THE FORE LANGUAGE
OF
PAPUA NEW GUINEA

by

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Except where otherwise acknowledged
in the text, this thesis represents
the original research of the author.

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ABSTRACT

The Fore Language of Papua New Guinea

FORE is a non-Austronesian language of the highlands of Papua New Guinea. It has two particularly fascinating aspects: (i) extensive phonological change according to morpheme class; and (ii) indication of inter-clausal relationships as part of verb morphology. In this description, the basic philosophy is that of the theory of Tagmemics, although peculiarly Tagmemic terminology and formulae have been kept to a minimum.

Following a review of previous scholarship given in the first chapter, chapter 2 describes the phonology, and chapter 3 the morphophonemic changes which pervade Fore speech. Later, in chapter 10, a brief comparative survey places Fore within the larger context of the East-Central family.

Morphology and syntax at clause level are given in chapters 4-6. Chapter 7 then gives the morphology of inter-clausal relations, by which strings of clauses are conjoined to form the inordinately long sentences which are typical of languages such as Fore. The structure of such strings is given in chapter 8, which is then illustrated by a sample one-sentence discourse in chapter 9. Underlying morpheme forms are given throughout.

ACKNOWLEDGEMENTS

This thesis is based on some eleven years of work with the Fore-speaking people of Papua New Guinea. As members of the Summer Institute of Linguistics, my wife and I have had the inestimable privilege of spending much of that time living among Fore friends in their village situation.

We arrived in Kasoru village in January, 1961, to take over the linguistic research commenced by Ray and Ruth Nicholson, also of the S.I.L. Within a week, via signs and actions cutting across language and cultural boundaries, my wife was adopted into the family of an influential village woman. This dear soul, Ayore, proceeded to make me understand that I should never again use her name. Instead, I was to call her **aentá:nené** *my old woman*, while she would reciprocate with **nasa:múwe** *my son-in-law*. Although she has since died, the relationships she established have continued, and her son, Aegaya, deserves special mention for caring for us during my time of additional fieldwork in 1975. I also thank my special friend, Nabe, for his complete acceptance and encouragement through the years. All residents of the hamlets surrounding the Kantawanti area of Kasoru village have earned our deepest appreciation for sharing themselves and their life-style with us. Hopefully we have given value in return.

Many have assisted our language learning and analysis. Outstanding among these have been Egigina, who now runs his own P.M.V. (Public Motor Vehicle), and Joel Kavari, currently managing an electrical store in Lae. A'yabi Yo'yori, Manko Ya'i and Abote Aninke taught me much concerning acceptability of utterances and style, as we endured together the discipline required to complete an adequate translation of the New Testament into Fore. During recent fieldwork, David Ayamaso and Maneo Pane provided much assistance, including a complete revision and enlargement of dictionary materials. Esi Aoiye of Orie village provided Southern dialect entries.

Three Fore presidents of the Okapa Local Government Council deserve thanks for their confidence and assistance during our stays in the area: Messrs Kege Yasinamo, Muriso Warebu and John Pokia. The latter two have also served as members of parliament.

This thesis has benefitted from two computer outputs. For the first, a morpheme concordance of Fore text materials, I am indebted to the University of Papua New Guinea. The concordance was prepared in 1967 under the direction of Professor Max McKay. For the second, an alphabetisation and reversal of Fore dictionary entries prepared this year, my thanks go to the Australian National University, and to linguist-programmer Dr Jacques Guy. I also thank Mr Tony Ashcroft of the A.N.U. for assistance in preparation of the cognation percentages given in chapter 10.

During fieldwork, investigations into the relationship of Fore to other languages of the family required help from other linguists in the province. My thanks go to Rev Günther Renck, Dr John Z'graggen, Messrs Pat Smith and Phillip Wanopo, and to my S.I.L. colleagues (Dr Ellis Deibler, Dorothy Drew, Gwen Gibson, Dorothy James, Sam and Nancy McBride, Joy McCarthy, Audrey Payne, David Strange, Robert and Rosemary Young) for help in upgrading wordlists and in making unpublished materials available. All such sources are included in the bibliography.

Since early 1974, I have been a research scholar of the A.N.U. in the Department of Linguistics, Research School of Pacific Studies. Financial aid provided by the A.N.U. is gratefully acknowledged. I have appreciated the interest and counsel of my head of department, Professor S.A. Wurm, the timely assistance of Dr D.C. Laycock, and the interaction with other departmental members, especially that of fellow scholar Alan Walker. My immediate supervisors, Drs C.L. Voorhoeve and T.E. Dutton, have been particularly helpful with criticisms and comments. I have also benefitted greatly from the constant encouragement and stimulation of Dr B.A. Sommer of the Canberra College of Advanced Education.

Finally, to Professor K.L. Pike, who long ago made me appreciate the intricacies of language, and to Dr Robert E. Longacre, who made me more aware of the subtleties of style, I give my heartfelt thanks.

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ABBREVIATIONS

including brief Index & Symbols

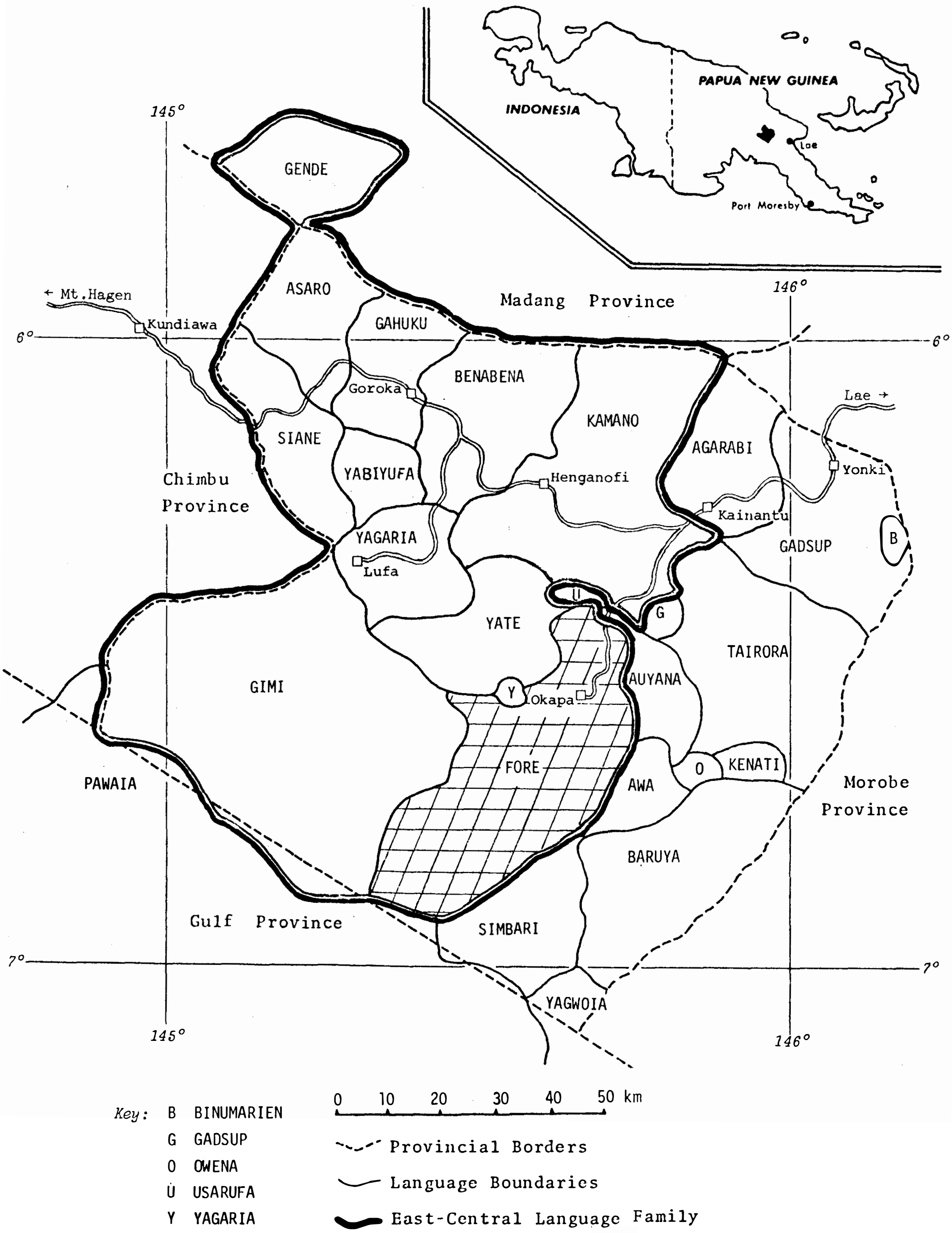
Abl, *ABL*	Ablative Case	*6.31(8)*
Acc, *ACC*	Accusative Case	*6.31(4)*
Acm	Accompaniment	*6.31(1), 6.32(1)*
Adv	Adverb	*5.38*
Ajt	Adjunct	*4.21(2)*
All, *ALL*	Allative Case	*6.31(7)*
ALTERN	Alternation	*6.23, 7.35*
Asp	Aspect	*4.22*
BEN	Benefactive Case	*6.31(10), 6.32(1)*
C	Consonant	*2.21, 2.23(1)*
Com, *COM*	Comitative Case	*6.31(1)*
Comp	Complement	*6.24(1), 6.32(1), 8.31*
Conj, *CONJ*	Conjoiner	*7.21(3), 7.22*
CONTRA	Contrafactual	*7.34*
COORD	Same-Subject Coordinate	*7.22(3)*
Dem	Demonstrative	*5.33*
Deriv	Derivational Suffix	*5.22(2), 5.22(3), 7.42*
Desc	Descriptive	*5.34*
Dimin	Diminution	*5.22(3)*
Dir	Directional	*6.31(7), 6.31(8), 6.32(1)*
DL	Dual	
DLN	Delineator	*6.24(3)*
DUBIT	Dubitative	*4.32(4)*
EMPH	Emphatic	*4.31(2)*
Ex	Exclamation	*5.39*
Excl, *EXCL*	Exclusive	*5.31(2)*
FOC	Focus, Focal	*6.24(1), 7.31*
FUT	Future Tense	*4.32(3)*
Gen, *GEN*	Genitive Case	*6.31(5)*
HABIT	Habituative	*7.42(1)*

