant system

<u>C1 position</u>				<u>C2 position: root finally</u>			
*p	*t		*k				
*b	*d	*j	*g	*b	*d	*j	*g
*f	*l	*s	*w		*l		
*m	*n	*ny		*m	*n	*ny	*ŋ

#### 3.2.4.1 The AKO consonant system

Having done more work on AKO, the derivation of its consonant system is presented first.

Chart 3.3: Consonant changes between PM and AKO



In chart 3.3 and in the comparable charts below, consonants have been arranged in such a way as to facilitate the drawing of lines between PM and the sounds of the present day languages.

The changes in root initial position are indicated by a solid line, the changes in root final position by a broken line, changes in the position /C\_\_V by a broken line with dots.

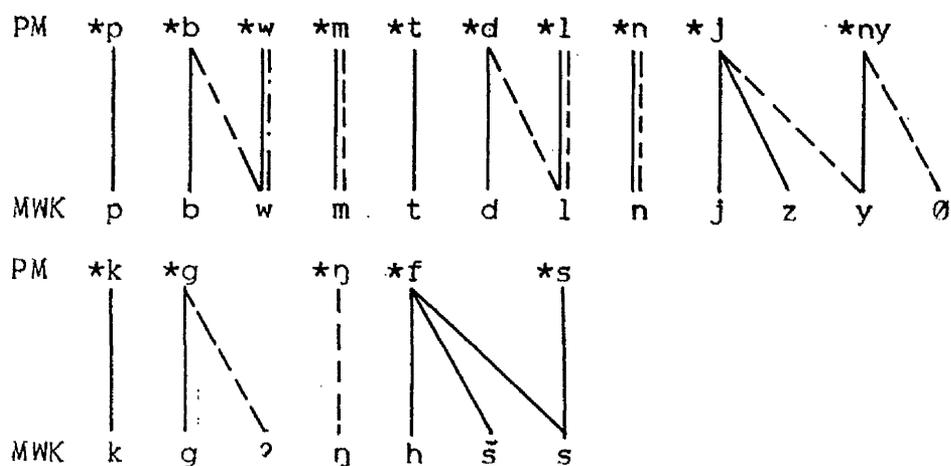
PM \*j split into /d/, /j/, [c] and [z] (for [z], cf. (5) as well as 2.2.3 and 4.5). \*d and \*j merged with /d/ in final position as did \*n and \*ny. \*ny split into /ny/ and /y/ initially. \*f has become /h/. Some /y/'s and /w/'s in AKO come from ∅. These splits and mergers led to the following system with no palatal sounds in root final position.

Chart 3.4: The AKO consonant system

p	t	[c]	k				ʔ
b	d	j	g		b	d	g
	s		h				
	z'						
	l	y	w		l		
m	n	ny		m	n		ŋ

In AKO, a glottal stop exists as a marginal phoneme in class prefixes (cf. 4.4.9 and 4.4.11) and in verbal suffixes (Hedinger 1983b:11). It is in complementary distribution with other stops but there is no obvious one to which it should be assigned as an allophone. Historically, it is derived from a labial stop in the prefixes and from a velar stop in at least one verb suffix.

The palatal and velar nasals are also in complementary distribution due to (53). However, it is not clear which of the two should be considered an allophone of the other.

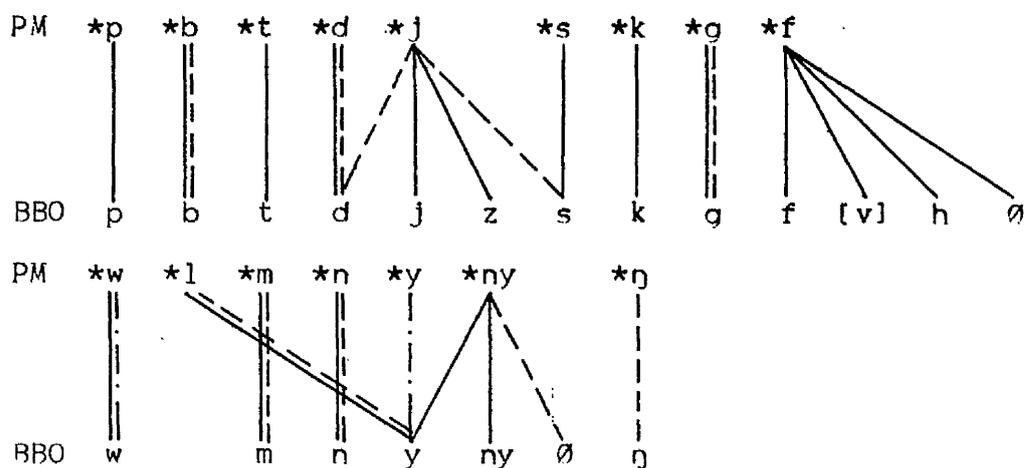
3.2.4.2 The MWK consonant systemChart 3.5: Consonant changes between PM and MWK

The consonant changes, splits and mergers in chart 3.5 led to the system presented in chart 3.6.

Chart 3.6: The MWK consonant system

p	t	k			ʔ
b	d	j	g		
	s	š		h	
	z				
	l	y	w		l y w
m	n	ny		m n	ŋ

This system is unique in that the morpheme final stops have become laterals and glides, or glottal stop in the case of \*g. The same has been noted in MBA, MWK's northern neighbour (cf. map 7). /š/ appears to have independent status as a phoneme besides /s/.

3.2.4.3 The BBO consonant systemChart 3.7: Consonant changes between PM and BBO

Due to the above changes, BBO has the following consonant system.

Chart 3.8: The BBO consonant system

p	t		k				
b	d	j	g		b	d	g
f	s			h		s	
[v]	z						
		y	w			y	
m	n	ny			m	n	ŋ

BBO is interesting because it has no laterals (cf. rule (39)). It is also the only language which has retained /f/ in some environments while in other environments \*f > h introducing a phoneme /h/. /f/ and /h/ are now contrastive because the environment where /f/ was retained has disappeared. Cf. singular/plural pairs of words with initial \*f such as in (60).

(60) ɪ-héd 'bone (cl. 7)', ɪ-fəd 'bones (cl. 8)'

The /s/ in C2 position is a morphophonemic alternant of /y/ when followed by a V-initial morpheme.

### 3.2.4.4 The MKA consonant system

Chart 3.9: Consonant changes between PM and MKA

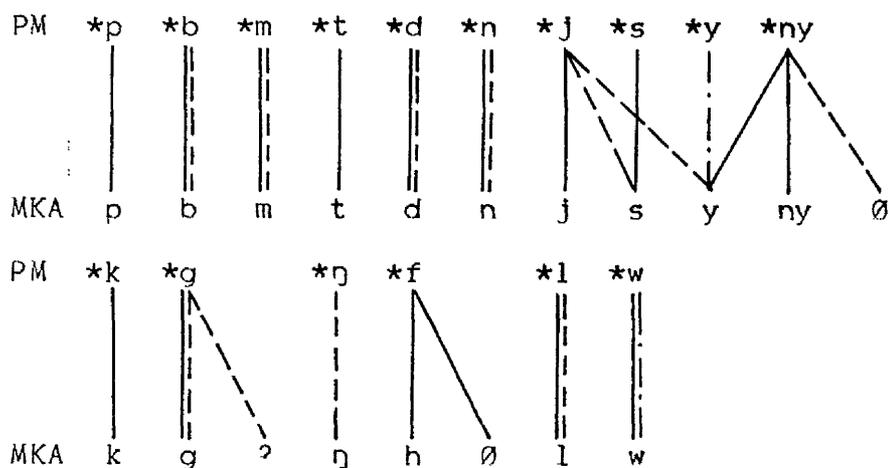
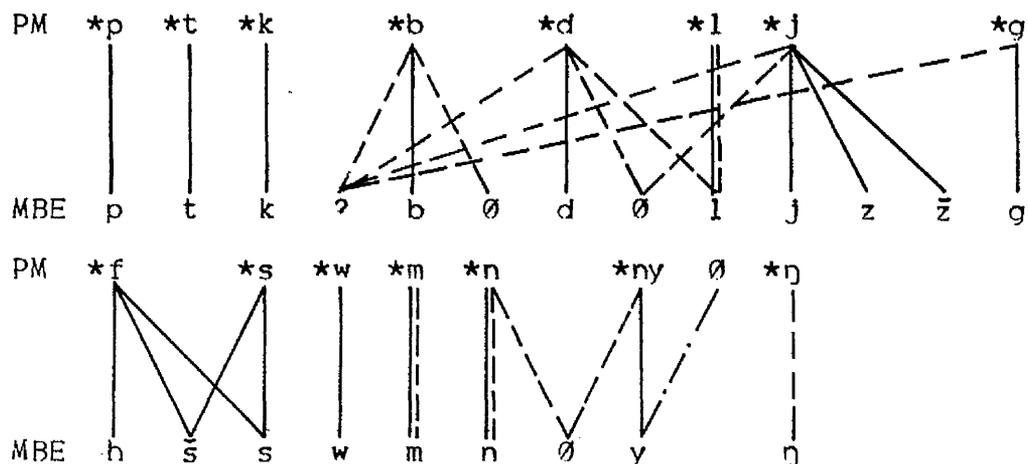
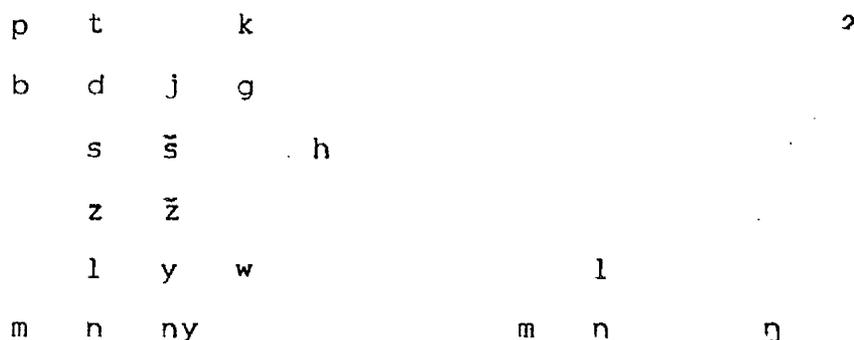


Chart 3.10: The MKA consonant system

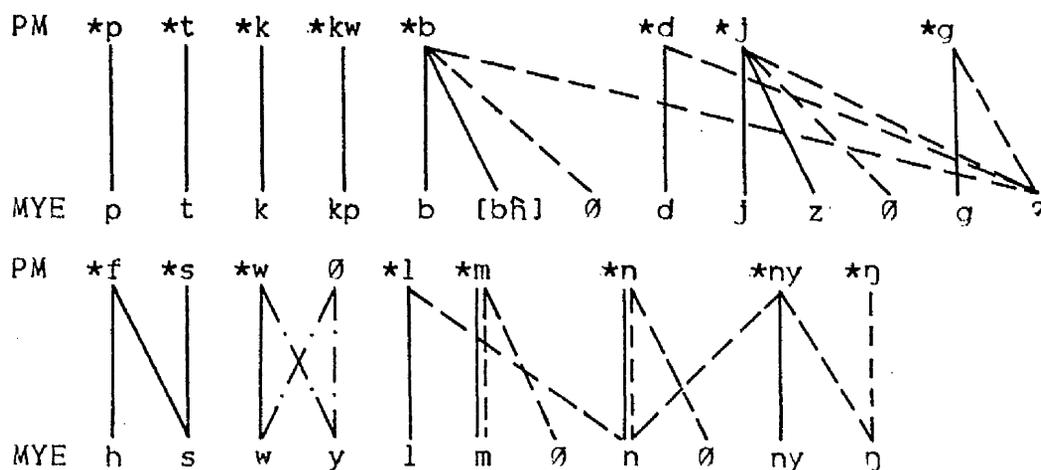
p	t		k					ʔ
b	d	j	g		b	d		g
	s			h		s		
	l	y	w			l	y	
m	n	ny			m	n		ŋ

MKA is conservative with respect to the palatal stop following the class 9 and 10 nasal, i.e. it did not change to [z] as in other languages.

The only palatal reflex of \*j morpheme finally is /y/, with /s/ as a morphophonemic alternant pre-vocalically.

3.2.4.5 The MBE consonant systemChart 3.11: Consonant changes between PM and MBEChart 3.12: The MBE consonant system

In MBE, morpheme final stops have become glottal or Ø and palatal nasals have disappeared. [š] and [ž] are perhaps allophones of /s/ and /j/ respectively, but it is not impossible that /š/ is now a phoneme in its own right.

3.2.4.6 The MYE consonant systemChart 3.13: Consonant changes between PM and MYEChart 3.14: The MYE consonant system

p	t		k	kp		ʔ
b	d	j	g	gb		
[bʰ]						
s			h			
z						
l	y	w				
m	n	ny		m	n	ŋ

MYE has the most reduced set of C2 consonants with only three nasals and glottal stop. Due to the loss of final stops, there is now a contrast between the two vowels /a/ and /o/.

There is one relic of lost final stops in the locative expression a.....te 'LOC....inside' as illustrated in (61) (tones have been omitted).

- (61) ndaʔ (< \*-dab) 'house'      andapə 'in the house'  
 nzoʔ (< \*-jag) 'farm'      anzoka 'in the farm'

The locative expression, as exemplified in (61), is the only place where a reflex of the different proto-consonants has been observed. In an abstract synchronic analysis, one would posit an underlying labial stop for 'house', a velar stop for 'farm', etc., and delete these stops in every context except the one in (61). Here, I consider the locative morpheme *te* to have three different variants, each being associated with certain nouns which would require listing in the lexicon.

MYE has clearly developed labiovelar stops from /kw/ (and /gw/) (cf. (A104), (A107), etc., and Njang 1972 where more examples can be found). How much this has been due to the influence from the neighbouring Kenyang language is not certain. It does appear significant that there has been considerable intermarriage with Kenyang speaking women.

### 3.2.4.7 The MBN consonant system

Chart 3.15: Consonant changes between PM and MBN

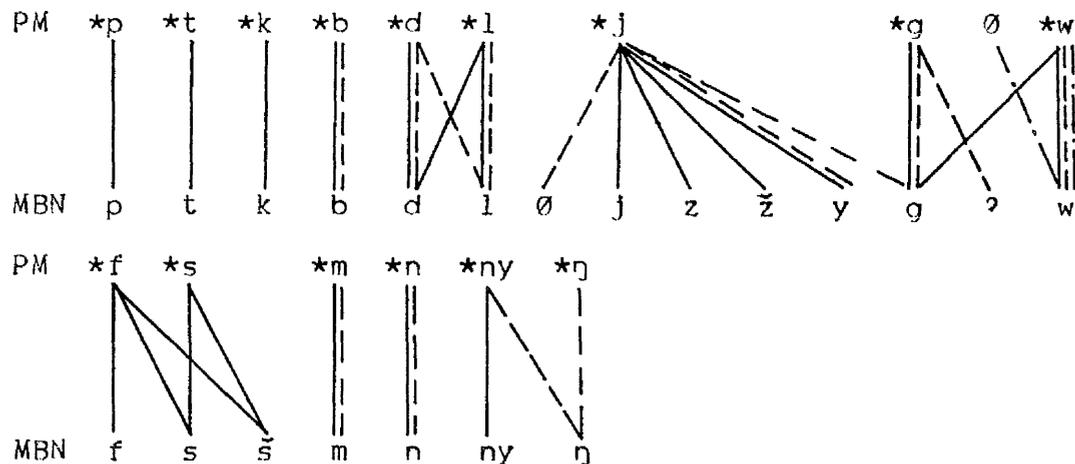


Chart 3.16: The MBN consonant system

p	t		k				ʔ
b	d	j	g		b	d	g
f	s	š					
	z	ž					
	l	y	w		l	yʔ	
m	n	ny		m	n		ŋ

MBN has retained /f/. The /y/ in root initial position has come from \*j. The /š/ is probably a separate phoneme but [ž] may be an allophone of /j/. More work would need to be done to determine the precise phonemic status of these sounds.

### 3.3 Vowel changes between PM and the present day languages

#### 3.3.1 Introduction

Between PM and the different languages, many vowel changes have taken place. The ones clearly attested will be presented below. Other changes have taken place in some of the languages but these have been ignored if only one or two examples were found in the data. The status of such changes can only be resolved by further research. A thorough phonemic analysis has only been done for AKO and MWK. It cannot, therefore, be ruled out that one or other of the vowel changes presented as historical changes may turn out on further investigation to be an allophonic rule in one or other of the languages.

It will be seen below that in NNE, for example, a large number of vowel changes have taken place whereas in

MKA, the proto-vowel system is retained virtually unchanged. MBM and LEK take up a medium position with relatively few changes. For some languages such as MBM and MBN, there are probably more changes than the ones indicated, but because these languages often did not share cognate items with the rest of the languages under study, it was impossible to investigate the vowel changes in such items.

In chart 3.17 below, the vowels of PM and the present day languages involved in the vowel changes are given with their distinctive feature specifications.

Chart 3.17: Feature chart for the vowels

	i	e	ɛ	ū	ø	ə	a	ɒ	ɔ	o	u
syll(abic)	+	+	+	+	+	+	+	+	+	+	+
cons(onantal)	-	-	-	-	-	-	-	-	-	-	-
h(e)i(ght)	4	3	2	4	3	2	1	1	2	3	4
back	-	-	-	-	-	-	-	+	+	+	+
fr(ont)	+	+	+	o	o	-	-	-	-	-	-
r(oun)d	-	-	-	+	+	-	-	-	+	+	+
long	-	-	-	-	-	-	-	-	-	-	-

Instead of using the SPE features [high], [low] and [back] of Chomsky and Halle (1968) which allow for only three vowel heights and no central vowels, I have chosen the multi-valued feature [height] ranging from 1 for the lowest to 4 for the highest vowel (Sommerstein 1977). That four heights are necessary is clear from the presence of the low back vowel [ɒ] in several languages.

The feature [front] is used for the following reason: in the SPE framework, the change \*a > o cannot be

easily characterized. With \*a being [+back -rd], the change would have to be specified as \*a becoming [+round]. If \*a were specified as [-back -rd], then the change would be \*a > [+back] in velar environment. The first solution does not express the fact that the vowel is backed. The second solution creates a problem in that it rules out the possibility of /a/ being phonetically fronted in certain environments as is clearly the case. The above problems are avoided by the use of the two features [front] and [back]. This also allows the [ə] to be specified as [-front -back -round] which expresses the fact that it is less marked than the other vowels.

Another advantage of using the feature [front] is that [ū] and [ø] when specified as [-back] but leaving [front] unspecified, may range phonetically from a central to a front vowel, which is occasionally the case.

The disadvantage of having two features for the horizontal dimension is that it introduces more redundancy.

### 3.3.2 Changes of short vowels

In charts 2.8 and 2.9, the vowel correspondences and the reconstructed vowels for the first vowel of the root are tabulated. Implicit there are the vowel changes from PM to MBM, etc. In this section, the changes of short vowels will be presented with the environments in which they have taken place. It will be noted that some of the changes were clearly motivated by the environment, mainly the following one, but occasionally also by the preceding one. In many other changes, no influence by the environment on the sound change can be detected.

3.3.2.1 Vowel changes of PM \*i

(62) \*i &gt; e /\_\_l AKO

V[+fr 4hi] &gt; [3hi] /\_\_C[+lat]

(62) says that front vowels of [4hi] were lowered to [3hi] in the environment of following laterals in AKO. (62) is related to (63), (64) and (66) in that they all lower front vowels. The different environments, however, make it impossible to collapse these rules.

(63) \*i &gt; ɛ (a) /\_\_b NNE

(b) /\_\_C[+cor] ELU, NNE

V[+fr 4hi] &gt; [2hi]

(63) took place in NNE preceding a bilabial stop and in ELU and NNE before coronal consonants.

(64) \*i &gt; ə (a) /\_\_ ELU

(b) /\_\_C[-cor +hi +back] AKO, MBE

(c) /\_\_C[+lab] MBM, MBN

(d) /\_\_C[+nas] NNE

V[+fr 4hi] &gt; [-fr 2hi]

(64) may be characterized as lowering of \*i to [2hi] plus centralizing. In ELU, this took place in all environments except in alveolar and palatal environment where centralizing did not always take place (cf. (63b) above).

The vowel change in (64) also took place before velars (64b), before labials (64c) and nasals (64d). In NNE before coronal nasals, both (63) and (64) are attested. This ambiguous relationship may be resolved if it could be established that centralizing in NNE in this environment is allophonic.

3.3.2.2 Vowel changes of PM \*e

(65) \*e > i / \_\_C[+cor +hi] MYE, NNE, AKO

V[+fr 3hi] > [4hi]

Before palatal consonants, \*e has been raised to [4hi]. The palatal consonants in turn changed to non-palatal sounds (cf. (11) - (18) and (53) - (55)).

(66) \*e > ε (a) / \_\_l (MBE), ELU, NNE, AKO, MHE

(b) / \_\_m MBN, (MHE)

V[+fr 3hi] > [2hi]

Language abbreviations in brackets indicate that there are roots in those languages in which the change did not take place.

(67) \*e > ə (a) / \_\_C[+lab] MYE

(b) / \_\_m LEF, MBN

(c) / \_\_l (MBE)

(d) / \_\_C[+cor +hi] ELU

(e) / \_\_C[-cor +hi +back] AKO

V[+fr 3hi] > [-fr 2hi]

Both (66b) and (67b) are attested in MBN, (67d) is contrary to what might be expected, i.e. lowering preceding palatals. It should be noted, however, that the palatal consonants in ELU later became velars (cf. (18) and (54)).

3.3.2.3 Vowel changes of PM \*ε

(68) \*ε > i / \_\_C[+cor +hi] MBM, NNE, AKO

V[+fr 2hi] > [4hi]

(68) is related to (65) raising front vowels to [4hi], and the two rules could be collapsed into one for NNE and AKO.

(69) \*ɛ > e (a)/\_\_C[+ant] ELU, NNE, AKO

(b)/\_\_C[+cor +hi] MBE, MHE

V[+fr.2hi] > [3hi]

(69) differs from (68) in that vowels which are [2hi] are raised to [3hi] and [4hi] respectively.

(70) \*ɛ > ɔ /\_\_C[-cor +hi +back] MBN, MYE

V[+fr 2hi] > [+back +rd]

In velar environment, the front vowel has become [+back +rd]. This change suggests that velar consonants may also be characterized as [+back].

(71) \*ɛ > ə (a)/\_\_m MBM

(b)/\_\_m, l (MBN)

(c)/\_\_ MYE (but cf. (70))

(d)/\_\_C[+ant] ELU

(e)/\_\_C[+lab], /\_\_C[-cor +hi +back],

/\_\_l, /\_\_+ MBE

(f)/\_\_C[-cor +hi +back] NNE, AKO, MHE

V[+fr 2hi] > [-fr]

#### 3.3.2.4 Vowel changes of PM \*a

(72) \*a > ɒ /\_\_g MYE, MBE, ELU

V[-fr -back 1hi] > [+back] /\_\_C[-nas -cor +hi +back]

Where \*g has been dropped after (72) applied, /ɒ/ is now phonemic.

- (73) \*a > ε (a)/\_\_C[+cor +hi] MBM, MBN, MYE, ELU  
 NNE, AKO, LEF  
 (b)/\_\_J MBE, MHE, MWK, LEK  
 (c)/\_\_ŋ MBM  
 (d)/\_\_+ MBN, MYE, MBE, ELU, NNE, AKO,  
 MHE

V[-fr -back 1hi] > [+fr 2hi]

The vowel change in (73) applied before all palatals in (73a) but only before the oral palatal stop in (73b). In MBM, the velar nasal was later lost and the vowel lengthened. This may be represented as \*aŋ > εε. In several languages, the change occurred morpheme finally (cf. (73d)).

- (74) \*a > ə /\_\_+ MBM, MBN, MYE, MBE, ELU, NNE  
 V[-fr -back 1hi] > [2hi]

(74) may be viewed as a combination of (73) plus (71). In the languages where (74) alternates with (73d) the centralizing rule (71) could then be considered optional.

- (75) \*a > e /\_\_ny MBE, LEK  
 V[-fr -back 1hi] > [+fr 3hi]

(75) should be compared with (73b) which shows that in MBE and LEK \*a has been raised further in nasal environment than in non-nasal environment. It should also be noted that in MHE and MWK, \*a was raised only in non-nasal environment.

- (76) \*a > i /\_\_ny MBM  
 V[-fr -back 1hi] > [+fr 4hi] /\_\_C[+nas +cor +hi]

Raising of a vowel from [1hi] to [4hi] has only been

observed in MBM. The palatal nasal in turn was deleted.

### 3.3.2.5 Vowel changes of PM \*ɔ

(77) \*ɔ > ɔ /\_\_ŋ NNE, AKO

V[+back 2hi] > [3hi] /\_\_C[+nas -cor +hi +back]

(77) provides a clear isogloss for NNE and AKO.

(78) \*ɔ > ɒ /\_\_b, d MBE

V[+back 2hi] > [1hi]

The lowering of \*ɔ in MBE to [1hi] has been observed before some but not every /b/. A question remains whether [ɒ] is now phonemic in MBE.

(79) \*ɔ > wo /\_\_C[-cor +hi +back] MYE

V[+back 2hi] > C[+son -nas +hi +back] V[1hi]

The output of (79) may be interpreted in several different ways. Theoretically, there are at least four different possibilities: [wo] might be viewed as a vowel diphthong, a sequence of two vowels, a vowel plus labialization of the preceding consonant and glide plus vowel. We interpret it as the last because this fits best into the pattern already in existence in PM: \*CGV..., or more precisely \*CwV... and \*CyV... (cf. 2.4). (79) is therefore to be taken as a combination of vowel lowering (cf. (78)) and w-insertion (cf. (46)).

(80) \*ɔ > ə (a) /\_\_C[+lab] NNE

(b) /\_\_+ MBE, AKO

V[+back 2hi] > [-back -rd]

(81) \*ɔ > wə /\_\_+ MBN, MYE, ELU, NNE

(81) may be viewed as (80) plus (46) w-insertion. As w-insertion is associated exclusively with back vowels, it may be attributed to the rounding of those vowels. It is significant that it appears in, for example, (81) and (82) where the vowel itself became unrounded, but also where the vowel was lowered (cf. (86) and (94)).

(82) \*ɔ > wɛ /\_\_j ELU, NNE, AKO, LEF

V[+back 2hi] > C[+son -nas +hi +back] V[+fr -rd]

In (82), in addition to vowel fronting and unrounding, w-insertion has taken place.

### 3.3.2.6 Vowel changes of PM \*o

(83) \*o > u (a) /\_\_C[-cor +hi +back] MBM, MBN, MYE,  
ELU, MWK

(b) /\_\_C[+ant], /\_\_+ LEK

V[+back 3hi] > [4hi]

(83a) does not appear to have taken place in each item. The situation is somewhat confused since (92a) and (92d) is the exact reverse of (83a). This problem may find a possible answer when taking into consideration the fact that, for example, in AKO there is no /o/ - /u/ contrast in pre-velar environment. If the same is the case in other languages as well, then the above problem can be accounted for. If \*u and \*o have merged in that position and the resulting phoneme now has a wide allophonic range including [u] to [o], then the discrepancy between (83a) and (92a and b) may be resolved.

(84) \*o > ɔ /\_\_C[-cor +hi +back] MBE, NNE  
 V[+back 3hi] > [2hi]

(85) \*o > a /\_\_ŋ NNE  
 V[+back 3hi] > [-back 1hi -rd]

Cf. (85) with rule (95).

(85) and (84) are similar in that both are lowering rules. (85) in NNE applied to some but not all items where it might apply. An alternative would be to consider (85) to be (84) plus (85a) ɔ > a /\_\_ŋ NNE. However, it should be noted that PM \*ɔ has not undergone (85a) (cf. (77)).

(86) \*o > wɔ (a)/\_\_C[+ant] MYE  
                   (b)/\_\_d MBM  
                   (c)/\_\_g NNE  
                   (d)/b\_\_g AKO

V[+back 3hi] > C[+son -nas -cor +hi] V[2hi]

(86d) should be compared with (87).

(87) \*o > yɔ /C[+cor -hi]\_\_g AKO

V[+back 3hi] > C[+son -nas +cor +hi] V[2hi]

In AKO, y-insertion (47) occurred after alveolar consonants. This rule applied also in the environment of /\*C[+cor +hi]\_\_ after they have become [-hi]. An alternative to y-insertion here would be to consider that w-insertion first took place (cf. (86d)) followed by w > y (cf. (37)) in the environment of (87).

(88) \*o > ø /\_\_C[-back] MBN, MBE, ELU, NNE, MHE  
 V[+back 3hi] > [-back]

The ø sound which is due to (88) is found relatively frequently. It is not certain yet whether (88) is in some cases an allophonic rule.

(89) \*o > ə (a)/\_\_l NNE, AKO, MHE  
 (b)/\_\_C[+nas +ant], /\_\_l MBE  
 (c)/\_\_g NNE

V[+back 3hi] > [-back 2hi]

(89c) should be compared with (84) and (86c). In NNE, three different changes appear to have taken place in the same environment. (89) may be considered as (84) plus a centralizing rule (cf. (80)). (86) equals (84) plus w-insertion. Perhaps other environmental factors were responsible for the different developments of PM \*o to NNE vowels.

(90) \*o > ε /\_\_+ NNE  
 V[+back 3hi] > [+front 2hi -rd]

(90) is attested in about three cases. It is curious why lowering and fronting plus unrounding should have taken place before a morpheme boundary. It may be because ε is less marked than o.

(91) \*o > ü /C[+cor -hi]\_\_, /C[+cor +hi]\_\_m ELU  
 V[+back 3hi] > [+fr 4hi]

This rule is attested in ELU and represents fronting plus raising without unrounding.

3.3.2.7 Vowel changes of PM \*u

- (92) \*u > o (a) / \_\_C[-cor +hi +back] ELU, AKO  
 (b) / \_\_C[+lab] (ELU)  
 (c) / k\_\_l ELU  
 (d) / \_\_g MBM, MYE  
 (e) / \_\_ŋ MBE

V[+back 4hi] > [3hi]

The difficulty of reconciling (83a) with (92a) has already been discussed under (83).

- (93) \*u > ɔ (a) / \_\_n ELU  
 (b) / \_\_g NNE

V[+back 4hi] > [2hi]

- (94) \*u > wɔ /C[-cor +hi +back]\_\_C[+cor -hi] NNE

(94) is (93) plus w-insertion (cf. (46)).

- (95) \*u > a / \_\_ŋ NNE

V[+back 4hi] > [-back 1hi -rd]

Cf. (95) with a similar rule in (85).

- (96) \*u > ũ /C[+cor -hi]\_\_C[+cor -hi] MBE

V[+back 4hi] > [+fr]

In MBE, the high back vowel has become a rounded front vowel between two alveolar consonants.

- (97) \*u > ø (a) / \_\_C[+lab] LEK  
 (b) / \_\_m MBN

V[+back 4hi] > [-back 3hi]

(97) shows that the high back vowel was lowered to [3hi] and centralized in labial environment.

- (98) \*u > ə (a)/\_\_C[+lab] MBN  
 (b)/b,d\_\_l ELU  
 (c)/d\_\_l NNE  
 (d)/\_\_j ELU

V[+back 4hi] > [-back 2hi -rd]

The environment in (97b) overlaps with that in (98a) which may indicate that lowering was to [3hi] in some cases and to [2hi] in others, perhaps due to other environmental factors.

- (99) \*u > i /\_\_C[+cor +hi] MYE, MBE, AKO, MHE, MWK,  
 LEF, LEK

V[+back 4hi] > [+fr -rd]

- (100) \*u > e /\_\_C[+cor +hi] MBN, NNE

V[+back 4hi] > [+fr 3hi -rd]

(99) and (100) indicate that vowel fronting and unrounding, and in (100) also lowering to [3hi] took place before palatal stops. The latter in turn underwent changes as well (cf. 3.2.1).

- (101) \*u > ε /j,t\_\_n NNE

V[+back 4hi] > [+fr 2hi -rd]

Rule (101), which involves four feature changes is unique to NNE. This rule might conceivably be broken down into several sub-rules representing intermediate steps. However, none of the existing rules appear to represent intermediate steps in NNE (cf. also (98c)).

### 3.3.3 Vowel systems and vowel changes

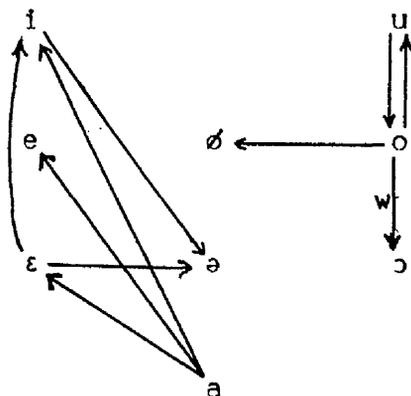
In the above section, we focussed on the vowel changes in relation to the individual proto-phonemes. We now turn our attention to the way in which these changes modified the original vowel system to the present day systems. There are striking differences between the languages as to how they have been affected by vowel changes. MWK, MKA, BLN and BBO have retained the original vowel system virtually unchanged and MHE has undergone only a few vowel changes. These are the languages of the Eastern cluster as defined lexicostatistically in 6.3.2.3. The languages where the largest number of vowel changes have occurred are MBE, ELU, NNE and AKO. These languages except MBE (cf. 6.4.4) make up the Western cluster.

The majority of vowel changes represent a split plus a merger with an existing phoneme leaving the overall system unchanged. Some of the vowel changes, however, resulted in new phonemes. AKO, for example, now has an additional /ə/ phoneme. MYE has an additional /ɔ/ and /ə/ phoneme. As previously indicated, it is not yet possible to say with certainty whether the central and front rounded vowels are in every case contrastive or allophonic.

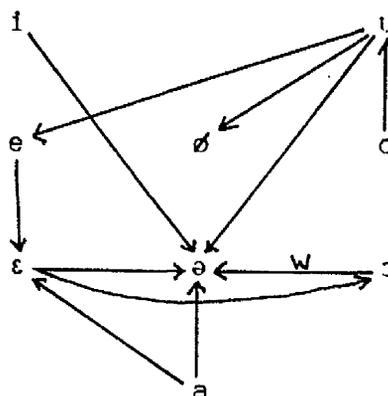
In charts 3.18 and 3.19, the vowels i, e, ε, a, ɔ, o and u represent at the same time the PM vowels and the vowels of the respective present day languages. The arrows indicate the vowel changes. A w or y beside an arrow indicates that w or y-insertion has also taken place.

Chart 3.18: Vowel changes between PM and MBM, MBN, etc.

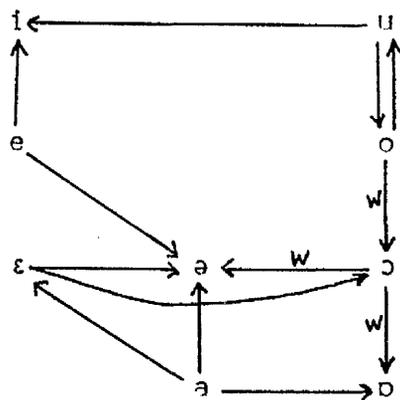
PM → MBM



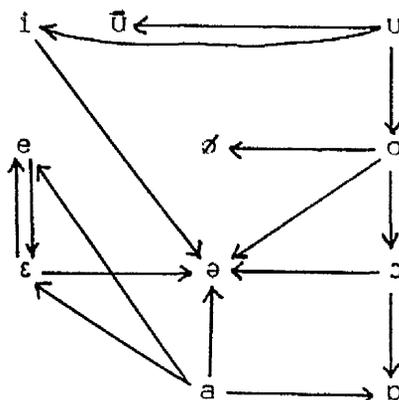
PM → MBN



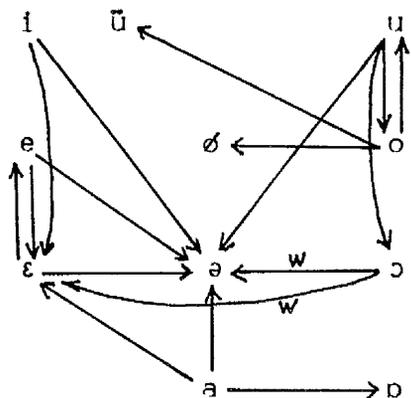
PM → MYE



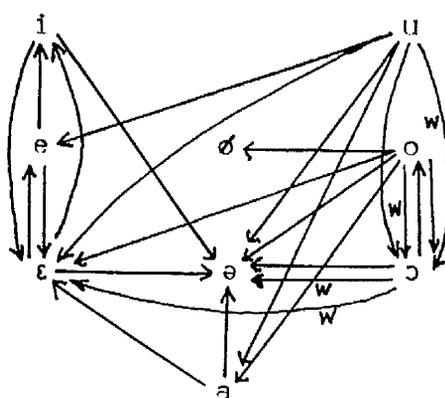
PM → MBE



PM → ELU



PM → NNE





### 3.3.4 The second root vowel

In the previous sections (3.3.2 and 3.3.3) we were concerned with the changes of V1 of the root. Although it is not possible to reconstruct the quality of V2 for PM, it is clear that some roots had a final vowel and that such vowels have been dropped since PM. This may be represented as (102).

(102) \*V > Ø /CVC\_\_+

(102) should probably be seen as a process which began before PM and gradually affected the vocabulary. In some Manenguba languages, the process appears to have been slower, as can be seen from chart 6.19 and it is probably not complete yet.

### 3.3.5 Changes of long vowels

There are less roots with long vowels than with short vowels. Therefore, the proposed developments of long vowels from PM to the present day languages is less certain.

Roots with long vowels are almost exclusively of the type \*CVV, but there are a few of the type \*CVVC, among which are several numerals. The PM roots of type \*CVV appear to have arisen from earlier \*CVC and \*CVCV types (cf. example pairs in 5.3.2). Some PM \*CVV roots appear to have developed from earlier \*CVC roots via loss of C2 and lengthening of the V. Other \*CVV roots could have developed from earlier \*CVCV in either or both of the following ways.

(103) a) \*CVCV > PM \*CVV

b) \*CVCV > \*CVC > PM \*CVV

(103a) represents loss of C2 plus assimilation of V2 to V1.

(103b) represents loss of V2, then loss of C2 plus lengthening of V1.

The changes of long vowels from PM have taken place with few exceptions without reference to environmental factors. In several languages, long vowels have become short in addition to the changes below.

(104) \*VV > V

V[+long] > [-long]

MBE and ELU especially display a strong tendency for (104), but there seems to be no rule to predict its application.

Conversely in AKO, NNE and ELU, the lengthening of some vowels since PM is also attested.

(105) \*V > VV

The conditions under which this took place have not been worked out.

### 3.3.5.1 Vowel changes of PM \*ii and \*ee

The high front vowel \*ii appears to have been the most stable vowel having not changed except in length.

(106) \*ee > ii / MBM, ELU, NNE, AKO, LEK

V[+fr 3hi +long] > [4hi]

(106) resembles (65) but the two rules differ in their range of application.

(107) \*ee > yə / MBM, MYE

V[+fr 3hi +long] > C[+son +cor +hi -nas] V[-back -fr 2hi -long]

(107) and similar rules below represent the change of long vocalic segments to a sequence of glide plus short vowel (cf. (79)).

3.3.5.2 Vowel changes of PM \*ɛɛ

(108) \*ɛɛ > iɪ / MBM, ELU, NNE, AKO

V[+fr 2hi +long] > [4hi]

In MBM and ELU, rule (104) also applied in some items. Rule (108) resembles (64).

(109) \*ɛɛ > yə / MBN, MYE

V[+fr 2hi +long] > C[+son +cor +hi -nas] V[-back -fr  
-long]

(109) is similar to (107).

(110) \*ɛɛ > əə / MYE

V[+fr 2hi +long] > [-fr]

It should be noted that in MYE both (109) and (110) are found.

(111) \*ɛɛ > e / MBE, MHE

V[+fr 2hi +long] > [3hi -long]

(111) represents raising and shortening (cf. (104)) of the vowels and resembles (69). In other items of the same languages, (112) has taken place.

(112) \*ɛɛ > ye / MBE, MHE

V[+fr 2hi +long] > C[+son +cor +hi -nas] V[3hi -long]

(112) may be considered as (111) plus y-insertion. In LEK, some items have undergone (113).

(113) \*ɛɛ > yɛ / LEK

V[+fr 2hi +long] > C[+son +cor +hi -nas] V[-long]

(113) may be viewed as a combination of (104) plus y-insertion.

3.3.5.3 Vowel changes of PM \*aa

(114) \*aa > εε / MBM, (MBE), LEF

V[-fr -back |hi +long] > [+fr 2hi]

(114) took place in MBM, and (114) plus the shortening rule (104) in MBE and LEF. (114) resembles (73).

(115) \*aa > ee / MBM

V[-fr -back |hi +long] > [+fr 3hi]

(115) occurred in some items of MBM. Compare (115) with (75).

(116) \*aa > əə / MBN, MYE

V[-fr -back |hi +long] > [2hi]

(116) with the occasional shortening rule (104) is found in MBN and MYE. (116) is similar to (74).

(117) \*aa > ya / LEK

V[-fr -back |hi +long] > C[+son +cor +hi -nas] V[-long]

In LEK, y-insertion plus vowel shortening is common.

3.3.5.4 Vowel changes of PM \*ɔɔ

(118) \*ɔɔ > wɔɔ / MYE

V[+back 2hi +long] > C[+son -cor +hi -nas] V

In MYE, w-insertion without vowel shortening is found in some items. In other items of MYE and in LEK, (118) plus shortening is found as in (119).

(119) \*ɔɔ > wɔ / MYE, LEK

(120) \*ɔɔ > ɔɔ / MBM  
 V[+back 2hi +rd +long] > [-back 3hi]

### 3.3.5.5 Vowel changes of PM \*oo

(121) \*oo > uu / MBM, MBN, ELU, NNE, AKO, MHE  
 V[+back 3hi +long] > [4hi]

(121) is found in several languages. In ELU, virtually all instances are also shortened. (121) resembles (83).

(122) \*oo > ūū /C[+cor]\_\_ MHE  
 V[+back 3hi +rd +long] > [+fr 4hi]

If ūū is not phonemic in MHE, then (122) would have to be split into (121) plus an allophonic fronting rule. Compare also (122) and (91).

(123) \*oo > ii / MBM  
 V[+back 3hi +rd +long] > [+fr 4hi -rd]

Some vowels in MBM have undergone (122). It is conceivable that \*oo first became ee which then underwent rule (106).

(124) \*oo > ɔ / MBM, MBE, LEK  
 V[+back 3hi +rd +long] > [-back -long]

(125) \*oo > we / LEF  
 V[+back 3hi +rd +long] > C[+son -cor +hi -nas] V[+fr -rd -long]

(126) \*oo > wə / MBN, MYE  
 V[+back 3hi +rd +long] > C[+son -cor +hi -nas] V[-back 2hi -rd -long]

(127) \*oo > ugu / LEK

Raising and g-insertion took place in several LEK items. Words with the ending VgV with identical vowels are, in fact, very common in LEK. It is, however, not clear how or why these endings should have arisen.

### 3.3.5.6 Vowel changes of PM \*uu

(128) \*uu > wə / MBN

Some items in MBN underwent (128) which is similar to (126).

(129) \*uu > ü /C[+cor]\_\_ MBE

V[+back 4hi +rd +long] > [+fr -long]

If ü in MBE would be found to be allophonic, (129) would have to be rewritten as an allophonic rule. Compare (129) with the similar rule (96).

(130) \*uu > wi / ELU

V[+back 4hi +rd +long] > C[+son -cor +hi -nas] V[+fr -rd -long]

On the basis of the above changes of long PM vowels, the following generalization can be made: w-insertion is associated with changes of [+back] vowels and y-insertion with changes of [-back] vowels.

### 3.3.6 Long vowel systems and vowel changes

The vowel changes presented above are summarized in charts 3.20 and 3.21. Vowel shortening has not usually been indicated. As many of the changes of long vowels applied without restriction, there are now in certain languages no direct reflexes of certain vowels. For example, in ELU, NNE

and AKO, \*ii, \*ee and \*εε have all become ii, and \*oo and \*uu have merged as uu, etc. (cf. charts 2.10 and 2.11).

Chart 3.20: Changes of long vowels between PM and MBM, etc.

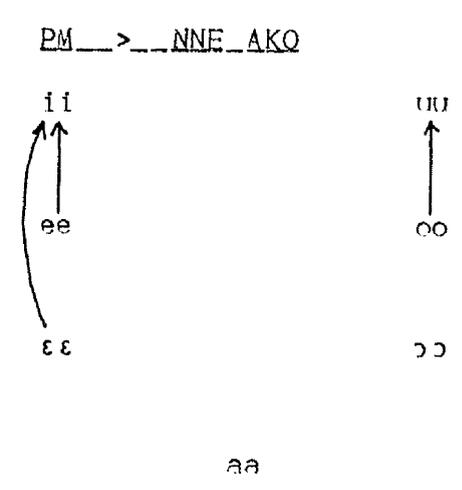
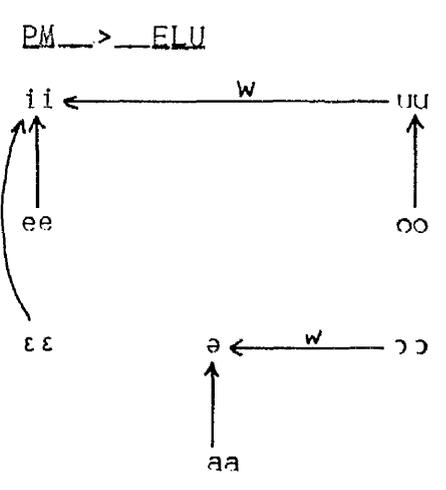
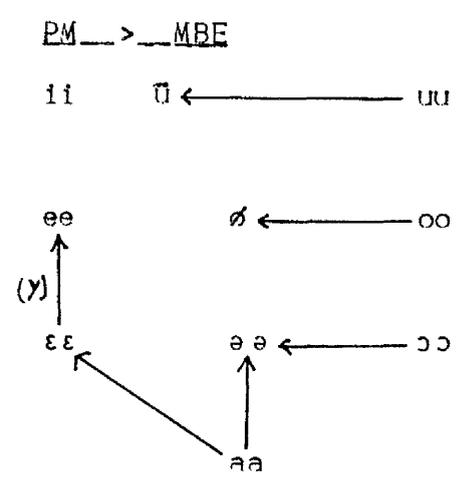
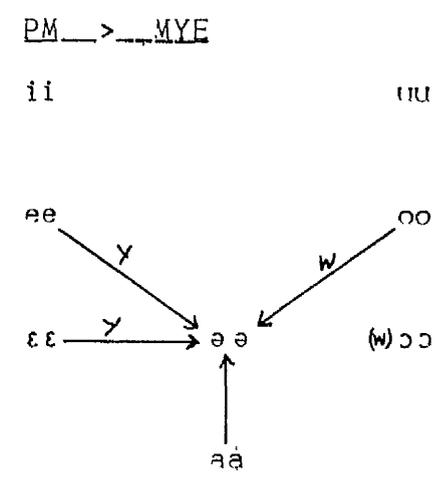
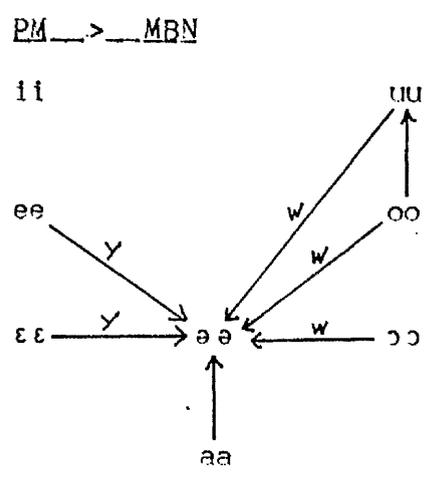
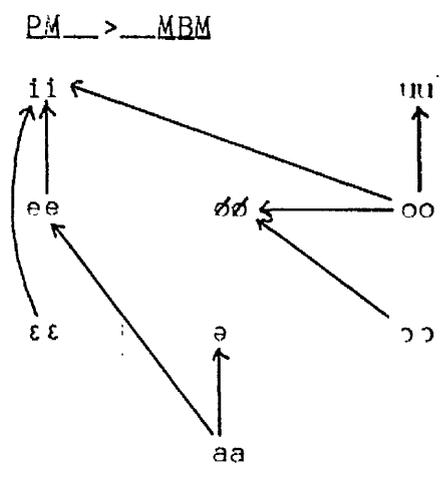
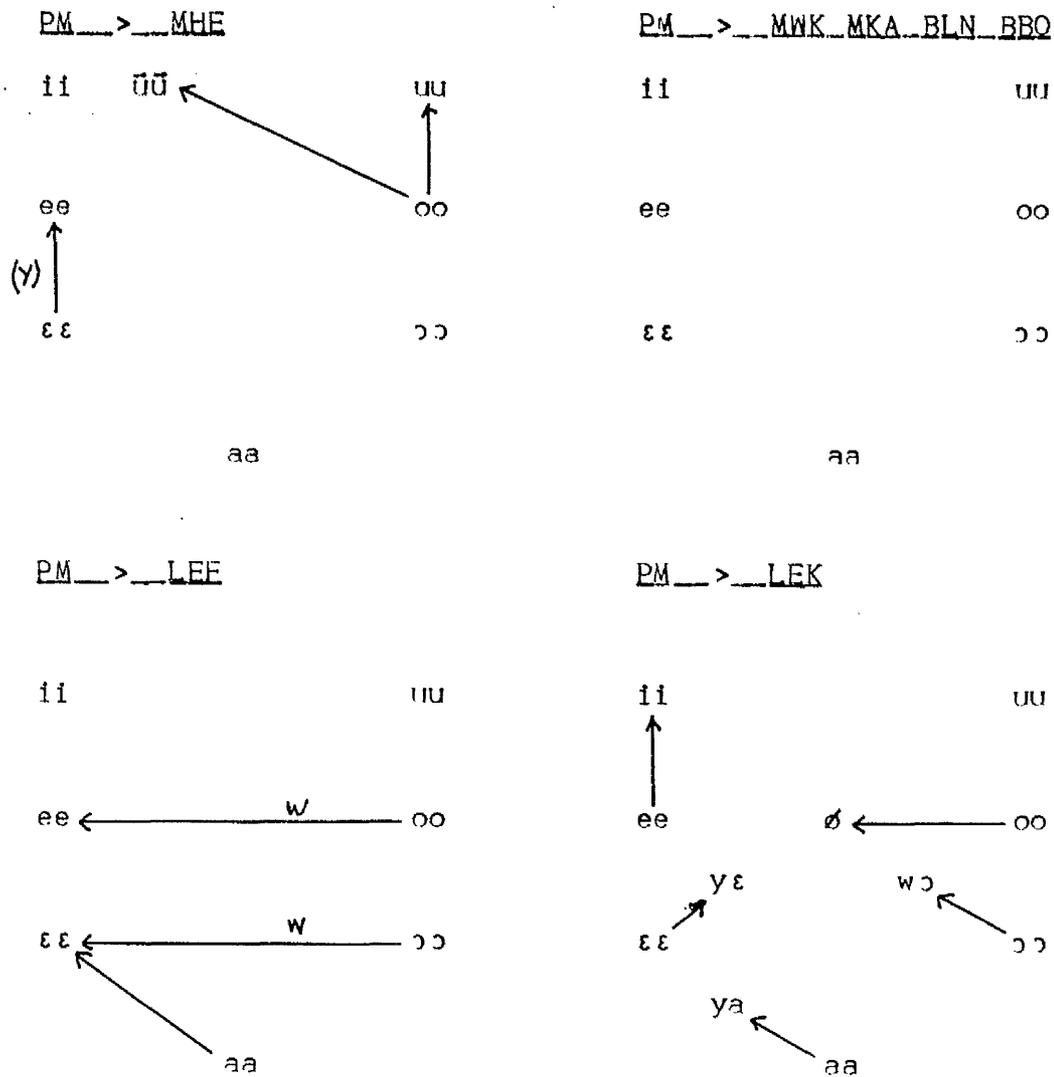


Chart 3.21: Changes of long vowels between PM and MHE, etc.

### 3.4 Tone changes between PM and the present day Languages

In general, tone has remained unchanged since PM. \*H and \*L on monosyllabic morphemes and \*H H, \*L L, \*L H and \*H L on disyllabic roots have identical reflexes in today's languages.

The evidence for \*L H and \*H L on monosyllabic roots is as follows. According to the correspondence sets in chart

2.13, (131) took place systematically in several roots, but not at all in others.

(131) \*L H > L / MBM, MBN, MYE, ELU, NNE, AKO, MHE, BBO

The same change appears sporadically in other roots, as in (132).

(132) \*L H > L / (MBM, MBN, MYE, MBE, AKO, MHE, BLN,  
BBO, LEF)

As has been pointed out in 2.5, the systematic application versus non-application of (131) has so far no explanation.

(133) and (134) are also found sporadically.

(133) \*L H > H / MKA, LEK

(134) \*H L > H / MBM, MBN, MBE, MWK, BLN, BBO, LEF, LEK

(131) to (134) may be viewed as tone simplification rules reducing the complex tones on single syllables to simple level tones. (131) appears to have led to a restructuring of the tonal pattern of the roots involved. This may also be the case for (132) to (134). On the other hand, it is possible that (132) to (134) have an explanation in a synchronic rule which simplifies complex tones in certain environments, e.g. utterance finally. Since the lexical items were given without context, this could well be the case. In order to come to any firm conclusion, more work would need to be carried out on the tonal analysis of these languages.

## FOOTNOTES TO CHAPTER THREE

[1] For typographical reasons, the features in square brackets are arranged horizontally rather than vertically which is the usual practice. There is clearly no theoretical reason against this.

[2] Njang (1972) uses the convention *bv* to represent this sound, probably because there is some bilabial friction.

[3] Stewart (1973:38) suggests that "the common Bantu voiced stops were realised as implosives in Proto-Bantu." In several Bantu languages of Cameroon including Duala (Ittmann 1939:25), [b] appears to occur before high vowels and following the nasal prefix of classes 9 and 10, and [β] elsewhere.

[4] Wamunshiya (1973:43) sets up underlying /z/ for AKO from which he derives [c] (1973:51) except after the nasal prefix of classes 9 and 10 where /z/ remains. His abstract analysis is clearly counter to the historical facts. Whether he was influenced by Meeussen who suggested that for PB one could equally well use *z* instead of *j* (1967:83) is not clear.

[5] On the other hand, it is conceivable that there was such an alternation with \*s in PM, and that the \*s merged with the other alternant (\*j) in those languages where it is not found today thereby removing all traces of a former \*s.

## CHAPTER FOUR

ASPECTS OF THE NOUN CLASS AND CONCORD SYSTEM4.1 Introduction

The Manenguba languages have a system of noun class concord typical of Bantu languages. Some aspects of the noun class system have a bearing on the classification of the languages under consideration and others raise issues for the reconstruction of morpheme initial consonants. We will present the data of the noun class morphology and give tentative reconstructions of the noun and concord prefixes. For some prefixes, the reconstruction presents few problems. For others, reconstruction is virtually impossible due to what appears to be analogical development and irregular sound change. First, the system will be briefly characterized.

In Bantu languages, there are usually about a dozen or more "noun classes". A "class" is characterized by a certain noun prefix which in turn requires the appropriate "concord" prefixes on such word classes as the verb, numeral, demonstrative, possessive, relative pronoun, associative (genitive) marker, etc.

(1)    áb-é    b`-án    bé-bè    bé-dyâg

      those children    two        they-are-eating

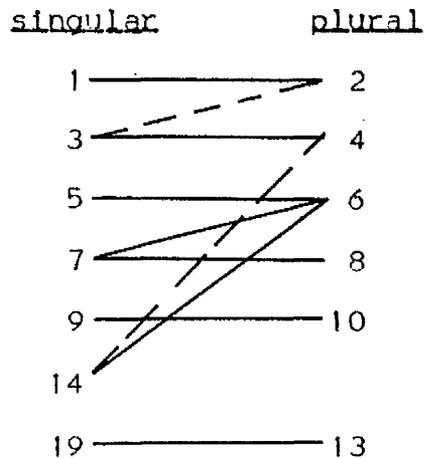
In (1), an example taken from AKO, the noun has the prefix b`- (class 2) which necessitates the presence of the

prefixes *áb-* and *bé-* on the demonstrative, numeral and verb. The class of the noun thus determines the choice of the prefixes on words within the same noun phrase, within the verb phrase of the same clause or sentence, as well as of coreferential pronouns and verb prefixes in following sentences.

A class is defined by a) the set of concord prefixes required by the noun, b) the form of the noun prefix, and c) the association of one class with another as a singular/plural pair (Kadima 1969:83, Hedinger 1980:2). Noun stems are usually associated with two classes in the case of countable nouns, one indicating the singular, the other the plural. Abstract and mass nouns are typically only found in one class [1].

It was Bleek who in 1851 first introduced the numbering system commonly used today to label Bantu noun classes (Kadima 1969:1-4). Only some minor modifications and additions have been made since then. Identification of noun classes in any given language as class 1, 2, etc., is based on whether the class and concord prefixes are cognate with PB reconstructions. Cf. chart 5.13 for the similarity of PM with PB noun prefixes.

For classes 1 to 10, usually the odd numbered classes are the singular of the even numbered classes which are the plural. For the Manenguba languages, this may be schematized as in chart 4.1.

Chart 4.1: Noun class pairings in the Manenguba languages

The majority of nouns in class 7 (singular) pair with class 8 (plural). Others pair with class 6 (plural). Class 14 nouns also take class 6 plurals. There are very few nouns which can be ascribed to class 19 (singular) and class 13 (plural).

The pairings indicated by solid lines reflect the PB situation (Meeussen 1967:100) with the exception of 7/6 which is said to have come from 15/6 (Doneux 1967:22) [2]. Dotted lines indicate that there are some nouns which pair as 3/2 (cf. (A104), (A112), (A113)) and 14/4. In several Manenguba languages, the class 14 concord has been replaced by the class 5 concord as can be seen by comparing chart 4.15 with chart 4.9. This had the effect of virtually merging gender 14/6 with 5/6, the difference now only being apparent from the noun prefixes.

Class 1 contains some nouns with zero noun prefix usually labelled as class 1a but with a regular plural of class 2.

Classes 3 and 4 appear to have neutralized to a large extent due to the loss of the distinguishing glide (mw-/my- > m-).

Singular/plural pairings are sometimes referred to as genders, e.g. gender 1/2, 3/4, etc. Similarly, nouns belonging to only one class are referred to as single class genders, e.g. gender 6. A class may serve as one of the pair in a two class gender and also as a one class gender. E.g. class 6 is plural of class 5 in gender 5/6 and denotes liquids, etc., in gender 6.

The genders are to a limited extent defined semantically. Nouns with a human referent are often found in gender 1/2 and many animals in gender 9/10. Liquids are found in gender 6 and some paired body parts in gender 7/6. Some verb roots take the class 1/2 prefixes to denote a person doing the action implied by the verb:

(2) wúú 'kill'            ñ-wúú 'killer'

Verbs taking the class 14 prefix denote the idea of the verb as an abstract concept:

(3) bíí 'know'            è?-bíí 'knowledge'

The infinitive is a nominal category in the sense that the class 5 prefix is attached to the verb root which then determines the choice of the concord prefix.

(4) à-pém    á'dé            á-pémé ... 'Carrying, he ...'  
5-carry    5-rel.pron.    he-carried

The locative marker (which resembles the class 5 prefix but has a high tone) may be prefixed to nouns of any class. Concording elements then take the concord prefix required by the locative (i.e. class 5) rather than the inherent class of the noun.

- (5) `n-dáb è-bóó 'the house is good'  
 9-house 9-is-good  
 á-`n-dáb á-bóó 'In the house it is good'  
 LOC-9-house 5-is-good

A full treatment of locatives and infinitives is beyond the scope of this study. For more details on locatives, see Hedinger (1983a).

Although noun stems typically belong to only one gender, there are some stems which occur in more than one gender. This is usually associated with a modification of the sense of a word.

- (6) è-díb, è?- 'river(s)' (7/8)  
 mè-díb 'water' (6)

Occasionally, speakers are not certain or disagree as to what the plural should be. For some nouns, class 6 may be used as a plural for class 3, 9 or 19 instead of the more typical plural class (4, 10 and 13 respectively).

There are a few cases where a noun has changed gender (cf. (A70)).

- (7) \*mw-èè, my-èè (3/4) > NNE à?-mwíí, mè-mwíí (14/6)

In (7), the prefix plus root appears to have been reanalysed as the new root to which the prefix is added.

In the following sections, we will first focus on the word classes which take the noun class and concord prefixes. The prefixes of the different classes will be discussed in turn.

## 4.2 Elements with noun class and concord prefixes

The elements carrying concord prefixes divide into two categories on the basis of whether they are governed by or govern the concord.

### 4.2.1 Elements governing concord

Nouns, including locative nouns and infinitives, control the concord of associated elements.

The noun stems with their prefixes are listed in appendix I and wherever possible their gender is indicated with the reconstruction. The noun prefixes are also included in summary form in charts 4.5 to 4.17 as columns IC and IV.

The locative prefix is found as (A511) in appendix I.

The numeral 'ten' is clearly nominal. It has a singular/plural prefix pair of gender 5/6 and controls the prefix of associated numerals (cf. (A10) and (A11) in appendix I).

### 4.3 Elements governed by concord

The elements controlled by the nouns, locatives, etc., mentioned in 4.2.1 are as follows: possessive pronouns, relative pronouns, demonstratives, the reflexive pronouns, subject/object pronouns, the numerals 'one' to 'five', verb prefixes, associative (genitive) markers and qualifiers. Excluded are the 1st and 2nd person forms of the reflexive pronoun, of the subject/object pronoun and of the verb prefix. The choice of first and second person forms is determined by the speaker/hearer situation.

Relative pronouns, certain demonstratives, the associative markers and qualifiers [3] were not included in the lists to be elicited and therefore are not included here. For a survey of such elements in Akɔɔse, see Hedinger (1980).

What is common to all the governed elements is the fact that a particular stem occurs with a prefix from every class, the choice of which is determined by the governing noun.

4.3.1 Possessive pronouns

The possessive pronoun stems are given in chart 4.2. The concord prefixes of these pronouns are found in column 7 of charts 4.5 to 4.17.

Chart 4.2: Possessive pronoun stems

	1sg	2sg	3sg	1pl	2pl	3pl
PM	*-əm	*-ɔŋ	*-ɪb	*-ācɪ	*-ānyɪ	*-ābɔ
MBM	-əm/-ām	-oŋ	-ɪ/ɪ	-ūɪɪ/-ɪsɪ	-ənyɪ/ɪnyɪ	-āb/ɪbɔ
MBN	-əm/-əm	-ɔŋ	-ɪ/wɪ	-əɪɪ	-ənyɪ	-ābɔ
MYE	-ə	-ɔ	-ɪ/-u	-āsɪ	-ānɪ	-ābɔ
MBE	-əm	-ɔŋ	-ɪ	-əsɪ(nɛ)	-əyɛ	-ābā/-āā
ELU	-ə	-ɔ	-ɪ	-ɛ?	-ənyɛ/ɔnyɛ	-əbɔ/-ɔbɔ
NNE	-im/em	-oŋ	-ə	-ɛd/ɛsɛ	-ənyɛ	-ā?
AKO	-em	-oŋ	-ɪ	-ɛd	-ɛn	-ab
MHE	-em	-ɔŋ	-ɪb	-əy?/-ɛd'	-āā	-āb
MWK	-əm	-ɔŋ	-ɪw/ūw	-əy	-āā	-āw
MKA	-em	-ɔŋ	-ɪb/-ub	-āy	-āā	-āb
BLN	-əm/-om	-ɔŋ	-ɪb	-ay/-ad	-āā	-ab
BBO	-em	-ɔŋ	-eb	-ad	-aā	-ab
LEF	myə	-wə	-mə	-sə	-nyə	-bɔ
LEK	-ɔ/-u	-ɔŋ	-ɛn	-ɛ?	nyɛ/mwɛ	bwɔ/bwɔ

The variants with front versus back vowels in, for example, 3sg for MBM, MWK and MKA are conditioned by the environment, the rounded back vowel occurring in the labio-velar environment of the class 1 prefix (cf. column 7, chart 4.5).

At the head of each column the proposed PM reconstructions are given. The reconstructions took into

account only the data from the first ten languages. LEF and LEK have been excluded for the following reasons. There are several forms in LEF and LEK which are clearly not cognate with the forms in the other languages. In our definition of PM (cf. 6.3.2.3) LEF and LEK are excluded. Since we are interested in this study primarily in PM, it is not inappropriate to leave these two languages aside.

The reconstruction of final vowels is very uncertain due to apparently irregular sound changes.

The singular forms are \*-VC in structure, the plural forms \*-VCV. Some languages have dropped the final C in the singular and some the final V in the plural. MHE to BBO also dropped the final palatal nasal (cf. 3.2.3).

There is clearly a formal link between the plural forms of the possessive stems, the plural person prefixes in chart 4.4 and the personal pronouns (A487 - A489). The plural possessive pronoun stems are probably best explained by assuming that they were derived by suffixing of independent pronouns.

The reconstruction of the consonant in *lpl* presents a problem. We have posited a \*c although we have not posited \*c for PM (cf. chart 2.6). On the basis of the reflexes, we could expect either \*s or \*j. Since PB \*c has given rise to PM \*s in morpheme (and syllable) initial position (cf. 5.3.1) and to \*j in morpheme (and syllable) final position (cf. 5.3.2), \*c seems to be the most adequate reconstruction. Cf. also the discussion of the palatal stops in 3.2.1 [4].

There are two sets of lexical items which are best discussed in connection with the possessive pronouns. Items

(A17), (A18), (A20) and (A21) are reconstructed as:

- (8) \*sáŋ 'his father' \*sɔŋ 'your father'  
 \*nyàŋ 'his mother' \*nyɔŋ 'your mother'

There appears to be a formal (-ɔŋ) and semantic (2nd person) relation between the kinship terms in (8) and the 2nd person singular possessive stems \*-ɔŋ. The \*-ɔŋ may have been a 2sg suffix with a more general distribution. This is further supported by the form of the AKO 2sg reflexive pronoun mɔŋ 'yourself'.

In AKO the lexical items in (9) are found.

- (9) wɛ́éd 'my friend' bɛ́éd 'my friends'  
 wɛ́én 'your friend' bɛ́én 'your friends'  
 wǎáb 'his friend' bǎáb 'his friends'

There is clearly a formal and semantic relationship between the "endings" in (9) and the plural possessive stems. It appears that a class 1 (sg) and class 2 (pl) noun prefix is used with the three possessive stems to make up these items. The w-prefix in the singular is significant because it is non-nasal (cf. chart 4.5, column 1V where there is always a nasal in class 1 prefixes). This raises the question whether there is any connection between this w- and the Proto-Benue-Congo \*ù- prefix for this class (De Wolf 1971:53). There may also be a connection between this w and the w in the possessive prefix (column 7, chart 4.5).

According to Meeussen, it has not yet been possible to reconstruct the possessives for PB because "the attested forms are so varied" (1967:107). This suggests that there has been considerable restructuring in this area since PB.

The syntactic position of the possessive pronouns is before the noun.

4.3.2 Pronouns, demonstratives and reflexive pronouns

In chart 4.3 the stems of the reflexive pronoun, the third person pronouns and three different demonstratives are listed. The gaps in the chart are due to lack of data.

Chart 4.3: Stems of pronouns and demonstratives

	reflexive pronoun	3rd ps pronoun	this	that (far)	that (near)
PM	*-ɛ̃n	*-ɔ̃	*-ɪn	*-ɪnɪɪ	*-ɪ
MBM					
MBN	(mən)	ɪ	ən	ɪnɪɪ	
MYE	ɛ̃n/ɛ̃n	ɔ̃/ɔ̃			
MBE	ɛ̃n/ɛ̃n	ɛ̃/ɔ̃	en/ən		i/e
ELU	ɛ̃	ɔ̃/ɔ̃	ɛn/ən	ɪnɪ	ɪ
NNE					
AKO	ɛ̃n	ɔ̃	ɛ̃n	ɪnɪɪ	ɛ̃
MHE	ɛ̃n		ɪn	ɪnɪɪ	ɪ
MWK	ɛ̃n	ɔ̃	ɪn		ɪ
MKA	ɛ̃n		ɪn/ɪn	ɪnɪɪ/ɪnɪɪ	ɪ/ɔ̃/ɔ̃
BLN	ɛ̃n	ɔ̃	ɪn	ɪnɪɪ	ɪ
BBO	ɛ̃n		ɪn/ɪn	ɪnɪɪ/ɪnɪɪ	ɪ/ɔ̃
LEF	(mɛ̃n)	ɔ̃	ɛ̃n/n/ne	ɪnɛ̃/ɪnɪɪ	ɛ̃
LEK	ŋgɛ̃ŋ	ɔ̃			

The reflexive pronoun in the first column is reconstructed as \*-ɛ̃n. It is usually glossed as 'himself', 'herself', 'themselves' [5], etc. It should be pointed out that it is never used predicatively as in "he cut himself", but only attributively as in "he himself cut down the tree". It is a constituent of the noun phrase and a kind of

emphatic pronoun co-referential with the head of the noun phrase which it always follows.

The pronoun stem for third person [6] taking the concord prefix of any class is reconstructed as \*-5.

There are three demonstrative stems. They occur in post-nominal position with one set of prefixes and in pre-nominal position with another related set (cf. column 5 in charts 4.5ff). The variants with high back vowels are conditioned by the phonetic shape of the concord prefix.

#### 4.3.3 Numerals

The numerals 'one' to 'five' and the question word 'how many' take concord prefixes (column 4 in charts 4.5ff) as required by the class of the head noun which they follow. The stems of the numerals with their reconstructions are found in appendix 1 as items (A1) to (A5) and the question word as (A501).

In AKO and MWK, numeral 'one' can be used with plural nouns in which case the meaning is 'some' (Hedinger 1980:21, Hedinger et al. 1981:27).

- (10) AKO: mōd ṅhōg (cl. 1) 'one person'  
           bād bēhōg (cl. 2) 'some people'  
           bād bēbē (cl. 2) 'two people'

We do not know how widespread or restricted this use is both inside and outside the Manenguba languages.

With the numeral 'one', the tone of the concord prefixes is low, with the numerals 'two' to 'five' and the question word 'how many', the prefix tone is always high, regardless to which noun class the prefix belongs (Cf. (10) above). This is different from the usual pattern of tone on

concord prefixes in Bantu languages: classes 1 and 9 usually have a low tone on the prefix and high tone for other classes (Meeussen 1967:97). The question raised is whether the tone on the numeral prefix should be considered to belong to the concord prefix or to the numeral stem. The simplest solution, the one we have adopted here, is to consider the prefix toneless and the numeral stems with an initial low floating tone for 'one' \*<sup>ˋ</sup>-hóŋ, and a high floating tone for 'two' \*<sup>ˋ</sup>-bà, etc. Historically, the change to the Manenguba situation is probably due to an analogical change.

#### 4.3.4 Verbs

Every verb form in a sentence has either a concord prefix (determined by the governing subject noun), an infinitive prefix (as required by certain grammatical contexts) or a person [7] prefix (chosen by speaker/hearer relations in particular discourse contexts or the pragmatic context of the speech situation). There is partial overlap between the concord prefixes and the person prefixes as explained in 4.4.1.

A verb here is defined as any stem which may take person/concord prefixes as well as affixes for tense, aspect and negation and function as a verb phrase in a clause. Therefore, more roots belong to the category of verb stems than would be the case if purely semantic criteria were applied. Besides stems referring to actions and processes (cf. items (A524ff)), stems referring to states, abstractions and qualities including colour terms (cf. items (A425ff)) belong to the category of verbs.

4.4 Noun concord and person prefixes

In this section, the person prefixes as well as the noun and concord prefixes will be presented and discussed. Chart 4.4 contains the person prefixes, charts 4.5 to 4.17 the noun and concord prefixes.

4.4.1 The person prefixesChart 4.4: Person prefixes

	1sg	2sg	3sg	1pl	2pl	3pl
PM	*m̄-	*wè-?	*à-	*sî-	*nyî-	*bé-/*bɔ̄-
MBM						
MBN	ñ-	è-	à-	sî-	nyî-	bú-
MYE	ñ-	ò-	à-	sî-	nɪ-	ó-
MBE	ñ-	ò-	à-	sɪ-	yɪ-	ɓɛ-
ELU	ñ-	ò-	à-	sɛ-	nyɛ-	ɓɔ-
NNE						
AKO	ñ-	è-/wè-	à-	sɛ-	nyɪ-	bé- [4]
MHE	ñ-	ò-	à-	sɛ-	nyɪ-	ɓɔ-
MWK	m̄-	ò-	à-	sé-	nyé-	bɛ-
MKA						
BLN	ñ-	ò-	à-	sɛ̄-	nyɛ̄-	ɓɔ-
BBO	m̄-	ò-	à-	sɛ̄-	nyɛ̄-	bɪ-
LEF	nnaán	ɛ̄ɛ̄-	àà-	síí-	nyí	ɓáá-
LEK	ñ-	ɔ-	ǎ-	sə-	nyə-	ɓɛ-

The person prefixes belong to the same position class as the verbal concord prefixes (given as column 6 in charts 4.5ff). There is partial overlap between person and

concord prefixes (cf. 3sg and 3pl with column 6 in charts 4.5 and 4.6). This may best be displayed as in (11).

(11) person

1sg	2sg	3sg = 1	class
1pl	2pl	3pl = 2	
		= 3	
		= 4	
		etc.	

There are two ways of looking at (11). First, it might be said that there is overlap in that the class 1 and 2 concord prefixes are homophonous with the 3rd person singular and plural person prefixes. Second, one might consider person distinctions to be relevant only for classes 1 and 2 (the person classes) and the other classes to have only 3rd person forms. The second view appears to best express the fact that humans speak and therefore need 1st and 2nd person forms to refer to speaker and hearer whereas non-human entities (primarily in classes 3, 4, etc.) are "spoken about" and referred to by the use of third person forms.

Looking at the overlap between person prefixes (chart 4.4) and the class prefixes (charts 4.5 and 6) more specifically, it is only between 3sg and class 1 that there is identity (excluding LEF and LEK for the reasons previously given). In 3pl/class 2, however, there appear to exist more than one form in some of the languages. AKO, for example, has only one form: b<sup>h</sup>é-, whereas MWK has two: b<sup>h</sup>é- and ó-. This discrepancy between languages is probably due to analogical developments: the ó- prefix is most likely due

to a copying of the noun prefix onto the verb. Variations in the 3pl person prefix must be due to still other factors such as the influence of the person pronoun (A489).

It is not clear what the reconstruction of the 2sg prefix should be. Also, the vowel in 1pl and 2pl is not certain. In 3pl, the presence of both front and back vowels might have an explanation in an analogical development as suggested above.

The plural person prefixes are apparently related to the plural possessive stems in 4.3.1 and the person pronouns (A487 - A489). They may ultimately all be derived from free forms, i.e. pronouns.

#### 4.4.2 The noun and concord prefixes

In the following pages, charts with the noun and concord prefixes will be presented. Each chart contains the prefixes for one class. The labels at the head of each column indicate the following:

- C prefixes occurring before consonant initial stems
- V prefixes occurring before vowel initial stems
- 1 noun prefixes
- 2 reflexive pronoun prefix
- 3 pronoun prefix
- 4 numeral prefix
- 5 demonstrative pronoun prefixes
- 6 verb prefix [8]
- 7 possessive pronoun prefix [9]

Two forms in a column separated by a slash indicate contextual or free variants. In column 2, the forms for MBN, LEF and LEK are the full form of the reflexive pronoun and identical for all classes. We have put an asterisk (\*) instead of repeating the form in every successive chart.

In column 5, we give two forms. Both do occur, the longer form apparently when the demonstrative precedes the noun, the shorter form when it follows the noun. This area has not been fully explored and so no definite statement can be made. At the bottom of column 5 (LEK), the full forms given by the informant are included because several stem forms appear to be involved.

The form of LEF in column 7 appears to be the associative marker [10] rather than the prefix comparable to the ones in the other languages.

Hyphens after the prefixes indicating bound morphemes have been omitted for reasons of space. There are several gaps in the charts for different reasons. In some cases, the informant was unable to complete work on a list. In the case of 5V, it was in some cases difficult to obtain both the pre- and the post-nominal form. Nouns with prefixes under 1V are relatively rare, which led to some gaps in that column.

There is considerable similarity between columns within the same class and occasionally between classes. Similarities between classes are due to similar proto-forms. Similarities between columns of the same class may be due to several factors. In some cases, it must be due to the concord being identical with the noun prefix. In others,

taking PB reconstructions into account, the noun prefix must have replaced the concord, particularly in classes 1, 3, 4 and 6.

Dissimilarities of form, especially between 1C and IV, are due to divergent development from one original form. The divergent development appears to be associated with the difference in position before consonant versus vowel initial stems (cf. 5.3.5).

#### 4.4.3 Class one

Chart 4.5: Noun and concord prefixes of class 1

	1C	IV	2V	3V	4C	5V	6C	7V
PM	*m̄	*mw̄	*mw̄	*m	*m̄	*n̄	*àn	*ā *āw
MBM	ñ	my/mw/m		m̄				āw
MBN	ñ	mw/my/m	mən	m	m̄	n	ā	āw/āg
MYE	ñ	my/m	m	m	ŋ		ā	āw
MBE	ñ	my/mw	mw	m	ŋ	n	àn	ā āw
ELU	ñ	mw/m	mw	m	ŋ	n	àn	ā āw
NNE	ñ	mw/m						āw
AKO	ñ	mw	mw	m	ŋ	n̄	àn	ā āw
MHE	ñ	mw	mw		ŋ		èn	ā èw
MWK	ñ	mw	mw	m	ŋ	n	àn	ā āw
MKA	m̄	mw	mw		m̄		èn	ā èw
BLN	m̄	mw	mw	m	ŋ		èn	ā èw
BBO	m̄	mw	mw		m̄		ìn	ā ìw
LEF	ñ	mw/m	m̄ən	m	m̄	ā	àn	ā m̄
LEK	ñ	mw/m	ŋgɛŋ	m	m̄	nyín, nyíí	è	gb/b/bw?

Noun prefix (1C) and numeral prefix (4C) are reconstructed as syllabic \*m̥- and \*ɱ- respectively for PM (for the tone on the numeral prefix, cf. 4.3.3). These have become homorganic nasals in all languages except MKA, BLN and BBO. The [ŋ] reflects the glottal environment of the h-initial numeral 'one'. The ɱ in MBM, MBN, LEF and LEK is labiodental preceding /f/.

It appears that the forms in columns 1 to 4 are ultimately derivable from the form reconstructed by Meeussen (1967:97) for the class 1 noun prefix \*m̥- via loss of syllabicity (before V in 1, 2 and 3) or loss of vowel (before C in 1 and 4). Tone has, however, remained (but cf. 4.3.3). The y in MBM, MYE and MBE is due to rule (37) in chapter 3.

The first form in 5V probably derived from the second via loss of the vowel but not loss of tone, which is still realized in certain contexts as a downstep. Whether the vowel in 5 and 7 is correctly reconstructed is not certain.

4.4.4 Class twoChart 4.6: Noun and concord prefixes of class 2

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*bè	*b`	*b`	*b	*be	*b	*bé	*áb
MBM	bè/bè	b/eb		b	ø			
MBN	ò/à	b/abw	*		é	b	á	áb
MYE	ò	b/ob	b	b	ó		á	ób
MBE	ò	b/ob	b	ò	ó	b ób	ó	ób
ELU	ò	b/ob	b	b	ó	b ób	ó	ób(áb)?
NNE	bè/bè	b/bɛb						áb
AKO	bè	b/beb	b	ò	bé	áb	bé	áb
MHE	bè	b	b		òé		bé	éb
MWK	ò	b/ob	b	b	ó	b	ó	áb
MKA	bè/bè	b	b		bʒ	b	bʒ	éb
BLN	bè	b	b	ò	bé	b	bé	éb/éb
BBO	bí	b	b		bé	b	bí	íb
LEF	bà	b	*	b	òá	b ha	bá	bá
LEK	bè/bè	b	*	bw	bé	bá, béé	bʒ	bw

Class 2 prefixes present a problem: the presence of ò- in MYE, MBE, ELU and MWK is not easily accounted for. The reconstruction of the noun prefix for both PB and PBC is \*bà- (Meeussen 1967, De Wolf 1971). And it appears that for PM we need a reconstruction like \*bè-, the front vowel being either e or ɛ.

A phonetic explanation of the ò- would be that the front vowel became rounded and backed in the labial environment and b was lost: \*bè > ò-.

An alternative explanation would be to assume that the PM prefix still had a low vowel: \*bà-. In different

dialects, the raising of the low vowel \*a then took two different routes in labial environment: \*a > e /C[+lab]\_\_ or \*a > o /C[+lab]\_\_. The labial later dropped before o. A third alternative, which is theoretically possible, is that another gender, which had a (C)ò- prefix as plural, merged with gender 1/2. The presence of the ò- in some plurals of the 1/2 gender would then have replaced the bè- prefixes in some languages whereas bè- extended to all the nouns with previous ò- in the other languages. The noun class envisaged as a possible source is PB cl. 13 \*tò- (Meeussen 1967:97) which is the only plural class with an o vowel. Also notable is the absence in Manenguba languages of a gender 12/13 reconstructed for PB (1967:102).

The objection to the first two hypotheses is that there are no such sound changes observed in comparable environments. The third hypothesis looks very attractive. An answer would, however, have to be found to the following questions. How many nouns were in gender 12/13 which allegedly merged with gender 1/2? Is there evidence of such roots in today's gender 1/2? How likely is it that a prefix of a small number of roots replaces the prefix of the majority? Perhaps the major obstacle is how the singular prefix \*kâ- would have provided the basis for a merger with class 1 which has PM \*m-/mw`-. It appears that a merger of 12/13 with 5/6 would be easier to explain for reasons elaborated in 4.4.6.

The question is at the moment best left open until conclusive evidence tips the balance in favour of one or the other hypothesis.

There is no question that the o- prefix is secondary

to the be- prefix. In item (A105) 'woman', some languages have simply a b- prefix but in others, the pre-consonantal bè- or ò- is added to the b- prefix. This addition clearly is of more recent origin than the b- prefix which must have been reanalysed as C1 of the root.

The vowel in different concord prefixes in MYE, MBE, ELU and MWK must have been replaced by o by analogy with the noun prefix. In MWK this has not (yet?) reached 7V.

The significance of the ā in MBM and MYE in 6C is not clear.

#### 4.4.5 Classes three and four

Chart 4.7: Noun and concord prefixes of class 3

	1C	1V	2V	3V	4C	5V	6C	7V	
PM	*ñ	*mw`	*mw`	*m	*ŋ	*m	*ām	*ñ	*āmw
MBM	ñ	mw/m			ñ			ñm	
MBN	ñ		*	m	ñ	m	ñ	ñm	
MYE	ñ		m	m	ò		ñ	ñm	
MBE	ñ	mw	mw	m	ò	m	ñm	ñ	ñm
ELU	ñ	mw	m	m	ò	m	ñm	ñ	ñm
NNE	ñ	mw							ñmw
AKO	ñ	mw	m	m	ò	m	ñm	ñ	ñm(w)
MHE	ñ	mw	mw		ò	m		ñ	é m(w)
MWK	ñ	mw	mw	m	ò	m		ñ	ñm
MKA	ñ/ñ	mw	mw		ñ	m		ñ	é m(w)
BLN	ñ	mw	mw	m	ò	m		ñ	é m(w)
BRO	ñ	mw	mw		ñ	m		ñ	í m(w)
LEF	ñ		*	m	ñ	m	mu	ñ	ñ
LEK	ñ		*	m	ñ	m	má, m'éé	ñ	m

Chart 4.8: Noun and concord prefixes of class 4

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*m̃	*my`	*m`	*m	*m̃	*m *ám	*m̃	*ám
MBM	m̃				m̃			m̃m
MBN	m̃		*	m	m̃	m	m̃	m̃m
MYE	m̃		m	m	m̃		m̃	m̃m
MBE	m̃		mw	m	m̃	m m̃m	m̃	m̃m
ELU	m̃	my	m	m	m̃	m m̃m	m̃	m̃m
NNE	m̃	my						m̃m
AKO	m̃		m	m	m̃	m m̃m	m̃	m̃m
MHE	m̃	my	m		m̃	m	m̃	ém
MWK	m̃	my	mw	m	m̃	m	m̃	m̃m
MKA	m̃/ñ	my	m		m̃	m	m̃	ém
BLN	m̃	my	m	m	m̃	m	m̃	ém(w)
BBO	m̃/ñ	my	m		m̃	m	m̃	ím
LEF	m̃		*	my/m	m̃	m/mi	m̃	m̃
LEK	m̃		*	m	m̃	má, miéé	m̃	m

Leaving out LEF and LEK, the PM noun prefix (1C) for classes 3 and 4 is \*m̃- and the numeral prefix (4C) is \*m̃-. Parallel to class 1, these have assimilated in point of articulation to the following C, except in the case of MKA, BLN and BBO. The m's in all the languages in 4C in chart 4.8 are due to the fact that numeral 'two', which has a bilabial C initially, was used to elicit these prefixes. Before vowels, class 3 has \*mw`- and class 4 has \*my`- (cf. 1V) in a small number of V-initial stems. Two items in gender 3/4, (A48) and (A236), have the word initial sequence m̃-pw../m̃-py... This may have come about by analogy: a root initial -Cw.. sequence becomes -Cy.. in the plural by analogy with the w/y

distinction of the prefix. This must go back to the time when the w/y distinction was still present in the prefixes.

