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Département des Langues
Africaines et Linguistique

PHONOLOGY OF MMEN
ESQUISSE PHONOLOGIQUE DU MMEN

BY

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(B. A. French/English)

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D E D I C A T I O N

To My Beloved Mother,
Mrs. H. E. AGHA
And my Sister S.U. AGHA,
whose attitude and silence
towards suffering and provocation
had always inspired me
during hard times.

To my loving father and
Children whose respective
deaths have been the hardest
blows I had and have to
accept.

Late SIMON AGHA (+ 1983)
Late KUDI ASAH (+ 1985)
Late UTIA ASAH (+ 1987)

May they find here
a sign of gratitude for
what they have always done and meant
and for what they shall ever mean to me.

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A study of this nature would never had been realized without help.

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- Friends and relatives whose names have been explicitly omitted are not left aside.

LIST OF ABBREVIATIONS AND SYMBOLS

C	Consonant
N	Nasal
V	Vowel
S	Semi-vowel
N	Noun
Vb	Verb
Adj	Adjective
Adv.	Adverb
Sg	Singular
Pl	Plural
i.e.	That is
e.g.	For example
[...]	Phonetic data
/---/	Phonemic data
'- -'	English gloss
ã	is actualized as nasalized

TONES

/ or H	High tone
- or M	Mid tone
\ or L	Low tone
V or LH	Rising tone
^ or HL	Falling tone

CHAPTER 00

INTRODUCTION

In this piece of work, we attempt a phonological study of Mmɛn, a language spoken in Menchum Division, North West Province of the Republic of Cameroon.

The speakers call themselves Mmɛn. Although neighbours call them as well as their language Bafmen and Administration know them by Bafmeng, Mmɛn population accept with less or no resentment the two appellations i.e. Mmɛn and Bafmeng or even Bafumeng.

It should be noted that Mmɛn or Bafmeng is most of the time referred to one of the villages where Mmɛn language is spoken, while it is spoken in Mmɛn, Cha? Nyos, Kuk and Kung villages. The language found in the above mentioned villages is the same, spoken with no modifications. Mmɛn presents no dialects.

The language and its speakers are little known out of the division. But after the famous but dreadful Nyos disaster some natives and a group of preachers among whom Manje Gabriel and Sister Anne Woods attempted in Nyos disaster and Crie-Die at Bafmeng for Lake Nyos victims, 1986, respectively to make know and understand the various difficulties that the people face. However, this was purely based on the history of the area as they wished to draw government's attention on the intimate relationship that has always existed between Nyos elements and their neighbouring relatives.

It should also be noted that the Fons or Chiefs of these villages are said to be cousins.

0.1. Geographical Situation

The villages of Mmɛn, Cha?, Nyos, Kuk and Kung where Mmɛn language is spoken are located in the South East of Aghem (Wum), capital of Menchum Division.

It is quite difficult to get to these villages due to the bad condition of the road. Sister Woods in Cry-die at Bafmeng for Lake Nyos victims, 1986 notes that it takes twelve minutes by air but three hours by road for one to get to Mmɛn village from Wum.

Mmɛn has about sixty thousand speakers who live along side with non-mmɛn elements namely the Fulanis and Hausas. Most of the people are farmers producing primarily corn, groundnuts, rice, beans for subsistance. They also produce some cash crop: Coffee. They live in widely scattered compounds with each compound containing a single family unit which is often related to the families of neighbouring compounds. Their houses are built with mud bricks and roofed with thatching grass as most traditionally built houses in the northwestern region of Cameroon.

A fairly large segment of the population has undergone a rapid social change as a result of their recent migration to the neighbouring towns. An increasing number of the young men are tending to move away (at least temporarily) to the larger cities of Bamenda, Buea, Douala and Yaounde in search of "education" and work.

Mmɛn elements live to agree with their other members of neighbouring villages as they attend periodical markets together namely in the North, the Mekaf, the Kom in the South, ~~the Aghem (Wum) in the West and the Bum in the East.~~ Speci-

fically, Mmɛn villages are found on the way to Fundong. (map 1 locates Mmɛn villages in Cameroon).

0.2. Historical Background

Nkwi and Warnier in Elements for History of the Western grassfields, 1982 classify Mmɛn villages under the Chap group. They assert that they arrived the region as part of the migration movements that brought the Kom (they present a similar pattern of society: the matrilineal pattern), Isu and Bafut to the Western grassfields. Their traditions seem to reflect political alliances and mutual exchange of institutions. They claim they travelled south through Oku and Achain and finally settled definitively south of Bum. They further believe that they settled with Isu and Bafut at Ndewum near Nyos. The founder of Mmɛn and Fungom and his followers are said to have been the first to break off; Bafut would have followed next, then came Nyos, Kuk and the rest. The exact order of dispersal from Ndewum is uncertain. The Chap came from the direction of Nso, crossed Kom and settled at Ndewum. It is from there that the different groups left in search of more suitable settlements.

0.3. Purpose and Method of Study

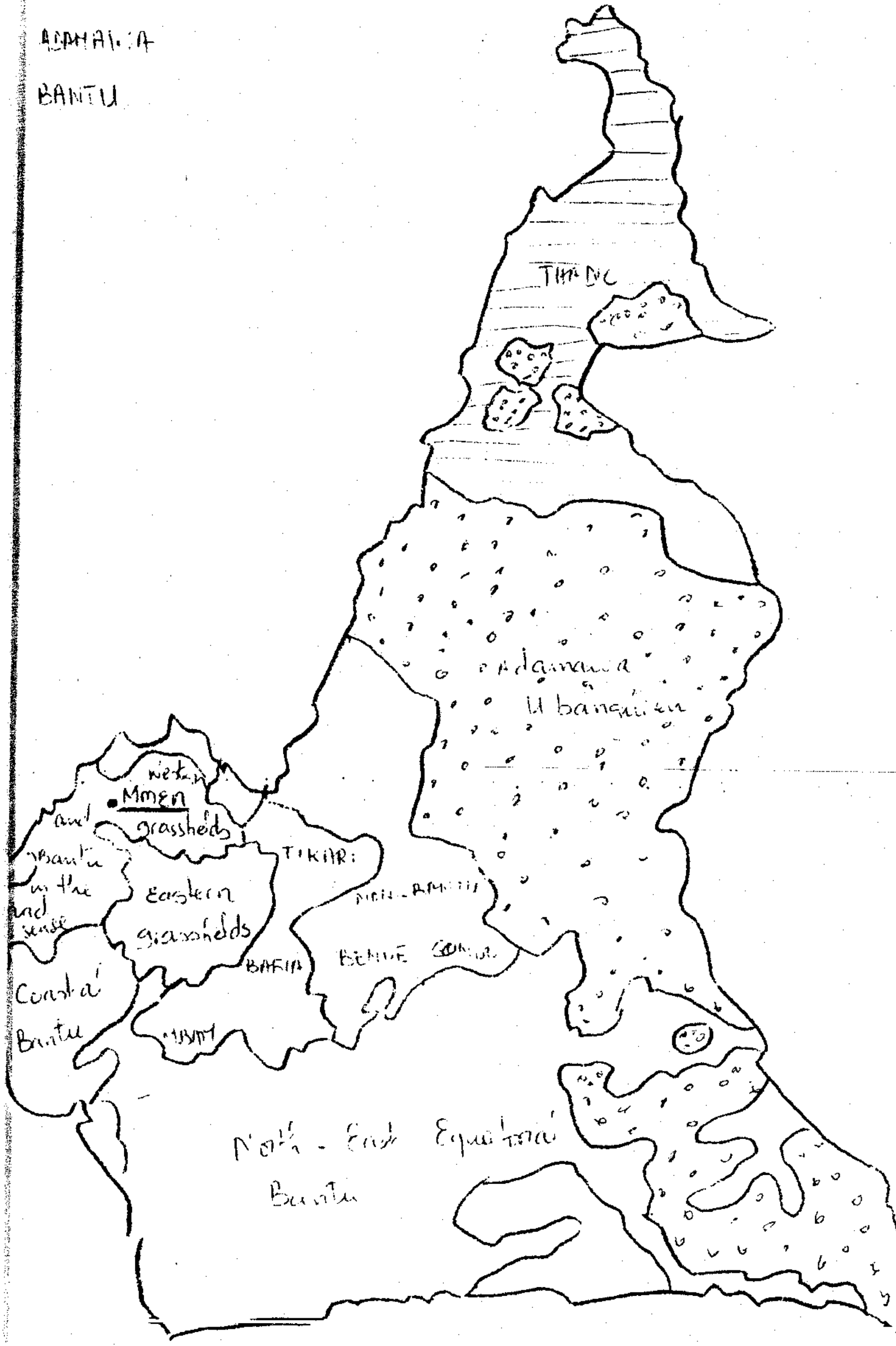
0.3.1. Purpose: Phonology, as a part of linguistics, presents its own importance as it deals with the sound systems of languages. Through a phonological study, one can give the structure of any given language. It is only through a phonological study of a language that one can possibly determine pertinent sounds or distinctive sounds.

MMEN in Cameroon.

TCHADIC

ADAMAWA

BANTU



class system of KOM

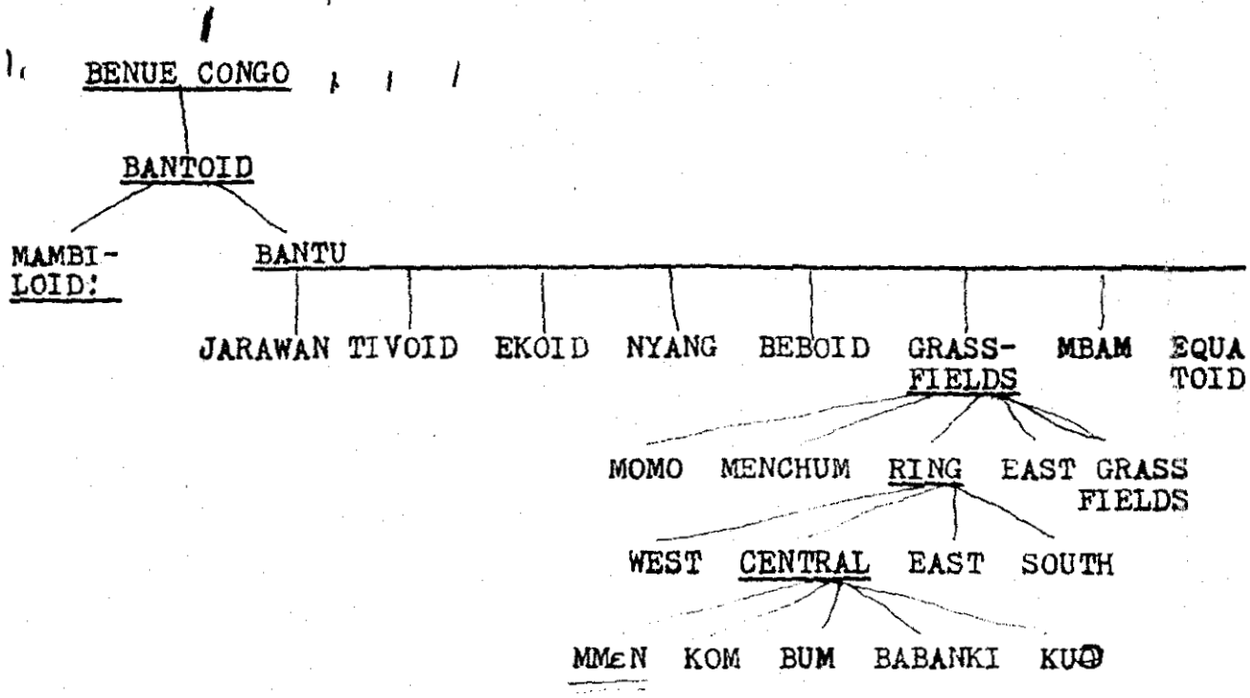
1986

Since no linguistic work has so far been done in Mmɛn, this attempt of the phonology of Mmɛn will hopefully provide a wider area for more studies in the language. This can also serve as a foundation for the development of the writing system of the language thus providing Cameroon with a written language added to its then existing list of written languages.