IMPER	Imperative *4.31(3), 8.2(3)*
Indep	Independent *4.3*
INDIC	Indicative *8.2(1)*
Infl	Inflexion *4.3, 7.2*
Inst, *INST*	Instrumental Case *6.31(9), 6.32(1)*
INTENS	Intensity *4.22(2)*
Interr, *INTERR*	Interrogative *5.32, 8.2(2)*
IO	Indirect Object *4.21(3), 6.32(1)*
JUXTA	Juxtaposition *8.1*
lit.	literally
LOC	Locative Case *6.31(6)*
Loc	Locative, Locational *5.36, 6.32(1)*
Md	Mood *8.2*
N	N Class *3.21(1)*
NOM	Nominative Case *6.31(1)*
Nomz, *NOMZ*	Nominaliser *5.22(2)*
Noun	Noun *5.2*
NP	Noun Phrase *6.21*
NRt	Noun Root *5.21(1)*
NSt	Noun Stem *5.21*
Num	Numeral *5.35*
O	Direct Object *4.21(3), 6.32(1)*
OBL	Oblique Case *6.31*
PartCl	Participial Clause *7.42*
PAST	Past Tense *4.32(1)*
PERF	Perfect Tense *4.32(2)*
PL	Plural
Poss	Possessive *5.21(2), 5.23*
Pro	Pronoun *5.31*
PURPOS	Purposive *7.42(2)*
Q	Q Class *3.21(1)*
R	Reduced Verb *7.22(4)*
Ref	Referent Prefix *4.21(3), 5.21(2)*
Reft, *REFT*	Referential Case *6.31(11), 6.32(1), 7.32*
RelCl	Relative Clause *7.41*
REPET	Repetitive *9.2(2)*

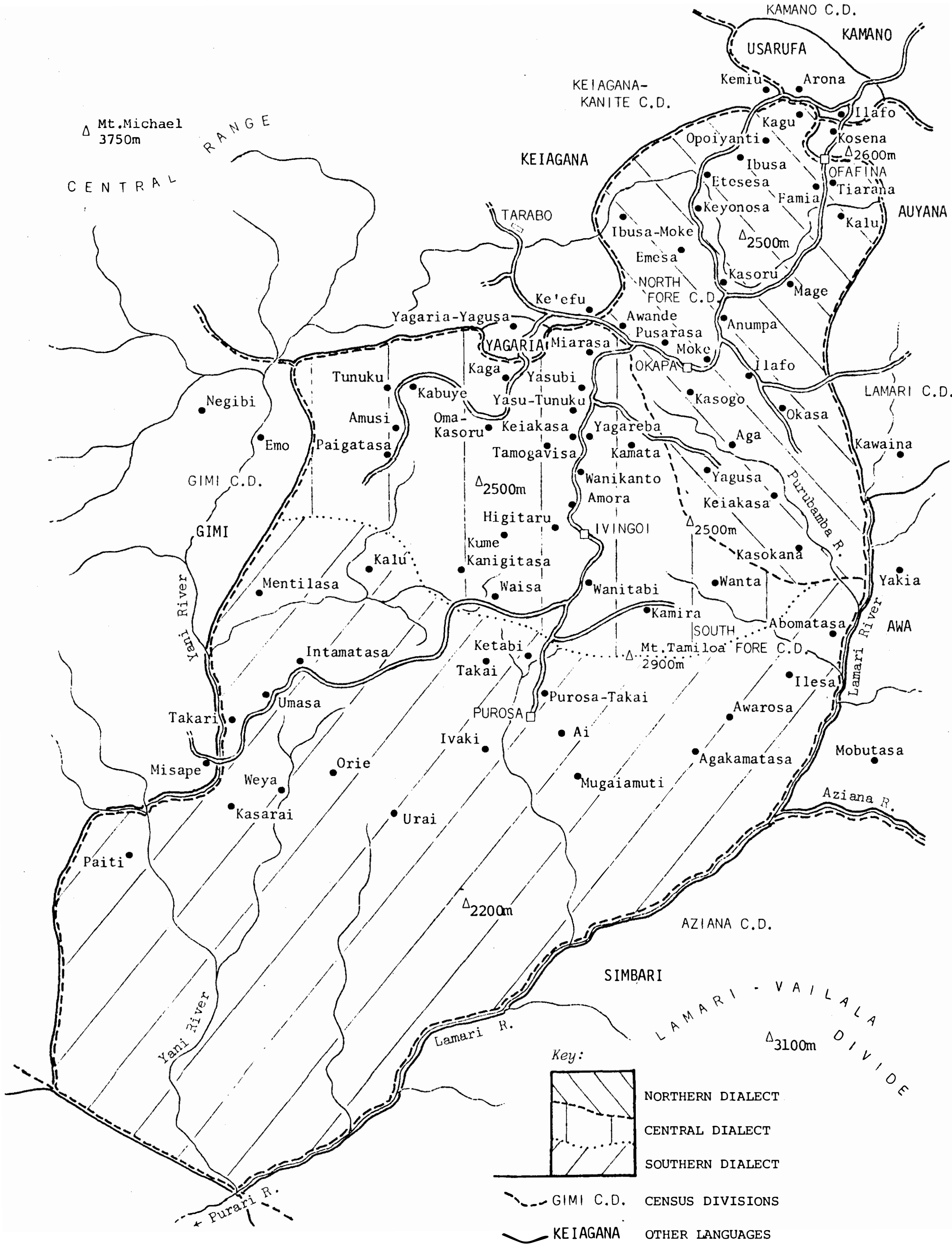
S	Subject *4.31, 6.32(1), 7.21(1), 7.21(4)*
SEQ	Sequence *7.22(1)*
SG	Singular
SIME	Simile *7.33*
SIMU	Simultaneity *7.22(2)*
Subj, *SUBJ*	Subject Referent *4.31, 7.21(1), 7.21(4)*
SWREF	Switch-Reference Coordinate *7.21*
Temp	Temporal *5.37, 6.32(1)*
Tns	Tense *4.32*
TOTAL	Totality *4.22(1)*
V	Vowel *2.21, 2.23(1)*
V	V Class *3.21 1)*
VBs	Verb Base *4.2*
VC	Verb Complex *6.25*
Verb	Verb *4.1(1)*
Voc, *VOC*	Vocative Case *6.31(1), 6.32(1)*
VRt	Verb Root *4.21(1)*
VSt	Verb Stem *4.21*