In 2V, the class 3 prefix must have spread to class 4 in MBE and MWK.

6C is similar to 1C but has a high tone.

In 7V, a w is occasionally present in class 3, a feature which appears to be disappearing. MHE, MKA, etc., have a vowel where the others have a syllabic nasal before m in both class 3 and 4. This raises the question whether a vowel or a nasal should be reconstructed. It appears that it would be more natural for a vowel to become a syllabic nasal in nasal environment than the reverse. On the other hand, the nasal could have been introduced here by analogy with the noun prefix which is also a syllabic nasal before C. It probably is best to posit an \*á which became é in MHE, MKA and BLN, í in BBO and ĩ in the other languages. The \*a vowel which we have also posited for 7V in other classes, is perhaps equivalent to Meeussen's "link vowel" \*-a-, of his "possessives" (1967:107). It should be noted that this vowel has a low tone in classes 1 and 9 but high in all the other classes.

For PB, the noun prefixes have been reconstructed as \*mò- 'class 3' and \*mè- 'class 4'. In PM, these are only distinguished in pre-vocalic position (cf. 1V) but have neutralized to \*m̄- in pre-consonantal position (cf. 1C). It should be noted that in both LEK and LEF the distinction is maintained in that only in the singular class 3 has the original CV- prefix reduced to N̄-.

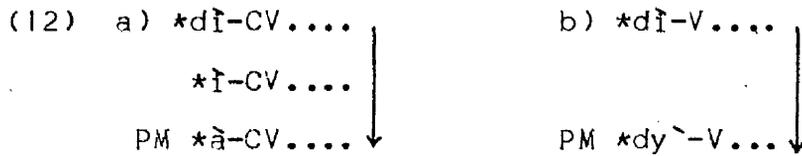
4.4.6 Class fiveChart 4.9: Noun and concord prefixes of class 5

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*à	*dy`	*dy`	*dy	*a	*d *ãd	*ã	*ãdy
MBM	à	d/du/dy			∅			ey
MBN	à	d/ju/j	*	d	à	d	ã	ãd/ãl
MYE	à	dw/dy/d	j	j	à		ã	íy
MBE	à	dy/d	d	d	à	ãd	ã	ãd(y)
ELU	à	d/dy	d	d	à	d ãd	ã	ãd
NNE	à	dy/d						ãd
AKO	à	dy/d	d	d	à	d ãd	ã	ãd
MHE	è	dy/d/j	d		è	d	é/ã	éd
MWK	à	dy/d	dy	dy	à	d ãd	ã	ãdy
MKA	è	dy/d	dy		è?	d	é?	éd(y)
BLN	è	dy/d	d	d	è?	d	é?	éd(y)
BBO	ì	dy/d	dy		ì	d	í	ídy[ll]
LEF	lè/lì	dy/d	*	y/d	dì	d di	dí	dí
LEK	lè	du/d	*	l	lè	dín, díí	lé	l

In class 5, the vowels present a difficulty. On the face of it, to reconstruct \*a in 1C and 4 to 7 seems to be the best course of action. This analysis faces a difficulty when the noun prefixes in 1C and 1V are considered together. LEF and LEK prefixes most probably have a single source. The question then is: do 1C and 1V have a single source in the other languages? Meeussen has \*ì- or \*dì- for PB (1967:97-99). De Wolf has \*lè- for PBC.

If we consider that the two sets of prefixes have

the same source, possibly \*dĩ-, then an explanation as in (12) will be necessary.



In (12b), the prefix vowel becomes non-syllabic. In (12a), the following processes are involved. Loss of initial \*d and lowering of the vowel from a high to a low vowel in PM. To account for the present day *ɛ* and *i* in some of the languages, the low vowel \*a would then need to be raised again, perhaps parallel with the low vowels in other classes. The crucial question appears to be why the high vowel became low in the first place. Of interest is the fact that Ewondo (A.72a) (Abega n.d.) and Bulu (A.74a) (Bates 1926:6) also have *ã-* as a class 5 prefix. This suggests either a parallel development or that Ewondo and Bulu are so closely related that they shared this innovation.

An alternative to the phonetic development suggested above is to consider a possible merger of PB gender 12/13 (\*ka-/\*to-) with gender 5/6 as hinted at in 4.4.4. The a- prefix could have PB \*ka- as source and the o- prefixes in class 6 (cf. chart 4.10) could have PB \*to- as source. The a- (< \*ka-) would have replaced the original class 5 vowel in preconsonantal environment and similarly for o- (< \*to-) in class 6. The situation as far as o- is concerned is different from a-. Whereas \*a- appears to have replaced the \*di/i- prefix in all languages, o- only replaced the \*me- prefixes in some languages. In other languages, it would have to be the reverse, i.e. that the me- prefix replaced all the o- prefixes.

This merger approach to the a-/o- prefixes is very attractive but its validity hinges on the question whether the evidence for it can be found in, for example, the presence of nouns of a former 12/13 gender in gender 5/6.

The vowel in 7V, largely identical with 1C, probably has a different origin as suggested in 4.4.5. The similarity between this vowel, the noun prefix and the other prefixes is probably best explained in terms of parallel phonetic development.

#### 4.4.7 Class six

Chart 4.10: Noun and concord prefixes of class 6

	1C	1V	2V	3V	4C	5V	6C	7V	
PM	*mè	*m(y)~	*m	*m	*me	*m	*ám	*mé	*ám
MBM	ñ	m						ím	
MBN	ñ/ò	m	*		ím	m	ñ	ím	
MYE	ò	m	m	m	ó		ó	óm	
MBE	ò	m	m	m	ó	m	óm	ó	óm
ELU	ò	m	m	m	ó	m	óm	ó	óm
NNE	mè/mè	m/my							ím
AKO	mè	m	m	m	mé	m	ím	mé	ím
MHE	mè/mè	m	m		mé	m		mé	ím
MWK	ò	m/my	mw	m	ó	m	óm	ó	óm
MKA	mè/mè/mè	m	m		ím	m		mé	ím
BLN	mí/mè/mè	m/my	m	m	mé	m		mé	ím
BBO	mí	m	m		mé	m		mí	ím
LEF	mà	m	*	m	ma	m	ma	má	má
LEK	mè/mè/ñ	m	*	m	ím	má, mé	ñ	ñ	m

As in class 2, MYE, MBE, ELU and MWK have an o instead of forms more similar to the reconstructed forms. The discussion regarding possible phonetic developments of \*be- > o- in 4.4.4 could equally apply to \*mè- > o- and are therefore not repeated here. Cf. also 4.4.6 for an explanation in terms of a noun class merger.

LEF has retained the PB prefix \*mà- (Meeussen 1967:97). We have reconstructed it as PM \*mè- which in turn requires a lowering and a raising rule to account for the vowel quality in, for example, MKA and BBO. In MBM and MBN, the prefix has reduced to a homorganic nasal as in classes 1, 3 and 4. This gives an isogloss separating these two languages from the remaining languages of the Manenguba languages.

5V and 7V probably should be reconstructed as \*ám-, the different present day forms being accounted for by phonetic and analogical changes.

After having discussed several classes where nasals are predominant in the prefixes, the following comment is in order. For PB, only the noun prefixes are reconstructed with a nasal in classes 1, 3, 4 and 6. The concord prefixes are given as \*jo-, \*go-, \*ge and \*ga respectively. The widespread presence of bilabial nasals in PM is best explained in terms of a spread of the nasal of the prefix into the concord probably before PM.

4.4.8 Class sevenChart 4.11: Noun and concord prefixes of class 7

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*è	*jy`	*j`	*j	*e	*j *áj	*é	*áj
MBM	è/à	y/j			∅			éy
MBN	è	y	*	y	è	y	é	éy
MYE	è	j	j	jw̄	è		é	íy
MBE	è	j	j	j	è	j éj	é	éj
ELU	è	j	j	j	è	éj	é	éj
NNE	è	j/ky						éj
AKO	è	c/cy	c	c	è	c éc	é	éc
MHE	è/è/à	j/jy	j		è	j	é/é	éj
MWK	è	j	j	j	è	j éj	é	éj
MKA	è	j	j		è	j	é	éj
BLN	è/è	j	j	j	è	j	é	éj
BBO	ĩ(+h)	j	j		ĩ	j	í	íj
LEF	è/wù	y	*	y	è	y ye	é	é
LEK	è/lè	j	*	z	∅	zín, zíf	é	z

The class 7 prefix for PB is \*kè- (Meeussen 1967:97). The voiced palatal \*j which needs to be reconstructed for PM could thus derive from the voiceless velar stop via voicing and fronting in front vowel environment. The pre-consonantal form \*e- would then be explained by a C-deletion rule and the present day prefixes by a lowering or raising rule.

The vowel in 7V (and 5V) is never a low vowel and so, to reconstruct \*áj- is somewhat speculative. However, there seems to be a good reason for reconstructing \*a in other classes where in several cases a raising rule is

needed as well. Here, the raising of \*á to ε, e and i, could have several explanations. In MKA and BBO, for example, a raising rule is already needed. In MBE, ELU and MWK, the /a/ could have changed to /e/ by analogy with the noun prefix parallel to what happened in class 6. Then, there is also the following palatal stop which is an environment where low vowels have been fronted and raised (cf. 3.3.2.4).

#### 4.4.9 Class eight

Chart 4.12: Noun and concord prefixes of class 8

	1C	1V	2V	3V	4C	5V	6C	7V	
PM	*èb	*by <sup>~</sup>	*b <sup>~</sup>	*b	*eb	*b	*áb	*éb	*áb
MBM		by						eby	
MBN	à		*						
MYE	à	by	b	b	á		á	áb	
MBE	à	by/bw/b	β	β	á	b	áb	á	áb
ELU	∅	b	b	b	ḿ	b	ḿb	ñ	ḿb
NNE	à?	by/b						á?b	
AKO	è?	by/b	b	b	é?	b	áb	é?	áb[12]
MHE	è?	by	b		é?	b		é/é	éb
MWK	à	by	β	β	á	b		á	áb
MKA	è?	by	b		é	b		é?	éb
BLN	è?	by	b	β	á?	b		é?	éb
BBO	í(+f)/íb	by	b		í?	b		í?	íb
LEF	bí	by/bi	*	by/b	bí	b	bi	bí	bí
LEK	bè	(py/b)	*	b	bé	bá, bé	bé		b(w)

Class 8 is interesting because 1C (and possibly 4C and 6C) have to be reconstructed as VC rather than the typical CV for PM (excluding LEF and LEK). In light of PB and column 1V which suggest an original CV prefix, we need to ask how this came about. The simplest explanation appears to be metathesis: the order of consonant and vowel has been reversed (be- > eb-). Another hypothesis to consider is the possibility that there was a so-called pre-prefix in addition to the prefixes (e.g. e-be-). The VC sequence would then be due to the loss of the second vowel of the VCV-sequence. However, there does not otherwise seem to be any evidence for pre-prefixes which would speak for the second hypothesis.

I have posited \*e as the vowel in 1C, 4C and 6C (cf. PB \*bî-). The lowering of the vowel to /a/ in several languages is curious. It may have been due to the presence of the glottal stop and/or by analogy with the V in 7V. The \*b has become ? (and Ø) with the exception of BBO where in some contexts the b is retained. ELU is unique in two respects: the noun prefix is zero (cf. 1C) and for unknown reasons, nasals are present in the set of concord prefixes. In BBO, the class 8 prefix has given rise to an f/h alternation root initially (cf. (27) in 3.2.2 and 3.2.4.3).

4.4.10 Classes nine and tenChart 4.13: Noun and concord prefixes in class 9

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*`n/`0	*ny`	*j`	*j	*0	*`n *èn	*è	*èj
MBM	n/0	ny			0			èy
MBN	n/0	ny	*	y	0	en	è	èy
MYE	n/0	ny	j	jw	0		è	iy
MBE	n/0	ny	j	j	0	n èn	è	èj
ELU	n/0	ny	j	j	0	n èn	è	èj
NNE	n/0	ny						èj
AKO	n/0	ny	c	c	0`	`n èn	è	èc
MHE	n/0	ny	j		0`	en	è	èj
MWK	n/0	y	j	j	0	n èn	è	èj
MKA	n/0	ny	j		0	èn	è	èj
BLN	n/0	ny	j	j	0	j?	è	èj
BBO	n/0	ny	j		0	in	ì	ìj
LEF	n/0	ny	*	y	0`	èn(i)	è	é
LEK	n/0	ny	*	z	0	nyín.nyíf	è	z

Chart 4.14: Noun and concord prefixes of class 10

	1C	1V	2V	3V	4C	5V	6C	7V
PM	*n/∅	*ny`	*j`	*j`	*e	*j *éj	*é	*éj
MBM	n/∅	ny						éy
MBN	n/∅	ny	*	y	é	ey	é	éy
MYE	n/∅	ny	j	jw̃	é		é	íy
MBE	n/∅	ny	j	j	é	j éj	é	éj
ELU	n/∅	ny	j	j	é	j éj	é	éj
NNE	n/∅	ny						éy
AKO	n/∅	ny	c	c	é	c éc	é	éc
MHE	n/∅	ny	j		é	j	é/é	éj
MWK	n/∅	y	j	j	é	j éj	é	éj
MKA	n/∅	ny	j		é	j	é	éj
BLN	n/∅	ny	j	j	é	j	é	éj
BBO	n/∅	ny	j		í	j	í	íj
LEF	n/∅	ny	*	y	é	y ye	é	é
LEK	n/∅	ny	*	z	∅(by?)	nyín,nyíí	é	z

Columns 1C and 1V (the noun prefixes), 2V (the reflexive pronoun prefix) and 3V (the pronoun prefix) are identical for classes 9 and 10 [13]. 6C (the verb prefix) and 7V (the possessive prefix) are segmentally identical in the two classes but differ as to tone: In class 9, there is a low tone, in class 10 a high tone. The demonstrative prefix (5V) has an alveolar nasal and low tone in class 9 but a palatal stop and high tone in class 10. The reconstruction of a low floating tone in the noun prefixes (1C) and demonstrative prefix (5V of class 9) is necessary because its presence is manifested in a downstep when it is immediately preceded and followed by a high tone. For the low tone of the noun prefix

(IV), cf. 2.5. The presence of the low floating tone in 5V (class 9) suggests that there was an earlier vowel which was lost in post nominal position, leading to the two separate forms in 5V.

In 7V, we have reconstructed the vowel as \*e. Perhaps at an earlier stage, it was \*a as in the other classes with changes as described for class 7.

The range of consonants following class 9 and 10 prefixes is very restricted compared with other classes. For a discussion of this topic, see 4.5 below.

#### 4.4.11 Class fourteen

Chart 4.15: Noun and concord prefixes of class 14

	1C	IV	2V	3V	4C	5V	6C	7V
PM		*bw`	*b	*b				
MBM	à	bw/b						(by)
MBN	à	by/b		d	à	d	á	ád
MYE	à	by/b	b	b	à		á	áb
MBE	à	bw/b	d	d	à	ád	á	ád(y)
ELU	ø	bw/b	b	b	ñ	b mb	ñ	mb
NNE	à/à?	bw/b						á?b
AKO	è?	bw/b	b	b	è?	b áb	é?	áb
MHE	è/è?	bw/b	d		è	d	é	éd
MWK	à	bw/b	dy	dy	à		á	ády
MKA	è?/è	bw/b	dy		è?	d	é?	éd(y)
BLN	è?/è	bw/b	d	d	è?	d	é?	éd(y)
BBO	í	bw/b	bw		í(+f)	b	í?	íb(w)
LEF	wù/wò	bw/b		bw/b	wù	bu	bí	wí
LEK	bè	b/z		b	bè	bá, hée	bé	b(w)

There are very few nouns which have the prefixes in IV. These prefixes are clearly related to PB \*bò-. For the prefixes in IC, it is difficult to suggest a reconstruction. The original \*bò- prefix may have had a similar development to the class 8 prefix, i.e. metathesis of CV- to VC-. The present day prefixes are now identical with the class 8 prefixes. This is probably due to analogical levelling with class 8 because of the formal similarity between the two classes. It should, however, be noted that class 8 is the plural of class 7, and class 14 a singular class with class 6 plurals.

MYE, ELU, AKO and BBO, as well as LEF and LEK, have retained the inherited class 14 concords as is indicated by the presence of forms with b. The other languages appear to have merged the nouns from class 14 with the nouns in class 5. This is indicated by the fact that they now take concord from that class (cf. the presence of concord prefixes with d). This merger is not totally unusual since both class 14 and class 5 have class 6 as plural class. However, it appears that the noun prefixes are kept distinct at least in some of the languages. As indicated in 4.4.9, the nasal in the ELU forms seems out of place in class 8 and 14 but it appears that these two classes had a similar development even though one is plural and the other singular.

4.4.12 Classes nineteen and thirteenChart 4.16: Noun and concord prefixes of class 19

	1C	1V	2V	3V	4C	5V	6C	7V	
PM		*hy <sup>h</sup>							
MBM		šw/šy						éy	
MBN		šw							
MYE		sw/sy/s						áb	
MBE		š	(d)	d	à	d	ád	á	ád
ELU		hw/hy							
NNE		hy						á?bw	
AKO		hy	b	b	è?	b	áb	é?	áb
MHE		y			ě				(ěd)
MWK		š	dy	dy	à		á		ády
MKA		y							ěd(y)
BLN		y	d	d	è?		é?		ěd(y)
BBO		y							
LEF		fy							
LEK		šw/šw̄		l		dín, díi			bw

Chart 4.17: Noun and concord prefixes of class 13

	1C	1V	2V	3V	4C	5V	6C	7V
PM		*l <sup>~</sup>						
MBM		l		d				
MBN		l			ã		ã	ãd/ãl
MYE								
MBE		l	(m)		õ	m õm	õ	õm
ELU		l						
NNE		l						ãd
AKO		l	d	d	ã	d ãd	ã	ãd
MHE		l						(ẽd)
MWK		l	dy	dy	ã		ã	ãdy
MKA		l						ẽd(y)
BLN								
RBO		y						
LEF		du?						
LEK		l				bá, bée		l

Gender 19/13 contains only about half a dozen nouns, all of them being V-initial stems which is the reason why there are no prefixes under 1C. The answer to the question why there are no C-initial stems in this gender may lie in the different development of the prefixes before the two different stem types (cf. 5.3.5). The prefixes before C-initial stems probably lost the C (CV- > V-). Such nouns then might have merged with another gender leaving no trace at all.

It was extremely difficult to elicit material on the concord system of these two classes, which is reflected in the sparseness of material in the charts. From what has been

recorded, it appears that class 19 (singular) nouns in MYE, NNE and AKO have the same concord as class 14, whereas MBE, MHE, MWK, MKA and BLN have class 5 concord. The class 13 (plural) nouns have the same concord as class 5 (singular) with the exception of MBE which has class 6 concord. It would be too hazardous to guess what the original concord was for these classes. The noun prefixes on the other hand can clearly be related to the PB reconstructions \*pī- 'class 19' and \*tò- 'class 13' (Meeussen 1967:97).

#### 4.4.13 Traces of other classes

There are traces of two more PB classes found. In (A409), the h- "prefix" apparently comes from a PB class 16 prefix \*pa- (Grégoire 1975:115). In locative adverbs, AKO h- and w- appear to come from PB \*pa (cl. 16) and \*ku- (cl. 17) respectively (Hedinger 1983a:19).

#### 4.5 Classes 9 and 10 reconsidered

Classes 9 and 10 nouns have some peculiarities not found in other classes. In 4.4.10 the prefixes were reconstructed as \*`n-, \*`0- and \*ny`- where the first two occur before C-initial stems and the last before V-initial stems. To be more precise, the co-occurrence of prefix with stem initial C or V is as in chart 4.18.

Chart 4.18: Co-occurrence of class 9/10 prefixes with root  
initial consonant or vowel

classes 9,10 /\*<sup>h</sup>n-\_\_: \*b \*d \*j \*g

classes 9,10 /\*<sup>h</sup>∅-\_\_: \*p \*t \*s \*k (\*l)

classes 9,10 /\*ny<sup>h</sup>-\_\_: V

classes 1,3,4 /\*<sup>h</sup>m-\_\_: \*b \*d \*j \*p \*t \*k \*f \*s \*l \*w

Chart 4.18 indicates that only voiced stops may follow the class 9/10 nasal prefix, whereas any consonant [14] may follow the nasal prefix of classes 1, 3 and 4. Only voiceless C's may have the ∅-prefix. Also notable is the absence in class 9/10 of stems with initial \*f, \*w and \*l. (There is just one item, (A367), with an initial l in gender 9/10.) There are no nasal-initial stems in classes 9 and 10, but these are rare in any class. There is a question whether the \*ny- should be considered as a prefix (e.g. ny<sup>h</sup>-ǎn 'fingernail') or rather as part of the stem (e.g. ∅-nyǎn), both synchronically and diachronically. Synchronically, one reason for separating the /ny/ from the stem is the fact that palatal nasals occur predominantly in class 9 and 10 nouns word initially which suggests it is a prefix. Another reason is that nouns in all other classes have a prefix, so it is natural to expect a prefix here as well. The argument from tone (see end of 2.5) also supports splitting of the ny<sup>h</sup>-. On the other hand, it would be equally defensible that the ny should be considered part of the stem because segmentation is only suggested by analogy with nouns of other classes, not because the putative prefix commutes with another prefix.

In PB reconstructions, we find a similar tension. Meeussen reconstructs the class 9/10 prefix as \*n- or \*ny- and the stem for 'animal' as \*-nyàmà in one place (1967:97, 101) and \*-(ny)àmà or \*-(j)àmà in another (1969:4.1). Guthrie (1967-71) has \*ny- as prefix and \*-yàmà/\*-nyàmà 'animal'.

One reason for considering ny- as prefix, at least historically, is the fact that it is always associated with an initial low tone, which suggests a prefix origin of the tone. By separating off ny- as prefix, we are left with a V-initial stem. It cannot, however, be ruled out that in some cases an ny- prefix merged with a ny-initial stem.

The nasal-stop sequences in chart 4.18 pose a similar problem for segmentation. Diachronically, they are clearly separable into prefix plus C1 of the stem. However, synchronically a case can be made for an analysis in which these sequences are interpreted as one C, i.e. as prenasalised stops mb, nd, nj and ng. There are several reasons for this analysis. Phonetically, these sequences differ from the similar sequences in classes 1, 3 and 4 where the nasal is syllabic and carries a low tone. Here, the nasals are not syllabic but a low tone can be perceived. T.L.Cook has reported a similar situation in Mbonge (A.11e).

"The nasals ... do not sound syllabic. However, they do seem to have their own tone, at least sometimes. Probably, they should not be considered syllabic, and the tone, where different from the following vowel, should be treated as a floating tone which comes before" (Williamson 1973:xvi).

And Hyman (1972:60), when referring to Ø-prefixes in his study of Fe?fe? (Eastern Grassfields Bantu) speaks of the impression of "a low tone breath".

I have not observed any additions of new lexical items to gender 9/10 by prefixing a nasal, which suggests that the  $\widehat{NC}$  clusters are not separable. The addition of loanwords with initial voiceless stop requiring a Ø-prefix on the other hand is very common.

It should also be noted that the [g], [z] and [bɥ] in some languages only occur in reflexes of these prenasalised stops in C1 position.

What is significant is the fact that there are always only four such  $\widehat{NC}$  clusters found in classes 9 and 10. This is actually so widespread in Bantu and related languages that it has to be considered a very old feature. Many linguists analyse these four prenasalised consonants as a set parallel to the oral and nasal stops (cf. 2.2.3).

By adopting such an analysis for each of the Manenguba languages, we would be led to reconstruct a set of  $\ast\widehat{NC}$  consonants for PM in C1 position (cf. chart 4.19 and chart 2.7).

Chart 4.19: C1 consonants of PM in two analyses

<u><math>\widehat{NC}</math> analysis</u>				<u>N-C analysis</u>			
*p	*t		*k	*p	*t		*k
*b	*d	*j		*b	*d	*j	*g
*f	*l	*s	*w	*f	*l	*s	*w
*m	*n	*ny		*m	*n	*ny	
*mb	*nd	*nj	*ng				

In the  $\widehat{NC}$  analysis, there is an extra set of four phonemes. The voiced stops of the N-C analysis are divided between the prenasalised stops and the voiced stop series of the  $\widehat{NC}$  analysis, except \*g which is only found in the  $\widehat{NC}$  series.

The presence of zero rather than a nasal prefix before voiceless stops is probably best explained via devoicing and loss of an earlier nasal:  $\text{`n-p...} > \text{`ŋ-p...} > \text{`∅-p...}$ . A low tone is still present in the form of a floating tone. This low tone may be analysed in either of two ways. Either the low tone is considered as the class prefix: e.g.  $\text{`-kú}b$  or  $\text{`∅-kú}b$  'chicken', or it could now be considered as totally integrated into the prefix-less stem form: e.g.  $\text{`kú}b$ . Similar options are available for  $\widehat{NC}$  initial nouns:  $\text{`n-dá}b$  versus  $\text{`-ndá}b$  or  $\text{`ndá}b$  'house'. We have chosen to segment the class 9/10 prefixes as given in chart 4.18 in order to facilitate comparison with PB forms. This does not mean that in a purely synchronic description a different analysis might not be chosen.

The above discussion has shown that between the proto-language (PB?) in which classes 9 and 10 clearly had a nasal prefix, and the present day languages, a restructuring has taken place. The problem faced in a study like this is at what point in history to place the restructuring process. Should restructured intermediate stages be reconstructed, or should the earliest state without the restructuring be carried right through to the present? This question is, of course, part of the abstractness debate and will not be pursued further here.

## FOOTNOTES TO CHAPTER FOUR

- [1] Mass nouns and liquids do occur in a plural class or with numerals. In such cases, reference is to different types of the entity in question.
- [2] Not attested in Manenguba languages are 11/10 and 12/13, cf. Meeussen (1967:100).
- [3] We have termed "qualifiers" a small number of words with adjectival meanings. Adjectival ideas are usually expressed by verbal forms taking concord and tense affixes, or by nominal forms not being controlled by the class of the head noun. What makes the qualifiers different is that they take no tense markers but take concord prefixes according to the class of the head noun.
- [4] AKO has two 1pl verb prefixes: *dè-* '1pl (inclusive)' and *sè-* '1pl (exclusive)' (Hedinger 1981:288-9). It is not clear whether these are historically derived from the same original form or from two separate proto-items.
- [5] I do not have data for the 1st and 2nd person except in AKO where they are as follows:  
*mmě̀n* '1sg', *mṑŋ* '2sg', *mw`-ě̀n* '3sg = class 1',  
*sě̀bě̀n* '1pl', *nyibě̀n* '2pl', *b`-ě̀n* '3pl = class 2'.
- [6] For 1st and 2nd person pronouns, see (A484, A485, A487 and A488). For more details on pronouns in AKO, see Hedinger (1981).
- [7] An exception to this is the (2nd person) singular imperative which has no prefix.
- [8] For AKO and probably for other languages as well, the situation as far as the verb prefixes is concerned is more complex. The prefixes given in the charts are those in pre-root position. AKO has another set occurring when the root is preceded by tense and negative markers. Cf. Hedinger (1980:1-2 and 21)
- [9] In AKO (and some or all the other languages?) the possessive pronoun prefix is also used as the concord prefix of the relative pronoun not covered in this study. It is not inconceivable that the possessive pronouns ultimately derive from a relative pronoun plus a person pronoun.
- [10] The associative (genitive) marker is also part of the noun class concord system. However, we have not included it in this study because of the fact that these markers are in many cases reduced to a tone only.
- [11] In BBO, the vowels recorded in prefixes ranged from [ɛ] to [e] and [i]. However, the informants repeatedly insisted that the vowel is [i].
- [12] The following example provides evidence that the noun prefix form is "intruding" into the concord. We recently

recorded AKO é²bàb è²-wándé instead of the more usual ábàb è²-wándé 'our wives/fiancées' (cf. áb- in 7V and è²- in 1C).

[13] There is only one noun in gender 9/10 which has a sg/pl distinction in the noun itself: mbwé/mbyé 'dog/dogs'. PB is \*-bóà. It is conceivable that a sg/pl distinction was introduced into this root by analogy with gender 3/4. Cf. the discussion of a similar case in 4.4.5.

[14] Nasal initial noun stems are extremely rare. Perhaps this supports Stewart who said that he knew "of no evidence from anywhere in the entire Volta-Congo area that the proto-language had nasal consonant phonemes" (1976a:15).

## CHAPTER FIVE

PROTO-MANENGUBA AND PROTO-BANTU5.1 Introduction

In chapter 2, we reconstructed the consonants, vowels and tones for Proto-Manenguba. This allowed us to propose proto-forms for PM morphemes as given in appendix 1 (and chapter 4). The question may now be asked about PM's resemblance to Proto-Bantu, especially as far as the phonology is concerned. The main purpose of this chapter is to compare the consonants, vowels and tones of PM with PB and draw certain conclusions from this comparison. The most interesting area of comparison is that of the consonants, especially as they relate to the PB stops (5.3). In 5.2, we will give a general introduction to the problem which is found in north-west Bantu languages and solutions put forward by different authors: double reflexes of PB stops versus two originally distinct stop series. In 5.4, we will consider pairs of lexical items in AKO which appear to reflect a former morphophonemic relationship involving the pairs of stops focussed on in 5.3. Certain observations about tone are discussed in 5.5. In the remaining sections (5.6 and 5.7), the vowels and tones of PM and PB will be discussed.

In treatments of Bantu languages in relation to PB, it is usually the case that PB is looked upon as the

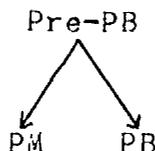
ancestor language from which the particular language or group of languages in question (as for example PM) is derived. This may be diagrammed as in (1).

(1)



This concept of the relation between PB and PM appears quite adequate as far as vowels and tones are concerned. However, when considering the consonants of PM, a diagram like the following appears to be more adequate to depict the relationship between NW-Bantu languages and PB.

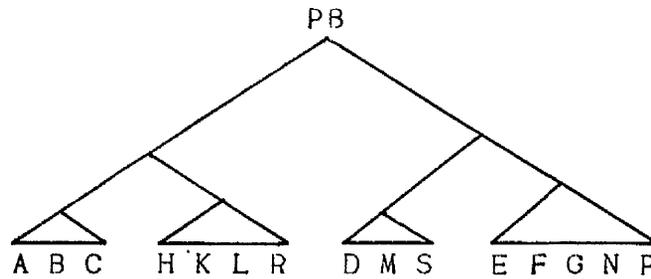
(2)



In other words, PM consonants cannot be predicted on the basis of PB (as usually conceived of) alone. Only from reconstructions for something like Pre-PB based on the Bantu languages of the north-west and PB will it be possible to predict the consonants of the languages in the north-west and of PB. It has been recognized for some time that the languages in the north-western part of the Bantu area are considerably different from the rest of the Bantu languages and it has become clear that earlier work had been heavily weighted in favour of central or eastern Bantu (Dalby 1975:488).

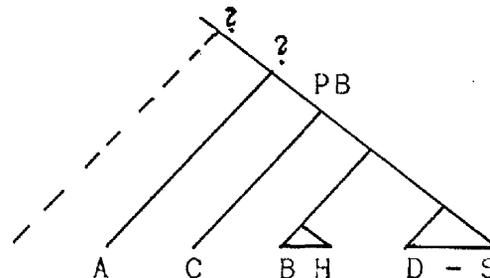
Guthrie (1967-71.II:27) thought the relationship of the Bantu languages to be in outline as follows (capital letters refer to his zones [1], cf. map 5).

(3)



The now generally accepted lexicostatistical classifications of Bantu languages by Henrici (1973) and Heine (1973) (cf. also Bastin et al. (1979 and 1983)) indicate on the other hand that the Bantu languages in the north-west were the first to have split off. This may, in simplified fashion, be represented as follows (based on Heine (1973) and Henrici (1973)) [2]. Dalby (1975:496), in fact, made the suggestion that Guthrie's PB represents a stage after the zone A languages became separate.

(4)



Against such a background it is not surprising to see renewed interest in the languages of Cameroon and their relationship to the rest of the Bantu languages (cf. 1.6). It is hoped that this chapter will make a contribution to this area of investigation.

## 5.2 north-west Bantu "Double reflexes" of PB in north-west Bantu

Taking his own reconstructions of PB as the starting point, Guthrie (1967-71.II:30ff) showed that languages from his zone A frequently have two reflexes for the voiceless

stop consonants \*p, \*t and \*k, and in one case also for the palatal \*c. This may be illustrated with the following examples:

Chart 5.1: "Double reflexes" in NW Bantu

PB		*p	*t	*c	*k
Duala (A.24)	a)	p	t	s	k
	b)	w	l	s	∅
Kombe (A.33b)	a)	p	t	s	k
	b)	b	l	g	∅
Banɛn (A.44)	a)	f	t		∅
	b)	h	l		∅

Cognate items reconstructed with, for example, \*p by Guthrie have either p or w in Duala, p or b in Kombe and f or h in Banɛn. Similarly for the other stops as presented in chart 5.1.

Theoretically, there are different possible explanations. Presented in the above form, a split of the original phoneme into two appears to be the obvious solution. One would naturally look for a conditioning factor in the environment responsible for the split of the proto-phoneme. This was Guthrie's solution.

5.2.1 The phonemic split solution

Guthrie (1967-71.I:58,II:30ff) considered a vowel length distinction in the environment of the consonants concerned to be the conditioning factor. He found that in some correspondence series there is a correlation between the occurrence of the two kinds of reflexes and long or

short vowels. The a)-sets in chart 5.1 occurred before and after long vowels and the b)-sets before (and after?) short vowels.

However, because of the apparent loss of the long/short distinction in many Bantu languages, including the ones which have the "double reflex", Guthrie reconstructed a long vowel where the reflexes in the a)-set occurred even when there was no long vowel present in the correspondence series due to lack of data from languages which have a long/short distinction (Guthrie 1967-71.I:58). There does not appear to be any objection to this if the vowel quantity was responsible for this putative split.

One possible objection to Guthrie's solution, however, is the question whether a split of the kind envisaged, e.g. \*p > p versus \*p > w, could have taken place in a long versus short vowel environment? Is it phonetically plausible that a short vowel should cause stop consonants to weaken? Do long vowels favour the retention of stops?

The validity of Guthrie's hypothesis depends also on the status of vowel length in PB. In this connection, the following statement by Meeussen may be quoted in full:

"Almost all the reconstructions with long vowels presented here [i.e. in Meeussen's article, R.H.] are verbs, and many of them are secondary, which suggests that long vowels in Proto-Bantu were not a completely independent phenomenon. But without further data it is impossible to decide whether this is indicative of a contrast in the process of being lost or whether it reflects an incipient development" (1979:6-7).

It appears that this state of affairs considerably weakens Guthrie's position.

As will be seen in 5.4, certain roots have alternants with both reflexes which would require the reconstruction of two roots for the same item, one with a long vowel and the other with a short vowel (cf. for example, (A1) \*`pɔ̃g/\*`-fɔ̃g 'one'). These appear to suggest that the cause of this apparent split has to be sought elsewhere.

Guthrie's hypothesis, however, does have the merit that it points to a certain correlation between vowel length and these sets of consonants. This correlation, if it is regular, certainly calls for an explanation.

#### 5.2.2 The lenis/non-lenis solution

Another approach to the "double reflex" problem has been taken by Leynseele and Stewart (1980) and Gerhardt (1983). Their approach may be termed the "lenis/non-lenis" solution. Under this approach, it is assumed that the two sets of reflexes go back to a lenis/non-lenis distinction in the proto-language.

It has been found necessary to reconstruct such a lenis/non-lenis distinction to account for the derivation of the synchronic systems of several Niger-Congo languages. Stewart concluded in 1973 as follows:

"It appears ... that proto-Volta-Bantu (the latest common ancestor of the Bantu languages, the Volta-Comoe [3] languages and the Potou Lagoon [4]

languages) had four sets of stops: unvoiced nonlenis ('aspirated'), unvoiced lenis ('unaspirated'), voiced nonlenis ('explosive') and voiced lenis ('implosive')" (1973:42).

He appears to have recognized at least the following stops.

Chart 5.2: Proto-Volta-Bantu stops

(Stewart 1973:34-36)

nonlenis	*p	*t	*k
lenis	*'p	*'t	*'k
nonlenis		*d	
lenis		*'d	

Interestingly, in 1973, Stewart did not yet think that PB had a lenis/non-lenis distinction, but rather that the lenis/non-lenis distinction "was neutralized in the process of change from proto-Volta-Bantu to proto-Bantu" (1973:37). More precisely, he considered that there was "a merger of the nonlenis stops with the lenis stops" (1973:39) resulting in PB lenis stops.

However, in an article published in 1980, this position was clearly revised. Based on Tunɛn (= Banɛn, A.44), which has the "double reflexes" mentioned above, Leynseele and Stewart (1980:428) reconstruct a fortis/lenis distinction for PB. The following chart shows the reconstructed stops and the corresponding reflexes in Tunɛn.

Chart 5.3: Proto-Bantu stops and reflexes in Tunɛn

(Leynseele and Stewart 1980)

	<u>Proto-Bantu</u>			<u>Reflexes in Tunɛn</u>		
fortis	*p	*t	*k	f	t	k
lenis	*'p	*'t	*'k	h	l	∅
fortis	*b	*d		b	l	
lenis	*'b	*'d		f	n	

It should be noted that in this approach the "double reflexes" are no longer double reflexes but rather a direct reflection of an earlier fortis/lenis contrast. Also, the distinction is not limited to the voiceless consonants as appears to be the case in Guthrie's discussion but extends to the voiced consonants as well. The absence of voiced velar stops is perhaps due to the limitation to only one language.

In a so far unpublished paper presented at the Conference on African Linguistics in Leiden in 1983 (at which I was not present), Gerhardt gave a reconstruction of "Pre-Bantu" stops apparently based on Tunɛn (A.44), Punu (H.43) and Mbe ("Nigerian Bantu"). His reconstructed roots are made up of the following stop consonants which include voiced velar stops. (Note the change in symbolization of lenis stops from Stewart's \*'p, \*'t, etc. to Gerhardt's \*ph, \*th, etc., which should not be confused with aspirated stops.)

Chart 5.4: Pre-Bantu stop consonants

(Gerhardt 1983)

fortis	*p	*t	*k
lenis	*ph	*th	*kh
fortis	*b	*d	*g
lenis	*bh	*dh	*gh

It is not clear from the paper what time depth is intended by the term "Pre-Bantu". However, these sets of stops are in effect comparable to Stewart's sets proposed for Proto-Volta-Bantu.

Elugbe and Williamson (1976:348-351), focussing primarily on the nasals, reconstruct a fortis/lenis distinction for nasals in Proto-Benue-Kwa (PBK). (PBK is introduced to combine the Benue-Congo and Kwa groups and is "equivalent in scope to Stewart's 'Volta-Bantu'" (1976:348)). The nasals reconstructed for PBK are m, mh, n, nh, ŋ, and they have the following distribution:

Chart 5.5: Nasals in Proto-Benue-Kwa

(Elugbe and Williamson 1976)

	<u>C1 position</u>	<u>C2 position</u>
fortis	*m    *n	*ŋ
lenis	*mh   *nh	*mh   *nh

A fortis/lenis distinction in nasals has been reported for Cross River languages (Bendor-Samuel and Spreda 1969) and Kwa languages (Elugbe 1980). I am not aware that a distinction in Bantu nasals which could be traced back to a fortis/lenis distinction has been discussed in the

literature. Material on the fortis/lenis distinction in PBK nasals is included here in order to provide a basis for raising certain questions on the PB nasals in 5.3.2 below.

In all the reconstructions of stops referred to above, no consideration seems to have been given to the question of the reconstruction of palatal stops. In each case, reconstructions are limited to labial, alveolar and velar stops. However, since palatal stops [ʃ] have been reconstructed for PB, and Kombe (A.33b) has a "double reflex" of the voiceless palatal stop (cf. chart 5.1), the question naturally arises as to the time depth for which palatal stops have to be reconstructed (i.e. Pre-Bantu or PBK, etc.) and whether the fortis/lenis distinction is also relevant at the palatal point of articulation.

Palatals in the different (proto-)languages considered by Stewart (1973) appear to be derived from velars, which makes it unnecessary to reconstruct palatals. Elugbe (1980:41), on the other hand, reconstructed at least the following palatals \*c, \*ch and \*j for Proto-Edoid (Kwa group). In this connection it is interesting to note that Meinhof (1910) used underlined velars and alveolars to represent reconstructed palatals. Whether there was any linguistic basis to this convention or a purely arbitrary choice due to the lack of appropriate symbols would need further study.

In conclusion, it appears that the lenis/non-lenis or fortis/lenis hypothesis to the "double reflexes" is to be preferred over Guthrie's vowel length hypothesis for at least the following reason: Since a fortis/lenis distinction can be reconstructed for a stage older than Proto-Bantu on

the basis of groups or sub-groups other than Bantu, it is not unexpected that there should be traces in either Proto-Bantu or even present day Bantu languages.

### 5.3 PM and PB consonants

In 5.1 it was expressed that normally, when studying a Bantu language in relation to Proto-Bantu, PB is taken as primary and the Bantu language in question considered as derived from it. In this section, our own reconstructions of Proto-Manenguba (PM) roots and the PB reconstructions by Guthrie (1967-71.III-IV) [6] and Meeussen (1967, 1969) will be used in order to establish the sound correspondences between the two. On the basis of these correspondences, reconstructions of consonants going further back in time than PB will be proposed.

Below, several examples for each different PM - PB correspondence are given with the PM roots on the left and the PB roots on the right. The numbers preceding each example have the following significance: For PM, the numbers refer to the sets of cognate roots and reconstructions given in appendix 1. The numbers preceding PB examples refer to Guthrie's "Comparative Series" in his Volumes III and IV. An (M) in brackets indicates that the PB root is taken from Meeussen (1969) or, in a few cases, from (1967). The additional numbers after each set of examples are references to further examples of that correspondence found in appendix 1.

5.3.1 PM - PB correspondences in CI position

First, we will focus on the root initial consonants.

(5) \*p - \*p correspondences

(A82) \*píḡ` 9/10 'kidney' (1549) \*-píḡḡ

(A233) \*pěé 9/10 'viper' (1513) \*-pédè 9/10

(A629) \*-pèb 'fan' (1489) \*-pèèp-

(A1, A48, A77, A139, A179, A221, A268, A411, A545, A594, A638, A700, A702)

(6) \*t - \*t correspondences

(A73) \*tól` 9 'chest' (1822) \*-tódḡ 9/10

(A481) \*-tón 5/6 'spot' (1785) \*-tóná (1786) \*-tónĩ

(A556) \*-tód 'pick up' (1773) \*-tḡḡd-

(A5, A6, A16, A49, A96, A313, A345, A350, A364, A473, A508, A568, A596, A599, A663, A671, A709)

(7) \*s - \*c correspondences

(A34) \*-sòn 3 'flesh' (416) \*-cònĩ 3/4

(A36) \*-sìj` 3/4 'vein' (349) \*-cìcá 3/4

(A657) \*-sìj 'frighten' (348) \*-cìc-

(A7, A18, A39, A43, A52, A56, A87, A154, A178, A277, A342, A406, A514, A523, A567, A602, A632, A650, A668, A531)

(8) \*k - \*k correspondences

(A60) \*kínḡ` 9 'neck' (1086) \*-kínḡḡ

(A214) \*kém 9/10 'monkey' (1058) \*-kémà

(A124, A166, A226, A237, A257, A259, A263, A280, A290, A330, A387, A393, A434, A588, A640, A691)

(9) \*f - \*p correspondences

(A25) \*-fáj` 1/2 'twin' (1407) \*-pácà

(A327) \*-fén 3/4 'handle' (1521) \*-pénĩ 3/4

(A535) \*-fèm 'breathe' (1468) \*-pèèm-

(A1, A37, A148, A204, A327, A394, A398, A425, A464, A475,

A498, A505, A539, A595, A606, A664)

(10) \*l - \*t correspondences

(A78) \*-lém 3/4 'heart' (1738) \*-témà

(A201) \*-lǎǎ 5/6 'stone' (1642) \*-tǎdè 5/6

(A639) \*-lú 'forge' (1861) \*-túd-

(A3, A38, A57, A162, A181, A314, A335, A367, A379, A455,  
A539, A566, A570, A591, A604, A621, A634)

(11) \*w - \*k correspondences

(A560) \*-wóm 'scratch' (1134) \*-kóm̃- 'scrape'

(A572) \*-wǎ 'die' (1249) \*-kú-

(A644) \*-wón 'sow' (1217) \*-kón-

(A641)

(12) ∅ - \*k correspondences

(A10) \*-óm̃ 5/6 'ten' (1208) \*-kóm̃ 5/6

(A299) \*-úl 6 'oil' (1278) \*-kútà

(A348) \*-ón 19/13 'firewood' (1218) \*-kóñ

(A31, A105, A161, A260, A334)

(13) \*b - \*b correspondences

(A9) \*-bùg' 5 'nine' (M) \*-bùkǎ ?

(A72) \*-búj 9/10 'back' (223) \*-búcà 9 (139) \*-bícà

(A95) \*-bóñ 5/6 'knee' (170) \*-bóñg 5/6

(etc.)

(14) \*d - \*d correspondences

(A177) \*-dǎb 9 'earth' (639) \*-dǎbǎ 'soil, world'

(A282) \*-dóñ 9 'pepper' (718) \*-dóñg 10

(A575) \*-dùl 'pull' (749) \*-dùt-

(A185, A282, A382, A423, A461, A525, A587, A617, A674)

(15) \*j - \*d correspondences

(A30) \*-jóm 1/2 'husband, male' (697) \*-dómè

(A55) \*-jém 7/8 'tongue' (572) \*-démí

(A551) \*-jùm 'smell, stink' (742) \*-dùm-

(A45, A59, A200, A207, A317, A369, A381, A451, A480, A482, A533, A551, A590, A598, A647, A655, A669, A701)

(16) \*i - \*j correspondences

(A199) \*-jèè 9/10 'path, road' (940) \*-jèdà

(A256) \*-jòò 14 'honey' (962) \*-jókè 14 (2159) \*-yókè

(A604) \*-jém 'sing' (M) \*-jém-

(2009) \*-yémb-

(A45, A118, A210, A375, A419, A483, A609, A672)

(17) ∅ - \*j correspondences

(A26) \*-án 1/2 'child' (M) \*-jānà

(A50) \*-íj 5/6 'eye' (M) \*-jícò 5

(2030) \*-yícò 5/6

(A231) \*ny`-s̄ 9/10 'snake' (M, 952) \*-jókà 9 (2112) \*-ny..

(A32, A41, A47, A101, A123, A138, A182, A205, A213, A255, A355, A371, A372, A377, A385, A409)

(18) \*k - \*g correspondences

(A35) \*-kíf 6 'blood' (824) \*-gĩdà 6

(A94) \*-kòò 7/6 'leg' (884) \*-gòdò 3/4

(A392) \*-kùl 'be sick' (M) \*-gud-

(A33, A108, A115, A147, A165, A175, A202, A269, A273, etc.)

(19) \*g - \*g correspondences

(A119) \*-gàn 9 'native doctor' (M, 786) \*-gàngà 1/2, 9/10

(A143/4) \*-gǎn 9/10 'moon, month' (M, 855/6) \*-gǎndè/è 9

(A223) \*-gòó 9/10 'pig' (887) \*-gòó

(etc.)

(20) \*Ø - \*g correspondences

- (A328) \*-óŋ 7/8 'hoe' (901) \*-góŋgò  
 (A372) \*-àm 5/6 'event, affair' (771) \*-gàmbò  
 (A121) \*-àŋgà 14/4 'medicine' (787) \*-gàŋgà 14

(-)

(21) \*m - \*m correspondences

- (A521) \*-mòj 'left side' (1316) \*-mócó  
 (A527) \*-mwá 'drink' (1332) \*-mú-  
 (A528) \*-mèè 'swallow' (1294) \*-mèd-  
 (A661, A685)

(22) \*n - \*n correspondences

- (A4) \*-nììn 'four' (1353) \*-nì  
 (A92) \*-nàm 5/6 'thigh' (1339) \*-nàmà 7/8  
 (A258?, A490)

(23) \*ny - \*ny correspondences

- (A20) \*nyàŋ 9 '(his) mother' (1389) \*-nyàŋgó 1a/2  
 \*nyàŋ-V 1a/2 '(his) mother'

The PM - PB correspondences (5) to (23) above may be displayed as follows:

Chart 5.6: PM - PB correspondences in C1 position

- |              |              |                |              |
|--------------|--------------|----------------|--------------|
| (5) *p = *p  | (6) *t = *t  | (7) *s = *c    | (8) *k = *k  |
| (9) *f = *p  | (10) *l = *t |                | (11) *w = *k |
|              |              |                | (12) Ø = *k  |
| (13) *b = *b | (14) *d = *d | (16) *j = *j   | (18) *k = *g |
|              | (15) *j = *d | (17) Ø = *j    | (19) *g = *g |
|              |              |                | (20) Ø = *g  |
| (21) *m = *m | (22) *n = *n | (23) *ny = *ny |              |

According to the hypothesis in 5.2.1 each PB root in (5), (6) and (8) would have to have a long vowel (VV). Conversely, the third example in (9) above should have a short V.

In the light of 5.2.2, it appears that the correspondences (5), (6) and (8) (cf. chart 5.6) as contrasting with the correspondences (9), (10) and (11)-(12) are best reconstructed as non-lenis and lenis proto-sounds respectively. The correspondence sets (11) and (12) are in complementary distribution, with (11) occurring almost exclusively in verbs and (12) only in nouns [7]. They are, therefore, probably the reflexes of the same proto-phoneme.

The distinction "noun" versus "verb" is made here on the basis of the fact that it is only the initial consonant of nouns but never of verbs that has been lost in PM (cf. (12), (17) and (20)). The loss of C1 must be attributed, in part, to the fact that the noun prefixes (singular or plural) are never separated from the stem, i.e. are strongly tied to it. In verbs, on the other hand, a large range of affixes may precede the stem, including tense and negative markers, or there is no prefix at all as in the case of the 2nd ps sg imperative. To put it more formally, one might say that the root initial boundary of nouns is weaker than that of verbs.

Whether (14) and (15) should be viewed as reflexes of one or of two phonemes in the proto-language is not clear from the evidence on hand. It almost appears as if (14) only occurs following the class 9/10 nasal prefix or preceding high vowels and (15) elsewhere. But there are exceptions to

this as can be seen from the illustrative material given in (14) and (15) above (note especially the verbs).

Another difficulty with (15) is to find a plausible explanation for the apparent change from an alveolar to a palatal in the "elsewhere" environment. Placing (15) into the palatal column, i.e. assuming the original sound to have been palatal, would have created another difficulty: why would the palatal have become \*d in PB in (15) but not in (16)? It would therefore seem safer to keep (14) and (15) distinct at least until the exceptions can be explained.

(16) and (17) are clearly distinct and taken to be reflexes of non-lenis and lenis proto-phonemes respectively.

(19) is in complementary distribution with both (18) and (20), with (19) being limited to the position following the class 9/10 nasal prefix. (18) and (20) are clearly contrastive in that both occur in the same noun classes. (18) and (19) are grouped together as separate reflexes of the same non-lenis proto-phoneme. It should be noted that example (A119) in (19) and (A121) in (20) involve the same proto-root. The presence of this root in both (19) and (20) may be explained in terms of our discussion in 5.4, or a merger of non-lenis and lenis \*g after the class 9/10 nasal prefix.

Nasals in C1 position are relatively rare.

After the preceding discussion, correspondences in chart 5.6 may now be rewritten as lenis and non-lenis stops and nasals.

Chart 5.7: Pre-PB consonants in Cl position

non-lenis	*p	*t	*c	*k
lenis	*'p	*'t		*'k
non-lenis	*b	*d	*j	*g
lenis		*'d	*'j	*'g
nasals	*m	*n	*ny	

The convention "Pre-PB" is used to indicate that these reconstructions are based on correspondences between PM and PB and are therefore meant to go further back than PB.

Whether \*c should be in the lenis or non-lenis row is not possible to determine. If it is assumed that the lenis sounds are more likely to become continuants, then the palatal would have to be in the lenis row. There is of course also a possibility that there was a lenis/non-lenis contrast for voiceless palatal stops, the difference having disappeared before Pre-PB.

The voiced stops require several comments. There is no lenis/non-lenis contrast for the labials and so there is the choice of placing the \*b in either of the two rows. On the evidence in charts 5.3 and 5.4, one would have to assume that the distinction between \*b and \*'b neutralized in both PM and PB.

The most difficult issue here is whether (15) should be considered the reflex of \*'d.

There is an apparent  $\emptyset$  - \*d correspondence in (A80) which, if the PM and PB items are truly cognate, would be another example of the lenis \*'d.

Besides the above correspondences, there are the

following examples of somewhat less usual correspondences which call for an explanation.

(24) \*ny - \*j correspondences

- |                              |                            |
|------------------------------|----------------------------|
| (A549) *-nyén 'see'          | (1969) *-yén-              |
| (A654) *-nyég-.. 'learn'     | (1994) *-yég- (M) *-jég-   |
| (A692) *-nyán-V 'dry in sun' | (1924) *-yáneK (M) *-jáneK |

(25) \*w - \*j correspondences

- |                             |                         |
|-----------------------------|-------------------------|
| (A550) *-wóg 'hear'         | (2152) *-yóg-           |
| (A651) *-wóg 'wash'         | (2107) *-yóg- (M) *-jóg |
| (A658) *-wǝǝ 'laugh'        | (948) *-jǝǝ-            |
| (A694) *-wál 'warm oneself' | (2136) *-yǝt-           |

(cf. also A660)

(26) \*ny - \*k correspondences

- |                     |              |
|---------------------|--------------|
| (A597) *-nyǎŋ 'fry' | (1009) *kǎŋ- |
|---------------------|--------------|

In (24) and (25), the PB reconstructions have either an initial \*y or \*j. It appears that the two are to some extent equivalent and therefore we consider these to be PB \*j [8].

The correspondence sets (24) to (26) most likely do not represent any new proto-phonemes but may be regarded as reflexes of existing sounds in chart 5.7. (24) and (25) are probably reflexes of the lenis palatal \*'j which became  $\emptyset$  in nouns in PM but became a palatal sonorant before becoming [+hi +back] before back vowels (cf. (25)), and nasal elsewhere (cf. (24)). The nasal in C2 may have also played a role in the development of \*'j > PM \*ny. However, the second example in (24) has no nasal as C2. Therefore, another reason for \*'j to have become nasal may be attributed to the fact that \*ny was an already existing palatal sonorant with

which the weakening palatal \*'j could merge [ɟ].

The correspondence in (26) for which we have only one example may be a special case of (11) above, i.e. a lenis velar \*'k > w. The w (= C[+son +hi +back -nas]) then became [-back] (/\_\_V[-back]?) and [+nas], with the final nasal also exercising an influence.

### 5.3.2 PM - PB correspondences in C2 position

In second consonant position, the following correspondences are found.

#### (27) \*p correspondences: \*p = \*p correspondences

- |                               |                |
|-------------------------------|----------------|
| (A139) *-pũb 7 'wind'         | (1606) *-põõpõ |
| (A154) *-sèb 7/8 'dry season' | (342) *-cèpõ   |
| (A594) *-pèb 'to fan'         | (1489) *-pèèp- |
- (etc.)

#### (28) \*b - \*b correspondences

- |                        |                              |
|------------------------|------------------------------|
| (A177) *-dõb 9 'earth' | (639) *-dõbã 'soil, world'   |
| (A568) *-tũb 'pierce'  | (1814) *-tõb- (1860) *-tũũb- |
| (A587) *-dĩb 'close'   | (601) *-dĩb- 'shut'          |
- (etc.)

#### (29) \*d - \*t correspondences

- |                              |                 |
|------------------------------|-----------------|
| (A213) *(ny`)-ád 9 'buffalo' | (M) *-jãtè      |
| (A434) *-kõd 'be satiated'   | (1276) *-kũt-   |
| (A382) *-dõd 9 'dream'       | (673/4) *-dõõtõ |
- ( - )

#### (30) \*l - \*t correspondences

- |                       |                   |
|-----------------------|-------------------|
| (A168) *-bõl 9 'seed' | (211) *-bõtõ 9/10 |
| (A299) *-ũl 6 'oil'   | (1278) *-kũtã     |
| (A575) *-dũl 'pull'   | (749) *-dũt-      |

(A32, A160, A355, A379, A422/3, A609)

(31) \*d - \*d correspondences

(A52) \*-'sɔ̀d 5/6 'tear' (368) \*-cɔ̀dɪ

(A218) \*-bɔ̀d 9/10 'goat' (185) \*-bɔ̀dɪ

(A685) \*-mād 'finish' (1281) \*-mād-

(A31, A45, A57, A87, A175, A260, A279, A341, A539, A556, A664)

(32) \*l - \*d correspondences

(A73) \*tɔ̀l` 9 'chest' (1822) \*-tɔ̀dɔ̀

(A237) \*kɔ̀l` 9/10 'tortoise' (1259) \*-kɔ̀dɔ̀

(A384) \*-gɔ̀l 9 'strength' (ps249) \*-gɔ̀dɪ (890) \*-gɔ̀dɪ

(A124, A392, ?A640)

(33) ∅ - \*d correspondences

(A74) \*-bɛ̀ɛ̀ 5/6 'breast' (71) \*-bɛ̀ɛ̀dɛ̀ 5/6

(A419) \*-jā̀ā̀ 9 'hunger' (917) \*-jā̀dā̀

(A602) \*-sɪ̀ɪ̀ 'grate' (350) \*-cɪ̀d- 'grind'

(A35, A47, A65, A94, A130, A147, A199, A200, A201, A202, A223, A233, A257, A262, A269, A298, A305, A315, A377, A449, A460, A464, A482, A516, A528, A639, A655, A658, A674, A675, A684, A693, A698, A705)

(34) \*j - \*c correspondences

(A25) \*-fāj` 1/2 'twin' (1407) \*-pā̀cā̀

(A50) \*-íj 5/6 'eye' (M) \*-jícɔ̀ 5

(A657) \*-sɪ̀j 'frighten' (348) \*-cɪ̀c-

(etc.)

(35) \*g - \*k correspondences

(A650) \*-sɔ̀g 'wash' (435) \*-cùk

(A599) \*-tɔ̀g 'boil' (1778) \*-tɔ̀k-

( - )

(36) Ø - \*k correspondences

(A178) \*-sɛ́ɛ 3 'sand' (314) \*-cɛ́kɛ́ 3

(A533) \*-jɔ́o 'vomit' (695) \*-dɔ́k-

(A701) \*-jɔ́ 'rain' (650) \*-dɔ́k-

(A221, A226, A255, A256, A545)

(37) \*g - \*g correspondences

(A82) \*píḡ 9/10 'kidney' (1549) \*-píḡɔ́

(A182) \*-bɔ́ḡ 9/10 'village' (192) \*-bɔ́ḡà 9/10

(A705) \*-bɔ́ḡ 'break' (227) \*-búḡ- 'break, snap'

(etc.)

(38) \*m - \*m correspondences

(A55) \*-jém 7/8 'tongue' (572) \*-démì 11/10

(A92) \*-nàm 5/6 'thigh' (1339) \*-nàmà 7/8

(A566) \*-lúm 'shoot' (M) \*-tum- 'throw, shoot'

(etc.)

(39) \*m - \*mb correspondences

(A108) \*-kòm 7/8 'barren woman' (894) \*-gòmbà

(A590) \*-jóm 'beg' (653) \*-dóm- 'ask for'

(A604) \*-jém 'sing' (M) \*-jémb-

(etc.)

(40) \*n - \*n correspondences

(A101) \*-ín 5/6 'name' (M) \*-jínà 5

(A115) \*-kèn 1/2 'stranger' (805) \*-gènì 1/2

(A644) \*-wón 'plant' (1217) \*-kón-

(etc.)

(41) \*n - \*nd correspondences

(A143) \*-gòn 9 'moon' (855/6) \*-gòndè/ò

(A425) \*-fín 'black' (1555) \*-pínd-

(A669) \*-jàn 'buy' (490) \*-dànd-

(etc.)

(42) \*ny - \*ny correspondences

- (A398) \*-fíny 5 'pus' (1556) \*-pínyà (1547) \*-pínà  
 (A661) \*-míny 'squeeze' (1313) \*-míny- \*míni-  
 (A702) \*-pàny 'shine' ?(M) \*-pény- (1479) \*-pèni-  
 \*-pèn 'flash (as lightning)'

( - )

(43) \*ny - \*nj correspondences

- (A75) \*-bàny 9/10 'rib' (56) \*-bàn jé/é  
 (A164) \*-bàny 9/10 'bamboo' (54+) \*-bàn jâ (57) \*-bàn jé/é  
 'midrib of palm frond'

( - )

(44) \*ŋ - \*ŋg correspondences

- (A56) \*-sòŋ 5/6 'tooth' (ps131) \*-cũŋgǎ  
 (386) \*-cũŋgǎ 'point'  
 (A60) \*-kíŋ 9 'neck' (1086) \*-kíŋgǒ  
 (A591) \*-lǎŋ 'read' (1672) \*-tǎŋg-  
 (etc.)

The consonant correspondences presented in (27) to (44) above are arranged as to place and manner of articulation in the following chart:

Chart 5.8: PM - PB correspondences in C2 position

- |              |                 |               |              |
|--------------|-----------------|---------------|--------------|
| (27)*b = *p  | (29)*d = *t     | (34)*j = *c   | (35)*g = *k  |
|              | (30)*l = *t     |               | (36) Ø = *k  |
| (28)*b = *b  | [ (31)*d = *d ] |               | (37)*g = *g  |
|              | [ (32)*l = *d ] |               |              |
|              | (33) Ø = *d     |               |              |
| (38)*m = *m  | (40)*n = *n     | (42)*ny = *ny |              |
| (39)*m = *mb | (41)*n = *nd    | (43)*ny = *nj | (44)*ŋ = *ŋg |

For the correspondence (35), there are only two examples. There are no good examples for the palatal nasal correspondence (42). In two of the example pairs the presence of two roots, one with \*ny, the other with an \*n plus \*i sequence suggests that these palatal nasals might have developed from a root final \*n plus an \*i suffix. For the first example Guthrie (1967-71.IV:63) suggests that \*n is original and \*n > \*ny under the influence of the preceding \*i. However, as palatals are more marked, it could also have been the reverse.

The correspondences (31), (32) and (33) present a problem in that it is difficult to envisage that there were three contrasting proto-phonemes here and not at the other points of articulation [10]. To reduce the three to two proto-phonemes by establishing the different contexts in which a split occurred has the following difficulty. The nouns in (31) have a high vowel as V2 whereas in both (32) and (33), the nouns have non-high vowels as V2. There appears, therefore, to be complementary distribution which allows (31) to be grouped with either (32) or (33). However, there is one exception in each case which weakens the case for this complementary distribution. The strongest argument against it and in favour of three different proto-phonemes are the verbs. The reconstructions of verb roots in both PM and PB have no V2, which in nouns provides the putative conditioning environment [11]. A dotted line is drawn around (31) and (32) to indicate that (32) potentially groups with (31) rather than with (33). However, the evidence at hand is

not conclusive and so the question has to be left open.

There are many examples for the nasals in C2 position except for the palatals as already indicated. At each point of articulation there are two sets of correspondences: a set of plain nasals and a set with prenasalised stops in PB. The velar position has only one nasal set [12]. Guthrie treats the prenasalised stops (mb, etc.) as a simple C in his morpheme structures which makes them directly comparable to single consonants.

One may now ask where these two different sets of nasals come from. In other words, what should be reconstructed as the original difference between the two nasal sets? The easiest solution would be to reconstruct the same difference as for PB, e.g. \*m versus \*mb, etc. However, this would simply leave the question unanswered. Different possible origins for the prenasalised stops can be envisaged.

One, they may come from a sequence of nasal plus stop with an intervening vowel, the vowel having dropped out. This may be schematized as follows: CVnVb > CVnb > CVmb, i.e. vowel loss plus assimilation of the nasal to the following stop in point of articulation could be one possible scenario.

Williamson, when discussing Proto South Central Niger-Congo (PSCNC) stems, proposes the following

"controversial hypothesis ... that ... stems were often as long as three or four syllables, and that in particular stems which show -C-NC- [= -CVNCV R.H.] in Ijò and Bantu originate from a proto-language which had -C-C-N- [= -CVCNV R.H.].

"An alternative suggestion by Stewart ... was that the original form of such stems was -C-C<sup>̃</sup> [= -CVC<sup>̃</sup> R.H.]. Nasal metathesis was then produced, in both PI [Proto-!jɔ] and Bantu, by metathesis and segmentalization of nasality, resulting in -C-NCV [= -CVNCV R.H.]." (1979:90-91)

Another proposal, which I have not seen mentioned in the literature, is one which fits into the lenis/non-lenis hypothesis. It is conceivable that the nasal-nasal correspondences are reflexes of lenis nasals and the nasal-prenasalised stop correspondences of non-lenis nasals. The non-lenis nasals would then have developed to prenasalised stops in some cases and merged with the lenis stops in others. A merger of the two nasal sets seems to be easier to explain under the lenis/non-lenis hypothesis than under the one which would need to drop the voiceless stop element in a prenasalised stop without leaving a trace in any environments. On the other hand, for a prenasalised stop to develop from a non-lenis nasal, especially where the contrast with lenis nasals has to be maintained, appears to be reasonable [13].

Although adopting for the sake of argument the lenis/non-lenis approach to the nasals, the possibility that prenasalised stops came about via different routes can, of course, not be ruled out. It is hoped that comparative work of wider scope will eventually resolve this issue [14].

The consonant system in C2 position emerging from the foregoing discussion is as presented in chart 5.9.

Chart 5.9: Pre-PB consonants in C2 position.

non-lenis	*p	*t	*c	*k
lenis		*'t		*'k
non-lenis	*b	*d		*g
?		*d2		
lenis		*'d		
non-lenis	*m	*n	*ny	*ŋ
lenis	*'m	*'n	*'ny	

For \*p, \*b, \*c, \*g and \*ŋ, it cannot be determined whether they should be considered lenis or non-lenis, although, if \*p is paralleled with \*p in C1, it would possibly have to be considered as non-lenis since it does not have \*f as a reflex in PM which derives from lenis \*'p.

\*d2 has been put on the chart to indicate that there are three sets of correspondences for voiced alveolar stops which cannot be further collapsed. Perhaps the number of alveolars could be reduced if one of the three reconstructed sounds could be shown to be palatal rather than alveolar. At this point there is nothing which would indicate this [10].

It should be noted that the nasal rows have been reversed compared with the order in chart 5.8. The row with (39), (41), etc., correspond to the non-lenis set in chart 5.9.

Charts 5.7 and 5.9 may now be combined into chart 5.10.

Chart 5.10: Pre-PB consonants

non-lenis	*p	*t	*c	*k
lenis	*'p	*'t		*'k
non-lenis	*b	*d	*j	*g
lenis		*'d	*'j	*'g
?		*d2		
non-lenis	*m	*n	*ny	*ŋ
lenis	*'m	*'n	*'ny	

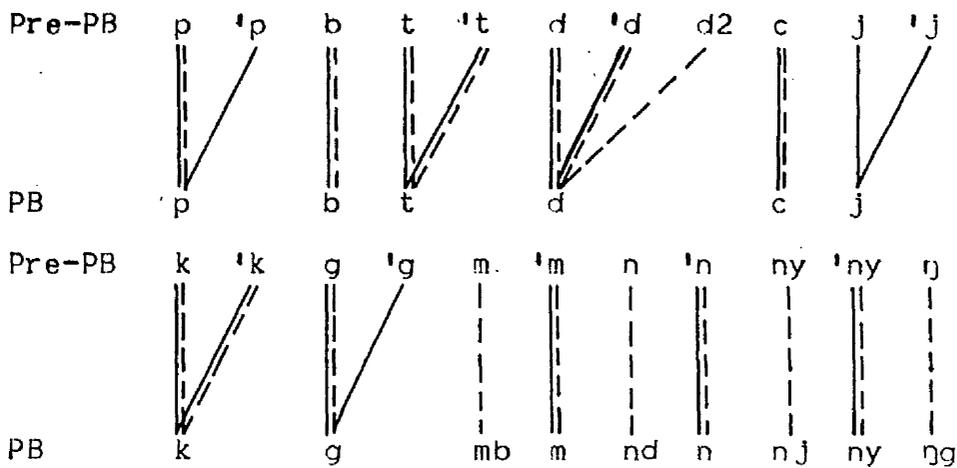
This comes very close to Gerhardt's reconstruction of Pre-Bantu non-nasal stops (cf. chart 5.4 above). The additions here are the palatals [15]. The lenis \*'b, however, is lacking in our reconstruction, or alternatively, if \*b is placed into the lenis column as \*'b, then non-lenis \*b is lacking.

If the palatal nasals are left apart, then the reconstructed nasals are comparable to Elugbe and Williamson's nasals reconstructed for Proto-Benue-Kwa (cf. chart 5.5 above). However, it should be noted that in their PBK there is a fortis/lenis distinction in C1 position and no such opposition in C2 whereas in our Pre-PB proposals the reverse is the case.

Clearly, the above results are tentative and much more work would need to be done on other sub-groups of zone A and beyond in order to come to firmer conclusions.

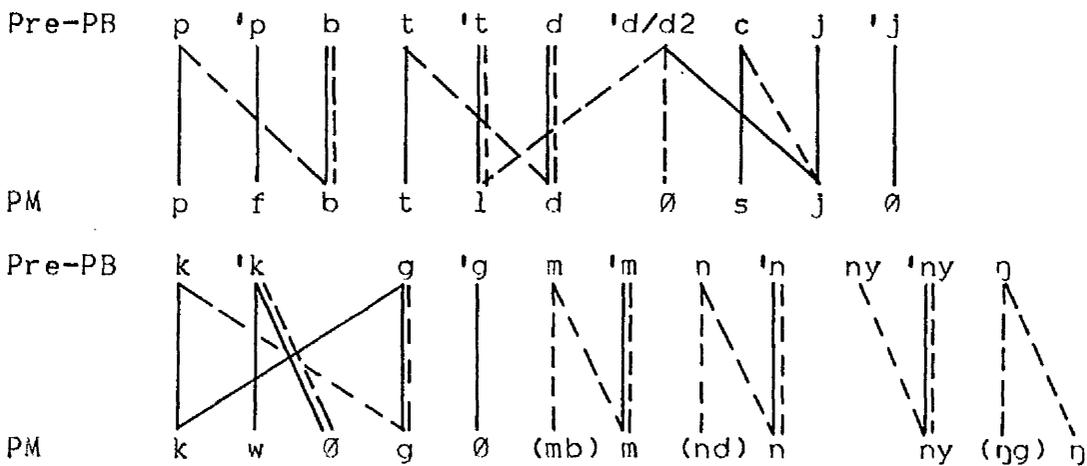
### 5.3.3 Consonant developments after Pre-PB

The sound correspondences and reconstructions for Pre-PB imply the following sound changes between Pre-PB and PB.

Chart 5.11: Consonant changes between Pre-PB and PB

The most outstanding feature in chart 5.11 is the merger of the lenis and non-lenis stops. (The solid lines indicate C1 changes, the broken lines C2 changes.)

The hypothetical sound changes between Pre-PB and PM may be represented as in chart 5.12.

Chart 5.12: Consonant changes between Pre-PB and PM

The developments to PM are more complex. Voiceless stops in C2 position merged with the voiced stops except \*'t which became \*l. The voiceless lenis stops in C1 have not merged with the non-lenis ones as in PB but have become

continuants or  $\emptyset$  in certain noun roots. However, there is evidence that the voiceless lenis stops have merged with the non-lenis ones following the class 9/10 prefix (cf. (A572)  $*'k > w$  and (A387)  $*'k > k$  as well as (A388)  $*'k > \emptyset$ ) (cf. also 5.3.4). The split of  $*g$  and merger with  $*k$  is apparently widely attested and includes Ekoid, Kenyang, Bantu zones A, B, C as well as language H.16 (Voeltz 1980:487) [16]. Lenis and non-lenis nasals merged in PM except where followed by a root final vowel.

#### 5.3.4 Classes 9 and 10 and the lenis/non-lenis distinction

Earlier in this section, we have seen that  $*f$ ,  $*l$  and  $*w$  may be best accounted for by positing an earlier lenis set of oral stops. Interestingly, in nouns of classes 9 and 10, no reflexes of lenis  $*'p$ ,  $*'t$  and  $*'k$  are apparently found, i.e. PM roots of classes 9/10 do not contain  $*f$ ,  $*l$  or  $*w$ . How is this to be explained? At first sight, one might think that this would give support to the traditional reconstruction of one series of stops plus a phonemic split (cf. 5.2.1) which in the environment of class 9 and 10 prefixes did not take place. However, both the non-lenis and lenis palatal correspondence sets (16) and (17) include class 9/10 nouns. It therefore appears that there was such a distinction which in class 9/10 now has only a trace in the distinction between j-initial and V-initial stems. Assuming that a lenis/non-lenis distinction was once present in C's following the class 9 and 10 prefix, a merger of lenis with non-lenis stops in that environment would then account for the absence of separate reflexes of the lenis stops.

5.3.5 Noun prefix variants and the loss of (lenis) C1

Noun prefixes as presented in 4.4 are of basically two types in PM, a syllabic and a non-syllabic type. One type has a syllabic element (either a vowel or a syllabic nasal) and occurs before C-initial stems and the other type consists of a consonant or consonant plus glide (C(G)-) and occurs before V-initial stems. The exception to this is the non-syllabic noun prefix \*<sup>h</sup>n-/<sup>h</sup>∅- of classes 9 and 10 [17].

For PB, only one type has been reconstructed, almost all of a CV- type (cf. chart 5.13).

Chart 5.13: PM and PB noun class prefixes

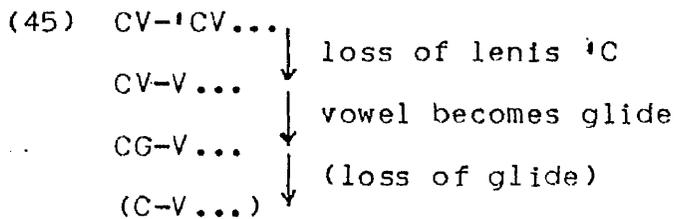
Class	PM: /__V	PM: /__C	PB (Meeussen 1967:97-9)
1	*mw`-	*m̃-	*mò-
2	*b`-	*bè-	*bā-
3	*mw`-	*m̃-	*mò-
4	*my`-	*m̃-	*mè-/mĩ-
5	*dy`-	*ā-	*ĩ-/dĩ-
6	*m`-	*mè-	*mā-
7	*jy`-	*è-	*kè-
8	*by`-	*èb-	*bĩ-
9/10	*ny`-	* <sup>h</sup> n-/ <sup>h</sup> ∅-	*ñ-/(ñy-)
13	*l`-	--	*tò-
14	*bw`-	*èb-?	*bò-
19	*fy`-	--	*pĩ-

The PB prefixes clearly represent a more conservative stage than the PM forms. In pre-consonantal position, the prefixes of classes 1, 3 and 4 have lost the vowel resulting in a syllabic nasal in PM. In the same

position, the prefixes for class 5 and 7 have lost their consonant [18]. In 8 and probably in 14, metathesis has taken place (cf. 4.4.9 and 4.4.11). There are no nouns with C-initial stems in classes 13 and 19.

In pre-vocalic position, the earlier vowel has become a glide or has been lost (cf. classes 2, 6 and 13).

What is it that gave rise to two separate sets of prefixes? It is clearly the loss versus retention of the stem initial consonant. Why did some stem initial consonants drop out and others remain in apparently identical environment? Our thesis is that it was the lenis stops that dropped out first, which then led to the desyllabification of the prefixes (cf. (45)).



As pointed out above, before stems which have retained the initial C, the PM prefixes for classes 5 and 7 appear to have lost the consonant. This immediately raises the question whether those consonants were lenis \*<sup>h</sup>d and \*<sup>h</sup>k respectively. The same question may be asked with regard to the prefixes of classes 13 and 19. The PM - PB correspondences (cf. (10) and (9) respectively) suggest that the C in these prefixes was lenis.

#### 5.4 The lenis/non-lenis distinction in lexical relations

##### 5.4.1 Introduction

The first item in appendix 1, the numeral 'one', has two PM forms: \*`p5g 'one (cl. 9)' and \*`-f5g 'one (other classes)'. The two forms are clearly related both formally and semantically, the difference consisting of \*p versus \*f. Such a relationship, if productive, would be termed morphophonemic and normally be given one underlying form from which the two surface forms are derived by a phonological rule. However, in the above pair the relation is not productive but no doubt was at an earlier stage.

In the data used in this study (as presented in appendix 1), the example just given is the only clear one [19] and so it is not possible to pursue the implications of apparent morphophonemic relationships for the lenis/non-lenis issue any further with this set of data.

Fortunately, having previously collected over 3,000 words in Akɔɔse (AKO) (Hedinger and Hedinger 1983), it was possible to draw up a list of what appear to be clearly related items both in form and meaning.

Below, the evidence is presented giving the paired items in two columns, one column containing the words with the reflex of one proto-sound, the other the words with the reflex of the other proto-sound. The semantic relationship is usually very clear but in some cases there is some doubt as to whether the two items should be considered a related pair. Occasionally, instead of a pair, there is a cluster of several related items (cf. (46b)).



(48) <u>k</u> (< *k)	<u>w</u> (< *k)
a) kènèd 'transplant, graft'	wén 'to plant'
ŋ-kènnèd 3 'graft, animal pregnancy'	wénted 'to plant'
b) kòm 'to whet'	wòme 'make smooth'
c) kátɛn 'cling to, hold fast'	wáɛɛn 'carry in arms'
d) kààd 'line a pot with leaves'	wààd 'wrap around, put on clothing'
e) kàndààm 'unexpectedly (ideophone)'	wàn 'to come suddenly, unexpectedly'
f) kòòn (<kòŋ+ɛn) 'to put together, collect'	wòŋ 'to join'
g) kúmbè 9 'pride'	wúmɛn 'bent back with pride'
kúmɛn 'boast of, drum with'	è-wúmɛ 7 'respect, honour'
h) kóm 'tired'	è-wòmɔm 7 'laziness'
ŋ-kómè 3 'rest'	

In (46) - (48), there does not seem to be any regular pattern: nouns and verbs occur in either column providing no simple derivational pattern such as nouns deriving from verbs.

While investigating the relationships between pairs of words such as those presented above, it was found that such relationships are not limited just to the lenis/non-lenis set. They extend to voiceless and voiced consonants as well. The remaining material is found in the next section.

5.4.3 Reflexes of voiced and voiceless proto-phonemes in AKO lexical relations

In addition to the pairs involving reflexes of the voiceless stops above, reflexes of the voiced stops are found in related pairs (cf. (49) to (58)).

(49) p (< \*p)

a) pàle 'tell the truth'

b) pèn 'to plait'

c) pàg 'chase with stick  
or broom'

d) pèg 'bore holes in beans  
(by insect)'

m̄-pèg 3 'insect'

e) pìd 'cause to pass'

f) è-pèg 7 'early'

g) pùlten 'urge, rush to  
meet need to defecate'

b (< \*b)

mbálè 10 'truth'

mbèndè 9/10 'plait'

mbag 9/10 'stick used to  
harvest by throwing'

mbèg 9 'insect (sucks  
blood)'

bìd 'pass through hole'

bwège 'be early'

bíl 'enter head first,  
escape, run away'

(50) t (< \*t)

tàmbé 9/10 'cap, big hat'

d (< \*d)

ndàm èkàlè 9 'juju hat'

(51) s (< \*c)

a) sàà (< sàŋ+e) 'buy some-  
thing together'

b) sòŋ 'save life'

c) syèŋ 'abuse someone'

d) sínàg 9 'wart'

e) sòŋ 'save life'

f) sùbed 'soak in water'

z/c (< \*j)

nzààŋgè 9 'collection,  
contribution'

nzòŋ 9 'talisman'

nzyèŋ 10 'abuse'

nzín 9 'thorn on leg of  
cock or palm tree'

còŋ 'survive'

cùb 'soak, put water for  
soaking'





ideally want to establish which one in a pair of phonemes was the original sound and which one was derived by rule and in what context. At the moment, we have no answers to these questions.

There is, however, one generalization that can be made in regard to the AKO material above: nouns in classes 9 and 10 are found exclusively with reflexes of non-lenis consonants in initial position. It follows from this that in nouns with a class 9 and 10 prefix, whatever its shape may originally have been, lenis sounds must have merged with non-lenis sounds (cf. 5.3.4).

#### 5.4.4 Conclusion

We have found that AKO has fossilized morphophonemic relationships. No clue has been found as to which of each pair represents the underlying and which the derived form, nor is there any indication as to what could be the conditioning environment. Since all the relationships apparently involve (Pre-PB) phonemes rather than allophones, a split plus merger rather than a simple split of original phonemes must be envisaged.

Clearly, more research needs to be done in this area and hopefully work on other languages of zone A would bring us closer to a solution. Such a task is complicated by several factors: formally similar but not identical items have to be compared. In addition, the semantic relationships holding between the two forms are not always apparent, especially to a non-native speaker. Because these relationships are non-productive, a rather large body of vocabulary has to be available to the researcher.

5.5 Some observations about tone discrepancies in related lexical items

In the pairs of related words in (46) to (58), the first stem tone is usually identical in both stems. In some cases, however, where one item has a high tone, the other has a low tone and vice versa. This discrepancy calls for an explanation. We would expect that at a certain stage in the past, the related morphemes have had one single form without tonal alternation. Since they exist now, these tonal alternations must have a cause. There are at least three possible explanations:

One, the tonal alternations are purely accidental. This explanation should not be considered until all others failed.

Two, the tonal alternations are due to the tonal influence of adjacent morphemes. Because we do not know what the putative morphological environment was, it is at present not possible to come to any conclusion regarding this explanation.

Three, another line of investigation would be to consider the influence consonants may have had on the tones. It is well known that some consonant types have a lowering influence on the tones. There is also a clear relationship between consonant types and tone-genesis. Because of this correlation between consonant types and tone, the following preliminary investigation was undertaken.

From word pairs in (46) - (48), it appeared that there are more low tones with one type of consonant than with the other, pointing in the direction of a relationship

between consonant type and tone. However, since the sample was very small and therefore inconclusive, a count of tones in relation to root initial consonants in a sample of about one thousand AKO words was made which gave the following results.

Chart 5.15: Co-occurrence of H and L tones with AKO

		<u>consonants</u>						
C1		p	t	k	h	l	w	
high tone		44	79	133	73	74	47	
percent		33%	55%	38%	55%	62%	53%	
low tone		88	64	216	59	46	41	
percent		66%	45%	62%	45%	38%	47%	
total		132	143	349	132	120	88	964

Chart 5.15 indicates that following t, h, l and w, high tones are more frequent than low tones. Following p and k, low tones predominate. (Low tones also predominate following voiced stops, the figures for which are not included in chart 5.15.) An interpretation in terms of a link between consonants and tone poses several problems. To find predominantly L tones after p and k is just the opposite of what is expected. Voiceless and presumably non-lenis sounds tend to raise tones. To find predominantly high tones after h, l and w also does not fit into what is expected. Voiced and presumably lenis sounds tend to lower tone. At the moment, therefore, no plausible explanation can be given.

To end this section, the following note may be added. When examining Guthrie's Index B (1967-71, II:146-156) over ten related pairs of starred forms can be found with

the same meaning but with a H versus L discrepancy. Interestingly, a V-length distinction is also present, but there does not appear to be a systematic pattern of, for example, long V being associated with a specific tone.

To conclude, an attempt to find an unambiguous correlation between tone and other phenomena such as consonant types has not led to any significant result but it is clear that more work should be done in this area. It is hoped that some of the questions raised may be eventually answered.

#### 5.6 PM and PB vowels and glides

After the digression in 5.4 and 5.5 where we focussed on one language (AKO), we now return to our comparison of PM and PB.

Correspondences between VI vowels of PM and PB are, with few exceptions, straightforward.

##### (59) \*i - \*i correspondences

- |                     |                           |
|---------------------|---------------------------|
| (A36) *-sìj' 'vein' | (349) *-cìcǎ              |
| (A101) *-fín 'name' | (2068) *-yínà, (M) *-jínà |

##### (60) \*e - \*e correspondences

- |                       |               |
|-----------------------|---------------|
| (A214) *kém 'monkey'  | (1058) *-kémà |
| (A327) *-fén 'handle' | (1521) *-pénî |

##### (61) \*ɛ - \*ɛ correspondences

- |                         |                |
|-------------------------|----------------|
| (A115) *-kèn 'stranger' | (805) *-gènî   |
| (A178) *-sɛ́ɛ́ 'sand'   | (314) *-cɛ́kɛ́ |

##### (62) \*a - \*a correspondences

- |                        |               |
|------------------------|---------------|
| (A201) *-lǎǎ 'stone'   | (1542) *-tǎdè |
| (A669) *-jǎn 'to cook' | (490) *-dǎnd- |

(63) \*ɔ - \*ɔ correspondences

- (A341) \*-kɔ̀dɔ́ 'rope' (839) \*-gɔ̀dɔ́ 'string'  
 (A329) \*-gɔ̀m 'drum' (844) \*-gɔ̀m̃

(64) \*o - \*o correspondences

- (A34) \*-sɔ̀n <sup>correspondences</sup> <sub>'riesn'</sub> (416) \*-cɔ̀nɪ  
 (A37) \*-óm 'thing' (2164) \*-yóm̃, (M)\*-(j)óm̃

(65) \*u - \*u correspondences

- (A299) \*-úɪ 'oil' (1278) \*-kút̃  
 (A551) \*-jùm 'smell, stink' (742) \*-dùm-

Examples in (59) to (65) show that the V2 of an earlier stage, as seen in the PB reconstructions, did not have any lowering or raising influence on V1 [20].