0.3.2. Methodology: This work is basically divided into three parts namely the syllable structures, the sound system and the tone system of Mmɛn language. This study will then focus on the various segmented and pitch phonemes, the possible combination of sounds into syllables and the structure of syllable; the study of phonemes, phonemes seen as they contrast with other phonemes or seen as being made of allophones with particularities imposed on them by a given environment.

0.4. Mmɛn the language: its classification and previous linguistic work.

According to Atlas Linguistique du Cameroun, (ALCAM), 1983, Mmɛn is classified as one of the languages that make up the Ring sub-group of the Western grassfields languages under the Bantoid subgroup of Benue-Congo Language. (Grap 1 locates Mmɛn in grassfields languages).



GRAPH 1: Mmɛn in grassfields languages

Source: Atlas Linguistique du Cameroun, 1983.

Although Mmɛn is classified and accepted as a distinct language from Aghem and Kom, their respective speakers believe and agree that there is a degree of intelligibility between the three and sometimes even go as far as remarking that they are surely related.

No linguistic comparison has so far been done between the three but as time goes some might be needed. ALCAM notes that although the three languages (Aghem, Kom and Mmɛn) are parts of the Ring languages, Aghem is considered a Ring West Language, while Mmɛn and Kom are distinct Ring central languages.

However, no linguistic study has been carried out on Mmɛn yet. (Map 2 locates Mmɛn among the grassfields Bantu languages of Cameroon

).

AP 2 : THE GRASSFIELDS

BANTU LANGUAGES OF

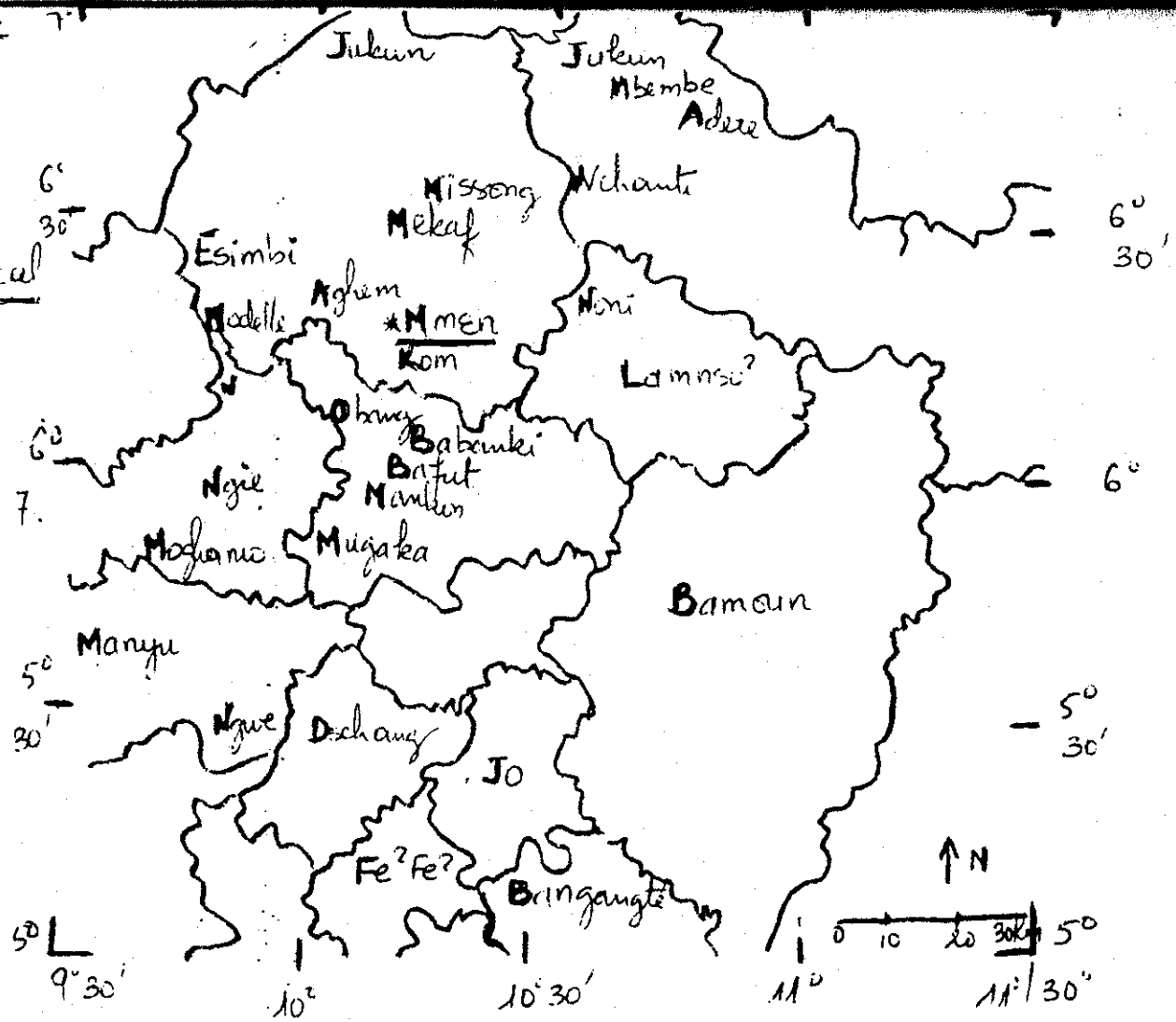
CAMEROON.

urce : Aghem Grammatical

Structure by Hyman

Southern California Occa-

onal papers in linguistics 7.



0,5. The data and organization of the work

From a corpus of a given number of words, we could with the help of informants make up a data and organize our linguistic study.

0,5,1. The data : sources: This work is based on a corpus of about a thousand words collected through the help of the following four informants:

- Mrs. Ndong Baba Grace, a native of Mmɛn resident in Wum,
- Mr. Pong Thomas, a nurse in the Provincial Hospital Bamenda, native of Mmɛn and resident in Bamenda,
- Mr. Jam Michael Tang, teacher in the Catholic School, New Town Mmɛn, native of Mmɛn and resident in Mmɛn.
- Mr. Manje Gabriel, worker in the Presidency of Yaounde, Department of Linguistic Services, native of Mmɛn and resident in Yaounde.

0,5,2. Organization of the work:

Chapter I is based on Segmental Phonology i.e. here we study the sounds and phonemes of Mmɛn,

Chapter II deals with supra-segmental phonology i.e. basically the various tones of the language,

Chapter III takes account of the syllable structure and problems of Interpretation and finally the last part deals with the conclusion.

CHAPTER ONE

SEGMENTAL PHONOLOGY

In this chapter, first, the consonants will be discussed and then the vowels. Both sections will exhibit:

a)- a chart of the phonetic entities actually heard;

b)- evidence for declaring certain of these entities to be in phonemic contrast or allophonic variation;

c)- a chart of the final phonemes;

d)- a technical descriptive statement of each phoneme and its variants and

e)- a frequency statement of the phonemes as they occur in words.

All these points will jointly be discussed as we progress in our analysis.

I1.1. Consonants

I1.1.1 Phonetic realization: The larger number of apparent 'consonant clusters' which have already been analyzed as basic single consonant plus the prosodies of pre-nasalization, labialization and palatalization will not be considered further. Instead, the remaining set of what could appear to be 'basic consonants' will be described i.e., the full set of consonants distinguished from each other by the parameters of voicing, manner and point of articulation.

The following chart exhibits their phonetic characteristics. The phones are grouped into:

- vertical columns according to point of articulation (bilabial, labio-dental, alveolar, pre-palatal, palatal, velar glottal and labio-velar.

II.1.2. Phonemic contrasts: The consonant phonemes on the chart to follow have been obtained through given analysis. An analysis that requires that sounds which could be said to be allophones be contrasted in words (initial, intervocalic and final positions if possible). Each sound is hereby given its due phonemic status on the basis of its contrasts with other sounds. Throughout the analysis, we might make use of near minimal pairs and words from different grammatical classes whenever need be.

The phoneme /p/

/p/ is realized as the voiceless oral bilabial plosive stop in most environments. It appears in Mmɛn only word initially and intervocalically and never closes a syllable. It owes its phonemic status to the following contrasts. /p/ can be labialized [pw] or palatalized [pʸ]. (see I.2).

p/b	/ípàsə̀/	[ípàsə̀]	prep.	'against'
	/ɪ́bàsə̀/	[ɪ́bàsə̀]	N	'soup'
	/təpõŋ/	[təpõŋ]	N	'jaws'
	/təbãŋ/	[təbãŋ]	N	'tobacco'
p/m	/sə́pà/	[sə́pà]	Vb	'to mend'
	/sámà/	[sámà]	Vb	'to swim'
	/ípɔ́'/	[ípɔ́]	N	'squash'
	/ímɔ̀/	[ímɔ̀]	N	'visit'
p/w	/púà/	[púà]	N	'father'
	/ʷúà/	[ʷúà]	N	'cup'

The phoneme /b/

/b/ is actualized as the voiced oral bilabial plosive stop in all environments and attested in the language word initially and word intervocalically. Although rare, it is a phoneme due to these contrasts. We have taken into consideration the sound that follows the said phonemes in some examples.

b/p see p/b

b/mb	/ébas/	[ébas]	N	'jama-jama soup'
	/ímbas/	[ímbas]	N	'kind of soup'

The phoneme /mb/

/mb/ is realized as the voiced pre-nasalized bilabial stop [mb]. It is actualized as a single sound segment and due to the following contrasts, it is a phoneme. It is labialized at word initial position before [u, ɵ, a], in single closed syllabic words ending with the lateral [l] or in single open syllabic words ending with the low unround oral central vowel [a], before the mid round oral back vowel [o] in disyllabic words.

mb/p see p/mb

mb/b see b/mb

mb/m	/mbâ/	[mbwâ]	N	'shoulder'
	/mâ/	[mâ]	Vb	'wear'
mb/ny	/mbàm/	[mbàm]	N	'snake'
	/nyàm/	[nyàm]	N	'beast'

mb/w	/mbàm/	[mbàm]	N	'snake'
	/wàm/	[wàm]	Vb	'lie'
mb/nd	/mbàm/	[mbàm]	N	'snake'
	/ndàm/	[ndàm]	N	'life'

The phoneme /m/

/m/ remains the voiced bilabial nasal stop in all environments i.e. initial, intervocalic and final positions in words or in syllables. It can be syllabic (mostly at word initial position before given consonants as already discussed under Chapter I) as well as non syllabic. It is always voiced and contrasts with other bilabial sounds as well as its nasal counterparts.

m/p see p/m

m/b see b/m

m/mb see mb/m

m/n	/mâ/	[mâ]	Vb	'wear'
	/nâ/	([nʸá])	N	'iron'
	/sɔ́jɔ́m/	[sɔ́njɔ̀m]	Vb.	'to sing'
	/sɔ́jɔ̀n/	[sɔ́njɔ̀n]	N	'shirt'
m/ny	/ípàm/	[ípàm]	prep.	'behind'
	/ípàny/	[ípàny]	N	'hate'
	/ápam/	[ápam]	N	'testis'
	/ápany/	[ápany]	N	'fufu corn'
	~~/gàm/~~	~~[ŋgàm]~~	~~N~~	~~'week'~~
	/gány/	[ŋgány]	N	'proverb'

m/ŋ

/mèsès/	[mèsès]	N	'head louses'
/ŋèsè/	[ŋèsè]	N	'shadows'
/máŋàpɛ́/	[máŋàpɛ́]	N	'twins'
/ŋámàcè/	[ŋámàcè]	N	'elephant'

m/w

/mú/	[mú]	N	'water'
/ʷú/	[ʷú]	N	'peelings'