??	Doubtful gloss
*	Ungrammatical; Reconstruction
Ø	Zero
~	Alternation
.	Syllable boundary (within word)
⎵	Subscript for directing reader's attention
( )	Parentheses; Optionality
{ }	Alternatives
[ ]	Phonetic Script; Underlying Morphemes
/ /	Phonemic Script
< >	Obligatorily present/absent with specific forms
$\rightarrow$	is composed of
>	is realised as
$x > y \ / \ w\_\_z$	Item x is realised as y in the context of of a preceding w and a succeeding z

MAP 1: Location of Fore Language within Eastern Highlands Province



MAP 2: Fore Villages & Dialects



Chapter 1

INTRODUCTION

1.1 Orientation

FORE is a non-Austronesian language of Papua New Guinea. It is a member of the East New Guinea Highlands Stock (Wurm, 1975c:468), which in turn is part of the large Trans-New Guinea Phylum covering the major portion of both population and area of Papua New Guinea (Wurm, 1975a:19).

The Fore language is located around Okapa in the Eastern Highlands Province (see Map 1), and now has over 18000 speakers.[1] There are three dialects: Northern, Central and Southern (Scott, 1963). The Northern is the prestige dialect, and is the subject of this study. Its borders coincide with those of the North Fore Census Division (see Map 2). The Central dialect shows only minor changes from the Northern, while the Southern dialect is more divergent. Where relevant, differences between dialects are indicated in footnotes.

1.2 History of Research

1.2(1) GENERAL

The outside world knew nothing of the Fore-speaking people until after World War II. 1947 saw the first Administration patrol into the area, but it was 1954 before the present township of Okapa was founded as a Government outstation.[2]

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[1] Village rolls for the area were updated during 1975, but no actual totals were compiled. Most recent figures, which give a population of 16655, come from Okapa Patrol Reports 2 and 23 of 1972-73. A brief comparison with previous reports shows annual increases of approximately 3% and 1½% in North Fore and South Fore Census Divisions respectively.

[2] A more detailed account appears in Lindenbaum (forthcoming).

Anthropological details of the Fore region began to emerge in the early 1950's, following fieldwork during 1951-53 by R.M. and C.H. Berndt.[3] C.H. Berndt (1954) alsO provided the first linguistic notes.

Then in 1957, the Fore area captured the attention of the medical world when existence of the disease, Kuru,[4] became known (Gajdusek and Zigas, 1957). Anthropological and medical research intensified, encouraged by Papua New Guinea's Department of Public Health. Glasse and Lindenbaum[5] carried out major anthropological studies during 1961-63 from Wanitabi in the heart of the Kuru region.

A complete listing of all research materials relating to Kuru, whether medical, anthropological or linguistic, is given by Alpers, et al. (1975).

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[3]See R.M. Berndt (1952-3, 1954, 1962); C.H. Berndt (1953).

[4]Kuru, Papua New Guinea's so-called 'laughing sickness', is a disease of the central nervous system which is invariably fatal. It derives its name from the Fore word **kúru** *trembling*.

At first thought to be of genetic origin, Kuru is now known to be a viral disease. It is restricted to the Fore people and to those of their neighbours with whom they have intermarried. Muscular control desceases during the course of the disease, with death usually occurring after about nine months. "Kuru alone accounted for over half the deaths beyond infancy in the most severely affected villages, and reprisal murders of sorcerers suspected of causing the disease was the second most frequent cause of death in much of the region." (Zigas, 1970:130).

Work on Kuru and related diseases since 1957 has made Gajdusek one of two 1976 Nobel Prize winners in Physiology and Medicine (Newsweek, 1976).

Kuru is apparently of recent origin, reaching what is now the centre of the Kuru region during the 1920's (Glasse, 1967: 4). Cannibalism, now considered to have been the mode of transmission of the virus (Mathews, et al., 1968), is also apparently recent, reaching the area only ten to twenty years ahead of Kuru (Glasse, 1967:9). Under Government influence, cannibalism ceased during the late 1950's, and in recent years the incidence of Kuru has also markedly decreased.

[5]See, for example, Glasse (1962, 1969); Lindenbaum (1963, 1964, 1971, Forthcoming).

1.2(2) LINGUISTIC

'Fore' was first listed as a language name by Capell (1948-49:106),[6] where he placed it as part of the present Eastern family. Comparison with wordlists by McKaughan (1973: 721) shows that Capell's materials were actually from an Auyana dialect, hence the Eastern placement. Originally the name 'Fore' was used in reference to the South Fore villages of Abomatasa, Ilesa and Awarosa, together with the Awa tribespeople across the Lamari River (Gajdusek and Alpers, 1972: S17). Auyana villages lie immediately to the north of this area (see Map 2), and it is still common practice to identify oneself by a nearby but more widely known designation.

By the early 1950's, 'Fore' had become generally accepted as the collective name for all speakers of the language surrounding Okapa (C. Berndt, 1952). Following extensive fieldwork in the Highlands during 1958-59, Wurm (1961a, 1964) placed Fore as part of a Fore-Gimi sub-family within the East-Central family.

The earliest linguistic notes of C.H. Berndt (1954) were followed by unpublished papers on basic aspects of the grammar by Smythe (1959) and Nicholson (1961). Language lessons, also unpublished, were prepared by Dutton (1961) and by Nicholson and Nicholson (1961). Both include brief grammatical notes.

Fore phonology was first described in detail by Nicholson and Nicholson (1962). Then followed an analysis of the suprasegmental feature, pitch-accent, by Pike and Scott (1963), which has been challenged by Pilch (1970). Pike discussed matrix rearrangements for highlighting features of the pronominal affixes (Pike, 1963), and I have subsequently produced papers on Fore dialects (Scott, 1963), independent verbs (1968a), relationships between verbs (1973), linguistic

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[6] Capell spelled it 'Forei'; R.M. Berndt (1952-53) and C.H. Berndt (1952): 'Fɔ:re'; Smythe (1959): 'Fo:re'; all users since Smythe: 'Fore'.

aspects of kinship (1975b), and orthographic problems (1968b, 1976). The 1973 paper was prepared during a linguistic workshop headed by R.E. Longacre, who included reference to the materials in that paper in both his preliminary and final reports (Longacre, 1970, 1972).

1.3 Scope of Study

1.3(1) CONTENT

In this work I present a phonological and grammatical study of the Fore language. The underlying philosophy of presentation is Tagmemic, although peculiarly Tagmemic terminology has been kept to a minimum. Basic notions from that theory which continually recur during this description are contrast-variation-distribution, and slot-class correlation (Pike, 1967:85,194).

The concept of underlying forms and relationships, brought into focus by Transformation-Generatists (Chomsky, 1965), has enriched Tagmemic theory in recent years (Ballard et al., 1971a,b) and has benefitted this description. So has the concept of markedness (Greenberg, 1966; Chomsky and Halle, 1968:402), which helps explain some facets of Fore morphophonemics.

1.3(2) RELATIONSHIP TO PREVIOUS WORK

The statement of Fore phonology by Nicholson and Nicholson (1962) gives a detailed account of the segmental phonemes which is generally accurate. They showed that there are alternative interpretations possible for consonant and vowel complexes. They stated their preference for analysis of all complexes as clusters of simple phonemes. My interpretation differs from theirs, and I discuss why I have analysed some of the complexes as unitary phonemes.