For V2 vowels, no correspondences exist because it is not possible to reconstruct the quality of that vowel for virtually every root. From the PB roots and PM tones, it is clear that a second vowel must have been present in noun stems. Many of these vowels have been lost before and others since PM (cf. also 3.3.4 and end of 6.4.2). This may be described as a general trend which has been taking place over a long period of time. There appears to be no specific cause for this loss but it could possibly have to do with stress on the stem initial syllable. However, since tone is the main suprasegmental phenomenon which has distinctive function, stress is not often discussed and therefore the relationship of tone and stress is not well understood.

There are five sets of correspondences between PM vowel glides and PB vowels of [4hi], [3hi] and [2hi]

(cf. (66) to (70)). These appear in three morphological contexts:

1) noun roots: C\_\_a....,

2) verb roots: C\_\_(a) and

3) noun class prefixes: C\_\_- (in PM they are allomorphs occurring before V-initial roots).

(66) \*y\_\_ - \*i\_\_ correspondences

*dy`- 'class 5'	*dĩ-
*by`- 'class 8'	*bĩ-
*fy`- 'class 19'	*pĩ-

(67) \*y\_\_ - \*e\_\_ correspondences

(A525) *-dyá 'eat'	(550) *-dē-
(A474) *-fyá 'to be hot'	(1502) *-pé-
*my`- 'class 4'	*mē-
*jy`- 'class 7'	*kē-

(68) \*y\_\_ - \*ɛ\_\_ correspondences

(A530) *-nyà 'defecate'	(M) *-nɛ-
-------------------------	-----------

(69) \*w\_\_ - \*o\_\_ correspondences

(A227) *-bwá 'dog'	(174) *-bóà
(A281) *-kwá 'salt'	(2176) *-góá
(A262) *-gwáá 'partridge'	(865) *-gòàdè
(A625) *-kwà 'fall'	(863) *-gò-
*mw`- 'class 1 and 3'	*mò-
*bw`- 'class 14'	*bò-

(70) \*w\_\_ - \*u\_\_ correspondences

(A572) *-wá 'die'	(1249) *-kú
-------------------	-------------

The vowel \*a in the above PM verbs is probably a relic of Meeussen's "final element", the reflexes of which occur in many Bantu languages in several verb tenses (Meeussen

1967:110). It appears to have been retained in PM verb roots with \*CV- shape because the original root vowel has become non-syllabic: \*CV-a > PM \*CGa-. This \*a apparently does not occur in verbs with a different CV pattern.

It can be argued that the verbs of the shape CGa- should be analysed as CG + -a (e.g. fy<sup>ˈ</sup>+a) where -a is a dummy suffix which gives support to the tone. This analysis is further supported when comparing (A595) \*-fyǎŋ 'to burn' with (A474) \*-fyǎ 'to be hot', the first of which may be segmented as fy<sup>ˈ</sup>-aŋ. The -aŋ, which is not a productive suffix, is possibly cognate with Meeussen's "expansion" -ang- (1967:89).

The choice of a digraph for the palatal nasal makes the ny in (68) ambiguous in the sense that it could represent an alveolar nasal plus a palatal glide or a palatal nasal. Since there is apparently no contrast between the two in PM, ny is taken to be a palatal nasal. This implies that this palatal nasal is historically derived from n plus ε (cf. (42) above).

In (70), the w probably has its source simultaneously in the \*'k (> \*w) (cf. (11)) and the \*u (> \*w).

## 5.7 PM and PB tones

A comparison of PM tone patterns with PB tone patterns shows that PB retained the second tone thus representing an older stage. PM, on the other hand, has lost it in some cases where V2 had been lost, and retained it in other cases in spite of the loss of V2.

Below the PM - PB tone correspondences will be presented and discussed.

(71) \*L L - \*L L correspondences

(A198) \*-bĩnV̄ 9 'dirt' (150) \*-bĩndõ/ò 9

(A232) \*-bõmV̄ 'python' (159) \*-bõmà

(72) \*L - \*L L correspondences

(A154) \*-sèb 7/8 'dry season' (342) \*-cèpɔ̄

(A263) \*-kòj 9/10 'parrot' (1187) \*-kòcò

(etc.)

(73) \*L - \*L H correpondences

(A75) \*-bàny 9/10 'rib' (56) \*-bànjé/é

(A177) \*-dòb 9 'earth' (639) \*-dòbá 'soil, world'

(etc.)

(74) \*L H - \*L H correspondences

(A215) \*-gàndó 9/10 'crocodile' (783) \*-gàndó

(A224) \*-gòmbá 9/10 'porcupine' (895) \*-gòmbá

(A37) \*-fèj 7/8 'bone' (1511) \*-pècè

(etc.)

(75) \*H H - \*H H correspondences

(A179) \*pěmbé 'chalk' (1477) \*-pěmbé 'white clay'

cf. (1474) \*-pěmbà

(A364) \*-támbe 5/6 'shoe' (1659) \*-támbe 'sole of foot,  
footprint'(76) \*H - \*H H correpondences

(A125) \*-díb 6 'water' (605) \*-díbá 6

(A282) \*-dóṅ 9 'pepper' (718) \*-dóṅgó 10

(A178) \*-sěé 3 'sand' (314) \*-cěké 3

(etc.)

(77) \*H L - \*H L correspondences

- |                          |                          |
|--------------------------|--------------------------|
| (A55) *-jém 7/8 'tongue' | (572) *-démí 11/10       |
| (A218) *-bód 9/10 'goat' | (185) *-bódí 9/10        |
| (A130) *-búú 9 'rain'    | (225) *-búdà 9           |
| (A26) *-án 1/2 'child'   | (1922) *-yánà, (M)*-jānà |
| (A299) *-ú1 6 'palm oil' | (1278) *-kútà            |
- (etc.)

(78) \*H L - \*H L correpondences

- |                                |  |
|--------------------------------|--|
| (A118) *-jíbV̂ 1/2 'thief'     | (2025) *-yíbí (M)*-jíbi                |
| (A162) *-lábÈ 3/4 'branch'     | (M) *-tábè 5,9<br>cf.(1636) *-tàbè 3/4 |
| (A355) *-á1V̂ 14/6 'canoe'     | (1949) *-yátò (M)*-(j)átò              |
| (A73) *tó1` 9 'chest'          | (1822) *-tódò 9/10                     |
| (A317) *-jób` 14/6 'fish hook' | (640) *-dóbò                           |
| (A74) *-bÉÈ 5/6 'breast'       | (71) *-bÉÉdÈ 5/6                       |
| (A10) *-óm` 5/6 'ten'          | (1208) *-kómí 5/6                      |
| (A47) *-òò 5/6 'nose'          | (960) *-jódò 5/6                       |

(79) \*L H - \*L L correspondences

- |                                    |                                  |
|------------------------------------|----------------------------------|
| (A199) *-jèè 9/10 'path,road'      | (940,M) *-jèdà<br>(941,M) *-jèdá |
| (A175) *-kòd` 7/8 'mountain'       | (883) *-gòdò 11/10 'hill'        |
| (A342) *-sìngá 3/4 'thread,string' | (359) *-cìngà 3/4                |
| (A376) *-gàn` 9/10 'tale,story'    | (776) *-gànò                     |

(80) \*H - \*L H correspondences

- |                           |                |
|---------------------------|----------------|
| (A335) *-lúg 7/8 'basket' | (1849) *-tòngá |
|---------------------------|----------------|

The examples in (71) indicate that PM had some morphemes which had a V2 with L tone.

The \*L tone pattern in PM clearly has two origins. In (72), the L of an earlier \*L L pattern has disappeared

and in (73), the H of an earlier \*L H tone pattern has been lost. The disappearance of L finds a simple explanation in the absorption by the identical tone on the first vowel. The loss of the H in (73), on the other hand, has no simple explanation, especially since H is retained in comparable morphemes in (74). In (74), V2 with H tone was retained in the first two examples. In the third example, V2 was lost in PM but the H tone was retained.

(75) requires no comment. The PM pattern \*H in (76) resulted from either the loss of the second H tone or coalescence of the two H's in (A178), two equally possible hypotheses. In (77), the \*H pattern is due to the loss of the L tone of the lost V2.

In (78), the \*H L pattern is present in the fuller forms (the first three examples) as well as in the forms where the V2 has dropped. The different behaviour of the same original tone pattern in (77) and (78) has, as with (73) and (74), no obvious explanation. The only hypothesis that comes to mind is that it may have to do with the timing of the loss of the final vowel: earlier loss of V2 was accompanied by loss of tone whereas recent loss of V2 did not entail loss of tone. It is not, however, apparent how this hypothesis could be tested.

The examples in (79) and (80) are irregular correspondences. Both Guthrie and Meeussen have two reconstructions corresponding to (A199). Guthrie argues for the one with L tone (940) as the more original form, the one with the H tone (941) being a secondary development. However, it appears to be more natural for a L H pattern to become L L rather than the reverse. Secondly, it has been

observed that the NW area of Bantu is tonally more conservative than the eastern area. It would therefore seem important to give reconstructions from the NW precedence over others. It is, therefore, quite possible that the tone reconstruction in the other three examples for PB should be revised in the light of the PM material. There appears to be additional support for a \*L H reconstruction for 'mountain' from Proto-Ekoid (PEk) where the same root is reconstructed as \*-gõl (Watters 1981:15) [21].

In (80) PM clearly has a \*H tone whereas PB has \*L H. It is perhaps the case that (A335) \*-lǔŋ is related to (A634) \*-lǒŋ which is the verb used to denote the building of baskets and houses and so PM and PB may not be directly relatable.

In conclusion it can be said that the PB morphemes represent a more conservative state, having retained the final vowel with its tone. Tone reconstructions for Pre-PB, therefore, will be identical with those of PB except where they have to be revised in the light of other evidence.

## FOOTNOTES TO CHAPTER FIVE

[1] Zone J on map 5 is due to a revision by Meeussen (Bastin 1978:135) who combined some languages from zones D and E into a zone J on the basis that they were linguistically more similar to each other than to the other languages of zones D and E.

[2] The internal classification of the Bantu languages and their relationship to the Grassfields Bantu languages and Ekoid Bantu languages, etc., is of course much more complex and sometimes controversial, as can be seen by a careful comparison of classifications of, for example, Heine (1973), Bastin et al. (1979) and Bennett and Sterk (1977).

[3] "Volta-Comoe" is Stewart's term for the better known "Akan" (Stewart 1973:1).

[4] "Potou Lagoon" is Stewart's term for Greenberg's "Eastern Ivory Coast Lagoon" group (Stewart 1973:1).

[5] Meeussen (1967) and Guthrie (1967-71) left open the question how PB \*c and \*j were pronounced (cf. also footnote 2 to chapter 2). We do not, of course, know whether they were stops or affricates, etc. Palatal stops are generally rare and marked. It is therefore possible that \*c and \*j as palatal stops became affricated very early on and developed into the many different sounds found today. We will continue using the expression "palatal stops" recognizing that they may have been, for example, affricates in PB.

[6] Guthrie made a distinction between Common Bantu (CB) and Proto-Bantu. Each of his "comparative series" (CS) is headed by an asterisked morpheme representing that CS. He in turn discussed whether any such CB morpheme should be considered as going back to PB, taking into account the geographical spread of its reflexes and the presence of synonymous CS. Occasionally, there are two or more formally and semantically related ("osculant") CS. In these cases, Guthrie discussed their relationship and argued for one of the asterisked morphemes as being the PB form from which the other(s) have derived by "mutation". As the PB form is in most cases identical with a CB form, we do not indicate the difference. Some CB forms with limited geographical distribution Guthrie would not consider as PB, such as the ones labelled ps.

[7] Cf. also (A572) and (A388) where apparently the same root is verb and noun respectively.

[8] Guthrie uses \*y and \*j whereas Meeussen uses zero and \*j (1967:83). Guthrie's \*y stands for the correspondences with mainly zero reflexes and y (and in some contexts g) (1967-71.1:50) and appears to be only partially equivalent to Meeussen's zero consonant. Since \*y has at least some segmental reflexes, it appears not unreasonable to assume that these are traces of the lenis \*j.

[9] We do not have an explanation for the discrepancy in the vowels of (A694) which raises the question whether the PM and PB forms are cognate or not.

[10] On the other hand, it should be recognized that it is very common to find more consonants at the alveolar point of articulation than at other points in many sound systems.

[11] Verb roots in many Bantu languages (and PB but not in Manenguba languages) always occur with at least one of a range of suffixes, either derivational and/or the ones required by different "tenses". As these are in most cases not tightly bound to the root, they are less likely to have influenced the preceding consonant.

[12] We exclude the rare prenasalised stops with a voiceless C (e.g. mp) as we have not found any PM - PB correspondences.

[13] Unfortunately there is no one definition of non-lenis/fortis versus lenis. The distinction has been variously described as including "long versus short duration of articulation; strong versus weak articulation; greater versus lesser muscular tension; etc." (Elugbe 1980:41).

[14] Of special interest would be to study how the reconstruction of Proto-Benue-Kwa fortis and lenis nasals (cf. chart 5.5 above) can be reconciled with Stewart's suggestion that Proto-Volta-Congo had no nasals (cf. footnote 14 to chapter 4).

[15] The absence of palatal stops in Gerhardt (1983) may be accidental or due to a chosen limitation to non-palatal consonants only.

[16] Regarding this sound change, it would be interesting to know why it took place or why this change was restricted to the velar \*g only. If all the voiced stops were implosives at some point in the past (cf. Stewart's statements in 5.2.2 above), then it would be expected that the velar implosive would change to another sound first since the velars are the most unstable and least frequently encountered of the implosives (Greenberg 1970).

[17] This exception may actually lend support to the analysis which considers this prefix to have integrated into the stem (cf. 4.5).

[18] Meeussen gives PB \*i- as class 5 prefix but also finds some evidence for reconstructing \*di- (1967:97-9). Kadima (1969:135-41) advances the hypothesis that the prefix is \*i- and the forms with d are due to an augment (\*de-i-). If the PBC reconstruction \*li- (De Wolf 1971:51-2) is correct then it appears not unreasonable to assume that there was a consonant in this prefix in PB.

[19] Another pair appears to be (A119) \*-gāj 'native doctor' and (A121) \*-āggā 'medicine' related by reflexes of the lenis/non-lenis stop pair given as (53) in 5.4.3.

[20] This is different from what has taken place in Basaa, a related Bantu language to the east, where V1 vowels were lowered before PB \*a as V2 (Janssens 1982:103) and occasionally raised before PB \*i or \*u (1982:105).

[21] The PEk tone reconstructions are tentative so they have to be treated with caution (cf. Watters 1981:24-5).

## CHAPTER SIX

CLASSIFICATION OF THE MANENGUBA LANGUAGES6.1 Introduction

It has been recognized since classification of these languages began that the Manenguba languages are related to each other and to the surrounding languages. Various types of similarities and differences exist which are focussed on to establish the degree of relationship that exists between languages and groups of languages.

These similarities and differences can be attributed to different factors. Languages are similar because they have developed from one original ancestor language. This is the genetic view or "Stammbaumtheorie". According to this view, the differences are attributed to separate and divergent development of the daughter languages in respect to their phonology, morphology, syntax and semantics. However, as languages are in contact with other languages, they influence each other. Vocabulary items are frequently borrowed, but also phonetic, morphological and syntactic features may be incorporated from another language increasing the similarity between languages.

Different classifications of the same languages are often contradictory for a variety of reasons. Not only may the focus be on different aspects of the languages to be classified, such as the lexicon, the phonology, morphology

or syntax, but also, different samples on which the classification is based can affect the result. Besides these factors, the linguist has a choice between different goals. He may be interested in any one or a combination of the following classifications: genetic, typological, areal or referential (Heine 1980a:296). The last one is a more or less arbitrary system of referring to the languages classified. The first three may, or may not, coincide and can therefore lead to contradictory classifications if they are not kept distinct.

In this chapter, we will first review previous classifications (6.2) as they touch on both the external and the internal classification of the Manenguba languages. In 6.3, the focus is on the lexicostatistical classification of the Manenguba languages with a brief review of previous works (which normally only relate one Manenguba language to the surrounding languages). We will then present our own lexicostatistical analysis which provides an internal genetic classification of the Manenguba languages and also includes several of the adjacent languages. This then allows us to give a definition of which languages are to be considered as the Manenguba languages and which are to be excluded. In the remaining sections, the implications of phonological and morphological changes for the classification, as well as lexical and morphological isoglosses will be considered.

6.2 Previous classifications6.2.1 A survey

Koelle (1854) was the first person to classify any of the Manenguba languages. In his classification, he grouped languages together on the basis of lexical similarity ("glossarial affinity") (Dalby 1970:150-1) and into larger groups on the basis of geographical and structural criteria, i.e. the "presence of noun-class inflection" (Dalby 1970:150). An extract of his classification is presented in chart 6.1.

Chart 6.1: The Manenguba languages in Koelle's classification

West and Central African (etc.)

South African

VIII. Atam

IX. Mokoo languages

IX.A Isuuwu (Su/A.23) [1]

Diwala (Diala/A.24)

Oorungu (Rongo/B.11b)

etc.

Baalu (Bali/Ngaaka)

Bamom (Bamum)

etc.

Paapiax (Baba)

Paagham (Bagam)

IX.B Ngoteŋ (Mbo/A.15) [MHE?]

Melŋ (Mbo/A.15) [MHE?]

Nhaalemone (Mbo/A.15) [MWM?]

Baaseke/Seke (Sekiyani/B.21)

X. Kongoo-Ngoola

etc.

The three Manenguba languages named Ngotɛŋ, Melon and Nhaalemooe Koelle placed in his group IX.B together with Baaseke/Seke, a language spoken in Gabon. Group IX.B together with Group IX.A formed his IX. Mokoo languages [2]. Group IX.A included Bantu languages such as Su (A.23), Duala (A.24) and Rongo (B.11b), and Grassfields Bantu languages such as Bali/Ngaaka, Bamum, Baba and others (cf. Dalby 1964:87).

In the light of the present day classifications, it is surprising that Koelle groups the Bantu languages Douala and Su with Grassfields Bantu languages rather than with the three Manenguba languages and other Bantu languages.

Meinhof was the first person to discuss the linguistic situation of Cameroon as it was known towards the end of the last century (Meinhof 1895:138-163). His article contains a very tentative "Klassifikation der Kamerundialekte" [3] (1895:157). He made the following three groups:

1. Languages with Duala features
2. Languages with Bali features
3. Languages of the Fan group [4]

and lists several other unclassified languages. The Manenguba languages are not mentioned, probably because none had been recorded in its locality by that time [5].

At the turn of the century, Dorsch studied AKO (which he called Nkosi), one of the Manenguba languages. In his grammar (Dorsch 1910/11), although not setting out to classify the language under study, he related it to the Duala language in the following way: "Die Nkosisprache ist

... eine Bantusprache, ... nur ein stark entarteter Duala-Dialekt ..." [6] (1910/11:242).

In 1919, Johnston, as Koelle had done previously, grouped the three languages Ngotɛŋ, Melon and Nhaalemooe together into one group. He further added Balun, Bafɔ and Bakosi and called the group the "Manenguba languages" (1919:630; 1922:150). Within his Manenguba languages, he grouped Balun and Bafɔ with Koelle's Melon as one language. Bakosi he grouped with Koelle's Nhaalemooe while leaving Ngotɛŋ to stand alone (cf. chart 6.2). Koelle's Baaseke he rightly excluded from the Manenguba group.

The Grassfields Bantu languages spoken to the north of the Manenguba languages were termed "Semi-Bantu" by Johnston.

The Bantu languages which are geographically or linguistically close to the Manenguba languages appear either in his Spanish Guinea - West Cameroons languages (e.g. Bakundu (A.11), Duala (A.24), Bakoko (A.43), etc.) or as Fang languages (e.g. Bulu (A.74)). It should be noted that Bonkenɛ (A.14) is grouped with Abɔ (A.42) rather than with the Manenguba languages.

It is strange why Johnston should have grouped Melon, Balun and Bafɔ as dialects of one language since there are considerable differences between them. Balun and Bafɔ, for example, have de-/di- as prefix for class 5 nouns versus a-(e-?) in Melon, and the prefixes for class 14 are fi- and e- respectively. He perhaps equated Koelle's Melon with Balun on the basis of the similarity of the two names. One suspects that more or less apparent similarity of language names was more important than linguistic

Chart 6.2: The Manenguba languages in Johnston's  
classification

North Western Bantu

Spanish Guinea - West Cameroons Languages

Renge Sub-Group

Seke-Bulu (B.21) [7]

etc.

Lower-Sanaga Sub-Group

Bakoko (A.43b)

Basaa (A.43)

Duala Cameroons Sub-Groups

Duala (A.24)

Bakwiri (A.22)

etc.

Rumpi Sub-Group

Balue (A.12)

Bakundu (A.11c)

etc.

Mongo Sub-Group

Bonkeŋ (A.14) [BNK]

Abɔ (A.42)

Manenguba languages

Baluŋ-Bafɔ

Meloŋ (A.15) [MHE?]

Baluŋ (A.13) [BLO]

Bafɔ (A.15a) [LEF]

Bakosi

Nkosi (A.15b) [AKO]

Nhaalemooe (A.15) [MWM?]

Bangante

Ngoteŋ (A.15) [MHE?]

Fang languages

Yauunde or Eɪundu (A.72)

Paiwe or Fang (A.75) [7]

Bilu (A.74)

Njiem (A.84)

Semi-Bantu languages

similarity, as is shown by his evaluation of the evidence leading him to equate the name Ngoten with Baggante (1922:151) when it is clear that Baggante is a Grassfields Bantu language [9]. Bafɔ he probably grouped with Melon and Balun because of its geographic proximity and linguistic similarity with the latter which appears to be correct.

A few years later, a British colonial administrator, Talbot, turned his attention to the Bantu languages of the present day South-West Province of Cameroon (1926:98-102). His approach is very difficult to interpret. The table of languages and dialects (1926:100-101) looks particularly confused and full of contradictions and so no attempt will be made to interpret his classification in detail. Mbo, for example, is said to be a dialect of "Abaw (sometimes pronounced Abo) [= almost certainly not Abɔ A.42. R.H.], or Bamileke [= Grassfields Bantu languages. R.H.] ..." (1926:99).

The "Balung language" is displayed as having the following dialects: Balung, Bafaw, Bakossi, Elong and Ninong. Basossi does not appear as a language name, but only as a "sub-tribe" of Balung (1926:69). On Talbot's map 12 (1926:68), two more names of "sub-tribes" appear north of Basossi and west of Mbo which are relevant to our study: Nkongwa and Mangan. He stated that from vocabularies "it would appear that the language of these peoples is a branch of Balung-Bakossi, but is also closely allied to Abaw-Mbo" (1926:99). As to the identity of these two groups, taking into consideration the geographical description and the similarity of language/ethnic name, it appears that Mangan is to be identified with Myagge [10] and Nkongwa with

Nkɔŋɔ/Lɛkɔŋɔ. Nkɔŋɔ (spelled Nkongho in Njang 1972:5 and Etame 1981:2) is also called Nkingwa or Kingwa (Williamson 1971:276, Eyongetah and Brain 1974:25). This would fit in well with Richardson's (1957:7) comment that "Ngɛn is a general name for languages of this type" i.e. languages spoken in that general area.

Tessmann (1932a:185) makes two sub-groups of the Manenguba languages: 1) Bafo, Bakossi and Balong, which, together with Balue, receive the following comment: "Präfixe noch ziemlich vollständig" [11] (1932a:185).

2) Mbo. This sub-group apparently includes Lɛkɔŋɔ [= Mbo-Kɔŋɔal, Mbo of Mbokambo [= Mbo-Kabol, Bareko, Mwaneka, Manenguba, Bakaka, Manehas, Balondo, Babong and Bafun (Tessmann 1932b). The Mbo languages are characterized with the following comment, "Präfixe bereits im Schwinden begriffen" [12] (1932a:185). Koelle's three languages are classified as "Süd-Mbo" [13].

These languages are classified with Bakoko (A.43), Bulu (A.74) and Balue (A.11), etc., as "Neubantu" [14]. Bongkeng (written as Bongkenge) (A.14) is grouped with Bakundu and Duala (A.24) as "Altbantu" [15].

Kenyang (appearing as Banjangi) is classified as "Benue-Crossfluss-Semibantu" [16] and the Grassfields Bantu languages (e.g. Bangwa) as "Nordkamerungebirgs-Semibantu" [17].

Tessmann's was the most detailed and carefully worked out classification of that time. He used different colour schemes on his map (1932b) and numbers plus letters to identify and group the languages but it is not clear how many details of classification should be read into them.

Chart 6.3: The Manengoba languages in Tessmann's  
classification

## BANTU

## Hauptbantu

## I Festlandbantu

## 1 Altbantu

2 Duala

8 Bakwiri

9 Wuri, 10 Rongkenge [RNK]

11 Balundu, 12 Nord-Batanga,

13 Bakundu, 14 Ngolo

etc.

## 2 Jüngere Bantu

## A Mittelbantu

etc.

## B Neubantu

34 Pangwe, 34a Fang, 34e Bulu,

34h Jaunde, etc.

39 Bassá

40 Bakoko

42 Abo

43 Balue

44 Bafo [LEF]

45 Bakossi [AKO], 46 Balong [BLO]

47 Mbo, 47a Mbo-Mbo, 47b Mbo-Kóngoa

[LEK?] 47c Mbo-Mboché,

47d Mbo-Kabo [MBE?],

47e Süd-Mbo [MHE, MKA, BFU, etc.]

## Semibantu

## A Westkamerun-Semibantu

## a) Benue-Crossfluss-Semibantu

58b Keaka, 58c Obang, etc.

60 Banjangi [KNY]

etc.

## b) Nordkamerungebirgs-Semibantu

68 Bangwa [NOW]

87 Bana-Dschang

etc.

Meyer (1942) follows Meinhof's (1895) classification closely but adds Bafo, Bakosi and Mbo besides other languages. Bafo forms a group with Balong. Bakosi and Mbo she subsumes with Bakoko, Ewondo, etc., in the Yaunde group (Meinhof's Fan-group). This is summarized in chart 6.4. It should be noted here that Tessmann's "Neubantu" has been split up into four separate groups. Kenyang is subsumed under "Rand-Klassensprachen" [18].

Chart 6.4: The Manenguba languages in Meyer's classification

North West Bantu

Diala group

- Duala (A.24)
- Lundu (A.11)
- Kweli (Kwiri) (A.22)
- Kundu (A.11c)
- etc.

Long/Fo

- Long (Balong) (A.13) [BL0]
- Fo (Bafō) (A.15a) [LEF]

Ro/Lue

- Ro (Bankon, Abo) (A.42)
- Lue (Balue) (A.12)

Basa/Ngumba/Mabea

- Basa (A.43)
- etc.

Yaunde group

- Yaunde (Ewondo) (A.72), Bulu (A.74), etc.
- Koko (Bakoko) (A.43b)
- Kosi (Bakossi) (A.15b) [AK0]
- Mbo (Buo) (A.15)

Rand-Klassensprachen

- Bafia (A.53)
- Banend (A.44?)
- Bali (Grassfields Bantu)
- Yyang [KNY], Anjang, Ekoi

Dugast (1949a) is an inventory of ethnic groups which only covers the francophone part of the area under focus in this study. Most of the groups are listed under the Bakundu group except Bongkeng and Mbo which stand apart. Included in her Bakundu group are Abo (A.42) and Bakem (A.43a) [BKM]. The name Miamilo also appears in the Bakundu group, which is equivalent to Bafun [BFU].

In the 1940's, an effort was begun by the International African Institute (IAI) to classify the whole Bantu area, with the aim of creating some order in the large number of contributions and nomenclature of Bantu languages in existence at that time. The first study to appear was that of Doke (1945) in which he compiled a bibliography on the Bantu languages and presented a tentative classification. In his "North Western Zone", he groups Nkosi [AKO] with Duala, Isubu, Basa and Lundu and in another group, he places Fang, Yaunde and Bulu. He defines a group of languages as "possessing common salient phonetic and grammatical features, and having a high degree of mutual understanding, so that members can without real difficulty, converse with one another" (Doke 1945:1). The first criterion is very vague so that it is not surprising that Nkosi is classified with Duala and Basa rather than with Fang, etc. Also, the implicit claim that the languages in the first group, i.e. Nkosi, Duala, Basa and Lundu, are mutually intelligible is definitely not the case.

In 1948, three years after Doke, Guthrie published his Classification of the Bantu languages. In it, he presents a set of criteria to be applied to any language to determine whether it may be admitted as a Bantu language. He

then gives a classification of the whole Bantu area. No reference is made in this classification to any Manenguba language. Only Bongkeng, which some writers have included in the Manenguba languages and others excluded, is listed in brackets after A.42 BO (Bongkeng) (1948:74). This was an error which was corrected in Guthrie (1953). BO equals Abo or Bankon (1953:28). The 1948 classification of the A.10 group, in which the Manenguba languages are later included, is radically revised in 1953.

Chart 6.5: The Manenguba languages as classified by Guthrie (1953)

Lundu-Mbo Group (A.10)

Lundu cluster (A.11)

- (a) Lundu
- (c) Bakundu [20]
- etc.

Baruε (A.12)

Baloŋ (A.13) [BLO]

Bongkeng (A.14) [BNK]

Mbo cluster (A.15)

- (a) Bafɔ [LEF]
- (b) aKɔɔsə [AKO] (Mwamenam) [MWM]
- (c) nSwasə [NSW]
- (d) eLɔŋ [ELU]
- (e) nNenŋ [NNE]
- (f) Kaa [MKA] (Mwahet [MHE], Baboŋ [BBO])
- (g) Mbo (Baneka [MWK], Bareko [MBA], Balondo [BLN])

In 1953, Guthrie published his Bantu languages of Western Equatorial Africa. He presents the following seven "dialects" subsumed under the label "Mbo Cluster" [19] (Guthrie 1953:15): Bafɔ, Akɔɔsɛ (Nkosi), Nswasɛ (Basosi), Elɔŋ (Elong), Nnenŋ, Kaa (Bakaka) and Mbo. Balɔŋ and Bɔŋkɛŋ are coordinate with the Mbo Cluster together with Barusɛ and the Lundu cluster, and form together his Lundu-Mbo Group as presented in chart 6.5.

In 1956, Jacquot and Richardson published their part of the Linguistic Survey of the Northern Bantu Borderland (Jacquot and Richardson 1956:9-62). This was the first attempt at making a complete inventory of the linguistic units of the geographical area under consideration here. They split off the "Mbo-cluster" from Guthrie's "Lundu Mbo Group" (1956:22) and placed Balɔŋ and Bɔŋkɛŋ in their "North Mbɛnɛ Group" (1956:26). Fifteen "languages and dialects of disputed inter-intelligibility" (1956:22) are listed as forming the "Mbo Cluster" (cf. chart 6.6).

Of the first three languages, it is said that they "show characteristics which tend to situate them on the fringe of the MBO area. This is generally true as well as linguistically ..." (1956:23). Apparently, in order to show this less close relationship, Bafɔ, Balondo and Babɔŋ are given the figures 1.17, 1.18 and 1.19 respectively, whereas the rest of the languages are subsumed under the figure 1.20.

Chart 6.6: The Manenguba languages as classified by Jacquot  
and Richardson (1956) and Richardson (1957)

Mbo cluster

- 1.17 Bafɔ (Bafaw) [LEF]
- 1.18 Balɔndɔ [BLN]
- 1.19 Babɔng [BBO]
- 1.20 (a) Mbo (British Cameroons, Ngɛn) [MYE]
- (b) Mbo (of Mbouroukou) [MBE]
- (c) Mbo (of Dschang) [MBN?]
- (d) Mbo (Bareko) [MBA]
- (e) Baneka [MWK]
- (f) Kaa (Bakaka) [MKA]
- (g) Mwahɛt (Manehas) [MHE]
- (h) aKɔɔsɛ (Muamenam) [MWM]
- (i) aKɔɔsɛ (Bakosi, Nkosi) [AKO]
- (j) nSwasɛ (Basosi) [NSW]
- (k) ɛLɔŋ (Elong) [ELU]
- (l) nNɛnŋ (Ninong) [NNE]

North Mbɛnɛ group (Basa) [21]

- 1.21 (a) Baluŋ (S. Balong) [BLO]
- (b) Bɔŋkɛŋ [BNK]
- (c) Bakoko
- (d) Banƙon (Abo)
- etc.

Richardson (1957) "contains the linguistic evidence for the classification of the languages" (1957:3) dealt with in the first volume of the Northern Bantu Borderland Survey. The classification of the Manenguba languages is unchanged, only a few changes in the "spelling" of the languages were

made. Baluŋ and Bɔŋkɛŋ do not appear in (1957), apparently because the related and geographically adjacent groups like the Lundu Group and the Mbɛnɛ Group are not dealt with.

Richardson (1957) includes, in brackets, the reference numbers from Guthrie (1953) (e.g. A.15, etc.) and extends that classification to the languages not listed by Guthrie, or only listed as ethnic names. Richardson (1957) thus in effect contains two classifications: the one presented in chart 6.6 above and another based on Guthrie (1953) and expanded as in chart 6.7 (cf. chart 6.5 above).

Chart 6.7: The Manenguba languages as classified

by Richardson (1957) based on Guthrie (1953)

- Mbo Cluster A.15 (a) Bafɔ (Bafaw) [LEF]  
 (b) aKɔɔsɛ (Muamenam) [MWM]  
     aKɔɔsɛ (Bakosi, Nkosi) [AKO]  
 (c) nSwasɛ (Basosi) [NSW]  
 (d) eLɔŋ (Elong) [ELU]  
 (e) nNenɔ (Ninong) [NNE]  
 (f) Kaa (Bakaka) [MKA]  
     Mwahɛt (Manehas) [MHE]  
     Babɔŋɔ [BBO]  
 (g) Mbo (British Cameroons, Ngɛn) [MYE]  
     Mbo (of Mbouroukou) [MBE]  
     Mbo (of Dschang) [MBN?]  
     Mbo (Bareko) [MBA]  
     Baneka [MWK]  
     Balɔndɔ [BLN]

Whereas in the classification in chart 6.6, Bafaw, Balondo and Babong stand apart, in the classification in chart 6.7 Bafaw is coordinate with Basosi, Elung, etc., Babong is associated closely with Bakaka and Manehas, and Balondo with the various Mbo varieties and Baneka. This is contradictory, but can probably be explained if one assumes that in the Guthrie based classification Babong and Balondo were labelled as A.15f and A.15g respectively on geographical grounds.

Bryan (1959) revised the classification of Guthrie (1953) by splitting his Lundu-Mbo Group into two groups: the Lundu Group and the Mbo Group. Balon and Bonken are found in the Mbo Group but it should be noted that these two languages also appear in her Duala and Basa groups (1959:6,10). The languages which were not listed in Guthrie (1953) are subsumed under Bafɔ, Mbo, Kaa and aKɔɔsɛ as presented in chart 6.8.

Comparing the classifications of Richardson (1957) (chart 6.7) and Bryan (chart 6.8), the following may be noted. Bryan includes Balong and Bongkeng in the Mbo Group, though with some reservation, whereas they are excluded altogether from the Mbo Cluster by Richardson. He places Babong with Bakaka (A.15f) and Balondo with Mbo (A.15g), whereas Bryan puts both Babong and Balondo with Bafɔ (A.15a) similar to Jacquot and Richardson (1956) (cf. chart 6.6). Richardson puts Mwamenam with aKɔɔsɛ (A.15b), Bryan puts it with Bakaka (A.15f).

Chart 6.8: The Manenguba languages as classified by  
Bryan (1959)

Mbo Group

A.13	Balong (also in Duala and Basa groups)[BLO]
A.14	Bonken (also in Duala and Basa groups)[BNK]
A.15 Mbo	(a) Bafɔ Bafɔ [LEF]
	Babɔŋ [BBO]
	Balɔndɔ [BLN]
	(b) aKɔɔsɛ̃ Bakosi [AKO]
	(c) nSwasɛ̃ Basosi [NSW]
	(d) eLɔŋ Elong [ELU]
	(e) nNenɔ̃ Ninong [NNE]
	(f) Kaa Bakaka [MKA]
	Manehas (Mwahet) [MHE]
	Mwamenam [MWM]
	(g) Mbo British Cameroons [MYE]
	Mbouroukou [MBE]
	Dschang [MBN?]
	Bareko [MBA]
	Baneka [MWK]

Jacquot (1960), in general outline, appears to follow Jacquot and Richardson (1956) and Richardson (1957) with the following exceptions: He includes, though with some reservations, Balong and Bongkeng in his "groupe mbo". The number of languages is reduced by subsuming more than one language/dialect under Mbo, Bakaka and Bakossi respectively. He also abandoned the use of phonetic symbols and diacritic marks which were used in previous publications in the transcription of the different names.

In 1971, Guthrie said (1967-71.I:30) that Balog (A.13) and Bɔŋkeŋ (A.14) are "similar to A.11" (Londo/Lundu) and placed them beside the Mbo cluster in the Lundu-Balong Group (A.10), formerly the Lundu-Mbo group.

Chart 6.9: Guthrie's (1971) Lundu-Balong Group (A.10)

Lundu-Balong Group A.10

- A.11 Londo (Lundu)
- A.12 Barue
- A.13 Balog [BLO]
- A.14 Bɔŋkeŋ [BNK]
- A.15 Mbo cluster

This is essentially a repetition of his (1953) classification (cf. chart 6.5) but it should be noted that by considering Balog and Bɔŋkeŋ as coordinate with Londo and the Mbo cluster, his classification of these two languages conflicts with the classifications of Jacquot, Richardson and Bryan, who place them either within the Mbo cluster or into the Duala or Basa Groups.

In the mid 1970's, Voeltz made a study of the languages of the South-West Province. He produced a map and made a classification of these languages (Voeltz n.d.) the relevant part of which is reproduced in chart 6.10.

Chart 6.10: Voeltz's classification of languages in the  
SW Province

	Ekoid	Obang (Ejagham) etc.
	Manyu	Anyang Kenyang [KNY] Kitwii (KIT) etc.
(A.10)	Oroko	Bakundu Balue Balundu Mbonge etc.
		Bafaw [LEF] Balong [BLO] Bai
	Ngoe	Mbo Basosi [NSW] Bakosi [AKO] Mbo 2
(A.20)	Duala	Bakweri etc.

It appears that Voeltz marked the absence of a suitable term by a horizontal line. Voeltz's classification departs from previous ones in that the languages of group A.10 are divided into three groups rather than two. He has an Oroko group [22] (corresponding to the Lundu group), an Ngoe group [23] (corresponding to the Mbo group or our

Manenguba group) and an unnamed group which includes Bafaw, Balong and Bai.

Köhler (1975), who proposed "a revised referential classification" (Heine 1980a:299), did not add anything to the classification but merely repeats, though not in every detail, Guthrie's classification of 1953 with the sole exception of adding Abo in brackets after Mbo (Köhler 1975:220). Abo (A.42) is usually classified as belonging to the Basa Group (Guthrie 1953:28, Jacquot and Richardson 1956:27, Bryan 1959:11).

Fivaz and Scott (1977) combine Guthrie's (1971) overall classification with that of Richardson (1957) but make no hierarchical distinction within the Mbo cluster.

Bastin (1978:136) repeats Bryan's grouping but omits Babong, Balondo, Mwamenam and Mbo of Mbouroukou and of Dschang. Instead of using the term "Mbo Cluster", she heads this group of languages by the label "15 bafu".

Nkong, or Kinkwa (LEK), is not mentioned in most treatments of the languages of this area. When it is mentioned, it is either grouped with the Manenguba languages (Tessmann 1932a:185, Breton n.d., Etame 1981, Ngoula n.d.) or grouped with Kenyang (KNY) (Williamson 1971:278, Dalby 1977:34). Williamson calls Kinkwa and Kenyang "Mamfe Bantu" but adds that this "is a cover term for a number of unclassified languages spoken in the area around Mamfe ..." (1971:266).

#### 6.2.2 Summary

The above survey of classifications, both external and internal, of the Manenguba languages left the impression

that there are several areas where there is no general agreement. No doubt the differences can be attributed to differences in approach, to different assumptions and aims as well as to the nature of the data used. As it appears that both typological and geographical criteria have been used, it is clear that conflicting classifications do result. Perhaps we should also ask whether we read into the presentation of languages accompanied by numerical labels more than the authors intended to express.

Our general conclusions from the above survey of classifications of the Manenguba languages may be grouped into three categories: external classification, internal classification and inclusion in versus exclusion from the Manenguba languages of individual languages.

In the efforts of the people connected with the IAI, the Manenguba languages were either left to stand as a separate group within the geographical grouping of zone A languages (Bryan 1959), or placed within the Lundu-Mbo/Lundu-Balong group. No obvious attempt was made to relate the groups at a higher level. Before that, Johnston (1919 and 1922) gave the Manenguba languages independent status beside the Fang languages (A.70) and a group comprising the Basaa (A.40), Duala (A.20) and Lundu (A.10) languages. Tessmann (1932a) grouped the Manenguba languages with Fang languages (A.70) and Basaa languages (A.40) as "Neubantu" and Bakundu languages (A.10) with Duala languages (A.20). In Meyer (1942), the Manenguba languages are found in the Yaunde group (A.70) with Duala (A.20) (including Lundu (A.10)) and Basaa (A.40) forming separate groups.

Balong and Bongkeng are languages which are sometimes included and sometimes excluded from the Manenguba languages by the IAI team. In Bryan (1959), they appear simultaneously in three different groups. Johnston (1922) included Balong but excluded Bongkeng. Similarly, Tessmann (1932a). Meyer (1942) excluded Balong and Bafaw and did not make a definitive statement on Bongkeng.

As to internal classifications, Balong and Bongkeng, when included, are placed at the periphery. Bafaw, Balondo and Babong appear as the most peripheral languages in Jacquot and Richardson (1956) but not in Richardson (1957) within Guthrie's scheme, nor in Bryan (1959). Charts 6.7 and 6.8 suggest that the different Mbo languages are more closely related to each other than, for example, Akoose and Nnenū are, which is, as will be seen later, not the case.

### 6.3 Lexicostatistical classification

#### 6.3.1 Introduction

In the previously presented classifications, a variety of criteria were used to arrive at the different groupings and sub-groupings: lexical, grammatical, phonetic, geographical, etc., with varying results. The aim was often to present the mass of languages in an orderly fashion rather than to arrive at an hypothesis as to the historical relationship between the languages classified. Typological, geographical and referential classifications have certain merits but do not necessarily express genetic relationships. Feeling that no significant progress had been made towards a genetic classification of the Bantu languages, people like

Heine turned to the lexicostatistical method to achieve an explicitly genetic classification. Coupez (1956) and Meeussen (1956) were early studies on Bantu languages using lexicostatistics but it was Heine (1973) and Henrici (1973) who covered the whole Bantu area, presenting a completely new classification of the Bantu languages.

Their results were significant for several reasons. Firstly, the two studies carried out independently came to essentially the same conclusions. Secondly, their results contradicted Guthrie (1962b and 1967-71) who had proposed that Proto-Bantu was spoken at the geographical centre of the present Bantu area and that the migrations of the Bantu speaking people started from there. The lexicostatistical classifications, however, imply that the Bantu expansion must have started in the north-west of the Bantu area, i.e. somewhere around the present day Nigeria-Cameroon border (Heine 1973:182-3, Heine et al. 1977). This latter hypothesis also appears to be confirmed by the evidence of archaeology (Oliver 1979). Thirdly, the results of the lexicostatistical approach fit in with Greenberg's (1963) Niger-Congo hypothesis whereas Guthrie's does not.

Three lexicostatistical studies relevant to the classification of the Manenguba languages have been found and will be presented below. Since Henrici (1973) only includes the two Cameroon languages Duala (A.24) and Bulu (A.74) and therefore sheds no light on the internal or external classification of the Manenguba languages, his study will not be included in the discussion below.

Heine (1973) proposed a genetic classification of the Bantu languages including Tiv (Non-Bantu Bantoid) and

the Ekoi branch. He has eleven branches (later reduced to eight (Heine et al. 1977:60) and it is the fourth branch, the Duala-Ewondo branch, later renamed as the Sanaga branch (1977:60-61) which includes the Manenguba languages (cf. chart 6.11).

Chart 6.11: Lexicostatistical classification  
of the Sanaga branch (Heine 1973 and 1977)

Sanaga branch (1977)/Duala-Ewondo branch (1973) 30-53%

1 Balong-Koose (1973)/Balong group (1977) 75%

Balong (A.13) [BL0]

Koose (A.15b) [AK0]

2 Ewondo group 82-84%

Ewondo (A.72)

Bulu (A.74)

Fang (A.75)

3 Duala group 60-76%

Duala (A.24)

Su (A.23)

Bomboko (A.21)

Bakundu (A.11c)

Batanga (A.11d)

4 Benga group 70%

Benga (A.34)

Banoo (A.32a)

Bapuku (A.32b)

5 Kele (B.22)

6 Ngoro (A.61)

7 Mvumbu (A.81)

8 Mbene (A.43a)

9 Sekiyani (B.21)

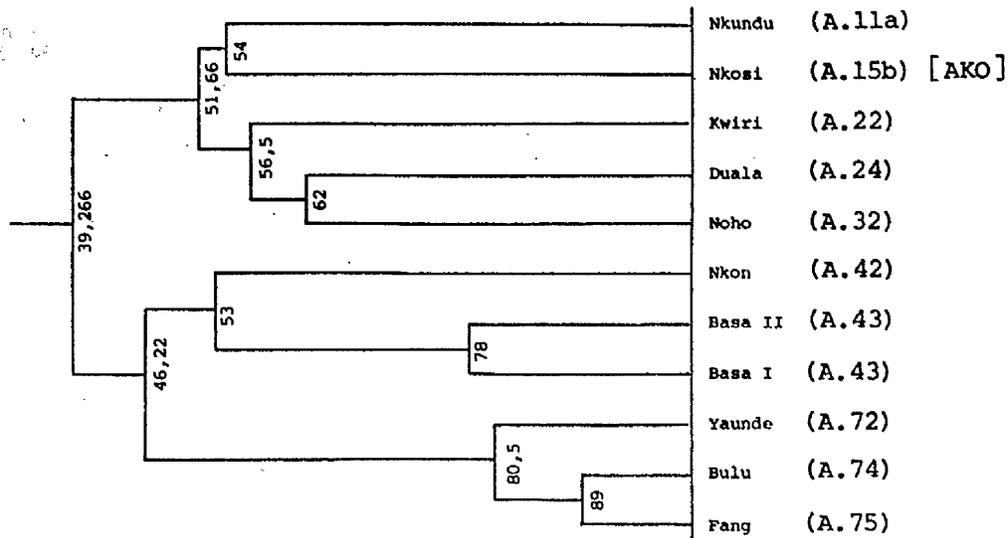
10 Lundu (A.11)

11 Njem (A.84) (1977)

Percentages of cognates shared between the groups of the Sanaga branch vary from 30% to 53%. Cognate figures between languages within the groups vary from 60% in the Duala group to 84% in the Ewondo group. Unfortunately, no more details are given and so it is not possible to know which groups are more closely related to each other within the Sanaga branch. However, two points can be made. One, Balong appears as the language most closely related to Akoose which may be said to represent the Manenguba languages. Two, Lundu (A.11) forms a separate group, whereas Bakundu (A.11c) and Batanga (A.11b), which in the earlier classifications are in the Lundu group, are here found in the Duala group.

Gerhardt (1980a) made a lexicostatistical classification of languages from Guthrie's zone A plus selected languages from the rest of the Bantu area. He also included languages from the following groups: non-Bantu-Bantoid, Nigerian Bantu, Mamfe Bantu and Grassfields Bantu. He used Swadesh's 100 word list. The group average calculation yielded the classification in chart 6.12 for the zone A languages.

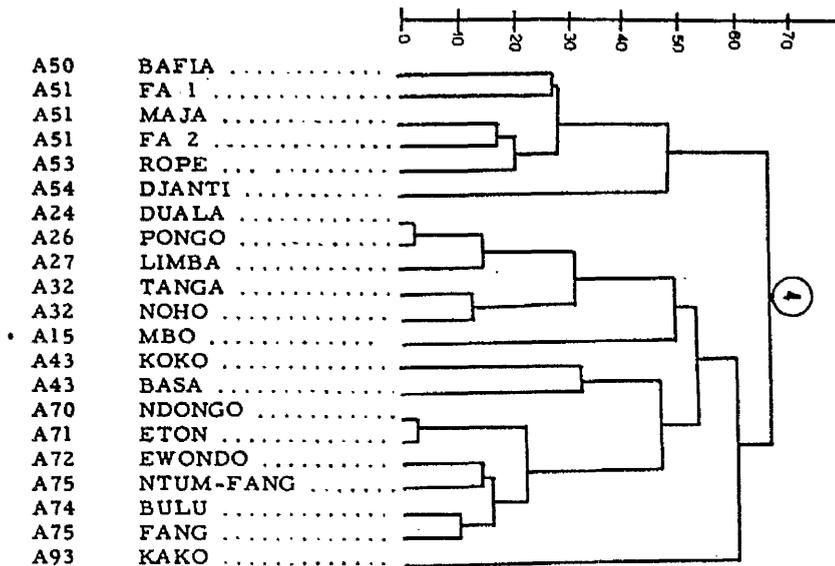
Chart 6.12: Lexicostatistical classification of zone A languages (Gerhardt, 1980a:344)



In this classification, the Basa (A.40) and the Ewondo (A.70) groups appear clearly separate from each other and from the rest. Nkundu appears as the closest relative of Nkosi with 54% shared basic vocabulary. Nkosi and Nkundu are in-turn closely related to the Duala group.

The most recent lexicostatistical classification of the Bantu languages is Bastin et al. (1983). The section of the classificatory tree most relevant to our discussion is reproduced in chart 6.13.

Chart 6.13: Lexicostatistical classification of zone A languages (Bastin et al. 1983:186)



In this classification, the languages of groups A.40 and A.70 appear as close relatives as in Gerhardt (1980). A.15 Mbo, which is the only representative from the Manenguba group, appears as a relative of the A.20 and A.30 languages. This is superficially what we find in Gerhardt's classification. However, there are two points which need to be raised. One, having been curious to know the precise identity of this A.15 Mbo language, i.e. which village or geographical area the speaker represented, we found that the list in fact represents Abo/Bankon A.42 [23]. This is the same language as Nkon (A.42) in chart 6.12 where it is found to be related to Basaa (A.43). This leads to our second point that in the matrix of cognate percentages (Bastin et al. 1983:192), the highest figure for A.15 Mbo (= A.42 Abo/Bankon) is shared with A.43 Basa (55%). This appears to confirm Gerhardt's grouping of this language with Basa.

Having looked at three existing lexicostatistical

classifications with a view to gaining an insight into how the Manenguba languages are (genetically) related to the surrounding languages, we have found there are still many open questions. Heine's publications do not contain enough explicit information to allow detailed interpretation of the relationships. Bastin et al. (1983) we found, after all, not to contain any Manenguba languages, nor any other group A.10 language. This leaves us with Gerhardt's classification in which the only representative of the Manenguba languages is first related to another language of group A.10 and next to the Duala group.

Clearly, a detailed lexicostatistical classification of all the zone A languages which would position more precisely the Manenguba languages has not yet been achieved but will hopefully one day become available.

### 6.3.2 Lexicostatistical classification of the Manenguba languages

#### 6.3.2.1 General comments

In this section, our results of a sub-classification of the Manenguba languages using the lexicostatistical method will be presented. To begin with, some general comments about the method will be made.

The lexicostatistical method, also sometimes known as "glottochronology", may be described as follows. Lists of 100 or 200 words are collected from the languages which are to be classified. For any two languages, the number of putative cognates shared between them is determined and converted into a percentage figure. The matrix of

percentages of shared cognates resulting from a comparison of each list with every other list provides the basis for working out tree diagrams. Such tree diagrams express the degree of lexical relatedness of the languages concerned and are also taken to express the genetic relationships holding between the different languages.

Underlying this method are a number of assumptions:

1. Languages change over time lexically, phonologically, semantically, etc.
2. Vocabulary items are gradually replaced by new ones.
3. The replacement of basic vocabulary (words for body parts, pronouns, universal activities like eating, etc.) takes place at a regular rate.
4. The replacement rate is the same in all languages.

On the basis of these assumptions, therefore, by calculating the shared vocabulary, it is said to be possible to determine the genetic relationship of different languages, the relative time depth at which languages split off from other languages, and, taking the assumptions to their logical conclusion, the absolute time depth as well.

Many have been the objections to this tool which, at first sight, promised to bring certainty into this area of language history. For example, what is a basic vocabulary item? The original word list was gradually reduced because certain items were not found to be "basic" in some parts of the world. The claims that the rate of replacement is constant and the same in all languages have also come under attack and it has never been possible to prove them. Consequently, linguists have become more cautious in their claims for the method. To use it as a tool to determine

absolute time depth (glottochronology) has practically been abandoned, whereas, as a tool to establish relative time depth, i.e. the putative genetic relationships, it is still being used extensively.

Another problem facing anyone using the method is how to recognize loanwords which must be excluded to achieve consistent results. Recent loans, or loans from more distantly related languages, may be relatively easy to detect, but the further in the past the borrowing took place, or if the borrowing was from a closely related language, the more difficult it is to detect.

There are other difficulties. When comparing the classifications made by different researchers, there are sometimes differences which cannot be reconciled. These may be due to the fact that a subjective element inevitably enters into the evaluation of any two items as cognate or not cognate, especially when sound correspondences and sound changes have not been worked out. The use of the 100 versus 200 word list, which is not always made explicit, may make a considerable difference.

The reliability of the source used (the informant or published material) or difficulties involved in the elicitation process may also negatively affect the results.

Differences in classifications may also be due to the different methods of drawing up the tree diagrams. The nearest neighbour versus furthest neighbour classifications as described by Henrici (1973), although they are based on the same matrix of percentages, may display considerable differences. The group average classification is a kind of compromise between the two extremes.

Occasionally, the language identification is not sufficiently specific as to which dialect/village represents the language as a whole. Where considerable differences exist within a language, it would seem important to identify the source precisely so as to allow a proper interpretation of apparent discrepancies.

With a host of such problems facing this method, one may ask if it is possible to achieve any satisfactory results. Being aware of the problems is surely the first step towards avoiding some of the pitfalls. It also helps us to realize that results are not final but have to be revised as new facts emerge and earlier decisions prove to have been erroneous.

#### 6.3.2.2 Description of our lexicostatistical study

For our study, a Swadesh first and second 100 word list was used. The following items were not elicited: 'yellow' and 'green', because colour term systems in this area consist of the three terms 'white', 'black' and 'red'. 'Freeze', 'ice' and 'snow' do not exist in the lexicon of the languages, reflecting the natural environment. 'Not' is mostly a bound morpheme, the form of which is difficult to establish because of fusion with its verbal environment. 'Leg/foot' and 'arm/hand' are one concept each, covered by one word only and so two, rather than four, items were used. With such adjustments made, the first 100 word list was reduced to 97 items and the second 100 word list to 92.

Twenty-six languages (cf. map 7) were included with two purposes in mind. The first aim was to sub-classify the Manenguba languages which for some time have been considered

closely related. The second aim was to find the relationship of the languages whose relationships to the Manenguba languages were not clear from earlier work (e.g. Balong (BLO) and Bongkeng (BNK)). Bakem (BKM) and Kitchui (KIT) [25] with Kenyang (KNY) were included to show that they are not Manenguba languages. Ngwe (NGW) was included in order to see what relationship exists between it and L&kong/Kinkwa (LEK), which is also called "Upper Mbo", but whose linguistic affiliation has been unclear.

All lists were collected by me except the one for Kenyang (KNY), which was provided by J. Tyhurst, and the ones for Kitchui (KIT) and Ngwe (NGW) by R. Thwing and P. Dancy respectively. These last two lists consisted of 100 words only.

On the basis of the word lists, a table was made indicating for each gloss which putative cognate type was present in the various languages. This was fed into a computer for the purpose of counting the cognates shared between pairs of languages and calculating the percentage figures. The results are presented in two matrices. The first (chart 6.14) contains the percentage figures based on the first 100 word list, the second (chart 6.15) is based on both the first and second 100 word lists.

The figures in charts 6.14 and 6.15 are the percentages of cognates shared by the languages whose abbreviations appear at the top and to the right of any particular figure.

The figures for NGW and KIT are identical in both charts because the second 100 words were not available. The figures for the other languages are generally lower in chart





6.15. This is clearly due to the larger sample used. In fact, the corresponding figures differ in many cases by up to 13 percentage points. This came as a complete surprise. Some discrepancy was expected, but not such a large one. The explanation seems to be that the items contained in the first 100 word list are more basic than the ones in the second list, or that the second 100 word list contains some non-basic or less basic items. It certainly brings home the fact that studies based on different size samples may vary considerably in their cognate rates.

What is perhaps more significant is the fact that the classifications based on the two charts are broadly the same, as will be seen from the tree diagrams presented in charts 6.16 and 6.17.

The figures in charts 6.14 and 6.15 are generally arranged in such a way that the more distantly related languages are placed towards the left-hand side.

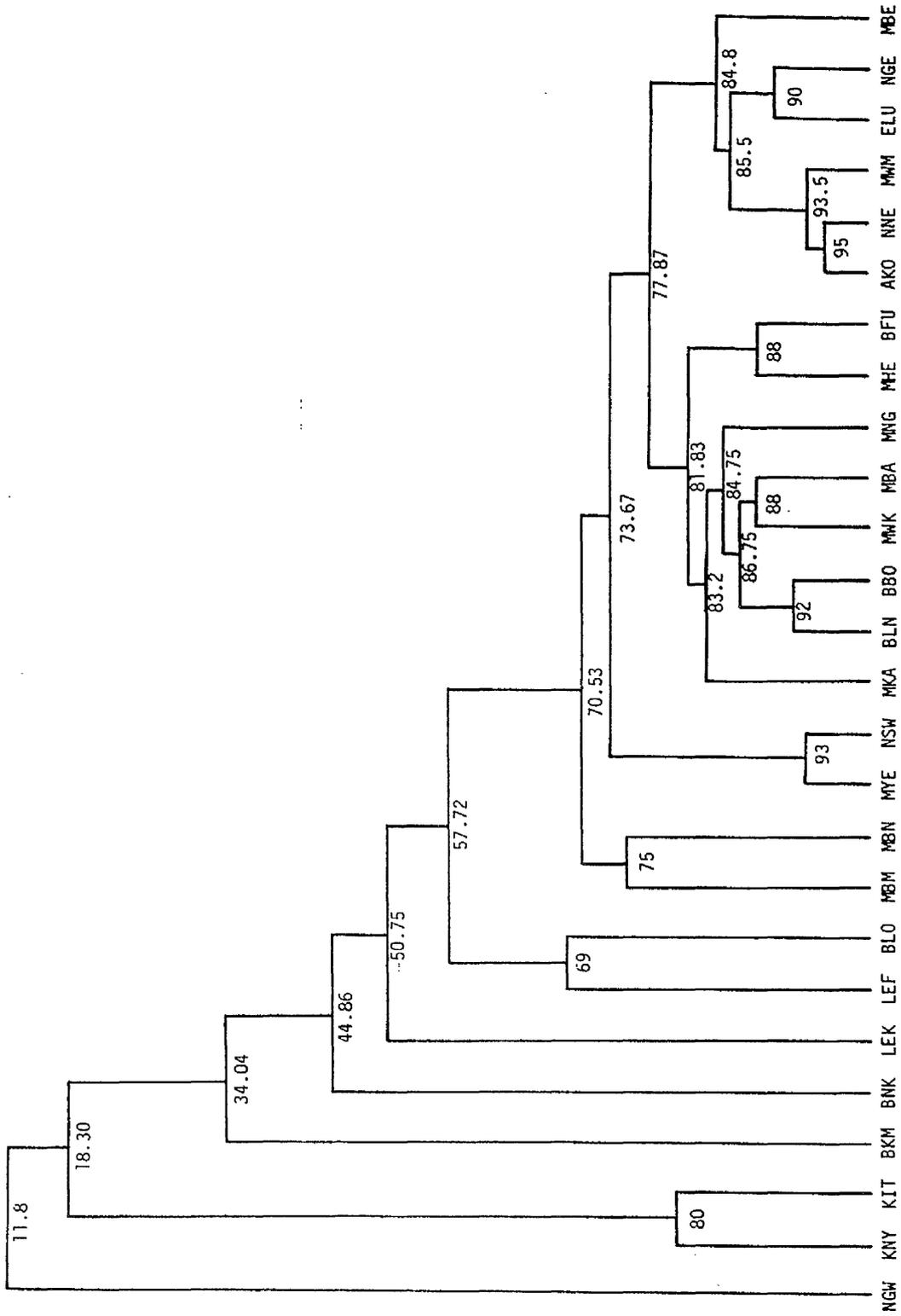
Lines have been drawn in charts 6.14 and 6.15 to separate off the languages/dialects which are closely associated with each other.

#### 6.3.2.3 Our lexicostatistical classification

In charts 6.16 and 6.17, our lexicostatistical classifications are presented. The trees were drawn by using the group average classification as described by Henrici (1973).

From these classifications, it is clear that NGW and KNY-KIT are the most distantly related languages, the last two being dialects of one language. BKM, which belongs to the Basaa group, is also shown to be only marginally related.

Chart 6.16: Lexicostatistical classification (100 word list)





Both classifications agree in that there are two closely related clusters, MKA-BFU (MKA-MBA in chart 6.17) and AKO-MBE. The first will be called the "Eastern cluster" and the second the "Western cluster". They are linked by 77.87% in chart 6.16 and 71.02% in chart 6.17 and together will be called the "Central group".

MYE and NSW are closely related to each other (93%/84%) and will be called the "North Western group". Together they form a branch coordinate with the Central group linked by 73.67%/65.64%. MBM and MBN share 75%/68% and will be called the "North Eastern group". They are the next branch linked to the previous groupings by 70.53%/62.16%. LEF and BLO share 69%/62% and are linked by 57.72%/52.70%. LEK and BKM are branches linked by 50.75%/40.52% and 34.04%/31.55% respectively.

The two classifications conflict in that BNK branches off above LEK with 44.86% in chart 6.16 and below LEK with 42.75% in chart 6.17. There are also discrepancies in the Eastern cluster. Whereas in chart 6.16 MBA appears more in the centre of the cluster because of high scores with MWK and BLN-BBO, in chart 6.17 it appears on the edge of it, i.e. it is most distantly related. MKA, on the other hand, appears in a peripheral position in chart 6.16 but more central in chart 6.17.

These discrepancies in the Eastern cluster are not totally surprising since, as the percentage figures indicate, we are dealing with a dialect continuum. Perhaps the most obvious cases are MBA and BFU which are geographically at the extreme ends of the Eastern cluster. MBA and BFU have the lowest figure of shared cognates within

the Eastern cluster being also geographically the furthest apart. This appears clearest in chart 6.15 where the two members on the geographical extremities share 68% only but where there is a chain of figures above 80% between immediate neighbours (cf. map 7).

The Eastern and Western clusters are geographically separated by the Kupe-Manenguba mountain ridge (cf. map 2), which formed the basis for the political division into French and British Cameroons after World War One, now reflected in the francophone/anglophone areas (cf. map 6). The case of MWM is significant in this connection showing two things. One, that the mountain range is not an absolute boundary, MWM being situated on the ridge. Two, linguistically MWM clearly belongs to the Western cluster although politically it is included in the francophone Littoral Province to the east. It demonstrates that it is the geographical distribution of these speech communities rather than the recent political division which is responsible for the linguistic differences between the Eastern and Western clusters.

MBE, also on the francophone side, is included in the Western cluster because of some high scores with languages from that cluster, although it also shares some high figures with languages from the Eastern cluster. Chart 6.17 in particular shows that it is the most distant member of the Western cluster (cf. also 6.4.4).

The languages popularly referred to as "Mbo" are the following: LEK, MYE, MBN, MBM and MBE, and occasionally the languages of the Eastern cluster. The most surprising fact brought to light by this study is that there are very large

differences, i.e. low rates of shared cognates, between these languages. If 80% is taken as the cut-off point between language and dialect on the results of the 100 word list and 70% for the 200 word list, then LEK, MBM, MBN and MYE-NSW are each separate languages. This also illustrates well the fact that the use of names can be confusing and can create a false impression. In this case, the term "Mbo" hides the fact that the different groups referred to display great linguistic variety. On the other hand, when considering the Eastern cluster, each cultural unit has its own name and in the majority of cases, its own "chef supérieur" (paramount chief), whereas linguistically they are so closely related that they have to be considered dialects of one language, even though there is no common name. This close relationship has led to attempts by speakers of the Eastern cluster to create a name for their common language. One such proposed name was "Mine'e" (from 'I say'), which has, however, not found popular acceptance.

Two more points need to be dealt with: the affiliation of BNK and the question of which languages to include or exclude from the Manenguba languages. In other words, can a unit called "Manenguba group" be identified? In fact, neither question, it seems, can be answered completely satisfactorily at this point. Only if the Duala, Basaa and Oroko groups were included in the overall classification would it be possible to make a definitive statement.

It may be recalled that Bryan (1959) expressed that BNK may belong to her Basa, Duala or Mbo group (cf. chart 6.8). Judging from charts 6.16 and 6.17, it appears that BNK is closer to the Manenguba group than to the Basa group of

which BKM (A.43a) is a representative. The choice appears therefore to be between the Duala or Manenguba group, or as an entity being coordinate with both. This is as far as the question can be resolved.

The question of what constitutes the Manenguba group may be answered in the following way. Perhaps the best way of viewing the situation is in terms of onion-like layers [26]. The core of the Manenguba cluster is constituted by the Eastern and Western clusters. The next layer is MYE-NSW followed by MBM-MBN. Then there is a large gap of 12.81% points in chart 6.16 and 9.46% points in chart 6.17 to the next layer of LEF-BLO. After another gap comes LEK in chart 6.16 and BNK in chart 6.17. Because the order of these two is reversed in the two classifications, neither should be given precedence. Either both are included or excluded together. Since it is expected (taking Gerhardt 1980:344 into account) that the Duala group would fit in the tree somewhere around 45% in chart 6.16 and 40% in chart 6.17, it is best to leave judgement until a study which includes that language group is available. In order to determine the case of the LEF-BLO layer, it would be necessary to consider languages like Mbonge and Bakundu of the Oroko group. The classification of Voeltz (n.d.) places LEF and BLO as a separate group on a par with Oroko (which includes Bakundu and Mbonge) and Ngoe (his name for the Manenguba group, cf. chart 6.10). It is not known what the basis of his classification is. Expecting Voeltz's work to be reliable, this excludes LEF-BLO from the Manenguba group, leaving the languages from MBM to MBE. Interestingly, it is between this group and LEF-BLO that there is the largest gap

as indicated above. For the purposes of the rest of this study, therefore, the languages comprising MBM to MBE are considered as the Manenguba group.

Chart 6.18: The Manenguba group according to our  
lexicostatistical classification

North Eastern group

MBM (Mbo of Mboébo)

MBN (Mbo of Ngwatta)

North Western group

MYE (Myəngə)

NSW (Nswasə)

Central group

Eastern cluster

MKA (Mkaa?, Bakaka)

BLN (Belon, Balondo)

RBO (Babong)

MWK (Mwaneka)

MNG (Manenguba)

MHE (Mwahɛd)

BFU (Bafun)

MBA (Mba?, Bareko)

Western cluster

AKO (Akɔɔse)

NNE (Nnɛnoŋ)

MWM (Mwamenam)

ELU (Eluŋ)

NGE (Ngemengə)

MBE (Mbo of Ekanang)

To conclude this section, we may sum up as follows. The lexicostatistical analysis has provided an internal classification of the Manenguba group which may be characterized as consisting of an eastern and western cluster and two less closely related groups, MYE-NSW and MBM-MBN. It has been clearly established that BLN (Balondo) and BBO (Babong) are firmly part of the Eastern cluster (cf. with chart 6.6). BLO (Balong) is certainly not in the Basa (Mbɛnɛ) group (cf. with chart 6.6) and BNK (Bonkeng) probably not either. BLO and LEF (Bafaw) are related to each other (cf. with chart 6.4) and, if Voeltz is correct, form a group parallel to the Manenguba group. LEK is clearly not closely related to NGW (Bangwa) (cf. Eyongetah and Brain 1974:25) [27] nor to Mamfe Bantu (cf. Williamson 1971:278 and Voeltz's Manyu in chart 6.10) but almost certainly part of A.10 or A.20.

#### 6.4 Lexicostatistical classification and shared innovations

In the remaining sections, we will consider the implications of sound changes and of morphological and lexical isoglosses for the internal classification of the Manenguba languages. Instead of taking the larger number of twenty languages used for the lexicostatistical study, the fourteen languages [28] used in chapters two to four and appendix I will form the basis for the following discussion. As a consequence, what follows may or may not be true for the languages represented only in the lexicostatistical study.

#### 6.4.1 Sound changes and classification

One innovation shared by all 14 languages is the neutralization of the voicing distinction in morpheme final C2 position (cf. (1) in chapter 3). However, this innovation is much wider in scope and includes, for example, Basaa (Janssens 1982), Ewondo (Abega n.d.) as well as the Ekoid languages (Crabb 1965, Watters 1978) and Kenyang (Tyhurst 1984).

There is no phonological innovation which confirms Manenguba as defined here (i.e. the 14 languages minus LEF and LEK). There is, however, a very clear phonological innovation which defines Manenguba minus the North Eastern group (MBM-MBN) and which confirms the lexicostatistical results, namely, sound change (27)  $f > h$ . The NE group (MBM-MBN) shares (6)  $j > y$ . The NW group is marked by (4)  $b > b^h$  and (42)  $l > n$ . There appear to be no sound changes shared by the Central group combining the Western and Eastern clusters.

The Eastern cluster is defined by (55)  $ny > \emptyset$ . The Eastern cluster minus MWK is marked by (14)  $j > s$  and (30)  $h > \emptyset / \_y$ . The Eastern cluster is also set off from the other languages by the absence of vowel changes, the exceptions being MHE and to a lesser extent MWK. MHE, MKA and BLN are also the ones which retained  $j / n + \_$  (cf. sound change (5)).

For the Western cluster as defined lexicostatistically, there appears to be no clearcut shared phonological innovation. The vowel change (66)  $e > \epsilon / \_l$  comes closest to such a feature. However, it is not totally true for MBE (where it has not always taken place) and it

also includes MHE which is part of the Eastern cluster.

ELU-NNE-AKO share (69a), (82), (106) and (108) and the retention of h /\_\_y (cf. (30) and (32)), but it should be noted that (82) is also attested in LEF, (106) in MBM and LEK and (108) in MBM.

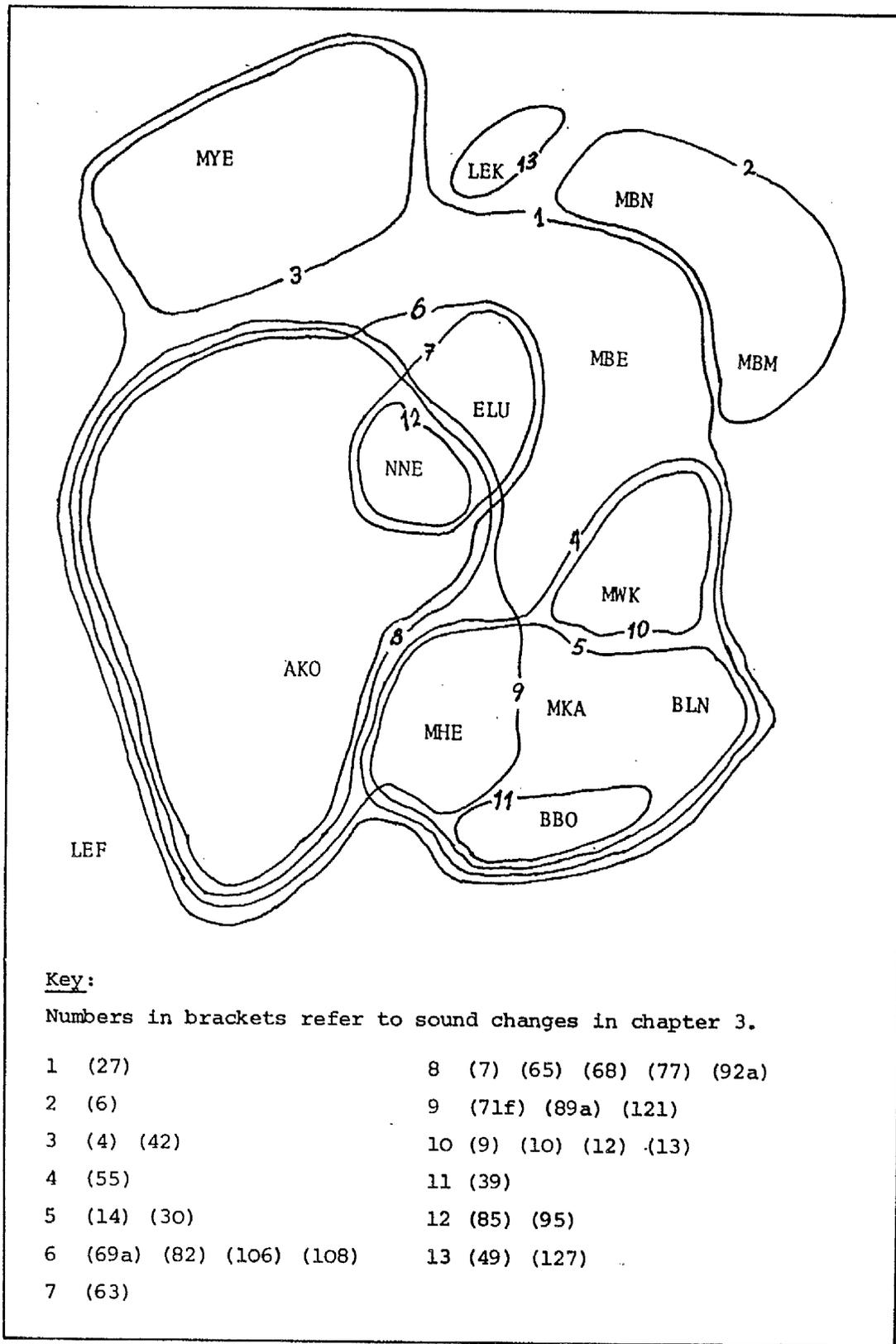
ELU and NNE share (63). NNE and AKO share (7), (65), (68), (77) and (92a). (7) is clearly of recent origin, (65) is also attested in MYE, and (68) in MBM. There are three vowel changes, (71f), (89a) and (121), which include NNE, AKO (in the case of (121) also ELU) from the Western cluster and MHE from the Eastern cluster (cf. also with (66) mentioned above).

Sound changes limited to individual languages which are especially striking are \*C2 > [+son] for MWK (cf. (13) with (9), (10), and (12)); (39) \*l > y for BBO; \*o, u > a /\_\_ŋ for NNE (cf. (85) and (95)). Outside the Manenguba languages, LEK has two interesting changes, (49) \*m > n and Ø > g (cf. (127)).

The sound changes and retentions so far discussed are displayed in map 8 as isoglosses of features shared between the different languages. From an inspection of chapter 3, it is clear that there are other sound changes not dealt with here. They have not been included because they do not display any regular geographical pattern.

With all these sound changes, it is difficult to know which ones were innovations at earlier stages and inherited by the present day languages, and which ones have spread from one language to geographically adjacent ones due to intensive social contact. Still others, especially the very context dependent ones, may have arisen in more than one place independently.

Map 8: Isoglosses of shared sound changes



#### 6.4.2 Morphological changes and classification

In this section, we will focus on certain morphological changes, especially as they affected the noun class concord system.

The reduction of noun prefixes before consonant initial stems in classes 4, 5, 7, 8, and 14 may prove to be a set of related innovations defining PM as a genetic unit (cf. charts 4.8-9, 4.11-12 and 4.15 as well as 5.13). Class 8 (and possibly 14) is especially significant because of what appears to be metathesis of \*bi- > PM \*eb- with the subsequent reduction of b > ? and ? > Ø, as well as lowering of the vowel to [ih] in some languages.

In light of the fact that prefix reduction has taken place in many Bantu languages, especially in the prefixes with a nasal, it is not possible to be absolutely certain that each of these reductions can be used to define the Manenguba group. However, the changes in classes 8 and 14 are the least likely to have spontaneously repeated themselves elsewhere and therefore appear to be an innovation which defines the Manenguba group confirming the lexicostatistical grouping. It should be noted that LEF and LEK have retained full CV-shapes of the noun prefixes, except in classes 1, 3 (and 7?).

Within Manenguba, MBM-MBN share the reduction of the class 6 \*mè- prefix to ñ- which confirms the lexicostatistically established North Eastern group.

There are three innovations which are attested in all the Manenguba languages except in part or the whole of the Eastern cluster. One, the bilabial nasal prefix for classes 1, 3 and 4 has become homorganic with the following

consonant in all languages except MKA, BLN and BBO. Two, the oral vowel in the possessive pronoun prefix of classes 3 and 4 has become a nasal in all the languages except in MHE, MKA, BLN and BBO (cf. chart 4.7-8). Three, the labial consonant of the possessive pronoun stem for 3rd person singular was dropped in all Manenguba languages except in the Eastern cluster (cf. chart 4.2). In MWK, this b has become w, which sets MWK apart from the Eastern cluster (cf. (9) in chapter 3). The above three changes show that the Eastern cluster consists of the most conservative languages. The first of the three could easily have arisen independently in several places since it is a very common, natural change. The second change could also have taken place independently due to analogy with the noun prefixes and because of the nasal environment.

The loss of final b in the third case is a development which does not parallel the development of final b in every other case (cf. chart 2.4).

The following languages have adopted the class 5 concord for nouns of class 14 (and 19): MHE, MWK, MKA and BLN as well as MBE and MBN. This probably reflects a merger of nouns in gender 14/6 with the nouns in gender 5/6 as far as singular concord is concerned due to the fact that they have identical plurals. It also cuts across our classification, but this merger could possibly have occurred in more than one place independently.

In class 8, the glottal stop has been dropped in MRN, MYE, MBE, ELU and MWK ( $\text{ʔ} > \emptyset$ ) providing an isogloss which cuts across the classification presented above. (We do not have the relevant information on MBM.) Loss of glottal

stops could of course take place independently but it should be noted that these languages are geographically adjacent.

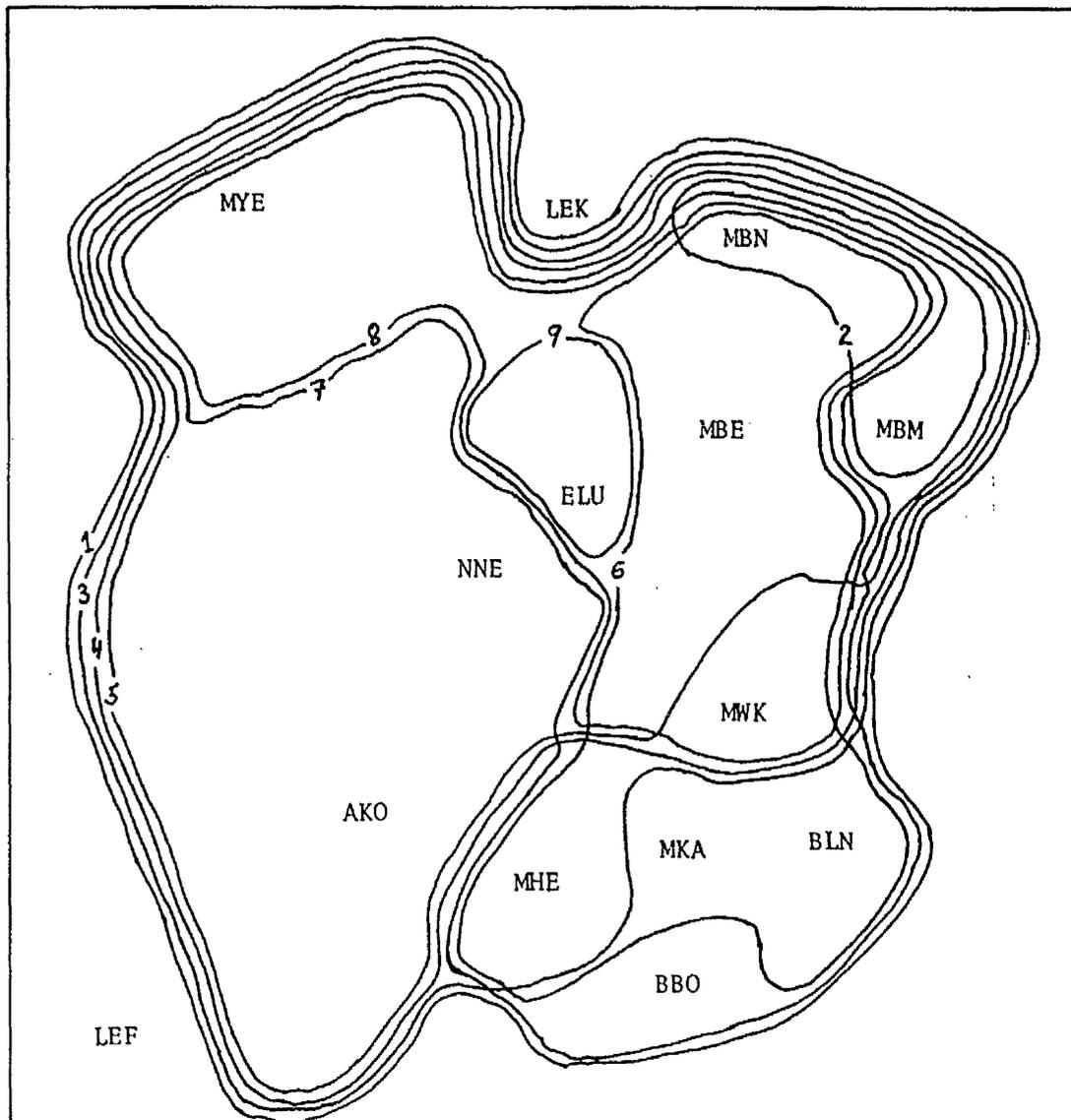
The most noticeable isogloss is the one provided by the class 2 and 6 prefixes which are  $\delta$ - both for the nouns and the concord. (MBN has some nouns in these classes with an o- prefix but the o vowel has not been introduced into the concord system as it has in the other languages.) This isogloss also cuts right across the lexicostatistical classification and includes MWK from the Eastern cluster, ELU and MBE from the Western cluster and MYE representing the North Western group. It appears, therefore, that it has to be interpreted as a wave phenomenon spreading from one language to its neighbour rather than being inherited from a common ancestor language.

ELU stands out in that the class 8 and 14 prefixes have been completely lost pre-consonantly. It has also introduced nasals into the concord elements of classes 8 and 14.

In map 9, the shared morphological changes are indicated in the form of isoglosses. It clearly shows that LEK and LEF are excluded from the Manenguba group. Several isoglosses separate ELU and MBE from the Western cluster and MWK from the Eastern cluster.

As has been seen above, the Eastern cluster is conservative in many respects. This is also true with respect to morpheme structure. On inspection of cognate noun roots which are CVCV in some languages and CVC in others, the picture in chart 6.19 emerges. Those noun roots which have either lost or retained V2 in all languages have been excluded from the count.

Map 9: Isoglosses of shared morphological changes

Key:

- 1 \*bî- > PM \*èb- (cl.8)
- 2 \*mè- > ñ- (cl.6)
- 3 \*ñ- > ñ-, ñ-, ñ-
- 4 \*v > ñ
- 5 \*b > ø, CVCV > CVC
- 6 (cl.14) concord > (cl.5) concord
- 7 ? > ø (cl.8, cl.14?)
- 8 \*bà-, \*mà- > ð- (cl.2,6)
- 9 \*bi- > ø- (cl.8); N concord (cl.8,14)

Chart 6.19: Retention versus loss of V2

	<u>retentions</u>	<u>losses</u>		<u>retentions</u>	<u>losses</u>
	CVCV	CVC		CVCV	CVC
MBM	1	7	MHE	9	10
MBN	1	9	MWK	14	8
MYE	1	10	MKA	18	1
MBE	4	11	BLN	19	3
ELU	2	12	BBO	18	2
NNE	2	15	LEF	1	10
AKO	3	14	LEK	0	8

The above results clearly show that the languages of the Eastern cluster (MHE-BBO) have predominantly retained the full form whereas the others have predominantly dropped V2. MHE and MWK take up an intermediary position.