The Phoneme /f/

/f/ is actualized as the voiceless labio-dental fricative in most environments. It is found in word initial intervocalic and final positions. It is articulated with the tip of the tongue behind the lower teeth. It contrasts with his other fricative counterparts as well as other sounds as follows. It is sometimes palatalized (see Chap. I.2.3).

f/v

/ífɛ̀/	[ífɛ̀]	N	'cutlass'
/ívɛŋ/	[ívɛ̃ŋ]	N	'witches'

f/pf

/ífɛ̀/	[ífɛ̀]	N	'cutlass'
/ípfɛ́/	[ípfɛ́]	Vb	'faint'
/fəhàm/	[fəhàm]	Vb	'mat'
/pfəhà/	[pfəhà]	Vb	'excrete'

f/s

/áfəs/	[áfəs]	N	'gas'
/ásəs/	[ásəs]	N	'broom'

/fɔ́/	[fɔ́]	Vb	'give'
/sɔ̀/	[sɔ̀]	N	'bottom'
/fɛ́/	[fɛ́]	Vb	'see'
/sɛ́/	[sɛ́]	Vb	'slaughter'

The phoneme /v/

/v/ is the voiced oral labio-dental fricative in all environments. It contrasts with fricatives and other sounds. It is a phoneme rarely attested in Mmɛn. It is found at initial and intervocalic positions and is never attested at word final position.

v/f see f/v

v/s			
	/ŋàvà/ [ŋàvà]	N	'hen'
	/ŋàsà/ [ŋàsà]	N	'shadows'
v/z			
	/vá/ [vá]	N	'child of'
	/zá:/ [zá:]	Vb	'allow'
v/w			
	/vá/ [vá]	N	'child of'
	/ʷâm/ [ʷâm]	Vb	'lie'

The phoneme /t/

/t/ is realized as the voiceless oral alveolar plosive stop in most environments. It is realized [tw] before the front oral unround high vowel [i] at intervocalic position or at word final syllable. It is attested at initial position (where it is pre-nasalized before [ɛ] [nt]) and at intervocalic position. It is due to its contrasts with other sounds that it is considered a phoneme.

t/d	/tɛ́/	[tɛ́]	Adj.	'difficult, explusive'
	/dɛ́/	[dɛ́]	N	'house'
	/toŋ/	[tõŋ]	N	'crow of cock'
	/doŋ/	[dõŋ]	N	'sweet potatoes'
	/ítu̍/	[ítu̍]	N	'night'
	/ídú/	[ídú]	N	'honey'
	/átà'/	[átà']	N	'snail'
	/ádá/	[ádá]	N	'scar'
t/ts	/tɛ́/	[tɛ́]	Adj.	'difficult, explusive'
	/tsɛ̂/	[tsɛ̂]	Vb	'pass'
t/dz	/tèm/	[tèm]	Vb	'shoot'
	/dzèm/	[dzèm]	Vb	'sneeze'

The phoneme /d/

/d/ is the voiced oral alveolar plosive stop. It can be labialized or pre-nasalized at given environments (see Chap. I.2). It contrasts with its pre-nasalized counterparts as well as other phonemes. Attested word initially and inter-vocalically, it is never found at final syllabic position.

d/t	see t/d			
d/nd	/dɔ̀m/	[dɔ̀m]	N	'dry season'
	/ndɔ̀m/	[ndɔ̀m]	N or Vb	'bite'
	/dù̀m/	[dù̀m]	N	'road'
	/ndù̀m/	[ndù̀m]	N	'vagina'

d/l

/ídú/	[ídú]	N	'honey'
/ílú/	[ílú]	Vb	'punish'

The phoneme /s/

/s/ is realized as the voiceless oral alveolar fricative in all environments i.e. initial, intervocalic and final positions. It is a phoneme due to the following contrasts.

s/z

/sɔ̀mɔ̀m/	[sɔ̀mɔ̀m]	Vb	'to taste'
/zɔ̀mɔ̀m/	[zɔ̀mɔ̀m]	Vb	'to try, to touch'
/sɔ̀sá/	[sɔ̀sá]	Vb	'to rule'
/sɔ̀zá/	[sɔ̀zá]	Vb	'to chew'
/sãnɔ̀/	[sãnɔ̀]	Vb	'scatter'
/zanɔ̀/	[zanɔ̀]	N	'smoke'

s/f see f/s

s/v see v/s

s/sh

/sí/	[sí]	N	'gizzard'
/shí/	[shí]	Vb	'play'
/sɛ́/	[sɛ́]	Vb	'slaughter'
/shɛ́/	[shɛ́]	N	'grave'
/ísí/	[ísí]	N	'eye'
/íshì/	[íshì]	N	'game'

The phoneme /z/

/z/ is realized as the voiced oral alveolar fricative. It is relatively rare at initial position and is never attested

at word final position. Mostly found at intervocalic position it is a phoneme due to the following contrasts. It is labialized when attested in last syllable of words before [i].

z/s see s/z

z/sh

/zítɛ́/	[zítɛ́]	Vb	'rest'
/shí:tə̀/	[shí:tə̀]	Vb	'scratch'

z/dz

/ázɔ/	[ázɔ]	Adj.	'cold'
/ídzɔŋ/	[ídzɔ̃ŋ]	Adj.	'dry'
/ízɔ́/	[ízɔ́]	Adj.	'clean'
/ídzɔ̀/	[ídzɔ̀]	N	'noise'

z/zh

/zú/	[zú]	Vb	'warm up'
/zhú/	[zhú]	Vb	'plant'
/zə̀tɛ́/	[zə̀tɛ́]	Vb	'listen'
/zhə̀tɛ́/	[zhə̀tɛ́]	Vb	'begin'

The phoneme /n/

/n/ is realized as the voiced alveolar nasal stop. It occurs in word at initial, intervocalic and final positions. It can be palatalized at given environment (see I.2.4). It is a phoneme on the basis of its contrasts with other nasal or alveolar sounds.

n/m see m/n

n/ny

/zánə̀/	[zánə̀]	Vb	'smoke'
/sányɛ́/	[sányɛ́]	Vb	'discuss'

n/l	/álaŋ/	[álãŋ]	N	'law'
	/ánàny/	[ánàny]	N	'rock'
	/sèlè/	[sèlè]	Vb	'to curse'
	/sènɛŋ/	[sènɛ̃ŋ]	Vb	'to shake'
n/ŋ	/sanɛ́/	[sãnɛ́]	Vb.	'scatter'
	/saŋè/	[sãŋè]	Adj.	'happy'.

The phoneme /l/

It is actualized as the oral voiced alveolar lateral in all environments i.e. initial, intervocalic and final positions. It is known to contrast with other sounds. It is labialized at word initial position in a single open syllabic word before [i].

l/d see d/l

l/n see n/l

The phoneme /sh/

/sh/ is realized as the voiceless oral pre-palatal fricative. It is attested in Mmɛn at word initial and inter-vocalic positions and never finally. Although relatively rare, it is a phoneme due to the following contrasts.

sh/s see s/sh

Sh/z see z/sh

sh/zh	/íshì/	[íshì]	N	'game'
	/ízhí/	[ízhí]	N	'gain'
	/sóshí/	[sóshí]	Vb	'to play'
	/sèzhí/	[sézhí]	Vb	'to celebrate'

The phoneme /zh/

/zh/ is actualized as the voiced oral pre-palatal fricative. It is attested at word initial and intervocalic positions. It is relatively rare and contrasts with its labialized counterpart as well as other sounds.

zh/zh^{w}	/zhí/	[zhí]	Vb	'to win, to eat'
	/zh^{w}í/	[zh^{w}í]	N	'wife'

zh/sh see sh/zh

zh/z see z/zh

The phoneme /zh^{w}/

It is /zh/ labialized. It is a phoneme due to the following contrasts.

zh^{w}/zh see zh/zh^{w}

zh^{w}/s	/zh^{w}í/	[zh^{w}í]	N	'wife'
	/sí/	[sí]	N	'gizzard'
zh^{w}/c	/zh^{w}í/	[zh^{w}í]	N	'wife'
	/cí/	[cí]	Vb	'pour'
zh^{w}/c^{w}	/zh^{w}í/	[zh^{w}í]	N	'wife'
	/c^{w}í/	[c^{w}í]	Vb	'open'
zh^{w}/j^{w}	/zh^{w}í/	[zh^{w}í]	N	'wife'
	/j^{w}í/	[j^{w}í]	N	'courtyard'

The phoneme /ny/

/ny/ is articulated as the voiced nasal palatal stop in all environments. It is attested word initially, intervoca-

lically and finally. It is known to contrast with other nasals or pre-nasalized sounds. To these contrasts, it owes its phonemic status. /ny/ is relatively rare in Mmɛn.

ny/m see m/ny

ny/n see n/ny

ny/mb see mb/ny

ny/y

/nyí/	[nyí]	N	'mother'
/yiŋ/	[yĩŋ]	Vb	'run'

The phoneme /y/

Actualized as the oral voiced palatal glide or semi-vowel, /y/ contrasts with other sounds. It is attested at word initial position and mostly at word intervocalic position and in some few cases at word final position. Quite rare in Mmɛn, it derives its phonemic status from the following contrasts.

y/ny see ny/y

y/w

/ʃyaŋ/	[ʃyãŋ]	N	'root'
/ʃʷɔ/	[ʃʷɔ]	N	'grass'

In this example, the vowel [i] preceeding the sounds has been taken into consideration.

The phoneme /k/

It is articulated as the voiceless oral plosive velar stop. It can be palatalized (I.2) in given environment or labialized. It contrasts with its labialized counterpart as well as other sounds.

k/kʷ				
	/kaŋ/	[kãŋ]	N	'lie'
	/kʷaŋ/	[kʷãŋ]	N	'boundary'
	/ɨke/	[ɨke]	N	'money
	/ɨkʷe/	[ɨkʷe]	N	'arms'
k/g				
	/ákè/	[ákè]	N	'gorilla'
	/ágè/	[ágè]	N	'antelope'
	/akɔ́/	[akɔ́]	N	'forest'
	/ago/	[ago]	N	'idiot'
k/x				
	/ɔkɔ́/	[ɔkʸɔ́]	N	'voice'
	/ɔxɔ́/	[ɔxʸɔ́]	N	'people'
k/w				
	/ɨkú/	[ɨkú]	N	'death'
	/ɨʷú/	[ɨʷú]	N	'peelings'
	/ɨkùs/	[ɨkùs]	N	'maggot'
	/ɨʷùs/	[ɨʷùs]	N	'fire, gun'
	/ɨkìŋ/	[ɨkìŋ]	Adj.	'closed'
	/ɨʷìŋ/	[ɨʷìŋ]	N	'thatching grass'

The phoneme /kʷ/

/kʷ/ is /k/ labialized. Though rare, it is attested word initially and intervocalically. It owes its phonemic status to the following contrasts.

kʷ/k see k/kʷ

Kʷ/w

/ɨkʷe/	[ɨkʷe]	N	'arms'
/ɨʷɔ/	[ɨʷɔ́]	N	'grass'

kʷ/g	/kʷaŋ/	[kʷãŋ]	N	'boundary'
	/gaŋ/	([gʷãŋ])	N	'salt'
kʷ/gh	/íkʷaŋ/	[íkʷãŋ]	N	'a boundary'
	/íghà/	[íghà]	Adj.	'fat, big'
	/ákaŋ/	[ákãŋ]	N	'a lie'
	/ághà/	[ághà]	N	'some stools'

The phoneme /g/

/g/ is actualized as the voiced oral velar plosive stop. It is relatively rare and attested both at initial and inter-vocalic positions. Its contrasts with other sounds prove it is a phoneme.