The Nicholsons also gave a brief outline of the contrastive suprasegmental system. That which they labelled 'tone' was subsequently determined to be stress-based pitch, and relabelled 'accent' by Pike and Scott (1963). My further observations have revealed surface targets for patternings of this accent.

Morphophonemic changes to consonants were also outlined by the Nicholsons, and were later compared to those of Eastern family languages by Bee (1965a). These changes have proved to be far more pervasive than previously given, and their analysis has implications for other languages in the family. In addition, Fore has other morphophonemic systems relating to vowels, to accent, and to verb type.

Grammatically, there are areas which have never been described. There is, for example, no previous work dealing in detail with non-verb morphology, nor with syntax within the clause. This work seeks to rectify such lack. Recent research into the total grammatical system of Fore has led to some reanalysis of my earlier paper on independent verbs (Scott, 1968a), particularly in the areas of aspect and stem compounding. The basic analysis of my later verb paper (Scott, 1973) is unchanged, although areas relevant to this thesis have been considerably refined and rearranged. This is perhaps best seen during discussion of switvh-reference forms in chapter 7.

Much comparative work on the East-Central family has already been done by Wurm (1961a, 1964a,b, 1965, 1971, 1975b,c). My own research supports his findings, and adds some refinements. My lexical data, though limited, are extremely reliable, having come in the main, from wordlists corrected during my fieldwork by linguists who have worked in their areas for many years. Cognate counts which are somewhat higher than those previously given are the result.

Sound correspondences between the languages need much more work, but there is sufficient information to provide a tentative proto-phonology suggesting probable origins and innovations of Fore phonology. The abnormality of Fore's word-initial **s**, which alone of word-initial consonants does not undergo morphophonemic change, is explained from these findings.

Some tentative lexical reconstructions have also been included.

1.4 Conventions

1.4(1) BRACKETING

Fore is morphologically complex. There are no free-form conjunctions, no free-form prepositions. Instead, relationships between clauses, and relationships between items within a clause, are indicated by affixes. Consequently, it has been deemed necessary to indicate in most illustrations the function or meaning of each morpheme.

This has been done by restating surface realisations in terms of their underlying forms. These secondary forms, which are 'underlying' in the sense of being grammatical forms immediately preceding the application of morphophonemic and phonetic realisation rules, are enclosed in square bracketing [ ], as shown in (1) below. Only in chapter 2, where phonology is discussed, do square brackets indicate phonetic entities (exclusively). There the phonetic script in use is based upon that of the International Phonetic Association (1949).

(1) iyewe. *They ascend.*
[i-a:-e *ascend-they(PL)-INDIC*]

Obliques / / enclose phonemic entities in chapter 2. Elsewhere a single oblique is used in rule statements, such as $x > y$ / $\_\_z$ (x is realised as y when preceding z). Parentheses ( ) are used conventionally to enclose numberings and asides, but also express optionality in formulae. Braces { } show alternatives from which a choice must be made. These and other conventions are listed following the alphabetic abbreviations given in the preface.

1.4(2) SUBSCRIPT

To draw the reader's attention quickly to the point under discussion, a subscript ⌴ is often used in illustrations. For example, if the item under scrutiny in (1) were the change from **a:** to e, then a subscript may be used either in conjunction with the surface realisation: **iyewe** *They ascend*; or attached to the underlying morpheme presentation: [i-a:-e *ascend-they(PL)-INDIC*].

1.4(3) CAPITALISATION

As will have been seen in (1) above, underlying morphemes may be glossed using either upper or lower case italics. When glossed according to function, that function is capitalised (and often abbreviated). When glossed by meaning, lower case is used.

1.4(4) ORTHOGRAPHY

As will be seen from the display of consonant and vowel phonemes given next chapter in (3), only fifteen symbols are required for their presentation. These symbols are: **p, t, k, m, n, s, w, y, ', a, e, i, o, u, :** . These, and only these, symbols are used in phonemic representations throughout chapter 2, where they are consistently enclosed in obliques.

From chapter 3 onwards, three additional symbols are introduced. These are: **b, r, g,** which are used to represent intervocalic /p, t, k/, but only when within grammatical words or within underlying morpheme forms. For example, **kúru** *trembling* is phonemically /**kútu**/, but phonetically [**kúru**]. On the other hand, **te'té tu** *red axe* is phonemically /**te'té tu**/, but phonetically [te:ʔté: **ru**].

This usage of **b, r, g** intervocalically is the orthographic choice of both native literate[7] and linguist.[8] Even

[7]See Scott (1976).

[8]E.g. Nicholson (1961); Pike (1963); Scott (1968a, 1973).

the possibility of analysing **b, r, g** as phonemes distinct from /p, **t, k**/ has been suggested.[9] As it is, **b, r, g** are the only variants in Fore phonology which *must* occur in a specific environment (intervocalic), and which, in this environment, do not alternate with variants which may occur in other positions.

1.4(5) ADDITION OF MOOD MORPHEME

One further note must be made before proceeding further. No independent utterance, whether the name of something or the description of an action, is grammatically acceptable unless it concludes with a mood morpheme. Consequently, any illustration given as a complete utterance will include a mood morpheme, as seen in (2).

(2) **yaga:we.** *(It is a) pig.*
  [**yaga:-e** *pig-INDIC*]

  agauwe. *I see it.*
  [**a-ka-u-e** *it-see-I-INDIC*]

  yaga: agauwe. *I see a pig.*
  [**yaga:** *pig;* **a-ka-u-e** *it-see-I-INDIC*]

The Indicative mood's **-e** is used in all examples, except where Interrogative or Imperative forms are illustrated. Mood morphemes are analysed as sentence-level clitics, and described fully in 8.2.

Three aspects of their use deserve comment here. Firstly, only one mood marker occurs per sentence, unless

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[9] Pike and Scott (1963:179), while noting that Nicholson and Nicholson (1962:132) preferred [**t-**] and [**-r-**] as /**t**/, and [-ʔ**t-**] as /'**t**/, etc., nevertheless chose to consider [**t-**] and [-ʔ**t-**] as /**t**/, with [**-r-**] as /**r**/, etc., when presenting that 1963 paper. Similarly, Bee and Glasgow (1962:119), working in the adjacent Usarufa language, originally chose to unite initial stops with medial preglottalised stops, but later that decision was reversed (Bee, 1965b:44).

other sentences are embedded within. This is why only one mood morpheme occurs in the last example of (2).

Secondly, the mood morpheme will induce a preceding consonant if one does not already exist. This consonant will be **n**, **w** or **y**, dependent upon the particular morpheme preceding it, as described fully in 3.21(3). Only **w** appears throughout (2).

Finally, the presence of an Indicative morpheme on any non-verb is indicated by the bracketed addition of *(It is)* or suitable equivalent, to the English gloss. This has also been illustrated in (2) above.

Chapter 2

SYNCHRONIC PHONOLOGY

2.1 Introduction

In the previous chapter it was pointed out that the segmental phonemes of Fore are open to different interpretations. Nicholson and Nicholson (1962) showed that consonant clusters could be interpreted either as clusters of simple phonemes, or as unitary complexes. Similarly, vowel-glides could be interpreted either as sequences or as complex units.

In this chapter, the phonemes are described according to what I consider is the most appropriate analysis, taking into account simplicity, efficiency, and morphophonemic relationships. This description is then followed by the reasoning governing that analysis, and includes discussion of the Nicholsons' paper.

2.2 SEGMENTAL PHONEMES

Fore has nine simple consonants and three prenasalised stops, six vowels and four vowel-glides. These are charted below in (3).