#### 6.4.3 Lexical isoglosses and classification

In the lexicostatistical study, 100 or 200 basic vocabulary items are used to the exclusion of more specialized cultural items. While working with the comparative word list, we noticed certain recurrent patterns of lexical items being limited to the same languages providing identical or similar isoglosses. From the results of a count of such isoglosses, the following picture emerged. About 140 items are shared by all 14 languages used in appendix 1. No item was found to be shared by all except LEK but there are three items which appear to be unique to and provide an isogloss for the Manenguba languages. They are (A293) \*-tɔ̃m 'plantain', (A352) \*-bòg 'mortar' and (A529) \*-sàny 'urinate'. Whether any of these will be found to be unique

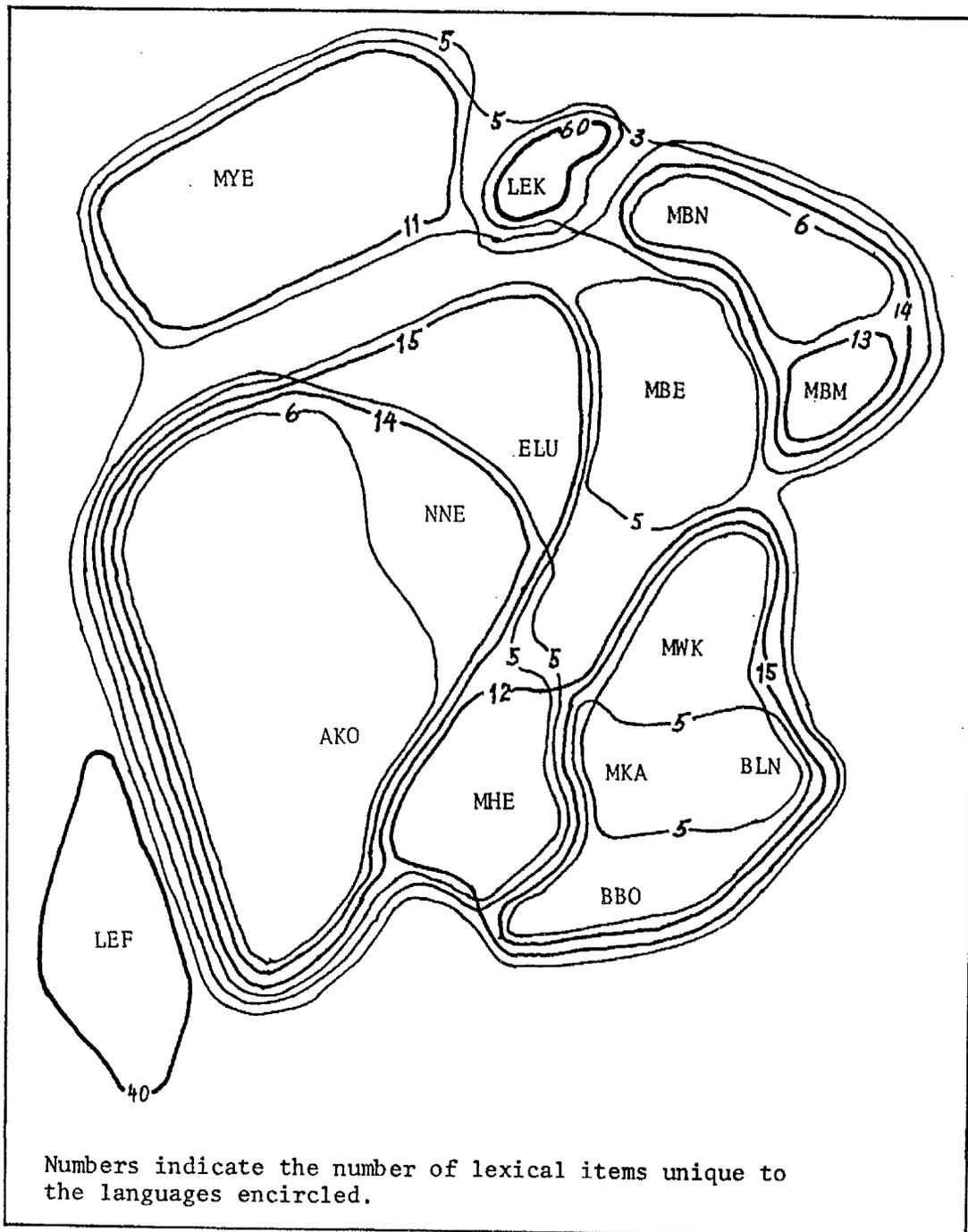
to Manenguba, thus providing further support for defining it as a genetic unit would depend on whether these items also exist in other languages or not. Item (A353) \*-f<sup>5</sup>b 'language' provides an isogloss for the Central group. This item appears to be derived from a PB item for 'to speak' (cf. (A606)). MBM and MBN (the North Eastern group) share 14 items uniquely. Manenguba minus MBM-MBN has five isoglosses, the Central group also five, the Eastern cluster has twelve plus an additional fifteen which exclude MHE. There is no isogloss for the Western cluster which includes MBE. However, ELU-NNE-AKO share fifteen items and NNE-AKO share fourteen. The last two groupings share five items each with MHE.

LEK is the most isolated language with 60 lexical items shared with no other language. LEF is next with 40 items not shared by any others. Thirteen items are unique to MBM, eleven to MYE and six to MBN. MBM-MBN share ten items with LEK. This is an unexpectedly high figure considering the relationship established lexicostatistically and is probably to be explained in terms of a contact situation.

As can be seen from an inspection of appendix 1, other isoglosses are provided by other items which make the situation portrayed in map 10 still more complex.

The picture that emerges from the lexical isoglosses is as follows. In broad terms, the lexicostatistical study is confirmed, which is not totally unexpected. LEK and LEF are the most distantly related languages. There are four groups: one in the north-west, one in the north-east, one in the west and one in the east. MBE is clearly the most peripheral member of the Western cluster. MHE takes up an

Map 10: Isoglosses of shared lexical items



intermediate position between east and west. MBM and MBN, although forming a cluster, are not closely related.

#### 6.4.4 Conclusion

Phonological, morphological and lexical isoglosses overall confirm our groupings arrived at lexicostatistically. In the Western cluster, AKO and NNE are the most closely related followed by ELU. However, it appears that MBE, which is lexicostatistically included in the same cluster, should be excluded from that cluster since it does not share any isogloss exclusively with AKO-NNE-ELU.

The Eastern cluster also appears to be confirmed by phonological, morphological and lexical isoglosses, MKA-BLN-BBO being the most closely related. Morphologically, MHE is closely associated with the above three, but MWK is peripheral to the Eastern cluster. The lexical isoglosses, however, give the opposite picture with MWK included in the cluster but MHE excluded by at least some isoglosses. Phonological isoglosses place both MWK and MHE on the periphery.

The position of MHE in relation to the Eastern and Western clusters is ambiguous taking into account phonological and lexical isoglosses only. This perhaps indicates a long-standing pattern of social contact (e.g. intermarriage) between people who speak MHE and AKO.

There are isoglosses of each kind to confirm MBM-MBN (the NE group) as a sub-group. MYE (the NW group) is also

isolated but shares phonological, morphological and lexical isoglosses with its neighbours. Although there are no phonological isoglosses to delineate our Manenguba group as a whole, it is confirmed by morphological and lexical isoglosses.

In light of the above comments, the classification in chart 6.18 may be revised to give chart 6.20. The only major revision consists of MBE being detached from the Western cluster and placed separately as coordinate with both the Eastern and the Western clusters. The languages in brackets are the ones not included in the discussion in sections 6.4.1 to 6.4.3.

Chart 6.20: Revised subclassification of the Manenguba group

North Eastern group

MBM

MBN

North Western group

MYE, (NSW)

Central group

MBE

Eastern cluster

MWK, (MBA)

MKA, (MNG)

BLN

BBO

MHE, (BFU)

Western cluster

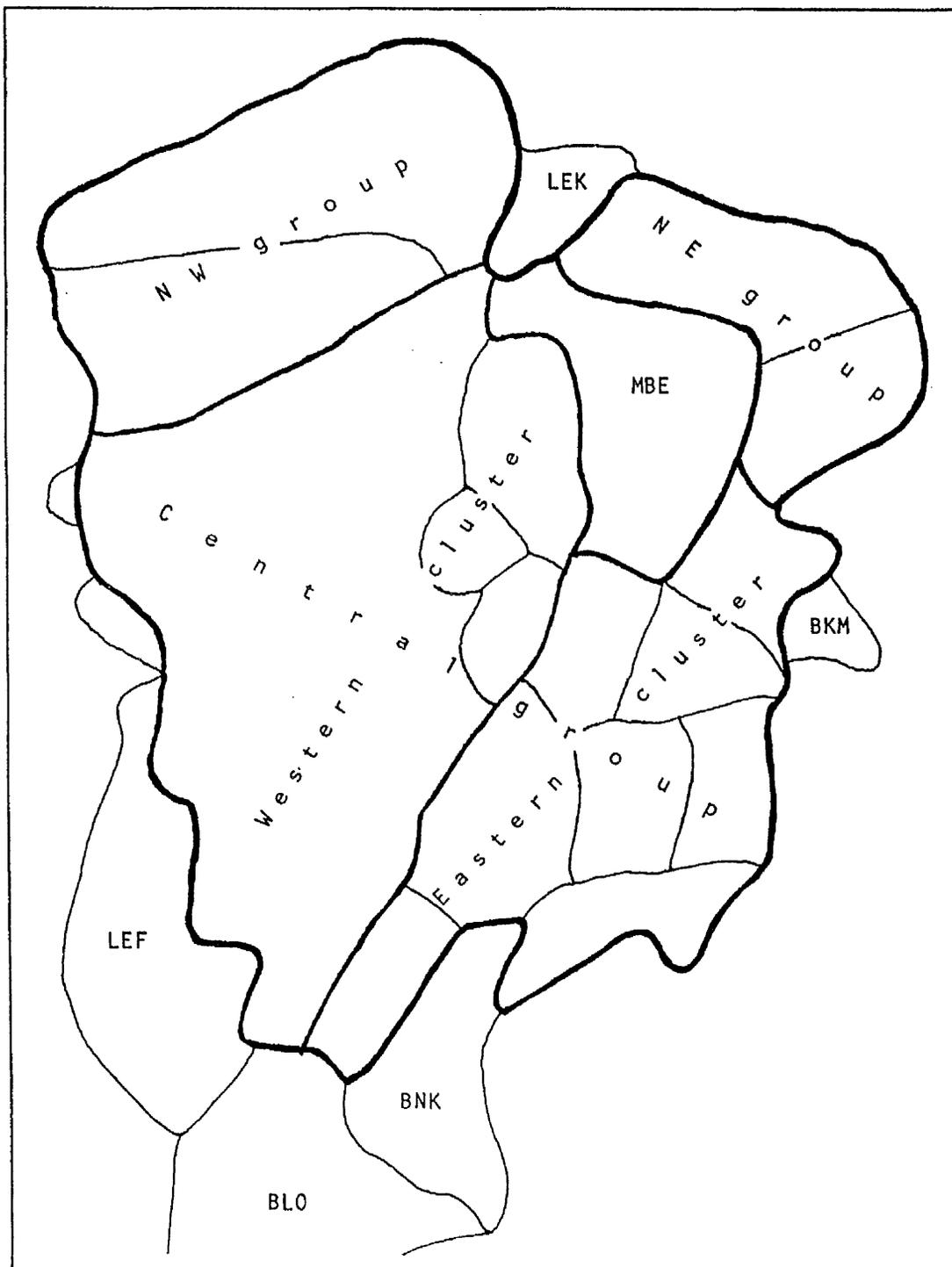
AKO, (MWM)

NNE

ELU, (NGE)

Our revised subclassification of the Manenguba group is geographically presented in map 11.

Map 11: Subclassification of the Manenguba languages



## FOOTNOTES TO CHAPTER SIX

[1] Names, as well as the reference numbers for Bantu languages given in brackets, are taken from Dalby's "Provisional identification of languages in the Polyglotta Africana" (1964:87). The reference numbers for Bantu languages here and elsewhere were first introduced by Guthrie (1948) and revised in Guthrie (1953) and have found widespread acceptance.

Abbreviations in square brackets are the ones used in this study, cf. map 7 and section 1.4.3.

[2] For the term "Mokoo", see footnote 14 to chapter 1.

[3] "Classification of the Cameroon dialects"

[4] The nasal in the term Fan appears to be velar (cf. chart 6.2). As velar nasals were indicated in that period by a dot over the nasal (ñ), the spelling with an alveolar nasal may be due to an omission of the dot. Bali is an Eastern Grassfields language. Duala and Fang are Bantu languages, Fang having more reduced noun roots and prefixes.

[5] The first visit of an outsider to the south-western part of the Manenguba area probably took place when Zintgraff made his exploratory trips in 1886-7, first to Kumba (LEF area), and then to Nyasoso (AKO area) (Zintgraff 1895:30-32). He later passed through Nguti (MYE area). Autenrieth appears to have been the first to have settled in the area (at Nyasoso) in 1895 (Gutekunst 1913:4-6). The first language material on LEF and AKO became available in print in 1910/11 (Buße 1910/11, Dorsch 1910/11).

[6] "The Nkosi language is ... a Bantu language. ... only a very distorted dialect of Duala ..."

[7] The reference numbers for Bantu languages are our addition.

[8] The presence of a p and f in these two alternative names immediately suggests a correlation of the type discussed in 5.4.

[9] Cf. also footnote 16 to chapter 1. Johnston's work has not been taken seriously for a long time partly due to the glaring errors he made. For a recent reappraisal of his work, see Coupez (1977).

[10] Both Mangan and Myəŋgə appear to be derived from an earlier form such as mwan + ŋgən 'son of ŋgən'. Cf. Jacquot and Richardson (1956:25) for the term Ngən.

[11] "Prefixes still nearly complete"

[12] "Prefixes already in the process of disappearing".

[13] "Southern Mbo"

[14] "New Bantu"

[15] "Old Bantu"

[16] "Benue-Cross-River-Semi-Bantu"

[17] "North Cameroon mountains-Semi-Bantu"

[18] "Peripheral class languages"

[19] This is the first occurrence of the term "Mbo Cluster" in the literature (cf. 1.4.3.2).

[20] Cedillas and subscript dots in the original have been omitted from these names as they do not add anything of significance here. The stem initial consonant rather than the initial letter is capitalized in those glossonyms where Guthrie had split off the prefix and placed it after the name, e.g. Kɔɔsɛ, aɪ. The names of ethnic groups said by Guthrie to be speaking the same language are given in brackets.

[21] The North Mbɛnɛ group was not treated in Richardson (1957).

[22] The term Oroko appears to be replacing the term Lundu for the western part of group A.10. The term has been used by Ngoula (n.d.), Etame (1981), Breton (n.d.) and Kuperus (1982).

[23] The term Ngoe is also used by Breton (n.d.) for the eastern part of the group A.10 but is not popularly used. Cf. the discussion in 1.4.3.2.

[24] The Musée Royal de l'Afrique Centrale kindly sent us a copy of the word list used to represent Mbo A.15. The list is headed A.15g Mbɔ. However, at the bottom of the list, we find the following: LANGUE TRADUITE: bɔ. On inspection of the list, we found that it must have been taken from Spellenberg (1922) Die Sprache der Bɔ oder Bankon in Kamerun. The error of identification must have occurred because of the convention of leaving off the prefix: Abo/Abɔ > bɔ/bɔ > mbɔ > mbo.

[25] Bakem (BKM) occasionally has been included in Mbo (Champaud 1973, Ngoula n.d., Breton n.d.), possibly because it is in the same administrative division. Dugast (1949a:31) linked it with Abo. Jacquot and Richardson (1956) also placed it in the Basaa group. Kitchui (KIT), also referred to as Upper Balong is culturally linked with Balong. For this reason, it is included in the Mbo group by Ngoula (n.d.). Linguistically, it is clearly related to Kenyang. This is allegedly due to the adoption of Kenyang in favour of their own language at some time in the recent past.

[26] Cf. Heine et al. (1977:57 footnote 3) who referred to a similar situation in Bantu as a whole as "Bantu Zwiebel" [= Bantu onion].

[27] Eyongetah and Brain (1974:25), apparently referring to LEK, make the following statement: "Kingkwa is a language spoken in the Bamileke-Mbo borderlands and provides a remarkable example of a fusion of a Bantu-Mbo and a semi-Bantu (Bangwa-Bamileke) language." The nature and truth of the claim made in this statement would need further investigation. From our study made so far, however, we would be rather more cautious. It would also be necessary to clarify precisely which speech community the authors have in mind, whether it is the same or a different one from the one represented in this study.

[28] Included in the numbers 20 and 14 are LEF and LEK because they figure in all our charts in chapters 2 to 4 and in appendix 1, but it should be noted that they are excluded from our definition of the Manenguba languages.

## APPENDIX ONE

COMPARATIVE WORD LISTS

This appendix contains the data on which the comparative study is based. There are 709 glosses which were used to elicit the words in the different languages. The glosses are numbered and arranged into broadly the following categories: (1)-(13) numerals, (14)-(423) nouns, (424)-(483) qualities, (484)-(489) pronouns, (490)-(523) relational concepts, (524)-(709) verbs. For ease of reference, an alphabetical listing of the English glosses is given in appendix 2.

At the top of each item is given the number with the gloss in English and below it the gloss in French. Bantu reconstructions from Guthrie (1967-71) are indicated by CB (Common Bantu), the number in brackets referring to Guthrie's Comparative Series (numbers preceded by ps refer to Guthrie's "partial series"). On the line labelled M, Bantu reconstructions from Meeussen (1967) and (1969) are given. Occasionally, reconstructions for Proto Eastern Grassfields from Hyman (1979) are included and identified as PEG. PGB refers to Proto Grassfields Bantu (from unspecified sources), PEK to Proto-Ekoid (Watters 1978 and 1981) and PBC to Proto-Benue-Congo (De Wolf 1971). Dia. indicates items from Duala.

PM stands for Proto-Manenjuba and is used to label our own reconstruction of roots on the basis of the data

presented below it. The status of each reconstruction varies, some clearly representing Proto-Manenguba and in some cases being reflexes of Proto-Bantu, Proto-Benue-Congo or Proto-Niger-Congo. The status of others is less clear. Some may be retentions from an earlier stage or may be an innovation or borrowing since PM. However, it is difficult to be certain at this stage. The less well supported reconstructions are included to facilitate comparison with reconstructions from other groups and sub-groups in this general linguistic area.

MBM to LEK refer to the languages chosen for this study (for the abbreviations of the languages names see map 7). Where more than one cognate type exists under one gloss, an attempt has been made to arrange the tokens of each cognate type into columns. Where too many different cognate types appear, this has, of course, not been possible.

A broad phonetic transcription has been used except in AKO and MWK where the data is phonemicised. Variations in the pronunciation recorded are placed in brackets, the alternatives being separated by a slash (/).

Where we have a plural form for nouns, this is indicated after the singular form separated by a comma. Usually, the prefix only is given but where necessary, the whole plural form is added. Identical singular and plural are indicated by 'id.'. The numerals 1 - 19 indicate the noun class gender to which the root belongs. A hyphen preceding PM roots shows that a class prefix is required. No hyphen with roots of classes 9 and 10 indicates that these roots have a  $\emptyset$ - prefix, cf. 4.5.

Tone is usually indicated, but where we lack the information, it has been left unmarked. In reconstructions of PM, sometimes it has not been possible to reconstruct the quality of a vowel. In such cases, E stands for a front vowel, O for a back vowel and V for any vowel.

There is a set of notes at the end of this appendix containing a variety of comments on some of the items. Where there is such a note, this is indicated by an asterisk after the English gloss. These notes are not meant to be exhaustive, but to clarify a few points especially for the person not familiar with these languages. It is obvious that much more could be said than space allows.

	( 1 ) one	( 2 ) two	( 3 ) three *
	un	deux	trois
CB	(1570) *-p55g5 (1314) *-m5	(22) *-bādē	(1689) *-tātō
M	*-p5k5 (NW) PEG: *m3k' *mōk'	*-bādē PEG: *(ē)bā'	*-tātō PEG: *tād'
PM	*-p5g 9 *-f5g	*-bā	*-lāān
MBM	-f5?	-bā	-lāā
MBN	p5?	-bā	-lāā1
MYE	p5?	-bā	-lāā
MBE	p5?	-bē (ε/ə)	-lāē
ELU	p5?	-bā	-lāān
NNE	-h5?	-bē	-lāā
AKO	p5g'	-bē	-lāān
MHE	'p5?	-bē (ε/a)	-lāān
MWK	p5?	-bā	-lāān
MKA	p5?	-bā	-lāān
BLN	p5?	-bā	-lāān
BBO	p5k' 9 -h5k' 7 m̄v5k' 1,3 if5k' 5,14	-bā	-yāān
LEF	'p5?	-bē	-lāān
LEK	f5k' -f5g'	-byā	-lāgā
	( 4 ) four *	( 5 ) five	( 6 ) six
	quatre	cinq	six
CB	(1353) *-nī	(1662) *-tāān3 PEG: *tān	(1815) *-tōōbā 3
M	*-nāī PEG: *-kūa	*-tāān5` (t/c, o/o)	*-tōōbā 3 PEG: *tōōpō
PM	*-nīīn	*-tāān	*-tōōb 3
MBM	-nyīī	-tāā	n-tw55b'
MBN	-nīī (n/ny)	-tāān	n-cwōōb'
MYE	-nīī	-tāā	n-twā?
MBE	-nī	-tāā	n-tyō
ELU	-nīīn	-tāān	n-tūū
NNE	-nīī	-tāā	n-tūū
AKO	-nīīn	-tāān	n-tōōb'
MHE	-nīīn	-tāān	n-tyōōb'
MWK	-nīīn	-tāān	n-tōō
MKA	-nīīn	-tāān	n-tōōb'
BLN	-nīīn	-tāān	n-tōōb'
BBO	-nīī	-tāān	n-tōōb'
LEF	-nīīn	-tāān	n-tyō (o/ō)
LEK	-nyīī	-tāā	n-tūūī

	( 7 ) seven *	( 8 ) eight	( 9 ) nine
	sept	huit	neuf
CB	(269) *-cəmbəʔ/ʔ	PEG: *fʔámá	(219) *-bùá 5 PEG: bükʷ
M	PEG: *səmbā	*-əmbɪ 3	*-bùjá (-büká, -bogá?) 5
PM	*səmbā	*wəəm	*-bùg 5
MBM	səmbə	waam	a-boʔ
MBN	səmbə	yíam	a-bɔʔ
MYE	səmb' mbíə	jùə	ə-bòòʔ
MBE	s'yəmb' mbə	wəəm	a-bùʔ
ELU	səmbə	wəəm	ə-bòk
NNE	səmbə	wəəm	ə-bəg'
AKO	səmb'ɛ	wəəm	ə-bəg'
MHE	səmbə	wəəm	ɛ-bəg' (o/u)
MWK	səmbə	wəəm	ə-bùʔ
MKA	səmb' mbá	wəəm	ɛ-bùg'
BLN	səmb' mbá	wəəm	ɛ-bùg'
RBO	səmb' mbá	wəəm	f-bük (k/g')
LEF	səmb'ɛ	wəəm	lə-bù
LEK	səgəmb'yá	zùgə	lɛ-bòk

	( 10 ) ten	( 11 ) twenty *	( 12 ) hundred *
	dix	vingt	cent
CB	(1208) *-kómɪ 5/6		
M	*-kómɪ 5 PEG: *góm		
PM	*-óm 5	*-óm + '-bə 6	*-bògò 7 *-bòkɛl 9 (*-kɔl 3)
MBM	dóm	mómɛ	ɲ-kɔl'
MBN	jóm	mómɛ	ɲ-kɔɔʔ
MYE	dúə	òdúə ɔbə ɛsəŋ	mbókɪ
MBE	dyòm	mómɛ	ə-bòò
ELU	dòm	móm ɔbə	mbókəl
NNE	dúòm	móm ɔbɛ	mbwókɛl
AKO	dyòm	mómɛ	mbwókɛl
MHE	dyòm	móm ɔmbɛ (ɛ/a)	ɛ-bòò/ɛ-bòʔò
MWK	dyòm	mómɛ	ə-Bòò
MKA	dyòm	mómɛ	ɛ-bòʔ' ɔ
BLN	dyòm	mómɛ	ɛ-bòʔò
BBO	dyòm	mómɛ	f-bògò
LEF	dyòm	móm ɔbɛ	mbúkɪ
LEK	dúgù	mómbyə	ɲ-kɔ

	( 13 ) thousand mille	( 14 ) family famille		( 16 ) my father mon père
CB				
M				
PM	*-kɔlɛ́ 7 (*-bàŋ 7)	*-byà *-túmbá (*-tɔd *-kúɪ)		(1686) *-tää́tá
MBM	è-bàŋ	è-tɔt		*-tää́tá (1a) PEG: *-tätV
MBN	è-bàŋ	è-'tɔ?		*taa la
MYE	nzò?	ñ-já?		tɛɛ
MBE	è-kɔ́lɛ́			tɛtɛ́
ELU	è-kɔ́lɛ́	mbyà		(àwɛ) tää́?
NNE	è-kɔ́lɛ́	mbə̀ə̀		tə
AKO	è-kɔ́lɛ́	túmbé	àbòm á ndáb'	èjɛ̀nsáá
MHE	è-kɔ́lɛ́ (1ɔ/1é)	ñbyà		sáŋ ɔ sáá (←sáŋ + é) la
MWK	è-kɔ́lɛ́ èkɔ́lɛ́	mbyà	è-kúɪ	tää́/tää́/tää́
MKA	è-kɔ́lɛ́	mbyà	è-tú'mbá	táà
BLN	è-kɔ́lɛ́ (1/ɔ)		è?-kúɪ	táà
BBO	è-kɔ́lɛ́	è-túmbá, mɪ-		táà
LEF	è-kɔ́lɛ́	túmbá		táà
LEK	ñ-kɔ́lɛ́	-nyíndá?, mɛ-		táà
	( 15 ) marriage mariage			
CB	(17) *bádá			
M				
PM	*-wɔŋgɛ́ 14 (*-lúg 7)			
MBM	è-wɔŋgɛ́	è-lók		
MBN		è-lú?		
MYE	è-wɔŋgɛ́	è-ló?		
MBE	è-wɔŋgɛ́			
ELU	è-wɔŋgɛ́, 0-			
NNE	è?-wɔŋgɛ́			
AKO	è?-wɔŋgɛ́, mɛ- (àlɔg 'intercourse')			
MHE	è?-wɔŋgɛ́			
MWK	è-wɔŋgɛ́	è?-báɪá		
MKA	è-wɔŋgɛ́			
BLN	è-wɔŋgɛ́			
BBO	è-wɔŋgɛ́			
LEF	wòwá			
LEK	è-lók			mbɔ́ɔ́zɛ́?

	( 17) his father *		( 18) your father
	son père		ton père
CB	(303, 334) *-cɛ̃, *-cɛ̃, *-cɛ̃		(360) *-cɔ̃ (2029) *-yɛ̃cɔ̃ la/2
M	*-ɪcɛ̃ (2027) *-yɛ̃cɛ̃ la/2		*-ɪcɔ̃ la
PM	*-sãŋ ɣ *-sãŋ-ŷ la		*sɔ̃ŋ ɣ *sɔ̃ŋ-ŷ la
MBM	awɪ tɛ̃ɛ̃		ãwõŋ tɛ̃ɛ̃
MBN	sããŋ		sɔ̃ɔ̃
MYE	(ãwõ) sãã		sɔ̃ɔ̃
MBE	ãwɪ sãŋ		sɔ̃ŋ
ELU	ãwɪ sãã		sɔ̃ɔ̃
NNE	sãŋ/sã		sɔ̃ɔ̃
AKO	sãŋ ɣ sãã (←sãŋ + ɛ̃) la		sɔ̃ŋ ɣ sɔ̃ɔ̃ (←sɔ̃ŋ + ɛ̃) la
MHE	sãã/sããŋ		sɔ̃ɔ̃/sɔ̃ɔ̃ŋ
MWK	sããŋ		sɔ̃ɔ̃ŋ
MKA	sã'ŋã		sɔ̃'ŋɔ̃
BLN	sãŋã		sɔ̃ŋɔ̃
BBO	sãŋã		sɔ̃ŋɔ̃
LEF	sãã		sɔ̃ɔ̃
LEK	sãŋã'bwɔ̃		sɔ̃ŋɔ̃ (nyɛ̃)
	( 19) my mother		( 20) his mother
	ma mère		sa mère
CB	(1282) *mããmã la/2		(1389) *-nyãŋɔ̃/ɔ̃ la/2 'mother'
M	*-mããmã (la) PEG: *mã/nã		PEG: *mã/nã
PM	*nɛɛ		*nyãŋ ɣ *nyãŋ-ŷ la
MBM	ɦnɛ̃		ɦnyɛ̃ɛ̃
MBN	nɛ̃		ɦnyãã
MYE	ɦyãã		(ãwõ) ɦnyãã
MBE	nɛ̃tɪ		ɛyãŋ awɪ yãŋ
ELU	ɛ̃jɛ̃ nyãŋ		ãwɪ nyãã
NNE			nyãã
AKO	nyãŋ ɣ nyãã (←nyãŋ + ɛ̃) la		nyãŋ ɣ nyãã (←nyãŋ + ɛ̃)
MHE	nɛ̃/nɛ̃ɛ̃		nyãã
MWK	nɛ̃ɛ̃		yããŋ
MKA	nɛ̃ɛ̃		nyãŋã
BLN	nɛ̃ɛ̃		nyãŋã
BBO	nɛ̃ɛ̃		nyãŋã
LEF			nyãã mãmã
LEK	ɔ̃ɔ̃ɛ̃ɛ̃		nyãŋãbwɔ̃

	( 21 ) your mother	( 22 ) mother's brother *
	ta mère	oncle maternel
CB	(1395) *-nyʒkʒ	
M	*-nyʒkʒ (1a)	
PM	*nyʒŋ 9 *nyʒŋ-ŋ̄ 1a	*-1ʃʃ 1/2
MBM	ŋnyʒʒ	ŋ-1ʃ
MBN	ŋnyʒʒ	ŋ-1ʃʃ(ŋə)
MYE	ŋnyʒʒ	
MBE	ʃyʒŋ	ʃ-1ʃ (ɛ/ɔ)
ELU	nyʒʒ	ʃ-1ʃ
NNE	nyʒʒ	ŋ-1ʃʃ, bə-
AKO	nyʒŋ 9 nyʒʒ (←nyʒŋ + ɛ) 1a	ŋ-1ʃʃ, bə-
MHE	nyʒʒ	ŋ-1ʃʃ, bə-
MWK	yʒʒŋ	ŋ-1ʃʃ, o-
MKA	nyʒŋʒ	ŋ-1ʃʃa, bə-
BLN	nyʒŋʒ	ŋ-1ʃʃ, bʃ-
BBO	nyʒŋʒ	ŋ-yʃʃ, bʃ-
LEF	nyʒʒ	māʒnyʒŋ ŋŋəə
LEK	nyʒŋʒ(nyʃ)	mʊ-yʒŋ ɔwɛ mʊ-yʒŋ mbɔɔ
	( 23 ) brother *	( 24 ) sister *
	frère	soeur
CB		(987) *-kʌdʃ
M		
PM		
MBM	mānnə, ʒānnə	ɛyɛm ŋgʒɪ. ʃyɛm ŋgʒɪ 'my sister(s)'
MBN	mānyʒŋ, bānyʒŋ	mānyʒŋ mwāʒd', bānyʒŋ bwāʒd'
MYE	mʊnyʒŋ, bʊnyʒŋ	mʊnyʒŋ, bʊnyʒŋ myɛ-yə, bʃɛ- myɛ-tə
MBE	mʃyʒŋ/mʃ-yʒŋ, bɛ-	mʃyʒŋ mwāʒ, bɛyʒŋ bāʒ mʃɛ-yʒŋ, bɛɛ-
ELU	māyɪ/mɔyɪ, bāʒyɪ	māyɪ, bāʒyɪ
NNE	mānnɛ	mānnɛ mwāʒd'
AKO	mānnəd', ʒānnəd'	mānnəd' ʒ mwāʒd', bānnəd' bɛ bɛbāʒd'
MHE	mānnəɛ mānyʒŋ	mānyʒŋ mwāʒ?
MWK	māntəə	mānnɛɛ mwāʒ
MKA	mānyʒŋ, bānyʒŋ	mānyʒŋ mwāʒd'
BLN	mānyʒŋ māntə	mānyʒŋ mwāʒd' mānnə
BBO	mānnə	mānyʒŋ, bān bʃ nyʒŋ ɛjəm kʌt', ɛjəm kʌt'
LEF	māʒnyʒŋ, bāmbāʒnyʒəə	māʒnyʒŋ mwāʒŋ, bāmbāʒnyʒəə bʃ bʃlʌn
LEK	mʊyʒŋ, bābɛnyʒŋ	mʊyʒŋ, bābɛnyʒŋ

( 25) twin	( 26) son *
Jumeau, jumelle	fil
CB (1407) *-pácà	(1922) *-yānà 'child'
M *-pácà 5	*-jānà 'child'
PM *-fǎj 1/2	*-ǎn 1/2
MBM m-fét	my-ǎn, b- ndǎmsàt
MBN ñ-féyg', à-	è-15ŋǝ, id.
MYE ŋ-hé?, ò-	myā, id.
MBE o-hé?	myǎn, bǎn
ELU ò-héd'	mǝ, bǎn
NNE ŋ-hé?	mwǎn mǝnǝjǝ
AKO ŋ-héd', bè-	mwǎn, bǎn
MHE ŋ-héy? (y?/s)	mwǎn, bǎn
MWK ŋ-héy?, ò-	mwǎn mwǎnjǝm, bǎn
MKA ñ-hǎsǎ	mwǎn, bǎn
BLN ñ-hǎy?	mwǎn, bǎn
BBO ñ-vǎt'	mwǎn, bǎn
LEF wǝ-fé?, mǎ-	mwǎn à mǝmǎn, bǎn bǎ bǝmǎn
LEK lè-fé?, ñ-	mwǎgǝ
( 27) daughter *	( 28) grandfather *
filie	grand-père
CB	
M	
PM (*-gǝn 9)	... + *mbǎǎ
MBM myè mwàt, mǎm bǎd	sǎŋ tǝè
MBN ŋgǝn	sǎǎ mbǎǎ
MYE myǎmyǎ	sǝò mbǎǎ tǎǎ mbǎǎ
MBE mǝí mwǎǎ?	(sǝmbǎ) tǎmbǎ
ELU mǝ, bǎn	sǝǝmbǎ
NNE mwǎn è mwǎd	sǎǎ mbǎ
AKO mwǎn à mwǎǎd'	-tǎǎ, bè- tǎǎ mbǎǎ
MHE mwǎn è mwǎǎ?	sǝŋ mbǎǎ
MWK mwǎn mwǎǎ	tǎǎ mbǎǎ
MKA ŋgǝn	-tǎmbǎ'ǎ, bè-
BLN mwǎn mwǎǎd', bǎn bǎ' bǎǎd'	sǎŋ mbǎǎ
BBO mwǎn mwǎǎt', bǎn bǎ bǎǎt'	(sǎŋ mbǎǎ) tǎǎ mbǎmbǎ
LEF mwǎn à mwǎlǎn, bǎn bǎ bǎlǎn	sǎǎ ñtǎna ('father old')
LEK mwǎgǝ	mbǝò mbyǎ

	( 29 ) grandmother *	( 30 ) husband	( 31 ) wife *
	grand-mère	marî, époux	épouse
CB		(697) *-dómè 1/2	(986) *-kádî 1/2
M		*-dómè 1 PEG: *-dó(m)~ PGB: *lóm~	*-kádî PEG: *g(w)É~
PM	... + *mbáá	*-jóm 1/2	*-kád 1/2
MBM	n'nyáŋnè	n-zwóm (wɔ/o), bè-	mwàd', èbàd'
MBN	nyámbáá	n-zóm, o-yóm	mwàád', èbwàád'
MYE	Íyámáá nyáà mbáá	n-jwóm, ò-	mmyáá?, òbáá?
MBE	nètámá	n-jóm	mwàá?
ELU	nyámá	n-jú, ò-	mwá, òbá
NNE	nèè mbá	n-jú, bè-	mwàá?, bèbáá?
AKO	-nèè, bè- n'èè mbáá	n-jóm, bè-	mwàád'
MHE	nyáŋ báá	n-jóm	mwàád' (d'/?)
MWK	nèè mbáá	n-jóm, ò-	mwàá
MKA	-nè mbáa, bè-	n-jóm, bè-	mw-èád', b-èád'
BLN	nyáŋè mbáá	n-jóm, bî-	mwàád', báád'
RBO	nèè mbámbá	n-jóm, bî-	mwàát', báát'
LEF	máá n'tína	n-jóm, bá-	mwááŋ, bááŋ
LEK	ówé mbyá	n-zú, bè-	mwá?, báá?

	( 32 ) body *	( 33 ) skin *
	corps	peau
CB	(2178) *-(n)yótò (ps 269) *-jótò	(1095) *-kóbà (874) *-gòbò PGB: *gòb~
M	*-jótò 9 PEG: *nód	*-gòbì *-kóbà 11 PEG: *gòb~
PM	*-ó1 9 *-gòb 9	*-kòb 7 *-gòb 9
MBM	nnyín	ngòb nyín
MBN	nyín	ngòb'
MYE	ngwòò nywéén	ngwòò nywéén
MBE	yá1 èkò'yá1	è-kò'yá1
ELU	nyú	ngò?
NNE	nyá1	è-kòb'
AKO	yá1	ngòb'
MHE	yá1 (ə/o)	è-kòb'
MWK	yó1 ngòw	è-kòw (èkòw ngòw)
MKA	yó1	è-kòb'
BLN	ngòb' ngòbeyó1	è-kòb' è-kòkò1
RBO	yòò ngòb'	í-kòkòò
LEF	nyúú òkúŋ nyúú	ngò
LEK	òkògényí	ngò?

( 34 ) flesh *		( 35 ) blood	
chair		sang	
CB	(416) *-cõnĩ 3/4 'meat, flesh'	(824) *-gĩdã 6	PNC: *-gia
M		*-gĩdã 6	PEG: *cẽ *dĩm`
PM	*-sõn 3 *-ãm 9 *-bũb` 9	*-kĩĩ 6	
MBM	nyãm	ñ-tĩĩ (t/k)	
MBN	nyãm	ñ-kĩĩ	
MYE	nyãm	ò-kĩĩ	
MBE	yãm mbũ	ò-kĩĩ	
ELU		mbòbò?	ò-kĩĩ
NNE	ñ-sõn	mẽ-kĩĩ	
AKO	ñ-sõn nyãm	mẽ-kĩĩ	
MHE	ñ-sõn	mẽ-kĩĩ	
MWK	mbũw yãm mbũw	ò-kĩĩ	
MKA	ñ-sõn (nyãm)	mẽ-kĩĩ	
BLN	ñ-sõn nyãm ñ-sĩmã?	mẽ-kĩĩ	
BRO	ñ-sõn	mĩ-kĩĩ	
LEF	nyãm	mã-kĩĩ	
LEK	nyã	mẽ-khĩ	
( 36 ) vein		( 37 ) bone	( 38 ) head
veine		os	tête
CB	(349) *-cĩcã 3/4	(1511) *-pãcẽ (1273) *-kũpã	(1800) *-tõ 3/4 (1808) *-tõĩ 3/4
M		*-kũpã 5	PEG: *gũp *kõe(n)`
PM	*-sĩj` 3/4	*-fẽj` 7/8	*-lõ 3/4
MBM	ñ-sẽd'	ẽ-sẽd, n-	ñ-dũ
MBN	ñ-sẽyg' (ey/i)	ẽ-fẽyg' (ey/t/e), ẽ-	ñ-dũ (d/j)
MYE	ñ-sĩĩ?	ẽ-hĩĩ?, ẽ-	ĩ-lĩĩ
MBE	ñ-sĩ?	ẽ-hẽĩ?, ẽ-	ñ-lõ
ELU	ñ-sĩk	ẽ-hĩk, ẽ-	ĩ-lĩ
NNE	ñ-sĩg'	ẽ-hĩg', ẽ-	ĩ-lĩ
AKO	ñ-sĩd'	ẽ-hĩd'	ñ-lõ
MHE	ñ-sĩd'	ẽ-hẽy? (y?/s)	ñ-lõ
MWK	ñ-sĩ?	ẽ-hẽy?, ẽ-	ñ-lõ
MKA	ñ-sĩy?	ẽ-hẽy? (y?/s), ẽ?-	ñ-lõ
BLN	ñ-sĩy? (iy?/d'/s)	ẽ-hey?, ẽ?-	ñ-lõ
BRO	ñ-sĩt'	ĩ-hãt, ĩ-fãt	ñ-yõ
LEF	ñ-sĩ(?), mĩ-	ẽ-fĩĩ?, bĩ-	ñ-lõ, mĩ-
LEK	ñ-sĩ?, mĩ-	ẽ-fĩĩ?, bĩ-	ñ-dũgũ, mĩ-

( 39 ) face		( 40 ) facial markings	
visage		"balafre"	
CB	(391) *-cō 14/6 (347) *-cīō 14/6		
M	*-tīō 14 PEG: *sī`		
PM	*-sō 14/6 (*-bēŋ 5/6 V?)	*-bānyŋ ? (*-dōō ?)	*-bāŋ 9/10
MBM	ā-bwē(n)		ndūō
MBN	ā-bēŋ	ē-pfīsē	
MYE	ā-bīŋ dyēbīŋ		mbhāŋ
MBE	ā-šyā, ò-	ā-bēŋ?, ò-	
ELU	ā-bāŋ, ò-	ēēnē?	
NNE	ā-sē (ε/ə), mē-	ā?-bēŋē, mē-	
AKO	ē?-sō, mē-		mbāŋ
MHE	ē-šā	ē-bān	(ndūō 'cicatrice')
MAK	ā-sō, ò-		mbāŋ
MKA	ē?-sō, mē-		mbāŋ ē pōpō
BLN	ē?-sō, mī- (i/e)	ē-bān, ē?-	ndōō
BBO	ī-sō, mī-	ī-bān	
LEF	wō-sū, mā-		mōbāŋ
LEK	bē-sūgū		n-īōē
( 41 ) brain *		( 42 ) forehead	
cerveau		front	
CB	(169) *-bōŋgō 14 (2133) *-yōŋgō 14	(163) *-bōmbō 3/4	
M	*-jōŋgō 14 (-bōngō) PEG: *bōŋ *fōm`	*-bōmbō 3	'bridge of the nose'
PM	*bōŋgō/-ōŋgō 14	*-bōō	*-bōmbō 3
MBM	ē-bōŋ		ē-bwēndū
MBN	bōŋ		ē-bōŋ
MYE	bōŋ		dyēbīŋ = face
MBE	ā-bōŋ		mbōm
ELU	bō		mbāŋ
NNE	bōŋ		mbāŋ
AKO	bōŋ		mbōm
MHE	bōŋ		mbōm
MWK	ā-bōŋgō ā-bōŋ	ā-bōō (mbōmbō)	
MKA	bōŋgō	mbōō	mbōm
BLN	bōŋgō		mbōmbō
BBO	bōŋgō	mbōō	mbōmbō
LEF	īōŋ (?)		wōsū wū nīō
LEK	bōŋ		dēōēōgū

	( 43) hair (on head) *		( 44) grey/white hair
	cheveux		cheveux gris/blancs
CB	(ps 113) *-cɪtɪ (*-cɪcɪ)		
M	*-jɔ̀dédé 11 PGB: *nɔ̀ŋ		
PM	*-sɪj 7/8 *nyɔ̀ŋ/-ɔ̀ŋ 9		(*-sɔ̀ŋ 3 *nyɔ̀b/d 9)
MBM	nyɔ̀ŋ		pɔ̀bɛ nyɔ̀ŋ
MBN	nyɔ̀ŋ		ŋk ɛnyɔ̀
MYE	nyɔ̀ŋ		pɔ̀bɛɛ nyɔ̀ŋ
MBE	yɔ̀ŋ		ɛpɔ̀pɔ̀n'ɪɛ
ELU	nyɔ̀ŋ		mɛɛnyɔ̀ŋ
NNE	nyɔ̀ŋ		nyɔ̀b'
AKO	ɛ-sɪd', ɛʔ-		nyɔ̀b' (b'/d')
MHE	ɛ-sɪʔ (ɪʔ/s)		mɔ̀pɔ̀b' (u/o)
MWK	yɔ̀ŋ		ŋsɔ̀ŋɪ
MKA	ɛ-sɪyʔ		mɔ̀sɔ̀ŋɛɛ
BLN	ɛ-sɪyʔ (yʔ/d') nyɔ̀ŋ		mɔ̀sɔ̀ŋɛɛ . ɛsɪsɛ pɔ̀pɔ̀ɛ
BBO	nyɔ̀ŋ		nyɔ̀ŋ ɪ pɔ̀pɔ̀ɛ
LEF	nyɔ̀ŋ		nyu ɛ pɔ̀wɔ̀ɛ
LEK	nyɔ̀ŋ (ɔ̀ ndɔ̀ŋɔ̀)		ɛ-pɔ̀kɛʔ nyɔ̀ŋ
	( 45) beard *		( 46) hair (on body)
	barbe		poil
CB	(519) *dɛdɔ̀ 10 (930) *-jɛdɔ̀		
M	*-dɛdɔ̀ PEG: *d(w)ɛ` PGB: *jɛɪ`		. PEG: *nɔ̀ŋ
PM	*-jɛd 9		*nyɔ̀ŋ/-ɔ̀ŋ 9 *-sɪj 7
MBM	nyɔ̀ŋ nzɛd'		nyɔ̀ŋ
MBN	nzɛd'		nyɔ̀ŋ
MYE	nzɛʔ		nyɔ̀ŋ (o/u)
MBE	nɛɛʔ (ɛ/z)		yɔ̀ŋ (o/u)
ELU	nzɛb'		nyɔ̀ŋ
NNE	nzɛb		kɛndɛ
AKO	nzɛɛb' (b'/d')		ɛsɪd'
MHE	nzɛʔ (?/d')		nyɔ̀ŋ kɔ̀ɔ̀ (d'un bɛbɛ)
MWK	nzɛɪ yɔ̀ŋ nzɛɪ		yɔ̀ŋ yɔ̀ŋ ɪŋɔ̀w
MKA	njɛd'		ɛsɪyʔ
BLN	njɛd' ɛsɪsɛ njɛd'		nyɔ̀ŋ ɛ-sɪd'
BBO	nzɛt		nyɔ̀ŋ
LEF	nɛɛ		nyɔ̀ŋ
LEK	nzɛɛ		nyɔ̀ŋ

( 47) nose *	( 48) nostril
nez	narine
CB (960) *-jɔdɔ 5/6 (2151) *yɔdɔ	
M *- (j)ɔdɔ 5 PEG: *d(o)ɪ̃ PGB: *L(o)ɪ̃	*-pogodo 9
PM *-ɔɔ (*-ɔɪ?) 5/6	*-pwèn (*-pwɛd *-pɔg ?)
MBM e-dɪ̃	pɔg' 'dɪ̃
MBN dɪ̃ə (d/j)	pɪ̃ 'jɔɔ
MYE dwə (w/w)	pɔɔ dwə 9,10
MRE -dyɔ, o-	mpɪ̃n 'dɔ
ELU dɔ	əpɔ dɔ, pɔndɔ
NNE dɪ̃n	mpɔn n dɪ̃n
AKO d-ɔɔ, m-	mpwɛd' n dɪ̃n
MHE dɪ̃	mpwɛd' n dɪ̃, mpyɛd'
MWK dy-ɔɔ, my-	mpɔn. dyɔɔ
MKA dyɔ, mɔɔ	mpɔ n dyɔ, mpɔ n mɔ
BLN dy-ɔ, m-	mpwèn dyɔ, mpyèn mɔ mpɔ? mɔ
BBO dyɔ	mpèn dyɔ, mpèn mɔɔ
LEF dɪ̃	mpəŋ n dɪ̃
LEK cɪ̃	ɛ-fɔgɔ cɪ̃
( 49) ear	( 50) eye
oreille	oeil
CB (1801) *-tɔ, *-tɔɔ 5/6 (1809) *-tɔɔ (1813) *-tɔɪ	(2030) *-yɪcɔ 5/6
M *-tɔɪ 15 PEG: *tɔŋ	*-jɪcɔ 5 PEG: *dɪ̃t
PM *-tɔɔ (*-tɔɪ?) 7/6	*-ɪj 5/6
MBM ə-tɪ̃, n-	d-ɔd', m-
MBN ə-tɪ̃ə (t/c), ɔ-/n-	d-əyg', m- (eyə'/eg'/e?)
MYE ə-twə (w/w), ɔ-	d-ɪ̃?, bə'mɪ̃?
MRE ə-tɔ (ɔ/yɔ), ɔ-	d-ɪ̃?, m-
ELU ə-tɔ, ɔ-	d-ək, m-
NNE ə-tɪ̃, mɛ-	d-əg', m-
AKO ə-tɪ̃, mɛ-	d-ɪ̃d', m-
MHE ɛ-tɪ̃, mɛ-	dɪ̃?, mɛ? (dɪ̃s, mɪ̃s)
MWK ə-tɔɔ, ɔ-	d-ɪ̃?, m-
MKA ɛ-tɔɔ, mɛ-	d-ɪ̃? (ɪ̃/ey?), m-
BLN ɛ-tɔɔ, mɪ̃- (ɪ̃/ə)	d-ɪ̃y?, m-
BBO ɪ̃-tɔɔ, mɪ̃-	d-ɪ̃t, m-
LEF ɛ-tɪ̃, mɛ-	d-ɪ̃?, m-
LEK ɪ̃-tsɔ, mɛ-	d-ɪ̃?, m-

( 51 ) eyelash *		( 52 ) tear(from eye) *	( 53 ) mouth
cil		larme	bouche
CB		(368) *-cɔdɪ 5/6	
M		*-(i-)cɔdɪ 5	PEG: *cò`
PM	*-pòpò 7/8    *-tɔg 7/8	*-sɔd 5/6	*-sɔl 3
MBM	è-pòpò d'éd'	d'f'èg'	ñ-sɔl
MBN	è-pòpò d'èyg'	ʒyà?	ñ-sò?
MYE	nyòŋ ɔb'ámí àt'èt'ò?	dí'è?, mí'è?	ñ-swèn
MBE	àp'òp'ò 'mí?	mí'sò? ɔ'sáá?	ñ-sɔl
ELU	t'ò?	d-èyà, m-	ñ-s'ú
NNE	à-t'òg'	mè-s'òd'	ñ-sɔl
AKO	è?-pòp'ò	á-s'òd', mé-	ñ-sɔl
MHE	è-pòp'ò, è?-	é-s'òd', mé-	ñ-sɔl
MWK	è-t'ò? d'í?, à-	á-s'òl, ɔ-	ñ-sòŋ (n/l)
MKA	è-pòp'ò, è?	é-s'òd', mé-	ñ-sòl
BLN	è-pòp'ò 'eyelid' è-t'ò?	é-s'òd', mí-	ñ-sòl (~/)
BBO	nyòŋ é m'ít	mí-s'òt	ñ-s'òò (oo/oe)
LEF	è-b'òb'ò	mà-s'í'á	ñ-sò
LEK	nyòŋ é d'í?	nyà? d'íí	ñ-s'ú, mè-
( 54 ) lip *		( 55 ) tongue *	
lèvre		langue	
CB		(572) *-démí 11/10	
M		*-démí 11 PEG: *dím`	
PM	*-b'èb` *-j-é'g'íd 7/8	*-j'ém 7/8	
MBM	mb'áns'òl	à-y'ám	
MBN	e-b'è ns'ò?, id.	à-y'ém	
MYE	mb'áé ñswèn 9/10	è-j'ám, à-	
MBE	mb'áns'òl	è-j'ám, ɔ-	
ELU	è-b'í'f'é n's'í, ɔ-	è-j'á, ɔ-	
NNE	è-b'èb', à?-	è-j'ám	
AKO	è-b'èb', è?-	è-c'ám, è?-	
MHE	èjy'è, èby'è	è-j'ém, è?-	
MWK	mb'ém ñs'òŋ	è-j'ém, à-	
MKA	è-j'è'd', è-	è-j'ém, è?-	
BLN	è-j'è't'í, èby'è't'í (/àby'è'd')	à-j'ém	
BBO	í-j'è'g'ít, íby'è'g'ít	í-j'ém, íb'-	
LEF	è-b'òb'ò é ns'ò	è-y'ám, bí-	
LEK	è-k'òg'é n's'í, b'è-	è-l'è?, b'è-	

	( 56 ) tooth	( 57 ) saliva		
	dent	salive		
CB	(ps 131) *-còŋgǎ	(1857) *-tú-/*-túéd- 'spit' PBC: *-tati		
M	PEG: *sǒŋ	*-tú-(ed-) 'spit' V:*-tǎi 6 PEG: *t(w)é		
PM	*-sǒŋ 5/6	*-léd 6		
MBM	ǎ-sǒŋ (a/ə), ñ-			
MBN	ǎ-sǒŋ, ò-	ñ-1ǒb'		
MYE	ǎ-sǒŋ, ò-	ò-1ǎǎ?		
MBE	ǎ-sǒŋ, ò-	ǎ-1ǎ?		
ELU	ǎ-sǒŋ, ò-			
NNE	ǎ-sǒŋ, mǎ-			
AKO	ǎ-sǒŋ, mǎ-	ǎ-1ǎéd', mǎ-		
MHE	ǎ-sǒŋ, mǎ-	mǎ-1ǎéd' (ee/e)		
MWK	ǎ-sǒŋ, ò-			
MKA	ǎ-sǒŋ, mǎ-	mǎ-1ǎd'		
BLN	ǎ-sǒŋ, mǎ- (i/e)	mǎ-1ǎd'		
RBO	ǎ-sǒŋ, mǎ-	mǎ-yǎt'		
LEF	1ǎ-sǒŋ, mǎ-		ǎ-kwǎn	
LEK	1ǎ-sǒŋ, mǎ-	mǎ-1ǎ?		
	( 58 ) voice	( 59 ) chin *	( 60 ) neck *	
	voix	menton	cou	
CB		(520) *-dédù 7/8	(1086) *-kǎŋǒ also 'nape'	
M		*-dédù 7 'chin'	*-kǎŋǒ 9 PEG: *tǒŋ	
PM	*-fǒb 7/8	*-jǎd 9 *-ǎj 7/8	*-kǎŋ 9 *-bǒl 5	
MBM	nǎǎi (nǎǎiǎǎ)	nǎǎd'	ǎ-bwǒl (l/n)	
MBN	ǎ-fǒw?	wǎ?	kǎŋ	
MYE	ǎ-hwǒ?, ǎ-	nǎǎǎlǒ?		ǎ-bwǒn 3/4
MBE	ǎ-hǒ?, a-	nǎǎyǎ?	kǎŋ	
ELU	ǎ-hǒ?, ǎ-	nǎǎǎb'	kǎŋ	m-bǒl
NNE	ǎ-hǎb, ǎ?		ǎ-kǎǎŋ	
AKO	ǎ-hǒb'	nǎǎǎg'	ǎ-kǎǎŋ	
MHE	ǎ-hǒ? (o/?/ǎb')	cǎǎd'	kǎŋ (k/c)	
MWK	ǎ-hǒw, ǎ- dyǎǎǎ, mǎǎǎ	nǎǎǎl	kǎŋ	
MKA	dyǎǎ	nǎǎǎd'	kǎŋ	ǎ-bǒl
BLN	ǎ-hǒb', ǎ?	nǎǎǎd'	kǎŋ	ǎ-bǒl (e/ə)
RBO	tǎn	nǎǎǎt	kǎŋ	ǎ-bǒǎ
LEF	ŋǎǎǎǎlǎ			1ǎ-bǒ?
LEK	ñ-dǎǎǎ?, mǎ-	ǎwǎ?		1ǎ-bǒǎ, ǎ-

	( 61 ) nape *	( 62 ) throat	( 63 ) shoulder
	nuque	gorge	épaule
CB		(1113) *-kə̀dɔ̀	(84) *-bɛ̀gə̀ (1466) *-pɛ̀gə̀
M		PEG: *tɔ̀ŋ	(1862) *-tɔ̀ŋdɪ̀
PM	*-bɔ̀l 5		(*-bɛ̀g/-bɛ̀g?)
MBM	mb'ed ə̀bwɔ̀l (1/n)	kɛ̀ŋ	kə̀mbə̀g'
MBN	ə̀-bɔ̀l	ŋɪ̀ŋkə̀ŋ	mbə̀?, id.
MYE	mb'ŋɪ̀ 11ɔ̀ə̀	ŋkɔ̀'kɔ̀ŋ	ŋgɔ̀ŋɪ̀?
MBE	ə̀-bɔ̀l, ɔ̀-	ə̀kə̀ŋte	mbə̀lkə̀
ELU	mb'ə̀gə̀bɔ̀l	ŋgɔ̀	ŋgə̀ə̀ŋ mbə̀?
NNE	ə̀-bɔ̀l	ŋtə̀ŋkɔ̀ŋ	ə̀-kwə̀l, ɔ̀-
AKO	ə̀-bɔ̀l, mə̀-	ŋkə̀ŋ	ə̀-kə̀ŋɛ̀l, ɛ̀?
MHE	ɛ̀'ɔ̀bɔ̀l	ŋgɔ̀bɔ̀l	ɛ̀-kə̀mbɛ̀l, ɛ̀?
MWK	ə̀-bɔ̀l	ŋgɔ̀ŋgɔ̀l	mbə̀ ə̀kə̀kə̀
MKA	mb'us ɛ̀bɔ̀l	kɪ̀ŋ	ɛ̀-kə̀mbɛ̀l mbə̀g'
BLN	mb'us'ə̀bɔ̀l	ŋgɔ̀ŋɔ̀l	ɛ̀-kə̀mbɛ̀l, ɛ̀?
BBO	mb'us'ɪbɔ̀bɔ̀	ŋgɔ̀ŋɔ̀'kɪ̀ŋ	ɪ̀-bə̀byɛ̀k
LEF	mb'ɪsə̀lə̀bɔ̀?	ŋgɔ̀m	ɛ̀-tɔ̀, bɪ̀-
LEK	mb'ɪlɛ̀bɔ̀bɔ̀	ŋɪ̀ŋk'kɪ̀ŋ	mbə̀k
	( 64 ) armpit	( 65 ) arm *	
	aisselle	bras	
CB	(1942) *-yápa		
M		*-gado 9 'arm, hand' PEG: *kɔ̀ɔ̀	
PM		*-kə̀kə̀ 7/6	
MBM	pə̀pə̀g'	ə̀-kə̀, ŋ-	
MBN	pə̀pə̀?	ə̀-kɛ̀ɛ̀ (ɛ̀ɛ̀/ə̀ə̀), ɔ̀-	
MYE	ɔ̀ə̀ŋɪ̀?	ə̀-kə̀ə̀, ɔ̀-	
MBE	pə̀ŋ	ə̀-kə̀, ɔ̀-	
ELU	pə̀m	mbyə̀kə̀	
NNE	pə̀lɔ̀bə̀g'	ə̀-kə̀kə̀, mə̀-	
AKO	kə̀lɔ̀bə̀g' (/kə̀lə̀bə̀g')	ə̀-kə̀kə̀, mə̀-	
MHE	pə̀kə̀	ɛ̀-kə̀kə̀, mə̀-	
MWK	pə̀kə̀	ə̀-kə̀kə̀, ɔ̀-	
MKA	pə̀kə̀	ɛ̀-kə̀kə̀, mə̀-	
BLN	pə̀kə̀	ɛ̀-kə̀kə̀, mə̀-	
BBO	pə̀kə̀	ɪ̀-kə̀kə̀, mɪ̀-	
LEF	pɔ̀pɔ̀	ŋ-kwə̀n, mɪ̀-	
LEK	lɛ̀-kə̀gə̀?, mə̀-	lɛ̀-kɪ̀kə̀, mə̀-	

	( 66 ) elbow *		( 67 ) wrist
	coude		poignet
CB	(1130) *-kɔkɔdã		
M	*-kɔkɔda 9		
PM	*-bɔŋ 5/6		*-kɔɪV 5/6
MBM	ã-bɔŋ'kã, mbɔbɔŋ'kã		ã-kwɔkã, ŋ-
MBN	tɔãkã		kwɛ ðkã
MYE	ã-bɔŋ'kã		ã-wɔɔ'kã, ð- (←ã-wɔŋ)
MBE	ã-bɔŋ'kã, ð-		akɔɔ'kã, ð-
ELU	ã-kɔɪkã, ð-		
NNE	ŋgɔn ðkã, ŋgɔn ɛ mɛkã		ã-kɔɔ, mɛ-
AKO	ŋgɔgɔl ðkã, ŋgɔgɔl kã		ã-kɔɪ, mɛ-
MHE	ã-bɔŋ, mɛ-		ɛ-kɔɪ, mɛ- 'forearm' ã-nɪŋã, mɛ-
MWK	ã-bɔŋ kã, ð-bɔŋ kã		ã-kɔɪ kã
MKA	ɛ-bɔŋ, mɛ-		ŋgɔɔɔɔ
BLN	ã-bɔŋ, mɛ- -mbɔŋ, mɪ-		ã-kɔɔ'kã, mɛ-kɔɔ'kã mɛkã
RBO	ɪ-bɔbɔŋ, mɪ-		ɪ-bɔbɔŋ, mɪ-
LEF	dɪɪ dɪ kwɛ		
LEK	dɔŋ ɛ lɛkɪã		lɛ-nɔgɛ lɛkɪã

	( 68 ) hand		
	main		
CB	(973) *-kãcã (1893) *-yãdã 7/8 'finger, (hand)'		
M	*-ka 5 PEG: *bɔ (920) *-jãdã 'finger'		
PM	*-kã 7/6		
MBM	mbɔd'kã		
MBN	ã-kã, ŋ-		
MYE	ã-kã, ð-		
MBE	ã-kã, ð-		
ELU	ã-kã, ð-		
NNE	ã-kã, mɛ-		
AKO	ã-kã, mɛ-		
MHE	ɛ-kã		
MWK	ã-kã, ð-		
MKA	ɛ-kã'ã, mɛ-		
BLN	ɛ-kã'ã, mɛ-		
RBO	ɪ-kã		
LEF	ɛ-kɛ, mɛ-		
LEK	lɛ-kɪã, mɛ-		

	( 69) palm (of hand) *		( 70) finger *
	paume		doigt
CB	(1500) *-pě		(1372) *-nòè 3/4
M	*-pe, -pi 11		*-nòè 3
PM	*-bǎny 9/10 (14/6)		*-èè 3/4, *-mwèè, -myèè 14/6
MBM	mbíí'kǎ		mwǎn kǎ, id.
MBN	m-bé èkǎó, à-		mǎmèŋ kǎ, id.
MYE	mbíí'èkǎó		mǎmǎá myə, bǎá myə
MBE	mbéé'kǎ		mwǎ'kǎ, bǎá'mwǎ'kǎ à-mwǎ'kǎ, ò-
ELU	mbéí'kǎ		mǎá mwí, bǎá mǐ
NNE	mbéŋ èkǎá		à?-mwíí, mǎ-
AKO	mbén èkǎá, mbén é mǎkǎá		à?-míí, mǎ-
MHE	è?-bǎá dǎkǎá, mǎ-bǎá mǎkǎá		è?-mwèè, mǎ-myèè mw-èè, my-
MWK	mbǎá èkǎá		mw-èè, my-
MKA	è-bǎá fǎ kǎá, mǎ-bǎá mǎkǎá		muè, miè
BLN	è?-bǎá dǎ kǎá, mǎ-bǎá mǎkǎá		mwèè, myèè
BBO	mbǎá kǎá, mbǎá mǎkǎá		mwè mǐ kǎá, myèè mǐ mǐkǎá
LEF	mbén jí kǎ		wù-mwè, mǎ-
LEK	à-béé'kyǎ, bǎ-		sǎékyǎ, sǎmmé'kyǎ
	( 71) fingernail		( 72) back *
	ongle		dos
CB	(1894) *-(n)yǎdǎ (919) *-jǎdǎ		(139) *-bǐcǎ 9, (223) *-bǐcǎ 9 'back, rear'
M	*-jǎdǎ 11 PEG:kǐb'		*-boj-, -bog- 'return' PEG: *jǐm
PM	*-ǎn 9/10		*-bǐj 9/10
MBM	nyǎkǎ		mbád'
MBN	nyǎn		mbéyg'
MYE	nyǎn		mbǎí?
MBE	yǎn		mbí?
ELU	nyǎn		mbók
NNE	nyǎn		mbwég'
AKO	nyǎn		mbíd'
MHE	nyǎn		mbwéy? (/mbús)
MWK	yǎn		mbí?
MKA	nyǎn		mbúy?
BLN	nyǎn		mbúy? (y?/d')
BBO	nyǎn		mbút
LEF	nyǎn		mbí?
LEK	nyé		mbí?

	( 73) chest	( 74) breast *	( 75) rib
	poitrine	sein	côte
CB	(1822) *-tôdɔ̃ 9/10	(71) *bɛ̃ɛdɛ̃ 5/6	(56) *-bânjɛ̃/ɛ̃
M	*-tôdo 9	*-bɛ̃ɛdɛ̃ 5 PEG: *bɛ̃n`	*-bânjɛ̃ 11
PM	*tɔ̃l` 9 *-tɔ̃g 7	*-bɛ̃ɛ̃ 5/6	*-bânɣ 9/10
MBM	tɔ̃dɔ̃l (1/n)	â-bɛ̃ (e/iɪ), m̃-	mbɪ
MBN	â-tɔ̃?	â-byɛ̃ (ɛ/ə), m̃-	mbɔ̃ɣ
MYE	ŋkɔ̃kɔ̃	â-ɔ̃ɔ̃, o-	mbɪɪɛ̃ŋ
MBE	e-tɔ̃?	â-bɛ̃, ɔ̃-	mbe?
ELU	tɔ̃l e-tɔ̃?	â-bɪɪ, ɔ̃-	mbɛ̃ɛ̃ŋ
NNE	tɔ̃l	â-bɪɪ, m̃-	mbɛ̃ŋ
AKO	tɔ̃l	â-bɪɪ, m̃-	mbɛ̃n
MHE	tɔ̃l	ɛ̃? -bɛ̃ (e/ee), m̃-	mbââ
MWK	tɔ̃l	â-bɛ̃ɛ̃, ɔ̃-	mbââ
MKA	tɔ̃l ɛ̃-tɔ̃g'	ɛ̃? -bɛ̃'ɛ̃, m̃-	mbââ
BLN	tɔ̃l	ɛ̃? -bɛ̃ɛ̃, m̃-	mbaa
BBO	tɔ̃dɔ̃ (/tɔ̃ɣ)	ɪ-bɛ̃ɛ̃, mɪ-	mbââ
LEF	ŋɔ̃ɔ̃ŋgɔ̃	lɛ̃-bɛ̃, m̃-	mbɛ̃n
LEK	lɔ̃-kɪ?, m̃-	lɛ̃-bɛ̃ɛ̃?, m-	mbe
	( 76) lung *	( 77) breath *	
	poumon	haleine, souffle	
CB		(1468) *-pɛ̃ɛ̃m- 'to breathe'	
M	PEG: *bɛ̃`	*-pɔ̃mɔ̃ 9	
PM	*-fɔ̃fɔ̃? *-pâb 5/6	*-pɔ̃b` 7 *pɛ̃mɛ̃	
MBM	â-fɔ̃fɔ̃ ndám	ɛ̃-yɛ̃n	
MBN	â-fɔ̃fɔ̃ ñám		
MYE	â-hwɔ̃bɪ?, ɔ̃-	ɛ̃-pɔ̃?	
MBE	â-bâ, o- ɪ-lám	ɛ̃-pɔ̃?	
ELU	ɔ̃-pâllɛ̃	â-kɔ̃b'	
NNE	â-kɔ̃b, m̃-	pɛ̃mɛ̃	
AKO		pɛ̃mɛ̃	
MHE	ɔ̃-hɔ̃l (o/ɔ̃)	ɛ̃?-hɛ̃ɛ̃bɛ̃	
MWK	â-pâw ɪ lám, ɔ̃-		
MKA	ɛ̃-hɔ̃lɔ̃hɔ̃to		
BLN	ɛ̃-pâb ɪlám, m̃- ɪlám	ɛ̃-pɔ̃b'	
BBO	ɪ-fɪhɔ̃	ɪ-hũ, ɪ-fũ	
LEF	ɛ̃-fɔ̃fɔ̃, bɪ-	ɛ̃-fɪ pɛ̃mɪ	
LEK	ñ-dɔ̃ɣɔ̃, m̃-	mɔ̃jwɛ̃nɛ̃	

( 78) heart	( 79) abdomen, stomach	
coeur	ventre, estomac	
CB (1738) *-tēmā	(229) *-būmō 5/6	
M *-tēmā 3 PEG: *tīm`	*-būmō 5 PEG:*būm` PBC:*-bumu	
PM *-lēm 3/4	*-būm 5/6 *-bīl` 7 'stomach'	
MBM ñ-d'am	ā-būm, m-	
MBN ñ-d'am	ā-bām, id.	
MYE ñ-l'ēm	ā-būm, ò-	
MBE ñ-l'ēm	ā-būm, ò- ā-bēl	
ELU ā-pūm ɛ llēm	ā-būm, ò-	
NNE ñ-l'ēm	ā-būm, mē-	
AKO ñ-l'ēm	ā-būm, mē-	
MHE ñ-l'ēm	ē?-būm, mē- ē-bīl	
MWK ñ-l'ēm	ā-būm, ò-	
MKA ñ-l'ēm	ē-būm, mē-	
BLN ñ-l'ēm	ē-būm, mē-	
BBO ñ-yēm	ī-būm, mī- ī-bīf	
LEF ñ-l'ēm, mī-	īf-būm, mē-	
LEK epōōzók	lē-bōn, m-	
( 80) intestines *	( 81) liver	( 82) kidney *
intestins	foie	rein
CB (442) *-dā 6 PEG:*tō`	(1739) *tēmā	(1549) *-pīgō
M *-dā 6,11,14 'entrails'	PEG: *bē`	*-pīgō 9
PM *-ēē 3/4	*-bāā (/ -bāā?) 5/6	*pīg 9/10 *-jūū 7/8
MBM ñmīf	ā-bā, ñ-	ē-yūū
MBN ñmyā (ə/ɛ)	ā-bā, ñ-	ē-zūū
MYE ñmyā	ā-bā, ò-	pō?
MBE ñmyē	ā-bā, ò-	pō?
ELU mī	ā-bā, ò-	p'ég'
NNE ñīf	ā-bāā, mē-	p'ég'
AKO mīf	ā-bāā, mē-	p'ég'
MHE myē	ē-bāā, mē-	pīg' (g'/?)
MWK mw-ēē, my-	ā-bāā, ò-	pī?
MKA mw-ēē, my-	ē?-bāā, mē-	pīg'
BLN mw-ēē, my-	ē?-bāā, mē-	pīg' ñ-kūūg'
BBO mw-ēē, my-	ī-bāyā, mī-	ī-jū, īb-
LEF ñ-yā, mī-	īf-bē, mē-	pā?
LEK myē?	lē-byā?, m-	pīk

	( 83) navel	( 84) buttocks *
	nombril	fesses
CB	(1098) *kʰbú 5/6	(1650) *-tākʰ 5/6
M	PEG: *tʰŋ	*-tākʰ PEG: *sʰt
PM	*-tʰŋ 5/6	*-sʰsʰ 5/6 *-lāmbā 5/6
MBM	à-tʰŋ	ñ-nə̀n
MBN	à-tʰŋ, id.	à-lānnɛ, ñ-
MYE	à-tʰŋ, ò-	à-lānnɛ mbhŋnɛ, ò-
MBE	à-tʰŋ	e-jū
ELU	à-tʰ, ò-	à-sʰsʰ, ò-
NNE	à-tʰŋ	à-sʰsʰ
AKO	à-tʰŋ, mə-	à-sʰsʰ, mə-
MHE	è-tʰŋ	mè-sʰsʰ mè-lāmbā
MWK	à-tʰŋ, ò-	à-lāmbā, ò- ñ-nɛ̀m
MKA	è-tʰŋ, mə-	è?-lāmbā, mə-
BLN	à-tʰŋ, mə-	mè-sʰsʰ mè-lāmbā
BBO	ĩ-tʰŋ, mĩ-	ĩ-sʰsʰ, mĩ-
LEF	wù-tʰŋ	dĩ-lāmbā, mə-
LEK	lè-tʰŋ, mə-	-lā̀nyɛ̀, mə-
	( 85) anus *	( 86) faeces, excrement *
	anus	excrement
CB		(135) *-bɛ̀ 6,13
M		PEG: *bɛ̀d
PM		*-bʰú (/bʰú?) 5/6
MBM	nzə̀nə̀n	à-bʰú
MBN	nzùnnə̀n	à-bʰú, mə-
MYE	pʰ mbhŋnɛ̀	à-bʰú, ò-
MBE	pʰ abũ	à-bũ
ELU	pʰbɛ̀	ò-bwɛ̀
NNE	pʰwə̀ àbʰ	à-bʰ, mə-
AKO	mbɔ̀n ɛ̀bʰú (<mbɔ̀n ɛ̀ àbʰú)	à-bʰú, mə-
MHE	ə̀nyābʰú	è?-bʰú, mə-
MWK	ə̀pʰn ɛ̀nɛ̀m	à-bʰú, ò-
MKA	ə̀pʰn ɛ̀' bʰú	mbʰ'ú (/mə̀bʰ'ú)
BLN	ə̀pʰn ɛ̀bʰú	mə̀-bʰú
BBO	mbɔ̀ndʰ m' bʰú	ĩ-bʰú, mĩ-
LEF	pʰkʰ ɛ̀ lɛ̀bɛ̀	lɛ̀-bɛ̀, mə-
LEK	ə̀-ɛ̀ŋɛ̀nyɛ̀, bə̀-	mɛ̀gɛ̀, id.

	( 87) wind (per anum) pət	( 88) urine urine	( 89) vagina vagin
CB	(432) *-cùdĩ 3	(390) *-cò 6	(2100) *-yǝ
M		*-co 6 PEG: *cǝC	*-gɔ (-nyɔ) 5,9
PM	*-sùd 3	*-sǎny 6	*-nǝg 7 (*-kǝg 7)
MBM	ñ-sèd'	nzèsè	è-nǝg'
MBN	ñ-sùl'	ñ-sǝŋ	è-nǝg' (g'/?)
MYE	ñ-sù?	ò-sǝŋ	è-nǝ?
MBE	ñ-sù	ò-sǝ	pǝn
ELU	ñ-sǝd'	ò-sǝ	è-kǝ?
NNE	ñ-sǝd'	mè-sǝŋ	è-kǝg'
AKO	ñ-sùd'	mè-sǝn	è-kǝg'
MHE	ñ-sù? (?/g')	mè-syǎ	è-bwóm
MWK	ñ-sù?	ò-sǎǎ	è-nǝ?
MKA	ñ-sùd'	mè-sǎǎ	è-nǝ
BLN	m-sùd'	mǝ-sǎǎ	è-nǝ?
BBO	ñ-sùt	mǝ-sǎǎ	è-sǎ
LEF	ñ-sù	mǎ-nǝǎ	è-zùó
LEK	ñ-sùĩ	mǝĩ?	è-nǝk

	( 90) penis *	( 91) testicle
	pénis	testicule
CB	PSCNC: *-T-K/G-ŋ-	
M	*-bombo 'abdomen (beneath navel)'	
PM	*-jǝg 3	*-bǎŋ 3 *-bǝn 9/10, 5/6
MBM	è-yǝg'	mbǎmbǎn
MBN	è-yǝ?	mbǎŋkǎl à-bǝn
MYE	ñ-jǝ?	ñ-jǝ?
MBE	ñ-jǝ?	mbǎn
ELU	ndùt 3ndǎ	n-jù
NNE	n-jwǝg'	à-bǝn, mè-
AKO	ñ-jǝg' à-bóm	mbǝn
MHE	ñ-jǝg'	ǝ?-bǝn (e/i), mǝ-
MWK	ñ-jǝ?	mbǝn à-bǝn, ò-
MKA	ñ-jǝg'	mbǎŋ mǝnyǎŋ
BLN	ñ-jǝ?	mǝnyǎŋǎ
BBO	ñ-jùk	mbǎmbǝn
LEF	ñ-jǝ	lǝ-bǝn, mǝ-
LEK	è-zók	mbǎŋ mbǝn

	( 92) thigh		( 93) hip
	cuisse		hanche
CB	(1339) *-nāmā 7/8		(2132) *-(n)yŋgā
M			PEG: *dɪŋ`
PM	*-pəŋ 7/8 V? *-nām 5/6		*-jūŋ 7/8
MBM	è-nām		dūŋ
MBN	è-nām, ò-		è-tùtùŋ, id.
MYE	è-pŋnām, á-		à-sŋŋ?, ò-
MBE	à-nām, ò-		à-lābè, ò-
ELU	è-pə, ʒ-		ò-bɔ éjū
NNE	è-pwəŋ		ŋ-kəg'
AKO	è-pəŋ, mē-		à-līn dépəŋ
MHE	è-pəŋ è-nām èpən		è-tòŋɔ, mē- è-tòŋgɔ
MWK	à-nām ékò		è-jūŋ
MKA	è-nām, è?-		è-jū?, è?-
BLN	è-nām, mē-		è-jū è-tòŋgò dɪ kòò, mɪ-
BBO	ɪ-nām, ɪm-		ɪ-tòŋò, mɪ-
LEF	è-pəŋ, bɪ-		è-bɔsá, bɪ-
LEK	lè-nā, mē-		lè-sòŋəná, mē-

	( 94) leg *		( 95) knee *
	Jambe		genou
CB	(884) *-gòdò 3/4 PEG: *kò` 'pied'		(170) *-bŋŋɔ/ò 5/6
M	*-gòdò 15 PEG: *fɪn 'jambe, tibia'		
PM	*-kòò 7/6		*-bŋŋ 5/6
MBM	è-kù, ŋ-		à-bŋŋ (àbòòkù)
MBN	è-pŋŋ		à-bŋŋ, àbɔ' bŋŋ
MYE	è-kwə, ò-		à-bŋŋ, ò-
MBE	à-kɔ, ò-		à-bŋŋəkɔ, ò-
ELU	è-kù, ò-		à-bɔ, ò-
NNE	è-kùŋ, mē-		à-bɪbɔ, mē-
AKO	è-kùŋ, mē-		à-bɪbɔŋ, mē-
MHE	à-kòò, mē-		è?-bŋŋ, mē-
MWK	kāməkò (calf muscle)		à-bŋŋ (əkò), ò-
MKA	è-kòò, mē-		è-bŋŋ, mē-
BLN	è-kòò, mē-		è?-bŋŋ dɛ kòò, mē-bŋŋ mɛ kòò
BBO	ɪ-kòò, mɪ-		ɪ-bŋbŋŋ, mɪ-
LEF	è-kwə, mē-		lɪ-bŋŋ, mē-
LEK	lè-khɔ, mē-		d-òŋ, m-

	( 96) heel	( 97) foot	( 98) toe *
	talon	pied	orteil
CB	(1761) *-tíndí		
M	*-tíndí 5	PEG: *kò`	
PM	*-tíndí 5/6 *tín 9/10	*-kòò 7/6	cf. (70)
MBM	mbɔ́fákù	è-kù, ŋ-	mɔ̀à ŋkù
MBN	kɔ̀n èkù	è-kù, ò- / ŋ-	ɔ̀mɛ ŋkù. id.
MYE	mbɛ́í (e)kwè	è-kwè, ò-	ɔ̀mɛ́á myà, bɛ́á myà
MBE	kɛ̀n èkò	è-kò	à-mwékò, ò-mwékò
ELU	tín èkù	à-bɛ́, ò-	báá mí
NNE	tɛ̀n	à-bɛ̀ŋ, mɛ̀-	ɛ̀?-mwíí, mɛ̀-
AKO	à-tín tín	è-kùù, mɛ̀-	è?-míi (bɛ́kùù), mɛ̀-
MHE	tín	è-kòò	è?-mwèè, mɛ̀-nyèè mw-èè, my-
MWK	à-tíndí (éko), ò-	è-kò, ò-	mwèè (éko)
MKA	ɛ̀?-tín'dí, mɛ̀-	è-kòò, mɛ̀-	mw-ɛɛ mɛ́kòò, my-
BLN	è-tíndí, mí-	è-kòò, mɛ̀-	mw-ɛɛ mɛ́kòò, my-
BBO	ì-tíndí, mí-	ì-kòò, mí-	mw-èè míkòò, my-
LEF	píndèkwè	è-kwè, mɛ̀-	mɛ̀-mwè mɛ́ ékwè
LEK	è-jíí lèkò, bɛ̀-jíí mèkò		sɛ́ èkò, sɛ́ mèkò
	( 99) sole (of foot)	(100) person *	
	plante	une personne, individu	
CB		(1798) *-ntò 1/2	
M		*-ntò 1 PEG: *mò(n)`	
PM	*-bány 9/10 (14/6)	*mò-d 1, *bà-d 2 (mòònyòŋ, bányòŋ ?)	
MBM	mbíí èkù	mòònyòŋ, bányòŋ	
MBN	mbɛ́è kù	mòl?, bàl? mùnyòŋ	
MYE	mbɛ́í kwè	mò?, bà? mòònyòŋ, bányòŋ	
MBE	mbéé kò	mòòyòŋ, bányòŋ	
ELU	mbɛ́è kù	mò?, bà? mòònyòŋ, bányòŋ	
NNE	mbɛ́ŋ èkùù	mò?, bà? (?/d')	
AKO	mbɛ́n èkùù	mòd', bàd' mòònyòŋ, bányòŋ	
MHE	è'-báá, mɛ̀-	mòl, bà? (a/a: ?/d'/l)	
MWK	mbáà èkò	mòl, bàl	
MKA	ɛ̀?-báá ɛ́é kòò	mòd', bàd'	
BLN	è?-báá dɛ́ kòò, mɛ̀-	mòd', bàd'	
BBO	mbáà kòò	mòt, bàt	
LEF	mbɛ́n jí èkwè	mò?, bà?	
LEK	è-bɛ́è kò, bɛ̀-	mò?, bà?	