- It is prenasalized at word initial position before
  - [a] at single syllabic closed words
  - [ɔ] attested before the bilabial nasal [m]
- It is pre-nasalized and labialized before
  - [ã] .

g/k see k/g

g/kʷ see kʷ/g

g/gh	/ígaŋ/	[ígʷãŋ]	Adj.	'salty'
	/íghà/	[íghà]	Adj.	'fat, big'
g/ny	/gàm/	[ŋgàm]	N	'week'
	/nyàm/	[nyàm]	N	'beast'
g/mb	/gàm/	[ŋgàm]	N	'week'
	/ndàm/	[ndàm]	N	'life'

The phoneme /x/

/x/ is factualized as the voiceless oral velar fricative. It is attested word initially and intervocalically. It is palatalized at given environment (see I.2.3). It owes its phonemic status to the following contrasts.

x/k	see	k/x		
x/z	/ɓxɓ/	[ɓxʸɓ]	N	'people'
	/ɓzə̀/	[ɓzə̀]	N	'bee'

The phoneme /gh/

/gh/ is articulated as the voiced oral velar fricative. It is attested only at word intervocalic position and is quite rare in Mmɛn. It contrasts with its velar or fricative counterparts to prove its phonemic identity. It is mostly attested before the ora l central unround low vowel [a].

gh/k	see	k/gh		
gh/g	see	g/gh		
gh/kw	see	kw/gh		
gh/z	/ághà/	[ághà]	N	'stools'
	/ázà/	[ázà]	N	'mushroom'

The phoneme /ŋ/

/ŋ/ is articulated as the voiced nasal velar stop. It is relatively rare in Mmɛn. It is attested at word initial, intervocalic and final positions. Its phonemic status is obtained from its contrasts with other nasal or pre-nasalized sounds. At given environment, the sound is palatalized (see I.2.3).

ŋ/m see m/ŋ

ŋ/n see n/ŋ

ŋ/mb see mb/ŋ

ny/g see g/ny

The phoneme /'/

The phoneme is actualized as the voiceless oral glottal stop. It is never found at initial position of a word. It is either attested word intervocalically or finally. Relatively rare in Mmɛn, its contrasts with other sounds make it a phoneme.

'/s	/átà'/ [átà']	N	'snail'
	/átàs/ [átàs]	N	'spoon'
'/n	/átà'/ [átà']	N	'snail'
	/átàn/ [átàn]	N	'snare'

The phoneme /w/

/w/ is factualized as the voiced oral labio-velar sound or as a semi-vowel. It is attested mostly at word initial or intervocalic positions and never word finally. It is mostly found preceeding round back vowels. It owes its phonemic status to the following contrasts.

w/m see m/w

w/mb see mb/w

w/p see p/w

w/k see k/w

The phoneme /nd/

/nd/ is articulated as the pre-nasalized voiced alveolar stop. Though relatively rare, it is found word initially and intervocalically. It contrasts with its oral counterpart and other phonemes to prove its phonemic status.

nd/d see d/nd
nd/mb see mb/nd
nd/g see g/nd
nd/ny see ny/nd

The phoneme /pf/

It is actualized as the voiceless oral labio-dental affricate. Although attested word initially and intervocalically, it is a phoneme due to the following contrasts. It is realized [bv] i.e. voiced at initial position of closed single syllabic word.

pf/f see f/pf

pf/j

/ípfɛ́/	[ípfɛ́]	Vb	'faint'
/íjɔ́/	[íjɔ́]	N	'nails'
/ápfɛ́/	[ápfɛ́]	N	'fainting fits'
/ájɔ́/	[ájɔ́]	N	'nail'

The phoneme /ts/

/ts/ is realized as the voiceless oral alveolar affricate. It is attested only at word initial and intervocalic positions. It owes its phonemic status to the following contrasts.

ts/t see t/ts

ts/dz

/tsɛ̂/	[tsɛ̂]	Vb	'pass'
/dzèm/	[ndzèm]	Vb	'sneeze'

ts/c

/tsámtɛ̀/	[tsámtɛ̀]	N	'savior'
/cámtɛ̀/	[cámtɛ̀]	N	'help'
/átsí/	[átsí]	N	'round'
/ácì/	[ácì]	N	'stones'
/sə̀tsí/	[sə̀tsí]	Adv.	'plenty'
/sə̀cí/	[sə̀cí]	N	'leprosy'

The phoneme /dz/

It is actualized as the voiced oral alveolar affricate and attested only at two word positions initial or inter-vocalic. Chances of meeting it in words are quite slim. It is also pre-nasalized at word initial position in closed single syllabic words. The following contrasts render its phonemic status.

dz/t see t/dz

dz/z see z/dz

dz/ts see ts/dz

dz/c

/dzèm/	[ndzèm]	Vb	'sneeze'
/cə̀m/	[cə̀m]	Vb	'grind'
/ídzɔ̀/	[ídzɔ̀]	N	'noise'
/ícɔ̀/	[ícɔ̀]	N	'partridge'

dz/j

/dzèm/	[ndzèm]	Vb	'sneeze'
/jèm/	[njèm]	Vb	'sing'

The phoneme /c/

/c/ is actualized as the voiceless oral pre-palatal affricate. Though relatively rare, it occurs word initially and intervocalically only. It is due to the following contrasts that it is a phoneme.

c/c^{w}

/cí/	[cí]	Vb	'spill, pour'
/c^{w}í/	[c^{w}í]	Vb	'open'

c/t see t/c

c/dz see dz/c

c/j

/ící/	[ící]	Vb	'groan'
/íjí/	[íj^{w}í]	N	'a courtyard'
/cèm/	[cèm]	Vb	'grind'
/jèm/	[njèm]	Vb	'sing'
/ícù/	[ícù]	N	'mouth'
/íjú/	[íjú]	N	'sun'

The phoneme /c^{w}/

It is /c/ labialized. It is a phoneme because not only does it contrast with its non-labialized counterpart but also with other sounds.

c^{w}/c see c/c^{w}

c^{w}/zh^{w} see zh^{w}/c^{w}

cʷ/j	/cʷí/	[cʷí]	Vb	'open'
	/jí/	[jʷí]	N	'courtyard'
cʷ/s	/cʷí/	[cʷí]	Vb	'open'
	/sí/	[sí]	N	'gizzard'

The phoneme /j/

It is factualized as the voiced pre-palatal oral affricate. It is realized word initially and intervocalically never finally. It is labialized when following and preceeding [i] that carries a high tone.

Its phonemic status is a reality due to the following contrasts. It is pre-nasalized at word initial position in closed single syllabic words.

j/c see c/j

j/dz see dz/j

j/pf see pf/j

Phonemic chart.

There are consonant phonemes grouped into stops, nasals, fricatives, affricates, laterals and glides. Consonant contrast in Mmɛn functions mainly at word initial position and some few occasions at intervocalic position.

Although the language is not quite multisyllabic, it is sometimes difficult to find minimal pairs, clear indicators of phoneme so we have from time to time made use of available near minimal pairs whenever need be.

Mmɛn exhibits thirty-two consonant phonemes namely

- twenty seven basic consonant phonemes
- two pre-nasalized consonant phonemes
- three labialized consonant phonemes.

Place of articulation / Manner of articulation		BILABIALS	LABIODENTALS	ALVEOLARS	PREPALATALS	PALATALS	VELARS	GLOTTALS	LABIOVELARS
oral stops	vl	p		t			k	'	
	vd	b		d			g		
nasal stops	vl								
	vd	m		n		ny	ŋ		
Pre-nasalized stops	vl								
	vd	mb		nd					
Fricatives	vl		f	s	sh		x		
	vd		v	z	zh		gh		
Labialized stop, fricatives and affricates	vl				c^w		k^w		
	vd				zh^w				
Affricates	vl		pf	ts	c				
	vd			dz	j				
Lateral	vl								
	vd			l					
Glide	vl								
	vd					y			w

Note: vl: voiceless
vd: voiced.

Table 6.

- twenty-eight 'basic consonants' - ten labialized sounds
- three labialized and pre-nasalized sounds - six palatalized sounds

Manner of articulation \ Place of articulation		Bilabials	Labiodentals	Alveolars			Pre-palatals		Palatals	Velars	Glottals	Labiovelars
oral stops	vl	p		t						k	'	
	vd	b		d						g		
nasal stops	vl											
	vd	m		n					ny	ŋ		
Fricatives	vl		f	s			sh			x		
	vd		v	z			zh			gh		
Affricates	vl		pf	ts			c					
	vd		bv	dz			j					
Lateral	vl											
	vd			l								
Glides	vl											
	vd			stop	Frica-tive	late-ral	Frica-tive	affri-cate	y			w
Labialized sounds	vl	p^w		t^w				c^w		k^w		
	vd			d^w	z^w	l^w	zh^w	j^w		g^w		
Pre-nasalized sounds	vl	mp		nt	affri-cate							
	vd	mb		nd	ndz			nj		ŋg		
Labialized and pre-nasalized sounds	vl	mp^w										
	vd	mb^w								ŋg^w		
Palatalized sounds	vl	p^y	f^y							oral stop k^y	nasal stop	frica-tive x^y
	vd			n^y						ŋ^y		

Table 5

I.2. Vowels

Unlike consonants, vowels are produced without a constriction and are described according to position of tongue and lips and height of tongue.

Mmɛn exhibits vowels that are contrastive. These vowels could be oral, nasalized, they could be short,

I.2.1. Phonetic realization: The vowels do not have a restricted distribution in word of Mmɛn although most of them occur in prefixes and some in roots. Vowels like /i, u, ə/ are frequently attested in the language.

Some vowels are nasalized in the environment of nasal. Otherwise most of them are oral.

The oral vowels are:

1. The following short vowels
   - The front unrounded high, mid, low short vowels [i, e, ɛ] respectively
   - The central unrounded mid and low short vowels [ə, a] respectively
   - The back rounded high, mid and low short vowels [u, o, ɔ] respectively.

<u>The nasalized vowels</u> are:

- the high unrounded front vowel [ĩ]
- the low unrounded front vowel [ɛ̃]
- the low unrounded central vowel [ã]
- the mid rounded back vowel [õ]
- the low rounded back vowel [ɔ̃]

No diphthong is nasalized.

Here follows the phonetic vowel chart of basic vowels sounds. They are classified according to

1- The vertical columns the height of the tongue

- High
- Mid
- Low

2- The horizontal columns: the position of tongue and lips

- Front unrounded
- Central unrounded
- Back rounded.

Phonetic basic vowels chart

Mmɛn exhibits height (8) basic vowel sounds.

POSITION OF TONGUE AND LIPS / HEIGHT OF TONGUE	FRONT UNROUNDED	CENTRAL UNROUNDED	BACK UNROUNDED
HIGH	i		u
MID	e	ə	o
LOW	ɛ	a	ɔ

Note: All vowels here are voiced.

Table 7.

II.2.2. Phonemic contrasts: Through minimal pairs or near minimal pairs some vowels will be declared phonemes.