(3)	CONSONANTS:	/p/	/t/	/k/	/'/
		/mp/	/nt/	/nk/	
		/m/	/n/		
		/w/	/y/		
			/s/		
	VOWELS:	/i/	/a/	/u/	
		/e/	/a:/	/o/	
		/ai/	/au/		
		/ae/	/ao/		

2.21 Distribution of Phonemes

Consonants occur in one of four positions according to their distribution within words: word-initial, intervocalic, post-glottalic, pre-consonantal.[10] It is in terms of these positions that the occurrence of consonantal phonemes and their variants will be presented. Specifically, simple consonants /**p**, **t**, **k**, **m**, **n**, **w**, y/ occur word-initially and in intervocalic and post-glottal positions; sibilant /**s**/ occurs initially and intervocalically; complex consonants /**mp**, **nt**, **nk**/ occur only intervocalically; while glottal stop /'/ is the only consonant which precedes another consonant, and may also occur intervocalically.

Vowels (including vowel-glides) each form a syllable nucleus. Together they and the consonants form open syllables of the types V, CV, 'CV,[11] of which V occurs only word-initially, and 'CV only non-initially.

2.22 Description of Phonemes

2.22(1) OBSTRUENTS

There are two sets of obstruents, the simple obstruents /**p**, **t**, **k**/ and the complex /**mp**, **nt**, **nk**/. They occur at labial, dental, and velar points of articulation respectively.

Phonetic variants of simple obstruents /**p**, **t**, **k**/ are as follows: Word-initially and following glottal stop, the simple obstruents are voiceless, but intervocalically they are voiced. Word-initially and intervocalically, peripheral obstruents /**p**, **k**/ fluctuate between complete and incomplete closure, but there is always complete closure in post-

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[10] Actually, the term 'phonological phrase' would have been more accurate, but I have reserved usage and definition of phonological phrase for the following chapter. In this chapter my usage of the term 'word-initial' must be read to mean word-initial in isolation, for a word in isolation constitutes a phonological phrase. The phonological phrase is defined in section 3.22.

[11] 'C represents a glottal plus consonant sequence.

glottalic position. Non-initial /k/ may be labialised following rounded vowels.[12] In its voiceless occurrences, apical obstruent /t/ fluctuates to alveolar position with some speakers. Intervocalically, the voiced variety is a flapped vibrant with alveolar articulation,[13] with a tendency towards lateral quality when following front vowels. These variants are summarised in (4) and illustrated in (5).

(4) VARIANTS OF SIMPLE OBSTRUENTS /p,t,k/:

	Word-Initial	Post-Glottalic	Intervocalic
/p/	[p ~ ɸ]	[p]	[b ~ β]
/t/	[t̪ ~ t]	[t̪ ~ t]	[r ~ l]
/k/	[k ~ x]	[k ~ k^w]	[g ~ ɣ ~ g^w ~ $ɣ^w$]

(5) /pane/ [pʌn̪e ~ ɸʌn̪e] *(It is the) sun;*[14]
/taye/ [t̪ʌye ~ tʌye] *It burns;*
/kawe/ [kʌwe ~ xʌwe] *(It is) rain.*

/a'patépuwe/ [ʌʔpʌré:buwe] *I sever (it);*
/a'taye/ [ʌʔt̪ʌye ~ ʌʔtʌye] *He puts it;*
/a'káwé/ [ʌʔkʌ́wé] *(It is) his back;*
/au'ká:we/ [ʌuʔká:we ~ ʌuʔk^wá:we] *(It is) bamboo.*

/apane/ [ʌbʌn̪e ~ ʌβʌn̪e] *(It is the) fourth day;*
/atakáwé/ [ʌrʌgʌ́wé] *(It is a) girl;*
/ítepuwé/ [íle:buwé ~ íre:buwé] *(It is a) bow;*
/akaye/ [ʌgʌye ~ ʌɣʌye] *He sees it;*
/uka:wé/ [uga:wé ~ uɣa:wé ~ ug^wa:wé ~ u$ɣ^w$a:wé] *(It is) nothing.*

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[12] The Southern dialect has an additional distinctive velar consonant, the labialised /kw/, as in /kwata:yé/ [kwʌra:yé] *(It is a) dog;* /yakwata:yé/ [yʌgwʌra:yé] *(It is a) man.*

[13] The alveolar articulation is probably the result of retroflexion at an earlier stage of development. Retroflexed vibrants occur in other languages of the same family. See, for example, Deibler (1976:5); Lucht and James (1962:15).

[14] The subscript ⎵ simply directs attention. See 1.4(2).

The complex obstruents /mp, nt, nk/ consist of a voiceless stop (which is voiced by some speakers)[15] preceded by a homorganic nasal. Apical /nt/ fluctuates to alveolar articulation with some speakers, and occasional labialisation of /nk/ follows rounded vowels. These variants are summarised in (6) and illustrated in (7).

(6) VARIANTS OF COMPLEX OBSTRUENTS /mp,nt,nk/:

	Intervocalic
/mp/	[mp ~ mb]
/nt/	[n̪t̪ ~ nt ~ n̪d̪ ~ nd]
/nk/	[ŋk ~ ŋg ~ ŋkʷ ~ ŋgʷ]

(7) /ampáeye/ [ʌmpáeye ~ ʌmbáeye] *He gets (it);*
/antatuye/ [ʌn̪t̪ʌruye ~ ʌntʌruye ~ ʌn̪d̪ʌruye ~ ʌndʌruye] *It thunders;*
/aenkántowé/ [aeŋkʌ́n̪t̪o:wé ~ aeŋgʌ́n̪d̪o:wé] *(It is) seed;*
/túnka:né/ [t̪úŋka:n̪é ~ t̪úŋga:n̪é ~ t̪úŋkʷa:n̪é ~ t̪úŋgʷa:n̪é] *(It is) his axe.*

2.22(2) NASALS & SEMIVOWELS

Two nasals /m, n/ and two semivowels /w, y/ occur word-initially, post-glottalically and intervocalically. Labial /m/ and /w/ have no discernible variants.[16] Dental /n/

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[15] Prenasalised stops /mp, nt/ are consistently voiced [mb, n̪d̪] in the Southern dialect. Velar /nk/ is reflected as a simple glottal stop /'/. E.g. Northern: /kankápewe/; Southern: /ka'ápeyé/ *(It is a) bowl.*

[16] As noted in Scott (1963:284), the Southern dialect has an interesting departure in the phonetic range of its nasal variants. There, initial /m, n/ correspondences are [mb, n̪d̪]. Intervocalic /m, n/ remain as [m, n̪]. Post-glottalically, /m, n/ are rendered [mb, n̪d̪] in the south, but the prior glottal closure is only discernible in slow speech. E.g. Northern: [muʔmuʔpíye]; Southern: [mbuʔmbuʔpíye ~ mbumbuʔpíye] *It is hot.*

fluctuates to alveolar articulation with some speakers. /y/, articulated with the tongue blade, is fronted palatal, and may be fricativised. Variants, summarised in (8), are illustrated in (9).

(8) VARIANTS OF NASALS /m,n/ & SEMIVOWELS /w,y/:

	Word-Initial, Post-Glottalic, Intervocalic
/m/	[m]
/n/	[n̪ ~ n]
/w/	[w]
/y/	[y ~ j]

(9) /máwé/ [mʌ́wé] *(It is the) ground;*
/naye/ [n̪ʌye ~ nʌye] *He eats (it);*
/waye/ [wʌye] *He goes;*
/yakáwé/ [yʌgʌ́wé ~ jʌgʌ́wé] *(It is) day.*

/amáné/ [ʌmʌ́n̪é] *(It is) his shadow;*
/ánatíwe/ [ʌ́n̪ʌríwe ~ ʌ́nʌríwe] *(It is an) arrow tip;*
/awawé/ [ʌwʌwé] *(It is) his tooth;*
/aya:'kuwe/ [ʌya:ˀkuwe ~ ʌja:ˀkuwe] *I show him.*

/a'ma'kúwe/ [ʌˀmʌˀkúwe] *I squash (it) open;*
/a'na:'puwe/ [ʌˀn̪a:ˀpuwe ~ ʌˀna:ˀpuwe] *I pluck (it);*
/a'wáteyúwe/ [ʌˀwʌ́re:yúwe] *I roll over;*
/a'yá:'mawé/ [ʌˀyá:ˀmʌwé ~ ʌˀjá:ˀmʌwé] *(It is) all.*

2.22(3) SIBILANT

Grooved dental fricative /s/ occurs only initially and intervocalically. It generally remains voiceless in both positions throughout the Northern and Central dialects,[17] but

[17] Southern dialect's sibilant is voiced [z̪]. E.g. Northern: [kus̪á:we]; Southern: [kuz̪á:we] *(It is a) stinging nettle.*

may fluctuate to alveolar articulation. It occurs word-initially only when in loanwords.