	(101) name *		(102) man *
	nom		homme
CB	(831) *-gɪnā 5/6 (2068) *-yɪnā		(697) *-dómɛ 1/2
M	*-jɪnā 5 PEG: *dɪn PBC: *-zɪna		PEG: *bāŋ *dó(m)~ 'marɪ'
PM	*-ɪn 5/6		
MBM	dɪn		mānzwóm
MBN	d-èŋ, m-		mònzóm, bəyóm (ə/a)
MYE	d-ɪŋ, m-		mɔnǰóm (o/wɔ), ðbú'jóm
MBE	d-ɛn, m-		mwanǰóm, ðbənǰóm
ELU	d-əŋ (ə/ɛ), m-		mwenǰú, ðbəəǰú
NNE	d-ɪŋ, m-		mɔnǰú, bəəǰú
AKO	d-ɪn, m-		mòd', bəd'
MHE	d-ɪn, m-		mwanǰóm, bəəǰóm
MWK	d-ɪn, m-		mwanǰóm, bəlǰóm/ðbəlǰóm
MKA	d-ɪn, m-		mwanǰóm, bəřèǰóm mòd', bəd'
BLN	d-ɪn, m-		mwanǰóm, bəəǰóm
BBO	d-ɪn, m-		mwanǰóm, bəřèǰóm mòt, bət
LEF	d-ɪn, m-		mò-mān, bə-
LEK	d-ɪ?, m-		-nzóǰó?, bə-

	(103) male		(104) bachelor		(105) woman
	māle		célibataire		femme
CB	(697) *-dómɛ 1/2				(986) *-kádɪ (1/2)
M	*-dómɛ 1				*-kádɪ 1 PEG: *g(w)ɛ'
PM	*-jóm 1/2		*-kəl 3/2		*-kád 1/2
MBM			ŋ-kəl mɔ?		mwad'
MBN		ñzóm	ŋ-kɔkwə, 1d.		mwəl?, əbwəl? (1?/d')
MYE	mɔnǰóm (o/wɔ), ðbú'jóm		ŋ-kpə?, ð-		myəǰə?, ðbəǰə?
MBE	mwanǰóm		ŋ-kəl mɔ?		mwəǰə?, ðbəǰə?
ELU	mwenǰú		ŋ-kəl, ð-		mwə (ə/ɛ), ðbə
NNE	mɔnǰú, bəəǰú		ŋ-kəl		mwə? (?/d'), bəbəǰə?
AKO	mwanǰóm, bəəǰóm	ñjóm, bə-	ŋkəl		mwanǰəd', bəbəǰəd'
MHE		ñ-jóm, bə-	ŋkəl		mwəǰə?, bəǰə mw-əǰəl, b-
MWK		ñ-jóm	ŋ-kəl ('mòl)		mwəǰə, bəǰə
MKA		ñ-jó'ñ	ñ-kəl (ñ mòd'), bə-		mwəǰəd', bəǰəd'
BLN	mwanǰóm, bəəǰóm		ñ-kəl ('mòd')		mwəǰəd', bəǰəd'
BBO	mwanǰóm		ŋ-kəl ñ mòt		mw-əǰət, b-
LEF	mò-mān, bə-		ñ-ləm ə mòmān		mw-əlān, b-
LEK	-nzóǰó?, bə-		ŋ-kwə, bə-		məŋǰə, bəǰə

	(106) female femelle	(107) widow veuve	(108) barren woman * femme stérile
CB	(986) *-kádí		(894) *-gòmbà
M	*-kádí		*-gòmbà 9 'sterile female'
PM	*-šád 1/2	*-kúJ 1/2	*-kòm 7/8
MBM		ŋ-kwél mwād'	ŋ-kfn mwād'
MBN	mwāl? (1?/d')	ŋ-kwéy? mwāl?, ò-	è-kɔ mwād'
MYE	mwàá?	ŋ-kpé, ò-	kpèkɔ?
MBE	mwàá?	ŋ-kwí mwàá?	èkʂ mwàá, àkʂ bàá
ELU		ŋ-kók, ò-	èkʂ mwá?, kʂ bā?
NNE	mwàá? (?/d'), bɛbàá?	ŋ-kwéd', be-	è-kʂ mwād
AKO	mwàád'	ŋ-kúd', bə-	è-kòm (é mwàád'), è?-
MHE	mwàá	ŋ-kwéy? (/ŋ-kús), bə-	è-kòm, è?-
MWK	mwàá	ŋ-kúy?	èkòm (mwàá)
MKA	mwàád'	ŋ-kúy?	è-kòm (é mwàád')
BLN	mw-àád', b-	m-kúsə mwàád'	è-kòm (mwàád'), è?-
BRO	mw-àát, b-	í-kúsá, íb-	í-kòm (mwàát), íb-
LEF	mw-àlān, b-	ŋ-kwí	è-kumba é mwàlān
LEK	məŋá	ŋ-kí?, bə-	ŋ-kín məŋá, bə-

	(109) child enfant	(110) boy * garçon
CB	(1922) *-yānā 1/2	
M	*-jānā 1 PEG: *mɔ(n), *bɔ(n)	PEG: *sòm 'jeune homme'
PM	*-ān 1/2	
MBM	my-ān (a/ɛ), b-	
MBN	mw-ān (w/y), b-	myā mūnzóm, bān bəyóm
MYE	myā, bān	myā mūnjwóm èlɔjɪ, à-
MBE	my-ān, b- (/əbān)	mí(é)mwānjóm, bē(é)bānjān
ELU	mɔ, bān	mā mwènJú, bānə ɔbèJú
NNE	mw-ān, b-	mwēndəm, bēndəm
AKO	mw-ān, b-	mwānèmwènJóm, bān bē bāāJóm
MHE	mw-ān, b-	mwānè mwānjóm
MWK	mw-ān, b-	mwān mwānjóm
MKA	mw-ān, b-	mwānè mwānjóm, bān bə bāf'əJóm
BLN	mw-ān, b-	mwānɛ mwānjóm
BRO	mw-ān, b-	mwānā mwānjóm, bān bē bāf'ijóm
LEF	mw-ān, b-	mwān à mūmwān
LEK	mwé, bā	mwāndəé nzɔɔ, bāān-íə é bəzɔɔ

(111) girl *		(112) old man *
jeune fille		vieillard
CB		(1384) *-nūnū
M	PEG: *gōn`	*-nūnū 'old' PEG: *dūn '(être) vieux'
PM	*-gōn 9	*-jūn 3/2
MBM		n-zūmōd', yūribād'
MBN	ngōn mwād'	n-zūmōd', ò-zūbād'
MYE	myā myā ètōngwā	ñ-jūntī mō?, ñ-jūntī bā?
MRE	mī(é) mwāā, bē(è) bāā?	ñ-jūn mō?, ò-jūnebā?
ELU	mō mwā, bānābā?	ñ-jēn mō?, ñ-jēn bā?
NNE	mwā mwā?	ñ-jēn mō?, bē-
AKO	mwānē ñmwāāād' ngōn è ñmwāāād'	ñ-jūn ñ mōd', bē-jūn bē bād'
MHE	mwānē mwāā?	ñ-jūn ñ mō? (?/d'), bē-
MWK	mwān mwāā	ñ-jūn (mōl)
MKA	mwānε mwāāād', bān bābāād' ngōn	ñ-jūn ñ mōd', bē-
BLN	mwānε mwāāād'	ñ-jūn (mōd), bē-
BBO	mwānā mwāāt, bān bī bāāt	ñ-jūn mōt, bī-jūn bī bāt
LEF	mwān è mwālān	ñ-tīnā
LEK	mwāndāō mōngā, bāāndāō bāā?	ñ-zī(n) mō?, bē-zī bā?
(113) chief *		(114) friend
chef		ami(e)
CB	(1265) *kūmū 9/10 PEG: *fēn`	
M	*-kūmū 1 'rich person, ruler'	PEG: *sōn`
PM	(*kīŋ` 9/10) *-fōn 3/2	*-sōn 1/2
MBM	-mfōn, bē-	ñ-sōn
MBN	ñ-fōn, ā-	ñ-sōn, ā-
MYE	ŋ-hwōn, ò-	ñ-swē, ò-
MBE	kŋ	-mwē, ò-
ELU	kə	w-ē, b-
NNE	kəŋ	ñ-sōn, bē-
AKO	kəŋ	ñ-sōn, bē-
MHE	kŋ (k/c)	ñ-sōn (s/s), bē-
MWK	kŋ ŋ-hōn (mōl)	ñ-sōn, ò-
MKA	kəŋ ñ-hōn	-mwēfīē, bē-
BLN	kŋ (f/e)	ñ-sōn, bē- mwēfīē
BBO	kŋ	ñ-sōn, bī-
LEF	ñ-fōn, bā-	ñ-sōn, bā-
LEK	ñ-fō, bē-	ñ-sū, bē-

	(115) stranger, guest *		(116) "white man" *
	étranger, invité		"le blanc"
CB	(805) *-gɛ̀nɪ̃ 1/2		
M	*-gɛ̀nɪ̃ 1 PEG: *gɛ̀nɪ̃`		
PM	*-kɛ̀n 1/2		
MBM	ɲ-kɛ̀n mɔ̀d', ɲ-kɛ̀n bɑ̀d'		zɔ̀gɔ̀ mɔ̀d'
MBN	ɲ-kɛ̀ mɔ̀?, ɔ̀-kɔ̀ bɑ̀?		ɲ-kɛ̀lɛ̀, ɔ̀- (/ɑ̀-)
MYE	ɲ-kɔ̀ mɔ̀?, ɔ̀-kɔ̀ bɑ̀?		ɲ-kɛ̀'1ɔ̀, ɔ̀-
MRE	ɲ-kɔ̀n, ɔ̀-		ɲ-kɛ̀'1ɛ̀, ɔ̀-
ELU	ɲ-kɛ̀, ɔ̀-		ɲ-kɛ̀lɛ̀, ɔ̀-
NNE	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
AKO	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
MHE	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
MWK	ɲ-kɛ̀n, ɔ̀-		ɲ-kɛ̀lɛ̀, ɔ̀-
MKA	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
BLN	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, be-
RBO	ɲ-kɛ̀n, bɛ̀-		ɲ-kɛ̀lɛ̀, bɛ̀-
LEF	ɲ-kɔ̀n, bɑ̀-		mɔ̀-kɛ̀lɛ̀, bɑ̀-
LEK	ɲ-kɛ̀ mɔ̀?, bɔ̀-kɛ̀ bɑ̀?		ɲ-dɛ̀k, bɛ̀-1ɛ̀k
	(117) slave		(118) thief *
	esclave		voleur
CB	(1517) *-pɛ̀kɑ̀ 1/2		(2025) *yɪ̀bɪ̃ 1/2
M	PEG: *bɔ̀k`		*-jɪ̀bɪ̃ 1 PEG: *cɔ̀ŋ`
PM	*-tɛ̀ŋ` 1/2 *-bɛ̀ŋɑ̀ 1/2 *-lɑ̀m *-jɔ̀ŋ		*-jɪ̀bɑ̀ 1/2
MBM	-ɲlɑ̀m, bɛ̀-		-nz'ɔ̀b, be-
MBN	ɲ-lɑ̀m, id.		ɲ-z'ɔ̀b', ɔ̀-
MYE	ɲ-tɛ̀ŋ, ɔ̀-		ɲ-jɪ̀i', ɔ̀-
MRE	ɲ-tɛ̀ŋ, ɔ̀-		ɲ-jɪ̀, ɔ̀-
ELU	ɲ-tɛ̀, ɔ̀-		ɲ-j'ɔ̀b', ɔ̀-
NNE	ɲ-tɛ̀ŋ, bɛ̀-		ɲ-jɛ̀b', bɛ̀-
AKO	ɲ-tɛ̀ŋ, bɛ̀-		ɲ-jɪ̀b', bɛ̀-
MHE	ɲ-tɛ̀ŋ, bɛ̀-		ɲ-jɪ̀b', bɛ̀-
MWK	ɲ-bɛ̀ŋɑ̀ ɲ-jɔ̀ŋ, ɔ̀-		ɲ-jɪ̀w?, ɔ̀-
MKA	ɲ-bɛ̀ŋɑ̀, bɛ̀-		mɔ̀ɔ̀ ɲjɪ̀'bɛ̀, bɑ̀ɔ̀ ɲjɪ̀bɑ̀
BLN	ɲ-bɛ̀ŋɑ̀		mɔ̀ɔ̀ ɲjɪ̀bɑ̀, bɑ̀ɔ̀ ɲjɪ̀bɑ̀
RBO	ɲ-bɛ̀ŋɑ̀, bɛ̀- ɲ-jɔ̀ŋ, bɛ̀-		mɔ̀lɛ̀ ɲjɪ̀b', bɑ̀d' bɪ̀jɪ̀b'
LEF	ɲ-tɛ̀ŋ, bɑ̀-		ɲ-jɪ̀, bɑ̀-
LEK	-sɛ̀k, bɛ̀-		ɲ-zɪ̀?, bɛ̀-

	(119) (native) doctor médecin (indigène)	(120) wizard, sorcerer sorcier
CB	(786) *-qāngā 1/2, 9/10	
M	*-qāngā 1,9 PEG: *kāj` 'médicine'	
PM	*-gāng 9 *-āngā 14 *-bōl`	*-lēm 1/2
MBM	mòd mbwól	mò ɲkòù
MBN	mò àbúú	ì-1ēm, ā-
MYE	mòò ɲgāng mòò byā	ñ-1ēm, ò-
MBE	mò ɲgāng	ì-1ēm, ò-
ELU	mòò ɲgā, bāā ɲgā	ì-1e, ò-
NNE	mòò ɲgāng	ì-1ēm, bē-
AKO	ɲgāng 9/10 mòd è mból 'seer'	ñ-1ēm, bē-
MHE	mòl mból mòl mból	ñ-1ēm (ɛ/e), bē-
MWK	mòl bwāngā ɲgāng 'voyant'	ñ-1ēm, ò-
MKA	mòf`bwāngā	ñ-1ēm, bē-
BLN	mòf`bwāngā ð-kóngá	ñ-1ēm, bī-
BBO	ì-kóngá, ìb'-	ñ-yēm, bī- mòl à bīf
LEF	mò? à wùdúngá	ñ-1ēm, bā-
LEK	mù-āìl`búú, bāā-	ñ-dògā, bē-
	(121) medicine * remède, médicament	(122) God * Dieu
CB	(787) *-gāngā 14 (2019) *-yèté 3/4	(1917) *(n)yāmbé (925) *-jāmbé 9/10
M	PEG: *f`ò` 'médicament'	(955) *-jóbā 5 'sun'
PM	*-āngā 14/4 *-āì 14/6 (*-bōl`)	(*-nyāmé) *-òb 5/6
MBM	bīé	ñnyā
MBN	byāā, byābúú	ñ'nyāām
MYE	byā	ònyāā, búnyāā
MBE	bw-āngā, my-	māyāmé dyò?
ELU	bw-ìl, m-	dò
NNE	bw-ìl, m-	dúú?
AKO	bw-ìl, m-	dy-òb
MHE	bw-ìl (mból = action)	dy-òb'
MWK	bw-āngā, m-	dyòw 5,6
MKA	bw-āngā, my- mból	dy-òb', m-
BLN	bw-āngā mból	dy-òb'
BBO	bw-āngā, my-	dy-òb', m-
LEF	bw-ā, mw-ā	dy-ò
LEK	ā-āìl`búú, py-	ñ-dām, mē-

(123) ancestor *		(124) age-group *	
ancêtre		gens du même âge	
CB		(1194) *-kòdà	
M	*-jàmbé 9 (-é)	*-kʒɪ 3, 9	
PM	*-nyàmé 1a/2	kʒn'pʒ	
MBM		(ŋkʒɪ?) bǎjɔŋ	
MBN	ndʒɔnzà asǎmbéy?	kwɔ? ndyɔ 9,10	
MYE	óbásísɔ ó'bí ómǎáwǎ ŋ-gúúísǎ, ò-	ŋ-kʒ(1), ò-	
MBE	yámǎ, ò-	(ì-1éŋ) kʒd'	
ELU	mòòbwǎ, b'éébwǎ	(ì-1éŋ) kʒd'	
NNE	bǎǎs'é	kʒd'	
AKO	t'éé mbǎǎ -nyàmé, bè-	kʒɪ	
MHE	mòl à b'ɔl? -nyàmé, bè- b'ètǎǎ	ŋ-kʒɪ nyɔŋɔn 'même génération'	
MWK	mòl bwǎǎ	m-kʒɪ	
MKA	sǎǎŋmbǎ'ǎ, b'è- -nyàmǎǎ, bè-	kʒɪbǎd'	
BLN	bǎǎ'é kwǎŋǎ	kʒɔ	
BBO	tǎǎ kwǎŋǎ, b'ì-tǎǎ ó' kwǎŋǎ	kʒ 'age' é-yɔŋ, b'ì-	
LEF	bǎǎ'nyǎk'é	bǎǎdyan dyan éwé?	
LEK	bǎǎ ñjǎmǎn		
(125) water *		(126) river	(127) deep water *
eau		fleuve	eau profonde
CR	(605) *-díbǎ 6	(ps 491) *-yǎnjǎ 'lake'	(603) *-díbǎ 'pool' 5/6 or 7/8
M	PEG: *kí'		*-díbǎ 5 'depth, pool'
PM	*-díb 6	*-díb 7/8	*-díb 9 *-t'éŋ 7
MBM	ñ-dǎb'	è-dǎb'	ndǎb'
MBN	ǎ-dǎb' (a-/n-)	è-dǎb', id.	è-t'éŋ
MYE	ò-dí?	è-dí?, à-	ndí? è-t'éŋ
MBE	ò-dí	è-dí (múnjǎ)	ndí è-t'éŋ
ELU	ò-dób'	è-dǎb', ʔ-	ndǎb è-tyǎ, 0-
NNE	mè-d'éb'	è-d'éb', à?	nd'éb'
AKO	mè-ndí'b'	è-dí'b', è?	ndí'b'
MHE	mè-dí'b'	è-dí'b', è?	ndí'b'
MWK	ò-díw?	è-díw, à-	ndíw
MKA	mè-dí'b'	è-dí'b', mè- múnjǎ	ndí'b'
BLN	mè-dí'b'	è-dí'b', è?	ndí'b'
BBO	mí-ndí'b'	í-dí'b', íb'-	í-b'úú, id.
LEF	mǎ-dé?	mǎ-dé mwǎnjǎ	ñ-dí
LEK	mǎ-dí?	-jǔǎk, mè-	è-t'íŋ, b'è-

	(128) lake *	(129) sea *	(130) rain
	lac	mer	pluie
CB		(ps 491) *-yǎnjǎ 'lake'	(225) *-búdá 9
M		Dia: múnjǎ	*-búdá 9 PEG: *biŋ
PM	*-dǐb 7/8		*-búú 9
MBM	è-sǎb'	è-dǎbǎm' bǎé	mbú
MBN	è-bòǎ? (??/???)	è-dǎm' bǎ	mbúú
MYE	è-dǐ?, à-	nsǒ é'dǐ?	mbǎúú
MBE	è-dǐ, à-	èdǐ mbǎ múnjǎ	mbúú
ELU	è-dǎb', à-	è-dǎbǎŋkwǎ	mbúú
NNE	è-dǎb', à?	èdǎbǎŋkwǎ	mbúú
AKO	è-dǐb', à?	èdǐbǎŋkwǎ	mbúú
MHE	è-dǐb'	èdǐb é mbǎǎ múnjǎ	mbúú
MWK	è-dǐw, à-	è-dǐw mbǎǎ múnjǎ	mbú
MKA	è-dǐb', à?		mbú
BLN	è-dǐb', à?	èdǐb mbǎǎ múnjǎ	mbú
BBO	ǐ-dǐb', ǐb'-	ǐdǐb ǐ mbǎǎ múnjǎ	mbú
LEF	mbóò	mbóò	mbú
LEK		sǒlǎ wǎtǎ	mbǐgǐ

	(131) stagnant water	(132) dew	(133) cloud *
	eau stagnante, morte	rosée	nuage
CB		(1290) *-mǎ	
M		*-mǎ 3,7,11 PEG: *mǔk	PEG: *bǎk *dúad
PM	*-sǎny 6, (7/8)	(*-myǎ(1)~/mǎ(1)?)	*-bǎg 9
MBM	ǎ-sǎ'mbú	mbǎk	ǎ-lwǎǎd'
MBN	ǎ-sǎ'ŋǎ	mǎmyǎl	mbǎ? 'ǎbǎ?
MYE	ǎ-sǎŋ(ǎ), à-	mbǎhǎ?	mbǎhǎ?
MBE	ǎ-sǎ, à-	myǎ	mbǎ?
ELU	ǎ-sǎ	myǎl	mbǎ?
NNE	mǎ-syǎŋ	myǎ	mbǎhǎ?
AKO	mǎ-sǎn	mǎmwǎ	mbǎg 9,10
MHE	mǎ-syǎ mǎ mbúú	mǎmyǎ (ǎ/a)	mbǎq' (g'/?)
MWK	è-tyǎŋ é'dǐw	mǎmwǎ	mbǎ? (mbú)
MKA	mǎ-sǎ'ǎ	myǎ	mbǎg'
BLN	mǎ-sǎ'ǎ	mǎmyǎ	mbǎg'
BBO	ǐ-sǎǎ, ǐb'-	byǎgǎgǎ	mbǎk
LEF	mǎ-sǎǎ	bǎ-kǎkǎ	lǐ-bǎŋ
LEK	mǎ-sǎé	myǎ?	ǎ-bǎk

	(134) fog, mist *	(135) smoke	(136) thunder *
	brouillard, brume	fumée	tonnerre
CB			
M			PEG: *fʔəŋ
PM	*-bāg 9		*-gādv 9 + dyōb *-gīny 9
MBM	ā-lwāād'	mbāg' mūŋ	ndēlè
MBN	mbō? (m/ə)	mbōlā?	ŋkākā mbŋŋ
MYE	mbhō?	mūŋŋlā?	mbŋŋŋ kūmā?
MBE	mbō?	mūlā?	ŋkumā ŋ 'dyō
ELU	mbā?	mbōŋa?	ŋgəŋ
NNE	mbhā?	mōtēd?	ŋgŋŋ
AKO	mbāg'	mŋwētūd' 3	ŋjŋn
MHE	mbāg'	mōtūl? (ə/e, lʔ/d')	ŋgāl dyōb
MWK	mbā?	mūtā 3	ŋgāal dyōw
MKA	mbāg'	mētūtāg'	ŋgāŋīdyōb'
BLN	mbāg	mūtāg' mē-tūd'	mbāmāg' ŋ dyōb'
RBO	mbāk	mūtīt	ŋgādī dyōb'
LEF	lī-bāŋ	ŋ-tūtū	ŋgīnyā ē dyōb'
LEK	ē-bāk	zīŋ?	sēē
	(137) lightning *	(138) sky	
	éclair	ciel	
CB	(922) *-jādī 9		
M		*-jōbā 5 'sun'	
PM	*-mwāŋ *-mwēd(/-ād?)	*-ōb 5 (*-bōb' 5)	
MBM	ēmwāmwāŋ	ndōōndōō	
MBN	sē?	dōl? (lʔ/b')	
MYE	myamyāŋ	dūē mēŋ	
MBE	mbē'mā ŋ 'dyō	dyō	
ELU		dōō	
NNE	ēmwē?mwē?	dūū?	
AKO	ēmwēdmwēd'	dyōb' ābōbā ē dyōb'	
MHE	ē?-mwēmwētē	dyōb'	
MWK	mwēlmwēl	abōw	
MKA	mwēlēmwētē	ēbōb (ŋgūm)	mā
BLN	mwāŋmwāŋē (mwāmwātē)	dyōb'	mā dyōb'
RBO	īmwēmwēlē		māā
LEF			āmwāŋ
LEK	ēmwāŋmwāŋ	dū?	

	(139) wind		(140) storm *
	vent		orage
CB	(1493) *pɛpɔ̃ (9/10) 'cold, wind'	(1606) *pɔ̃pɔ̃	
M	*pɛpɔ̃ 9 'wind, cold' PEG: *fɔ̃fɔ̃ad		
PM	*-pũb 7 (*-fɛb 5)		*-gũd 9 *-kũd 7
MBM	ə-kɔ̃d'		ə-kɔ̃d'
MBN	ə-pəb'		ŋgũl
MYE	ə-kɪkũ?		ə-kũkũ?
MBE	ə-pũ?		ŋgũ?
ELU	ə-héb, ɔ̃-		ə-kɔ̃kɔ̃d', ɔ̃-
NNE	ə-pũb'		ə-kwɔ̃kwɔ̃d'
AKO	ə-pũb' pɛmɛ		ə-kũkũd'
MHE	ə-pũb'		ŋgũl
MWK	ə-pũ?		ŋgũl
MKA	ɛ-pũb'		ŋgũd
BLN	ə-pũb'		ŋgũl ɛ-kũd'
BBO	ɪ-pũb		ɪ-kũt
LEF	ŋgũŋgũ		ɛ-kũl
LEK	ɪə-fwɔ̃?		ɛ-kɔ̃?
	(141) sun *		(142) sunshine
	soleil		clarté du soleil
CB	(1791) *tɔ̃ndɔ̃ə 'star' (1983) *nyɛnyɛdɪ 'star'	(ps 492) *yànyá 'day, daylight'	
CB	(ps 492) *yànyá 'day, daylight' PEG: *nũm		
PM	*-nyãny 7 (*-sɛɛ 5)		*-nyãny 7 (*-sɛɛ 5)
MBM	ə-nyɪ		ɛyákũ 'burns feet'
MBN	ə-nyɛŋ dũə		
MYE	ə-nyɛŋ		ə-nyɛŋ ɛ-pɛŋɛ? 'sun is shining' əhũntɪ
MBE	ə-yɛɛ		
ELU	ə-nyɛ		ənyɛ ɛ-pɛŋɛ
NNE	ə-nyɛŋ		ənyɛŋ ɛ-pɛŋɛ?
AKO	ətɔ̃ndɛɛ		ənyɛŋ
MHE	ə-nyɛa		
MWK	ə-sɛɛ ətɔ̃n dyɔ̃w		ɛyák (y/ny)
MKA	ɛ-sɛɛ		ɛnyák
BLN	ɛ-nyák ( / )		ɛ-sɛ'ɛ
BBO	ɪ-nyák		ɪ-sɛɛ dɪ nyák
LEF	dũlũ		dũlũ dɪ fya
LEK	dɪdũgũ?		ɛ-sákɛgɛncɪ



	(148) darkness *		(149) morning *
	obscurité		matin
CB			
M	*-pi-		
PM	*-fɪntɛn ?		*-bwā 9 *-sɔ̃sɔ̃? 3 *-pɔ̃g 7
MBM	è-fɪnɪ		nsɔ̃sɔ̃ (/sɔ̃su)
MBN	è-s(ɪ)ndé (s/ɛ) ñlāmè		è-pɔ̃ɔ̃ɔ̃kù
MYE	è-hɪntɪ?		nzɔ̃sɔ̃
MBE	è-hɛntɛn		ndɔ̃sɔ̃
ELU	è-hɛntɛ		ñsɔ̃sɔ̃
NNE	è-hɛntá		mbɔ̃mbwɛ
AKO	è-hɪntɛn		mbwɛmbwɛ èpɔ̃g 'early'
MHE	è?-hɪntɛn		mbwɛmbwɛ (ɛ/a)
MWK	è-hɪntɪ		mbwā
MKA	è?-hɪntɛn		mbwā
BLN	è?-hɪntɛn		mbwā
RBO	ɪ-fɪtɪk		mbwā ɪjɛsɪ'brɪ
LEF	è-fɪnjá		mɔ̃sɔ̃
LEK	è-ɛwɪɪkɛncɪ		èpɔ̃g èpɔ̃k
	(150) noon *		(151) evening *
	midi		soir
CB			(879) *-gòdɔ̃
M	Dla: kɔ̃sɪ		*-gɔ̃dɔ̃dɔ̃bà 3 *-godɔ̃ 5 'evening, yesterday'
PM	(*mwɛtɛ?)		*-gòkɔ̃vɪ 9 *-kòkò 3
MBM	ñsɔ̃mɛdɔ̃dɔ̃b'		ɔ̃gɔ̃kɪ
MBN	kɔ̃sɪ		ɔ̃kɔ̃kɔ̃
MYE	mɛtɛ		ɔ̃kɔ̃kɔ̃
MBE	kɔ̃sɪ		ɔ̃kòkò
ELU	mwɛtɪ		ɔ̃kɔ̃kɔ̃
NNE	mɔ̃tɛ		ɔ̃gòkɛɪ
AKO	kòd'		ɔ̃gɔ̃kɛɪ
MHE	mɔ̃tɛ		ɔ̃gòkòɪ
MWK	kòsɪ		ɔ̃gòkòɪ ɔ̃kòkò
MKA	kòsɛ		ɔ̃gòkòɪ
BLN	kòsɪ		ɔ̃gòkòɪ
RBO	kòsɪ		ɔ̃gòkòò (o/u) m̀kòkò
LEF	lɪsɛn 'afternoon'		ɔ̃kwè
LEK	ndɔ̃g ɛmɔ̃ɪ		ɔ̃gòkò

	(152) year *	(153) rainy season
	an	saison des pluies
CB	(217) *-bú (3/4) (1904) *-yákà 3/4	
M	*(j)ákà 3 PEG: *gòk`-'année'	
PM	*-sèb 7/8 *-bú 3/4 (*-á 3/4)	*-kòg/-kúg 3 *-j5 7/8
MBM	è-syèb'	ǰ-kòg'
MBN	è-scb, à-	ǰ-kú? (?/g')
MYE	è-sà?, à-	ǰ-kò?
MBE	è-šè, à-	ǰ-kú?
ELU	è-sè?, ø-	ǰ-kók
NNE	mw-ě, my-	ǰ-kòg'
AKO	mwě	ǰ-kòg'
MHE	m̄-bíŋ	ǰ-kòg' (o/u, g'/?)
MWK	m̄-bú 3	ǰ-kú? è-j5 (7,8)
MKA	m̄-bí	è-j5
BLN	m̄-bí 3,4	è-j5
RBO	m̄-bú	í-j5, íb'-
LEF	m̄-bí	è-y5?
LEK	è-sá, bè-	è-sòg5

	(154) dry season	(155) fire	(156) charcoal
	saison sèche	feu	charbon
CB	(342) *-cèp3 (7/8)	(1987) *-yéà	(980) *-kádà 6
M	PEG: *dòm	PEG: *mút'	*-kádà 5
PM	*-sèb 7/8	*mùú	*-kántìd 5/6 *-kàá 5/6 ?
MRM	dyòmťé	mùú	à-kéé mù
MBN	è-sèb' (ɛ/ə) yòmǰè	mùú	à-kàá 'mùú
MYE	è-sà?	mùú	à-kòó 'mùú
MBE	è-šè	mùú	à-kàá mù, ò-
ELU	è-sè?	mùú	ákóí (à-kòóíé mù, ò-)
NNE	è-sèb'	mùú	à-kíí, mè-
AKO	è-sèb'	mùú 3	à-kíkíí, mè-
MHE	è-sèb'	mùú	è-káàlè?, mè-
MWK	è-sèw, à-	mùú 3	ò-ká'áŋkí
MKA	è-sèb'	mùú	è?-kántìí', mè-
BLN	è-sèb'	mùú	è-kántìí, mí- ǰkàŋkí
RBO	í-sèb', íb'-	mùú	í-kàŋkít, mí-
LEF	è-yóm	mùí	lí-kákà, mè-
LEK	zùríntè	mèš	mè-kàgámš

	(157) ashes *	(158) forest	(159) "bush"
	cendre	forêt	brousse
CB	(216) *-bú (3),5		
M	*-bú 5 'earth, dust' PEG: *bú`		
PM	*mbumbú	*-fěny 5/6	*-fěny 5/6 *-kítě? 7/8
MBM	mbòbò ñfùŋ	à-ší	è-kóřà/è-křě
MBN	mbúdm	ñ-pim	è-kžž?
MYE	mbúmf?	ndwžm	è-kítě, à-
MBE	mbúmbú	à-hšě, ò-	è-kítě, à-
ELU	mbúmwěd'	à-hěŋ, ò-	à-hěŋ
NNE	mbúmbú	à-híŋ	à-híŋ
AKO	mbúmbú	à-hín, mē-	à-hín, mē-
MHE	mbúmbú	è-hěě, mč-	è-hěě, mč-
MWK	mbúmbú	à-hěě	à-hěě
MKA	mbúmbú	è?-hě'ě, mč-	è?hě'ě, mč-
BLN	mbúmbš	è?-hě'ě	è?hě'ě
BBO	mbúmbú	í-fěě, mí-hěě	í-bùtā, íb'-
LEF	mbúmbó	lí-fín, mā-	ndúkú
LEK	mphš	ñ-pín	è-kí?, bā-
	(160) tree *	(161) leaf	
	arbre	feuille	
CB	(1729) *-tě (3/4) (2019) *-yětě 3/4	(1928) *-yānf (1019) *-káyě (1021) *-káyí	
M	*-tě 3 PEG: *tě`	*-jānf 5 PEG: *f?ò`	
PM	*-ě1/-ě1' 14/6	*-ěš 7/8 *-pān 7/8	
MBM	y-ěŋ, m-	jyěě, id.	
MBN	lěŋ, id.	í'yě (é/ə) è-pān	
MYE	jěŋ, mēŋ	jy-ě, by- èpā'jyě	
MRE	bw-ě1, m-ə1	j-ě, bw-ě è-pān, a-	
ELU	bw-ě1, m-	à-pā-jě, ò-	
NNE	bw-ě1, m-	ky-ěš, by-	
AKO	bw-ě1, m-	cy-ěš, by-	
MHE	bw-ě1, m-	jy-ě, by-	
MWK	bw-ě1, m-	j-ěš, by-	
MKA	bw-ě1, m-	j-ěš, by-	
BLN	bw-ě1, m-	jy-ěš, by-	
BBO	bw-ěš, m-	j-ěš, by-	
LEF	bw-ě, mw-	í-yě, bí-	
LEK	ž-ěgí?, m-	š-ě, py-	

	(162) branch		(163) palm frond *
	branche		feuille de palmier
CB	(1636) *-tābè 3/4		(502) *-dāngí. 3/4 'bamboo'
M	*-tābè 5,9 'branch, twig'		
PM	*-gāny 9/10 *-lābē 3/4 *pān 9/10		*-ān 5/6
MBM	pān yān		dy-ān dīí, m-
MBN	pān		Jān
MYE	ñ-lā?		dy-ān, m-
MBE	l-lā (bwəl) (a/ɛ)		dy-ān (dīí), m-
ELU	ngē		dy-ā, m-ō
NNE	ngēn		ngāíé
AKO	ngēn		əkīkāg'
MHE	ngāā (aa/a)		dy-ān (dy/j)
MWK	ñ-lāw		dy-ān (dīí)
MKA	ngā?ā (bwəl)		dy-ān (é dī'í), m-
BLN	ngāā (bwəl)		dy-ān (é dī'í), m-
BBO	ngāā m-yābī		ī-kākā; 1b'-
LEF	ñ-lā?, mī-		ē-kā é'lén
LEK	pān, id.		d-ān, m-
	(164) bamboo		(165) root
	bambo:		racine
CB	(502) *-dāngí 3/4 (54+) *-bānjā (11/10)		(788) *-gāngá (~/)
		'midrib of palm-frond'	
M	*-dangi 3 PEG: *dēn		PEG: *gān
PM	*bāny 9/10 *-dēn		*-kān 3/4
MBM	ndēn		ñ-kān
MBN	ndēn		ñ-kān
MYE	ē-sān, ā-		ñ-kān
MBE	m-w-ēl, ny-ēl		ñ-kān
ELU	ñkólé		ñ-kā
NNE	mbñēn		ñ-kān
AKO	mbēn		ñ-kān
MHE	mbāā		ñ-kān
MWK	mbōn		ñ-kān
MKA	mbāā		m-kān
BLN	mbāā		m-kān
BBO	mbāā		m-kān
LEF	mbēn		ñ-kāngá, mī-
LEK	ndēn, id.		ñ-kān, m-ē

	(166) bark *		(167) log	
	écorce		bûche	
CB	PEG: *kðb`		(ps 232) *-qððgð 3/4	
M	*-kɔba 5 *-pðcɔ 11 'bark, husk'			
PM	*-kðb 7 *-kðg/-kùg 7		*-kùg 3/4 *-kðg` 3/4	
MBM	è-kðkðb'			è-sùŋ yɛn
MBN	è-kðb' è-kðð?		ŋkùtáè	
MYE		mbɛí jɛn		è-sɔ jɛn
MBE	è-kù, à-		ŋkù (m'bwél)	
ELU	ŋgð è-kðk		mbé	
NNE	è-kðg' è-kwðm			è-sɔŋ é hũn
AKO	è-kðg', è?-		ŋkðg'	
MHE	è-kðb' (è-/à-)		ŋkùg' (g'/?)	
MWK	è-kù? (bwél)		ŋkù?	
MKA		è-pàsɛ 'bwél, è?-	ŋkðg'	
BLN		è-bàá bwél	ŋku? m-kð? (m'bwél)	
BBO	f-kðkðð, f b'-		m-kðk m'bwéè	
LEF		mbɛsɛbwé	ŋ-kù m'bwé, mɛ-	
LEK	è-kðgð		è-lɛs zɛgɛ?	
	(168) seed	(169) camwood	(170) fruit *	
	semence	bois de cam	fruit	
CB	(211) *-bðtð 9/10		(228) *-bùmá	
M	*-bðtð	PEk: *-kðl		
PM	*-bùm 9/10 *-bðl 9	*fy`-ð? 19	*-pùmá 7/8	
MBM		ŋwɛl byɛm	è-pám yɛn	
MBN	mbðl' mbwél	ŋðs	è-pð lɛŋ	
MYE	mbɛm mbɛwɔn	sðs	è-pùm, à-	
MRE	mbél	pəŋ	mbùm (mèl)	
ELU	mbyɛ	pə	è-pùm	
NNE	mbíí (bém)	híí	è-pùm, è?-	
AKO	mbùm, id.	híí	è-pùm, è?-	
MHE	è?-wðn mbðtè	yð	è-pùm, è?-	
MWK	mðl		è-pùm	
MKA	mbðl mbðlákð	yð	è-pùmá, è?-	
BLN	mbðl	yð	è-pùm, è?-	
BBO	f-wðn	yð	f-pùmá, id.	
LEF	ŋg àn è?	fíí	è-pùm, bɛ-	
LEK	mbùgù, id.	sáí	ndùgù zɛgɛ?	

	(171) flower *		(172) thorn
	fleur		épine
CB			(320) *-cɛndɛ (1997) *-yɛgà 3/4
M	Dla: mbònjɪ		PEG: *jɔŋ`
PM			*-jɔ 5/6 *-jɛny 9
MBM	mbyə'byɛn		à-yùó, ñ-
MBN			nzɛŋ
MYE	mpámbyə myəŋkɪ myəŋkɪ		à-júá, ò-
MBE	mbonji		ʒə 9, 10 à-sòŋkən, ò-
ELU	mbònjɛ		à-jùò, ò-
NNE	mbwɪnzə		à-jwɛ, mɛ-
AKO	mbònjà 9/10		à-cə, mɛ- (nzɪn)
MHE	mbònzə (z/j) mbyɛ/ə		ə?-jɔ, mɛ-
MWK	mbònzɪ		à-jɔ?, ò- (nzɛɛ)
MKA	mbònjə		ʒ?-jɔ, mɛ-
BLN	mbònjɪ mbyábəŋ'		ʒ?-jɔ, mɪ-
RBO	mbònzɪ		ɪ-jɔ, mɪ-
LEF	mbùnjɪ		lɪ-yɔ?, mɛ-
LEK	flāwā		nzɛ, id.
	(173) grass		(174) elephant grass *
	herbe(s)		roseau
CB	(1928) *-yáŋɪ 'leaf, grass'		
M	*-kɔka '(short) grass'		
PM	*-sùm 7/8		*-kàŋɛ 7/6 *-sòŋ 7
MBM	jyəé		è-sùŋ
MBN	byɛ (ɛ/ə)		è-sòŋ
MYE	kɔpɛ?		
MBE	è-sùm, à-		è-kàŋsùŋ, ò- (ò-/à-)
ELU	è-sum, 0-		è-kààsùŋ, ò-
NNE	è-sùm, à?-		è-sɪsàŋ, mɛ-
AKO	è-sùm, ə?- ɲkəkəə		è-sɪsòŋ, mɛ-
MHE	è-sùm (è-sùŋ, ə?-)		è-sɪsòŋ (ə/ɛ), mɛ-
MWK	è-sùm, à-		è-kààŋ, ò-
MKA	è-sùm, ʒ?-		è-kàŋɛ, mɛ-
BLN	è-sùm, ə?-		ʒ?-kàŋɛ, mɪ-
RBO	ɪ-sùm, ɪb'-		ɪ-kàŋɛ, mɪ-
LEF	è-sùm, bɪ-		kààsùŋ
LEK	əbɔŋɪ, id.		ɲdɛzòŋ

	(175) mountain montagne	(176) valley vallée	(177) earth terre
CB	(883) *-gòdò 11/10 'hill'		(639) *-dòbò 'soil, world'
M	PEG: *kɔŋ 'colline'		PEG: *sɛ
PM	*-kòdɔ̄ 7/8	*-bǎŋ 3/4	*-dòb 9
MBM	è-kwòd'	lǎmsɛ	ndòb'
MBN	è-kòlɔ̄	mbǎŋ	ndòb
MYE	è-kwòɔ̄ (e/ɛ), à-	mpwɔ̄ 'bɛ'	ndwòsɛ
MBE	è-kò, à-	mbǎŋ	ndò?
ELU	è-kòd, 0-	mbòdè	ndò?
NNE	mbɔ̄ɔ̄?	ŋɔ̄wò?	ndòòb'
AKO	è-kòndè mbòòd'	mbwǎŋ	ndòòb'
MHE	è-kòd' (d'/l'), è?	mbwàl?	ndòb'
MWK	è-kòl, à-	èdyèmbèl 'plaine'	ndòw
MKA	è-kòd', è?	mbǎŋ	ndòb'
BLN	è-kòd', è?	mbǎŋ m̄hòyà	ndòb'
BBO	ì-kòt, ìb'-	mvòŋ, id.	ndòb'
LEF	wò-kò, mǎ-	m̄-bǎŋ, m̄-	ndò?
LEK	è-léè?, bè-	m̄-pò, m̄-	ndò?
	(178) sand sable	(179) chalk craie	
CB	(314) *-cɛkɛ 3 (288) *-cǎŋgà 3	(1474) *-pɛmbà	(1477) *-pɛmbɛ 'white clay'
M	*-cɛkɛ 3 *-canga 3 *-cango ó		
PM	*-sɛɛ 3 *nyǎŋÉ ?	*pɛmbɛ	
MBM	nyɛɛ	pɛm	
MBN	nyǎǎ nyǎŋ		
MYE	nyǎŋí?	cɔ̄k	
MBE	ñ-séyǎŋ	pɛ'mbɛ (ɛ/ə)	
ELU	ñ-sí	pɛmbɛ	
NNE	ñ-síí	pɛmbɛ	
AKO	ñ-síí	pɛmbɛ	
MHE	ñ-séè (ee/e)	pɛmbɛ	
MWK	ñ-sɛɛ	pɛmbɛ	
MKA	ñ-sɛ'ɛ (ñ-/è-)	pɛmbɛ	
BLN	è?-sɛ'ɛ	pɛmbɛ	
BBO	ñ-sɛɛ	pɛmbɛ	
LEF	fyǎŋgú?	lì-wíndf, mǎ-	
LEK	nyǎŋǎ?	cɔ̄k	

	(180) dust *		(181) mud	
	poussière		boue	
CB	(215/6) *-bú 5 'soil, ashes'		(1797) *-tǝpǝ	
M	PEG: *bǝb' *bǝb'		*-tǝpǝ 9 'bog, morass, etc.'	
PM	*-bǝbú 7 *-bǝl? *-fǝŋ'		*-lǝbǝ 7	
MBM		mǝŋ		ǝ-tǝtǝb'
MBN		mǝŋ	ǝ-lǝbǝg'	ǝ-tǝbǝg
MYE		mbǝŋ	ǝ-lwǝbǝ	
MBE		mbǝl	ǝ'15?	
ELU		mbǝl	ǝlǝbǝ'	
NNE	ǝ-bǝmǝ		ǝ-lǝbǝ'	
AKO	ǝ-bǝmbǝ		ǝ-lǝbǝ'	
MHE	ǝ-bǝbú		ǝ-tǝtam (ǝ-/ǝ-)	
MWK	ǝ-bǝbú		ǝ-tǝtǝw	mbǝtǝ
MKA	ǝ-bǝbú			mbǝtǝg'
BLN	ǝ-bǝbú		ǝ-tǝmbǝ	ǝ-tǝpǝ
BBO	ǝ-bǝbú		ǝ-tǝtǝb'	ǝ-tǝyǝb'
LEF	ǝ-pǝpǝndǝ?		ǝ-lǝ?	
LEK		ǝ-fǝŋ	ndǝ?	
	(182) village		(183) home	
	village		chez lui/soi	
CB	(192) *-bǝgǝ (9/10) (ps 483) *-yǝdǝ 5/6			
M	*-bǝgǝ 7 'village, etc.' PEG: *dǝk'			
PM	*-bǝg 9 *-ǝd 5/6 *-kǝŋ 3/4 *-lǝŋ 5/6		*-bǝg 9/10	
MBM	mbǝk			
MBN	mbǝg'		ǝmwǝ (w/y)	
MYE	ǝmyǝ, id.		ǝmyǝtǝ	
MBE	mwǝ, myǝ		mbǝ?	
ELU	ǝmwǝ 'quarter'		mwǝ	
NNE	dy-ǝd, m-		dyǝd'	
AKO	dy-ǝd, m- ǝ-kǝŋ		mbwǝg' 9/10	
MHE	ǝ-kǝŋ			
MWK	ǝkǝŋ a-lǝŋ			
MKA	ǝ-kǝŋ ǝ-lǝŋ, mǝ-			
BLN		ǝ?-lǝŋ (ǝ-/ǝ-), mǝ-	mbǝ?	ǝ'wǝm
BBO	ǝ-kǝŋ		mbǝk	
LEF	ǝ-kǝ, mǝ-			ndǝ?
LEK	mbǝk			

(184) country *		(185) house
pays		maison, case
CB		(ps 144) *-dǎbɔ̃
M		PEG: *d(e)ǎ(b)~
PM	*-lɔ̃ŋ 5/6 *-bɔ̃g 9	*-dǎb 9/10
MBM	ndɔ̃mbɔ̃k	ndǎb'
MBN	mbɔ̃g'	ndǎǎb'
MYE	mbɔ̃hɔ̃?	ndǎ?
MBE	è-tɔ̃?, à-	ndǎ?
ELU	à-lɔ̃, ð-	ndǎ
NNE	à-lɔ̃ŋ, mǎ-	ndǎ?
AKO	à-lɔ̃ŋ mbwɔ̃g' 9	ndǎb'
MHE	è?-lɔ̃ŋ, mǎ-	ndǎb'
MWK	à-lɔ̃ŋ	ndǎw
MKA	è-lɔ̃ŋ, mǎ-	-ndǎb', mǎ-
BLN	è?-lɔ̃ŋ, mǎ-	ndǎb'
BBO	f-yɔ̃ŋ, mǎ-	ndǎb' mbɔ̃k'
LEF	è-kùmbò, mǎ-	-ndǎ?, mǎ-
LEK	mbɔ̃k	ndǎ?, id.

(186) shade of palm leaves		(187) latrine
hutte		toilettes
CB		
M		
PM	*-bǎm 7/8	*-tǎm 3/4 (*-gɔ̃ŋɔ̃ 9)
MBM	è-bǎm	ñ-twɔ̃m
MBN	è-bǎm	ñ-tǎm ñjǎbǎg'
MYE	è-bǎm, à-	à-jɔ̃?, ð-
MBE	è-bǎm ngun	è-yú?, à-
ELU	è-bǎ, ɳ-	ñ-tǎ
NNE	è-bǎm	ñ-tǎm
AKO	è-bǎm, è?- ndúm 9/10	ñ-tǎm
MHE	è-bǎm (e/ɛ)	ñ-tǎm
MWK	ndúm	ñ-tǎm ngɔ̃ŋɔ̃
MKA	è-bɔ̃sǎ 'ndǎb	ngɔ̃ŋɔ̃ ènɔ̃g'
BLN	è-bǎm, è?-	ngɔ̃ŋɔ̃ sɔ̃mɔ̃n
BBO	f-bǎm, fɔ̃'-/f'?	sɔ̃mɔ̃n
LEF	lf-búm, mǎ-	ñ-tǎm dɔ̃ǎ
LEK	è-bùɔ̃, bǎ-	ñ-tǎ, mǎ-

	(188) wall		(189) fence	
	mur		clôture, barrière	
CB			(896) *gòmbò	
M				
PM	*-kãŋ 5/6		*-kãg 3 *-kʂtʂ	
MBM	à-kããndáb'			è-tí
MBN	à-kãndáb', ò-			à-kèŋ, ò-
MYE	à-kã'ndã?, ò-			ò-kã'lí, id.
MBE	à-kãŋ'ndã?		ŋ-kã?	
ELU	à-kã, ò-		ŋ-kè?	
NNE		àtãà, mè-		à?-kè, mè-
AKO		è-sèd', è?-		è?-kè, mè-
MHE	è-kãŋ, mè-		è-kãg', mè-	(kʂtʂ)
MWK	à-kãŋ( 'ndãw), ò-		ŋ-kã?	
MKA	è?-kãŋ, mè-	è-píamá, è?-		kʂtʂ, id.
BLN	(è?-kãŋ, mè-)	è-jéŋ, è?-	ñ-kã?	(kʂtʂ)
BBO		í-jéŋ, íb'-		kʂtʂ
LEF		ñ-bã ndã?, mí-	wù-kã?	
LEK		ŋ-kògãndã, mè-	è-kyè, bè-	
	(190) door *	(191) entrance, doorway *	(192) roof	
	porte	entrée	toit	
CB		(552) *-dèàŋgò		
M				
PM	*-kòbã 7/8, 7/6	*-sòl 3 *-nyíŋè	*-nyòŋú ? 3	
MBM	ñ-sòndãb'		èbòŋtè	ndwòm dãb'
MBN	ñ-sòndãb			ndòm
MYE	è-kwò'ndã?, à-	ñ-sò'ndã?		ndò'ndã? 'top of house'
MBE	è-kò'ndã?, à-	ñ-s'ndã?		ñ-nú'ndã?
ELU	èkò, ò-	ñ-sò		ñ-ní
NNE	è-kòb', à?-	ñ-sòl		ñ-nãŋ
AKO	è-kòb', à?-		ñmwè	ñ-nòŋ
MHE	è-kòbã, mè-	ñ-sòl ndãb'		ñ-nyòò
MWK	è-kòwã, à-		è-yíŋ	ñ-nòú
MKA	è-kòbã, mè-		njéé 'passage'	ñ-nyòú
BLN	è?-kòbã, mè-		è-nyíŋè	nyòŋ (~ / ^)
BBO	í-kòbãk', mí-		í-nyíŋí, mí-	ñ-yòú
LEF	è-kò?, bí- (1/e)	nsò fda?		ñ-lú'ndã?
LEK	ñ-sò'ndã	nsò'ndã		ñ-dògòndã?, mè-

	(193) bed	(194) hearth, fireplace *
	lit	âtre, foyer
CB	(564) *-dèdè 14/6	
M	PEG: *kón	
PM	*-nḡḡ 5/6	*dū 5
MBM	à-nḡḡ; ḡ-	à-tḡmdí
MBN	à-nḡḡ, ḡ-	àtḡnzíú, ḡ-
MYE	à-nḡḡ, ḡ- à-tíí	à-súú?, ḡ-
MBE	à-nḡḡ, ḡ- ndyàḡ	à-lḡḡ'dí, ḡ-
ELU	ndè	ḡkōndú
NNE	à-nḡḡ, mḡ-	dū
AKO	à-nḡḡ, mḡ-	-dū, mḡ-
MHE	ḡ-nḡḡ, mḡ-	dúú
MWK	à-nḡḡ, ḡ-	dū
MKA	ḡ-nḡḡ, mḡ-	dū ḡ-bòḡ'dú
BLN	ḡḡ-nḡḡ, mḡ-	dū
BBO	í-nḡḡ, mḡ-	dū
LEF	wí-tí, mḡ-	lí-súú?, mḡ- nsḡḡ 'dú
LEK	lḡ-gḡk, mḡ-	tsḡ'míú, mḡ-
	(195) fireplace stone	(196) soot
	pièrre du foyer	suis
CB		(141) *-bídḡ
M		
PM	*-sḡj` 5/6	*mḡḡḡḡ 3 *-mḡḡ 3
MBM		mḡ-mḡḡ
MBN	à-sḡy?	dḡḡ?mbyḡ
MYE	à-súú?, ḡ-	ḡ-kḡḡ'míú
MBE	à-sḡḡ?, ḡ-	mḡ-mḡḡ
ELU	à-sḡk, ḡ-	ḡ-tḡ
NNE	à-sḡḡ, mḡ-	mḡ-mḡḡ
AKO	à-sḡd', mḡ-	mḡḡ'
MHE	ḡ-sḡy?, mḡ-	mḡḡḡḡ
MWK	à-sḡy, ḡ-	mḡḡḡḡ
MKA		mḡḡḡḡ
BLN	à-sḡy?, mḡ-	mḡḡḡḡ
BBO	í-sḡt, mḡ-	pítḡ (mbḡ)
LEF	mḡlḡ mḡ mḡsḡú	mḡ-fḡndḡ
LEK	lḡ-sḡí, mḡ-	wḡḡḡḡ

	(197) rubbish heap *		(198) dirt, dirty
	ordures, "poubelle"		saleté, sale
CB	(918) *-jädä 5/6		(150) *-bīndō/ō 9
M	*-jädä 5		*-bīndō
PM	*-pūd' 5/6 *m53m 6 *dy`-ä? 5		*-bīndV 9
MBM	m-päd'		m-päd'
MBN		jyè	mbīndō
MYE		dyè	ō-pū? mōdŋ
MBE	ō-pū?		mbīndī
ELU		dyè	mbāndè
NNE	ä-päd'		mbēndē (ε/ə)
AKO		m53m 6	mbīndä 9
MHE	ä-pūl?, mē-		mbīndī
MWK	ä-pūl, ò- m53m(pūl) dyäš('pūl)		mbīndī
MKA	èpūd'		mbīndī
BLN	ä-pūd'		mbīndī
BBO		m53m	mbīndū
LEF		ndŋmbāŋ	mbīndū mbāŋ
LEK		ñ-d3gəlók, mē-	nd3tí
	(199) path, road		(200) boundary
	chemin, route, sentier		limite, frontière
CB	(940) *-jädä (9/10) (941) *-jädä		(566) *-däd3 3/4
M	*-jädä/ä PEG: *jī' 'route'		*-dädō (-ɔ) 'frontier'
PM	*-jädē 9/10		*-jädē 3
MBM	nzè	bōgè	nzēnē
MBN	nzyē (ε/ə)		ñ-jänè
MYE	nzyè		ñ-jyè
MBE	nzèè (z/ž)		ñ-jè?
ELU	nzi		ñ-jīī
NNE	nziī		ñ-jyē
AKO	nziī		ñ-jīī
MHE	njiī (/nz(y)äè)		ñ-jèè (ee/ye)
MWK	nzèè		ñ-jèè
MKA	njèè		m-jèè
BLN	njèè		m-jèè
BBO	-nzèè, mī-		m-jèè
LEF	m-pèŋ, mī- m-bòkà, mī-		ñ-jī, mī-
LEK	nšī		nzè

	(201) stone pièrre	(202) iron fer	(203) farm, plantation ferme, champ, plantation
CB	(1642) *-tádè	(800) *-gèdà 7	(260) *-cākā 'thicket, bush country'
M	*-tádè 5 PEG: *gǝk`	PEG: *tɛnV	
PM	*-lǎá 5/6	*-kèè 7/8	*-jǎg 9 *-lǝŋ 3
MBM	à-1ǎ, ñ-	è-tì	nzàtè è-bwòŋ
MBN	à-1ǎ, ñ-	è-kìì	nzàkè è-kèŋ
MYE	à-1ǎá, ò-	è-kyà, à-	nzà?
MBE	à-1ǎ, ò-	è-kì, à-	nzà?
ELU	à-1ǎ, ò-	è-kì, 0-	nzà?
NNE	à-1ǎá, mè-	è-kìì	nzàg'
AKO	à-1ǎá, mè-	è-kìì	nzàg'
MHE	è-1ǎá, mè-	è-kè(è), è?-	ñ-1ǝŋ fəm
MWK	à-1ǎá, ò-	è-kè	nzà? ñ-1ǝŋ
MKA	è-1ǎ'á, mè-	è-kèè, è?-	njàg' ñ-1ǝŋ
BLN	è-1ǎá, mè-	è-kèè, è?-	njàg' ñ-1ǝŋ
BBO	í-yǎá, mí-	í-kèè, íb'-	nzàk' í-kííí, íb'-
LEF	dí-1é, mǎ-	è-kè?, bí-	ndùkú
LEK	-1íá, mǎ-	è-kyè?, bǎ-	mɔŋ tǎá

	(204) burnt off area terrain brûlé	(205) animal animal
CB	(1507) *-pǎá	(1909) *-yámà 9/10 *-nyámà
M		*-(ny)ámà, *(j)ámà 9 PEG: *nám`
PM	*-fyǎŋ 5, 3	*-ám 9/10 *-lém 7/8 'domestic animal'
MBM	kǎg'	nyám
MBN		nyám
MYE	ñ-sǎŋ	nyám
MBE	è-yǎŋ ñ-sǎŋ	nyám
ELU	ŋ-hyá	nyá
NNE	è-yǎŋ (y/hy)	nyám è-lém, è?-'domestic animals'
AKO	è-hyǎŋ ŋ-hyǎŋ 3	nyám è-lém, è?-
MHE	è-yǎŋ	nyám è-lém, è?-'domestic animals'
MWK	ñ-sǎŋ	yam
MKA	è-yǎŋ	nyám
BLN	hòm dí yǎŋè	nyám
BBO	í-yǎŋ íkúŋkít'	nyám
LEF		nyám
LEK		nyá

	(206) animal trail * piste	(207) bat chauve-souris	(208) lion lion
CB		(570) *-dēmā 3/4	(532) *-dēmā
M		*-dēmā (-dēmā) 3	
PM	*-pāny 7/8	*-jēm 3/4	*-gīlā 9/10
MBM	nzēnyām bōgēnyām	n-zēm	lāyon
MBN	ē-fā nyām	n-jēm	ngīnyām
MYE	m-pō?	n-jēm	ngīf
MBE	ē-pēē (yām)	n-jēm	ngīlām
ELU	ē-pē, ʒ-	n-jē	ngī
NNE	ē-pēn, ā?	n-jīm	ngīf
AKO	ē-pēn, ā?	n-jēm	ngīf
MHE	ē-pāā nyām	n-jēm	ngīlē (e/a)
MWK	ē-pāā	n-jēm	ngīlā
MKA	ē-pāā nyām	m-jēm	ngīlā
BLN	ē-pāā nyām	m-jēm	ngīlā
BBO	myōny nyām	m-jēm	ngīyā
LEF	ē-fān, bi-	n-yēm, mī-	njīb
LEK	n-šī? (nya), m-	n-zē lē-fē?	gkī nyā, id.

	(209) leopard léopard	(210) elephant * éléphant
CB	(834) *-gō (9/10) (866) *-gōē (862) *-gōyī	(951) *-jōgū 9/10
M	*-gōī 9 PEG: *g(w)ē`	*-jōgū 9 PEG: *sfn`
PM	*-gō 9/10 (*-jō 3/4?)	*-jōg 9/10
MBM	ngō	nzōk
MBN	ngwē	nzōg'
MYE	ngwōō	nzō?
MBE	ngē ēbōngē	nzō?
ELU	ngwē	nzū?
NNE	ngē ēdūngē	nzwōg'
AKO	ngō (o/a) ēbwē ē ngō	nzyōg'
MHE	ngō	nzōg' (g'/?)
MWK	ngō	nzō?
MKA	ngō m-jō	njōg'
BLN	ngō njō	njō? (j/ž)
BBO	ngō nzē	nzōk'
LEF	ngwē	njō?
LEK	ngō	nzōk, id.

(211) elephant tusk *		(212) "bush dog"	
défense d'éléphant		"chatigle",	
		"chien de la brousse"	
CB			
M			
PM	*-sòŋ 5/6 +-jòg 9/10	*-sòb 7/8	
MBM	à-sũŋ' nzòk	è-sòb'	
MBN	à-sòò nzòg'	è-sòb'	
MYE	tɔŋ nɔ̀dɔ̀	è-swò?	
MBE	à-sòŋ nzò?, ò-	è-sò?, à-	
ELU	à-sòŋ nzò?, ò-	è-swòd', 0-	
NNE	à-sàŋ á nzwòg'	è-sòb', à?-	
AKO	èsòò nzyòg', è?-	è-sòb', è?-	
MHE	à-sòò nzòg', mè-sòŋ mé nzòg'	è-sòb', è?-	
MWK	à-sòŋ nzò?, ò-	è-šòw, à-	
MKA	è?-sòŋ ñjòg', mè-sòŋ mé njòg'	è-sòb', è?-	
BLN	è-sòŋ ñjò	è-sòb, è?-	
BBO	í-sòŋ ɔ̀ nzòk', mí-sòŋ mí nzòk'	í-sòb', íb'-	
LEF	mà-sòŋ má njò?	è-šò	
LEK	lè-sòŋ nzòk	è-sò?, bə-	

(213) "bush cow"		(214) monkey	
buffle		singe	
CB	(1947) *-yàtè *-nyàtè (927) *-játè 9/10	(1058) *-kémà 9/10	'(kind of) monkey'
M	*-játè *-nyàtè 9 'buffalo' PEG: *bòŋ`	*-kémà 9 PEG: *káná	
PM	*-ád 9/10	*kém 9/10	
MBM	nyàd'	kém	
MBN	nyàl	kém	
MYE	nyá?	kém	
MBE	yá?	kém	
ELU	nyàd'	ké	
NNE	nyàd'	kém	
AKO	nyàd'	kém	
MHE	nyàd'	kyém (ky/c)	
MWK	yál	kém	
MKA	nyàd'	kém	
BLN	nyàd' (~/~)	kém	
BBO	nyàd'	kém	
LEF	nyá?	kém	
LEK	ñkòŋñé, id.	ké	

(215) crocodile, alligator crocodile, caiman, alligator		(216) hippopotamus * hippopotame	
CB	(783) *-gāndō	(908) *-gūbō 9/10	
M	*-gāndō 9	*-gūbō 9 (-ŋ)	
PM	*-gāndō 9/10 *-kōmbē 3/4	*-gūbū 9/10	
MBM			nzōgēdāb'
MBN	ŋgāndō		nzōydāb'
MYE	ŋgān ŋkwōmbīn		nzōōdī?
MRE	ŋgāndō		nzō ēdī
ELU	ŋgām		nzōō dāb'
NNE	ŋgām		nzwō mēdāb'
AKO	ŋgān		nzyōgēdītē
MHE	ŋgāndō ŋ-kōmbē	ŋgūbū	
MWK	ŋgāndō	ŋgūbū	
MKA	ŋgāndō m-kōmbō	ŋgūbū	
BLN	ŋgāndō m-kōmbī	ŋgūbū	
BBO	ŋgāndū ŋ-kōmbī	ŋgūbū	
LEF	ŋgān ŋ-kōmbē		n.jō mādē?
LEK	lākētā		nzōgō Jŋāk
(217) cow vache		(218) goat chèvre	(219) horse * cheval
CB		(185) *-bōdī 9/10	
M	PEG: *nāk'	*-bōdī 9 PEG: *būi'	PEG: *dēŋ'
PM	*nyākā/-ākā 9/10	*-bōd 9/10	
MBM	fōŋ	mbōd'	hōsē nyāŋkālā
MBN		mbōl?	
MYE	nyō?	mbŋwō?	nyōŋkālā' lē
MBE	kāw	mbō	yā?
ELU	nyā?	mbō?	hōsē
NNE	nyā?	mbō?	hōsē
AKO	nyāg'	mbōd'	hōsē
MHE	nyāg'	mbōd' (d'/l?)	wōsī
MWK	nyā? (ny/y)	mbōl	hōsī
MKA	nyākā kāw	mbōd'	wōsē
BLN	nyākā jākād' (d'/s)	mbōd'	hōsī (i/ə)
BBO	nyākā	mbōd'	wōsī. id.
LEF	nyā?	mbōl	nyā mūkālā
LEK	nyāk	mbū?	

	(220) antelope *		(221) mouse	
	antilope		souris	
CB				
M			*-pɔkɔ 9 'mouse, rat'	
PM	*-bɪn 9/10 *kɔb 9/10 *-gɔlɔŋ 9/10		*sala la/2 *pɔ ?	
MBM	(mben) əbwɪnzɛ		sɛfɛkɪ	
MBN	kɔb'		sɔkɔ	
MYE	mbɪn kɔ?		sɔkɔ	pɔ
MBE	kɔ?		sɔlɔ	(pɔ)
ELU	mbɛn		-sɔ pɔ, ɔ-sɔ pɔ	pɔ
NNE	kɔb'		-sɔlɛ, bɛ-	pɔ
AKO	mbɪn kɔb' ɛ?-sɛl		-sɔlɛ, bɛ- sɔlpɔ	pɔ
MHE	kɔb'		sɔ pɔ sɔ pɔ	
MWK	mbɪn kɔw		sɔlɔ sɔlɔpɔ sɔpɔ pɔ?	
MKA	kɔb' ŋɔɔlɔŋ		-sɔlɔ, bɛ-	
BLN	ŋɔɔlɔŋ		-sɔlɛ, bɛ-	
BBO	ŋɔɔyɔŋ		-sɔyɔ, bɛ-	
LEF	mbɪn kɔ?		-sɔpɔ, bɛ-	
LEK	kɔ?		sɔlɔkɔ	pɔ
	(222) (bush) rat		(223) pig	
	rat ("rat palmiste")		porc, cochon	
CB	(1597) *-pɔkɔ (9/10)		(887) *-gɔdɔ (902) *-gɔyɔ	
M	*-pɔkɔ 'mouse, rat' PEG: *dɔm' 'rat de brousse'		*-gɔdɔbɛ 9	
PM	*kɔɔ 9/10		*-gɔɔ 9/10	
MBM	kɔnyɔm kɔ		ŋkɛnɔ	
MBN	kɔnyɔm		ŋgɔ 'sanglier' ŋkɔnyɔ?	
MYE	kpɔnyɔ		ŋgɔ	
MBE	kɔyɔm		ŋkɛnɔ	
ELU	pɔ		ŋgɔ	
NNE	kɔ		ŋgɔ	
AKO	kɔ		ŋgɔ	
MHE	kɔ (/kɔ)		ŋgɔ	
MWK	kɔ		ŋgɔ	
MKA	kɔ		ŋgɔ	
BLN	kɔ		ŋgɔ	
BBO	kɔ		ŋgɔ	
LEF	kɔ?		ŋgɔ	
LEK	kɔ			-kɔnyɔ, bɛ-

	(224) porcupine porc-épic	(225) prong, quill (of porcupine) épine, piquant	
CB	(895) *-gðmbǎ 9/10		
M	*-gðmbǎ 9		
PM	*-gðmbǎ 9/10	*-ǎj 3/4	*-ǎny` 3/4
MBM	ɲgwðm	mwɛd	ɲgwðm
MBN	ɲgðm		m̃-bɛɲ
MYE	ɲgwðm		m̃-bɛɲ
MBE	ɲgðm		mwɛn (ɲgðm)
ELU	ɲgðm	mwɛ	
NNE	ɲgðm		mw-ɛɲ, my-
AKO	ɲgðm	mwɛd	mwɛɛn
MHE	ɲgðm	mw-ɛd' (d'/s), my-	
MWK	ɲgðm (/ɲgðmbǎ)		mw-ɛn (ɲgðm), my-
MKA	ɲgðmbǎ	mw-ɛy? (ɲgðmbǎ), my-	
BLN	ɲgðmbǎ	mw-ǎy? (a/ɛ), my-	
BBO	ɲgðm	mw-ǎd', my-	
LEF	ɲgðm		ɛ-ɛɛ?, bɪ-
LEK	ɲgðm		mbwɛ
	(226) pangolin * pangolin	(227) dog * chien	
CB	(991) *-kǎkǎ 9/10 'anteater'	(174) *-bɔǎ (220) *-bɔǎ	
M		*-bɔǎ 9 PEG: *bɔǎ	
PM	*kǎ *fy`-ǎ(1) 19	*-bwǎ, *-byǎ 9/10	
MBM	ɕyǎɛ	mbwǎ, id.	
MBN	ɕɪǎ	mbwǎ, id.	
MYE	syǎ	mbɲyɛ (ɛ/ə)	
MBE	mɛkǎɲkǎm	mbwǎ, mbyɛ	
ELU	hyǎ	mbwǎ, mbyɛ	
NNE	-hyɛl, mɛ-	mbwɛ, mbyɛ	
AKO	-hyɛ, mɛ-	mbwɛ	
MHE	iy-ǎ, m- (/lyɛ, m-)	mbwɛ, mbyɛ (ɛ/ə)	
MWK	kǎǎ	mbwǎ	
MKA	kǎ	mbwǎ, mbyǎ	
BLN	kǎ	mbwǎ, mbyǎ	
BBO	kǎ	mbwǎ, mbyǎ	
LEF	wɪ-yǎ?, mǎ-	mbwǎ	
LEK	sɪgǎ	mbɔgǎ, id.	

	(228) cat *		(229) squirrel
	chat		écureuil
CB			(194) *-bōgē/*-bōgē
M			
PM	*-bēlī la/2 *sīŋ 9/10		*kəd 9/10 *-bōg 9/10
MBM		pūsī	sēŋkēndōō
MBN		pūsī	ŋkēndōōŋ
MYE	mŋnyīnī?		mbāō?
MBE	mbēlē	pūsī	kō(yām) mē-ntēndyēŋ, bē-
ELU	mbēlē	(pūsī)	kōd'
NNE	-mbēlē, bē-		kōd' ŋkōŋgēē (small)
AKO	-mbēlē, bē-		kōd'
MHE		sīŋ (s/s)	kōd' (d'/l?) mbō?
MWK		sīŋ	mbōkōl
MKA		sīŋ	kōd'
BLN		sīŋ	kōd'
RBO		sīŋ (s/s)	mbōk
LEF	-aŋwā, b-		mbō?
LEK		-pūsī, bē-	sāālē
	(230) lizard		(231) snake
	lézard		serpent
CB	(187) *-bōdō 9/10		(2112) *-(n)yōkā (952) *-jōkā 9/10
M	PEG: *kēpāt		*-jōkā (-nyōkā) 9 PEG: *nō(k?)
PM	*-bōtV 7/8		*-ō 9/10
MBM		ē-kēkām	nyūō
MBN		ē-kōkām	nyūō
MYE		ē-bōkā	nyūō
MBE	ē-bōl ē	ŋgōlōŋ	yō
ELU	ē-pōl ēkōb'		nyūō
NNE		ŋgwālē	nyūō
AKO	(ē-bōtē ŋgōlē) ŋgōlē	-ŋgō ndābē, bē-	nyō
MHE	ē-bōtē, ē?		nyō
MWK	ē-bōlā, ē-		yō
MKA		ē-kēŋ, ē?	nyō
BLN	ē-bōtā, ē?		nyō
RBO	(ī-bōtā) mvōk' mētōndō		nyō
LEF		ē-kāmōkāmō, bē-	nyō
LEK	mbītēsā, id.		nōgō, id.

	(232) python	(233) viper, adder	(234) worm (intestinal) *
	python	vipère	ver
CB	(159) *-bɔ̃mã (3/4), 9/10	(1513) *-pédè (9/10)	
M	*-bɔ̃mã 9	*-pédè	
PM	*-bɔ̃mV	*pédè 9/10	*-kãny 7/8 *nyɔ̃ŋ/ɔ̃ŋ 9/10
MBM	mɔyɛnyã	pɪnyã	nsɔnywããd
MBN	ñjɔ̃lã	pãnyɔ̃	nyɔ̃ŋ
MYE	bɔ̃ɔ nyɔ̃ã	ã-jɔ̃d	nyɔ̃ŋ (u/o)
MBE	mbɔ̃m	pɛyã	nyɔ̃y
ELU	mbɔ̃m	pɪf	(ã-kɛ, 0-) nyɔ̃ŋ
NNE	mbɔ̃m	pɪf	ã-kɛŋ, ã?-
AKO	mbɔ̃m (3/4)	pɪf	ã-kɛn, ã?-
MHE	mbɔ̃m	pɛé	ã-kãã (aa/ta), ã?-
MWK	mbɔ̃m(ɔ̃)	pɛé	ã-kãã nɪɔ̃mbɪ
MKA	mbɔ̃mɔ̃	pɛ'è	ɛ-kãã, ã?-
BLN	mbɔ̃mɔ̃	pɛ'è	ɛ-kã'ã, ã?-
RBO	mbɔ̃m	pɛé	ɪ-kãã, ɪb'-
LEF	kɔ̃m	kɔ̃nyɔ̃	ɛ-kãkãŋ, bɪ-
LEK	pɪf	ŋgɛŋ	ñ-sɔ̃ŋɔ̃, mã-

	(235) crab	(236) pincer *
	crabe	pince
CB	(981) *-kãdã	
M	*-kãdã 9 PEG: *kãm'	
PM	*-ɛ-sɛj 7/6, 5/6 *-jãC? 7/8	*-pwɛny, -pyɛny? 3/4
MBM	ẽ-yɛã?	ñ-pyɛ
MBN	ẽ-yã	ã-pɛyã, ñ-
MYE	j-d?, by-	ñ-pyɛŋ
MBE	ẽ-jã?, ã-	ñ-pwɛn nja
ELU	j-ɔ̃l, by-	ñ-pwɪn
NNE	d-ɪsɪg', m-	ñ-pwɪŋ, ñ-pɪŋ
AKO	dy-ɛsɪd', m-	ñ-pwɛn, ñ-pyɛn
MHE	ẽ-s'ay'	ñ-pwɛndɛ, ñ-pyɛndɛ
MWK	j-ãlɪ, by-	ñ-pwɛn, ñ-pyɛn
MKA	ɛ-sɛd', m'ẽ-	m-pwɛn, m-pyɛn
BLN	ɛ-sɛd' (d'/y'), mɪ-	m-pwɛn, m-pyɛn
RBO	dy-ɛsɪd', m- ŋgɔ̃mbɔ̃	m-pwɛn, m-pɛndú
LEF	-mbɪndã, bã-	mɛ-pɛŋ mɪ mbɪndã
LEK	-kãmbɪgɪ, bɔ̃-	lɛ-pwɛ kãmbɪgɪ, m-

	(237) tortoise tortue	(238) chameleon caméléon
CB	(1259/60) *-kúddò/ù 9/10	
M	*-kúddù 9,7	
PM	*kú1` 9/10	
MBM	kíí	é-nyùk'ód'
MBN	pí k'òò?	-yùñk'ód', é-
MYE	k'pé b'òò	jw'ò(ñ)kw'ò, by'ò(ñ)kw'ò
MBE	p'è k'òò	è-j'òñàn, à-
ELU	k'ólè	-k'òs'í b'è, ò-
NNE	kw'òl	jan'k'òd
AKO	k'ól	c-òk'òd, hy-
MHE	k'ól	dy'áá k'ól
MWK	k'ól	dy-òñg'òl k'òw, m-
MKA	k'ól	-j'òñò'f'è k'ò'f'è, b'è-
BLN	k'ól	ñ-k'ák'ák' (j'òñg'òl'ò k'ól'ól)
BBO	k'òy	ñk'ák'ák'
LEF	k'úkw'èlè	·f'í-p'ònd'è'è, m'è-
LEK	-t'ákhí, b'è-	z'òñg'òk'ú?, íd.

	(239) frog * grenouille	(240) scorpion * scorpion	
CB		(1242) *-k'òt'ò	
M	*-b'òt'ò 'frog, toad'		
PM	*-b'òñ 9/10 *-s'èl'è? 7/8 *-b'è m(b)à? 7/8	*-b'òb 5/6	
MBM	mb'òl'è b'è	k'òò.	
MBN		àby'áñ      à-bw'ò?	
MYE	mb'òw'òñ 'toad'	ng'b'ák'í	
MBE	è-s'è'l'è (a/é), à-	à-b'òb'ò (o/è), ò-	
ELU	mb'òñ 9,10	àb'ò'í'      ng'áà b'òmpw'ín	
NNE	mb'òñ 'toad'		
AKO	mb'òñ 9,10 ès'èl'è	ng'áà b'òb'è mpw'èñ	
MHE	mb'òñ	è'ò'ò'òk'ò	
MWK	è-s'è'l'è	à-b'è m'è      àb'ò?	
MKA	è-s'è'l'è, è'ò-	é-b'è m'è, è'ò-	è'ò-b'òb'ò, m'è-
BLN	è-s'è'l'è, è'ò-	à-b'è m'è	j'áà'l'ès'ú
BBO		í-b'è m'è, íb-	í-b'òb'ò, m'í-
LEF	-ng'ò's'è, b'è-		
LEK	mb'ò 'toad'	z'è'g'á      l'èby'áñ	

(241) spider *		(242) insect	
araignée		insecte	
CB	(178) *-bðbð 5/6	(1596) *-pðkã	
M	*-bðbðdð 5		
PM	*-gðŋ 9 + *-bðb (1a/2)	*-kãny 7/8	*-tãndã 7/8
MBM	ŋgððbðð		
MBN	ŋgðbðð?	è-kèŋ	
MYE	ŋgððbðð?		mí-nwðn, bG-
MBE	ŋgððbðð		ŋgðlð
ELU	ŋgððbðð	è-kè, ð-	
NNE	-ŋgððbðbð, bð-	è-kèŋ, à?	
AKO	-ŋgððbðbð, bð-	è-kèŋ, è?	(m-pðg' 3/4 mbðg 9/10)
MHE	-ŋgððbðbð, bð- tátkãl, bð-	è-kè	
MWK	ŋgðŋbðð	è-kãã, à-	
MKA	ŋgðŋðbðbð		è-tãndã, è?
BLN	ŋgðŋðbðbð		è-tãndã, è?
BBO		ndãlãã, bI-	I-tãndã, Ib-
LEF	ŋgðgãlIbðkð		è-kãkãn
LEK	-ŋgðŋgðŋð, bð-		
	(243) louse	(244) butterfly	(245) ant
	pou	papillon	fourmi
CB	(446) *-dã 9/10		
M			PEG:d(w)é
PM	*tèj/tèj 9/10	*-podE? 7/8	*-kódE? 7/8
MBM	dðd'		*-kãny 7/8 (*-kãd`? 5)
MBN	tè? (2/g')	è-kãkð	
MYE	tI?	è-kãkð?	ã-kðl?
MBE	tI?	é-pðpð?, á-	nwðn
ELU	tãd'	è-pðpðtè, à-	ã-kè
NNE	tIg'	è-pðfãpðtè	è-kè, ð-
AKO	tId'	è-pðfãpðtè, à?	è-kèŋ, è?
MHE	tI?	è-pððépðtè, è?	è-kèŋ, è?
MWK	tIi	ŋgããpðpðð	ã-kðd'
MKA	tèy?		ŋgãm
BLN	ted' (d'/y?)	è-kðkðl, à-	pGpG
BBO	tId'	è-kðkðl, è?	è-kã'ã, è?
LEF	nyè	è-kðkðl	è-kã'ã
LEK	tð?, id.	-kðkI'fI'kð, bI-	I-kðd' kãmbã
		è-kúIàkúIè	è-kãkãn
		è-kðkðgð, bð-	mð-kðlè

	(246) soldier-ant (driver-)		(247) termite
	fourmi maniant(?)/guerrière		termite
CB	(251) *-cādākū 9/10		(392) *-cōā
M	*-tidaku 9		PEG: *gōk
PM	*sīāg/d 9/10		*-sēē/sēg~/sēkē?
MBM	ē-šyōg'		kwōfō
MBN	šyā?		ŋgō?
MYE	sīā?		sāā?
MBE	sīā?		šyē kō'tō
ELU	sīā?		sīī
NNE	syād'		sīī
AKO	syāād'		sīī
MHE	syāā?		syē
MWK	sīā		sēē 9/10
MKA	syāg'		ē-sēg'
BLN	sīā?		sē? sēkēlē
BBO	syag'		ī-sēk, mī-
LEF	šīā		šē?
LEK	sīī (s/š)		bāgāsūē (s/š)

	(248) mosquito		(249) cockroach *
	moustique		cafard
CB	(ps 253) *-gūngū		(1478) *-pēmbū *-pēndū *pēngū
M			
PM	*-kūŋ 5/6 *-kāny' 7/8		*pēny
MBM	mbwí		pí'pí
MBN	mōēŋ		pōpōŋ
MYE	mbyām'byām		pí'pín
MBE	mbwō		oē'pē
ELU	kwala		pōpōŋ
NNE	ē-kēŋ, ā?-		pēpīŋ
AKO	ēkēn ē ŋkūū		pí'pín
MHE	ēkā ŋkūū		pí'pēē
MWK	ā-kūŋ, ō-		pí'pēē
MKA	ē-kūŋ		pí'pēē, bē-
BLN	ē?-kūŋ		pí'pēē
BBO	ī-kūŋ, mī- mkyāŋ		pēpēē
LEF	ē-kwāsā		pēmpēn
LEK	ē-kíē		pēpēē

	(250) millepede		(251) cricket
	mille-pattes		grillon, cri-cri
CB	(859) *-ᠬᠢᠨᠭᠢᠳᠠᠳ		(934) *-ᠵᠡᠨᠵᠡ
M	*-ᠬᠢᠨᠭᠢᠳᠠᠳ (or LLL)		*ᠵᠡᠨᠵᠡ ᠑
PM			*-ᠰᠡᠯᠡᠭ ?
MBM	ᠬᠭᠣᠨᠭ᠋ᠢ		ᠬᠭᠠᠯᠢᠰᠡᠮᠡ
MBN	(ᠬᠭᠢᠳᠠᠳ) ᠡᠪᠪᠣᠨᠵᠢᠨᠮ		
MYE	ᠬᠭᠢᠨᠵᠢ		ᠶᠢᠬᠡᠨᠵᠣᠳᠣ?
MBE	ᠬᠭᠢᠨᠵᠢ		ᠬᠭᠠᠯᠢᠰᠡ
ELU	ᠬᠭᠢᠨᠵᠢ		ᠰᠡᠯᠡᠶᠡ
NNE	ᠬᠭᠣᠳᠣ?		ᠰᠤᠶᠡᠯᠡᠶᠡ, ᠪᠡ-
AKO	ᠬᠭᠣᠳᠣᠨ ᠨᠢᠯᠠᠯᠢᠰ		ᠰᠡᠯᠡᠶᠡ, ᠪᠡ-
MHE	ᠬᠭᠢᠳᠢ?		ᠰᠡᠯᠡᠶᠡᠶᠡ, ᠪᠡ-
MWK	ᠬᠭᠣᠳᠣᠨᠢᠨ ᠬᠭᠢᠨᠵᠢᠨ		ᠰᠡᠯᠡᠶᠢ
MKA	ᠬᠭᠢᠨᠵᠢᠶ?		ᠶᠡ-ᠰᠡᠯᠡᠶᠡ, ᠪᠡ-
BLN	ᠬᠭᠢᠨᠵᠢ		ᠶᠡ-ᠰᠡᠶᠡᠶᠡ, ᠪᠢ-
BBO	ᠬᠭᠢᠨᠵᠢᠨ, ᠪᠢ-		ᠢ-ᠰᠡᠶᠡᠶᠡ, ᠮᠢ-
LEF	ᠬᠭᠢᠨᠵᠢᠶᠡ		
LEK	ᠬᠭᠢᠨᠵᠢᠶᠢᠨᠵᠢ		
	(252) fly		(253) grasshopper
	mouche		sauterelle
CB	(819) *-ᠬᠢᠨᠵᠢᠶ ᠑/10	(832) *-ᠬᠢᠨᠵᠢᠶᠢ	*-ᠬᠣᠳᠠᠳᠠᠳᠠᠳ
M	PEG: *ᠵ(ᠤ)ᠢᠨ		
PM	*-ᠬᠢᠨᠵᠢᠶᠢᠳ 5/6		
MBM	ᠶᠡ-ᠬᠣᠳᠠᠳᠠᠳ		ᠨᠢ-ᠰᠠᠨᠰᠠᠨ
MBN	ᠶᠡ-ᠬᠢᠨᠵᠢᠶᠢᠳ		ᠶᠡ-ᠬᠡᠨᠵᠢᠶ (?)
MYE	ᠶᠡ-ᠬᠢᠨᠵᠢᠶ(ᠢ)ᠢᠨ		ᠬᠣᠪᠣᠮᠪᠣᠶᠠ
MBE	ᠶᠡ-ᠬᠣᠳᠠᠳᠠᠳ		ᠬᠣᠪᠣᠮᠣᠪᠣ
ELU	ᠶᠡ-ᠬᠣᠳᠠᠳᠠᠳ, ᠣ-		ᠶᠢᠨᠵᠢ
NNE	ᠶᠡ-ᠬᠣᠳᠠᠳᠠᠳᠠᠳ, ᠮᠡ-		
AKO	ᠶᠡ-ᠬᠣᠳᠠᠳᠠᠳᠠᠳ	ᠶᠡ-ᠬᠣᠳᠠᠳᠠᠳᠠᠳ, ᠮᠡ-	ᠬᠣᠪᠣᠮᠣᠪᠣ, ᠪᠡ-
MHE	ᠶᠡ-ᠬᠣᠳᠠᠳᠠᠳ, ᠮᠡ-		ᠬᠣᠪᠣᠮᠠᠬᠠ
MWK	ᠶᠡ-ᠬᠣᠳᠠᠳᠠᠳ, ᠣ-		ᠬᠣᠪᠣᠮᠠᠬᠠ
MKA	ᠶᠡ-ᠬᠢᠨᠵᠢᠶᠢᠳᠠᠳ, ᠮᠡ-		ᠬᠣᠪᠣᠮᠡᠬᠠᠬᠠ
BLN	ᠬᠭᠢᠨᠵᠢᠶᠢᠳᠠᠳ	ᠶᠡ-ᠬᠢᠨᠵᠢᠶᠢᠳᠠᠳ, ᠮᠢ-	ᠬᠣᠪᠣᠮᠡᠬᠠᠬᠠᠶᠢ (ᠭ or ᠶ?)
BBO	ᠬᠭᠢᠨᠵᠢᠶᠢᠳᠠᠳ		ᠢ-ᠵᠣᠮᠡᠶᠡ, ᠪᠢ-
LEF	ᠶᠡ-ᠬᠢᠨᠵᠢᠶᠢᠳ, ᠪᠡ-		ᠮᠪᠠᠯᠠᠮᠪᠠᠯᠠ
LEK	ᠶᠡ-ᠬᠢᠨᠵᠢᠶᠢᠳ, ᠮᠡ-		ᠬᠣᠪᠣᠨᠵᠢᠶᠢ

(254) wasp		(255) bee *
guape		abeille
CB		(2156) *-(n)yókè (962) *-jókè 9/10
M		*-jókè 9
PM		*nyùù/ùù? 9/10 *nyùùVd?
MBM	ḡḡIyḡḡ	nyùù
MBN	manḡaḡ      nzḡnḡḡm	nyùù
MYE	m-ḡḡḡḡḡ, b-	nyùù?
MBE	mḡḡḡḡm	ḡ-jḡ, ḡ-
ELU	mḡḡḡḡḡḡ	nyùùḡḡḡ
NNE	tḡtḡd'	nyùùḡḡd
AKO	mbḡḡḡḡḡḡd' (ḡ)hḡfḡhyḡḡḡ, bḡ-	nyùùḡḡd' (9/10)
MHE	ḡ?bḡkḡ, mḡ-	nyuu
MWK	ḡḡḡḡḡḡḡḡ	yùù
MKA	bḡḡḡḡḡḡḡ, bḡ-	nyùù
BLN	ḡḡḡḡḡḡ	nyùù
BBO	ḡḡḡḡḡḡ	nyùù
LEF	mḡnyḡnyḡḡ	wù-yḡ
LEK	mḡmḡwḡ	bḡ-zùḡḡ
(256) honey *		(257) snail
miel		escargot
CB	(2157) *-yókè 14 (962) *-jókè 14	(1109) *-kḡḡḡḡ 9/10
M	*-jókè 14	*-kḡḡḡḡ 9
PM	*-jḡḡ 14	*kḡḡḡ 9/10
MBM	yḡ	kḡḡ
MBN	ḡ-zùḡḡ	ḡ-lyḡn
MYE	ḡ-jḡḡ	kḡḡḡ
MBE	ntḡḡḡḡḡḡ	ḡjḡ
ELU	nyùùḡḡḡḡ	kḡḡ
NNE	ḡ-cḡḡḡ	kḡḡḡ
AKO	ḡ?-cḡḡḡ	kḡḡḡ
MHE	ḡ?-jḡḡḡ	kḡḡḡ
MWK	ḡ-jḡḡ	kḡḡḡ
MKA	ḡ-jḡḡ	kḡḡḡ
BLN	ḡ-jḡḡ	kḡḡḡ
BBO	ḡ-jḡḡ, mḡ-	kḡḡḡ
LEF	wù-yḡ	kḡḡ
LEK	bḡ-zùḡḡḡ	kḡḡḡ

(258) bird \*  
oiseau

CB (1374) \*-nðñé (ps 361) \*-nðñé  
M \*(j)ðñí (o/v) 9 (-nðñí) PEG: \*sɛŋˀ  
PM \*-nðñˀ 14/6

MBM nðñ, ɛkɛmnðñ  
MBN ǎ-nðñ, ɛ-  
MYE mŋ-nwðñ, bŋ-  
MBE ǎ-nðñ, ɔ-  
ELU mŋ-nð, bð-  
NNE ǎ?-nðñ, mɛ-  
AKO ɛ?-nðñ, mɛ-  
MHE ɛ?-nðñ, mɛ-  
MVK ǎ-nðñ, ɔ-  
MKA ɛ-nðñ, mɛ-  
BLN ɛ?-nðñ, mŋ-  
RBO ɪ-nðñ, mŋ-  
LEF wŋ-nðñ, mǎ-  
LEK mǎ-nðñ, ɪd.