The phoneme /i/

/i/ is actualized as the high oral front unrounded vowel in most environments and nasalized when preceeding a nasal (the voiced velar stop mostly or the voiced alveolar stop). This is attested word initially, intervocalically and finally contrasts with other vowels.

i/e

/ímbàs/ [ímbàs] soup'

/ébàs/ [ébàs] 'jama-jama soup'

i/a	/ící/	[ící]	Vb	'groan'
	/ací/	[ácí]	Vb	'cry'
	/íkú/	[íkú]	N	'death'
	/ákú/	[ákú]	N	'forest'
i/u	/ɱcí/	[ɱcí]	N	'soil'
	/ɱcú/	[ɱcú]	N	'female antelope'
	/íjì/	[íjì]	N	'lake'
	/íjù/	[íjù]	N	'sun'
	/ápì/	[ápì]	N	'thigh'
	/ápù/	[ápù]	N	'hole'

The phoneme /e/

It is realized as the mid front oral unrounded vowel. It is a phoneme on the basis of its contrasts with other vowels. It is attested word initially, intervocalically and finally.

e/i see i/e

e/ɛ	/té/	[té]	Vb	'refuse'
	/tɛ́/	[tɛ́]	Adj.	'expensive'
	/lɛ́sɛ̀/	[lɛ́sɛ̀]	Vb	'forget'
	/lɛ́sè/	[lɛ́sè]	Vb	'lie'
e/ə	/kɛ́sɛ́/	[kɛ́sɛ́]	Vb	'cough'
	/kɛ́'sə̀/	[kɛ́sə̀]	Vb	'erase, cancel'

The phoneme /ɛ/

It is realized as the mid front unrounded vowel. It is relatively rare at word initial position but very frequently attested at word intervocalic and final positions. Due to the following contrasts, it is a phoneme. It is nasalized when preceeding a nasal.

ɛ/a	/dɛ́/	[dɛ́]	N	'house'
	/dá/	[dá]	N	'village'
	/ādɛ́/	[ãdɛ́]	N	'family'
	/ádá/	[ádá]	N	'scar'
ɛ/e	see e/ɛ			
ɛ/o	/ífɛ́/	[ífɛ́]	N	'cutlass'
	/ífó/	[ífó]	N	'gift'

The phoneme /a/

/a/ is factualized as the low, central unrounded vowel. It occurs word initially, intervocalically and finally. It is nasalized when preceeding a nasal. It contrasts with its central counterpart and other sounds as such.

a/ə	/áfà/	[áfà]	N	'lock'
	/áfə̀/	[áfə̀]	N	'skin'
	/ágè/	[ágè]	N	'antelope'
	/əgé/	[əgé]	N	'danger'
a/ɛ	see ɛ/a			
a/ɔ	/ãzà/	[ãzà]	N	'mushroom'
	/ázɔ́/	[ázɔ́]	Adj.	'cold'

The phoneme /ɵ/

It is considered as a phoneme because it contrasts with other vowels. It is actualized as the mid central oral unrounded vowel and is attested in all word positions. It is sometimes nasalized when preceeding a nasal.

ɵ/a see a/ɵ

ɵ/e see e/ɵ

The phoneme /u/

This phoneme is realized as the oral rounded high back vowel. It occurs at intervocalic and final positions, and is never attested at initial position. Due to the following contrasts, we conclude that it is a phoneme.

u/ɔ	/ípú/	[ípú]	N	'parcel'
	/ípɔ́/	[ípɔ́]	Adj.	'tired'
	/ílù/	[ílù]	N	'place'
	/ílɔ̀/	[ílɔ̀]	N	'curse'
u/i	see i/u			
u/o	/ífú/	[ífú]	N	'basket'
	/ífó/	[ífó]	N	'gift'
	/íkú/	[íkú]	N	'death'
	/íkó/	[íkó]	N	'worth'
	/ípú/	[ípú]	N	'parcel'
	/ípó/	[íkó]	N	'squash'

The phoneme /o/

/o/ is realized as the mid back rounded vowel in most environments. It occupies the intervocalic and final positions and is never attested at initial position. It owes its phonemic status to the following contrasts. It is nasalized when preceeding nasals.

o/u see u/o

o/ɔ

/ígò/ [ígò]	Adj.	'dull'
/ígɔ̀/ [ígɔ̀]	Adj.	'foolish'
/ípó'/ [ípó']	N	'squash'
/ípɔ́/ [ípɔ́]	Adj.	'weak, soft'

o/ɛ see ɛ/o

The phoneme /ɔ/

This phoneme is actualized as the oral low rounded back vowel. It is considered a phoneme on the basis of the following contrasts. It is attested word intervocalically and word finally and not at word initial position. It is nasalized when preceeding a nasal.

ɔ/u see u/ɔ

ɔ/o see o/ɔ

The phoneme /aː/

THE GENERAL PHONETIC CHART

Mmen has an inventory of thirteen vowel sounds namely:

- eight 'basic' oral vowels

- five nasalized vowels

Position of Tongue and lips / Height of Tongue		FRONT UNROUND	CENTRAL UNROUND	BACK ROUND
HIGH		i		u
MID		e	ə	o
LOW		ɛ	a	ɔ
NASALIZED VOWELS	H	ĩ		
	M			õ
	L	ɛ̃	ã	ɔ̃

Note: 1. H = HIGH, M = MID, L = LOW

THE PHONEMIC CHART

The language exhibits fourteen vowel phonemes namely:

- eight oral vowels

POSITION OF TONGUE AND LIPS / HEIGHT OF TONGUE	FRONT UNROUND	CENTRAL UNROUND	BACK ROUND
HIGH	i		u
MID	e	ə	o
LOW	ɛ	a	ɔ

Note: see table 8.

Table 9.

From the above charts and analysis, we conclude that Mmɛn presents eight vowels but thirteen vowel sounds and eight vowel phonemes. Nasalized vowels are only attested as sounds.

I.3. Phoneme distribution in syllables

There are eight syllable structures as has already been mentioned and discussed in Chapter One. They are:

V	
CV	
CCV	CSV
CVC	CVV
CVN where N = ŋ, m	CSVC

From the structure listed above, it has been observed that there is a maximum of two consonant positions in the syllable. It can also be observed that, but for, the CVN structure and CVC pattern, all the syllables are open.

The V syllable constitutes prefixes mostly and the only vowels noticeable to possibly stand alone as syllables are the following: /i, e, ɛ, ə, a/.

The CV syllable structure is the most predominant. It is found attested in prefixes as well as in words.

It has already been noted that only closed syllable are CVN and C_1VC_2 where N = ŋ, m

where C_2 = m, n, ny, ŋ, l, f, s, y, ' g.

The CVN structure is found either at morpheme final position or where there is a consonant cluster comprising a nasal velar or bilabial nasal stop and which is not homorganic with the following consonant. Here are some examples:

- CVC structure

Examples		gloss
/mbə̌m/	N	'snake'
/ndɔ̌m/	N	'husband'
/mbʷûl/	N	'oil'

/átà'/	N	'snail'
/ŋɔ̃g/	Vb	'suck'
/átsìs/	N	'stones used as fireside'
/ípàny/	N	'hate'
/ílùŋ/	N	'bamboo'
/ə̄pày/	N	'pap'
/átàn/	N	'snare'

- <u>CVN structure</u>

/kámnə̀/	Vb	'stir'
/pìŋní/	Vb	'roll'
/tùŋní/	N	'ear'
/sáŋné/	Vb	'discuss'

The CCV syllable pattern is one with a restricted distributional pattern. C_1 position can only be occupied by the following two consonants /t/ and /m/ while the C_2 position could be occupied by /d/, /z/, /ts/, /j/, /c/, /l/. We noted that these sounds were either alveolar or pre-palatal.

The only vowels which are found to occupy the vowel peak position are /i, ɛ, ə/.

The following are examples:

/m̀lín/	N	'stars'
/m̀cí/	N	'soil'
/mlɛ́/	N	'wine'
/tzə̀m/	Vb	'sniff'
/m̀jín/	N	'urine'
/m̀tsíl/	N	'pus'
/m̀dɛ́n/	N	'blood'

It should be noted that /z/ is only attested after /t/ as seen above.

- The CSV pattern is limited in occurrence. The position of the semi-vowel can be occupied by either /w/ or /y/.

/y/ appears in a comparatively restricted environment than /w/.

1. The semi vowel /y/

From our data, it has been noticed that /y/ is attested at second position after the following phonemes

- the alveolar nasal stop /n/
- the velar nasal stop /ŋ/
- the voiceless bilabial plosive stop /p/
- the voiceless labio-dental fricative /f/
- the voiceless velar plosive stop /k/
- the voiceless velar fricative /x/
- the low unround oral central vowel /a/.

2. The semi-vowel /w/

It is more frequent than its palatal counterpart /y/. Although the CSV pattern is predictable as well as not predictable (see Chap. I case of labialization) /w/ has been occuring after

- oral stops
- fricatives
- lateral
- pre-nasalized stops.

In Mmɛn, the only sounds that are not labialized are nasals. There are indications that the front oral high unround vowel [i] follows most labialized sounds but for the following three.

- [gw]
- [mb^{w}]
- [mp^{w}]

where we have either [a] or [ɐ].

Examples		gloss
/zh^{w}ī/	N	'wife'
/l^{w}ī ŋ/	Adj	'full'
/ít^{w}ī ŋ/	Adj	'old'
/c^{w}ī/	Vb	'open'
/ŋg^{w}ílè/	Vb	'twist'
/mbuz^{w}ī/	N	'nose'
/g^{w}ā ŋ/	N	'salt'
/mb^{w}â/	N	'shoulder'
/mb^{w}ə l/	Adj.	'oily'
/mp^{w}atè/	Vb	'reconcile'.

The following tables show the possible combinations of single consonants in syllable onset and vowels in syllable peak.

'Table 10' shows that the most regular vowels which follow almost all the consonants are [i, u, ə, a]. We can therefore deduce that from what we have, attested, in table 11, the consonants which can combine with vowels to form CV prefixes are restricted. The following seven consonants are attested in prefixes

Consonants	Examples		gloss
/p/	/pétɛ́/	N	'male owner'
/m/	/mə̄sə̀s/	N	'head louses'
/w/	/^{w}úpɛ́/	N	'builder'
/t/	/tə̄ī ə̄m/	N	=brain=

Consonants	Examples		gloss
/k/	/kə́ʷùá/	Adj	'childish'
/f/	/fə́tsə́mə̀/	N	'pipe'
/v/	/vápù/	N	'orphan'
/s/	/sə̀tsə̀s/	Vb	'to punch'
/ny/	/nyɛ̃dɛ́/	N	'female host'

Given some coincidence between tables 10 and 11, some combinations are attested in roots as well as prefixes. These combinations are as below stated.

Combinations	Examples		gloss
/pe-/	/pétɛ́/	N	'male owner'
	/pédɛ́/	N	'male host'
/mə-/	/məsə̀s/	N	'head louses'
	/mə̀kãny/	N	'gun powder'
/wu-/	/ʷúpə̀nə̀/	N	'dancer'
	/ʷúpɛ́/	N	'builder'
/tə-/	/tə́yə̀m/	N	'furrow'
	/təbãŋ/	N	'tobacco'
/kə-/	/kə́ʷùá/	Adj	'childish'
	/kə́vaxɛ́/	Adj	'ignorant, innocent'
/ko-/	/kózésɛ̃ŋ/	Adj	'sad'
	/kómə̀ʷĩŋ/	N	'sorrow'
/fə-/	/fə́tàmɔ́/	N	'bush cat'
	/fə́sə̀s/	N	'head louse'
/va-/	/vávaⁱny/	N	'grand child'
	/vátɔ̃/	N	'prince'

/si-/	/sífə̌tə̀/	Vb	'to create'
	/síkʷãŋtɛ́/	Vb	'to pull groundnuts'
/se-/	/sélzhì̀m/	Vb	'to urinate'
/sə-/	/sə̄sá/	Vb	'to rule'
	/sə̄kãŋ/	Vb	'to fry'
/nyɛ/	/nyɛ̃tɛ́/	N	'female owner'
	/nyɛ̃dɛ́/	N	'female host'

The following are tables 10 and 11 respectively where 'basic sounds (phones)' are considered not phonemes (although all but for [bv] are phonemes).