(10) /sataténe/ [s̪ʌɾʌré:n̪e ~ sʌrʌré:n̪e] *(It is) Saturday;*
/asatípuwe/ [ʌs̪ʌríbuwe ~ ʌsʌríbuwe] *I shake (it) off.*

2.22(4) GLOTTAL STOP

The glottal stop /'/ occurs only intervocalically or preceding the simple consonants /p, t, k, m, n, w, y/. Problems associated with its analysis are discussed in 2.23(2).

(11) /isa'a:wé/ [is̪ʌˀa:wé] *(It is) sweet potato;*
/ta'wawé/ [t̪ʌˀwʌwé] *(It is a) type of shrub.*

2.22(5) VOWELS

There are three phonetically short vowels /i, a, u/ and three which are phonetically long /e, a:, o/. Whenever /e/ and /o/ are word-final, they also tend to be shorter, and occasionally fluctuate towards central articulation [ʌ]. Phonetic norms are charted in (12).

(12) CHART OF PHONETIC NORMS FOR VOWELS:

	Non-Back	Back (Central)	
Close	[i]		[u]
Half-Close	[e:]		[o:]
Half-Open		[ʌ]	
Open		[a:]	
	Unrounded		Rounded

(13) /itiye/ [iliye] *It boils;*
/asá:wé/ [ʌsá:wé] *(It is a) tie;*
/úmuwé/ [úmuwé] *(It is a) rat.*

/eti'ya:ne/ [e:riʔya:ne] *(It is) work;*
/a:sá:wé/ [a:sá:wé] *(It is to be) later;*
/omúwe/ [o:múwe] *I tell him.*

/ikiwe/ [igiwe] *(It is a) gourd;*
/apake'púwe/ [ʌbʌge:ʔpúwe] *I waken him;*
/apútaye/ [ʌbúrʌye] *(It is) alight.*

/íkewé/ [íge:wé] *(Those are) they;*
/apa:puwe/ [ʌba:buwe] *I escort him;*
/apóné/ [ʌbó:né] *(It is a) hull.*

/náewé/ [náewe' ~ náewʌ́] *(It is) I.*
/kana:nó/ [kʌna:nó ~ kʌna:nʌ́] *Have you come?*

2.22(6) VOWEL-GLIDES

There are four vowel-glides: **/ae, ao/** which are lax; and **/ai, au/** which are tense. The lax vowel-glides commence from the open central position [**a**], having their off-glides at half-close positions [**e, o**] to give [**a**^{e}, **a**^{o}] respectively. The tense vowel-glides, on the other hand, commence from the half-open central position [ʌ], and feature a quick transition to their close finishing points [**i, u**] to give tense glides which may be represented as [$^{\wedge}$**i**, $^{\wedge}$**u**] respectively. Although all four glides take the same timing as long vowels, the contrast in speed of transition between elements produces tenseness versus laxness as part of their distinguishing features.[18]

[18] For contrast in speed of transition between elements, compare visecordings of **/ao, au/** in Pike and Scott (1963:186,189).

(14) /aintíwe/ [^{ʌ}intíwe] *(It is to be) later;*
/auwe/ [^{ʌ}uwe] *I plant.*

/aentá:wé/ [a^{e}ntá:wé] *(It is an) old woman;*
/aowe/ [a^{o}we] *(It is) his eye.*

/kanáine/ [kʌn$^{ʌ́}$ine] *He comes!*
/akaune/ [ʌg^{ʌ}une] *We see it.*

/a'kenáenawe/ [ʌʔke:ná^{e}nʌwe] *(They are) thorns;*
/akáoné/ [ʌgá^{o}né] *I see it!*

2.23 Discussion

2.23(1) ALTERNATIVES IN INTERPRETATION

In the description above, prenasalised stops and vowel-glides have been presented as unitary phonemes. This gives a total of 12 consonants and 10 vowels. However, as already noted, Nicholson and Nicholson (1962:129f) showed that other interpretations are possible. They showed that the glottal plus consonant sequences /'p, 't, 'k, 'm, 'n, 'w, 'y/ could also be interpreted as units, to add another seven phonemes to the inventory. On the other hand, they also showed that all complex units could be interpreted as clusterings, to give a total of only nine consonants and six vowels.

If, as the Nicholsons pointed out, all complex consonants and vowel-glides were to be interpreted as unitary phonemes, the resultant syllable patterns would be V and CV only, with V syllables restricted to word-initial position. But the Nicholsons did not mention that such an interpretation would make intervocalic glottal stop predictable, and thus sub-phonemic, thereby reducing the phoneme count by one. This in turn would mean that V syllables also occur non-initially, separated from the previous open syllable by a predictable, phonetic glottal closure, as in the CV.V.CV pattern of /wa.e.we/ [wʌʔe:we:] *(It is) home.*

On the other hand, the Nicholsons felt that the principle of economy favoured interpretation of all complexes as clusters of simple phonemes. This produces the smallest number of phonemes, although it increases the number of syllable types to six: V, VV, CV, CVV, CCV, CCVV. The first four types would occur word-initially, the last four elsewhere. Thus VV.CCVV.CCV.CV would become the pattern of /ae.'káu.nti.yé/ [aeʔkʌ́un̪tiyé] *He has chopped (it).* This in turn would lead to the situation presented in the display in (15), where it becomes clear that the additional onset of glottal or nasal (indicated as C̄) is the only distinction between initial and non-initial syllables.

(15)	Initial:	V	Non-Initial:	C̄V
		VV		C̄VV
		CV		C̄CV
		CVV		C̄CVV

This then leads to the further possibility of analysing syllable divisions as occurring in the middle of clusters.[19] It is worthy of note that the Nicholsons did not consider this a viable alternative.[20] In such an analysis, intervocalic glottal stop would be interpreted as a coda

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[19] At this stage the argument is not whether Fore syllables may be determined physiologically. Teaching of literacy by way of vernacular primers using a syllable approach (Scott and Scott, 1967) has been of sufficient effectiveness to demonstrate that syllables are at least a psychological reality in Fore, and thus a phonemic entity which warrants inclusion in any discussion of Fore phonology. Haugen (1956:216), in defining the syllable as "the smallest unit of recurrent phonemic sequences," stated that "the syllable is that stretch of phonemes which makes it possible to state their relative distribution most economically." The problem in Fore has been to determine the basis of units within that stretch.

[20] In other languages of the same family, analysts have given glottal stop (but never a nasal) as a syllable coda. See, e.g., McBride and McBride (1973:16); Renck (1967:43); Strange (1965:3f); Rosemary Young (1962:93).

rather than an onset, again allowing V as a non-initial syllable. Resultant syllable types would be V, VV, CV, CVV, VC, VVC, CVC, CVVC. Codas would be limited to glottals and nasals, and the last four syllable types would not occur word-finally. The syllable pattern of the previous example would then be VVC.CVVC.CV.CV /ae'.káun.ti.yé/ [aeʔkʌ́untiyé] *He has chopped (it).*

As already noted in 2.21, the present analysis interprets prenasalised stops and vowel-glides as unitary phonemes, and preglottalised consonants as sequences of glottal plus consonant, with glottal stop as part of the syllable onset. Argumentation for this position follows in the next three sub-sections.