(260) hawk \*  
épervier

CB (1111) \*-kɔdɪ (1212) \*-kɔmbé  
M  
PM \*fyˀ-ɔd 19 \*-bɛlǎ ?

MBM  
MBN  
MYE mŋŋ-swðˀ, bŋŋ- kŋkwo  
MBE s ɔˀ  
ELU hwɔɔɔ  
NNE yɔɔdɪ kwoɔm  
AKO hyɔɔɔɔ mbyɛɛ, bɛ- kwoŋɛɪ  
MHE mbyɛ kŋmbɛkŋmbɛ  
MVK ɔɔɪ mbɛlǎ  
MKA yɔdɪ mbɛlǎ ɛdɪlɛɛ, bɛ-  
BLN yɔdɪ mbɛlǎ  
RBO mbɛǎ  
LEF mǎɔɔɔ (ɔ/s) kŋmbɛ  
LEK ɔɔɔkɔɔ (ɔ/s) mǎ-gŋmkɔŋɔ

(259) hen, fowl  
poule

(1257) \*-kŋbǎ 9/6 PBC: \*-kuba  
\*-kŋbǎ PEG: \*gŋbˀ  
\*kŋb 9/10

kɔbɪ  
kɛbɪ  
kŋ?  
kŋ?  
kobɪ  
kŋbɪ  
kŋbɪ  
kŋbɪ  
kŋw  
kŋbɪ  
kŋbɪ  
kŋbɪ  
kŋ  
kɔ?

(261) dove, pigeon  
colombe, pigeon

(131) \*-bɛŋgǎ  
\*-bɛŋgǎ 7 + 9  
\*-bɛŋgǎ 9/10

nðñ kǎɪǎ  
ɛ-bɛ?  
mbɛmbǎŋ  
mŋdŋdŋ  
bɛmbɛ  
mbɛŋgɛ ɛ'ɪǎǎ, bɛ-  
mbɛŋgɛ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ  
mbɛŋgǎ

	(262) partridge		(263) parrot
	perdrix		perroquet
CB	(1169) *-kòādē (865) *-ḡòādē 9/10	(1187) *-kòcò	
M	*-kòādē 9	*-kòcò 9	
PM	*-ḡwāā 9/10	*kòj 9/10	
MBM	ḡwāē	kwēd'	
MBN	ḡwāē	kwēy? (kw/kp)	
MYE	kāḡḡbāē	kpē?	
MBE	ḡwēē	kò?	
ELU	ḡwāē	nyēḡēd'	
NNE	ḡwāā		
AKO	ḡwāā 9/10	kūd'	
MHE	-ḡwāā, bē-	kōy?	
MWK	ḡwāā	kōy	
MKA	ḡwā	kōy?	
BLN	ḡwāā	kòd' (d'/y?)	
BBO	ḡwāā	kòd'	
LEF	tāndā?	kwē?	
LEK	ḡkhyā	kwē?	
	(264) weaver-bird		(265) nest *
	"oiseau gendarme", tisserin		nid
CB			
M		PEG: *kân`	
PM	*-ḡāḡē 9/10	*-ūm(bā) 5/6	
MBM	ḡāā	ndāb nōn	
MBN	ḡāā?	ndāēnōn	
MYE	ḡā?	ndāmūnwān	
MBE	ḡā?	d-ūm, m-	
ELU	ḡāā1	dūm	
NNE	-ḡāā, bē-	-dūm, mē-	
AKO	ḡāḡē	d-ūm, m-	
MHE	ḡāā	dūm	
MWK	ḡāā	d-ūm, m-	
MKA	ḡā?ā, bē-	dūm	
BLN	ḡā?ā ḡākū	dūm	
BBO	ḡāū	d-ūmbā, m-	
LEF	ḡāākàā	ndā ē wīnōn	
LEK	ḡāḡā	ndā mēnōn	

	(266) bird lime		(267) feather
	glu pour attraper des oiseaux		plume
CB			(248) *-cǎdǎ 5/6, 11/10
M			PEG: *fɛ̀
PM	*-kǎm 3		*-tɔ̃g 7/8, 7/6
MBM			è-tɔ̃g', ñ-
MBN			è-tɔ̃ʔ, ñ-/ǎ-
MYE			è-tɔ̃ʔ, ò- è-pǎʔ, ǎ-
MBE	ŋ-kǎm		ǎ-tɔ̃ʔ, ò-
ELU	ŋ-kǎm		è-tɔ̃ʔ, ʋ-
NNE			è-tɔ̃ʔ, ǎʔ-
AKO	ŋ-kǎm		è-tɔ̃g', èʔ-
MHE	ŋ-kǎm		è-tɔ̃ʔ, èʔ-
MWK	ŋ-kǎm		è-tɔ̃ʔ, ǎ-
MKA	ŋ-kǎm		è-tɔ̃g', è-
BLN			è-tɔ̃ʔ, èʔ-
BBO	m̄-kǎm		ɪ-tɔ̃g', ɪb'-
LEF			è-šǎʔ, bɪ-
LEK			è-tɔ̃k, bɛ̀-
	(268) wing *		(269) egg
	aile		oeuf
CB	(1450) *-pǎpǎ (6) *-bǎbǎ 5/6	(809) *-gǎ (814+) *-gǎdǎ (817) *-gǎyɪ	
M	*-pǎpǎ 5 *-baba 5 PEG: *bǎb`	*-ge (and *-gǎdǎʔ) PEG: *bǎm`	
PM	*-pǎb` 5/6 *-bǎb` 9/10	*-kǎè/kɪɪ 5/6	
MBM	m̄-pǎpǎnɔ̃n	ǎ-tɪ, ɪd.	
MBN	ǎ-pǎlǎʔ, m̄-	ǎ-kyɛ, ɲ-	
MYE	è-pǎʔ, ǎ-	ǎ-kyǎ, ò- (ə/ɛ)	
MBE	ǎ-pǎʔ, ò-	ǎ-kǎè, ò-	
ELU	ǎ-pǎʔ, ò-	ǎ-kɪ, ò-	
NNE	ǎ-pǎb', m̄-	ǎ-kɪɪ, mɛ̀-	
AKO	ǎ-pǎb', m̄-	ǎ-kɪɪ, m̄-	
MHE	mbǎb' (9/10)	ǎ-kɪɪ, m̄-	
MWK	ǎ-pǎw, ò-	ǎ-kǎè, ò-	
MKA	mbǎb'	è-kɪɪ, m̄-	
BLN	è-pǎb', mɪ-	èʔ-kɪɪ (ɪɪ/ee), mɪ-	
BBO	ɪ-pǎb, mɪ-	ɪ-kɪɪ, mɪ-	
LEF	è-pǎʔ, bǎ-	ɪè-kǎ, m̄-	
LEK	ɪè-pǎʔ, m-	ɪè-khɪ, mɛ̀-	

	(270) claw griffe	(271) cowry cauri	(272) horn * corne
CB		(42) *-bãmbã	
M		PEG: *bĩm`	PEG: *dʒŋ`
PM	*-nyãñ`/-ãñ 9/10	*-bãmbV 9/10	*-sẽb 5/6 *tʒŋ 9/10 (*dʒŋ)
MBM	nyãñ	mbẽẽ	tʒŋ
MBN	nyãñ	mbãmbĩ	ndʒŋ tʒŋ = for drinking
MYE	nyãñ	mbããm' bĩ	tʒŋ
MBE	yãñ	mbãmbẽ	tʒŋ
ELU	nyãñ	mbãmbĩ	ã-sẽʔ, ð-
NNE	nyãñ	mbãmbĩ	ã-sẽb', mè-
AKO	nyãñ	mbãmbũ	ã-sẽb', mè-
MHE	nyãñ	mbãmbẽ	tʒŋ
MWK	yãñ	mbãmbĩ (i/a)	tʒŋ
MKA	nyãñ	mbãmbĩ	tʒŋ
BLN	nyãñ	mbãmbĩ	tʒŋ
BBO	nyãñ	mbãmbĩ	tʒŋ
LEF	nyãñ	mbãmbã	tʒŋ
LEK	nyĩ	lẽ-tʃn, mè-	ndʒŋ
	(273) tail queue	(274) food * nourriture	(275) meat viande
CB	(898) *-gõndõ/ʒ		(1910) *(n)yãmã (9)
M	PEG: *kũn`		(ny)ãmã (j)ãmã 9 PEG: *bãb`
PM	*-kõñ` 3/4	(*-dyã)	*-ãm 9
MBM	õ-kwõñ	dyõm dyẽ	nyãm
MBN	õ-kõñ		njẽtẽ nyãm
MYE	õ-kwõñ		ndyãtĩ? nyãm
MBE	õ-kãñ	jãã'dyẽ, bwẽẽ'dyẽ (ɛ/ə)	yãm
ELU	õ-kò		bëndyẽ nyã
NNE	õ-kõñ	ndĩĩ mè-dyẽ	nyãm
AKO	õ-kõñ	ndyããd' 9/10	nyãm
MHE	õ-kõñ	ndyã?	nyãm
MWK	õ-kõñ	jõm'dyã	yãm
MKA	õ-kõñ	jõm'ĩ'dyã	nyãm
BLN	ãm-kõñ	jõm'ẽ dyã	nyãm
BBO	ãm-kõñ	jõm'ẽ dyã, byõm bĩ dyã	nyãm
LEF	õ-kõñ, mè-		lè-dyã nyãm
LEK	õ-kũũ, mè-		mbĩndẽgãñĩĩ nyã

	(276) fat, grease graisse	(277) fish poisson	(278) soup, sauce * soupe, potage, sauce
CB		(427) *-cú .(429) *-cúé/1	
M	PEG: f(')5m`	*-cúá PEG: *sú`	PEG: *jáb` 'légume'
PM	*-f5ŋ 5/6	*súá 9/10 *-d3n` 9/10	*-jáb 9 *-dŋ 9
MBM	à-fŋ	mɛnɛíí	à-lŋá
MBN	à-f5ŋ	-sú'á	ndŋ
MYE	ò-h5ŋ	súé	n-nò?
MBE	à-h5ŋ	súé (s/é)	nd5ŋ súpè
ELU	à-h5, ò-	sú	nzàb
NNE	à-hŋ, mè-	súù	nd5ŋ
AKO	à-hŋ, mè-	súù	nzàb'
MHE	à-h5ŋ	nd3n	ndŋ (o/u)
MWK	à-h5ŋ, ò-	nd3n 9,10	ndŋ
MKA	è-h5ŋ, mè-	nd3n	súpè
BLN	è-h5ŋ, mí-	nd3n (~/\`)	ndŋ súpì
BBO	f-f5ŋ, mí-h5ŋ	nd3n	ndŋ súpì
LEF	lè-f5ŋ, mà-	súé	súpè
LEK	lè-f5ŋ, mè-	súíí	nzà? mbw3?
	(279) milk lait	(280) sugar cane canne à sucre	(281) salt sel
CB	(73) *-bɛ́ɛdɛ̀ 6	(1201) *-kòdògɔ̀ (3/4)	(2176) *-gɔ́á 4
M			*-ɔgoa *-ɔngoá 3 PEG: *gwáŋ`
PM	*-bɛ́ɛ 5 *-bɛ́ɛɛ ?	*-kòká 3 *-kògɛ̀ 3	*-kwá 3
MBM	mɛ́ɛ̀	ŋ-kògɛ̀	ŋ-kwèé
MBN	mbyɛ̀ ndáɓ	ŋ-kwáá?	ŋ-kwà
MYE	mbáíí?	ŋ-kòkɔ̀?	ŋ-kpá
MBE	míííííí mɛ́ɛ́ɛ́	ŋ-kwá	ŋ-kwá
ELU	míííííí	ŋ-kwáám	ŋ-kwé
NNE	míííííí à-bíí	ŋ-kògá	ŋ-kwé
AKO	míííííí' à-bíí	(ŋ-kòká) ŋ-kògá	ŋ-kwé
MHE	míííííí	ŋ-kòkɛ̀	ŋ-kwé
MWK	míííííí	ŋ-kòká	ŋ-kwá
MKA	míííííí'	m-kòká	m-kwá
BLN	míííííí' è?-bɛ́ɛ̀	m-kòká	m-kwá
BBO	míííííí	m-kòká	m-kwá
LEF	míííííí lè-bɛ́ɛ̀	sùsùm	ù-kwá
LEK	lè-bɛ́ɛ̀?	-ŋkòk, mè-	ŋ-kwáá

	(282) pepper	(283) wild pepper	(284) onion *
	piment	poivre sauvage	oignon
CB	(718) *-dóngó 10		
M	*-dóngó 9 PEG: *sót		
PM	*-dón 9	*fy`-3b 19/13 *-lógó	
MBM	à-lógé	à-lógé syèl	ányòsè
MBN	à-lóó?	l 3b'	ányòs
MYE	ndón	swò?	(kǎǎ'yǎ) mbòkàn
MBE	ndón	à-ló?	mbò ǎnyòs
ELU	ndón		èbèkǎǎ / ó'ní'sè
NNE	mbóm è ndón	hyòb'	ányòsè
AKO	ndón	hyòb' è?-lyògè	ányòs'sé, mé-
MHE	ndón		ányòs
MWK	ndón	à-jǎn, ò-	á'nyòs à jǎn òkǎǎlǎ
MKA	ndón	è-ló'ó	á'nyòs
BLN	ndón	è-ló?ó	ányòs (s/y?)
BRO	ndón	í-yóó, mí-	ányòs
LEF	ndónngá	fyò?	wí-kà?
LEK	ṣúṣú	ṣwò?	
	(285) yam *	(286) cocoyam *	
	igname	macabo	
CB	(1166) *-kòǎ		
M	PEG: *jók` *dèk	PEG: *kòkV	
PM	*-lǎg *-bǎǎ *-súú *-sól?		
MBM	à-lǎg'		à-kàbò (loan)
MBN	à-lǎ?		òkǎk òlòng (a/o)
MYE	à-yò?, ò-		myǎ òkǎǎ'lǎ
MBE	à-lǎǎ, ò-	è-òòò, à-	mbàngǎ
ELU	à-lǎ?, ò-		mbààngǎ
NNE		à-sǎl, mè-	mbààngǎ
AKO	mbwèè mbwèè	à-sǎl	mbààngǎ
MHE		à-sǎl, mí-	mbàngǎ
MWK	mbǎǎ à-súú		mbàngǎ
MKA	mbǎǎ m-súú kwè't è? mbòò		mbàngǎ
BLN		è-súú, mí- (u/o)	mbàngǎ
BBO	mbǎǎ / mbǎyǎ, bí-		è-kàbò / -kàò
LEF		è-kwí, bí-	í-kàbò, mí-
LEK		è-lò, bè-	lè-kàw, mà-
			òkǎngkèlòng

	(287) colocasia * taro	(288) maize maïs	(289) fufu couscous
CB		(294) *-cángó	
M	PEG: *bán`	PEG: *sáŋ`	
PM	*-jín`/-jín` 7/8	*-bàj 9/10 *-gVny? 9	*-súbáǵ 7
MBM	ə-yíŋ	mbèà	é-sòǵó
MBN	ə-zòŋ	ŋkín	é-'súbáǵ'
MYE	ə-jèŋ	mbè?	é-sùbǵ?
MBE	ə-jèŋ, ə-	mbè?	é-'súbǵ? fùfù
ELU	ə-jèn, 0-	mbè?	é-'sú' bǵ?
NNE	ə-jèn, ə?-	ŋgwəŋ	é-'súbáǵ'
AKO	ə-cín, ə?-	ŋgùŋ	é-'súbáǵ'
MHE	ə-jín	mbèy?	é-'sú' bǵ?
MWK	ə-jíŋ, ə-	mbèy? 9,10	ə-sùwá
MKA	è-jíŋ, è?-	mbəy?	fùfù
BLN	è-jíŋ, è?-	mbəd' (d'/y?)	é-'súbáǵ' fùfù
BBO	í-jíŋ, íb'-	mbət 9,10	fùfù mkùmùm
LEF	ə-jín, bə-	ŋgùí	è-tùmèè
LEK	ə-žín, bè-	ncwí	è-bá
	(290) bean haricot	(291) rice * riz	(292) cassava manioc
CB	(1222) *-kòndè (10)		
M	*-kòndè PEG: *kón`		
PM	*kón 9/10?	*kón 10	*-kwàmbà
MBM	ŋ-kwón	ŋ-kwón 'kásé	kàsářà
MBN	ə-kón ŋgàšà	ə-kón ŋkásáǵ?	ŋ-kwàmbəm kàsálà
MYE	kwón	kwón ŋkásá' l'é	kàsávà
MBE	kón	kónkálé	ŋ-kwàmbà
ELU	kó	kóŋkálé	ŋ-kwàmbà, 0-
NNE	kún	kún é ŋkásáǵ	mə-kwàmbà
AKO	kón	kón é ŋkásáǵ	mə-kwàmbè -kàsáǵéè, bə-
MHE	kón	kón bəkásáǵ	mò-kwèmbè ŋgàbó
MWK	kón	kón ókásálà	ò-kwàmbà kàsálà
MKA	kón	kón é bəkásáǵ	è-kwàmbà, mə-
BLN	kón	kón é bəkásáǵ	ə-kwàmbà kàsáǵ ŋgàbó
BBO	kón nzòyá	kón í bíkásáǵ	í-kwàmbà, mí-
LEF	mə-kón	wíndí	mə-kwàmbà
LEK	mə-kú	məkú' l'èk	

	(293) plantain	(294) banana	
	plantain	banane	
CB			
M	PEG: *kɛdɔŋˀ (*ɔɔɔmˀ)		
PM	*-tɔm 5/6, 7/8		
MBM	à-tɔm, ñ-		à-bʂnɔ
MBN	à-tɔm		à-bɛnɔŋ
MYE	à-twɔm, ɔ-	mbyàlɛ	
MBE	à-tɔm, ɔ-	mɔɔlɛ	è-dɔdɔ
ELU	è-tɔ, ɔ-	ñ-sɛlɛ	mbyɛlɛ
NNE	è-tɔm, àʔ-	ñ-sɔlɛ	
AKO	è-tɔm, èʔ-	ñ-sɔlɛ	nyákɛ
MHE	à-tɔm		nyákɛ è-lɔbà (ə/ɛ)
MWK	à-tɔm, ɔ-	mɔɔlɛ	èdɔdɔ
MKA	è-tɔm, mɛ-		m-lɛbɛ
BLN	è-tɔm, mɛ-		è-dɔdɔ (/ -dɔdɔ)
BBO	í-tɔm, mɛ-		í-dɔdɔ, íb'-
LEF	lɛ-kɔ, mɛ-	mɔɔlɔm	
LEK	lɛ-kɛndɔŋ, mɛ-	è-tɔŋkɛ, bɛ-	

	(295) pumpkin	(296) melon	(297) orange
	courge	melon	orange
CB			
M	PEG: *bɔkˀ		
PM	*-bɔɔ 5/6 (cf. 296)	*-bɔkʋ 3	*-sàbɛ 1a/2 *-pɔmɔ 7/8
MBM			è-pɔmɔ
MBN			è-pɔmɔ
MYE	à-bɔʔ, ɔ-	è-sɔʔ	mɔ-nzákɛʔ, bɔ-
MBE		m-bɔʔ	è-pɔmɔ, à-
ELU	mɔɔʔ	è-sɔkɔ	-sàbɛ, ɔ-
NNE	mɔɔɔ'		-sàbɛ, bɛ-
AKO	à-bɔɔ', mɛ- è-cɔŋgɔ, eʔ-	é-sàkɔ, èʔ-	-sàbɛ, bɛ-
MHE		è-bɔkɔ, mɛ-	è-pɔmɔ
MWK		m-bɔkɔ	è-pɔmɔ, à-
MKA		m-bɔkɔ	è-pɔmɔ, èʔ-
BLN		m-bɔkɔ	è-pɔmɔ, èʔ-
BBO		m-bɔkɔ	í-pɔmɔ, íb'-
LEF	lɛ-bɔʔ, mɛ-	é-sàkɔ	-mɔsákɛ, bɛ-
LEK	lɛ-bɔk, mɛ-	nzɪk	

	(298) oil palm *		(299) (palm) oil	
	palmier		huile de palme	
CB	(140) *-bídà 5/6		(1278) *-kútà (914) *-gútà	
M	PEG: *tfn		*-kútà 'fat' V: 'oil' PEG: *gúd	
PM	*-íí 5/6		*-úí 6 *-jǒŋ 9	
MBM	d-íí, m-		(mǔn) nzǒŋ	
MBN	jíí		mǎí nzǒŋ	
MYE	mbíí 9/10		mǔn	
MBE	jíí, id.		mǒí	
ELU	d-íí, m-		mǒí	
NNE	d-íí, m-		mǒí	
AKO	d-íí, m-		mǒí nzòŋ	
MHE	d-íí, m-		mǔí	
MWK	d-íí, m-		mǔí	
MKA	d-íí, m-		mǔí	
BLN	d-íí, m-		mǔí	
BBO	d-íí, m-		mǔí	
LEF	è-líŋ, bí-		lè-fó	
LEK	cíí, mèmphí		mè-khǒ	
	(300) palm kernel *	(301) rubbing oil	(302) raffia palm	
	palmiste	huile pour se frotter	palmier raphia	
CB				
M		PEG: (*jǒk 'oindre')		
PM	*-bàŋ 3/4	*-ǒg 5/6 (9/10?)	*-tùd 5/6 *sǒgǒ	
MBM	m-bàŋ	nyǎŋ	sǒgǒ	
MBN	m-bàŋ	nzǒŋgǒ	sǒǒ?	
MYE	m-bǒŋ	è-wǒkí?	mǔ-sǒ?, bú-	
MBE	m-bǎŋ	nyǒ?	à-tǔ	
ELU	m-bà	nyò?	ŋgǎí	
NNE	m-bwà, m-bà	nyǒ?	ŋgǎí	
AKO	m-bàŋ	dy-ǒg', m-	è-tùd', è?	
MHE	m-baŋ	dy-ǒ?	è-tùd, mǎ-	
MWK	m-bǎŋ mbíí 9/10	dy-ǒ?, m-	à-tùl, ò-	
MKA	m-bǎŋ	dy-ǒg', m-	è-tùd, mǎ-	
BLN	m-bǎŋ	dy-ǒ?	è-tùd', mǎ-	
BBO	m-bwàŋ, m-bǎŋ	dy-ǒk, m-	í-tùt, mǎ-	
LEF	m-màŋ, mǎ-	yùmǎwǒ?	mǎ-kwǎn	
LEK	èšwí	mèkhǒ ndínté	sǒgǒ, id.	

	(303) groundnut arachide	(304) "cashew nut" "noisette"	(305) kola nut noix de kola
CB			(116) *-bèdú
M	PEG: *bèyǎŋ		PEG: *b(ɔ)ɪ̃
PM	*-gǝndú 9/10	*kǎj 9/10	*-bèè 5/6
MBM		mətɔg kǎd'	ǎ-bɪ̃f
MBN	bǝzǎŋ	ǎkɔn mwətɔ?	ǎ-byǎə
MYE	nzyǎsə	kǎ?	ǎ-byǎ (ə/ɛ), ɔ-
MBE	ŋgǝndí	kǎ?	ǎ-bèè, ɔ-
ELU	ŋgǝndǎ	kǎ?	ǎ-bɪ̃f, ɔ-
NNE	ŋgǝndǎ	kǎd'	ǎ-bwɪ̃. mǝ-bɪ̃f
AKO	ŋgǝn	kǎd'	ǎ-bɪ̃f, mǝ-
MHE	ŋgǝndɔ		ǎ-bèè, mǝ-
MWK	ŋgǝn	kǎy?	ǎ-bèè
MKA	ŋgǝndɔ	kay?	ǎ-bèè, mǝ-
BLN	ŋgǝndɔ	kǎd' (d'/y?)	ǎ-bèè, mǝ-
BBO	ŋgǝndɔ	kǎt	ɪ̃-bèè, mɪ̃-
LEF	njɪ̃sɪ̃	kǎ?	lè-bè, mǝ-
LEK	mbyǎŋ	kyǎ?	lè-bɪ̃f

	(306) "plum" * "prune"	(307) (palm) wine vin de palme	(308) mushroom champignon
CB			
M		PEG: *dòk` 'vin'	
PM	*-sǎ 5/6	*-ɪ̃m 6	*fỹ-ɔny 19/13
MBM	ǎ-sǎ	mɪ̃m	ŋgǝrǎ
MBN	ǎ-sǎ	mɪ̃m	kɔndǎŋ
MYE	ǎ-sǎ (ə/ɛ), ɔ-	mɪ̃m	swǎŋ
MBE	ǎ-sǎ, ɔ-	mǝm	(sɔ) kɔn'dǎŋ (ǎlǎm)
ELU	ǎ-sǎ (ɛ/ə), ɔ-	mǝm	hwǎ
NNE	ǎ-sǎ, mǝ-	mǝm	ǎ-lɪ̃mǎm
AKO	ǎ-sǎ, mǝ-	mɪ̃m ǎ-yǎn, mǝ-	hy-ɔn, ɪ̃-
MHE	ǎ-sǎ, mǝ-	mɪ̃m	ywɔɔ
MWK	ǎ-sǎ	mɪ̃m	sɔɔ
MKA	ǎ-sǎ, mǝ-	mɪ̃m	yɔɔ
BLN	ǎ-sǎ, mɪ̃-	mɪ̃m	yɔɔ
BBO	ɪ̃-sǎ, mɪ̃-	mɪ̃m	yɔɔ
LEF	ɔ-sǎ (ɔ/wɔ?), mǝ-	mǝm ǎ-lǎŋgǎ	fy-ɪ̃n
LEK	bè-sǎgǎ, ɪ̃d.	mɪ̃m	sɔɔ

	(309) tobacco *	(310) "cotton tree"	(311) tooth stick
	tabac	"cotonnier"	"brosse à dent"
CB			
M		PEk: *-kúm	
PM		*-úmà 14	*-sè ? 7/8    *-kíkàg 5/6
MBM	tàbè	búm            nzàmbà	è-sàpà
MRN	tàè	bəm	è-syà
MYE	tábè	búm    kstèn	é-syà; á-
MBE	tàbè	kstèn	è-sè?
ELU	tààkù	èkòmbè	
NNE	tààkù	bòòm    bwèl kstèn	è-sè, à?-
AKO	tàkù (a/aa)	búúm	è-sè, è?-
MHE	tààkè	-búmà, mē-	è-sè, è?-
MWK	tàwà	bwèl kstèn	nzínzì    à-kíkà
MKA	tààkè	búmà	è-kíkàg', mē-
BLN	tààkè	búmà	ngísí    è-kíkà, mē-
BBO	tààkù	búmà	nzísí
LEF	mwènè?		è-sè, bí-
LEK	tábòò	bən	è-sègà, bè-

	(312) stick	(313) walking stick *
	bâton, tige	canne
CB		(1794) *-tóngà 'heavy stick' 9/10
M		*-tonga 3 'stick'
PM		*-tɔŋ 3
MBM		ñ-tɔŋ
MRN	ñ-tɔŋ    à-kòŋ	ñ-tɔŋ
MYE	májèŋ, bəmèŋ	ñ-tɔŋ
MBE	mbè?	ñ-tɔŋ
ELU	mbək            bwɛl	ñ-tɔ
NNE	mwäbwèl	ñ-tɔŋ
AKO	mbäg' 9/10    bw-èl, m-	ñ-tɔŋ
MHE	mboŋ	ñ-túŋ
MWK		ñ-túŋ
MKA	mböŋ	ñ-túŋ
BLN	pèsá	ñ-túŋ
BBO	pèsá    í-bɔŋgɔ, mí-	ñ-túŋ
LEF	ñ-túm                    kàfé	
LEK	zígí?	ñ-tɔŋ

	(314) trap piāge	(315) pit fosse, trou	(316) hook crochet
CB	(1661) *-tāmbō (3/4)	(110) *-bédā	(836) *-gǔbē
M		*-bédā 9 'grave, pit'	*-gǔbē 9
PM	*-lām 14/6 *-kǔj	*-bédā 7/8	*-gǔbē 9/10
MBM	ā-lām, n̄- ŋ-kǔd	ē-bē	ŋgǔb'
MBN	n̄-lām		ŋgǔb'
MYE	ā-lām, ð-		ŋgǔb'?
MBE	ā-lām, ð-	ē-bē?, ā-	ŋgǔb'?
ELU	ð-lām, id.	ē-bī ē-jók'	ŋgǔb'
NNE	ā?-lām, mē-	ē-bīī n̄nyǔgē	ŋgǔb'
AKO	ā?-lām, mē-		ŋgǔb'
MHE	ā?-lām, mē-	ā-bēē, ā?	ŋgǔb'
MWK	ā-lām, ð-	ā-bēē, ā-	ŋgǔw
MKA	ē-lām, mē- ē-kǔy?, ē?	ē-bēē, ē?	ŋgǔb'
BLN	ē?-lām, mē-	ē-bē'ē, ē?	ŋgǔb'
BBO	ī-yam, mī- ī-kǔd, īb'-	ī-bēē, īb'-	ŋgǔb'
LEF	wū-lām, mā-		ŋgǔb'?
LEK	bē-lām, mē-	ē-pǔn, bē-	ŋgǔb'?
		ē-pǔs, bē-	nzāk
	(317) fish hook hameçon	(318) spear lance	(319) sword épée
CB	(640) *-dǔbǔ 5/6	(857) *-qǔngā	
M	*-dǔbǔ	*-qǔngā 5 PEG: *kǔŋ	
PM	*-jǔb' 14/6	*-kǔŋ' 5/6	*-kwātÉ 3/4 *-jǔm
MBM	yǔb'	ā-kǔŋ, ŋ-	māmp'ā
MBN	ā-yǔb'	ā-kǔŋ	
MYE	ǎ-jwā?	ā-kǔŋ, ð-	pā'ābīn
MBE	ā-jǔ?, ð-	ā-kǔŋ, ð-	ŋ-kwātā
ELU	jǔb'	ā-kǔ, ð-	ŋ-kwātā
NNE	ā-cǔb'	ā-kǔŋ, mē-	ŋ-kwātÉ
AKO	ā?-cǔb', mē-	ā-kǔŋ, mē- ē-lǔb	ŋ-kwātā
MHE	ā-jǔb', mī-	ē-kǔŋ, mē-	ŋ-kwātā
MWK	ā-jǔw	ā-kǔŋ, ð-	nzǔm pā'ā
MKA	ē-jǔb', mē-	ē?-kǔŋ, mē-	m̄jom ē-lēn, mē-
BLN	ē-jǔb', mī-	ā-kǔŋ, mē-	ŋjǔŋ
BBO	ī-jǔb', mī-	ī-kǔŋ, mī-	nzom
LEF	wū-yǔ, mā-		pÉ
LEK	lē-sāk, mē-	lē-kǔŋ, mē-	

	(320) bow arc	(321) arrow * flèche	(322) gun fusil
CB	(1631) *-tá		
M			PEG: *gád~
PM		*-kǝŋ 5/6	*-kǝmbǝ 3/4 *-gádǝ 9
MBM	ǎlǝ	ǎ-kǝŋ	ŋgǎlǎ
MBN	(ǎlǝd')	ǎ-kǝŋ	ŋ-kǝmbǎ
MYE	ǎ-lǎm ǎkǝŋ	ǎ-kǝŋ, ð-	ŋ-kǝmbǎ
MBE	ǎ-pǝ?, a-	ǎ-kǝŋ	ŋ-kǝmbǎ
ELU	ǎ-pǝ, ð-	ǎ-kǝ, ð-	ŋ-kǝmbǝ
NNE	ǎpǝsǝ		mbǝŋǎpǝsǝ
AKO	ǎ?-lǝ		ǎ-pǝ (1/11)
MHE	ǎ-pǎn	bǎn bǎ mǝkǝŋ	ŋ-kǝmbǎ
MWK	ŋgǎl-mbǝŋ mbǎǎ	ǎ-kǝŋ	ŋgǎl
MKA	ǎ-kǝŋǝŋ	ǝ?-kǝŋ, mǝ-	ŋgǎŋǝ
BLN	ǎ-kǝŋǝ mbwanzo	ǎ-kǝŋ, mǝ-	ŋgǎŋǝ (ǝ/1)
RRO	ǎ-jǝt	ǎ-lǝ	ŋgǎdǝ (1/e)
LEF	ǝ-tǝm	dǝ-lǝ	ŋ-kǝmbǎ
LEK	mǝmbǝ	mbǝ	mǝǝ
	(323) gun-powder poudre à fusil	(324) cutlass, machete coup-coup, machette	(325) knife * couteau
CB			(1441) *-pǎngǎ 'bush knife'
M			PEG: *bǝ
PM	*pǝndǝ	*pǎǎ 9/10	*-lǝn 5/6
MBM	nzǝzǝ	pǝǝ	mǝmpǝ
MBN	pǝn	pǝǝ	mǝmpǝǝ
MYE	pǝn	pǝǝ	mǎ-'pǝǝ, bǝ-
MBE	pǝn'dǝ	pǝ	mǝ-'pǝ, bǝ-
ELU	ǝǎndǝ	pǝ	ǎ-nǝkǝ
NNE	pǝndǝ	pǎǎ	mǎpǎǎ
AKO	pǝndǝ	pǎǎ	mǎpǎǎ ǎ-nǝkǝ pǝmbǝ
MHE	nzǝnzǝ	pǝǎ	ǝ?-hǝǎ ǝ?-lǝn
MWK	nzǝnzǝ	pǎǎ	mǎǎn pǎǎ
MKA	ndǝsǝ	pǎpǎ	ǝ-lǝn, mǝ-
BLN	ndǝsǝ	pǎpǎ	ǝ-lǝn, mǝ-
RRO	nzǝsǝ	pǎǎ	ǝ-yǝn, mǝ-
LEF	pǝn	pǝ	dǝ-lǝndǝ
LEK	pǝn	pǝpǎ	pǎgǎlǝŋ

	(326) axe hache	(327) handle * manche	(328) hoe houe
CB		(1521) *-pənī 3/4	(901) *-gōngū (436) *sūkà
M	PEG: *jām	*-pənī 3	PEG: *s5
PM	*-fōn 7/8	*-jāg 3/4 *-fōn 3/4	*-ōŋ 7/8
MBM	è-fōn	nzāg' n-sēn	yūŋ
MBN	è-fōn	ñ-jā? ñ-fām	yūŋ
MYE	è-hwōn (e/ε), à-	ñ-jō?	j-ōŋ, by-
MBE	è-hōn, à-	ñ-jā?	j-ōŋ, b-
ELU	è-hō, ø-	ñ-jā?	j-ōŋ, b-
NNE	è-hōn, à?-	ñ-jāg'	j-āŋ, b-
AKO	è-hōn, à?-	ñ-jāg' ŋ-hén	c-ōŋ, b-
MHE	è-hōn ŋ-kūlāŋ	ñ-jā?	j-ūŋ, by-
MWK	è-hōn, à-	ñ-jā? ŋ-hén	j-ōŋ, my-
MKA	è-hōn, è?-	ñ-jāg'	j-ōbāl, by-
BLN	à-hōn, à?-	ñ-jāg'	j-ōwāl (w/b), by-
BBO	ñ-kūyāŋ	ñ-vén	j-ōŋ, by-
LEF	è-fōn, bī-	ñ-fōn, mī-	ñ-jā, mī-
LEK	è-fū, bè-	ñ-fūém'fū, mè-	è-s55, bè-
	(329) drum (leather top) tambour	(330) wooden drum tam-tam	(331) bell cloche
CB	(844) *-gōmā 9/10		(900) *-gōngà
M	*-gōmā 9		
PM	*-gōm 9/10	*-līm 7/8 *-tēg 3	*-gēŋ 9/10
MBM	ŋgōm	è-līm	ŋgōŋ ŋkām
MBN	ŋgōm	è-lām	ŋgōŋ
MYE	è-sīmbā, à-	è-līm, à-	ŋgāndé'kū? (ε/1)
MBE	ŋgōm	è-lām	ŋgōŋ
ELU	ŋgōm	è-lām	ŋgō
NNE	ŋgōm	ñ-ty'ag'	ŋgō'ōŋ
AKO	ŋgōm	ñ-ty'ag'	ŋgōŋ
MHE	ŋgōm	ñ-t'ag'	ŋgōŋ
MWK	ŋgōm	ŋgōm mbāā	ŋgōŋ
MKA	ŋgōm	ñ-t'ag'	ŋgō'ōŋ
BLN	ŋgōm	ñ-t'ag'	ŋgōŋ
BBO	ŋgōm	ñ-t'ak	ŋgōŋ
LEF	ŋgōm	ñ-t'ə?	ŋgāndākū
LEK	ŋgō?	ñ-t'ak	ŋāŋ

	(332) box		(333) bag	
	bofte		sac	
CB	(1097+) *-kɔbɛ		(1244) *-kɔtɔ	
M			*-koto 5 'bag' PEG: *b(e)à(m)~	
PM	*-tɛg 3/4 *-gɔbɛ 9/10 *-bɔŋ		*-pāl 7/8 *-kwə 7/8 *-kɔtə 3/4	
MBM	mbɔŋ		è-pān ŋ-kɔtə	
MBN	è-bɔŋ èkwəŋ'kwəŋ		è-pāl n-cɔl	
MYE	è-bɔŋ		è-pān, à-	
MBE	kɔ?		è-pāl è-kwə ŋ-kɔtə	
ELU	n-tyá		è-pāl, ɔ-	
NNE	n-tyáɔ'		è-pāl, à?- ŋ-kwɔtə	
AKO	n-tyáɔ' kɔd'		è-kwɛ, à?- ŋ-kɔtə	
MHE	ŋgɔbɔ		è-pāl ŋ-kɔtɛ	
MWK	ŋgɔw (è-lɪmbɪ)		è-pāh	
MKA	ŋgɔbɔ è-lɪmbɪ		è-pāl m-pɔtə	
BLN	ŋgɔbɔ è-kwɛm		è-pāl m-kɔtə	
RBO	ŋgɔbɪ f-kwɛm		f-pāə, fɔ'- m-kɔtə	
LEF	è-bɔŋ, bɪ-		è-kwə, bɪ-	
LEK	è-kɛlɛ, bɛ-		mbɔgɔ	
	(334) parcel		(335) basket *	(336) basket
	paquet		panier	hotte
CB	(ps 337) *-kɔmbɔ 5/6 'load'		(1849) *-tɔŋgɔ	
M			*-tonga 7,5	
PM	*-bɔg 5/6, 3/4 *-ɔm(bɔ) 5/6		*-lɔŋ 7/8	*-sɔgɔ 7/8
MBM	à-bɔg', m-		è-lɔŋ	è-sɔgɔ
MBN	à-bɔg'		è-lɔŋ	è-sɔ?
MYE	à-bɔ?, ɔ-		à-lɔŋ, à-	è-sɔ?, à-
MBE	dy-əm, m-		è-lɔŋ, à-	è-sɔ? (o?/oo), à-
ELU	m-bɔ?		è-lɔŋ	è-sɔɔ?
NNE	d-ŋm, m-		è-lɔŋ, à?-	è-swɔ, à?-
AKO	m-bɔg dy-ɔm, m-		è-lɔŋ tɔmbɛ	è-syɔgɛ, è?-
MHE	dy-ɔm, m- mbɔmbɔ			è-sɔŋ, à?-
MWK	dy-ɔm è-kɔl		è-lɔŋ	è-sɔɔ, à-
MKA	dy-ɔmbɔ, m-		è-lɔŋ, è?-	è-sɔ?ɔ, è-
BLN	dy-ɔmbɔ(dy/j-), m-		è-lɔŋ, è?-	è-sɔ?ɔ, è?-
RBO	dy-ɔmbɔ, m-		f-yɔŋ, fɔ'-	f-sɔgɔ, fɔ-
LEF	m-bɔ?, mɪ-		è-dɔŋ	è-sɔkɛ
LEK		ndɔŋɔ	è-dɔŋ, bɛ-	n-sɔ

	(337) head-band for carrying basket.	(338) head-pad
	bande pour porter la hotte	tortillon, coussin
CB		(1016) *-kātā
M		
PM	mṣṣ 6	*kambV *-kāmbā 5/6 *-bāmā 7/8 *-fād
MBM	māṣ	ə-fād'
MBN	mawā	ə-fāʔ
MYE	mṣṣ	kwām' bāṣ
MBE	māṣ	kṣ'mbāṣ
ELU	mawā	k ʔmbāṣ
NNE	mṣṣ	ə-bāmē
AKO	mṣṣ	ə-bāmē, əʔ-
MHE	mṣṣ	ə-bāmē, əʔ-
MWK	mṣṣ	ə-kāmbā mbṣṣṣ
MKA	mṣṣ	ē-kāmbā, mē-
BLN	mṣṣ	ə-kāmbā, mī-
BBO	mṣṣ	ī-kāndā, mī-
LEF	mṣṣ	lī-bāmā, mā-
LEK	māṣṣ	lē-kāʔ, mē-

	(339) thatch	(340) mat
	chaume, natte	natte
CB		
M	PEG: *bānV	
PM	*-bṣṣ 9/10	*-bṣm 7/8 *-bṣ(ṣṣ) ? 5/6
MBM	mbṣṣ	ə-bṣm
MBN	mbṣṣ	
MYE	mbṣṣ 9/10	ə-bṣm ṣṣṣṣ
MBE	mbṣṣ mbān	ə-bṣm, ə-
ELU	mbṣṣ	ə-bṣm
NNE	mbṣṣ	ə-bṣm, əʔ-
AKO	mbṣṣ 10	ə-bṣm
MHE	mbṣṣ	ə-bṣm, əʔ-
MWK	mbṣṣ ṣṣṣṣ (ṣṣṣṣ)	ə-bṣm ə-bṣmbṣ
MKA	ṣṣṣṣṣ ṣṣṣṣ ṣṣṣṣ, mē-	ē-bṣṣṣ, mē-
BLN	ṣṣṣṣṣṣ	ə-bṣṣ, mē-
BBO	mbṣṣ	ī-bṣṣ, mī-
LEF	ṣṣṣ	ṣṣṣṣṣ
LEK	mē-zṣṣ, id.	mbṣṣṣ lēkṣk', id.

	(341) rope *		(342) thread, string
	corde		fil, ficelle.
CB	(839) *-gɔ́dɪ 'string'		(359) *-cɪŋgà 3/4 'string'
M	*-gɔ́dɪ 'string' PEG: *kũ		*-cɪŋgà 3
PM	*-kɔ́dɪ 3/4		*-bòŋgá 7/8 *-sɪŋgà 3/4 *-kɔ́dɪ
MBM	ɔ́-kɔ́dɪ		ɔ́-kɔ́dɪ
MBN	ɔ́-kɔ́lɪ?		ɔ́-kɔ́lɪ?
MYE	ɔ́-kwɔ́?		ndá? ɔ́-kwɔ́?
MBE	ɔ́-kɔ́?		ɔ́-kɔ́?
ELU	ɔ́-kɔ́?		ə-bùŋgú
NNE	ɔ́-kɔ́dɪ		ə-bàŋgɛ (a/o)
AKO	ɔ́-kɔ́dɪ		ə-bòŋgɛ ñ-sɪŋgɛ
MHE	ɔ́-kɔ́dɪ		ñ-sɪŋgɛ
MWK	ɔ́-kɔ́lɪ		ñ-sɪŋgà
MKA	ṁ-kɔ́dɪ		ṁ-sɪŋgà
BLN	ṁ-kɔ́dɪ		ə-bòŋgɔ́ ṁ-sɪŋgà
BRO	ṁ-kɔ́t		ṁ-sɪŋgà mw-àsà, my-
LEF	ɔ́-kɔ́?		ñ-sɪŋgà, mɪ- ɛ-ryáɪlɪ, bɪ-
LEK	ɔ́-kɔ́?, mɛ-		ndá?
	(343) needle	(344) nail	(345) chair, stool
	aiguille	clou	chaise
CB			(1732) *-tɛ (1692) *-tɛbɛ 'stool'
M			
PM	*-dɔ́ndɪ̄(kɪ̄)	*tɔ́nɪ̄ 9/10	*-tɪ̄ 5/6 *kòndá 9/10 *-bòŋgá 7/8
MBM	ndùŋ	ndùŋ	à-tɪ̄, ñ-
MBN	tɪ̄ŋnɛ	tɪ̄ŋ	à-tɪ̄
MYE	ndwòndɛ(kɪ̄?)	mù-mpɪ̄?, bù-	(à-tɪ̄=bed) kwòndɛ
MBE	ndòndɪ̄	tyɛ	à-tɪ̄, ò- kòndɔ́
ELU	ndòndɛ	tɔ́nɛ	à-tɪ̄, ò- kòndɛ
NNE	ndòndɛ	tɔ́nɛ	à-tɪ̄
AKO	ndòndɛ	tɔ́nɛ	à-tɪ̄, mɛ-
MHE	ndəndəkī	tɔ́n	ə-tɪ̄, mɛ- kòndɛ
MWK	ndòndɔ́kī	tɔ́n	
MKA	ndònnəkə	tɔ́n	ɛ?-tɪ̄ kòndá bɛnɪ̄
BLN	ndòndɔ́kī	tɔ́n	ə-bòŋgá, ɛ?-
BRO	ndòndɔ́kī	tɔ́n	ɪ̄-tɪ̄, mɪ̄-
LEF	ndòndɔ́kò	tɔ́nɛ	ɛ-bòŋ
LEK	lɛ-sák, mɛ-	mbòò?, ɪ̄d.	ə-bòŋ, bɛ-

	(346) book *		(347) calabash
	livre		calebasse
CB		(253) *-cādī 9/10	'calabash
M			bottle'
PM	*-pəb 5/6	*-pòm' 5/6	
MBM	ā-pàb', m-		ŋgəb'
MBN	ā-pàb'		è-sāsó? ŋgəb'
MYE	ə-kāātī, ā-	ā-pwəm, ɔ-	
MBE	kālā?	ə-pən (ə/wə)	è-sāsó sū'dī
ELU	kālā?		è-sī, ʔ-
NNE	kālāg'	n-twɔg'	mwasīf
AKO	kālāg'	ā-pòm, mē-	pīd'
MHE	kālē? (ʔ/d')	è-pòm, mē-	
MWK	kāāsī	ā-pòm, ɔ-	
MKA	kāātē	è-pòm, mē-	
BLN	kāātī ( ' ' )	è?-pòm, mē-	
RBO	kāāsī	ī-pòm, mī-	
LEF	kāātē		ŋ-kúmá, bā-
LEK	ə-kātē, bē-		m̩bāā
	(348) firewood		(349) (cooking) pot
	bois de chauffage, fagot		marmite
CB	(1218) *-kónī (11/10)	(120) *-bəgā	
M	*-kónī 11,10 PEG: kue(n)'	*-pega 9 *-bega 9,11 PEG: *cəŋ'	
PM	*fy'-ōn 19/13	*-bēē/bē' 9/10	
MBM	lē	mbyē	
MBN	lēŋ m̩ú	mbyə	
MYE	sūn	m̩b̩h̩ə	
MBE	š-ēē, 1-	m̩b̩ēē	
ELU	l̩əŋ	m̩b̩ēē	
NNE	hy-ōn, 1-	m̩b̩ə	
AKO	hy-ōn, 1-	m̩b̩ēē	
MHE	y-ōn, 1-	m̩b̩ēē	
MWK	š-ēē, 1-	m̩b̩ēē	
MKA	y-ōn, 1-	m̩b̩ə ɛwɔŋ'gɔ	
BLN	y-ōn	m̩b̩ə	
RBO	yōn, id.	m̩b̩ə	
LEF	lī-yīē, m̩ā-	m̩b̩āā	
LEK	l̩l̩ē, id.	m̩ph̩ə	

(350) spoon		(351) key *
cuillère		clef
CB (ps 473) *-tōgō 'ladle'		
M *-coga 'wooden spoon' PEG: *dōk` 'cuiller'		
PM *tōg 9/10.		*-kēē 14/6 *-dībān 7/8
MBM tōg'		ē-tōgēlē ndāb'
MBN ē-kwē?		ē-rūlīā
MYE tō?		ē-kīf, ā-
MBE ē-kwē?, ā-		ā-kē (e/ye), ō-
ELU tō?		Ø-kī
NNE twōg'		ā-kīf, mē-
AKO tyōg'		ē?-kīf, mē-
MHE tō?		ē-kēē, mē-
MWK tō?		ē-kē ē-dīwān
MKA tōg'		ē-dībān, ē?-
BLN tō?		ē-dībān, ē?-
BBO tōk		ī-dībān, īb?-
LEF tō?		ē-dībān, bī-
LEK tōk		-khīf, bē-
(352) mortar	(353) pestle	(354) trough (for making oil)
mortier	pilon	huche, bassin, pressoir
CB		
M		
PM *-bōg 7/8	*-bōlāg 9/10	*-āl 14/6
MBM ē-bōg'	mbōlāg	bwē
MBN ē-bōō?	mbōlō?	byal (y/w)
MYE ē-bō?, ā-	mbhōlāē	byal
MBE ē-bō?, ā-	mbōlō?	bw-āl (w/y)
ELU ē-bō?, Ø-	mbōlē	bw-āl
NNE ē-bwōg', ā?-	mbōlāg'	bwāl
AKO ē-bwōg', ā?-	mbōlōg'	bw-āl
MHE ē-bōg', ē?-	mbōlō? (?/g')	bw-āl, m-
MWK ē-bō?, ā-	mbōlā	bw-āl, my- (14/4?)
MKA ē-bōg' mōlōmōlōmē	mbōlōg'	bw-āl, m-
BLN ē-bō?, ē?-	mbōlō?	bw-āl, m-
BBO ī-bōk, īb'-	mbōyōk	bw-āā, m-
LEF ē-kū?	mbōlō?	njōmbī
LEK ñ-tāgēbāā	ē-zōk, bē-	ē-bwō mphī

	(355) canoe * pirogue	(356) paddle pagaille, rame	(357) earring boucle d'oreille
CB	(1949) *-yāt3 (14/6)	(1014) *-kāpī 9/10	
M	*-(j)āt3 14		
PM	*-ā1V̄ 14/6	*pāÉ 9/10	*-bēḡḡḡ 9/10 *-bājV̄? 7/8
MBM	kānō	pāÉ kānō	mbāḡḡ
MBN			mbēḡḡā
MYE	byālo	ē-pābīī, ā-	myētūā
MBE	b-ḡ1ā, my-		-bāḡḡḡ, ā-
ELU	-bḡ1ā, o-		mbīḡḡā
NNE	bḡ1 ɛ		mbyāḡḡḡ
AKO	-bḡ1ā, mē-	pāā ē bḡ1ē	mbēḡḡḡ 9/10 ēbēsē
MHE	bw-ā1ē, my-	pāÉ	mbēḡḡḡ
MNK	bḡ1 3	pāy	mbēḡḡḡ ābḡy
MKA	b-ḡ13, my-	pāy bḡ13	mbēḡḡḡ ʔ-bāy?, ʔ?
BLN	-bwā1ō, mī-		mbēḡḡḡ
BBO	bw-āyō, m-	pāy	ī-bāt, īb'-
LEF	bwā1ō	pākī	mbēḡḡḡ
LEK			mbyē1ē, id.

	(358) bracelet bracelet	(359) ring * bague
CB		(1497) *-pētē
M		PEG: *kwāḡ
PM	*-ēn 3/4	*-jāj`/-jēj`? 9/10
MBM	kwāḡ	nzēd'
MBN	ā-cūn	mākwāḡ
MYE	ḡmy'ē' kāḡ	ḡmyēbāḡāmyē
MBE	ḡkwāḡ	nžē? yāndā
ELU	mw-ē, my-	ḡḡōk ē
NNE	ē-bōḡ	nzyēḡ'
AKO	ē-bōḡ, ā?-	nzēd'
MHE	mw-ēn, my-	-yāndā, mī-
MNK	mw-ēn, my-	lāndā
MKA	mw-ēn, my-	yāndā
BLN	mw-ēn, my- ɛ?-kātā, mī-	-yāndā, mī-
BBO	mw-ēn, my-	-yāndā, mī-
LEF	ḡḡōk bī	njē?
LEK		mbyē1ē

	(360) comb peigne	(361) mirror * miroir	(362) cloth tissu
CB	(259) *-cák- (271) *-càn-		
M			PEG: *d(ò)í'
PM	*-sɛ́sú ? *-bǎnjǎ ? 7/8	*-ɛ́nÉ/-ɛ́nyÉ	*-bǎd/-bǎtò 5/6
MBM	ə-sǎpə	n-lǎg	ǎ-bǎd'
MBN	mbɛ́njú	ɛ́-lɛ́ngɛ́	ǎ-bǎd'
MYE	ə-pɔ́?, ǎ-	ə-lɛ́ngɛ́, ǎ-	ǎ-bǎ?, ɔ́-
MBE	ə-bɛ́nə, ǎ-	dy-ɛ́nÉ, m-	ǎ-bǎ?, ɔ́-
ELU	ə-sɛ́sú (ɛ́/s)	d-əngǎ, m-	ǎ-bǎ?, ɔ́-
NNE	sɛ́sú	dy-ɛ́ngɛ́, my-	ǎ-bǎd', mə-
AKO	sɛ́sú	dy-ɛ́nÉ, m-	ǎ-bǎd', mə-
MHE	sɛ́sɛ́	j-ɛ́nə, m-	ə-bǎd', mə-
MWK	ə-bǎnzǎ, ǎ-	j-ɛ́n, m-	ǎ-bǎtò
MKA	ɛ́-bǎnjǎ, ɛ́?-	dy-ɛ́nÉ, by-	ɛ́-bǎtò
BLN	ɛ́-bǎnjǎ, ɛ́?-	dy-ɛ́nɛ́, by-	ɛ́?-bǎd', mɛ́-
BBO	ɛ́-sǎnnɛ́, ɛ́b'-	j-ɛ́nɛ́, by-	ɛ́-bǎtò, mɛ́-
LEF	lɛ́-sɛ́sú, mǎ-	ɛ́-dɛ́ngǎ, bɛ́-	lɛ́-bǎ, mǎ-
LEK	ɛ́-pǎgǎ, bɛ́-	ɛ́-gǎbǎsúgú, bɛ́-	cúí
	(363) hat, cap chapeau, bonnet	(364) shoe soulier	
CB		(1659) *-tǎmbé 'sole of foot, footprint'	
M	PEG: *cɛ́k'		
PM	*-tǎm *-kɔ́tɛ́ 7/8 *-bɔ́tɛ́ *tǎmbǎ 9/10	*-tǎmbÉ 5/6	
MBM	n-tǎm	(n-tǎmbé) m-bòkǎ	
MBN	n-tǎm	ə-bòkǎl	
MYE	n-tǎm	ngwǎkwǎ	
MBE	n-tǎm mbɔ́tɛ́ tǎmbé	ò-tǎmbə	
ELU	ə-kɔ́lɛ́ mbɔ́tə	ǎ-tǎmbé, ɔ́-	
NNE	ə-kɔ́tɛ́ tǎmbé	mə-tǎmbé	
AKO	ə-kɔ́tɛ́ mbɔ́tə tǎmbé	ǎ-tǎmbé, mə-	
MHE	ɛ́tɛ́kɛ́ tǎmbé	ə-tǎmbé, mə-	
MWK	ə-kɔ́tɔ́	ə-tǎmbɛ́, ɔ́- sɛ́lɛ́pǎs	
MKA	ɛ́-kɔ́tò, ɛ́?- tǎmɔ́ǎ	ɛ́-tǎmbɛ́, mɛ́-	
BLN	ə-kɔ́tɔ́ tǎmɔ́ǎ	ɛ́?-tǎmbɛ́, mɛ́-	
BBO	ɛ́-kɔ́tɔ́, ɛ́b'- tǎmbǎ	ɛ́-tǎmbɛ́, mɛ́-	
LEF	ɛ́-pɔ́tɔ́, bɛ́-	ɛ́-tǎmbɛ́, bɛ́-	
LEK	ə-sǎk, bɛ́-	ɛ́-bòk (ə-bògǎ mǎkɔ́)	

	(365) shirt *		(366) broom	
	chemise		balai	
CB				
M	*-gobɔ 9 'clothing'			
PM	*-kɔbV̄ 3/4 *-bɔtÉ 9/10		*-fyɔɔnV̄ 7/8	
MBM	ŋ-kwéé		ə-sáŋ, ɪd.	
MBN	ŋ-kɔb'		jàŋ	
MYE	ŋ-kwɔ?		kɔŋ	
MBE	mbɔtɪ sɔtɪ (s/ɔ)	e-sʷɔnə, ə-	kʷɔ	
ELU	ŋ-kɔbə	ə-hwə ən		
NNE	mbɔtɛ	ə-yə ən		
AKO	ŋ-kɔbè mbɔtɛ 9/10	ə-hyɔɔn, ə?	mʷɛɛn	
MHE	sɔtɪ	ə-yɪɔɔn, ə?		
MWK	mbɔtɪ	ə-syɔɔnɪ	ə-kʷɔ	
MKA	sɔtɛ	ɛ-yɔɔn, ɛ?		
BLN	mbɔtɪ	ɛ-yɔɔn (y/hy)	ɛ-kʷáá	
BBO	sɔtɪ	ɪ-yɔɔn, ɪb'-		
LEF	sɔtɪ	ɛ-fyɔŋ, bɪ-		
LEK	ŋ-kwá	ŋ-sáŋ, mɛ-		
	(367) ladder		(368) bridge	
	échelle		pont	
CB	(1671) *-tántɔ 'bridge (ladder)'	(460) *-dádɔ 5/6	(1671) *-tántɔ	
M		PEG: *d(e)á~		
PM	lâl/lân 9/10	*-bɔŋgV̄ 7/8	*-nyãŋ 5/6	*-kɔg' 3
MBM	ŋ-kɔg'		ŋ-kɔg'	
MBN	ə-gɔ?	ə-nyãŋ		
MYE	ə-kwɔnnɪ'tɔ?, ə-	ə-nyãŋ ɛ ŋkʷá'ɪɛ	ə-kɔ?, ə-	
MBE	lâl (/lân)		ŋ-kɔ?	
ELU	lãm	ə-bɔŋgɛ		
NNE	lân	ə-bɔŋgɛ		
AKO	lân	ə-bɔŋgɛ	ə-nyãŋ	
MHE	lâl	ə-nyãŋ, mɛ-		
MWK	lããnɪ	ə-jálɛ	ŋ-kɔɪ	
MKA	lâl	ɛ-lâlɛ, mɛ-	ŋ-kɔg'	
BLN	lâl	ə-lâlɛ, mɛ-		
RBO	yãã	ɪ-bɔŋgɔ, ɪb'-	pɔŋ	
LEF	lâ		orɪkə.	
LEK	mɛ-kɔk	ɪ-nyãŋ, mɛ-		

	(369) line (of objects) *	(370) life *
	ligne (d'objets), rangée	vie
CB	(664) *-dṣṣṣ 3/4	
M	*-dṣṣṣ 3	
PM	*-jṣṣ 3	*-lṣṣṣ 5
MBM		ā-lṣṣṣ' mṣṣm
MBN	ñ-jṣṣ	ā-dyṣ' mṣṣ
MYE	ñ-jṣṣ	ā-dyṣ' mṣṣ
MBE	ñ-jṣṣ	ā-dyṣ' mṣṣ
ELU	ñ-jṣ	ā-lṣṣṣṣ, ḍ-
NNE	ñ-jṣṣ	ā-lṣṣṣṣ
AKO	ñ-jṣṣṣ	ā-lṣṣṣṣ
MHE	ñ-jṣṣṣ	ā-lṣṣṣṣ
MWK	ñ-jṣṣ	ā-lṣṣṣṣ
MKA	ñ-jṣṣ	ā-lṣṣṣṣ
BLN	ñ-jṣṣ	ā-lṣṣṣṣ ṣṣṣṣ mṣṣṣṣ
BBO	ñ-jṣṣ	ī-lṣṣṣṣ, mī-
LEF	ñ-jṣṣ	lṣṣṣṣ
LEK	ñ-kṣṣṣ, mṣṣ-	
	(371) thing *	(372) event, affair, matter
	chose	événement
CB	(2164) *-yṣṣṣ (7/8)	(771) *-gṣṣṣṣ 'affair'
M	*-(j)ṣṣṣ 7 PEG: *jṣṣ(m)~	*-gṣṣṣṣ 'thing, matter'
PM	*-ṣṣṣ 7/8	*-kṣṣṣ 5/6 *-ṣṣṣ 5/6
MBM	yṣṣṣ (y/j), byṣṣ	mam
MBN	yṣṣṣ	mam
MYE	jṣṣṣ, byṣṣṣ	ā-kṣṣṣ, ḍ-
MBE	jṣṣṣ, byṣṣṣ (y/w)	dy-ṣṣṣ, m-
ELU	jṣṣ, bṣṣ	ā-kṣṣ, ḍ-
NNE	jṣṣṣ, bṣṣṣ	ā-kṣṣṣ, mṣṣ-
AKO	cṣṣṣ, bṣṣṣṣ	ā-kṣṣṣ, mṣṣ- dy-ṣṣṣ, m-
MHE	jṣṣṣ, byṣṣṣ	ā-dṣṣṣ dy-ṣṣṣ, m-
MWK	jṣṣṣ, byṣṣṣ	dy-ṣṣṣ, m-
MKA	jṣṣṣ, byṣṣṣ	mṣṣṣṣ dy-ṣṣṣ, m-
BLN	jṣṣṣ, byṣṣṣ	ā-hṣṣṣ, mṣṣ-
BBO	jṣṣṣ, byṣṣṣ	dy-ṣṣṣ, m-
LEF	yṣṣṣ, byṣṣṣ	ñ-sṣṣṣ, mī-
LEK	jṣṣ, bṣṣ	mṣṣ, id.

	(373) language *	(374) word *
	language, langue	mot
CB		
M		
PM	*-f5b 7/6 *-lǎŋV ? 3/4	*-f5b 7/8
MBM	ñ-1éé	ñ-1éé
MBN	ñ-1ǎǎ	ǎ-gǎm
MYE	ə-hwǎ?, ə-	ə-hwǎ?, ə-
MBE	ə-hɔ?, ə-	ə-hɔ?
ELU	ə-hɔ?	ə-yǎlǎ, byǎlǎ
NNE	ə-hɔb', mə-	ə-yǎlǎ, ə?
AKO	ə-hɔb', mə-	ə-yǎlǎ, ə?
MHE	ə-hɔb', mə-	ə-yǎlǎ, byalɛ
MWK	ə-hɔw, ɔ-	əyǎlǎ ə-hɔw
MKA	ɛ-hɔb', ɛ?	ɛ-yǎlǎ, ɛb- ɛ-bǎŋǎ, ɛ?
BLN	ɛ-hɔb', mǐ-	əb-yǎlǎ ɛ-hɔb'
BBO	ɪ-hɔb', mǐ-	ɪ-yǎdɪ, ɪb'-
LEF	m-byaʔ, mǐ-	ɛ-yǎlǎ, bɪ-
LEK	ñ-dǎé?, mə-	
	(375) song	(376) tale, story
	chanson	conte, histoire
CB	(942) *-jémbɔ̄ (2010) *-yémbɔ̄	(776) *-gǎnɔ̄
M		*-gǎnɔ̄ 'tale' (9:11)
PM	*-bɔ̄kǎ 5/6 *-jémbǎ 7/6	*-gǎn' 9/10
MBM		ñ-1éé nzɔ̄nə mǎm
MBN	ñ-sǎŋ	ə-kǎl?
MYE	ŋkwɔ̄nɪ	ə-kɔ?, ə-
MBE	ɔ̄-jémbə	ɛ-kɔ̄, ə- ɲtəm
ELU	ñ-sǎ?	ə-kɪd' ŋkǎlɛ
NNE	ŋkǎŋgɛ	ŋgǎn pɔ̄lɛ
AKO	ŋkǎŋgɛ	ŋgǎn mənɪǎ
MHE	ɛ-jémbɛ, mə-	ŋgǎn
MWK	ǎ-bɔ̄kǎ	ŋgǎn myǎŋgɔ̄
MKA	ɛ?-bɔ̄kǎ(ɛ?-/m-), mə-	ŋgǎn
BLN	ɛ-bɔ̄kǎ, mə- mǐ-jémbǎ	ŋgǎn
BBO	ɪ-bɔ̄kǎ, mǐ-	ŋgǎn myǎŋgɔ̄
LEF	ŋ-kɔ̄nə, mǐ-	ɛ-kǎnǎ pɔ̄lɛ
LEK		lɛ-kyɛ?, bɛ-
	ɛ-zɔ̄ɔ̄jɔ̄	

	(377) laughter le rire	(378) work travail	(379) war guerre
CB	(949) *-jɔ̃dã		(151) *-bĩtã (1630) *-tã 7/8
M		PEG: *fãk	*-tãã 8 PEG: *cɔ̃ PBC: bi-ta
PM	*-jɔ̃ 13	*-sɔ̃n 3 *-bɔ̃lɔ̃ 7/8	*bĩ-lã? 8 *-jũm' 9
MBM	lɔ̃ɔ̃	ñ-sɔ̃n	bfn
MBN	lwã	ñ-sɔ̃n	bɔ̃l
MYE	ã-sɔ̃lɔ̃	ñ-swɔ̃n	bfn
MBE	lɔ̃ɔ̃	ñ-sɔ̃n	bɔ̃l (ɔ̃/ɔ̃)
ELU	ã-sɔ̃ŋɔ̃lɔ̃, ð-	ñ-sɔ̃	bɔ̃l
NNE	lɔ̃ɔ̃	ñ-sɔ̃n	bɔ̃l
AKO	lɔ̃ɔ̃ 13	ñ-sɔ̃n	nzũm
MHE	lɔ̃ɔ̃	ñ-sɔ̃n	nzũm
MWK	lɔ̃ɔ̃	ñ-sɔ̃n ɛ-bɔ̃lɔ̃	bɪl nzũm
MKA	lɔ̃ɔ̃	ñ-sɔ̃n	mjũm
BLN	lɔ̃ɔ̃	ñ-sɔ̃n ɛ-bɔ̃lɔ̃, ɛ?	mbɪlã njũm (j/z)
BBO	yɔ̃ɔ̃	ñ-sɔ̃n ɪ-bɔ̃lɔ̃	bɪɪ nzũm
LEF	dɔ̃ɔ̃	ɛ-bɔ̃lɔ̃, bɪ-	bɪlã njũm
LEK	ŋkɔ̃nɛ	mɛ-twɪŋɪ	phɪɪ
	(380) fight, quarrel querelle, dispute	(381) sleep sommeil	(382) dream * rêve
CB		(633) *-dɔ̃ (13)	(643) *-dɔ̃dɪ 9/10 (950) *-jɔ̃dɪ 9/10
M		PEG: *dɔ̃g, *dɔ̃g'	*-jɔ̃de/1 PEG: *jɛm
PM	*-jũm' 9	*-jɔ̃ 14	*-dɔ̃d 9/10
MBM	ñ-sɔ̃ɔ̃ mãm ŋ-kãn	yɔ̃	ndɔ̃ɔ̃d'
MBN	nzãm ñ-tãŋgã	ɛ-yũɛ	ndɔ̃d'
MYE	nzũm ð-tɔ̃ŋã?	ã-jũɛ (ũ/u)	ndwɔ̃?
MBE	ɛ-hɔ̃?, ã-	ã-jɛ	ndɔ̃?
ELU	nzũm ñ-tɔ̃?	jũɛ	ndɔ̃?
NNE	nzũm ñ-syɛlɛ	ã-jwã	ndɔ̃g'
AKO	ñ-sɛlãg	ɛ?-cã	(ã-nãŋgã) ñ-lɔ̃
MHE	ɛ-pɛndɛ, mɛ-	ɛ-jɛ	ndɔ̃? (ɔ̃/d')
MWK	nzũm ñ-jɔ̃w	ã-jɔ̃	ndɔ̃l
MKA	mɛ-hɔ̃b ñ-pɪŋgɪ	ɛ?-jɔ̃	ndɔ̃d'
BLN	ɛ?-pɛn, mɪ- ñ-pɪŋgɪ	ɛ?-jɔ̃	ndɔ̃d'
BBO	ñ-jɔ̃b'	ɪ-jɔ̃	ndɔ̃t
LEF	ɛ-bãmɪ, bɪ-	wũ-yɔ̃	ñlũ mɪ'yɔ̃
LEK	mɛ-lak lɛtãã	bɛ-zɔ̃gɔ̃	nzɛɛ ndɔ̃gɔ̃

	(383) (be) well (être) en bonne santé	(384) strength force	
CB		(890) *gòddù 9 (ps 249) *-gùdì	
M		PEG: *tìn (*tāb) '(être) fort'	
PM		*-gīnyā? 9 *-gūl 9	
MBM	èbòò	è-šèd'	
MBN		à-tāg'	
MYE	ādy àtí èlškī	à-tb?	
MBE	èdyé bwām	ngfñè	
ELU	dyèl	ngfñè	
NNE	ādyé nsā?	ngfñè ngwɔl	
AKO	ábé bwām	ngfñè	
MHE	èdyā bwām	ngfñè (n/ny)	
MWK	ādyā bwām (inf.)	ngfñā ngūl	
MKA	è?bɔŋ ngòb	ngfīnyā ngūl	
BLN	èdyā bwām	ngfñā ngūl	
BBO	īdyā bwām	mbòñ	
LEF	-lèl	ngfīnyā	
LEK	ā-lègè 'he is well'	èlīkī'nyī	
	(385) pregnancy grossesse	(386) birth naissance	(387) death * mort
CB	(2007) *-yémī (5/6)		(1248) *-kú (1255) *-kúédí
M	*-jémī 5		PEG: *gūa`
PM	*-ém 5/6	*-jād` 7/6	*kwéd 9
MBM	dy-èn	à-yād'	yùd
MBN	jém à-dòl?	à-yāl	è-wā
MYE	dy-ēm	à-jā?, ò- (n)	jū
MBE	dy-èm	à-jénè, ò-	kwél
ELU	d-é, m-	à-jyā	kwééd'
NNE	d-īm, m-	è-jyāà	kwííd'
AKO	dy-ēm, m-	è-cyā, è?-	kwééd'
MHE	dy-ēm, m-	è-jā?, mē-	kwéé?
MWK	dy-ēm, m-	à-jāmīn	kwél
MKA	dy-ēm, m-	è-jāād' (d/b), mē-	kwél
BLN	dy-ēm, m-	è?-jād' (/āāb'), mī-	kwél
BBO	dy-ēm, m-	ī-jāt, mī-	kwéé
LEF	wl-tò?, mā-	lè-yā, mā-	lè-wā, mā-
LEK	è-dīkī'nyī	à-cāšī	sè

	(388) death ceremony *	(389) grave *	(390) corpse
	funérailles	tombeau	cadavre
CB	(1248) *-kú 'death'		(145) *-bĩmbà 3/4
M			PEG: *kú`
PM	*-gãndò 9 *-ú 7	*sɔŋ 9/10	*-dĩm 3/4
MBM	yùú	sɔŋ	ñ-d àm
MBN	zùú	sɔŋ	ñ-d àm
MYE	jũ	sɔŋ	ñ-dĩm
MBE	ŋgãndò	sɔŋ	ñ-dĩm
ELU	ŋgãndù	sɔ	ñ-d àm
NNE	ŋgãndù	sɔŋ	ñ-d àm
AKO	cũ	sɔŋ	ñ-dĩm
MHE	ŋgãndò	sɔŋ	ñ-dĩm
MWK	nĩŋĩn nĩú è-kùtú kwé1 kwé1	sɔŋ	ñ-dĩm 3
MKA		kwé1 sɔŋ	ñ-dĩm
BLN	è?-kãã kwé1 nãŋãn kwé1	sɔŋ	ñ-dĩm
BBO	ĩ-bòk, mĩ- p émbé	sɔŋ	ñ-dĩm
LEF	mã-yĩsĩ mǎ éwĩ	ñ-dĩm, mĩ-	ñ-bĩmbà, mĩ-
LEK	sɔ	ndũgũ ndĩn	ñ-dĩn

	(391) sickness *	(392) (to be) sick *
	maladie	(être) malade
CB		(853) *-gɔŋ-
M	PEG: *gɔŋ`	*-gud- PEG: *gɔŋ`
PM	*-kùlĩ 3 or 7/8	*-kùl
MBM	ŋ-kwòg'	-wùù
MBN	è-wùlǎ?	-wul
MYE	è-gùlǎ?, à-	-gùl
MBE	ŋ-kùlĩlèn	-kùlĩlèn
ELU	ŋ-kòlè	-kòl / -kwè
NNE	ŋ-kwòlè	-kwòl
AKO	ŋ-kùlè	-kùlè -wùl
MHE	ŋ-kùlè	-kùl
MWK	è-wùlǎ	-hùl
MKA	ñ-kùlù	-kùl
BLN	ñ-kùlĩ	-kùl
RBO	ĩ-wùyǎ, ĩb'-	-wùy
LEF	ŋ-kùlù	-kùl
LEK	è-kòkè? è-gbǎkè? (gb/gw)	-khèn

	(393) cough		(394) fever
	toux		fièvre
CB	(1100) *-kʰc- *-kʰcəd- (838) *-gʰc-	(1492) *-pʰpʰ 9 'cold'	
M	*-kʰcʰd- PEG: *kʰt 'tousser'		
PM	*-kʰJÉd? 7/8	*-fʰb 5 *-bàdV 9 *-pʰb 7	
MBM	ə-kwʰd'	ŋgʰŋ nyɪn	
MBN	ə-kwəʰ?	ə-lʰ? ə-lʰŋ'nyɪ	
MYE	ə-kpʰ	ə-pʰ?	
MBE	ə-kəʰ, ə-	ə-pʰ?, ə-	
ELU	ə-kwʰɛd	ə-həb'	
NNE	ə-kwʰgʰ?	ə-həb'	
AKO	ə-kəʰɛd	ə-həb'	
MHE	ə-kʰsɪ	ə-hʰb'	
MWK	ə-kʰsɪ	mbəl 9	
MKA	ʔ-kʰsɪd', ʔ?-	mbəʰɛ	
BLN	ʔ-kʰsɪ	mbəəʰɛ	
BBO	ɪ-kʰsɪ, ɪb'-	mbəʰɪ	
LEF	ʔ-kwʰsɪ, bɪ-	ŋ-kʰlʰ	
LEK	ʔ-kpʰ	sʰgʰ	
	(395) sore, wound	(396) abscess	(397) boil
	plaie, blessure	abcès	furuncle
CB			
M			
PM	*sɪ 9	*-pʰm 7/8	*-ʂɪ 7/8
MBM	sɪ	ə-pʰm	ə-y ʂn
MBN	ʂɪ	ə-pəʰm mbəkəm	y ʂɪ
MYE	sɪ	ə-lʰ?, ə-	dw-ən
MBE	sɪ? (s/ʂ)	ə-pʰm, ə-	j-ʂɪ, by-
ELU	sɪ	juaɪ	juaɪ
NNE	sɪ	ə-lʰg, mə-	j-ʂɪ, b-
AKO	sɪ	ə-pʰm ŋkəg	c-ʂɪ, b-
MHE	sɪ	ə-pʰm, ʔ?-	j-ʂɪ, my-
MWK	ə-bəŋ	ə-pʰm, ə-	j-ʂɪ, by-
MKA	sɪ	ʔ-pʰm, ʔ?-	j-ʂɪ, by-
BLN	sɪ ʔ?bəŋ, mɪ-	ʔ-pʰm, ʔ?-	j-ʂɪ, by-
BBO	sɪ	ɪ-pʰm, ɪb'- mbələm	j-ʂɪ, by-
LEF	sɪ	ʔ-pʰm, bɪ-	-y ʂ?, bɪ-
LEK	sɪgɪ	ŋgʰkhə	zʰgʰ

	(398) pus pus	(399) itch démangeaison	(400) smallpox variole
CB	(1553) *-pínā	(1556) *-pínyā	
M	*-pídā	*-pínā (*-pínyā)	
PM	*-fíny 5	*-kāŋ 3	*-kélí 3
MBM	ā-ší	ŋ-kāŋ	m'empòbā
MBN	ā-fínŋ	ñ-sākā	pòbā
MYE	ò-hín	ā-sākí	
MBE	ā-híí, ò-	ŋ-kāŋ	kāmā pùbā
ELU	ā-h'ŋ	ŋ-kā	ŋ-kāŋkālíé
NNE	ā-hínŋ	ŋ-kāŋ	kāāmāmé
AKO	ā-hín, mā-		èkòdèkòtè
MHE	ā-híí	ŋ-kāŋ	èkúkútú
MWK	ā-híí	ŋ-kāŋ	ŋ-kélí
MKA	ā-híí, mē-	m-kāŋ	m-kélíé
BLN	ē-híí (i/e), mī-	ē?-sòŋéŋgòb	m-kélíé
RBO	ī-fíí, mī-híí	ī-bíí', íb'-	m-kélí
LEF	lī-fí?	nyòndé	mù-kélí
LEK	lē-fígí, mē-	ŋ-khíné	mā-kólíé
	(401) scabies gale	(402) reason raison	(403) honour honneur
CB			
M			
PM	*-kāŋ 3	*-jòm 9	*-dúbé 7
MBM	ē-pād'	ŋgwómè	gāf'ègāf'è
MBN	ŋ-kāŋ	nzòm	ē-gf'm
MYE	ŋ-kòŋ	nzòm (ɔ/o)	ā-nòkí
MBE	ā-pā?	nzòm	ā-dúmàn
ELU	ŋ-kā	nzwā	jéřékāé
NNE	ŋ-kāŋ	nzòm	ē-dúbé
AKO	ŋ-kāŋ	nzòm	ē-dúbé
MHE	ŋ-kāŋ	nzòm	ē-dúb'
MWK	ŋ-kāŋ	nzòm	ē-dúbé
MKA	ē-pād', ē?	njòm	m-tígsèn
BLN	m-kāŋ	nzòm	ē-sòwān
RBO	ī-pāt', íb'-	nzòm	ī-dúbé, íb'-
LEF	ŋ-kāŋ, mī-	y-āndā, m-	ē-dúbé
LEK	ē-pā?		ñ-táké
			ē-tók

	(404) truth verité	(405) lie mensonge	(406) shame honte
CB			(380) *-c5nɪ (9)
M			*-c5nɪ 9
PM	*-báɪɛ 9	*-tóm 6 *-pùù 7	*-kwág/-kwáké? 5 *-s5n 14
MBM	ɲkwɛyám	è-bògɛnlɛɛ	à-kwág'
MBN	nə mbɛɛ	è-báá	à-kpá?
MYE	nɪ mbɛɛ	ɲ-nən	à-kpá'kpá?
MBE	mbáɪə	ɲ-jɔ?	à-kwɔ?
ELU	mbáɪɛ	ò-tí	à-kwá?
NNE	mbáɪɛ	mɛ-tɔm	à-kwág'
AKO	mbáɪə	mè-tóm	à-kwáké à?-sɔn
MHE	mbáɪə	mā-tɔm	è-sɔn
MWK	mbáɪɛ	è-pùù	à-kwá? è-sɔn
MKA	mbáɪɛ	è-pùù	è-sɔn, mɛ-
BLN	mbáɪɪ	è-pòò	è-sɔn
BBO	mbáɪə	ɪ-pùù	ɪ-sɔn, mɪ-
LEF	mbáɪɛ	mā-tóm	wɪ-sɔn
LEK	ndɛntɛɛ	ndáná	è-díkɛ ndɔgɪ
	(407) fear crainte, peur	(408) anger * colère	(409) place endroit
CB			(2164) *-yómà 16
M			*-(j)ómà 16 PEG: *dɪk'
PM	*-bóg 3 *-sɛɪ 7	*pɪɪ 9	*f~óm 5 (< PB cl. 16)
MBM	è-sɛn		à-wɛ-ndɛm
MBN	pɔm mbáɪyá		à-wə n'dám gòm
MYE	m-bó?		à-wəá 'lám hwɔm à-bó?
MBE	è-sɛɪ (ə/ɛ)	ò-lɪŋgə	hám èpɔɪɔ
ELU	m-bó?	páɪ ò-lɪŋgə	hɔ
NNE	m-bwɔg'	mè-lɪŋgɛ	hóm à-bwɔ?
AKO	m-bwɔg' 3	péɪ mè-lɪŋgá	hóm
MHE	è-sɛɪ	mè-lɪŋgɛ	è-lɪŋ hóm
MWK	è-sɛɪ	ò-lɪŋgá	hóm
MKA	è-sɛɪ	mè-lɪŋgá	è?-lɪŋan hóm
BLN	è-sɛɪ	mè-lɪŋgá	hóm
BBO	ɪ-sɛɛ	pɪɪ mɪ-yɪŋgá	hóm
LEF	ɔɔɲ	pɪ	-kwɪ lè-bó?, mā-
LEK	lè-báɲ		è-sɪkɛ à-tɪk, bɛ-

	(410) hole trou	(411) time * temps	(412) money * argent
CB		(1527) *-pëndé	
M			PEG: *kãb`
PM	*-põndõ 7/8 *-bëé 7/8 *-bãñã	*põndã 9 *-fVCV 3	*-gãb 9
MBM	è-põn è-bí	ngèè ãyëé	ngãb'
MBN	è-põn	ngàn	ngãb'
MYE	põ?	ng-hõ?	ngã?
MBE	è-põn, à-	põndõ ng-hõ?	mõní
ELU	è-põn è-bí	põndã	mõnã
NNE	è-põn	põndã	ngãb'
AKO	è-põn	põndã	mõnã ngãb'
MHE	è-põndõ		dú mõní
MWK	è-põndõ è-bëé ñ-bãñã 3	põndã ng-hë?	mõní ngãw
MKA	è-bëé, è?	ñ-hë?ã	mõnã
BLN	è-bãñã, mî-	põndã ñ-hë?è	mõní ngãb'
RBO	î-põndõ, íb'-	põndã	m-õní, my-
LEF	è-põn, bí-	põndã	ngã?
LEK	è-põõ, bè-		ngã?