ROOTS

BASIC CONSONANTS IN SYLLABLE ONSET	i	e	ɛ	ə	a	ɔ	o	u
p	+	+	+	+	+	+	+	+
b	-	-	-	+	+	-	-	-
t	+	+	+	+	+	+	+	-
d	+	+	+	+	+	+	+	+
k	+	+	+	+	+	+	+	+
g	-	+	-	-	-	+	+	+
m	+	-	-	+	+	+	+	+
n	+	-	+	+	+	-	-	+
ny	+	-	+	-	+	-	-	+
ŋ	-	-	-	+	+	+	-	-
f	+	+	+	+	+	+	+	+
v	+	-	+	+	+	-	-	-
s	+	+	+	+	+	+	+	+
z	+	-	-	+	+	+	-	+
sh	+	-	-	+	-	+	+	+
zh	+	-	-	+	-	-	+	+
x	-	-	-	+	-	-	-	+
gh	-	-	-	-	+	-	-	-
pf	-	+	-	+	-	-	-	-
bv	-	+	-	-	-	-	-	-
ts	+	-	+	+	-	+	-	+
dz	-	+	-	+	-	+	-	-
c	+	+	-	+	+	+	+	+
j	+	-	-	+	+	+	-	+
l	+	+	+	+	-	+	+	-
y	+	-	-	+	-	-	-	+
w	-	-	-	-	+	-	-	+

Vowels in syllable peak

Notes: '+' indicates an attested combination.

'-' indicates lack of such a combination.

Table 10.

CONSONANTS IN SYLLABLE PEAK

Vowels in syllable peak.

	i	e	ɛ	ɵ	a	ɔ	o	u
p	-	+	-	-	-	-	-	-
w	-	-	-	-	-	-	-	+
m	-	-	-	+	-	-	-	-
t	-	-	-	+	-	-	-	-
k	-	-	-	+	-	-	+	-
f	-	-	-	+	-	-	-	-
v	-	-	-	-	+	-	-	-
s	+	+	-	+	-	-	-	-
ny	-	-	-	-	-	-	-	-

Note: see 'table 10'

Table 11.

CHAPTER TWO

SYLLABLE STRUCTURE AND PROBLEMS OF INTERPRETATION

Use has been made in this piece of work of the General Alphabet of Cameroon languages for the phonetic transcription.

The Mmɛn sound system is characterized by consonants and vowels (mostly short ones) and a number of diphthongs. It should be noted that some consonants could be voiced or voiceless, oral or nasal and the vowels could be oral, nasalized or long. The above mentioned segments which will be described in later sections of this study combine to form a number of syllable types.

Although the most predominant syllable pattern in the language (as is the case in most languages of the Western Grassfields Bantu) is the CV pattern, Mmɛn presents all together a number of syllable patterns.

I.1. Syllable structure

There are basically eight syllable patterns in Mmɛn language. The following transcriptions illustrate the various paterns.

Syllable patterns	Examples		Gloss	Word patterns
V	/ɨ-fʉ́/	N	'medicine'	V. CV
	/ā-pfɛ́/	N	'fainting fits'	V. CV
CV	/wʉ́pɛ́/	N	'builder'	Cv. CV
	/nyāmā/	N	'meat'	CV. CV
CCV	/m̄lɛ́/	N	'wine'	CCV
	/m̀cʉ́/	N	'female antelope'	CCV
CVC	/ŋyūŋ/	N	'hair'	CVC
	/ndōm/	N	'husband'	CVC
CVN	/pɨŋní/	N	'roll'	CVN. CV
	/tʉ̀ŋní/	N	'ear'	CVN. CV
CSV	/ŋgʷílè/	Vb	'twist'	CSV. CV
	/mbʷǒkō/	N	'chimpanzees'	CSV. CV
	/‿nʸá/	N	'iron'	CSV
CSVC	/mbʷúl/	N	'oil'	CSV.VC
	/mbʷɔl/	Adj.	'oily'	CSV.VC
CVV	/púà/	N	'father'	CVV
	/wúà/	N	'cup'	CVV

The final consonant in a closed syllable can either be

a) the nasals i.e.

- the bilabial stop [m],
- the alveolar stop [n]
- the palatal stop [ny]
- the velar stop [ŋ]

b) the following oral stops

- the glottal [ʔ]
- the voiced velar [g]

It should be noted that these oral stops are rare in Mmɛn and rarely do they occur at word final position.

c) the following fricatives:

- the oral voiceless alveolar [s]
  fricative

d) the below mentioned lateral:

- the oral alveolar lateral [l]

e) the following glide:

- the oral palatal glide [y]

The glide is however rare in word final position. The following are examples to illustrate the above assertion.

The nasals	Examples		Gloss
/m/	[mbàm]	N	'snake'
	[ákə̀m]	N	'crab'
/ŋ/	[āpɔ̃ŋ]	N	'jaw'
	[ávɛ̃ŋ]	N	'witch'
/n/	[íkwín]	N	'tail'
	[ɔ́cìn]	N	'famine'
/ny/	[kɔ̃ny]	Vb	'like'
	[ŋgány]	N	'proverb'
The fricatives			
/f/	[ípə̄f]	Adj.	'wicked'
	[kāf]	N.	'armpit'
/s/	[āgús]	N.	'corner'
	[íkùs]	N	'maggot'
The oral stops			
/'/	[ídà']	N	'payment'
	[ídá']	N	'village'
/g/	[ŋɔ̃g]	Vb	'suck'
The lateral			
/l/	[ápə̄l]	N	'dust'
	[kúl]	N	'rope'

The glide	Examples	Gloss
/y/	[ɔ̄pày]	'pap'
	[sɔ́páy]	'to nail'

The CSV pattern results from labialization or palatalization that is not predictable in some cases. This is due to the presence of the semi-vowel [w] or [y] after oral stops, pre-nasalized stops, fricatives or laterals i.e.

a) after /p, t, d, k, g/

Examples		Gloss
[mpʷə̄s]	N	'pimples'
[pʷítè]	N or Vb	'caress'
[ípʸɔ́]	N	'delivery'
[téàtʷí]	Adj.	'rude'
[ítʷīŋ]	Adj.	'old'
[dʷísè]	Adj.	'awaken'
[tánèdʷī]	Adv.	'suddenly'
[kʷə̄mbí]	Vb	'wonder'
[ɔ́kʸɔ́]	N	'voice'
[kʷātɛ́]	Vb	'think'
[ígʷāŋ]	Vb.	'salty'

b) after pre-nasalized voiced stop /b, g/

Examples		Gloss
[mbʷâ]	N.	'shoulder'
[mbʷə̄l]	adj.	'oily'
[ŋgʷílè]	Vb	'twist'

c) after the fricative /zh, x/

[zhʷí]	N	'wife'

[zhʷísɛ́]	Vb	'breathe'
[ɛ́xʸɛ́]	N	'people, crowd'

d) after the affricates /c, ɟ/

[cʷí]	Vb	'-nen'
[íɟʷí]	N	'courtyard'

e) after the lateral

[lʷīŋ]	Adv.	'full'

The CSV pattern can also result from labialization that is predictable. This is due to the presence of the semi-vowel [w] after some stops but before the high oral round and back vowel [u]. This type of labialization is much more rare than the non-predictable one in the language.

Some examples of predictable labialization

Examples		Gloss
[ídʷúɔ̃]	N	'stomach'
[pʷúnyɛ̀]	Adj.	'cheap'
[wùkʷúɛ̃]	N	'traveller'
[mbʷúl]	N	'oil'

In Mmɛn, a syllable can be short and open (/tɛ́/ Adj. 'expensive' - /fɛ́/ Adv. 'there'); long and open (/ílūō/ N 'bridge' - /dúɔ̃/ Vb 'go'); or closed (/mbàm/ N 'snake' - /ŋgàm/ N 'week').

- Av_1 v_2 sequence in Mmɛn can consist of

1- two like vowels:

e.g. /záá/ Vb 'allow' (or zá:)

/zɔ́ɔ́/ Vb 'quarrel' (or zɔ́:)

in which case we speak of a long vowel or of

2- two unlike vowels

e.g.	/pə͡a/	Adj.	'loud'
	/cu͡ə/	N	'sample'
	/pi͡ə/	N	'say'

in which case we speak of a diphthong. Both cases are treated below.

It should be noted that there are rarely syllables consisting of a V_1 V_2 sequence followed by a consonant. Here are some rare exceptions.

/átûən/	N.	'pan'
/ítíàf/	Adj.	'poor'
/atíəf/	N.	'belch'

- <u>The CVC pattern</u>

The CVC pattern is quite limited in occurrence. The C_1 position can only be occupied by oral stops or pre-nasalized stops. The only vowels which have been found to occupy the vowel peak position are the central vowels /a, ə/ or the high vowels /i, u/.

e.g.	/ gàm/	N	'week'
	/ndàm/	N	'life'
	/təm/	Vb	'dig or shoot'
	/pùs/	Vb or N	'slap'

It should be noted that this syllable pattern is very frequent in a single syllabic word and this word is usually a closed syllabic type.

There does exist a syllabic nasal in the language i.e. /m/. It is different from the other nasals in that it is syllabic and thus carries a tone. In Mmɛn the tone is either

low or mid. This syllabic nasal appears mostly in nouns and in rare occasions in verbs.

e.g.

/m̀tsíl/	N	'pus'
/m̀sí/	Vb	'tear'
/m̀cí/	N	'soil'
/m̄lɛ́/	N	'wine'

The syllabic nasal [m̀] is found in closed syllabic words as well as in open syllabic words. It is attested only at word initial position and is realized before either the following alveolars or pre-palatals.

1. Alveolars

. voiceless oral alveolar affricate [ts]

/m̀tsíl/ N 'pus'

. voiceless oral alveolar fricative [s]

/m̀sí/ Vb 'tear'

. voiced oral lateral [l]

/m̄lɛ́/ N 'wine'

2. Pre-palatals

. voiceless oral pre-palatal affricate [c]

/m̀cú/ N 'female antelope'

. voiced oral pre-palatal affricate [j]

/m̀jín/ N 'urine'

It should be remarked that while the syllabic nasal /m/ carries a mid or low tone, the syllable next to it carries a high tone.

However, the cases of us finding syllabic nasals are quite slim. They are not as frequent in words and syllables as the non-syllabic nasals.

In light of the above interpretations, the basic CV syllable pattern is maintained as the norm.

Abstracting the features of labialization, palatalization and pre-nasalization as prosodies of the syllable greatly simplifies the overall analysis and reduces to a relatively simple form what would otherwise be a large number of complex consonant clusters (Roger Mohrlang in Studies in Nigerian Languages No. 2, 1972).

II.2. Interpretation problems

There do exist also two sound segments occuring in a word which could be broken down into two parts and each part conveying a meaning as attested below.

e.g. [ágìúdūmè] N 'elder brother'

[ágì] 'brother'

[dūmè] might mean 'grown'

[ú] might mean 'who'

In a word-to-word translation the above word might stand for 'brother who is grown'. This word [ágìúdumè], broken into two with every separate part a meaning, portrays the fact that [iu] is just the combination of separate sound segments with each representing a distinct entity i.e. [i] different from [u].

In another instance, two vowels could occur together as the result of the reduplication of morphemes in certain words.

e.g.

[ɓtɨpɨɓtɨpɨ]	Adv	'side by side'
[áfɓáɕíà]	N	'ashes'

There are some situations of vowels occuring together which do not fit into the above mentioned illustrations,

[ɪtìɓ]	Adv	'low'
[ɓ̄tɪà]	Adv	'far'
[pʊ̀àtɛ]	Vb	'pack'

Each of the two vowels carry tone and the tones are different in as much as one is low and the other one high or vice-versa.