2.23(2) GLOTTAL STOP

Part of the argumentation is concerned with the uniqueness of glottal stop. It is the only simple consonant which does not occur as a word-initial phoneme, and is the only non-syllabic which occurs preceding all the simple consonants (except /s/).[21] Many of its occurrences are the result of morphophonemic processes, as illustrated in (16), where Q and N indicate marked classes. (Morphophonemic processes are given in detail in the next chapter.)

(16) /wa'énawe/ *(It is) dancing;*
which is comprised of the underlying morpheme forms:
/wa'Q/ *dance;* /ena/ *NOMINALISER;* /e/ *INDICATIVE MOOD.*

/á:'kaeyó/ *Don't cook (it)!*
/á:'N/ *NEGATION;* /kae/ *cook;* /ó/ *IMPERATIVE MOOD.*

/ko'néné/ *(It is) my netbag;*
/ko'Q/ *netbag;* /né'N/ *my;* /e/ *INDICATIVE MOOD.*

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[21] Nicholson and Nicholson (1962:134) analysed preglottalised stops as lengthened /p:, t:, k:/, but gave preglottalisation as an alternative. Other linguists find similar phenomena in related languages, e.g. Gibson and McCarthy (1961:58); Payne and Drew (1961:32); Renck (1967:27); Rosemary Young (1962:94).

Since, however, glottal stop also occurs both intervocalically and pre-consonantally within roots, it is not purely a synchronic morphophonemic realisation.

(17) /wa'enéné/ *(It is) my home;*

which is comprised of the underlying morpheme forms:
/wa'e/ *place;* /né'N/ *my;* /e/ *INDICATIVE MOOD.*

/ya'kúné/ *(It is) fire;*

/ya'kú'N/ *fire;* /e/ *INDICATIVE MOOD.*

/tu'ná:ne/ *(It is a) wooden dish;*

/tu'ná:N/ *wooden dish;* /e/ *INDICATIVE MOOD.*

The analysis of glottal plus consonant as a sequence rather than as a complex unit is preferred on two grounds. Firstly, it is economical. The analysis of glottal stop as a separate phoneme prevents an extra set of seven preglottalised consonant units from being added to the inventory.

Secondly, from the point of view of simplicity, morphophonemic processes which cause the appearance of glottal stop may be analysed as simply inducing a glottal stop ahead of whatever follows, as seen above in (16). This differs from prenasalisation arising from morphophonemic processes. As will be seen in the next sub-section, prenasalisation of a stop is not simply the result of a nasal induced ahead of an obstruent.

In confirmation of this analysis of glottal plus consonant as a sequence of two phonemes, the somewhat haphazard preglottalisation of consonants in other languages of the family suggests that glottal stop is an addition to the simple consonants, rather than an integral part of a series of complex consonants. (I shall return to this consideration again during discussion of proto-phonology in chapter 10.)

2.23(3) PRENASALISATION

Prenasalised stops /mp, nt, nk/ are often, though not always, the result of morphophonemic processes, as illustrated below in (18). Their occurrence as part of a root is then illustrated in (19).

(18) /tumpáeye/ *He goes down and gets (it);*
which is comprised of the underlying morpheme forms:
/tu'N/ *downwards;* /máe/ *get;* /y/ *he;* /e/ *INDICATIVE.*

/á:ntáo/ *Don't eat (it)!*
/á:'N/ *NEGATION;* /na/ *eat;* /ó/ *IMPERATIVE.*

/na:mánka:né/ *(It is) his house;*
/na:máN/ *house;* /wá:'N/ *his;* /e/ *INDICATIVE.*

(19) /námpowé/ *(It is) soot;*
which is comprised of the underlying morpheme forms:
/námpo'/ *soot;* /e/ *INDICATIVE.*

/naninta:we/ *(It is) food;*
/naninta:/ *food;* /e/ *INDICATIVE.*

/kunka:wé/ *(It is) smoke;*
/kunka:'/ *smoke;* /e/ *INDICATIVE.*

Prenasalised stops are analysed as unitary phonemes on two grounds. Firstly, when they arise from morphophonemic changes, /mp, nt, nk/[22] do not arise through the addition of a nasal to a stop. Rather, they result from changes to nasals

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[22] Nicholson and Nicholson (1962:134) added a further prenasalised stop complex [ŋkw], and gave it phonemic status. It appears, as illustrated below, when a word-initial /w/ undergoes the morphophonemic change shown in the third example of (18) above. The resultant [ŋkw] only appears in slow speech. In fast speech it is simply [ŋk]. [ŋkw] is thus the realisation of an incomplete phonological process. Within words (which are more tightly knit), no such labialisation occurs. E.g.
/má:/ + /wáené/ → /má: nkaené/ [má:ŋkaen̺é ~ má:ŋkwaen̺é]
this (it is) woman (It is) this woman;
but: /a'yé/ + -/wá:né/ → /a'yénka:né/ [ʌʔyé:ŋka:n̺é]
leaf (it is) its (It is) its leaf.

and semivowels (and even from the absence of a consonant), as illustrated above in (18), and given in more detail later in 3.21(1). To treat them as simple sequences would infer that **/mp, nt, nk/** were modifications of /p, t, k/, which is far from true.

Secondly, [**mb, nd**] occur word-initially in Fore's Southern dialect, corresponding to Northern's /**m, n**/ respectively, (Southern dialect's intervocalic [**mb, nd**] correspond to Northern's intervocalic /**mp, nt**/ respectively, while Northern's /**nk**/ reflects as /'/ in the south.)

In confirmation of this unitary treatment, prenasalised stops also occur word-initially (and medially) in other languages of the family, where they are regarded as units.[23]

2.23(4) LONG VOWELS & VOWEL-GLIDES

I interpret long vowels /**e, a:, o**/ and vowel-glides /**ai, au, ae, ao**/ as unitary phonemes. Firstly, they function as units of accent placement.[24] In this they parallel the short vowels /**i, a, u**/.

Secondly, long vowels are not sequences of geminate vowels. Long and short vowels appear to have had common origins, as evidenced by **e > i, a: > a, o > u** shifts in some specific roots. But the reverse is not true. The juxtaposition of identical short vowels results in a single short vowel only.[25,26]

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[23] Viz. Siane (Lucht and James, 1962:12); Asaro (Strange, 1965:5).

[24] An acute over the first vowel of any digraph indicates an accent relevant to the total digraph.

[25] These morphophonemic shifts and fusions are given later in 3.3 and 3.21(1) respectively.

[26] It will be seen in chapter 10 that the proto-phonology of the East-Central family had at least a five-vowel system: ***a, *e, *i, *o, *u**. Fore's /**a:**/ and /**a**/ appear to have come from accented and unaccented ***a** respectively. Fore's other short and long vowels are reflexes of separate proto-phonemes at the family level.

Thirdly, no other vowel sequences occur. Other sequences would have been expected if /ai, au, ae, ao/ were not units. By way of confirmation, similar systems occur in the related Yagaria and Yate languages, where vowel-glides are also analysed as complex units.[27]

2.3 SUPRASEGMENTAL FEATURES

2.31 Accent

2.31(1) DESCRIPTION

Fore has only one phonemic suprasegmental feature: pitch-accent, to which I shall refer simply as 'accent'.[28] As in a stress system, the unit of accent placement is the syllable, even though the main diagnostic feature of Fore accent is pitch. An accented syllable incurs higher pitch, which may be either level or falling.

(20) /asiyúwe/ [ʌs̪iyuwe] *I stand up;*
/asíyuwe/ [ʌs̪iyuwe] *I peel (it).*

/napa:wé/ [n̪ʌba:we] *(It is) my father;*
/nápa:wé/ [n̪ʌba:we] *(It is) my marriageable cousin.*

/naya:né/ [n̪ʌya:n̪e] *(It is) my hair;*
/nayá:né/ [n̪ʌya:n̪e] *(It is) my kidney.*

/aiwé/ [ʌiwe] *(It was) yesterday;*
/áewé/ [aewe] *(It is) he.*

Each morpheme has its own underlying accent patterning. The surface realisation of accent in words results from the combination of these underlying patterns.