	(413) price prix	(414) debt * dette	(415) market marché
CB			
M			PEG: *sëm` *tãñ`
PM	*-kũn` 3	*-lúm 5/6	*-õn 5/6
MBM	ng-kũn	è-tfm	dwõn
MBN	ng-kũn	è-tãm	dõn
MYE	ng-kũn	ò-lúm	dw-àn
MBE	ng-kũn	à-lúm, ò-	dy-õn, m-
ELU	ng-kõn	à-lõm	dw-à, m-
NNE	ng-kwàn	à-lúm	dw-õn, m-
AKO	ng-kũn	à-lúm, mè-	dy-õn, m-
MHE	ng-kũn	à-lúm, mè-	d-õn, m-
MWK	ng-kũn	à-lúm, ò-	dy-õn
MKA	ñ-kũn	è-lúm, mè-	dy-õn, m-
BLN	ñ-kũn	è-lúm, mî-	dy-õn, m-
RBO	ng-kũn		dy-ẽm, m- dy-õn, m-
LEF	ng-kũn	wî-dũm, mã-	mãkẽtĩ
LEK	nõ	è-tũn, bè-	è-sõgã, bè-

(416) load		(417) share (n.) *	
	fardeau, charge		portion
CB		(754/5) *-gãb-	'divide, give away'
M		*-gãb-	'to divide, distribute'
PM	*-tẽd 3 *-ũn(d)ã 3	*-kãb 5/6 *-gãb 9	
MBM	sãgẽlèè		ã-dãg', ñ-
MBN	ñ-cãd'		ã-syãè
MYE	ñ-tú?		ã-syã?, ò-
MBE	ñ-tyã	ngã?	è-pè, ã-
ELU	ñ-tãd'	ã-kã?	
NNE	ñ-tãd'	ã-kãb'	ngãb'
AKO	ñ-tãd'	ã-kãb, mã-	
MHE	ñ-tẽ?	ẽ-kãb, mã-	
MWK	ñ-tẽl mũndã 3	ã-kãw	ngãw
MKA	ñ-tẽd' mũnã		ngãb'
BLN	mũndã		
BBO	m-ũndã, my-		ngãb'
LEF	mũnã	lè-kã?, mã-	
LEK			lè-bók, mã-
(418) poverty *		(419) hunger	(420) thirst
	pauvreté	faim	soif
CB	(494) *-dãndã	(917) *-jãdã	
M	PEG: *bõŋ 'être pauvre'	*-jãdã 9 PEG: *jè	
PM	*-tũg/-tũkó 5	*-jãã 9	*pẽj 9
MBM	ã-bõŋ	nzãè	ñdãm ñsyèèttè
MBN	ã-lõŋ	nzyã	pẽy? (y?/g')
MYE	è-sú?	nzãè	nzãè òdũ
MBE	ã-tũ?	nzã?	pẽ?
ELU	ã-tõg'	nzè	pẽk
NNE	ã-tõg'	nzãã	pĩg'
AKO	ã-tõg'	nzãã	pĩd'
MHE	è-tũkũ	nzyãã	pẽy?
MWK	ngõl	nzãã	pẽy?
MKA	è-tũkũ	njãã	pẽy?
BLN	è-tũg' ngõèè (g/h)	njãã	pẽd' (d'/y?)
BBO	ngõõ	nzãã	pẽd'
LEF	lè-bãn	njè	ẽãm
LEK	lè-bõŋ	nã	nã mẽdĩ

	(421) shadow ombre	(422) heavy lourd	(423) weight poids
CB	(609) *-dʔdʔ	(631/2) *-dʔtʔ/ð 14	(631/2) *-dʔtʔ/ð 14
M		*-dʔtʔ- PEG: *dʔd	
PM		*-dʔl	*-dʔl 14
MBM	ə-dʔdʔdʔ	-dʔn	ə-dʔn
MBN	ə-dʔdʔŋ	-dʔl	ə-dʔl
MYE	ʔ-1ʔʔ1ʔ?	-dʔn	ə-dʔn
MBE		-dʔl	ə-dʔl
ELU	ə-dʔŋʔdʔŋ	-dʔl	ə-dʔl
NNE	ə-dʔŋʔdʔŋʔ	-dʔl	əʔ-dʔl
AKO	ə-dʔʔdʔŋ, eʔ-	-dʔl	əʔ-dʔl
MHE	ə-dʔʔʔ	-dʔl	əʔ-dʔl
MWK	ə-dʔŋʔn (ʔ/ʔ)	-dʔl	ə1ʔʔ kʔlʔ
MKA	ʔ-dʔŋʔn	-dʔl	ʔʔ-dʔl
BLN	ə-dʔŋʔn	-dʔl	ʔʔ-dʔlʔ kʔlʔ
BBO	ʔ-dʔŋʔn	-dʔl	ʔ-dʔl kʔlʔ
LEF	ʔ-dʔdʔm	-dʔʔ	wʔ-dʔʔ
LEK	dʔŋʔdʔŋʔ	-dʔl	
	(424) correct correct	(425) black noir	(426) white blanc
CB		(1555) *-pʔnd-	
M		PEG: *fʔn 'ətre noir'	PEG: *fʔp 'ətre blanc'
PM		*-lʔm(bV) *-fʔn	*-pʔb/-pʔpV
MBM	əmbwʔm	ə-fʔn	mpʔb'
MBN	nʔŋ	n-lʔm	mpʔb'
MYE	ʔ-1ʔkʔʔ?	lʔmʔ?	pʔ' bʔʔ?
MBE	ətʔmʔn	kʔlʔ -kʔl	-pʔpʔ pʔ' bʔʔ
ELU	ə-tʔŋʔʔ	əlʔmʔ? -hʔn	-pʔbʔ -pʔbʔ
NNE	ə-tʔŋʔn	-hʔn	-pʔb'
AKO	-tʔŋʔn	-hʔn	-pʔb'
MHE	-tʔʔtʔŋ	nʔlʔmʔ?	mʔ-pʔpʔ
MWK	ə-tʔmʔn mbʔlʔ	lʔmbʔ ə-lʔm	əʔʔn
MKA	mbʔlʔ	lʔmbʔə	pʔpʔʔ
BLN	ʔʔ-tʔʔbʔn mbʔlʔ	ʔʔ-lʔm	ʔ-pʔb' pʔpʔʔ
BBO	tʔʔtʔ	ʔ-yʔm, mʔ-	ʔ-pʔb', mʔ-
LEF	bʔmʔn	-fʔn	-pʔb pʔʔkʔ
LEK	-bʔŋ	-sʔʔn ə-sʔʔŋkʔ (n.)	-pʔ əpʔkʔ

	(427) red		(428) big
	rouge		grand
CB	(92) *-bɛŋg-		
M	PEG: *bãŋ		
PM	*-sɔŋ? *-nyɛg/nyɛkV		*-faŋ *-kɔl *-sɔŋ
MBM	sɔŋɛ		ɛ-fɛɛ
MBN	ɲsɔŋ'		ɲ-fãŋɛ
MYE	sɔŋ?		ã-hãŋ
MBE	sɔã		e-hãŋ
ELU	sɔŋ		ã-hãã kɔl
NNE	-yãg'		-kɔl
AKO	-yãg'		-kɔl
MHE		ɲyãkã	ã-hãŋ
MWK	sɔkã -sɔ?		ã-hãŋ ɛ-sɔ?
MKA		nyɛkɛɛ	ɛ-sɔŋ'
BLN		ɛ-nyɛg' nyɛkɛɛ	ɛ-sɔ?
BBO		f-nyɛk, mɪ-	f-sɔk, mɪ-
LEF	-tɔn tɔnãkɛɛ		-kɔl
LEK	-mɔk ɛ-tãŋkɛ		-fãŋ nzɔgɛnzɔk
	(429) small		(430) many
	petit		beaucoup
CB	(1044) *-kɛɛp 'become small'		(224) *-bɔd- 'become numerous'
M	PEG: *kɛp '(ɛtre) petit'		*-bɔd 'be in abundance, numerous'
PM			*-bɔd/-bɔl?
MBM	ɛ-kɛb'		ɛ-bɔfɛ
MBN	mɛmpɛŋ ɲsãl?		ŋgɔmɛ ɲgɔmɛŋgɛ
MYE	mɔjwɔm mɔhãã?		nzɔkɪ ɲgɛŋ
MBE	mɔɛtɪf		ɛ-bɔdɪ jɪtɛ
ELU	mɔtɪf		ã-bɔl
NNE	mɔtɪfɪd'		ã-bɔtɛ
AKO	mɔãm'pɪn		hɪɪn bwãmbwãm
MHE	ɛjɪn		ndɔn
MWK	pɛtɛ ɔyɔɔ		ã-bɔdɪ ndɛmã jɪtɛ
MKA	mɔãlɔdɔ		ndɛmã
BLN		ɛ-nyɔŋ	ɛ-bɔdɪ (ndɛmã)
BBO		f-yɔŋ, mɪ-	f-bɔdɪ fɔlã
LEF	ɛ-tãkɛn -kɔŋ		njɪtɛ
LEK	ɲ-pwɛtãk -kɛɛ		ɛ-bãkwã

	(431) few peu	(432) all tout	(433) (be) sufficient (être) assez, suffisant
CB		(302) *-cɛ/*-ncɛ	(891) *-gɔg- 'become sufficient'
M		*-ncɛ	PEG: *kɔk 'être suffisant'
PM		*-sɛnyʔ	*-kɔg ?
MBM	é-kəb'	-sɔɔ	ə-búřə
MBN	m̩pɔŋ	-sɔŋ (s/sy)	ə-kpɛnə
MYE	búú 'byɛm	-súsyəʔ	ə-'kɔʔ
MBE	mwɛ'tɪɪ	-səŋ	ə-kɔɔ
ELU	mótɪɪ	-sɪɪ	
NNE	mɔtɪɪd'	-'súú	ə-kɔɔ
AKO	mwām'pín	-syəʔn (n/l)	-kwɔgnéd'
MHE	mwɛpɛtɛ	-'syɛn	-kwɔgnéd'
MWK	mwāpɛtɛ	-syɛɛŋ (s/s)	ə-kúú ə-kúgřɛ
MKA	mwāɪɔð	-syɛ	-kɔʔ
BLN	ɛnyɔŋ	-syɛ	
BBO	mwātɪt mwāwɛ	-sɛ	ədɪ tɛɛtɛɛ
LEF	ɛtəkəŋ	-'sə'səŋ	-kɔk
LEK	mpwɪtāk	-sɔgəʔ	-kɔg
	(434) (be) satiated (être) rassasié, gorgé		(435) plentiful, numerous abondant, nombreux
CB	(1276) *-kút- 'become satiated'	(224) *-bùd- 'become numerous, plentiful'	
M	PEG: *gɛud		*-bùd- 'be in abundance, numerous'
PM	*-kɔd		
MBM	-kwɔd		
MBN	-kɔl		
MYE	-kwɔ		nzúkɪ ɲgɛɪɲ
MBE	-kəɪ		ɔ-búte
ELU	-kɔd'		
NNE	-kúɔd'		əʔ-búútə
AKO	-kɔd'		-bùú híŋ bwāmbwām
MHE	-kɔd'		
MWK	-kɔlʔ		ndéma jíta
MKA	-kɔd'		
BLN	-kɔd'		
BBO	-kɔt'		ə-bùú
LEF	-kɔl		lə-búú njíta
LEK			ə-bākwa

	(436) thick épais	(437) thin mince	(438) thin (skinny) maigre
CB			
M	PEG: *gók '(être) épais'		
PM	*pɪb		*-kɔŋ.. *-nyɔŋ
MBM	pɪb'	é-dɪnké	à-kɔb'
MBN	pɪb'	ŋ-kɔbè	à-kɔŋ  à-lɔŋ  ètəŋgɛl
MYE	pɪbè	é'séé pɪbè	ʃhààŋé
MBE	pɪ?	èjɛlè  ŋkɔɔkɪ	à-təŋtè
ELU	pəb'	à-hálɛá	àjénɛ nyɪ
NNE	pəpəb'	mɔtɪfɪd'	ŋ-kɔŋgə
AKO	pɪb'	-hélɛn  átè	èlém
MHE	pɪb	èjɪn	ŋ-kɔŋgɔ
MWK	pɪw	èmətɪ	à-yɔŋ
MKA	pɪb	mwəlɔdè	è?-nyó'ŋ
BLN	pɪb'	m-kɛmbɛ	è-nyɔŋ
RBO	pɪb'		ŋ-kwáŋá
LEF	pɪ?	èkɔŋɪ	à-kɔŋɪ
LEK		ékéé	à-kɔŋɔ
	(439) wide large	(440) narrow étroit	(441) hard dur
CB			
M			
PM	*-fəŋ  *-kɔl		*-wɔɔ/-wɔd?
MBM	é-fɛɛ	àkɔb'	é-wɔɔ'è
MBN	m-fəŋà	ŋ-lálè	nyɔŋé  ètəàŋ
MYE		mbhɛá  ŋsà?	ànáɪɪ
MBE	à-háŋtè	mbátà	éyɔŋtè  àdyɛl
ELU	hà  kɔl	mɔtɪfɪ	wɔɔ
NNE	-kɔl	à?-bɔdnétè	-lɛl
AKO	kɔl  átè		cɪn  átè  -lɛl
MHE	è-hàŋ	mwepɛlè  èjɪnɛ	ə-wɔɔ
MWK	è-hàŋ	àhàŋ	adyɛl
MKA	è?-hàŋ		è?-lɔŋ  è?-wɔɔ'è  è?-kɔɔtɪd
BLN	è?-hàŋ		è-nyɔŋ  è-wɔɔ'è
RBO	f-fəŋ, mɪ-hàŋ	è-bɔbɪ	f-wɔlɔ, fɔ-
LEF	-kɔl	-kɔŋ (v.)	-pɔ? (ɛpɔtè)
LEK		è-tàmàŋ  ènɛántɛnyɪ	è-lɪkɛ

	(442) difficult difficile	(443) sweet * doux, sucré	(444) sour aigre
CB		PEG: *dĩm '(être) doux'	
M		*-noda 'sweet, agreeable'	
PM	*-dyèl	*-nyžny	*-bāny *-kəg
MBM	é-wóřé tē	é-nyĩŋ(ε)	é-bēŋ
MBN	ñ-dyèl	é-nyĩŋā	ñ-bēŋə
MYE	ā-nālf	ā-nyžŋ	ā-kò?
MBE	é-dyélitē	é-yé	é-bēā
ELU	-dyèl	nyəŋ	bé ɛ-bēŋə
NNE		-lèl ātē -nyĩn	-kəg'
AKO		-lèl ātē -nyĩn	-kəg'
MHE	ə-wíété ndítú	ā-nyəə	ə?-bāā
MWK	ā-dyèl	ā-yif	ā-bāā
MKA	é?-dyèl é?wóřó	é?-nyžžtfd	é?-bā'ā
BLN	ə-dyèl	ə-nyžž	
BRO	ĩ-wóřó, ĩb'-	ĩ-nyžž	ĩb'-bāā, mĩ-
LEF	-kām	-mwəm	-kpén
LEK	əlĩkē	ə-lētē	-kəg
	(445) bitter amer	(446) sharp (taste) piquant	(447) ripe mŋr
CB	(3) *-bāb- (684) *-dòd-		
M	*-bāb- PEG: *cəcg		
PM	*-jòò	*-wəg	*-sòg ?
MBM	é-wúāg'	é-wəg'	é-njil
MBN	ñ-žùə	ā-wə?	ñ-sùə
MYE	ā-jùù	ə-wò?	ā-sò?
MBE	é-jə	é-wə?	-sù?
ELU	jù ā-jùə	wə?	ā-sòò
NNE	-cù	-wəq' (g'/?)	-tān
AKO	-jyò	-wž -wəg	-yəg'
MHE	ə?-jùù	ž-jò	ətān
MWK	ā-jòò	a-bāā	ā-sòò ā-sò?
MKA	é?-jòò	ž?-wə	ž?-wúí (tfd)
BLN	ə-jòò	ž?-bāā	ž-wóó
BRO	ĩ-jòò	ĩ-jòt', mĩ-	ĩ-nyžk
LEF		-wə	-tòn
LEK	ə-səkkē	ə-gwif	-mɔgɔ -lāā

	(448) unripe	(449) cooked, soft	(450) uncooked, raw *
	vert, pas m0r	cuit	non cuit, cru
CB	(103) *-bécù	(107) *-béd-	(103) *-bécù
M	*-bécè 'raw, fresh, unripe'		*-bécà 'raw, fresh, unripe'
PM	*-bèj`9	*-bèé	*-bèj`9?
MBM	é-sògàká	m'bí	mbád'
MBN	è-tém	mbyè	mbéy?
MYE	ñ-jùè?	à-jám	mbñíí?
MBE	éésúyèè	-bè	é-bèà
ELU	mbék	aja	mbák
NNE	mbíg'	à-cítè?	mbíg'
AKO	è-tòm	-bíí	-bíí
MHE	mbéy?	èbèé	mbéy?
MWK	à-sòyá	àbèè	à-bééyá
MKA	mbéy? è?-wòlò	è?-bè'è	mbéy?
BLN	é-wòòk'á	é-bèé	é-'bèéká
RBO	ndòndò	í-bèé	é-bèèká
LEF	-tòn		
LEK	é-mògòk'á	á-bíí	mbè?
	(451) long	(452) short	(453) good
	long	court	bon
CB	(504) *-dáp-	(1274) *-kúpé	
M	PEG: *sàp	PEG: *gúp '(ètre) court'	PEG: *bòg '(ètre) bon'
PM	*-jàb	*-súg 7	*-bòg
MBM	è-y'ááb'	è-súg	é-bòó
MBN	ñ-jàbè ñ-tògè	è-sùg	mbògè
MYE	à-jà?	è-súg	è-ískí?
MBE	é-'já?	è-sòg	bwám
ELU	já	è-sòg	mbò
NNE	-càb'	è-ság	mbòg
AKO	-càb'	è-sòg	-bòg
MHE	è-jàb'	è-súg	è-bòó
MWK	à-jàw	è-súg	à-bòg
MKA	m'tó'íj	è?-sú'íj	è?-bòg
BLN	è-jàb	è-súg	è-bògè
RBO	í-jàb'	è-súg	í-bògè
LEF	wí-y'è?	è-sùg	bwám wí-íò?
LEK	mpúú	kí?	é-bògò

(454) bad		(455) full	
mauvais		plein, rempli	
CB	(133) *-bēēp- 'become bad'	(1840) *-tōnd-	(685) *-dōd-
M	*-bēēp- 'become bad' PEG: *bāp '(être) mauvais'		
PM	*-bēb	*-lōd	*-lōn
MBM	ē-kwēē	ñ-'lōg'	
MBN	ñ-bēbē	ñ-153	
MYE	ē-bēēpī ē-hūtī	ā-15?	
MBE	ē-bēēpīyā	ē'153?	
ELU	mbēb'	-1ōd	
NNE	mbēb'		-1ōn
AKO	-bēb'		-1ōn
MHE	ē-bēb'	ə-1ō?	
MWK	ā-bēw	ā-1ō1	
MKA	ē?-bēb	ē?-1ōd'	
BLN	ē-bēb	ē-1ōd'	
BBO	ī-bēbē	-yōd'	
LEF	wū-bā		-1wēn
LEK	ē-bwōō ē-bīkī	-1ōō	

(456) new		(457) old *		(458) round	
neuf, nouveau		vieux, ancien		rond	
CB	(1505) *-pēā	(1384) *-nūnī			
M		*-nūn- 'be(come) old' (n/d) PEG: *dīn '(être) vieux'			
PM	*-kōlV *-bēj' 9	*-jūn 3, 7?			
MBM	ñ-kōōn	ñ-zūn		ñ-kād'yōm	
MBN	nyōōl	ā-zūn		mbyēē	
MYE	kwō?	ñ-jūntī		ngēñāīñ	
MBE	kō'kō mbē	-jūn		ē-hōlā? (ø/ū)	
ELU	kōlō	ñ-jān		ē-hōgōlā?	
NNE	ē-kōōlā	ñ-jēn		kōōlāngōā	
AKO	ē-kōōlā	-cūn		kōōlāngōē	
MHE	mbōy?	ē-jūn		ē-tōōlāngōā	
MWK	mbōy	ñ-jūn		tēngōlēdf	
MKA	mbōy?	ē?-jūn		ē-tēngōlēfē	
BLN	mbōy?	ē-jūn		ē-tēngōlēngē	
BBO	mbēt	f-jūn		ñ-vīngō	
LEF	ē-kōōnō	ē-tūbē mūnyākō		kēngōlēñ	
LEK	nyōō	bā-zōn ā-zōā			

	(459) smooth	(460) rotten *	(461) extinguished
	lisse	pourri	éteint
CB		(153) *-b3d-	(617) *-d1m-
M		PEG: *b3 'pourrir'	*-d1m- PEG: *b1tV *d1mt
PM		*-b33 *-b3d	*-d1m *-b3d
MBM	é-bóó	m-b33	m'b33
MBN	ŋw33n3	ñ-ny3ŋ3	m-b33l
MYE	l3ŋ	-b33t1	3-bw3?
MBE	é-y3ly3?	-b3t1	è-b3
ELU	3-s33	-bu3 -bw3t3d'	3-d3m3d'
NNE	m3r3d	è-b33, 3?	-d3m
AKO		-b33	-d1m
MHE	è-j1èt3	è-b33 è-b33t1	è-d1m1
MWK		3-b33	3-B33
MKA	d33s1d33s1	3?-b3d'	3?-d1'm
BLN	è-n3m3?3	è-b33	è-b3d'
BBO	é-n3ŋ33	é-b3'3	1-b3t
LEF	w3-ŋ3ŋ3l1ŋ3		-d1m1
LEK		-b3g	m-b3g3
	(462) ended, finished	(463) dry	(464) wet
	fini, terminé	sec	mouillé, humide
CB	(433) *-c3g- 'come to an end'		(1564) *-p3d- 'become cold'
M	PEG: *m1tV 'finir (tr.)' *m3 (itr.)		
PM	*-m33 *-m3d	*-k3ny	*-f33 *-f3d *-s33b?
MBM	3-m3	ŋ'gw3m	dy3m'd3b'?
MBN	m3-m33 m3m33	ŋ-k3ŋ3	ñ-t3n3
MYE	é-'m33	k1ŋ1	ny3'k1f1 ny3n3?
MBE	é-m3	ŋ-ky3s1	è-s3p1
ELU	3-m3?	3-k3ŋ	ny3k3d -s3b
NNE	3?-m33	-k1ŋ	-h33 -s3b'
AKO	-m33 -m3d -s3g	-k1n	-s3b
MHE	è-m33	è-cy33	-h33 -h33t1
MWK	3-m3l	3-k33	-h33 -h3l
MKA	3?-m3d	3?-k3'3	-h3'3 -h33t1d
BLN	è-m33	è-k33	è-h33
BBO	1-m3'3	1-k33	-h33/-f33
LEF	é-m3	é-k3nJ1	-f33
LEK	é-my33	é-g3g	-f3g3 è-f3g3k3?

	(465) clean	(466) rich *	(467) poor
	propre	riche	pauvre
CB			
M	PEG: *dǎn '(ǝtre) propre'		PEG: *bɔŋ '(ǝtre) pauvre'
PM	*-sǎŋ	*-fǎn 3 *-gǎb 9	*-tǔg/-tǔkó 5
MBM	-sɛ	mɔ ɲɔɔb'	ǎ-tyɔg'
MBN	-sǎŋə	mɔ ɲɔǎb'	ǎ-ɩɩŋ
MYE	ɛɩɩkɩ?	ŋ-hwǎ'ɲɔǎ?	è-sú?
MBE	-sǎŋ	ŋ-hǎn	ǎ-tú?
ELU	-sǎǎ	ǎ-hwɔ	ǎ-tɩk
NNE	-sǎŋ	ŋ-hǎn	ǎ-tǎg'
AKO	-sǎŋ	ŋ-hǎn	ǎ-tɔg'
MHE	-sǎŋ	ŋ-hǎn	è-tǔkú
MWK	-sǎŋ	ŋ-hǎn mbwǎŋ	ǎ-tú? ɲɔɛɛ
MKA	-sǎŋ	m-hǎn, bǎ-	è-tǔg', mǎ-
BLN	-sǎŋ	m-hǎn	è-tɔ?
BBO	-sǎŋǎ	m-vǎn	ɲɔɔɔ
LEF	-sǎŋ	wú-dɩɩ	ɩè-bǎn
LEK	-sǎŋǎ	mùŋkǎ?	mbɔŋ
	(468) straight	(469) crooked	(470) near
	droit	tordu, pas droit	près, proche
CB			(37) *-bǎmb- 'become, put near'
M			
PM	*-tɛɛb ? *-tyɛm ?		*-bɛbɛ
MBM	é-tyɛɛm	é-nɔɔɛ	
MBN	ŋ-tyǎnǎ	ŋ-kɔɩǎ	m-bǎmbǎ
MYE	è-tyǎm'mɩ ɩɩŋkɩɩɩŋkɩ		bɛbɛ
MBE	é-tyǎmǎn	ǎ-nùkɩ	bɛbɛ á-'yǎtè
ELU	ǎ-tɛbǎǎ	ǎ-kǎǎ	bɛbɛ ǎ-jɩtǎ
NNE	-tyɛm	-hyɔm	bɛmbɛn -jɩtan
AKO	tyɛm	-hyɔm	bɛmbɛn
MHE	sɩm	ǎ-ɩɛŋɛ	bɛbɛè
MWK	ǎ-tɛɛmɩ	ǎ-ɩɛŋɩn	ɛɛbɛ
MKA	è?-tɛ'ɛb	è-ɩɛŋ'ɛb'	bɛɛbɛɛ
BLN	è-tɛɛbǎ	ǎ-ɩɛŋɛbɛ	è-bǎntɛn
BBO	è-tɛɛbè	è-yɛŋɛbè	bɛɛbɛɛ
LEF	sɩm	è-ɩ ǎŋɛŋɛ	wɩ-tǎn
LEK	ndɩŋɩndɩŋ	è-ŋɔɔɔkɛ	mbǎntɛ

	(471) far	(472) sharp	
	loin	tranchant	
CB			
M			
PM	*-jāb.. *-tūm` *-tūn`	*-kōb *-fōl	
MBM			
MBN	è-kēyāb'	m̄-fōlā	
MYE	è-kētī' jābī	è-hwōnē?	
MBE	a-jyāātē	ē-kōbā?	
ELU	à-jābē	ā-kōbē	
NNE	-cābn ed' cāb'	-kōb'	
AKO	-cābned' è-tōn	-kōbe	
MHE	è-tōn	ā-hōl	
MWK	ā-jāmīn è-tōm	ā-hōl	
MKA	è-tōm	ē? -hōl, mē-	
BLN	è-jābē è-tōm	è-hōle	
BBO	è-jābān è-tōm	è-hōy	
LEF	è-tōm	-kō?	
LEK	è-kē ēzākē?	é-fūgū	
	(473) blunt, dull	(474) hot	
	émoussé, pas tranchant	chaud	
CB	(ps479) *-tūn- (1880) *-tūp-	(1502) *-pē-	
M	*-tū 'blunt' *-tūp- 'be blunt'		
PM	*-tūn	*-fūn *-fyā	
MBM			
MBN	n̄-tūn è	n̄-fūn è	
MYE	énihwōnē?	ō-hūnē?	
MBE	n̄-tūntīf	ē-hūntī	
ELU	n̄-tūtā	-hōnē	
NNE	-tēn	-hwōn	
AKO	-tūn	-hyē -code	
MHE	è-tūn	-yē	
MWK	ā-tūn	ā-hūn	
MKA	ē-tūndu	-yā	
BLN	è-tūn	-yā	
BBO	è-tūnè	-yā	
LEF	-kō? (+neg.)	-fyā	
LEK	é-kīf	è-šwākē?	

	(475) cold		(476) tired	
	froid		fatigué	
CB	(1564) *-pɔd- PEG:*fɛ *pɛp`			
M	*-pɛpɔ 9 'wind, cold' *-pɔd-			
PM	*-fɔɔ *-fɔɔ		*-kɔm *-jɛɛ *-jɛd	
MBM				
MBN		ñ-tánə	ñ-kɔmə	
MYE	ɔ-'hwɔ		ä-kwá'kwám	
MBE	è-hɔtɪ	è-yɛŋkɪ		è-jɛtɪ
ELU		ä-héb'	è-kwɔ ñ-kɔɔ	
NNE	-hɔɔ		-kám	
AKO	-hɔɔ		-kɔm	
MHE	è-hɔá		è-kɔm	
MWK	-hɔɔ è-hɔtɪ			ä-jɛɛ
MKA		ɛ?-pũb'		ɛ?-jɛɛ ɛ?-jɛd'
BLN	é-hɔɔtɛfɛ			ñ-jɛɛ
BBO		è-pũb'		è-jɛɛ
LEF	è-fwɛ è-fɪ		-kɔm	
LEK	é-fɛgɛ		ñ-kɔntɛ	
	(477) deaf		(478) dumb *	(479) blind
	sourd		muet	aveugle
CB				
M				
PM	*-dɔg 9	*-bɔbɛ 7	*-bɔg 3	*-dɪm(á) 9
MBM				
MBN	mbɔg'	ñ-bɔg'		'mɔ dəy? (y?/g')
MYE	mbwɔtɪ ɔtɪə	ä-yəmpá'ká		mbwɔtɪ'mɪ?
MBE	á-ŋ'wɪ'ká wəm	ñ-bɔ?		ántɔŋá'wəm
ELU	ä-kɔlɛ àtɔ	è-bɔbɛ		äbwɔmák
NNE	ä?-kɔɔ? mátfɪ	è-bɔbɛ		ndám
AKO	ndɔg'	è-bɔbɛ		ndɪm
MHE	ndɔ?		mbɛbɛl	ndɪm
MWK	ndɔ?		ñ-bɔ?	ndɪm
MKA	ndɔg'		ñ-bɔg'	ndɪm
BLN	má-wòká		ñ-bɔ?	ndɪmá
BBO	ndɔk		m-bɔk	ndɪm
LEF	ñpɛŋ mátfɪə	è-bɔbɔ		àsɔ'mɪn
LEK	àsɛg wɔgɔ má	m-bɔk		èbɛgfkɛmɪf

	(480) lame person paralytique	(481) spot tache	(482) today aujourd'hui
CB	(533) *-dēmā (7/8)	(1785/6) *-tōnā/ī	(518) *-dēēdō
M	*-dēmā 7 'cripple'		
PM	*-lēm 7 *-bōkā 3	*-tōn 5/6	*jēē
MBM			
MBN	ē-y ān		bwē nēn
MYE	m-bīn'tī?	myōhki myōhki	ēnīngā
MBE	ākwēntōlō	ā-tōn, ò-	jēē
ELU	ē-lē	ā-tōn, ò-	jī
NNE	ē-lēm	ā-tōn	jīī
AKO	m-bwōdōg' ē-pēd'	ā-tōn, mē-	cīī
MHE	m-bōkē	ā-tōn	jīē
MWK	m-bōkā (ē-pēsī ēkō)	ā-tōn	jēē
MKA	ē-jē'm	ē-tō'ñ, mē- ē-bā'ñ, ē?	jyē
BLN	ē-jēm	ē-bān	jēē
BBO	m-bōkā	ndōō	jyēē
LEF	lē-byān	lī-tōtō, mā-	wū'yā
LEK	kōgōkōgō	ē-bē?, bē-	ēyē
	(483) yesterday, tomorrow hier, demain	(484) I, me je, moi	(485) you (sg.) tu, toi
CB		(1291) *-mē (1303) *-mē	(1091) *-kō
M	*jana 'yesterday'		
PM	*-jān	*mē	*wē
MBM			
MBN	yān nžōlō	mē	wē
MYE	jā jē'bō yēnsī	mī	wō
MBE	jān jān	mē	wē
ELU	jā jā	mē	wē
NNE	jān jān	mē	wē
AKO	cān cān	mē	wē
MHE	jān jān	mē	wē
MWK	jānā jānā	mī	wē
MKA	jān jān	mē	wē
BLN	jān jān	mē	wē
BBO	jān jān	mī	wē
LEF	yān yān	mī	wē
LEK	dzānzān ē-bōk	mī	wō

	(486) he, she il, elle	(487) we nous	(488) you (pl.) vous	(489) they ils, elles
CB		(395) *-cɔ́ɛ́/*-cɛ́ɛ́		(152) *-bɔ́
M		PEG: *-ítʰ		
PM	*mɔ́	*sɛ́	*nyɛ́	*bɔ́
MBM				
MBN	mɔ́	sɪ́	nyɪ́	bɔ́
MYE	mɔ́	sɪ́	nɪ́	bɔ́
MBE	má	sɪ́	yá	bá
ELU	mɔ́	sɛ́	nyɛ́	bɔ́
NNE	mɔ́	sá	nyá	bá
AKO	má	sá	nyɪ́	bá
MHE	mɔ́	sá	nyá	bɔ́
MWK	mɔ́	sɪ́	yá	bɔ́
MKA	mɔ́	sɛ́	nyɛ́	bɔ́
BLN	mɔ́	sɛ́	nyɛ́	bɔ́
BBO	mɔ́	sɛ́	nyɛ́	bɔ́
LEF	mɔ́	sá	nyá	bɔ́
LEK	mɛ́n	sá	nyá	bwɔ́
	(490) and et	(491) with avec	(492) but mais	(493) again encore

	(490) and et	(491) with avec	(492) but mais	(493) again encore
CB				
M	*nà 'with, and'	*nà		
PM	*nɛ́	*nɛ́ *bô	*bɔ́ŋ	*-`pɛ́ ?
MBM				
MBN	bɔ́	nà bɔ́	ãzá	ã'pɔ́
MYE	nɪ́	nɪ́	bá	ãpá
MBE	nè	nè	bɔ́ŋ	ã'pá
ELU	nɛ́	bɔ́	bɔ́	ãpɛ́
NNE	nà	nà	ban	ã'mpá
AKO	nè	nè bá	bɔ́ŋ (o/a)	ãm'pá
MHE	nè	nè	bɔ́ŋ	ɛ́'pɛ́
MWK	nɪ́	nɪ́	bɔ́ŋ	ãpɛ́
MKA	ná	nà bɔ́ɔ́	bɔ́ŋ	ɛ́'pɛ́
BLN	nɪ́	nɪ́	bɔ́ŋ	ɛ́'pɛ́
BBO	nɪ́	nɪ́	bɔ́ŋ	ɛ́'pɛ́
LEF	nà	nà	ndé	pá
LEK	bɔ́ɔ́	bɔ́ɔ́	kàpá	kàpá

	(494) because parce que	(495) if si	(496) some quelques
CB			
M			
PM		*nJÉ	*dòngè 5
MBM			
MBN	nè yàḗ	ndḗ	(bá')pó
MYE	nī nzwðm	nzḗḗ	óbí'ní
MBE	áyḗl nēn	ndḗ	bāāp (w)ḗ
ELU	ányḗ nē	nzḗ	ngḗsḗ
NNE	á'nyḗlè	nzḗ	dòngḗ
AKO	á'yḗlè	nzḗ	dòngḗ (bād') bḗ-hḗ?
MHE	áyḗl nēn	nzḗ	(bín bād)
MWK	á'yḗl 'nḗ	nzḗ	(bāl) ò-hḗ?
MKA	áyḗl nà	nJí'bá'á	dyḗngḗ bḗhḗ'ḗ'
BLN		nJá	bā(bāḗ)
BBO	áyḗl nḗḗ	nzḗ	bā(bāḗ) bā ngḗndḗ
LEF	ḗbānJá ḗtḗtḗ'yḗ	nJḗ	dòngḗ
LEK	lḗbwḗzḗ	káá	mbḗk

	(497) other autre	(498) where? * ou?	(499) when? quand?
CB		(1499) *-pé	
M		*-pe 'interr. particle' (pā-í)	
PM		*fḗḗ ?	
MBM			
MBN	ā-ní'níí ānī'í	á'ḗḗḗ	ngḗnḗḗḗ
MYE	ā-wú'níí	hḗḗ	ḗhḗḗ ḗhḗ?
MBE	(bāā)lḗ	hḗ	ḗhḗḗ ḗhḗ
ELU	l-ḗ	hḗḗ	nzḗngḗḗ
NNE	l-ḗ, bḗ-	hḗḗ	nzḗ bḗngḗ
AKO	ā-mpḗḗ	hḗḗ	pḗndḗ ḗhḗḗ
MHE	mpḗ aní'níí	híí	nzḗ ngḗn nzḗ pḗndḗ
MWK	n-tḗw	hḗ	ḗJḗḗ pḗndḗ mḗḗ ḗhḗ?
MKA	m-pyḗ, bḗ-	hḗ'ḗ	nJá pḗndḗ'á
BLN		hḗḗ	(sḗtḗḗ)
BBO	n-tḗb', bḗ-, ḗ-	hḗḗ	ḗJḗḗ pḗndḗ
LEF	ḗpḗpḗḗ	fḗ	nJá pḗndḗ
LEK	nJḗ	áḗḗ	ndḗsḗḗ

	(500) how? comment?	(501) how many? combien?	(502) why? pourquoi?
CB		(752) *-ngá	(586) *-dèngá
M			
PM	*jǎn	*-tíŋ (all pl. classes)	
MBM			
MBN	yǎn	-'tǎŋ	nè yǎǎ
MYE	jǎn	-'tǎŋ	jǎǎ
MBE	jǎě	-'tǎŋ	ǎyǎl jǎě
ELU	jǎ	-tǎŋ	nè jǎ
NNE	jǎn	-tǎŋ	ǎ'yǎlè jǎn
AKO	cǎn	-tǎŋ	ǎ'yǎlè cǎn
MHE	nǎ'nǎě	-tíŋ	éyǎl jíí
MWK	jǎn nǎnǎě nǎ jǎn	-tíŋŋ	ǎyǎl jǎě
MKA	nǎ 'jǎ	-tí'ŋ	ǎyǎl jǎ
BLN	nǎ'nǎě	-tíŋ	ǎ'yǎlè jǎě
BBO	yǎn iyǎdò jǎě	-tíŋ	ǎyǎdò jǎě
LEF		-tén	étútú'yǎ
LEK	ǎzǎǎ	-tíŋí	ǎzǎǎ
	(503) who? qui?	(504) what? quoi?	(505) which? lequel? laquelle?
CB		(1926) *-yǎnǎ PEG: *kǎ	(1498) *-pé
M	PEG: *wa	*-ke (pǎ-í 7: kǎ-í)	
PM	*njǎ	*jǎě	*-fǎě ?
MBM			
MBN	nzǎí (z/d)	í'yǎíí	-'sǎǎ
MYE	nzǎǎ	jǎn	-'hǎǎ
MBE	ndí	jǎě	-hé nǎ
ELU	nzǎǎ	jǎ	nzǎ jǎǎ
NNE	nzǎǎ	jyǎ	-hǎě
AKO	-nzǎí, bǎ-	cǎě	-hǎě nzǎ(mǎ) ??
MHE	nzǎ	jíí	-wǎě
MWK	nzǎ	jǎě	-hǎ(ǎ)
MKA	n jǎ, bǎ-	jǎ	-wǎě
BLN	n jǎ	jǎě	-bǎě
BBO	nzǎ	jǎě	
LEF	n jǎ	yǎ	-fǎ
LEK	nzǎ	zǎǎ	-fǎ

	(506) here ici	(507) there là-bas	(508) in, inside dans, dedans	
CB			(1734) *-tê	
M				
PM	*fǎn	*fǎnɿɿ	*ǎ + -te	
MBM				
MBN	ǎ'fǎn	ǎ'wú'nɿɿ	ǎ-tə	
MYE	hǎ'nǎ	wú'nǎ	ǎ-tə	
MBE	ǎsy ǎn (sy/ǎ)	ǎ'jǎ h ǎn	ǎ..tə ǎ'wɛtə	
ELU	hɛnnǎ	hɛnnɿɿ	ǎ-tɿ	
NNE	hǎn	hɛnɿ	ǎ-tɛ	
AKO	hɛn	hɛnɿɿ hɛ	ǎ-tə	
MHE	hɛn	hɛnɿɿ húnɿɿ	ǎ-tɛntɛ	
MWK	hǎn	hǎnɿ	ǎ-'tɛ	
MKA	hǎn	hǎ'nɿɿ hú'nɿɿ	ɛ-tə ɛ-tɛntɛ	
BLN	hǎn	hǎ'nɿɿ	ɛ-tɛntɛ	
BBO	hǎn	húnúú	ɿ-tɛtə	
LEF	fǎn	fǎnɿ wúnɿ	ǎ-'tɛ	
LEK	fǎ	fǎé	ǎ-nd ǎg ɛtɛ	
	(509) (in the) middle (au) milieu, (au) centre	(510) side côté	(511) at, to à	
CB				
M				pá 16
PM		*-kɛb	*-kɛg ? 3	*ǎ
MBM				
MBN	ǎ-tyǎntyǎn	ǎ-kǎǎ?		ǎ
MYE	tɿntyǎ		ǎ-kǎǎ'nyɛn	ǎ
MBE	lɛɛtə	ǎ-kǎbə		ǎ
ELU	(ǎ)tɿntɛə		ǎ-kə	ǎ
NNE	ǎn'lɛéd'	ə-pɛg'		ǎ
AKO	ǎtɿntɛə		ǎ-ŋk ǎg'	ǎ
MHE	ǎtɛntɛ	ɛ-'kɛb		ɛ
MWK	ǎnlɛtə	ǎ-kɛw ǎ-'kɛw		ǎ
MKA	ɛtɛntɛ	ɛ-'kɛb'		ɛ
BLN	tɛntɛ	ɛ-kɛb'		ɿ
BBO	ɿtɛntɛə	ɛ-'kɛb'		ɿ
LEF	ǎwúttɛtə	ǎ-nsǎŋ		ǎ
LEK	(ǎ)tɛɛntɛɛ	ǎ-kǎk'		ǎ

	(512) outside hors, dehors	(513) above, on dessus, sur	(514) underneath dessous
CB	(192) *-bōgā 9/10 'village'		(332) *-cē 9
M			*-cē 9 'earth, ground, country'
PM	*ā+[-bōg 7]	*ā+[-mwāny 5?]	*ā+[-sē 5?]
MBM			
MBN	ā-'bō? ā-bō?	ā-mēŋ ā-nyīn	ā-sē
MYE	ā-bōtē	ā-'mēŋ	ā-mbīsē
MBE	ā-'bōbē	ā-'mwī (i/e)	ā-'kwē'sī
ELU	ā-'bū?	ā-mēŋ	ā-'ndōsē
NNE	ā-bōtē	ā-'māŋ (a/o)	ā-kēsē
AKO	ā-'bwōg'	ā-'mīn	ā'sē
MHE	ā'bō?	ā-'mīī	ā-'sē
MWK	ā'bō? ā-bō?	ā-'mwāā	ā-sē
MKA	ā-bōg'	ā-'mwā	ā-'sē
BLN	ā-'bō?	ā-'mwāā	ā-'sē
BBO	dyātē	ā-mwāā	ā-sē
LEF	ā-'bōkā	ā-'mīn (i/e)	ā-'sē
LEK	ā-bōk	ā-zīgī mīn	mbīfī
	(515) downstream en aval	(516) upstream en amont	(517) until jusqu'à
CB		(885) *-gōdō	
M		*-gōdō (˘ ˘) 5 'sky, above'	
PM	*ā+[-bēŋ 9]	*ā+[-kōō 5]	*(nā)tēē
MBM			
MBN	ā-mbōŋ	ā-mēŋ	nātāē
MYE	ā-mbōŋ ā-mbīsē ēdī?	ā-kwē ā-mbīmē ēdī?	tīī gbātī
MBE	ā-'mbāntē	ā-'kō mwī	kāntī
ELU	ā-jōō dāb'	l-lēē dāb	kāōŋ
NNE	ā-'dāb'sā	ā-'dāb'mōŋ	kēnnē
AKO	ā-mbōŋ	ā-kōō	kāōŋ
MHE	ā-'sō?	ā-kōō	tīī
MWK	ā-mbōŋ	ā-'kōō	nātēē
MKA	ā-'mbāŋ tē	ā-'bōm	nātēēnē
BLN	ā-'mbēŋ	ā-'kōō	nātēē
BBO	ā-mbōŋ	ā-kōō	nātēē
LEF	mā-dē ā-'sā	mā-dē ā-'mīn	nātē
LEK	ānīzāk	ndūgūzāk	āōōtēē

	(518) for *	(519) front *	(520) behind *
	pour	devant	derrière, en arrière de
CB		(391) *cō 'face, front'	
M		PEG: *bĩ̀	
PM	*ā+[-nyōlV]	*ā+[-sō 14]	*ā+[-bũj 9]
MBM			
MBN	tθ	á-šwé	á-'mbéyg'
MYE	á-nyũè á-wù	ó-'swǎn	á-'mbĩf
MBE	ā-dũũ	á-'šǒ	á-'mbĩ
ELU		sú	mbǎk
NNE	á-'nyǎlè	á?-'sǎ	á-'mbǎg'
AKO	á-'yǎlè	á?-sǒ	á-'mbĩd'
MHE	é-yǒǒ	é-'sǒ	é-'mbĩ?
MWK	á-yǒl	á-sǒ	mbĩ? ā-'mbĩ?
MKA	é-yǒlǒ	é-'sǒ	é-'mbũy?
BLN	á-jǒŋ	é?-'sǒ	é-mbũy?
BBO	é-yǒǒ	é-'sǒ	mbũt
LEF	á	ǒ-sú	á-'mbĩ?
LEK		bǎ-súgú	mbĩ?
	(521) left (side)	(522) right (side) *	(523) end
	(cǒtǎ) gauche	(cǒtǎ) droit	fin, bout
CB	(1316) *-mǒcǒ		(433) *-cũg- 'come to an end'
M	*-ǒcǒ 11+3 'lefthand'		
PM	*-mǒj'	*-kǎǎ 7 + *mbǎǎ	*-sũg/-sũkǎ 5
MBM			
MBN	ǎ-mwè?	é-kǎ mbǎǎ	ŋkũǎ
MYE	é-kǎǎ myè	é-kǎǎ 'mbĩǎǎ	sǒkĩ
MBE	é-kǎ mǎ?	é-kǎ mbǎ	ǎkǒkĩ
ELU	ǎ-mwè?	é-kǎǎ mbǎǎ	ǎ-sǒk
NNE	é-mwèg'	é-kǎ mbǎǎ	ǎ-sǒg'
AKO	é-'kǎǎ mwèd' < á+ǎkǎǎ+ǎ+mwèd'	é-'kǎǎ mbǎǎ	ǎ-sǒg'
MHE	ǎ-'mǒd'	é-kǎ mbǎ	é-sug'
MWK	é-kǎǎ mǒy	é-kǎǎ 'mbǎǎ	ǎ-sũ? ǎ-sũkǎ (ka/ku)
MKA	é-'mǒy?	é-'kǎǎ mbǎǎ	é?-sũkũ
BLN	mǒy?	é-'kǎǎ mbǎǎ	é-sũ?
BBO	ǎ-mǒt	é-'kǎǎ m'ǎǎ	ǎ-sǒk'
LEF	mwè	é-kǎ 'mbǎǎ	ǎkǎn sǒ
LEK	lǎ-kyǎ mwǎ?	lǎ-kyǎ mbyǎ	

	(524) be *	(525) eat *	(526) chew
	être	manger	mâcher
CB	(2) *-bā- (547) *-dè	(550) *-dè-	
M	*-bā- PEG: *bā	*-dè PEG: *dīa	
PM	*-bā *-dÉ	*-dyā	*-lāā
MBM			
MBN	-bā -tā	-jēē	-lāā
MYE	-bā -tī	-dyā	-lāā
MBE	-tī	-dyā	-lāā
ELU	-bā -dē	-dyā	-lā
NNE	-bā	-dyā	-lāā
AKO	-bē -dē	-dyā	-lāā
MHE	-bē -dē	-dē	-lāā
MWK	bā -tī	-dyā	-lāā
MKA	-bā -dē	-dyā	-lāā
BLN	-bā -dī	-dyā	-lāā
BBO	-bā -dī	-dyā	-yāyo
LEF	-bā -dī	-dyā	-dyā
LEK	m-bātē -bā	dēgā ñ-dēgānē	-kōtē
	(527) drink	(528) swallow	(529) urinate
	boire	avaler	uriner
CB	(1332) *-mū- (1378) *-nū-	(1306) *-mīd- (1294) *-mēd-	
M	*-nyō- PEG: *nō(a)	*-mīd- PEG: *mī	PEG: *cēC
PM	*-mwā	*-mēē	*-sāny
MBM			
MBN	-mwāā	-myā	-sēŋa
MYE	-myā	-hīf?	-sēŋ
MBE	-mwā	-mē	-sī
ELU	-mwā	-mī	-sē
NNE	-mwā	-mīī	-syēŋ
AKO	-māwē	-mīī	-sēŋ
MHE	-mwā	-mēē	-syāā
MWK	-mwā	-mēē	-sāa
MKA	-mwā	-mēē	-sāā
BLN	-mwā	-mēē	-sāā
BBO	-mwā	-mēē	-sāā
LEF	-mwā	-mwēē?	-nyē mwānyā
LEK	-nūwā ñ-nūwānē	-mēē ñ-mēēnē	-nyīnē

	(530) defecate	(531) pass wind	(532) spit
	déféquer	péter	cracher
CB	(1355) *-nĩ-	(431) *-cũd-	(1857) *-tũ- *-tũéd-
M	*-nĩ- PEG: *nè,nĩ	*-kiød-	
PM	*-nyā	*-sũũ	*-sðb
MBM			
MBN	-nyāè	-sũũè	
MYE	-nyā	-sũ?	-pɛŋkĩ ð-1ɛè?
MBE	-yè	-sũ	-hũl à-1ɛ?
ELU	-nyā		-swād à-1ɛèd'
NNE	-ny e	-sũũ	-sād' mē-1ɛèd'
AKO	-ny è	-sũũ	-sðb mē-1ɛèd'
MHE	-ny è	-sũũ	-sðb' mē-1ɛd'
MWK		-sũ?	à-jám + à-1ɛw
MKA	-nyā	-sũũ	-sðb mē-1ɛd
BLN	-nyā	-sũũ	-sðb mē-1ɛd'
BBO	-nyā	-sũũ	-jòm nĩ mĩ-yèt'
LEF	-nyāa lí'bí	-nyā hĩsũ?	-pɛŋjĩ è-kwèn
LEK	nègā	n-šwĩnĩ	fũ mē-1ɛ?
	(533) vomit	(534) sweat (n.)	(535) breathe
	vomir	perspiration	respirer
CB	(695) *-dòk-		(1468) *-pèèm- PEG:*jwètè
M	*-dòk-		*-pèèm- *-póm-ðd-
PM	*-jòó	*-tòkò 7 *-dVg 7	*-fèèm ? *-fèèb ?
MBM			
MBN	-zũè	è-dè?	-fèèmè
MYE	-jũé	è-1è? (1/d)	-hèè?
MBE	-jè		-hèèmmèntè
ELU	-jũ	è-dèk	-hèèmèfèfè
NNE	-jwè	è-bábè	èbwèfèfè pèèè
AKO	-cò	è-bábè	-hèèd
MHE	-jũũ	è-tòkè	-hèèbátè
MWK	-jòo	è-tòkò	-hèèmĩ
MKA	-jò'ó	è-tòkò	-hèèbèfèfè
BLN	-jòð		-hèèèè
BBO	-jòó	e-tòkò	-fèèèè (f/h)
LEF	-yũé	è-dè?	-nũŋ è-fĩ
LEK	-zũgũ	è-dĩk	

	(536) yawn	(537) sneeze	(538) snore
	bəɪllər	ɛtərnuer	ronfler
CB			(852) *-gɔ̃n-
M	PEG: *jɛ́t (V)	*-team-	*-gɔ̃n-
PM	*-kám...? *-nyám	*-sám	*-tɔ̃g
MBM			
MBN	-kámə	-sám	-gù yúə
MYE	-kámə	-sám	-tɔ̃? á-jwə
MBE	-wámɛntə	-sám	-tɔ̃? ɲgɔ̃?
ELU	-kámáɛ́tɪ	-sám	-s ɔ̃nə́ɛ́tɪ
NNE	-kámɛ́tə	-sám	-tɔ̃g' á tə
AKO	-káméd'	-sám	-tɔ̃g ɲgɔ̃l ɔ̃g'
MHE	-wɔ̃ɲ	-sám	-tɔ̃ɔ̃ ɲgɔ̃mbəl
MWK	-yám	-sám	-tɔ̃ɔ̃ á'tə kɔ̃m ɲgɔ̃ɲgɔ̃l
MKA	-nyá'ɲ	-sá'ɲ	-tɔ̃? ɛ́tə
BLN	-nyám	-báy?	ɲgɔ̃mbɔ̃l
BBO	-nyámbo	-sám	ɲgɔ̃mɔ̃
LEF	-kɔ̃ɔ̃	-sám?	á-lə tɔ̃?
LEK	-jɛ́tɛ́ ñ-jɛ́tɛ́	sáá ñ-sáántɛ́	ñ-tɔ̃ɔ̃lɛ́
	(539) froth	(540) do	(541) go
	mousser, écumer	faire	aller
CB	(1614) *-púɔ̃- 'froth over'		(811) *-gə- (794) *-gɛ-
M	*-púɔ̃ɔ̃ (-pɔ̃ɔ̃), -púɔ̃ɔ̃, -púɔ̃ɔ̃) ɔ̃	PEG: *ɲə	*-gə- *-k(a) PEG: *gɛ́n
PM	*-fúɔ̃	*-bɔ̃l	*-kɛ́
MBM			
MBN	ɲ-fɔ̃lɛ́	-bɔ̃l	-kə́ə
MYE	ɔ̃-hwɔ̃?	-bwɔ̃n	-kyə́
MBE	-hə́l ɛ́-hə́	-bə́l	-kə́
ELU	ɛ́-hɔ̃d'	-bɔ̃	-kə́
NNE	-hɔ̃d'	-bə́l	-kɛ́
AKO	-hɔ̃d'	-bɛ́l	-kɛ́
MHE	-hám	-bɔ̃l	-kɛ́
MWK	-hɔ̃l	-bɔ̃l	-kɛ́
MKA	-hɛ́'ɲ	-bɔ̃l	-kɛ́
BLN	-húɔ̃d'	-bɔ̃l	-kɛ́
BBO	-fɔ̃t (f/h)	-bɔ̃y (/bɔ̃o)	-kɛ́
LEF	jɔ̃kə́	-bwə́	-kə́
LEK	lə́-fú fú?	-búú ɲ-búúɛ́	kə́ ɲ-kə́tɛ́

	(542) come *	(543) return *	(544) enter *
	venir	revenir, retourner	entrer
CB			(389) *-cótod- 'pierce'
M	PEG: *sə̀ək		PEG: *kón
PM	*fyà	*-sú *-fúú *-tím	*-sól *-nyíŋ-V
MBM			
MBN	-s'íí	nz'ə̀ mbə̀y?	-kù'nāŋ -sól
MYE	-sō?	-s'úú	-s'wón
MBE	-s'è -sà?	-j'ú -h'í -t'əm ā-'mbí?	-y'ə̀ŋ (ə̀/ɛ)
ELU	-hy'è -hy'á	-s'ú	-sól
NNE	-hy'è -hy'ǎg'	-s'úú -h'úú	-sól
AKO	-hy'è	-s'ú -h'íu -t'ím ā-'mbí'd'	-sól
MHE	-y'è	-h'úú -t'ím 'mbí'd	-sól
MWK	-syà (sy/š) -pà		t'ím ā-'mbí? -y'íŋ
MKA	-yà	-s'ú	-t'ím -nyíŋé
BLN	-yà		-t'ím mb'úy? -nyíŋi
RBO	yāk	-f'úú	-t'ím 'mb'út -nyíŋé
LEF		pā?	-t'ím -kw'èl'è?
LEK		pā	-t'ím é-'mbí? ñ-s'ə̀g'óné
	(545) arrive	(546) go out *	(547) climb, go up
	arriver	sortir	monter, grimper
CB	(1550) *-p'ík-		
M	*-p'ík-		PEG: *k'ók
PM	*-pà	*-b'új	*-k'òŋ-V *-j'Ég-V
MBM			
MBN	-p'ə̀ ə̀l	-b'é ə̀	-kw'ə̀n ə̀
MYE	-p'ə̀	-b'í?	-n'ùŋ
MBE		-b'í?	-k'ə̀n
ELU	-p'ə̀	pw'éé	-j'ə̀ ā-k'ù
NNE	-p'è	-b'ə̀g'	-j'y'ə̀ ā-j'ók'ə̀
AKO	-p'è	-b'í'd'	-c'ə̀g'e
MHE	-p'è't'	-b'w'í? (?/s)	-k'òŋ'è
MWK	-w'úu	-b'í? -h'ém	-k'òŋ
MKA	-pà	-b'úy? (y'/s)	-k'òŋò
BLN	-pà	-b'úy? (y'/s)	-k'òŋe
RBO	-pà	-b'út (t/s)	kon'í
LEF	-pà	-ny'é?	p'òl'ò
LEK	ñ-p'ət'í	s'ə̀	ñ-kw'è'n'è ā-kw'è'è

	(548) go down descendre	(549) see * voir	(550) hear entendre
CB	(308) *cɛ̀dɛ̀d	(1969) *-yɛ̀n-	(2152) *-yɔ̀g-
M	PEG: *fɛ̀k	PEG: *jɛ̀n	PEG: *jɔ̀k
PM	*-sùd	*-tòŋ *-nyɛ̀n	*-wɔ̀g
MBM			
MBN	-sùlɛ̀ (s/ɛ̀)	-tòŋ -gáɛ̀nɛ̀	-gùlɛ̀
MYE	-sùʔ	-tòŋ	-wɔ̀ʔ
MBE	-sùl	-tòŋ	-wɔ̀ʔ
ELU	-sù	-nyɪ	-wɔ̀ʔ
NNE	-sɛ̀d	-nyɪn	-wɛ̀ʔ
AKO	-syɔ̀ge	-nyɛ̀n -nɔ̀n	-wɔ̀g'
MHE	-sùl	-nɔ̀n	-wɔ̀ʔ
MWK	-sùl	-tòŋ	-wɔ̀ʔ
MKA	-sud	-tòŋ	-wɔ̀ʔ
BLN	-sòd'	-tòŋ	-wɔ̀ʔ
BBO	-sùt	-tòŋ	-wɔ̀k'
LEF	-sùʔ	-mɪn	wɔ̀ʔ
LEK	ŋ-gɔ̀gɔ̀nɛ̀ -gɔ̀gɔ̀	ŋ-gáɛ̀ntɛ̀ ŋ-gáɛ̀	ŋ-gòkɛ̀ gòk
	(551) smell, stink sentir mauvais, puer	(552) touch toucher	(553) taste goûter
CB	(742) *-dùmb-		
M	*-dumb- PEG: *dùm 'sentir'	PEG: *kwáq	PEG: *jɔ̀kCé
PM	*-jùm	*-syàn	*-wɔ̀g-E1En ?
MBM			
MBN	-nyɪmá (i/e) -nyɪnɛ̀	-kɔ̀tɛ̀	-gùlɛ̀
MYE	-wòdɪlɪ	-bááʔ	-wòdɪlɪ
MBE	-jùm	-sɛ̀ntɛ̀n	-wɔ̀ʔ ñ-sàl
ELU	-wó ɛ̀-lòd'	-sɪŋka	-wɔ̀la
NNE	-jùm -wɛ̀ʔ	-syɛ̀n	-wɛ̀ʔlɛ̀n
AKO	-cùm	-sɪtɛ̀n	-wɔ̀glɛ̀n
MHE	ɛ̀-wɔ̀ʔ dɛ̀ ɛ̀bɛ̀b'	-syàn	-wɛ̀ʔlɛ̀ʔ
MWK	jùm	-sɪni	-wòolɪ
MKA	-jùm	-syàn	-wɔ̀ʔ ñ-sòl
BLN	-cùm	-syàn	-wòdɪlɛ̀n
BBO	-jùm	-syàn	-wɔ̀gɛ̀yɛ̀n
LEF	-jùm		-wòlɛ̀n
LEK	ñ-zɛ̀ntɛ̀ ɛ̀-zɛ̀f	ŋ-kɔ̀tɛ̀ -kɔ̀tɛ̀	ŋ-gòkɛ̀

	(554) resemble		(555) drop		(556) pick up *
	ressembler		laisser tomber		ramasser, relever
CB					(1773) *-tʃʃd-
M					
PM	*-wǎg-an ?	*-kǒb(-an)	*-fǒny(-ej)	*-bʃj	*-tǒd
MBM					
MBN	-wǎǎl ǎ		-fǎŋǎ		-bǎyǎ
MYE	-wǎǎnǎf		-yǒǒlǎf		-byʔ
MBE	-wǒnɛn	-kǒmɛn	-hǒʃ(sɪ)		-bǎʃ(sɪ)
ELU	-wǎga		-hǒŋǎd		-tǒd'
NNE	-wǎǎn		-hǔn		-tǒd'
AKO	-wǎgɛn		hǔned'		-tǎd'
MHE	-wǎan		-hǔŋʔ		-bǎd'
MWK	-wǎijɪn		hǒsɪ		-bʃy
MKA	-wǒʔǎn	-kǒb	-kǒban	-hǒoyʔ	-bʃyʔ
BLN		-kǒb		-hǒo	-bʃyʔ
RBO	-wǎgan		ǎ-hǒoy		-bʃsɔ
LEF		-kǒbǎn	pǔm		mǒn
LEK	ŋ-kǔtǎ	ǎ-kǔ	ŋ-ǎwǎntǎ		m-bwǎnǎ
	(557) turn around		(558) rub		
	(se) tourner		frotter		
CB	(589) *-dǎǒŋg-				
M					PEG: *cǎk *jǒk 'oindre'
PM	*-nyǎb-V	*-fyǒm-V		*-wǒg-ed	*-wǒg
MBM					
MBN		-kǔndǎ		-gʃʃ	
MYE	-yǎbʔ			-wǒkʔ	
MBE	-yǎ(pɪ)				-tǔl
ELU		-dǎɪɛ (ǎ/ǎ)		-wǒgad'	
NNE	-hyǒmǎ			-wʃʔ	
AKO		-kǔned	-kǔne	-wǒged	-wʃg'
MHE	-yǒmɪ				-sǒd
MWK	-yǎw			wʃʔ	
MKA	-yǒmɛ				-kwǎd'
BLN	-nyǎbǎ				-sǎŋe
RBO		-kǔmbɪt		-wʃk	
LEF		wǎsǎ			tǔtǔ
LEK		ŋ-gǎǎlǎ	ŋ-dǎntǎ	dǎntǎ	

	(559) send envoyer	(560) scratch gratter	(561) shave (se) raser
CB	(1831) *-tóm-	(1134) *-kʷmb-	
M	*-tóm- PEG: *tóm	*-kʷmb- PEG: *jət	
PM	*-lóm	*-wʷm	*-kʷŋ
MBM			
MBN	-lómə	-gʷmə	-kʷŋə
MYE	-lwʷm	-wuʷm	-jūŋkɪ
MBE	-lóm	-wʷm	-kʷŋŋən
ELU	-lə	-wʷm	-kə
NNE	-lóm	-wʷm	ŋgəŋ əkúə
AKO	-lóm	-wʷm	-kʷŋ -kʷən
MHE	-lóm	-wʷm	-sɪə
MWK	-lóm	-wʷm	-kʷŋ
MKA	-lóm	-wʷm	-sɪ'ɪ
BLN	-lóm		-wʷm
BBO	-yóm	-wʷmɪ	-wʷmɪ
LEF	lóm	nyʷndé	fúɪk̄ ñ-jə
LEK	ñ-lúnté lóm	ŋ-gʷnté gʷ	ñ-sʷɪnɛ sʷɪ

	(562) fight lutter, se battre	(563) hit, strike frapper
CB		(ps 48) *-bóm- 'hit, kill'
M		PEG: *cwʷn 'frapper, couper'
PM	*-wʷn	*-bʷm *-tʷm
MBM		
MBN	-wʷnə (w/gb)	-dʷbə
MYE	-wʷnə nzòm	-kɪtɪ -dɪn
MBE	-wʷn	-wʷnən
ELU	-wə	-tʷm
NNE	-wʷn nzòm	-tʷm
AKO	-wʷn	-bʷm -tʷm
MHE	-wʷn	-bʷm
MWK	-wʷn	-bʷm -dɪn
MKA	-wʷn	-bʷm
BLN	-wʷn	-bʷm -lwʷ
BBO	-kʷŋɪ nzòm	-bʷm
LEF	-wʷn	lɪʷ
LEK	ŋ-gwənté bwé	ŋ-kʷnɛ kʷ ñ-tʷnté tʷn

	(564) catch attraper	(565) chase poursuivre, chasser	(566) shoot (gun) tirer (fusil)
CB			PEG: *túm
M		PEG: *jòŋ 'chasser'	*-tum- 'throw, shoot'
PM	*-kɔ̀b	*-nɔ̀ŋ *-nã̀n	*-bwɛ̀m *-lúm
MBM			
MBN	-kɔ̀bɛ̀	-nɔ̀ŋɛ̀ -nã̀nɛ̀	-lɔ̀mɛ̀
MYE	-kwɔ̀ʔ	-nã̀n	-lúm
MBE	-kɔ̀	-nɔ̀ŋ	-bwɛ̀m (ɔ̀/e)
ELU	-kɔ̀	-nã̀	-bwɛ̀m
NNE	-kɔ̀b'	-nã̀n	-bwɛ̀m
AKO	-kɔ̀b'	-nã̀n	-bwɛ̀m
MHE	-kɔ̀b'	-nɔ̀ŋ	-bwɛ̀m
MWK	-kɔ̀w	-nɔ̀ŋ	-bwɛ̀m
MKA	-kɔ̀b'	-nɔ̀ŋ	-bwɛ̀m
BLN	-kɔ̀b'	-nɔ̀ŋ	-bwɔ̀m
BRO	-kɔ̀b'	-nɔ̀ŋ	-bwɛ̀m ɲgã̀lɛ̀
LEF	kɔ̀ʔ	nã̀n	wã̀ŋgú
LEK	ŋ-kútɛ̀ kú	ñ-nã̀ntɛ̀ nã̀	ñ-lɔ̀ntɛ̀ lɔ̀n
	(567) stab poignarder	(568) pierce percer	(569) bite mordre
CB	(382) *-cɔ̀ŋg- 'prod'	(1814) *-tɔ̀b- (1860) *-tɔ̀rɔ̀b-	(696) *-dóm-
M	PEG: *sɔ̀b 'poignarder'	*-tub- 'pierce through'	PEG: *dóm
PM	*-sɔ̀ŋ	*-túb	*-kwã̀g-VIV ?
MBM			
MBN		-tɔ̀bɛ̀	-kpã̀ã̀lɛ̀
MYE	-sɔ̀ŋ		-kpɔ̀ɔ̀lɛ̀
MBE	-sɔ̀ŋ	-túʔ	-kwã̀lɛ̀
ELU	sɔ̀ sɔ̀ (imp)		-kwã̀l (a/oo)
NNE	-sɔ̀ŋ		-kwã̀ã̀l à-kwã̀glã̀n
AKO	-sɔ̀ŋ	-túb'	-kwã̀gɛ̀l
MHE	-sɔ̀ŋ		-kã̀ã̀l
MWK		-túw	-kwã̀lɛ̀
MKA		-túb	-kwã̀(ʔ)al
BLN	-sɔ̀ŋ	-túb	-kwã̀ã̀l
BRO	sɔ̀ŋ	-túb'	-kwã̀gɛ̀a
LEF			kwã̀kɛ̀
LEK	ñ-sɔ̀ŋkɛ̀ sɔ̀ŋ		ŋ-kɔ̀ŋɛ̀lɛ̀ kɔ̀ŋɛ̀lɛ̀

	(570) set a trap	(571) kill	(572) die
	dresser un piège	tuer	mourir
CB	(1698) *-tɛŋ (ps 429) *-tãmb-		(1249) *-kú-
M		PEG: *gúí	*-kú- PEG: *kú(a)
PM	*-fii *-lãm...	*-wóó	*-wã
MBM			
MBN	-lãmə	-gúə	-wãə (a/a)
MYE	ə-lãm	-gúə	-wã
MBE	-hə əlãm	-wú	-wɛ
ELU	-hə əlãm	-wú	-wə
NNE	-hɛd' ə'lãm	-wúú	-wɛ
AKO	-híi mɛlãm	-wúu	-wɛ
MHE	-híi	-wúu	-wɛ
MWK	-hí? əlãm	-wóo	-wã
MKA	-hí'í əlãm	-wú'ú	-wɛ
BLN	-nəbə əlãm/ɛkɔy?	-wóó	-wã
BBO	-yãmne ə-kɔt	-wóó	-wã
LEF	fã wú'lãm	bóló	wã
LEK	ñ-lããntɛ lãã	ñ-kɔnɛ kɔ	ñ-kwãnɛ kwã
	(573) flow (leak)	(574) float	(575) pull
	couler (fuir)	flotter	tirer
CB			(749) *-dút-
M			*-dut- PEG: *sɔŋ
PM	*-nyɔm *-sòb		*-nɪm V? *-dùl
MBM			
MBN	-fúə	-lálə	-nəmə
MYE	-bí?	-láj	-dɪn
MBE	-yɔm -sɔ əsəə?	-bɛllɛn	-nãm (a/a)
ELU	-hí	-bála	-nɪm
NNE	-nyɔm	-bal	-dəl
AKO	-nyɔm		-dùl
MHE	-bwɪd'	-yɔmə ɛdɪɪ	-dùl
MWK	mɔɔn	-jànɪn	-dùl
MKA	-sòb'	-pɛbɛllɛn	-dùl
BLN	-sɔs	-dɪŋe	-dùl
BBO	-sòbe	e-jáyab'	-dɪy
LEF	ɛ'nyá?	yáŋ	-nəm
LEK	ñ-fíŋɪnɛ		ñ-cɪnɛ

(576) carry on the back  
porter au dos

(577) carry on the head  
porter sur la tête

(578) lift  
soulever

CB

M

PM \*-mŋn-V

\*-pém \*-sɛb \*-nyāny

\*-nyāny

MBM

MBN -mʔnə

-dɛŋə

-fətə

MYE -mŋŋ

-yɛŋ

-yɛŋ

MBE -mŋn

-yɛ l-ɪð

-yɛ

ELU -mŋnɛ

-pəm

-nyɛ

NNE -mʔnə

-pém

-nyɛŋ

AKO -mɪne

-pém

-nyən

MHE -mŋnə -sɛɛ mbɪd

-sɛb'

-nyāā (/ɛa)

MWK -mŋun

sɛw

-yāa

MKA -nyāā ʔmbɔy?

-nyāā ɛ m'ɪlɔ

-nyāa

BLN -nyāā

-nyāā

-nyāā

BBO -sɛb ɛ mbɔt

-sɛb ɛ m'yɔ

sɛb

LEF pém ʔmbɪ?

pém ɛ n'ɪlɔ

wɛn

LEK ʔn-byánɛ byɛ

ʔn-bɔŋɔɪɛ

ʔn-jyɛntɛ jyɛ

(579) put, lay down  
mettre, poser

(580) put straight, arrange  
arranger

CB

M \*-pá 'give'

PM \*-mwà (\*-fá)

\*-tɪí \*-nāb(-V) \*-lād(-V)

MBM

MBN -dɔɔ

-lātə

MYE -sɔtɪ (sɛ)

-tɪɛ -nāpɪ

MBE -mwɛ'sɛ

-lāte (a/a)

ELU -bān ɛ'sɛ

-tɪi

NNE -mwɛ

-tɪí

AKO -bāne ɛ'sɛ

-tɪi

MHE -mwɛ

-nābə

MWK -mwà ɛ'sɛ

nāw

MKA -bɛ'ɛ -mwà

-nābə

BLN -mwà

-lād'

BBO hɛ

-bɔŋən

LEF ʔɪɪsɪ?

fá

tāmɔɔ

LEK nāŋkɛsɪ

cɛ

	(581) lie down (se) coucher	(582) sleep dormir	(583) dream * rêver
CB		(633) *-dɔ̃ (13)	(672) *-dɔ̃t-
M	PEG: *nɔ̃ŋ 's'allonger'	PEG: *dɛ	*-dɔ̃t- PEG: (*jɛm 'rêve')
PM	*-nãŋ-V	*-kún	*-nãŋ-V (+ n.) *-tɔ̃ŋ (+ n.)
MBM			
MBN	-nãŋə	-kúnə	-nãŋɛ ndɔ̃d'
MYE	-nɔ̃b 'sɛ	-kúú 'júú	àtɔ̃ ndwɔ̃?
MBE	-nãŋ 'sɛ	-kún	ndɔ̃ pɛ 'mɛ
ELU'	-nãá 'sɛ	-kún	-nãá llɛ
NNE	-nãa	-kwún	-nãa ndɔ̃?
AKP	-nãa á'sɛ	-kún	-nãa ñlɔ̃
MHE	-nãá sɛ	-lúm	ñtɔ̃ ndɔ̃d'
MWK	-nãaŋ	-kún	-nãaŋ ndɔ̃l
MKA	-nãŋɛ	-hɔ̃o	-nãŋɛ ñ'dɔ̃d'
BLN	-nãŋə	-hɔ̃o	àtɔ̃ŋɛ ndɔ̃d'
BBO	nãŋú ɛ'sɛ	-yúm	ə-nãŋú ndɔ̃t
LEF	nãlɛ? 'sɛ	nãlɛ?	ñnãlɛ
LEK	ñ-nãŋɛñlɛsɛ nãŋãsɛ	ñ-gãŋãñɛ gãŋã	ñ-gãŋãntɛ nzɛɛ ndɔ̃gɔ̃
	(584) rest se reposer	(585) be tired être fatigué	(586) open ouvrir
CB			
M	PEG: *fɛCV		PEG: *cɔ̃k
PM	*-kɔ̃m...	*-kɔ̃m *-jɛɛ	*-dɛb-V *-fúg-V ?
MBM			
MBN	-fɔ̃tə	-kɔ̃mə	-fúgə
MYE	-kwɔ̃	ə-kwɔ̃kwɔ̃m	-hɔ̃ɔ̃?
MBE	-hãmpə	-jɛ	-hú
ELU	-kɔ̃ɔ̃tɛ	-kɔ̃	-hɔ̃gɛ
NNE	-kãmə ?	-kãm	-dɛbə
AKO	-kɔ̃mɛ ãtɛ	-kɔ̃m	-dɛbɛ
MHE	-kɔ̃mə	-kɔ̃mə	-dɛbə
MWK	-kɔ̃mpɛ	-jɛɛ	-húu
MKA	-wúmɛy?	-jɛɛ	-hú?u
BLN	-wómɛ?	-jɛɛ	-hɔ̃?o
BBO	(ãdɛ) ə-kɔ̃mbɔ̃	-jɛɛ	dɛbú
LEF	kɔ̃mbɛ	-kɔ̃m	dú?
LEK	ñ-zwɛtɛnyɛ zwɛtɛ'nyɛ	ñ-kɔ̃ɔ̃ntɛ	tɛɛ ñ-fɛqɛñɛ fɛqɛ

	(587) close fermer	(588) cover * couvrir	(589) pray prier
CB	(601/2) *-dɪb-	(912) *-gɪn-	
M	PEG: *dɪk *jɛk	*-kun- (k/g) *-bɪmb- *-kut-	
PM	*-dɪb *-kwɛj/-kɔj?	*-kɪm... *-bɪm-V *-kɪt-Vn	*-kɛn-V
MBM			
MBN	-dɔbɔ	-kɛmbɔ	-sɔnɔ
MYE	-pɛn	-kɪmmɪ	-dɔɔ nywɛn
MBE	-dɪ -kwɛ	-kɪmmɛn	-kɛn
ELU	-dɔb	-kɪmmo	-kɛnc
NNE	-dɔb'		-kwɔtɛn
AKO	-dɪb' -kɪd'		-kɪtɛn
MHE	-kwɪd'	-kɪmtɛn	-kɛne
MWK	-kwɛy	-bɪum	-kɛɛni
MKA	-kwɛy?		-hɪg'
BLN	-kwɛy?	-kɪmbɛn	-kɛnɛ
BBO	dɪb'	bɪmɪ	k'ɛɛnɛ
LEF	kɔ?		kɪtɪ
LEK	ɛ-dɪtɛ	m-bɛntɛ bɛntɛ	ɛ-sɔŋɛtɛ sɔŋɛtɛ
	(590) beg mendier	(591) read lire	(592) write écrire
CB	(653) *-dɔmb- 'ask for'	(1672) *-tɛng-	
M	PEG: *dɔn	*-tɛng- PEG: *tɔŋ	PEG: *ŋwɛk
PM	*-jɔm	*-lɛŋ	*-tɪl
MBM			
MRN	-wɛɪɔ	(-gɔkɛ)	-lɛŋɔ
MYE	-jwɔm	-lɔŋ	-tyɛn
MBE	-lɛpɛn (a/a)	-lɛŋŋɪ	-tɛl (ə/e)
ELU	-jwɔ	-lɛ	-tɛl
NNE	-jɔm	-lɛɛ	-tɛl
AKO	-cɔm -cɛɪ	-lɛŋ	-tɛl
MHE	-nyɛŋ	-lɛŋ	-tɪl
MWK	-jɔm	-lɛŋ	-tɪl
MKA	-jɔ'm	-lɛŋ	-tɛl
BLN	ɛ?-jɔmbɔ	-lɛŋ	-tɪl
BBO	mɔs bɛnɪ	-yɛŋ	-tɪl
LEF	-yɔm	lɛŋ	tɪ?
LEK	mɛ-sɔŋɛtɛ sɔŋɛtɛ	ɛ-lɪlɛ lɪlɛ	ɛ-lɛtɛ lɛtɛ

	(593) kindle	(594) fan	(595) burn
	allumer	éventer	brûler
CB		(1489) *-pɛ̀ɛp-	(1502) *-pé- 'become burnt'
M			*-pé- 'burn' PEG: *tɔ̀n
PM	*-jɔ̀d... ?	*-pɛ̀b	*-fyǎŋ-Ej *-fyǎŋ
MRM			
MBN	-jɔ̀lɛ̀	-pɛ̀bàʔ	-təmǎŋ
MYE	-jɔ̀ɛ̀	-pɛ̀ʔ	-sɔ̀ŋkɪ̃
MBE	-jɔ̀l	-pɛ̀b (ə/ɛ)	-sǎali
ELU	-sɔ̀	-pɛ̀b'	-hyǎŋɛd
NNE	-sɔ̀ɔ̀	-pɛ̀b	-hyǎŋɛd
AKO	-cɔ̀d'	-pɛ̀b'	-hyǎad' -hyǎŋ
MHE	-jɔ̀	-pɛ̀b'	-yǎaʔ
MWK	-jɔ̀tɪ -bɔ̀n	-hɛ̀ɛw	-ǎŋsɪ
MKA	-jɔ̀tɪd'	-pɛ̀b'	-yǎŋɛd'
BLN	-jɔ̀tɛ	-hɔ̀m	-yǎŋɪ
BBO	jɔ̀ɔ̀sɪd'	-pɛ̀b'	-yǎŋɪd'
LEF	yɔ̀	pɔ̀pɔ̀	wɔ̀kɛʔ
LEK	nyɔ̀kɛ̀	m-pɔ̀tɛ̀ pɔ̀tɛ̀	m-bɔ̀ntɛ̀ bɔ̀n
	(596) roast (over fire)	(597) fry	(598) cook
	rôtir (au feu)	griller	cuire
CB	(1009) *-kǎŋg-	(1871) *-tɔ̀mb-	(1009) *-kǎŋg- (486) *-dǎmb-
M	*-tɔ̀mb- 'cook, roast'		*-dǎmb- PEG: *dǎm
PM	*-tɔ̀m *-nyǎŋ		*-nyǎŋ *-jǎm
MRM			
MBN	-nyɛ̀ŋgɛ̀	-tǎmǎ	-jǎmɛ̀
MYE	-tɔ̀m	-gɔ̀ŋ	-jǎm
MBE	-tɔ̀m	-yǎŋ	-jǎm
ELU	-tɔ̀m	-nyǎ	-jǎ
NNE	-tɔ̀m	-nyǎǎ	-jǎm
AKO	-tɔ̀m	-yǎŋ (y/ny)	-cǎm
MHE	-tɔ̀m	-nyǎŋ	-jǎm
MWK	-yǎŋ	-yǎŋ	-jǎm
MKA	-tɔ̀m	-nyǎ'ŋ	-jǎ'm
BLN	-yǎŋ	-tɔ̀m	-jǎm
BBO	-tɔ̀m	menyǎŋgǎ	-jǎm
LEF	bɔ̀m	wǎŋ	kɔ̀m
LEK	m-bɔ̀ntɛ̀ bɔ̀n	ŋ-kǎŋǎnɛ̀	n-cɛ̀nɛ̀ cɛ̀

	(599) boil, bubble up		(600) pound (in mortar)
	bouillir		piler (dans un mortier)
CB	(1778) *-tək- *-təkət		(1802) *-tō
M	*-təkət-/kəkət- 'be hot, perspire, boil'		*-tō
PM	*-təg *-bāb		*-tī *-kəg.
MBM			
MBN		-fəɪə -fəndə	-tīə
MYE	-jwəm		-dyəŋ
MBE		-həl -hɪntɪ/-həl	-tī
ELU	-tə? -bāb'		-tī
NNE		-wogə -həd'	-kəg'
AKO	-təg' -təged -wogə		-kəg'
MHE	-tō		-dɪn
MWK	-bāw -wɪ	-wɪnsɪ	-dɪn
MKA	-təy? -bāb'		-lwā
BLN	-tə?		-lwā
BBO	-təg'		-tɪu
LEF	təkɪ		kə?
LEK	bātɛ zɪɪɛ		n-cɪjɛ cɪ
	(601) grind		(602) grate
	écraser		rāper
CB	(344) *-cɪ- (350) *-cɪd-	(344) *-cɪ- (350) *-cɪd-	'grind'
M	*-cɛ- PEG: *gək 'moudre'		
PM	*-kəg	*-sɪɪ	
MBM			
MBN	-kə?		-fənə -cɪə
MYE	-kə?	-sɪɪ	
MBE	-kə?		-hən
ELU	-kə?	-sɪ	
NNE	-kəg'	-sɪɪ	
AKO	-kəg'	-sɪɪ	
MHE	-kə?	-sɪɪ	
MWK	-kə?		wɪm
MKA	-kəg'		-pəno
BLN	-kə?		-wɪm
BBO	-kək'	-sɪɪ	
LEF	kə?		tɪtɪ
LEK	ŋ-kəkɛ kək	ŋ-kəkɛ kək	

	(603) play		(604) sing
	jouer		chanter
CB			(2009) *-yémb- 'sing, dance'
M	*-cek- 'play (instr.), beat (drum)		*-jémb- *-tɔŋ- PEG: *jɔb *jɛm
PM	*-jɔg		*-jém *-lɔŋ *-kɔn
MBM			
MBN	-jùè		-sɔɔ
MYE	àbwɔn à-jɔ?		-kwɔn
MBE	-jù		-jém
ELU	-jù?		-jɛ
NNE	-jwɔ?		-kɔn
AKO	-cɔg'		-kɔn
MHE	-jɔ?		-jém -lɔŋ
MWK	-jɔ?		-jém -lɔŋ
MKA	-jɔg'		-jé'm -lɔŋ
BLN	-jɔ?		-lɔŋ
BBO	-jɔk		-yɔŋ
LEF	bwə mə-yó		kɔn
LEK	n-zɔjɔnɛ mɛ-zɔk		n-zɔtɛ zɔ?
	(605) say		(606) talk, speak
	dire		parler
CB	(1727) *-tè (770) *-gàmb- 'speak'		(1582) *-pɔp- (770) *-gàmb-
M	*-gàmb- 'speak'		*-gàmb- *-pɔp-e- PEG: *gàm
PM	*-fɔb		*-fɔb
MBM			
MBN	-gàmə		-fɔkə
MYE	-yàm		-yàm
MBE	-hɔ?		-lɔŋ
ELU	-hɔ?		-jwɔ
NNE	-hɔb'		-hɔb'
AKO	-hɔb'		-hɔb' -kəl
MHE	-hɔb'		-kəl
MWK	-hɔw		-hɔw
MKA	-hɔb'		-hɔb'
BLN	-hɔb'		-hɔb'
BBO	-fɔb'		-fɔb (f/h)
LEF	pɔŋ		byá
LEK	n-lɛtɛ lɛ?		sɔŋɔnɛ

	(607) listen écouter	(608) meet rencontrer	(609) call (summon) appeler
CB			
M		PEG: *bóm	*-jét- 'call'
PM	*-wóg-EIEn ?	*-bóm *-tán	*-jél-V
MBM			
MBN	-gúilə	-bómə	-kíŋə
MYE	-wó? wóðlɪ	-bwóm	-kíŋ
MBE	-wó?	-bəŋ	-yé
ELU	-wóla	-bóm	-jə?
NNE	-wó?	-bóm	-jwə? -jélɛ
AKO	-wóglɛn	-bóm -tán	-cɛle
MHE	-wó?	-túɔn	-jə
MWK	-wó?	-wól	-yé
MKA	-wóg'	-bóm	-bəŋ
BLN	-wóðlɛn	-bóm	-bən -dyám
BBO	wóɔn	-bóm	bégét
LEF	wólán	táná	bəŋ
LEK	ŋ-gókɛ ɔók	ŋ-kóðné kóðné	kyɛ kyɛné

	(610) tell raconter	(611) ask (question) poser (une question)	(612) answer répondre
CB	(773) *-gān- 'tell a tale'		
M	*-gān- PEG: *són		
PM	*-lāŋ-V *-fɔb	*-sɪl(-Vn)	*-kwəny-tEn ?
MBM			
MBN	-fɔkə	-sɛtə	-zəkə
MYE	-hɔkɪ	-sɪn	-kpəŋkɪ -jɪkɪ
MBE	-lāŋ	-səllən (ə/ɛ)	ŋ-jɪkən
ELU	-lāa	-sɛla	-kwəŋkə
NNE	-lāa	-syɛgɛ?	-kwəntən
AKO	-lāa -kəl	-sɛřed	-kwəntən
MHE	-hɔb	-sɪlan	-kwɛtɛ
MWK	-lāaŋ	-sɪl	-kwɛsɪn
MKA	-hɔb' -tɛlɛ	-sɪlan	-kwɛtɛn
BLN	-hɔb'	-sɪl	-kwɛtɛn
BBO	-fɔb'	-sɪline	-kwɛtɛnɪ
LEF	pɔŋ	kɔndɛ	pɪsɪ
LEK	lāŋá	ŋ-sɪtɛ ɛtɛ	ŋ-kwəŋkɛ (kw/kp)