The feeling we derive is that each of them may belong to a different syllable and it is therefore not far from the point if one concludes that there existed a consonant on the second syllable that has been omitted probably in rapid speech.

The consonant which is likely to fit at this position is the palatal glide [y].

In this case, the words could be represented as such:

[ɪtìyɓ]	Adv	'low'
[ɓ̄tíyà]	Adv	'far'
[pʊ́yàtɛ]	Vb	'pack'

This is another proof confirming the predominance of CV syllable pattern over the other patterns in Mmɛn language.

II.2.4. Labialization: It is represented by the labio-velar glide [w]. Labialization prosody in Mmɛn is at the same time a distinctive and a non-distinctive feature.

a) - Labialization as a distinctive feature: We have noticed a few cases where labialization can be considered as a distinctive feature and thus rendering the labialized as well as the non labialized sounds the status of separate

phonemes from each other.

In this case, labialized consonants and their non-labialized counterparts form minimal pairs.

Here are some examples to illustrate the above mentioned assertion.

C / C^W	/cí/	Vb	'spill, pour'
	/c^Wí/	Vb	'open'
zh / zh^W	[zhí]	Vb	'eat, win'
	[zh^Wí]	N	'wife'
k / k^W	[kãŋ	N	'lie'
	[k^Wãŋ]	N	'boundary'
	[íkẽ]	N	'money'
	[ík^{W}ẽ]	N	'arms'

Apart from these rare cases of labialization as a distinctive feature, labialization is also (and most of the time when attested in Mmɛn) a non distinctive feature.

b) Labialization as non distinctive

1. but predictable feature

It is a non distinctive feature for, labialized consonants are in complementary distribution with their non-labialized counterparts.

It is not a common phenomenon in our language of study and so far few consonants could be labialized as already mentioned under CSV syllable pattern (1.1). The following consonants are labialized in syllables when followed especially by the oral back high and round vowel [u] ; [p, d, k]. These sounds are oral stops.

/p/ --> [p^W] / __u

e.g. [p^Wũɛ̃ŋ] Vb 'sleep'

/d/ --> [d^W] / __u

e.g. [ɪdʷúɔ̄] N 'abdomen'

/k/ --> [kʷ] / __u

e.g. [ʷùkʷúə̄] N 'traveller'

There has been noticed a case of predictable labialized pre-nasalized stop.

/mb/ --> [mbʷ] / __u

e.g. [mbʷúl] N. 'oil'

These consonants are non-distinctive and quite predictable because found before [u]. They are [pw, dw, kw, mbw].

The rule of predictable labialization is only applicable to /p, k, d, mb/. A general rule could be derived whereby the four sounds would be included.

It should be noted that /p, mb, d, k/ are found labialized in the cases above mentioned and remain non-labialized elsewhere even if for the case of [p, d, k] found in front of [u] as is the case in

[ápù]	N	'hole'
[dúɔ̄]	Vb	'go'
[áŋɪúdūmə̀]	N	'elder brother'
[kúl]	N	'rope'

2. Non Distinctive and non predictable feature

There is a case of labialization that is non predictable (and non distinctive) as is the case above mentioned. This has been already noted under syllable structure as CSV pattern with no much details. This type of labialization is mostly found

- at word initial syllables when followed by /i, ɛ, ɵ, a/ which are either central or front vowels but all unrounded vowels. Here are the following affected consonants:

/k, g, d, z, l, mb, ŋg/

Examples		gloss
[kʷɛ́n]	Adj.	'correct'
[kʷâtɛ̀]	Vb	'think'
[gʷã̄ŋ]	N	'salt'
[mbʷâ]	N	'shoulder'
[mbʷə̄l]	Adj.	'oily'
[ŋgʷìlɛ́]	Vb	'twist'
[dʷísə̀]	Adj.	'awaken'
[zʷísɛ́]	Vb	'breathe'
[lʷī̄ŋ]	Adj.	'full'

The following rules could respectively be derived.

1. /k/ --> [kʷ] / --[ɛ, a]
2. /g/ --> [gʷ] / --[ã]
3. /mb/ --> [mbʷ] / --[a, ə]
4. /ŋg/ --> [ŋgʷ] / --[i]
5. /d/ --> [dʷ] / --[i]
6. /z/ --> [zʷ] / --[i]
7. /l/ --> [lʷ] / --[i]

- at word intervocalic position when followed by /ə, i/.

The consonants that are affected by the secondary articulation are /p, t, zh/.

Examples		gloss
[fə́pʷə̀s]	N	'pimple'
[ítʷī̄ŋ]	Adj.	'old'
[[illegible]]	N	'widow'

One could derive the following rule.

1. /p/ ---> [p^w] /ɐ -- ɐ

2. /t/ ---> [t^w] /i -- i

3. /zh/ ---> [zh^w] /a -- i

We notice that all these vowels are either high [i], mid [ɐ] or low [a] but that all the three are unround.

	Examples		gloss
2.	[básìk^{w}i]	N	'jama jama soup'
	[ík^{w}á]	N	'gorillas'
	Rule.	/k/ ---> [k^w] / --[i, a]	
3.	[tánɐ̀d^{w}í]	Adv	'suddenly'
	Rule.	/d/ ---> [d^w] / -- i	
4.	[mbúz^{w}ì]	N	'nose'
	Rule.	/z/ ---> [z^w] / -- i	

II.2.2. Palatalization: Like labialization (in some cases), palatalization is a non-distinctive prosody. It presents a phonetic status in Mmɐn and is quite rare. When a sound is palatalized, [y] that marks the second articulation is articulated simultaneously with the consonant as an integral part of the phoneme itself.

Palatalized consonants (though rare) are in complementary distribution with their non-palatalized counterparts. The following six consonants undergo the said conditioning /p, k, n, ŋ, f, x/. It should be noted that all these sounds are found at root initial position.

However one is tempted to say that f/fʸ form a minimal pair but that is not the case as the tone of the second vowel posed a problem i.e. in one case it is low while in the other it is high.

[ɓfə̀] N 'hoe'

[ɓfʸɓ́] N 'hill'

The following examples portray palatalization in Mmɛn language.

Examples		gloss
/ípʸɓ/	N	'delivery'
/ɓkʸɓ/	N	'voice'
/nʸá/	N	'iron'
/ŋʸãnɛ̀/	Vb	'crawl'
/ɓfʸɓ/	N	'hill'
/ɓxʸɓ/	N	'people'

The tone of the syllable that is affected by palatalization carries a high tone as noticed above. The words above are nouns but for one that is a verb. Put aside the nasals [n, ŋ] all the other sounds namely the stops [p, k], the fricatives [f, x] are voiceless.

Not only consonants undergo palatalization. The following low central oral unround vowel [a] undergoes the conditioning

- at V_1 position between alveolar nasal stop [n] at C_1 and C_2 positions.
- at V_1 position between alveolar nasal stop [n] and alveolar oral voiceless stop [t] at C_1 and C_2 positions respectively.

e.g. [naⁱnɛ́] Vb 'look'

[naⁱtõm] N 'queen'

It should be noted that [n] and [t] are alveolar sounds so one could conclude that [a] is palatalized between alveolar sounds.

We noticed however that the vowels that follow the palatalized consonants are either [ə] or [a] which are respectively the mid, oral, unround central vowel and the low, oral unround central vowel. These are the only central vowels found in our language of analysis as will be proven in later sections.

One could conclude that

1- palatalized consonants are all followed by unround central vowels.

2- palatalized oral consonants are followed by [ə].

3- palatalized nasals are followed by [a].

4- Only alveolar and velar nasal stops [n, ŋ], labial voiceless [p, f] or voiceless velar [k, x] could be palatalized at root initial position.

5- The palatalized vowel [aⁱ] is attested at intervocalic position between alveolar sounds [t, n].

<u>The following rules could be derived</u>.

1. /p, k, f, x/ ---> [pʸ, kʸ, fʸ, xʸ] / —ə .
respectively

2. /n, ŋ/ ---> [nʸ, ŋʸ] /—a
respectively

3. /a/ ---> [aⁱ] / [n] — [t, n]

II.2.3. Pre-nasalization: A pre-nasalized consonant is a sequence of a nasal plus another stop. It is necessary to determine whether the said sound constitutes a single sound or two sound segments.

There is more evidence for considering the pre-nasalized consonants we have here as single sound segments. In Mmɛn one finds only one syllabic nasal [m] that carries either a high or mid tone (as mentioned in I.1). Though analysed under segmental phonology here are the pre-nasalized consonants.

It should be noted that some of these prenasalized consonants could be labialized. The two prosodies attested on the same sound segment could be predictable or not predictable.

sounds	examples		gloss
[mp]	/mpʷès/	N	'pimples'
[mb]	/mbàm/	N	'snake'
[nt]	/ntɛ́nsí/	Vb	'twinkle'
[nd]	/ndáni/	Adv	'today'
[ndz]	/ndzèm/	Vb	'sneeze'
[nj]	/njə̀m/	Vb	'sing'
[ŋg]	/ŋgány/	N	'proverb'

The following chart shows the occurrence of pre-nasalization prosody with the basic consonants. It should be noted however that the language presents

- five pre-nasalized stops namely

  the two bilabial stops (both voiceless and voiced [p, b]

  the two alveolar stops (both voiceless and voiced [t, d]

  ~~the voiced velar stop~~ ~~[g].~~

- the voiced alveolar affricate [dz]
- the voiced pre-palatal affricate [j]

All together Mmɛn presents a list of seven pre-nasalized sounds.

It should be noted that only some stops and affricates are affected by the given prosody.

Pre-nasalized consonants chart.

The following chart portrays the distribution of pre-nasalization prosody with the basic consonants at their various points of articulation when pre-nasalized namely bilabial, alveolar, pre-palatal and velar.

I.2.5. Affricates: /pf, bv, ts, dz, c, j/ are the six affricates found in Mmɛn. They are interpreted as functioning as single phonemic ~~unities rather than as sequences of two emic~~ consonants on the following basis:

a)- no cases of reverse sequences fp, vb, st, zd, sht, zhd occur.

b)- analyzing these affricates as single segments fitting the CV pattern analysis simplifies the description of the syllable although there exists a CCV syllable pattern in the language.

It should be noted that [c] and [j] are the combination of alveolar stop [t] and the pre-palatal fricative [sh] on the one hand and the alveolar stop [d] and the pre-palatal fricative [zh] on the other hand.

Detailed analysis of the affricates will be seen while treating segmental phonology.

The following are examples with affricates.

sounds	examples		gloss
/pf/	[ápfɛ́]	N	'fainting fits'
/bv/	[bvéf]	Vb	'ask'
/ts/	[tsítɛ́]	vb	'praise'
/dz/	[ídzɔ̀]	N	'noise'
/c/	[cí]	Vb	'pour, spill'
/j/	[jàm]	N	'axe'

There is a possibility in Mmɛn to have pre-nasalized consonants labialized. This is not predictable but worthy of noting. They are found at word initial position. There are [mp^w, mb^w, $ŋg^w$].

e.g.	[$mp^wɔ̀s$]	N	'pimples'
	[$mb^wâ$]	N	'shoulder'
	[$ŋg^wílɛ̀$]	Vb	'twist'

It should be remarked that although affricates could either be labialized or pre-nasalized only the two bilabial stops [p, b] could be labialized as well as the voiced velar stop [g].

Although they do not contrast with their labialized or pre-nasalized counterparts, they could be considered (while still to be treated in later sections) not as separate phonemes but as being in complementary distribution with the latter.

CHAPTER THREE

SUPRASEGMENTAL PHONOLOGY

Some important features like vowel length and tone will be examined in this chapter.

Mmɛn like Aghem or many other Western grassfields languages is a tone language. It is a language in which both segmental and pitch phonemes, otherwise known as tones, go into the composition of words.

It is known that in tone languages, words could either be distinguished on the basis of segments or/and tones. Mmɛn is no exception.

The tones attested in the language are in some cases contrastive.

III.1. Vowel length.

Vowel length in Mmɛn has a phonetic status and a phonological status in some cases.

III.2. Tones

There are principally five tones in Mmɛn namely

- the high tone [ˊ]
- the mid tone [ˉ]
- the low tone [ˋ]
- the rising tone [ˇ]
- the falling tone [ˆ]

Tones	Examples		gloss
High (H)	/ká'/	Vb	'hatch'
	/gé/	Vb	'coil'
Mid (M)	/pi̵ə/	N	'say'
	/pə̵a/	Adj.	'loud'
Low (L)	/pùs/	Vb or N	'slap'
	/mbàm/	N	'snake'
Rising (LH)	/kǎ/	Vb	'cut'
	/tsɛ̌/	Vb	'pass'
Falling (HL)	/kâ/	N	'shell'
	/gê/	N	'burden'

III.2.1. Phonemic tone contrast: Each syllable carries one of the five contrastive tones above mentioned occurring in the language. The falling and the rising tones occur less frequently than either of the other three tones while the high and low are much more attested than all.

If one could count the frequency of occurrence, one might say these two tones (the rising and the falling tones) are attested in barely one per cent of the total vocabulary.

Although rare, they can convey different meaning when attested in a syllable.

The following tone contrasts are attested in the given minimal pairs.

High/Low

/páy/	Vb	'appear'
/pày/	N	'pap'

/ící/	Vb	'groan'
/ícì/	N	'stone'
/íkú/	N	'death'
/íkù/	Vb	'arrest'

Falling/high

/ímû:l/	Vb	'swell'
/ímûl/	N	'swelling'
/kâ/	N	'shell'
/ká'/	Vb	'hatch'

Falling/low

/áfêf/	Adj.	'poor'
/áfèf/	N	'poverty'

Falling/rising

/kâ/	N	'shell'
/kǎ/	Vb	'cut'

Rising/high

/ápǎ/	N	'umbrella'
/ápá/[ápʷá]	N	'leftovers'

There are cases of the rising tone being not contrastive and this is very frequently attested when the said tone does occur.

examples		gloss
/mbʷâ/	N	'shoulder'
/ízǎlɛ́/	Vb	'teach'
/íxǎlɛ́/	N	'rib'
~~/mâ/~~	~~Vb~~	~~'wear'~~

With the following near minimal pairs, there seem to exist such combinations whereby two different tones could be attested on separate syllables of the same word and be contrastive.

examples		gloss
/tíə̀m/	Vb	'stop, stand'
/ítìə́/	Adj.	'low, below'
/átìá/	N	'power'
/ítíàf/	Adj.	'tall, long'

This analysis of the existing tones of Mmɛn not only confirms the language as a tone language but renders the fact that tones pertinence and distinctiveness is a reality.

The mid tone which has not been attested as distinctive mostly occurs in prefixes.

III.2.2. Lexical tone: Lexical tone is found on single lexical items i.e. words out of context.

All the five tones as shown in the following examples are attested on lexical items.

Verbs which are either imperative or infinitive carry all the tones.

It should be noted that closed single syllabic words carry mostly the low tone while the open syllabic words carry mostly the high tone or the other tones. The following are examples.

Examples		gloss
/ká'/	Vb	'hatch'
/cà/	N	'chain'
/pēa/	Adj	'loud'
/kɛ̌/	Vb	'cut'
/mbʷâ/	N	'shoulder'

/pùs/	N or Vb	'slap'
/nyàm/	N	'beast'
/mbàm/	N	'snake'

It has been noticed from the following examples that one could assert that there exists a grammatical tone in Mmɛn, which is different from the lexical tone.

Although much has not been done in this paper on that the following examples are meant to show that a word could possibly change tone as it changes grammatical class i.e.

1) from verb to noun.

The syllables here are open ones. The verbs carry the high tone or the rising one while the nouns carry the low.

2) from adjective to noun.

Here the adjective carries the falling tone while the noun carries the low one.

Examples	classes	gloss	Examples	class	gloss
/ká'/	Vb	'hatch'	/kâ/	N	'shell'
/ǩǎ/	Vb	'cut'			
/cá/	Vb	'laugh'	/cà/	N	'chain'
/ɟcɟ́/	Vb	'groan'	/ɟcɟ̀/	N	'stone'
/shí/	Vb	'play'	/shì/	N	'game'
/áfêf/	Adj.	'poor'	/áfə̀f/	N	'poverty'

So one could say that a lexical tone is different from a grammatical tone and there is a possibility that a tone be at the same time lexical and grammatical.

III.2.3. Monosyllabic noun roots

Tone combinations

The possible combinations of tones on prefixes and roots of nouns are restricted. The following are attested.

a)- Low tone prefix

- Low tone root (quite rare)

  e.g. /ʷùŋgãny/ N 'traditional doctor'

  Though not marked the tone on the second syllable is low.

- Falling tone root (it is as rare as the low tone root).

  e.g. /fə̀nyâ/ N 'fortune telling'

- Mid tone root

  e.g. /tə̀fə̄m/ N 'brain'

- High tone root (this is much more attested than the first three above.)

  e.g. /fəndə́/ N 'smoke'

  /ə̀sá/ N 'injection'

While a high tone prefix (which is much more attested) could command the following root tones.

b)- High tone prefix

- Low tone root

  e.g. /ídzɔ̀/ N 'noise'

  /ʷúpə̀'/ N 'stranger'

- Mid tone root

  e.g. /váva'ny/ N 'grandchild'

  /ápə̄l/ N 'dust'

- Falling tone root

e.g. /vát$\hat{3}$/ N 'prince'

/ányâ/ N 'egg plant'

- Rising tone root (more attested than falling tone root)

e.g. /ágǒ/ N 'idiot'

/ápǎ/ N 'umbrella'

- High tone root (far more attested than all other tone roots).

e.g. /ʷúpé/ N 'builder'

/átsí/ N 'wound'

While a mid tone prefix could command the following root tones.

c)- Mid tone prefix

- Low tone root (more attested than the mid tone root).

e.g. /ə̄pày/ N 'pap'

/mə̄sə̀s/ N 'head louses'

- Mid tone root

e.g. /m̄mɛ̄n/ N 'name of village, a language and speakers in Cameroon'

- High tone root (more attested than the two above mentioned.)

e.g. /ə́kúl/ N 'material for tying'

/ā́gús/ N 'corner'

Monosyllabic noun roots with high tone prefixes are more attested in this language than the others. Notice should be

made too of the fact that the combination high tone prefix and high tone root are far more attested.

Comparatively, the high tone prefix presents more possible combinations than the low tone prefix or the mid tone prefix (which is the **least** attested of the three) be it attested in nouns, adjectives or verbs.

III.2.4. Verb tones

One might think that the distribution of tones on verbs seems more regular and somehow systematic than on nouns. From the tone on the prefix syllable one could determine the one on the root syllable. Although all the tones are found on verb root syllables (but for the mid tone).

i.e. High

e.g. /ká'/ Vb 'hatch'

/shí/ Vb 'play'

Mid

e.g. /ŋɔ̄g/ Vb 'suck'

'It should be noted that some pronounce it with the low tone but most speakers with the mid tone).

Low

e.g. /pùs/ Vb 'slap'

/ndzèm/ Vb 'sneeze'

HL.

e.g. /dâ/ Vb 'wear'

/ʷâm/ Vb 'lie'

LH.

e.g. /kǎ/ Vb 'cut'

/tsǎ/ Vb 'pass'

They seem predictable from that of the prefixes. However, the two tones that are mostly found are either the high or the low tones on prefixes as well as on the roots.

On monosyllabic verbs as shown on the above examples, the high, the low, the falling and rising tones occur.

It has been noticed that most verbs in a single closed syllabic word carry a low tone (but for /ɔ̀ɔ̀g/ which sometimes depending on the speaker carries the mid tone) and while the prefix also carry the low tone.

e.g. /sə̀pɔ̀s/ Vb 'to slap'
/sə̀nd..ɛ̀m/ Vb 'to sneeze'
/sɔ̀mɔ̀.../ Vb 'to taste'

In disyllabic verbs in ...ɛn we noticed the following combinations.

a)- Low tone prefix

- High-Low tone root (more attested than the following two).

e.g. /sɔ̀ndɛ́mə̀/ Vb 'to grow'
/sə̀zɛ̂nə̀/ Vb 'to spread'

- Low-Low tone root (quite rare)

e.g. /sɔ̀pfɛ̀mə̀/ Vb 'to burry'
/sə̀sɛ̄nə̀/ Vb 'to compare'

- Rising-Low tone root (rare)

e.g. /sə̀kwə̌tɛ̀/ Vb 'to hope, to think'

b)- High tone prefix

- Low-High tone root

e.g. /sɛ́mə̀lɛ́/ Vb 'to sink'
/shə́xɛ̀tɛ́/ Vb 'to sob'

- Rising-High tone root

e.g. /fǐzǎlɛ́/ Vb 'to teach'

- High-High tone root

e.g. /sékɛ́sé/ Vb 'to cough'

/sétsítɛ́/ Vb 'to praise'

- Rising-Low tone root

e.g. /sɵ́fě̌tɛ̀/ Vb 'to repair'

/sɵ́pǎ̌sɵ̀/ Vb 'to add'

Kmen is not a multisyllabic language as such although few multisyllabic words may be attested in the language.

e.g. /ndàm̄ədàf́/ N 'custom'

The majority of these words are compound ones.

e.g. /pámmátʷí/ N 'nape of the neck'

/dɛ́ʷɔ́àlɛ́/ N 'school'

/wɔ̃ŋʷúsà/ N 'bullet'

/fǐ̌cɔ̃mvə̀/ N 'beak'

This confirms the CV syllabic structure pattern as the norm. The language presents also two tones namely

- H (High)
- L (Low)

to be the basic level tones attested on prefixes as well as on the roots. While the HL (falling tone ' ˆ ') and the LH (rising tone ' ˇ ') are not attested on prefixes.

CONCLUSION

Throughout this study, we have attempted to describe Mmɛn language, a language which, though near Aghem and Kom presents some differences. Attention has been focussed principally on the sound system of the language. The distribution of sounds have been described as well as the prosody.

It has been attested that thirty-two consonant phonemes including three diphthongs and three long vowels make up the sound system.

Five suprasegmental phonemes (tones), three of which are level and two contour come up to confirm Mmɛn as a tone language.

Although most linguists view Mmɛn as an entire language, different from Aghem and Kom, some comparative study of the three could bring to light more similarities than differences.

One could even from the language study the Mmɛn society pattern i.e. the matrilineal pattern as the speakers attested that there does exist a word for 'maternal uncles' but no word for 'paternal uncles'. This might mean that whenever a Mmɛn says 'uncles' he thinks not of his father's brother first but of his mother's brother. This proposed study falls under socio-linguistics.

So far, we have purely dealt with structural phonology (phonemics) and much is still to be done as far as phonology is concerned (e.g. generative phonology).

Some important areas based on morphology, syntax and even grammatical tone seem worthy of study.

Some consonant alternations though noticed had not been taken account of. One could postulate:

1) deletion of a nasal consonant at given environments.

[vainy] N 'child'

but [vápù] N 'orphan'

[vápù] in a word-to-word translation means

'child of death'

Here it should be noticed that the vowel had also undergone some conditioning i.e. the palatalization is lost.

2) [v] becomes [w] at given environments

[vainy] N 'child'

[pùsíwalny] sentence 'whip the child'

There might exist many more alternations which could be worthy of interest.

We are aware of the fact that much remains to be done thus attesting our shortcomings. We humbly believe however that this analysis could serve as a foundation for any further investigation in Women.

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