	(613) thank remercier	(614) insult insulter	(615) suffer souffrir
CB			
M			
PM	*-sóm	*-sɛŋ	*-täg
MBM			
MBN	-sǎǎlɛ̃ ɲ-kɔŋ	-sɔŋə	-wə
MYE	-yám	-sɔŋkɪ	-kǎŋkɪ
MBE	-sám -yámman	-sǎŋ	-tǎa?
ELU	-tyʒka	-sǎə	-tǎ?
NNE	-sóm	-syǎ	-tǎa?
AKO	-sóm -sǎgnɛn	-syǎŋ	-täg
MHE	-səm	-sǎŋ	-tǎ?
MwK	-sóm	-sɛŋ	-wúum
MKA	-sóm	-nyɛŋɛ	-tǎg'
BLN	-sóm	-sɛŋ -nyɛŋɛ	-tǎ?
BBO	-sóm	-yod'	-tǎk
LEF	sǎkǎn	lúf	tǎ?
LEK	è-lǎkǎ	ŋ-zɔntɛ zɔ	ŋ-ɔŋkɛ̃ è-sǎŋǎnɛ̃
	(616) try essayer	(617) like, love aimer	(618) hate haïr, détester
CB		(623) *-dɪŋ- 'desire'	
M			
PM	*-kèg	*-dɪŋ	*-fɪn *-bèn
MBM			
MBN	-gɪŋlɛ̃	-dɛŋə	-gɔl ə
MYE	-mwám	-dɔŋ	-wɔ?
MBE	-kə	-dɛŋ	-hɛn
ELU	-kɛ̃ka	-dɛŋ	-hən
NNE	-hyətán	-dɛŋ	-kɔ
AKO	-kəg	-dɛŋ	-kɔ
MHE	-kyəʒ	-dɪŋ	-hɪndɛ
MwK	-kə?	-dɪŋ	-bèn
MKA	-kèg'	-dɪŋ	-hɪn -bèn
BLN	-kə?	-dɪŋ	-hɪn
BBO	-kək'	-dɪŋ	-bəna
LEF	kɛ̃kɛ̃?	nɛŋ	kwɛ̃
LEK	ŋ-tɔlɛ̃	ŋ-kɔŋkɛ̃ kɔŋkɛ̃	ŋ-bǎǎntɛ̃ bǎ



	(624) help		(625) fall
	aidar		tomber
CB			(863) *-gð-
M	PEG: *gɪm *kɔɕɪ		*-gð- PEG: *gða
PM	*-fɛb *-wɔŋ-gVn		*-kwā
MBM			
MRN	-kɔpə		-kwāə (kw/kp)
MYE	-kwɔpɪ		-hɪŋ
MBE	-həpən		-kwɛ
ELU	-hɛé		-kwā
NNE	-hɛb -hɛbɛ		-kwɛ
AKO	-wɔŋɔɕn		-kwɛ
MHE	-wɔŋɔɕan		-kwɛ
MWK	-wɔŋɔɕɪn		-kwā
MKA	-jɔŋɔɕwān		-kwā
BLN	ɛ?-jɔŋɔɕwān		-kwā
RBO	-wɔŋɔɕan		-kwā
LEF	wɔŋɔɕɪn		kɪn
LEK	ŋ-kɪtɛ kɪtɛ		m-fɪɛntɛ
	(626) stand up		(627) think
	se mettre debout, se lever		penser
CB	(2006) *-yɛm- (1692+) *-tɛdam- 'stand'		(772) *-gān-
M	*-tɪm 'stand'		
PM	*-tyɛm *-tɛɛb		*-kān-tVn ? *-dɪtɪ ? *-lɛŋ-tɛn
MBM			
MRN	-tyɛnə		-mətə
MYE	-tyɛmmɪ		-kāntɪ
MBE	-tyɛmmɛn ǎ'mwɛn		-lɛŋkɛn
ELU	-tɛba		-kāntə
NNE	-tyɛm		-kāntan -dɛl
AKO	-tyɛem		-wɛmtɛn
MHE	-tyɛmɪ		ŋ-lɛŋtɛn
MWK	-tɛɛmɪn ǎ mwāǎ		-dɪtɪ
MKA	tɛɛbɛ mwā		-dɪtu -lɛŋtɛn
BLN	-tɛɛbɛ ǎmwāǎ		-ɪtɪ
RBO	-tɛɛb ǎ'mwāǎ		-yǎŋtɛn
LEF	tyǎ 'mɪn (ə/c)		kānɛ?
LEK	ŋ-tɛnɛ tɛnɛ		m-mɔtɛ mɔtɛ

	(628) know	(629) forget	(630) work
	savoir, connaître	oublier	travailler
CB	(2001) *-yíjeb	(939) *-jáéb-	(247) *-cád-
M	PEG: *jí		PEG: *fák
PM	*-bwéé ?	*-jáb-tEn ?	*-bòl (*n.)
MBM			
MBN	-bífì	-bótè	-bóle ñ-són
MYE	-bífì	-bwótí	-bwón ñ-són
MRE	-bíf	-jàpen	-bèl ñ-són
ELU	-bífì	-jàpa	-bè ñ-són
NNE	-bífì	-jàtan	-Bèl ñ-són
AKO	-bífì	-càten	-bèl ñ-són
MHE	-bwíí	-pòòsə	-bèl ñ-són
MWK	-bífì	-pòsin	-bòl
MKA	-bwé	-pòsən	-bòl
BLN	-bwéé	-pòsən	-bòl èbòlò
BBO	-byóo	-pòòsən	ñ-bòòní ñ-són
LEF	bíf	yàsín	-bwé
LEK	ñ-phíné phí	ñ-zàtè zàtè	ñ-bòtè mètùgè
	(631) dig	(632) cut	
	creuser	couper, découper	
CB	(1752) *-tíim-	(1754) *-tíimb-	(304) *-céc-
M	*-tíim- 'dig, plant, fix vertically		(1029) *-kèd-
PM	*-líim *-fùg	into, stand'	PEG: *kék (1028) *-kèc-
MBM			*-sél
MBN	-sùè		-sélè
MYE	-sò?		-sén
MBE	-sù?		-sél
ELU	-líim		-sýél
NNE	-líim		-syél
AKO	-líim		-sél -kwèl
MHE	-líim		-sél
MWK	-hùw		-sél
MKA	-hòg		-sél
BLN	-hù?		-sél
BBO	-fùk		-sél
LEF	šə?		lén
LEK	ñ-zòkè zòk		ñ-lóéntè

	(633) tear	(634) build	(635) swim
	dāchirer	construire, fabriquer	nager
CB		(1847/8) *-tōng- 'sew, build'	
M		*-tōng- 'plait, sew, build'	
PM	*-sāl *-fāb	*-lōŋ	*-nyāl
MBM			
MBN	-sālǎ	-lōŋə	-nyǎǎ
MYE	-sāl	-lōŋ	-lǎŋ
MBE	-sǎla (s/s) -yǎpi	-lōŋ	-wǎ?
ELU	-sāl	-lōŋ	-nyāl
NNE	-sāl	-lōŋ	-nyal
AKO	-sāl	-lōŋ	-nyāl
MHE	-hāb'	-lōŋ	-wǎ?
MWK	-hāw	-lōŋ	-kǎ nyǎy
MKA	-hāb	-lōŋ	-kǎ dyǎŋgǎ
BLN	-hāb	-lōŋ	dyǎkǎ
BBO	-fāb' (f/h)	-yōŋ	kǎnǎ dyǎkǎ
LEF	nyǎ?	-lōŋ	-lǎ dyǎkǎ
LEK	ŋ-khǎnǎ khǎ	ŋ-lōŋkǎ lōŋ	ŋ-nyǎŋkǎ nyǎŋ

	(636) sew	(637) weave
	coudre	tisser
CB	(378) *-cǎn-	(1847/8) *-tōng- 'sew, build'
M	*-tǔm- 'sew' PEG: *tǔm 'coudre, tirer sur'	PEG: *bǎk
PM	*-bǎŋ-V *-jǔm *-lǔm	*-lōŋ *-tǔb-V
MBM		
MBN		-lǎmǎ
MYE	-jǔm	-lǎm- 'réparer'
MRE	-bǎŋ	-lōŋ -tǔ?
ELU	-bǎǎ	-lōŋ
NNE	-bǎǎ	-lōŋ
AKO	-bǎǎ	-lǔm 'patch, sew'
MHE	-lǎn	-tǔba
MWK	-bǎǎŋ	-lōŋ
MKA	-bǎŋt	-lōŋ -mǎŋ'
BLN	-bǎŋt	-lōŋ
BBO	-yǎndǎ	-tǔba
LEF	jǔm	mǎ?
LEK		ŋ-lōŋkǎ lōŋ

	(638) plait, braid	(639) forge	(640) cut down, fell
	tresser	forger	couper, abattre
CB	(1524) *-pənd-	(1861) *-túd-	(1703) *-tém-
M		*-túd-	(1029) *-kɛd- 'cut'
PM	*-pən *-mən	*-lú	*-kwɛl
MBM			
MBN	-mənə -kəŋə	-lúə	-kwɛlə
MYE	-mən	-dún	-kpən
MBE	-pən n-1ɔ̄ (a/e)	-lú	-kwɛl
ELU	-pən	-lú	-kwɛl
NNE	-pən	-lú	-kwɛl
AKO	-pən n-1ɔ̄	-lúu	-kwɛl
MHE	-pən	-lúla	-kwɛl
MWK		-túuw	-sɛl
MKA	-pən	-lwə	-kwɛl
BLN	-pən		-kwɛl
BBO	-pən m-yɔ̄		-kwɛ
LEF		mɔ̄?	lɛn
LEK	n-lámɛ n-jɛtɛ	n-cwɛnɛ cɔ̄ɪ	ŋ-kwɔ̄nɛ kwɔ̄
	(641) plane off	(642) hoe	(643) weed
	raboter, aplanir	houer	sarcler, désherber
CB	(1134) *-kɔ̄mb- 'scrape'		(263) *-cākɔ̄d-
M	*-kɔ̄mb- (L 'plane..' H 'scratch' 'sweep')		PEk: *-kɔ̄d
PM	*-wɔ̄m	*-sɔ̄g	*-tém *-fub
MBM			
MBN	-gɔ̄mə -cúə	-súə	-tə'mə -kwɛlə
MYE	-kpəə	-kpɔ̄ŋ	-gúb
MBE	-wɔ̄m	-sú?	-hú?
ELU	-wɔ̄m	-sɔ̄k	-hɔ̄bə
NNE	-wɔ̄m	-sɔ̄g'	-hɔ̄bə
AKO	-wɔ̄m	-sɔ̄b	-wɔ̄be
MHE	-wɔ̄m		-tém
MWK	-wɔ̄m		-kúm -huu
MKA	-wɔ̄m	-hú	-bálɛ
BLN	-wɔ̄m		-tém
BBO	-wɔ̄m	-fúg (f/h)	-fúb -báyo
LEF	kwəɔ̄	kwəŋ	tém
LEK	ŋ-gɔ̄ɔ̄ntɛ gɔ̄ɔ̄	n-sə́kɛ	ŋ-khɪ́nɛ khɪ́n

	(644) sow, plant semer, planter	(645) draw water puiser	(646) tap (palm wine) "vigner"
CB	(1217) *-kõn- 'plant'		
M	*-kõn 'plant (seeds)'		
PM	*-wõn	*-bwèl *-dùl	*-lèŋ
MBM			
MBN	-gõnè	-byɛlè	-lèŋɔ
MYE	-wõn	-bwèn -dùn	-lèŋ
MBE	-wèn (ə/ɔ)	-bwèl (ɛ/ə)	-lèŋ
ELU	-hõn	-dèl	-lè
NNE	-yũn	-dèl	-lɔ̃(ŋ)
AKO	-wèn	-bwèl -bwèŋ	-lèŋ
MHE	-wõn	-bwèl	-lèŋ
MWK	-wõn	-bwèl	-lèŋ
MKA	-wõn -lfi	-bwèl	-lèŋ
BLN	-wõn	-bwèl	-lèŋ
BBO	-wõn	-bwèe	-yèŋ
LEF	wõn	pãm	lèŋ
LEK	ŋ-gũntɛ gũ	m-bàgèntɛ bəgè	ñ-lèŋkɛ lèŋ
	(647) fish pêcher	(648) wipe essuyer	(649) wash (pots) laver (vaisselle)
CB	(638) *-dɔb-		
M	*-dɔb- 'angle, catch fish'		
PM	*-kɔb *-lɔg *-jɔb	*-sɪŋ-V *-pɪn-V	*-wɔb-V
MBM			
MBN	-lɔè	-cɔè	-gwəbè
MYE	-lɔè?	-sɔè?	-gɔè?
MBE	-kɔ?(bá)	-sɔŋ (ə/e)	-wɔ(ya)
ELU	-kɔ	-pɛnc	-hɔ
NNE	-lɔɔ	-oɔna	-yɔbè
AKO	-lɔɔg	-pɛne	-wɔbe
MHE	-jɔb	-sɪi	-wɔbe
MWK	-kɔw ndɔn	-sɪiŋ	-wɔw
MKA	-jɔb	-sɪŋɛ	-wɔbè
BLN	-jɔb'	-sɪŋe	-wɔbe
BBO	-jɔb	-sɪŋu	-wɔbo
LEF	lɔ?	tɔtɔ	wɔ?
LEK	ñ-lɔkɛ lɔk	ñ-sɔtɛ sɔ?	ŋ-gwɪɪnɛ gwɪɪ

	(650) wash, rinse (bottle)	(651) wash, bathe	
	laver, rincer	(se) laver, se baigner	
CB	(410) *-còk-	(435) *-còk-	(2107) *-yɔ̃g-
M	*-còk-	PEG: *sòg 'laver'	*-jɔ̃g- *-kokod- '...wash away'
PM	*-sùg		*-wɔ̃g
MBM			
MBN	-sàkè	-gɔ̃ɔ̃	
MYE	-sògkɪ	-wɔ̃?	
MBE	-su (s/ɛ)	-wɔ̃?	
ELU	-sòg ɛtè	-wɔ̃?	
NNE	-sòg'	-wɔ̃g'	
AKO	-sòg ɛtè	-wɔ̃g'	
MHE	-sù?	-wɔ̃?	
MWK	-sààli	-wɔ̃?	
MKA	-sà(?)àli	-wɔ̃?	
BLN	-sù?	-wɔ̃?	
BBO	-sùg	-wɔ̃g	
LEF	sàli?	wɔ̃?	
LEK	ñ-sòkɛ sòk	ñ-gwɪɪnɛ gwɪɪ	
	(652) comb	(653) teach	(654) learn
	peigner	enseigner	apprendre
CB	(259) *-cák-	(271) *-càn-	(1994) *-yég-
M			*-jég-
PM	*-sàj-V	*-nyég-Ed *-jók-V	*-nyég-Ed *-jók-V
MBM			
MBN	-kúmè	-gɔ̃kè	-gɔ̃kè
MYE	-pɔ̃?	-yɔ̃kɪ	-yɔ̃ɔ̃?
MBE	-bɪsi	-jókɪ -lɛ	-jókɪ
ELU	-sɛɛ	-nyégɛd	-nyégɛd'
NNE	-sy ɛgɛ	-ywɛd	-ywɛ
AKO	-sɛde	-yégɛd	-yége
MHE	-sɛse	-nyɪe	-jókè
MWK	-sɛy	-jókɪ	-yèe -jókɪ
MKA	-sây?	-nyɪ'ɪd'	-nyɪ'ɪd'
BLN	-sây (y/s)	-nyɛ'e	-nyɛ'e
BBO	-sàso	-yɛb	-nyégu
LEF	-sàsɪ	lɪfɪ	wɔ̃kɔ̃
LEK	ñ-págánɛ págá	ñ-gíkɛ gíkɛ	ñ-gíkɛ gík

	(655) cry, weep *	(656) fear	(657) frighten
	pleurer	craindre	effrayer
CB	(561) *-dēd- 'cry, wail'		(348) *-cīc-
M	PEG: *dān	PEG: *bōp	
PM	*-jīī	*-bāŋ	*-sīj
MBM			
MBN	-zyà?	-bāŋə	-sīyə
MYE	-jīī	ā-tī mbó?	ā-wōŋkī mbó?
MBE	-bān	-bāŋ	-sī (s/s)
ELU	-jī	-bā	sək
NNE	-jīī	-bāŋ	-bāād
AKO	-cīī	-bāŋ	-sīd' -bāād (<bāŋ-ed)
MHE	-jīī	-bāŋ	-sīy?
MWK	-jīī	-wó? əsəl	-sī? -wōosi ə-səl
MKA	-jīī	-bāŋ	-sīy?
BLN	-jīī	-wó? əsəl	-sīy?
BBO	-jīī	-sē	-sīd'
LEF	jīī	bāŋ	bā 'mbó?
LEK	n-sīnē sīī	m-bāŋkē bāŋ	m-bāŋkē bāŋkē

	(658) laugh	(659) gather, collect
	rire	recueillir, ramasser
CB	(948) *-jōd-	(1227) *-kōŋg- 'gather up, assemble'
M	PEG: *g(w)ē	
PM	*-wōō	*-lād *-pād *-jēm
MBM		
MBN	-gūə	-jēmə
MYE	āsōōlā?	-lātī ā-kūŋkī
MBE	-wə	-jēm
ELU	-wə	-lād
NNE	-wōo	-lād'
AKO	-wōo	-lād' -pād'
MHE	-wōo	
MWK	-wōo	
MKA	-wōo	-pād'
BLN	-wōo	-pād'
BBO	-wōo	-pād' -jēm
LEF	wəlē?	lā?
LEK	ij-khwōnē khwōō	

	(660) possess, have posséder, avoir	(661) squeeze out, press presser, exprimer	(662) suck sucrer
CB (2129) *yðŋg- 'add to'	(1313) *-mĩni-	*-mĩny-	(1908) *-yám-
M	*-min-		(1331) *-mõngõnĩ-
PM *-wõŋ	*-mĩny *-bǎn		*-mwǎŋ *-sõj
MBM			
MBN -gõŋə	-bǎndə		-mwǎŋə
MYE -wõŋ	-mĩŋ		-myõŋ
MBE -wõŋ	-mĩ		-mwǎŋ
ELU -wõ?		-tõl	-mwǎ
NNE -wõŋ		-tõl	mǎŋ
AKO -wõŋ	-mĩn ǎtə		-mwǎŋ
MHE -wõŋ	-mĩi		-sõy?
MWK -wõŋ	-mĩi		-sõy?
MKA -tĩnə	-mĩi		-mwǎŋ -mwǎ
BLN -wõŋ	-bǎn		-mwǎ
BBO -wõŋ	-bǎn		-sõd'
LEF wõŋ		nyĩ?	mwǎŋ
LEK ñ-gõŋkɛ gõŋ	ñ-gǎǎntɛ gǎ		ñ-myǎŋkɛ myǎŋ
	(663) take (away) prendre, emmener	(664) remove * enlever	(665) undress se déshabiller.
CB (1774) *-tõõd-	(1588) *-põd- 'strip off'		
M			
PM *-tõd *-kõb	*-fũd		*-fũd (+ n.)
MBM			
MBN -tõlɛ	-fõlɛ		-bõkɛ
MYE -hũ?	-hũ?		-hũ
MBE -tõ -kõ	-hũ? (?/1)		-hũ ñ-kõ
ELU -hõd'	-hõd'		-sõd'
NNE -kow -wõd	-hǎdɛn		-wõd'
AKO -kõbɛn	-hũd'		-hũd' bwẽm ǎ'yǎl
MHE -tõd' (d'/1)	-hũd'		-hũl mbõtɛ
MWK	-hũl		-hũl
MKA -tõd' (d'/1?)	-hũd'		-hũd mbõtɛ
BLN -kõb	-hũd'		-hũd
BBO -tõd'	-fũd		-fũd mbõtɛ
LEF nõŋ	fũ?		fũ? mǎbǎ?
LEK ñ-põgõmɛ põgõ	ñ-fǎtɛ fǎ		ñ-fǎtɛ cõĩ

	(666) give donner	(667) lick lêcher	(668) sell vendre
CB	(1404) *-pã-	PEG: *dãd	(414) *-cõmb- 'buy' PEG: *fân
M	*-pã- PEG: f?ã	*-meang- '(lick, taste)'	*-com- 'purchase' *-cõmb- 'buy'
PM	*-bẽ	*-nyãŋ-V	*-sõm
MBM			
MBN	-bõõ	-nyãŋə	-sõmə
MYE	-bə	-nyõõ	-swõm
MBE	-bẽ (c/ə)	-yãŋ	-sãm
ELU	-bə	-nyãã	-sõ
NNE	-bwə (w/y)	-nyãa	-sõm
AKO	-bẽ	-nyãa	-sõm
MHE	-bẽ	-nyãa	-sõm
MWK	-bẽ	-yãŋ	-sõm
MKA	-bẽ	-nyãŋɛ	-sõm
BLN	-bẽ	-nyãŋe	-sõm
BBO	-bẽ	-nyĩnid'	-sõm
LEF	bə?	nyãŋgũ nyãũ	sõm
LEK	ñ-bàkɛ bāk ñ-tɛɛnɛ	ñ-nyãŋãnɛ nyãŋã	ñ-sũũntɛ sũũ

	(669) buy acheter	(670) pay payer	(671) count * compter	(672) steal voler
CB	(490) *-dãnd-		(1673) *-tãŋg-	(2020) *-yĩb-
M	PEG: *jõn		PEG: *tãŋ	*-jĩb- PEG: *jĩa
PM	*-jãn	*-sãb-V	*-lãŋ *-tõŋ	*-jĩb
MBM				
MBN	-jãn	-jãnə	-lãŋə	-zəbà
MYE	-jãn	-sãpĩ	-lõŋ	-jĩ?
MBE	-jãn	-sãã	-tõŋ	-jĩ?
ELU	-jã	-sãba	-tõ	-jõb'
NNE	-jãn	-sãbɛ	-tõo	-jɛb
AKO	-cãn	-sãbe	-tõŋ	-cĩb'
MHE	-jãn	-sãbe	-tõŋ	-jĩb'
MWK	-jãn	-sãaw	-tõŋ	-jĩw
MKA	-jãn	-sãba	-tõŋ	-jĩb
BLN	-jãn	-sãbe	-tõŋ	-jĩb'
BBO	-jãn	-sãbu	-yãŋ	-jĩb
LEF	yãn	sãõ	lãŋ	jĩ?
LEK	ñ-zããntɛ zãã	ñ-sókɛ sók	ñ-lãŋkɛ lãŋ	ñ-žĩtɛ žĩ?

	(673) choose	(674) sit down	(675) give birth
	choisir	s'asseoir	enfanter, accoucher
CB	(ps 398) *-pɔ̀ɔ̀n-	(ps 174) *-dʲãd-	(136) *-bʲãd- 'bear child'
M		PEG: *cɔ̀i	PEG: *bʲ
PM	*-pɔ̀ɔ̀j *-bɔ̀ɔ̀n	*-dyà (+*ã'sé)	*-jãã
MBM			
MBN	-bɔ̀ɔ̀ndə	-dyɛ	-gʲɛ
MYE	-pɔ̀ɔ̀n	-dyɛ 'sé -dyə	-jyɛ
MBE	-bɔ̀ɔ̀n	-dyɛ 'sé (ɛ/a)	-jɛ
ELU	-pɔ̀ɔ̀	-dyɛ 'sé	-jyɛ
NNE	-pɔ̀ɔ̀gʲ	-dyɛ 'sɛ	-jyãa
AKO	-pɔ̀ɔ̀dʲ	-dyɛ ɛ 'sɛ	-cyãa
MHE	-pɔ̀ɔ̀yʲ	-dyà	-jyãa
MWK	-bɔ̀ɔ̀n	-dyà ásé	-jãa
MKA	-pɔ̀ɔ̀yʲ	-dyàá 'sé	-jã'ã
BLN	-pɔ̀ɔ̀yʲ	-dyãá sé	-jãã
BBO	-pɔ̀ɔ̀dʲ	-dyàa	-jãa
LEF	pɔ̀ɔ̀ʲ	ʒùmán	yɛ
LEK		ñ-sãànɛ'šɛ cãšɛ	ñ-sãnɛ šã
	(676) grow	(677) live	(678) throw *
	pousser, grandir	vivre	jeter, lancer
CB			PEG: *mãk *gwãk
M			*-tum- 'throw, shoot'
PM	*-kɔ̀ɔ̀g		*-pʲm *-lʲm *-bwẽm
MBM			
MBN	-kɔ̀ɔ̀	-dyɛ mɛŋ	-pʲmə -lʲmə
MYE	-kɔ̀ɔ̀	-dyə	-pʲm -yðɔ̀lʲ
MBE	-kɔ̀ɔ̀	adyɛ á'mwãn longɛ	-pẽm -lẽm (a/o)
ELU	-kɔ̀ɔ̀	-dyɛ məŋ	-pəm -lóm
NNE	-kwɔ̀ɔ̀	-dɛ	-pəm
AKO	-kwɔ̀ɔ̀gʲ	-bɛ á-lɔ̀ŋgɛ	-pʲm -lʲm bwẽm
MHE	-kɔ̀ɔ̀	è-lɔ̀ŋgɛ	-pʲm -lʲm
MWK	-kɔ̀ɔ̀	ãbã àdyà	-pʲm -bwẽm
MKA	-kɔ̀ɔ̀gʲ	-bã è-lɔ̀ŋgɛ	-pʲm -lʲm -bwẽ'm
BLN	-lãl	-bã è-lɔ̀ŋgɛ	-pʲm -lʲm
BBO	-kɔ̀ɔ̀kʲ	ã-yðŋgɛ	-yʲm -bwẽm -pʲdʲ -jɛbʲ
LEF	kɔ̀ɔ̀	bã lɔ̀ŋgɛ	šɔ̀ãʲ
LEK	ŋ-kɔ̀ɔ̀kɛ kɔ̀ɔ̀k	ñ-cãnɛ cã	ŋ-gãŋãnɛ gãŋã

	(679) follow *	(680) dance	(681) jump
	suivre	danser	sauter
CB		(147) *-bɪn	
M	PEG: *bɪ	PEG: *bɪn *nɔŋ	
PM	*-nɔŋ *-fɪd *-nān	*-sǎŋ	*-fɛb *nyéd
MBM			
MBN	-nɔŋə	-sǎə?	-fɛbā? -nyɛlɛ
MYE	-hɪ?	-sɔ?	-hə?
MBE	-nɔŋ	sǎ?	-yɛl ǎ'mwɛn
ELU	-hǎd	-sǎ?	-hɛbǎ'mǎŋ
NNE	-hǎd' -nān	-sǎn	-hɛb'
AKO	-hɪd'	-sǎŋ'	-hɛb'
MHE	-nɔŋ	-sǎ?	-nyɛ?
MWK	-nɔŋ	-sǎ?	-yɛl
MKA	-nɔŋ	-sǎŋ'	-nyɪd'
BLN	-nɔŋ	-sǎ?	-nyɛd'
BBO	-bɪubɛn	-sǎŋ'	-nyɛd'
LEF	nān	sǎ?	pyám
LEK	n̄-sǎfɪtɛ sǎfɪ	n̄-sǎkɛ sǎk	n̄-nyɛtɛ nyɛ?
	(682) fly	(683) wait	(684) stay
	voler	attendre	rester
CB		(580) *-dɛnd-	(ps 174) *-dɛfɛd- 'sit, dwell'
M			
PM	*-pɔm-V	*-sɛny	*-dyǎ
MBM			
MBN	-lǎǎlǎ	-sɪŋə	-bɔlǎ
MYE	-pɔvɪ -pɔmpɪ	-sɔŋ	-dyə
MBE	-pɔm (o/u)	-sɪ	
ELU	-pɔmɛ	-sɔŋ	-dyɛ
NNE	-pɔmɛ	-sɪŋ	-dɪf
AKO	-pɔmɛ	-sɪn	-dyɛɛ
MHE	-pɔmɛ	-sɪɛ	-dyǎ
MWK	-pɔm	-sɛɛ	-lɪ?
MKA	-pɔmɛ	-sɛɛ	-dyǎ
BLN	-pɔmɛ	-sɛɛ	-dyǎ
RBO	-pɔmbu	-sɛɛ	-dyǎa
LEF	-fɔmɪ	sɛŋ	dyɛ
LEK	m̄-pɔnɛ pɔnɛ	n̄-sɛɛntɛ sɛɛ	n̄-cǎnɛ cǎ

	(685) finish		(686) begin		(687) marry
	finir		commencer		se marier
CB	(1281) *-mäd-		(13) *-bäd-		(11) *-bäd-
M	*-mäd- (d/n) PEG: *mĩtĩ (tr.) *mē (itr.)		PEG: *jē		PEG: *dām
PM	*-mäd		*-bötE(d)		*-wŋ
MBM					
MBN	-mälə		-šəbə		-gŋŋə
MYE	-mà?		-bò?		-wŋ
MBE	-mà?		-bòti (o/u) -bate		-wŋ
ELU	-mà?		-bòtɛd		-wō
NNE	-mäd'		-bōte		-wōŋ
AKO	-mäd'		-bòtɛd -bāde		-wōŋ
MHE	-mäd		-bòtə		-wōŋ mwəā?
MWK	-mäl		-bòti		-wŋ mwəā
MKA	-mäd		-bòte		-wōŋ
BLN	-mäd		-bòote		-wŋŋ
BBO	-mà		-bòoti		-wŋ mwaad'
LEF	-mā?		-boote?		wə
LEK	m-myānē myā		ñ-šātē šā		m-būtē dšk bð
	(688) fill		(689) add		
	remplir		ajouter		
CB					
M	PEG: *dVCV 'remplir (un trou)'		PEG: *kòk(C)ə 'augmenter'		
PM	*-lóc-Ed ? *lón-Ed		*-bäd *-kòk-V		
MBM					
MBN	-lškə		-kòkə		
MYE	-lštĩ		-bāā?		
MBE	-lštĩ		-hə (ə/o)		
ELU	-lšřtd'		-bād'		
NNE	-lōned		-bād'		
AKO	-lōned'		-bād'		
MHE	-lōsi?		-bād'		
MWK	-lòti		-bāl		
MKA	-lòtid		-bād'		
BLN	-lòtid'		-bād'		
BBO	-yòsid		-bād'		
LEF	lúān		bān		
LEK	lúntē		kòkē		

	(690) show		(691) dry up *	
	montrer		sécher	
CB			(972) *-kǎc-	
M			PEG: (*jóm '(se) sécher')	
PM	*-lúm-Ed *-lěb-Ed		*-kěj *-kěny *-lěn	
MBM				
MBN	-lěmbə		-kíŋə	
MYE	-lumpɪ		-kíŋ	
MBE		-lúuli	-kyěsi	
ELU	lěbɛ? -lěe		-kěŋad'	
NNE	-lúmad'			-lěn
AKO	-lúmed'			-lěn
MHE	-lúmi			-lěn
MWK	-lěpi		-kěəsɪ	
MKA	-lěbid'		-kěey?	
BLN	-lúmid'		-kěy?	
RBO	-yúmíd		-kěed'	
LEF		lúfú	kíŋjě	
LEK		díntě	ŋ-gíŋúntě	
	(692) dry in the sun		(693) rot	(694) warm oneself
	sécher au soleil		pourrir	se chauffer
CB	(1924) *-yǎnək		(153) *-bǝd-	(2136) *-yǝt-
M	*-jǎnek		*-bǝd- PEG: *bǝ	
PM	*-nyǎn-V *-kěny *-kěj		*-bǝǝ	*-kěd-V *-wǎl
MBM				
MBN	-kěŋgə		-nyǝŋə	-kǝlǝ
MYE	-kíŋkɪ		-bwǝǝ	-bǎpɪ
MBE	-yǎn		-bwə	-kǝl
ELU	-nyǎnɛ		-bwə	-kířɛ
NNE	-kíŋ		-bǝɔ	-wǎl
AKO	-nyǎne -kíŋ		-bǝɔ	-wǎl
MHE	-nyǎnɛ		-bǝɔ	-wǎl
MWK	-yǎan		-bǝɔ	-kěel
MKA		-bǎm	-bǝɔ	-wǎlě
BLN		-kěy?	-bǝɔ	-wǎl
RBO		-kěed'	-bǝɔ	-wǎa
LEF		kíŋjě	yǝ?	. wǝ? mwɪ
LEK		ŋ-gíéně gíě	ŋ-bǝgǎně	ŋ-khǝně khɔ

	(695) surpass		(696) tie, bind
	surpasser, excóder		lier
CB	(1832) *-tǝmb- 'swell'	(785) *-gǝng-	(1685) *-tǝt-
M	PEG: *c(e)ǝ 'dǝpasser'	*-tǝng-	
PM	*-tǝm	*-kǝŋ	*-lǝd
MBM			
MBN	-cwǝnǝ	-kǝŋǝ	-gǝŋǝ
MYE	-twǝm		-wǝn
MBE	-tǝm		-tǝŋ
ELU	-tǝ (ǝ/ǝ)	-kǝ	
NNE	-tǝm	-kǝŋ	
AKO	-tǝm -dǝg	-kǝŋ	-tǝd
MHE	-tǝm(ǝǝn)	-kǝŋ	
MWK	-tǝmsi	-kǝŋ	-lǝl
MKA	-tǝm	-kǝŋ	lǝd
BLN	-tǝmpǝn		-lǝd
BBO	-tǝm	-kǝŋ	
LEF	tǝm		tǝ?
LEK	ǝ-gǝkǝ	ǝ-jǝtǝ	jǝ
	(697) stop up, cork		(698) sweep
	boucher		balayer
CB	(602) *-dǝb- 'stop up'	(1540) *-pǝǝd- (-pǝǝd-)	
M	*-dǝb-	*-pǝ(n)g-	PEG: *jǝt
PM	*-jǝǝ *-kǝj	*-fyǝǝ	
MBM			
MBN	-zǝǝ		-kǝlǝ
MYE	-jǝ?	-swǝ(tǝ)	
MBE	-jǝ	-sǝǝ(tǝ)	
ELU	-jǝ	-hwǝ	
NNE	-jǝu	-hwǝ	
AKO	-cǝu	-hǝǝǝ	
MHE	-kwǝd' -dǝb	-yǝǝǝ	
MWK	-jǝu	-sǝǝ	
MKA	-juu -kǝl	-yǝǝ	
BLN	-kǝy?	-yǝǝǝ	
BBO	-kǝǝ	-yǝǝ	
LEF	kǝ?	fyǝlǝ?	
LEK	ǝ-sǝwǝnǝ sǝwǝ	ǝ-sǝwǝnǝ sǝwǝ	

	(699) blow (of wind) *		(700) blow (of mouth)
	souffler		souffler
CB	(1489) *-pɛ̀ɛp- 'blow, fan'		(1613) *-pɔ̀d- PEG: *fɔ̀dɛ́ *fɛ̀b
M	PEG: *cɪk 'agiter (vent)'		*-pɛ̀mb- 'blow up fire' *-pɛ̀ɛp-
PM	*-tɔ̀m *-fɛ̀b-V *-fɔ̀m-V		*-fɛ̀b-V *-fɔ̀m-V *-pɛ̀b
MBM			
MBN		-fɛ̀bɔ̀	-fɛ̀bɔ̀
MYE	ɛ̀-pɔ̀? ɛ̀-hɛ̀bɔ̀?		-hɛ̀?
MBE	ɛ̀-pɔ̀? ɛ̀-tɔ̀mɔ̀?		-pɛ̀
ELU	ɛ̀-pɔ̀b ɛ̀-tɔ̀mɔ̀		-jɔ̀d'
NNE	ɛ̀-pɔ̀b ɛ̀-hɛ̀pɛ̀		-hɛ̀bɛ̀
AKO	pɛ̀mɛ̀ ɛ̀-tɔ̀mɛ̀?		-hɛ̀be
MHE		-hɔ̀mɛ̀	-hɔ̀mɛ̀
MWK		-hɛ̀ɛw	-pɛ̀w
MKA		-hɔ̀mɔ̀	-hɔ̀mɔ̀
BLN	ɛ̀-pɔ̀b'		-hɔ̀m
BBO	ɛ̀-pɔ̀b ɛ̀-n'tɔ̀m		-fɔ̀m
LEF	-tɔ̀m		fɔ̀ŋfɪ
LEK	ŋ-gɛ̀gɛ̀nɛ̀		m-fɔ̀tɛ̀ fɔ̀?
	(701) rain	(702) shine *	(703) divide
	pleuvoir	briller, luire	diviser
CB	(650) *-dɔ̀k-	(1479) *-pɛ̀n-/*-pɛ̀ni- 'flash (as lightning)'	(754/5) *-gɛ̀b-
M	PEG: *dɔ̀	-pɛ̀ny- 'shine'	*-gɛ̀b- PEG: *gɛ̀b
PM	*-jɔ̀	*-pɛ̀ny	*-kɛ̀b
MBM			
MBN	-yɔ̀ɔ̀	-mɛ̀ɔ̀	-kɛ̀bɔ̀
MYE	-jwɛ̀	-tɔ̀ŋkɪ	-kɛ̀bɪ
MBE	-jɛ̀	-bɪ	-kɛ̀
ELU	-jɔ̀ɔ̀	-pɛ̀	-kɛ̀?
NNE	-jwɛ̀	-kɪŋ	-kɛ̀b'
AKO	-cɛ̀	-pɛ̀n	-kɛ̀b
MHE	-jɛ̀	-pɛ̀a	-kɛ̀b
MWK	-jɔ̀		-kɛ̀w
MKA	-jɔ̀	-pɛ̀nyɛ̀	-kɛ̀b
BLN	-jɔ̀	-tɛ̀ŋ	-kɛ̀b'
BBO	-jɔ̀		-kɛ̀b'
LEF		wɛ̀ŋ	kɛ̀?
LEK	ŋ-sɔ̀gɔ̀nɛ̀	ŋ-tɛ̀tɛ̀	ŋ-kɛ̀tɛ̀ kɛ̀?

	(704) split	(705) break	(706) bend, fold
	fendre	caŕser	plier
CB		(182) *-böd-	
M		(227) *-büg- 'break, snap'	
PM	*-säl	*-böö	*-nig
MBM			
MBN	-sälê	-büê	-nêê
MYE	-sântî	-sân	-nê? -kîipî
MBE	-säl	-bø	-nû
ELU	-säl	-bê?	-nêk
NNE	-säl	-böo	-nêg'
AKO	-láb	-böo -böög'	-nêg
MHE	-säl	-büü	-nî?
MWK	-säl	-böo	-nî?
MKA	-säl	-bö'ó	-nîg'
BLN	-säl	-böo	-kêd'
BBO	-sâa	-böo	-nîk'
LEF	šâ?	bwê?	nî?
LEK	ñ-kháné khá	ñ-pháné phé	ñ-ñšké ñšk
	(707) abstain	(708) look at	(709) push
	s'abstenir	regarder	pousser
CB	(822) *-gîd-		(1758) *-tînd-
M	*-gîd-		
PM	*-kîî *kîñ *-bâñ	*-nîñ	*-tîñ(-Ed/-V)
MBM			
MBN		-bâñ	-lêñgê
MYE	-kîñ		-sîmmî
MBE			-lîñ
ELU	-kîî -nêñ	-nî	-tênc
NNE	-kîî	-nîñ	-têne?
AKO	-kîî -kîñ	-nîñ	-tîñêd
MHE	-kîñ	-nîñ	
MWK		-nîñ	
MKA	-kîî	-bâñ	-tîñé
BLN	-kîî	-nîñ	-tîñ
BBO	-kînda		-tîñ
LEF		bâñ	têté?
LEK	ñ-khîñé khîñ	ñ-lîñnté lîñ	ñ-nyîté nyî

## FOOTNOTES TO APPENDIX ONE

The following explanatory notes to appendix 1 are not meant to be exhaustive but to draw attention to certain facts, to give some explanations and clarify points which would otherwise remain obscure to a reader unfamiliar with these languages.

The number of the individual footnotes refers to the corresponding number of the item in appendix 1.

- [3] C2 is t in PB but n in PM. The n may be due to analogical change with (A5) 'five' which has a nasal in the same position.
- [4] The final n in PM may be due to analogy with numeral 'five' which has n as C2.
- [7] The complex tonal structure of this item suggests that it probably goes back to a compound form (cf. -sa/-saa 'three' in Ekoid).
- [11] The numeral 'twenty' appears to be an associative NP (AssNP) consisting of the plural form of 'ten' plus 'two'.
- [12] \*-bókÈl may reflect a compound consisting of \*bōgò plus \*-kòl. The item \*-kòl is probably related to \*-kòd 'rope, string', cf. (A341) and (A342). BCCW points to a possible meaning "string (of cowries?)".
- [17] The long V in MWK here and elsewhere frequently reflects the following metathesis rule CVC-V → CVVC where the second V completely assimilates to the first V.  
The vowel "suffix" is clearly related to class 1a and may be an old derivational suffix (cf. also Hedinger (1980:5)).
- [22] This root provides an isogloss for PM and is potentially a PM innovation.
- [23] These items appear to be morphologically complex consisting of mwān 'child' plus another morpheme or word.
- [24] Most of the items in (A24) consist of (A23) plus 'woman/female' (cf. (A105/6)).
- [26] Cf. (A109) 'child'.
- [27] Consists of 'child' plus 'woman/female' (cf. (A105/6)).
- [28] The items in (A28) consist of 'father' plus "big", 'important' (cf. (A16) to (A18) and (A522)).
- [29] The items in (A29) consist of 'mother' plus "big", 'important' (cf. (A19) to (A21) and (A522)).
- [31] Cf. (A105/6). This item is a clear case of a

reanalysed prefix plus stem becoming the stem to which the class prefix is added (cf. MKA b-ãäd and NNE bẽ-bãã?/MYE ð-bãã?).

[32] For \*-gðb, cf. (A33) 'skin'. Some languages have an AssNP consisting of 'body' plus 'skin', e.g. MYE, BLN.

[33] The two PM roots must go back to one original form, with the earlier \*g having split into PM \*g and \*k (cf. chart 5.12).

[34] Cf. (A205) 'animal' and (A275) 'meat'.

[41] b-ðŋ(gɔ̃) appears to have been reanalysed as the stem in MBE and MWK.

[43] Without external evidence, it is not possible to choose between \*nyðŋ and \*-ðŋ.

As to class membership, the above root belongs to either class 9 or class 10 or to both. Not having tested it for co-occurrence with class 9 or 10 concord, we cannot be sure whether it is a mass noun in gender 9 or 10 or a count noun belonging to gender 9/10.

[45] The presence of final b is limited to the Western cluster and its origin is obscure.

[47] The presence of final i in LEF and LEK and ii in MBM makes it possible that the PM vowel was \*oi (cf. also PEG).

[51] For \*-tðg, cf. (A267) 'feather'.

[52] The presence of a high tone on the prefix is unusual. One possible explanation appears to be that the H L pattern shifted leftwards for whatever reason.

[54] It is not clear whether MBM, MYE, MBE and MWK are derived from PM \*-bɛb̃. The compound forms are AssNP's and consist of 'lip' plus 'mouth' (cf. (A53)). The items in MHE, MKA, etc., appear to be V-initial stems with class 7/8 prefixes and further prefixed by the class 7 prefix for C-initial stems.

[55] The PM - PB correspondence \*ɛ - \*e has as yet no explanation.

[59] It is not clear whether the two PM reconstructions are cognate (cf. also (A45) 'beard').

[60] The items in NNE and AKO appear to have shifted from class 9 to class 3, and in MYE and ELU from class 5 to class 3. For \*-bðl, cf. (A61).

[61] The compound forms are AssNP's consisting of 'back' plus 'neck' (cf. (A72)).

[65] Cf. (A68).

[66] Cf. (A95). The compound forms are AssNP's consisting of 'elbow/knee' plus 'arm'.

[69] Cf. (A99). The compound forms are AssNP's consisting of 'palm/sole' plus 'hand'. In MHE, MKA and BLN, the root has changed noun gender to gender 14/6.

[70] NNE, AKO and MHE have reanalysed the noun in gender 3/4 as a stem in gender 14/6 (cf. also LEF).

[72] The root in AKO probably underwent the following development from PM: \*-buj- > buyj > buyd > bwid > bid.

[74] MHE, MKA and BLN roots appear to have changed to gender 14/6.

[76] The presence of two f's in the first PM item suggests an earlier reduplication.

The second noun in the AssNP's is (A78) 'heart'.

[77] The BBO entry is either not cognate with \*-pũb<sup>˘</sup> (cf. (A139)), or is an example of the type of lexical relationship highlighted in 5.4.

[80] PM \*-ẽẽ may be cognate with PB \*-dã.

[82] For \*-jũũ, cf. (A93) 'hip'.

[84] \*-sósó is probably a reduplicated form.

[85] For MWK, etc., cf. (A410) 'hole' and (A86). BBO mbĩndĩ may provide a b - p alternation (cf. 5.4.3).

[90] PM \*-jõg<sup>˘</sup> may be cognate with PSCNC.

[94] Cf. (A97).

[95] NNE, AKO and BBO are apparently partial reduplications of the root.

[98] The compound forms are AssNP's consisting of 'finger/toe' plus 'foot/leg' (cf. (A70)).

[100] This is the only item where an earlier (Pre-PM) form of the prefixes has survived (cf. chart 5.13). The compound form appears to consist of 'person' plus \*nyðŋ, with \*nyðŋ not having been encountered elsewhere.

[101] The presence of ŋ in MBM, MYE, ELU and NNE is without explanation at present. It should be noted that these languages have ŋ as reflex of \*ny. However, the reflex of \*ny in the Eastern cluster is :Ø.

[102] These items appear to be compounds of (A109) 'child' plus (A30/103) 'husband/male'.

[108] The PM - PB correspondence \*ɔ - \*o has no explanation yet.

[110] These items are AssNP's of (A109) 'child' plus (A102) 'man' (cf. note [102]).

[111] These items are AssNP's of (A109) 'child' plus (A105) 'woman'. PM \*-gɔ̃n is cognate with PEG.

[112] These items are AssNP's consisting of \*-jɔ̃n 'old' plus (A100) 'person'. It should be noted that this root is a clear example of gender 3/2, exceptions being MYE and ELU.

[113] kɪŋ is clearly of recent origin and a loan from English 'king' which probably came via Duala or Pidgin English.

[115] Several entries are AssNP's consisting of 'stranger' plus 'person'.

[116] -kǎáɪE is of recent origin and spread inland from the coast via other languages.

[118] The AssNP's in MKA, etc., consist of 'person' plus 'thief'. Note that here \*mòd is pre-posed whereas in earlier AssNP's it was post-posed.

The -a may be the suffix found in gender 1a/2.

[121] For \*-èl, cf. (A160) 'tree'.

[122] PM \*-òb is almost certainly cognate with PB \*-jòbà 5 'sun'.

[122/123] The \*m - \*mb correspondence in PM \*-nyàmé - PB \*-jàmbé is best explained in the following way: \*nỳ-jàmbé 9 > nyàm̃bé 9 > nyàm̃ 9 > nyàm̃+ɛ 1a. This noun in class 9 first lost C1, then the final V and consequently the mb became m (cf. 3.2.3). The final V in PM is attributed to the vowel associated with class 1a nouns (cf. note [17] above).

[123] There are clearly two distinct concepts represented here: the forefathers versus the departed who are believed to still live.

[124] The \*ɔ - \*o is an exception to the PM - PB vowel correspondences.

[125] In MYE, MBE and ELU, \*i > u, o /o+C\_\_\_. This change appears to be limited to this item.

[127/128] The tone of \*-dìb here is low compared with \*-dìb in (A125) and (A126). It is not clear what the ultimate answer to this tone discrepancy will be. The H/L distinction must be an old one going far behind PM.

[129] There are two AssNP's here: 'river/lake' plus 'big' and 'river/lake' plus 'salt'.

[133/134] No distinction appears to be made between the two concepts 'cloud' and 'fog'.

[136] For \*-gádV̄, cf. (A322) 'gun'. MHE, etc., consist of 'gun' plus 'sky/God' (cf. (A138) and (A122)).

[137] Nearly every entry is a reduplicated form. The rules which gave rise to these forms are not understood.

[140] The two separate PM reconstructions appear to be due to the split of Pre-PB \*g into PM \*g and \*k (cf. note [33] above). In ELU, NNE and AKO and also in MYE the root was reduplicated.

[141] \*-nyãny<sup>7</sup> may possibly go back to a class 9 root and have to be segmented as \*ny<sup>7</sup>-ãny<sup>7</sup>.

[143/144] Moon and month are clearly related.

[145] \*-tèny appears to have given rise to several reduplicated stems.

[148] The stem \*-fíntén appears to be polymorphemic consisting of (A425) 'black' plus a suffix -tén.

[149] Several languages appear to have reduplicated forms including MBM (cf. LEF).

[150] The [kɔsil] entries look suspiciously like loans from Duala.

[151] All the items here appear to be tracable to an original form \*gòl or \*gòd via reduplication and the rule \*g > \*k (cf. note [33]).

[152] NNE and AKO may be reconstructed as \*-ã and could be related to the PB forms \*(j)ákà/\*-yákà.  
For \*-sèb, cf. (A154) 'dry season'.

[157] mbumbu is probably a complete reduplication of m-bu.

[160] \*-él may have the following derivation: Pre-PB \*-té > è-té (cl.?) > -èlé (14/6) > -él<sup>7</sup>.

[163] An alternative reconstruction would be \*-àŋ<sup>7</sup> (cf. CB). On the basis of our data alone it is not possible to make a choice between the two.

[166] For \*-kòb, cf. (A33).

[170] The relationship of b in MBE (and CB) and p elsewhere suggests a similar phenomenon as the one discussed in 5.4.3.

[171] The mbònjì entries appear to be borrowings from Duala.

[174] MBE, etc., appears to be a compound noun consisting of the two PM roots. NNE, etc., are possibly full reduplications of è-sòŋ.

[180] \*-bùbù appears to be a reduplicated form (cf. CB \*-bù and also (A157)).

[184] \*-lòŋ provides a lexical isogloss for the Central group minus ELU (cf. 6.4.3).

[190/191] The AssNP's consist of (A53) 'mouth' plus (A185)

'house'.

[194] \*dũ, if related to mũũ 'fire' (A155), may be segmented as d`-ũ or d`-ũ.

[197] \*dy`-à may be cognate with PB \*-jàdà.

[206] The entries in MBN and LEF have a root initial f. If these are cognate with \*-pāny, then they provide an additional example of the relationships presented in 5.4.2.

[210] The PM - PB correspondence \*o - \*ɔ is perhaps due to the raising of \*ɔ before PM: \*ɔ > \*o /j\_\_Cu.

[211] These items are AssNP's composed of (A56) 'tooth' plus 'elephant'.

[216] The AssNP's are composed of 'elephant' plus 'river/water'.

[219] h̄sè is a loan from English (via Pidgin English?). The AssNP's are composed of (A217) 'cow' plus (A116) "white man".

[220] The different items refer to different species.

[226] It is not clear whether the CB and PM reconstructions are related.

[227] Cf. footnote 13 to chapter 4.

[228] pusi appears to be a loan from English.

[234] Cf. (A242), (A245) and (A248). \*-kāny' appears to refer to a general concept.

[236] The reconstruction of this item raises a similar problem to (A101) 'name': If the final V was \*ny, why did it not become Ø in the Eastern cluster?

[239] The different items apparently refer to different species.

[240] AKO and ELU appear to be compounds based on (A241) 'spider' plus (A236) 'pincer'.

[241] The first part of these compound forms appears to be cognate with (A119) \*-gāŋ.

[244] Most of the entries here are reduplicated forms.

[249] The entries here may all be due to the reduplication of \*pēny.

[255] There is an unexplained discrepancy in the vowel quality between PM and PB (cf. also PM in (A256)).

[256] PM and PB appear to be cognate. However, PM has a L tone where PB is H.

- [258] mu- in MYE and ELU is not a class prefix but rather a lexical morpheme, perhaps with the meaning small(?).
- [260] For the b versus d in ELU and AKO, see note [45].
- [265] The AssNP's consist of 'house' plus 'bird'.
- [268] For the \*p - \*b relationship, see note [170].
- [272] For \*d - \*t in PM, see 5.4.3.
- [274] MWK, etc., appear to consist of (A371) 'thing' plus (A525) 'eat'.
- [278] For \*-dǒŋ, cf. (A282) 'pepper'. sǔpə is a loan from either English or German.
- [284] The entries appear to be loans but it is not clear from which language.
- [285] The items here represent different species.
- [286] This is a staple crop introduced in the very recent past.
- [287] The Western cluster as well as LEF and LEK have final n, the other languages have ŋ which does not fit in with the normal sound correspondences. This irregularity may indicate that this item is of recent origin.
- [291] Each Manenguba item is composed of (A290) 'bean' plus (A116) "white man".
- [298] If PM \*-íí is cognate with CB \*-bíďǎ, then this item provides the following PM - PB correspondence in C1: ∅ - \*b, (cf. 5.3.1).
- [300] NNE and BBO items with w may belong to the class of items discussed in 4.4.5 which introduced a glide into the stem. However, it should be noted that there is no y in the plural.
- [306] This cognate set suggests that the PM vowel was short and lengthened in MBN, NNE and AKO.
- [309] This is a loan word.
- [313] The Eastern cluster suggests that PM should be \*u whereas the other languages and PB suggest PM \*ɔ. We have no explanation for this irregularity.
- [321] Cf. (A318) 'spear'.
- [325] The compound forms consist of 'small' plus (A324) 'cutlass'.
- [327] \*-jǎg is potentially a PM innovation.
- [335] There is both a tone and vowel discrepancy between PM and PB (cf. 5.7).

- [341] NNE and AKO have apparently lengthened the V.
- [346] Most of the entries are of recent origin.
- [351] ELU, etc., appear to be loans from the English 'key'. However, MNK and the vowel correspondences suggest that these entries are related to (A202) 'iron'.
- [355] ELU, AKO and BLN are cases of resegmentation where the singular prefix is reanalysed as the root initial consonant.
- [359] The initial y suggests that -yòndó is a loan word (from Duala?).
- [361] The items here are possibly loans. The nasal in C2 position creates a similar problem as in (A101) and (A236). \*ny > :Ø in the Eastern cluster may not have applied because the item was borrowed after this rule became inoperative or because the nasal is intervocalic rather than final.
- [365] \*bótÉ may be a loan, and sòtì is clearly a loan from English.
- [369] The n in AKO is possibly due to a suffix.
- [370] The first four items consist of 'remain/stay' plus 'above' (cf. (A684) and (A513)).
- [371] The change o > e in the plural is clearly due to the y-glide of the prefix.
- [373] \*-lǎŋǎ may be cognate with the verb (A591) \*-lǎŋ 'to read'.
- [374] \*-yàlà is clearly a loan word (cf. the initial y).
- [382] The majority of the entries have a high tone reflected in the PM reconstruction. However, CB reconstructions have L.
- [387] \*kwéd probably consists of the verb root 'die' (A572) plus a certain suffix.
- [388] PM \*-ú is almost certainly cognate with PB \*-kú.
- [389] The falling tones in ELU, etc., may be low falling tones which were transcribed as high falling ones.
- [391/392] In these related items reflexes of both PM \*k and \*w are apparently present (cf. 5.4.2).
- [408] -lǎŋǎ is possibly a loan from Duala. Note that \*i > ə / \_\_\_ŋ has not applied.
- [411] \*pòndá could be a loan word from Duala.
- [412] mǎní is clearly a loan from English.

[414] If MBM and MBN are cognate with the rest, then there is another t - l alternation here (cf. 5.4.2).

[417] Cf. note [33] for the \*k - \*g relationship.

[418] Cf. also (A467).

[443] The reflexes of \*-nỳny provide a lexical isogloss for Manenguba.

[450] Cf. (A448).

[457] The presence of \*j in PM makes it possible that PB should be \*d rather than \*n.

[460] There are two related PM reconstructions here, one with a \*d, the other without. Similar pairs are found among the verbs. A possible hypothesis is that an earlier \*d was lost in some morphophonemic environment but retained in others.

[466] MBM, MBN and LEK have an AssNP consisting of (A100) 'person' plus (A412) 'money'.

[478] It is not clear whether PM should be \*-bóg or \*-búg.

[498] The vowels here do not match the regular sound correspondences.

[518] Cf. (A32) 'body'

[519] Cf. (A39) 'face'

[520] Cf. (A72) 'back'

[522] Every entry here consists of (A65/68) 'hand/arm' plus "big".

[524] The change \*d > t in four languages has no parallel elsewhere.

[525] From (A525) to (A709), we frequently included two forms of the verb in LEK. The unprefixed form is the imperative, the form with the nasal prefix the infinitive.

[542] The two distinct forms in MBE, ELJ and NNE are the perfective and the imperfective respectively.

[543] The different PM items express different speaker/hearer relations and may be glossed as 'go back', 'come back' and 'go back' respectively.

[544] The PM suffix here and in later items is a derivational suffix (an "extension" in Bantu terminology).

[546] In MHE, MKA, BLN and BBO, the s is the alternant occurring before a following vowel.

[549] The reconstruction of the vowel in \*-nyén is not certain.

[556] For \*-tód, cf. (A663).

[583] There are two verb-noun expressions here: one, (A581) 'lie down' plus (A38) 'head'; two, (A382) 'dream(v.)' or (A549) 'see' plus 'dream(n.)'.

[588] Another possible segmentation of \*-kút-Vn is \*-kúd-tVn.

[655] Judging from the PB reconstruction, the vowel in PM appears to have been raised from \*e to \*i for unknown reasons.

[664] If PM and PB are cognate, then there is a \*H - \*L discrepancy.

[671] For \*-láj, cf. (A591) 'read'.

[678] The three different PM items refer to different but related concepts: 'throw away', 'throw' and 'shoot'.

[679] Cf. (A565).

[691] Cf. (A463).

[699] MBE, etc., consist of 'wind' plus 'pass by'.

[702] MKA apparently requires the reconstruction of the PM form as \*a while the apparently cognate PB reconstruction has \*ε.

## APPENDIX TWO

ENGLISH INDEX TO APPENDIX ONE

Abbreviations after some words are given to distinguish the difference in English usage between noun (n.), verb (v.) and adjective (adj.). Words in inverted commas (e.g. "bush") indicate non-standard usages. The numbers refer to the comparative word lists in appendix 1.

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## APPENDIX THREE

WORD LIST FROM KILHAM (1828): "SPECIMENS OF AFRICAN LANGUAGES. SPOKEN IN THE COLONY OF SIERRA LEONE"

The following items come from the language labelled Moko. The words are reproduced as in the original except that hyphens apparently separating the words into syllables have been omitted and vowels with a macron have been replaced by a double vowel, e.g. ā -> aa.  
(Numbers in brackets are added to facilitate comparison with the material in appendix 1.)

(1)	one	Ahoh	(217)	cow	Niiaka
(2)	two	Ubba	(223)	pig	Ngo
(3)	three	Ala	(352)	bowl	Abo
(4)	four	Enni	(332)	box	Lunbi
(5)	five	Utta	(351)	key	Diba
(6)	six	Nto	(68)	hand	Aka
(7)	seven	Samba	(78)	heart	Leem
(8)	eight	Tua	(38)	head	Lo
(9)	nine	Ubbu	(97)	foot	Ako
(10)	ten	Dium	(50)	eye	Dis
(141)	sun	Ania	(49)	ear	Niu
(143)	moon	Ngol	(53)	mouth	Nsool
(145)	star	Tete	(549)	see	Itoua
(102)	man	Maanju	(550)	hear	Ngus
(105)	woman	Maut	(606)	speak	Ngamu
(109)	child	Manuma	(541)	go	Keik
(16-18)	father	Ata	(542)	come	Iak
(19-21)	mother	Eni	(684)	stay	Teip
(185)	house	Ndaap	(674)	sit	Diasi
(190)	door	Akooba	(626)	stand	Fitisi
(155)	fire	Mu	(581)	lie down	Naunsi
(125)	water	Midiip	(525)	eat	Diak
(291)	rice	Koun	(527)	drink	Mua
(299)	oil	Mool	(381)	sleep	Ojoh
(281)	salt	Kiun	(649, 651)	wash	Uohma
(279)	milk	Be	(541)	walk	Keik
(269)	egg	Nkeeku	(598)	cook	Jam
(282)	pepper	Do	(666)	give	Bami
(348)	wood	Loon	(564)	take	Koma
(201)	stone	Ala	(383)	well	Imaju
(203)	farm	Nzak	(392)	sick	Ahula
(258)	bird	Non	(429)	little	Maambeh
(277)	fish	Sui	(453)	good	Ba
(259)	fowl	Kuup			

## APPENDIX FOUR

WORD LISTS FROM CLARKE (1848): "SPECIMENS OF  
DIALECTS: SHORT VOCABULARIES OF LANGUAGES, AND  
NOTES OF COUNTRIES AND CUSTOMS IN AFRICA"

All the lists are said to have been collected by Clarke except number 135 which is attributed to Merrick. The numerals 1 to 10 taken from Kilham and given as list 172 are not repeated here. (Numbers in brackets refer to appendix 1).

No. of List	Clarke's Language name	One (1)	Two (2)	Three (3)	Four (4)	Five (5)
168	Moko	Poh	Iba	Ittaan	Inin	Ittaan
175	Kikke	Ihuk	Eba	'Ngin	Ettan	Etto
257	Mwanjo	Ehoh	Eba	Bilah	'Nni	Otan
265	Maneboki	Ehoh	Biba	Alalu	Bineu	Bitan
285	Barihoh	Ehoh	Eba	Allan	Annin	Attaan
305	Bakumkum	Ahoh	Eba	Elalu	Enin	Ettan
307	Lumlum	Po	Eba	Ellau	Enin	Itan
308	'Ndiang	Poh	Biba	Bilali	Binet	Bitat
327	Lomlom	Ehoh	Eba	Elau	Inniin	Ettaan

List No.		Six (6)	Seven (7)	Eight (8)	Nine (9)	Ten (10)
168	Moko	'Ntoop	Samba	wama	Abu	Duom
175	Kikke	'Nto	Saamba	waam	Abbu	Doom
257	Mwanjo	'Ntoh	Saamba	Uah	Aboh	Do
265	Maneboki	'Ntoba	Samba	Wam	Abu	Ebom
285	Barihoh	'Ntoo	Saamba	Dwam	Abu	Dium
305	Bakumkum	'Ntoba	Samba	Guam	Abua	Diup
307	Lumlum	'Nto	Samba	Wam	Ebu	Diom
308	'Ndiang	'Ntob	Samba	Wam	Obbu	Dium
327	Lomlom	'Nto	Samba	Wam	Bo	Jom

No. of List	Clarke's Language name	Man (102)	Woman (105)	Father (16-18)
76	Moko	Mandiyom	Mamait	Tati
81	'Mwanjo	Amwellisa	Molomwa	Ijensa
83	'Ndiang	'Mwanjoh	'Mwat	Ata
84	Abunggen	Maringho	Morimwa	Atta
135	Bakumkum	Mwandum	'Mwa	Yensang
162	Lomlom	'Mwanjom	'Mwa	Owimsang
163	Bakumkum	'Mwanjom	'Mwa	Tate
174	Kosse	Munjo	Mwaat	'Mwanyo
238	Bakumkum	Manjo	'Mwa	Ta
294	Bakumkum	Manjo	Motuta	Ta

No. of List		Mother (19-21)	Fire (155)	Water (125)	Sun (141)
76	Moko	Netti	Mu	Midip	Obassi
81	'Mwanjo	Yemya	Mu	Odip	Esia
83	'Ndiang	Neh	Moh	Middi	Eseh
84	Abunggen	Anne	Mu	Odip	Sianga
135	Bakumkum	Yenyang	Mu	Ooi	Ebombom, Iyei
162	Lomlom	Awemiyang	Mo	Odi	Iy
163	Bakumkum	Ewamyang	Mo	Edip	Eya
174	Kosse	'Ne	Mu	Madip	Dinyan
238	Bakumkum	Ne	Mo	Edip	Diou
294	Bakumkum	Ne	Mu	Edip	Isah

No. of List		Moon (143)	Star (145)	Fowl (259)
76	Moko	Ingan	--	Kup
81	'Mwanjo	Milenga	'Nge	Ku
83	'Ndiang	'Ngon	Tete	Kuh
84	Abunggen	Olenge	'Ngonitye	Kuh
135	Bakumkum	Nigonti, Mwai	Iyel	Ku
162	Lomlom	'Ngon	Song	Kup
163	Bakumkum	'Njou	'Nginggi	Kup
174	Kosse	'Ngan	--	Kup
238	Bakumkum	'Ngong	'Nge	Kup
294	Bakumkum	'Ngon	'Nginge	Ku

Moko (word list from page 37) Bariho (word list from page 55)

(160)	Tree	Atu	(50)	Eye	Di
(355)	Canoe	Ibang	(56)	Teeth	Osong
(185)	House	Ufok	(38)	Head	'Nlo
(348)	Wood	Lon	(347)	Calabash	Apom
(201)	Stone	Ala	(348)	Wood	Sie
(258)	Bird	Enin	(130)	Rain	'Mbu
(277)	Fish	Sui	(218)	Goat	'Mbo
(291)	Rice	Koun	(325)	Knife	Mapa
(299)	Palm Oil	Mol	(318)	Spear	Adjung
(345)	Seat	Abunga	(288)	Corn	'Mpai
(281)	Salt	Kun	(303)	Ground Nut	Otong ojung
(279)	Milk	Be	(282)	Pepper	'Ndo
(269)	Egg	'Nkekup	(362)	Clothes	Aba
(217)	Cow	Einah	(68)	Hand	Eka
(208)	Lion	Sunsuna	(79)	Belly	Abum
(109)	Child	Manunma	(542)	I come	Sia mye
(203)	Farm	'Nzak	(147)	Night	'Nko
			(299)	Palm Oil	Mul

## APPENDIX FIVE

WORD LISTS FROM KOELLE (1854): "POLYGLOTTA AFRICANA"

Most of the words and phrases in the Polyglotta Africana from the three relevant lists are reproduced here with the exception of the numerals 'eleven' to 'nineteen' and a few other compound items not directly relevant to the information in appendix I.

Koelle's transcription has been modified for the purposes of this study as follows: n → ŋ, ʃ → ʃ̃, dʒ → dj, h → x, r → ɾ, e → ɛ, o → ɔ and ā → aa, i → ī. Accents have been omitted. (Numbers in brackets refer to appendix I.

		<u>Nootɛŋ</u>	<u>Melou</u> or <u>Melommsie</u>	<u>Nhaalemoos</u>
( 1)	one	pɔɔg	ŋhɔk + moos	ŋhɔ
( 2)	two	ɛba	bebaa	mba
( 3)	three	ɛlaan	belaan	nɛɛ
( 4)	four	ɛniin	beniin	nnii
( 5)	five	ɛtaan	betaan	ntɛ
( 6)	six	ntoo	ntoob	ntoo
( 7)	seven	saamba	saamba	ʃiaampfa + ʃiaampa
( 8)	eight	woaam	wuaan	wuaam
( 9)	nine	aboog	aboog	aboo
( 10)	ten	dioom	diiom	diiom
( 11)	twenty	moomba	mɔɔmba	maamuba + moomuba
( 16)	father	taa	taa	tetɛɛ
	my father		ɛwɛmtaa	
( 18)	your father		ɛwoŋtaa	
( 19)	mother	nɛ	nɛɛ	nɪa
	my mother		ɛwɛmnɛɛ	
( 21)	your mother		ɛwoŋnɛɛ	
( 26)	son	ɛwɛ muaan	moaan	moaan
			(ɛwɛ-moaaan)	(awooɛ moaan)
			(ɛwoŋ-moaaan)	(awooɔ moaan)
( 27)	daughter	ɛwɛ mɪaaanu moaad	moaan moaat	moaan moaat
( 28)	grandfather	taampa	taampaa	tetɛɛ mpɛɛa
( 29)	grandmother	nɛɛmpa	nɛɛmpaa	nɪa mpɛɛa
( 33)	skin	ŋgoob	ɛkop + ɛɛkokoop	ŋgob
( 35)	blood	mekiie	mekii	mekeei
( 36)	vein	ŋkɔɔd	nʃiik	nʃei
( 37)	bone	ɛheig	ɛhei	eeheei
( 38)	head	nlo	nlo	lo
( 39)	face	ɛʃyo	ɛʃo	eʃo
( 42)	forehead	mbɔɔm	mboo	eʃobmo
( 43)	hair	nyuŋ	nyuŋ	nyuŋ
( 47)	nose	diiio	diiio	doo
( 49)	ear	ɛto	ɛtoo	ɛtuu, metuu
( 50)	eye	di + diis	deek	deeiɛ, meeɪɛ
( 53)	mouth	nʃiɔɔl	nʃɔɔl	nʃeaar

( 55)	tongue	ɛgeaam	egieɛm	egieɛm
( 56)	tooth	ɛsyɔŋ	ɛsooŋ	aŋɔŋ, meŋɔŋ
( 60)	neck	mbuse boaal	ɛbool	aboaal
( 62)	throat	kienŋ	kiŋ	ŋkaaŋ
( 63)	shoulder	mbɛɛkkaa	ɛkɛmbɛɛl	ekooŋ, mekooŋ
( 65)	arm	—	ɛkaa	ekɛɛ, mekɛɛ
( 66)	elbow	ɛboŋ rekaa	boŋ-dekaa	--
( 69)	inner hand	mbaaeka	mpaa-eka	mbaaikɛ
( 70)	finger	moɛmekaa	mooɛ	emui bekɛ, memiimekɛ
( 71)	nail of finger and toe	ŋnyaan	nyaan	nyaane mekɛ
( 73)	chest	tool	tool	tɛl + tal
( 74)	female breast	ɛbɛɛ	ɛbɛɛ	abii, mepii
( 75)	rib	mbaa	mpaaa	mpaai
( 79)	abdomen	ɛbum	ɛboom+ɛbuum	abuum, mobuuum
( 83)	navel	ɛtoŋ	ɛtoŋ	mui, mii
( 92)	thigh	anaa mekuuo	ɛkoompaa + ɔipɛɛn-ekoo	--
( 94)	leg	akuoo	ɛkoo	ekuu, mekuu
( 95)	knee	ɛboŋ rekuuo	ɛboŋ dekuo	aabubɔ, mobubɔ
( 96)	heel	boŋrembaaekoo	mbuuseko	atineeku, metinmeku
( 98)	toe	moɛmekuuo	mooɛ-mekoo	emui beku, memii meku
( 99)	foot-sole	mbaaekoo	mpaa-ekoo + buumb-ekoo	mbaaiku
(102)	man	mangiiom + moaangioom	mooangiiom	mooangioom, baregioom
(105)	woman	moaad	moaat	mooat, bɛbɛɛat
(109)	child	moaan	moaan	mooan
(110)	boy	moandɛɛm	mooandɛɛm + mooan mooangioom	mooan mooangioom, baanbaregioom
(111)	girl	moaanu moaad	mooan moaat	mooan moaat, baam bɛ bɛɛat
(113)	king	ŋgiuunmood	mooangiiom- -paa 'chief, old man'	tɛtɛɛ 'father'
(114)	friend	nson + nŋioon	nŋoon	ndjiɛɛn
(115)	stranger	ŋkɛɛn	ŋkɛnmoot + ŋkɛn	ŋkɛnemoot + ŋkɛɛn, bekɛɛn
(116)	white man	ŋkaalɛ + ŋkaara	ŋkaala	ŋkaala, benkaala
(117)	male slave	mbɛrɔ̃	nlam	ntaaŋ, betaaŋ
(119)	doctor	abɛɛme puood	ŋgaampool	?
(120)	greengree	ɛlɛɛm	medjam	lɛm (witch)
(121)	medicine	ɛgiiŋ+biia	biiaŋ	giɛ + djiɛ
(122)	God	monyaama	nyamaa	nyaama
(125)	water	medib	medib	mire
(130)	rain	mboo	mpu	mpuu
(132)	dew	ɛpoob	mpak	miiɔ̃ + mpa
(135)	smoke	metud	metuut + metoot	mooatu
(138)	heaven(sky)	--	nyamaa	diioob
(141)	sun	ɛnyaa	ɛtonfiioob	ɛnyaɔ̃
(143)	moon(?full)	ŋgoon	ŋgoon	ŋgoon
(146)	day	moote	mooti	boi-ŋaale
(147)	night	ŋkoo	ŋkoo	ehintɛ + boihɔ̃ɔ̃ɔ̃ɔ̃

(153)	rainy season	ηku	εdjo	ηkoou
(154)	dry season	εσεεεb	εσεεp	eσεεb
(155)	fire	mū	muu	mu
(156)	charcoal	εposa	kaηaleet	akaanle, me-
(158)	forest	εhε	εhεε	--
(160)	tree	buεl + boεεl	buuεl+hiεon	booal
(161)	leaf	giaa	giaa + giiaη	giaa, biia
(165)	root	ηkaaη	ηkaη-buεεl	ηkam-booal
(169)	camwood	yoo	iiyo	hii
(178)	sand	nseeε	nseε	nšii
(182)	town (village)	mboog + ηkooomboog	mpoouk	mpoo
(185)	house	ndaab	ndaab	ndab
(190)	door	εkoowa	koowaη	εkoowndab
(191)	doorway	nšii ol-ndaab	nšondaab	nšal ndab
(193)	bed	εnooη	εnooη	ano, meno
(201)	stone	εlaa	εlaa	ale, mele
(202)	iron	εkeε	εkee	ekeei
(203)	farm	ndjaa	nsak	nša
(205)	animal	nyaam	nyam	nyaam
(207)	bat	ηgiiam	ηgiiεm	ηgiiεm
(208)	lion	εgiiε	nšok	--
(209)	leopard	ηgo	ηgo	ηgoo
(210)	elephant	ndjoo	nšoo	nšoo
(211)	ivory	gioo + εšoontso	εšooη-nšoo	ašoo-nšo
(214)	monkey	kieεm	kεεm	kεεm
(215)	alligator	--	ηgando	ηgooampa
(217)	cow	nyaaka	nyaak+nyaka	nya
(218)	goat	toon-mbot	toon-mpoot	toonpot
(222)	rat	salpoo	salpoo	salpoo
(223)	pig	ηgoo	ηgoo	ηguu
(227)	dog	mbooa	mpuua	mpooa
(228)	cat	šiiη	šiiη	--
(230)	lizard	εboota	ηguulo	ηkonggo
	large red- headed lizard	εboota	ηguulo	ηguulo + εbooto
(231)	serpent	nyo	nyo	nyo
(238)	chameleon	ηgoomboo	giāā-kurō	djiioηkot
(239)	frog	mboon	maka	--
	toad	--	mpoon	mpoon
(241)	spider	ηgaabogo	ηgaambowoo	ηgaaboowa
(244)	butterfly	ηguuaη-ηguuaη	εpotopoo	εpooripoto
(248)	mosquito	ndoonumba	ηkelaaη	ηkošāyā
(254)	wasp	mboonuboon	ηgidigiη	ηgiiib-lōū
(255)	bee	εgiiε	εkiiε	εdjiuu
(256)	honey	εgiiε	εkiiε	εdjiuu
(258)	bird	εnoon	εdnoon	εnoon, menoon
(259)	fowl(hen)	kub	kuup	kub
(261)	pigeon	ηgool + paasekoko	kooi + kooidj	--
(263)	parrot	kooi	--	kooi
(269)	egg	εkiiε (εkii-kub)	εkii	akii, mekii
(275)	meat	nyaam	nyam	nyaam
(277)	fish	ndoon	ndoon	ntoon
(278)	soup, sauce	ndooη 'soup'	εleεm	diiεn + ediiεn
(279)	milk	mεdi-mbe + εhoonη	εbeε	abii
(281)	salt	ηkooa	ηkuua	ηkooa

(282)	pepper	ndon	ndon	ndon
(285)	yam	kuaad	kotok	koto
(288)	maize	ngoo	nguu	ngooŋ
(290)	bean	koon	koon	koon
(291)	rice	koon	--	--
(292)	cassava	ŋkaaŋ-mɛl	--	--
(298)	palm-tree	dii	dee	di, bi + mi
(299)	palm oil	mol	mool	mool
(303)	groundnut	metowɔ	metowɛ	metowɛ
(310)	cotton tree	pɛɛm	ɛkaaŋ	buum
(313)	walking stick	ntooŋ	ntuŋ + mpoŋ	ntoŋ
(318)	spear	ɛkɔŋ	ɛkɔŋ	akɔŋ, mekɔŋ
(319)	sword, sabre	paa	paa	pɛ
(320)	bow	mbuua	--	--
(321)	arrow	moaanguum	--	--
(322)	gun	ŋkoomba	ŋkomba	ŋkoompa
(323)	gun-powder	ndjuuntsu	nšuumšuu	nšoonšo
(325)	knife	paa + ɛlɛɛn	ɛhaa	alɛn, melɛɛn
(326)	axe	ɔhoon	ɔhoon	ehoon
(328)	hoe	giioŋ	giioŋ	djiioŋ+giioŋ
(329)	drum	ŋgɔm	ŋgam	nteeɔ
(340)	mat	ntaŋmuuno	ɛbuue	--
(341)	rope	ŋkɔd	ŋkɔt	ŋkɔt
(342)	thread, string	ŋkɔn mbaad	soŋoot	--
(343)	needle	ndɔndɔki	ɛhiɔn	--
(345)	bench, chair	ɛtee	etii	atii, metii
(347)	calabash	ɛpoom	ɛpoom	apoom, mepoom
(348)	firewood	iyɔn + loon	ɛšiidemu	hiion
(349)	cooking pot	mbe	mbee	mpe
(350)	spoon	toog	took 'wooden'	too
(355)	canoe	buaal	boaala	--
(358)	armlet or bracelet	muɛɛn	ɛɛbatɔ + ɛbaata	muɛɛn, miɛn
(362)	waist-cloth	--	ɛbaat	abaat
(363)	hat, cap	taamba + ndoom	nduum + ɛteki	ndoom + ateeki
(364)	shoe, sandal	ŋgoo mekuuo + ŋgoo mokuuo	--	ŋgoo mokuu
(365)	shirt	ɛbaat + ɛšuu	--	abaal meke
(379)	war	ndjuum	nšuum	nšom
(382)	dream	ndɔd	ntɔt	ntoondɔt
(383)	well	adeealti	aa deelte	--
(392)	sick	awul	aagulaak	ŋkuuloŋ
(393)	I cough	ɛkɔsit	ŋkɔsia+ŋkɔšee	me kɔi
(399)	itch	ŋkaaŋ	ŋkaŋ	ŋkaaŋ
(400)	smallpox	kaaomaam	kaamama	kaanyaam
(415)	market	duaan	diɔn	diɔn
(425)	black	alaam	a lamak+ɛlama	ahina
(426)	white	mpuupa+aaɔup	apoowa	apuwa
(428)	great, large	aaduno + ehaa ampa great man)	ahāāe, ɛhage + ašɔɔe	nyoo djiiom
(429)	little, small	ɛsaad	ahaāā ɛšɔɔɔ + esaat	mɔoni djiiom
(453)	good	ɛboŋ	a boŋe	aboŋ
(454)	bad	ɛɛboŋaka + ɛɛboŋaa	a boŋooɔ (neg.)	boŋooɔ
(456)	new (young)	mpeesa	mpɛɛi	--
(457)	old	ɛdjiyoono + ndjiyon	aadjuni + amaadyun	ndjun

(463)	dry	aakiie	a kife	akeef
(464)	wet	medib	awaa medib + a hoo	ahoo
(466)	rich	awogō biiam	a wōōbiom	awōōbiiam
(467)	poor	awog aagiom + awog aadjoom	moaane nyamaa + awog-aagiom	ewooagiom
(468)	straight	agiaawe + adjaawe	a teeewe	ateeemi
(469)	crooked(bent)	ngooob	a koreewe	awoooguru
(474)	hot	awoomu	aa domuu + ahoonia	--
(475)	cold	ahoo	a hoo + ahootee	ahoo
(482)	today	geee	geee	gee
(483)	yesterday, tomorrow	suuoba geaan	giaan sooba	giaan suuba
(525)	I eat rice (yam)	ndeere koon	ndeere kotook	ndieere koto
(527)	I drink water	mmoere medib	mmuere mediib	mmoore mire
(535)	I breathe	ngoomi	ntoote+ntook	--
(537)	I sneeze	nšiaame	nsaami	nšiaame
(538)	I snore	maa to	ngoomol	ntoongale
(541)	I go	aa ke	nšuaak + nšuu	nšuu
(542)	I come	mpere	mpere	nhu
(543)	(I return)	--	nšuaak + nšuu	nšuu / nhu
(545)	(I arrive)	mpere	mpere	--
(549)	I see	ntōō	ntoge	ntog
(550)	I hear	nguoō + ngoo	nguae	nguoō
(564)	I catch a fish	ngowe ndoon	ngowe ndoon	ngooewe ndoon
(571)	I kill a fowl	nguoō koob	nguu kuub	ngooale kub
(572)	I die	ngueere	nguari	nguari
(581)	I lie down	mnaane	nnaae	nnaareeēē
(582)	I sleep	nnaeeēē	nlume	--
(583)	I dream	ndōōd	ntoot	ntoondot
(588)	I cover a pot	mbuume mbe	ngkumbane mpi	ngkumteeēē pe
(589)	I pray to God(beg God)	nleeate rinama	ngiiane nyama	ngiaā nyama
(590)	I beg	ngioōme	ngioōme + ngiaame	ngiaā
(598)	I cook meat	ngiaame nyaam	ngiaame nyam	ngiaame nyaam
(603)	I play	maa giio	ngiooe	--
(606)	I speak	ghaawe	ghowe	ghawe
(609)	I call a slave	ngkene mbēēga	ngēēle laam	ngioō ntaan
(617)	I love thee	ndegowē	ndige wē	ndiio wō
(625)	I fall	ngueere	nguari	nguari
(626)	I rise	ndjēgaē	nteewe + nšageeze	nšiooreeēē
(632)	I cut a tree	nšeaale boēēl	ngkuuale hioōn	ngooale boōal
(636)	I sew a shirt	ndōōngō esuu	nlonge(I sew)	nlongō (I sew)
(651)	I bathe,wash myself	nguoō + ngoo	nguaae	ngoo
(655)	I weep	ngiie	mboōnō+mboone	ngia+me giia
(658)	I laugh	nguoō	nguoō	nguaa
(663)	I take	ntoore	ntoore	ntoore

(666)	I give thee	mbɛoowe	mbɛɛ wɛ	mbɔɔ wɔ
(668)	I sell	nʃiooma	nʃoome	nʃɔome
(669)	I buy	ngiaane + ndjaane	ngiaane	ngiaane
(674)	I sit down	ndiia + mɛ diia	ndiiaŋ + ndiaaʃɪ	ndiiɛʃɛ
(680)	I dance	nʃaaa	nsaae	n ʃaa
(691)	dry	aakiɛ	a kiie	akeeɪ
(705)	I break a stick	mbuuo boɛɛl	mbɛɛ hioon	mboo booaletɛ (mboowate I break)

## APPENDIX SIX

BIOGRAPHICAL COMMENTS ON KOELLE'S INFORMANTS

(from Koelle 1854:13)

1. N'gôteŋ.—From Mpákō, of Charlotte, born in the town of N'gôteŋ, after which also the country is named, where he grew up and married, and had a child four years old when he was kidnapped by the Bórken people. He has been thirty years in Sierra Leone, with only two countrymen.

Remarks.—N'gôteŋ is west of Bégiŋ, east of Ehála, *i. e.* Cameroon; also near N'koád, Ekárâte, Margólòb, Mánsoŋ, Nşéte, Bórken.

2. Mélon or Mélommésie.—From Ntúwa, or John Thomas, of Freetown, born in the village of Húmúá, where he was sold on account of a murder, in about his twenty-eighth year, and brought down to the Kálabá country, a journey of one month. He has been in Sierra Leone twenty years, with three countrymen remaining. He was rather dull, and I could not get any plural forms from him; perhaps the Nşó, Mom, Mélon, and some other language, originally possessing plural forms have now lost them.

Remarks.—Mélon is situated west of Bórken, east of N'ká and N'hálemòe.

3. N'hálemòe.—From Edía, or Thomas Renner, of Bathurst, born in the village of Báningar, where he also grew up, had seven wives, and a child about ten years of age when he was sold by his countrymen out of jealousy of his ability and influence, and brought to the sea by way of Cameroon. He has been in Sierra Leone between thirty and forty years, with only two countrymen remaining; one of whom, Ebóáŋ, assisted him in the words I asked for. Thomas Renner knew far less than Ebóáŋ, or William Renner, who was born in the village Káte, half-a-day's journey from Móáşíba, the N'hálemòe capital, and where he had a child of about twelve years of age when he was sold by his relatives to Kóáse or N'kóáse, whence he was at once carried to Bálun and Dihála. He has been in Sierra Leone upwards of thirty years.

Remarks.—Báningar lies in the Ndşúmpar district, about a day's journey from Móáşíba, the N'hálemòe capital. On his way to the sea, Edía saw the countries N'kóse, Balóŋgúe, Eşúwe, Ehála, *i. e.* Cameroons. He thinks this to be a journey of about three months. N'hálemòe is situated west of N'kóat, with the same language; east of Móánehát, also with the same language.

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Abbreviations

- AfrL      Africana Linguistica. Tervuren: Musée Royal de l'Afrique Centrale
- ALCAM     Atlas Linguistique du Cameroun
- ALS       African Language Studies
- AS        African Studies
- AuÜ      Afrika und Übersee
- BCCW     Benue-Congo Comparative Wordlist = Williamson and Shimizu (1968) and Williamson (1973)
- CILL     Cahiers de l'Institut de Linguistique de Louvain
- CNRS     Centre National de la Recherche Scientifique. Paris
- CTL      Current Trends in Linguistics. The Hague: Mouton
- DKBl     Deutsches Kolonialblatt
- IAI      International African Institute. London
- IFAN     Institut Français d'Afrique Noire
- IJAL     International Journal of American Linguistics
- JAH      Journal of African History
- JAL      Journal of African Languages
- JALL     Journal of African Languages and Linguistics
- JWAL     Journal of West African Languages
- MRAC     Musée Royal de l'Afrique Centrale. Tervuren
- ORSTOM   Office de la Recherche Scientifique et Technique d'Outre-Mer
- SAL      Studies in African Linguistics
- SCOPIL   Southern California Occasional Papers in Linguistics
- SELAF    Société d'Etudes Linguistiques et Anthropologiques de France. Paris

SIL Summer Institute of Linguistics/Société  
Internationale de Linguistique

SLLR Sierra Leone Language Review

ZfES Zeitschrift für Eingeborenen-Sprachen

ZfKS Zeitschrift für Kolonialsprachen

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