There are two components to a morpheme's underlying accent. Firstly, a morpheme may be accented on one of its

[27] Renck (1975:10-11); Rosemary Young (1962:98).

[28] Analysed in detail in Pike and Scott (1963).

syllable nuclei, or it may be completely unaccented. Two accents on a single morpheme occur, but never on adjacent syllables.[29] Secondly, a morpheme may induce an accent on a following syllable, as illustrated in (21).

(21) /asiyúwe/ *I stand up;*
Underlying forms: /asi'/ *stand;* /u/ *I;* /e/ *INDICATIVE.*

This induced accent may be the sole distinguishing factor between otherwise homophonous forms, as in (22) below. When such underlying forms are indicated, the accent to be induced is given as part of that underlying form.

(22) /-ake/ *name;* as in /nakewe/ [nʌge:we] *(It is) my name.*
/-ake'/ *ear;* as in /nakewé/ [nʌge:we] *(It is) my ear.*

As morphemes build into words, surface restraints are placed upon the occurrence of multiple accents. Firstly, a maximum of only two adjacent accents may be realised. Where three or more would otherwise occur, the second accent (and alternate ones thereafter if more than two adjacent accents would be realised) no longer contrasts with a non-accent in that position, and is thus considered to be non-phonemic.

(23) /máentuwé/ *I got (it);*
/ya:bú maentúwé/ *I got sugarcane;*
/ya:búne mpáentuwé/ *I got my sugarcane.*
Underlying forms: /ya:bú/ *sugarcane;* /né'N/ *my;*
/máe/ *get;* /nt''/ *PERFECT;* /u/ *I;* /e/ *INDICATIVE.*

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29 Such have never been found. Very few underlying morphemes are longer than two syllables, so only a few instances of two accents on one morpheme occur. E.g. /kapáya:tá/ *hail.* Most morphemes longer than two syllables are person or place names, but here only one accented syllable has been noted.

Secondly, except when disyllabics occur in isolation, no words commence with two adjacent accents, as illustrated in (24). Such a potential occurrence only maintains contrast on the second syllable when preceding a non-accent, as in the second example. When preceding a third accent, the three-accent rule applies, as in the third example of (24).

The disyllabic contrast mentioned above is substantiated in (25).

(24) /máeye/ *He gets (it);*
Underlying forms: /máe/ *get;* /y/ *he;* /e/ *INDIC.*

/mae'táye/ *He got (it);*
Underlying forms: /máe/ *get;* /'tá/ *PAST TENSE;* /e/ *INDIC.*

/máentiyé/ *He has got (it);*
Underlying forms: /máe/ *get;* /nt''/ *PERFECT;* /e/ *INDIC.*[30]

(25) /nauné/ *(It is) my skin;*
Underlying forms: /na/ *my;* /u'Q/ *skin;* /e/ *INDIC.*

/náuné/ *(It is) my liver;*
Underlying forms: /na/ *my;* /ú'N/ *liver;* /e/ *INDIC.*

It must be assumed that disyllabic words function as final rather than initial syllables in this regard, thus allowing the occurrence of adjacent accents.[31]

The underlying accent pattern of a morpheme is found by placing that morpheme in an unaccented environment. Any accents that occur are then directly associated with that morpheme. Such an environment occurs with all the roots of

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[30] Only the Perfect tense marker /nt''/ has two accents to be induced on following syllable nuclei, and this only through convenience of analysis which assigns no vowel to this morpheme. Perfect tense marking is presented in 4.32(2).

[31] It is perhaps significant that, as already noted, no adjacent accents occur on the body of a morpheme. Any adjacent accents realised in surface forms always occur across morpheme boundaries.

words illustrating (20) above. The underlying root morphemes of these words are now given in (26).

(26) Underlying forms: /asi'/ *stand up;*
/así/ *peel.*

/apa:'/ *father;*
/ápa:'/ *marriageable cousin.*

/aya:'/ *hair;*
/ayá:'/ *kidney.*

/ai'/ *yesterday;*
/áe'/ *he.*

2.31(2) DISCUSSION OF ACCENT

As already noted, Nicholson and Nicholson (1962:140) analysed Fore accent as a high versus low tone system. However, they listed only five possible patterns for tri-syllable words, and only eight for four-syllable words.

This limited patterning, along with the variation between level and falling high pitch, and the imprecision of the pitch surrounding prominent syllables, led Pike and Scott (1963) to focus on a stress-type analysis. "Nevertheless, when the materials were sent to the Michigan laboratory, it appeared that the stressed syllable could not have been marked by intensity, but that the actual signalling cue must have been pitch. Thus we had a 'stress' system which was marked by pitch rather than by intensity!" (Pike, 1967b:1552).

Bolinger (1958:109) points out that perception of stress (syllable prominence) in English is also based on pitch differences. Unlike English, Fore's phenomenon changes the basic meanings of words, as already shown in (20). Furthermore, non-accentuation of morphemes in Fore may also contrast with accent, as in (27) below.

(27) /kata:wé/ [kʌra:we] *(It is a) dog;*
/kata:we/ [kʌra:we] *(It is a) casuarina tree.*

/túné/ [tune] *(It is an) axe;*
/tune/ [tune] *(It is a) bee.*

Pilch (1970) also makes the point that expiratory force is not the sole auditory parameter for determining stress. He proposes that its function should be the main consideration. Thus he states (1970:134) that syllable (or mora) distinctiveness should be called 'tone'; word (or morpheme) distinctiveness, 'stress'; and on the phrase-level, 'intonation'.[32] Then the auditory parameters for each linguistic category may vary, becoming language specific. Nevertheless, the term 'stress' conjures up the concept of prominence through intensity. To soften such a prejudgment, I have continued to use the term 'accent'.

In his opening remarks, Pilch stated that "each Fore word is characterised by exactly one of....three phonemically different pitch patterns," but failed to indicate what he assumed those patterns to be. His unqualified statement gives a completely misleading impression of the Fore system. There are more than three patterns appearing on underlying morphemes, and the resultant patterns over words are far more extensive than he implies.

Among disyllabic words, all four accent patterns are phonemic (28). Among trisyllabic words, only six of the eight

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[32] It seems probable that this feature has shifted in some of the related languages from syllable to morpheme, leaving some languages of the family with tone systems, others with stress. Languages recorded as tonal include Siane (Lucht and James, 1962:13); Gahuku (Deibler, 1976:5); Gimi (McBride and McBride, 1973:15b). Those analysed as stress-based include Benabena (Rosemary Young, 1962:99); Kamano (Payne and Drew, 1961:55); Yagaria (Renck, 1975:12). Outside the family but within the stock, most languages are considered tonal, e.g. Kewa (Franklin, 1971:12); Golin (Bunn and Bunn, 1970:4); Usarufa (Bee, 1965b:59); Gadsup (Frantz and Frantz, 1966:5); but some languages of the neighbouring Eastern family are interpreted along stress lines, e.g. Waffa (Stringer and Hotz, 1973:526); Tairora (Vincent, 1973:530).

possible combinations have proved phonemic (29). Among four-syllable words, only eleven of the sixteen possibilities are pertinent (30). Contrastive patterns preceding examples in (28-30) use hyphen to indicate non-accents.

(28) - - /kaone/ [kaone] *(It is) your friend;*

- ʹ /kené/ [ke:ne] *(It is a) path;*

ʹ - /ká:ne/ [ka:ne] *(It is) one;*

ʹ ʹ /kíné/ [kine] *(It is a) maggot.*

(29) - - - /anta:we/ [ʌnta:we] *(It is) his intestines;*

- - ʹ /awawé/ [ʌwʌwe] *(It is) his tooth;*

- ʹ - /waníne/ [wʌnine] *(It is) water;*

- ʹ ʹ /amáné/ [ʌmʌne] *(It is) his shadow;*

ʹ - - /á'none/ [ʌʔno:ne] *(It is) his head;*

ʹ - ʹ /nónoné/ [no:no:ne] *(It is a) breast.*

(30) - - - - /kapatane/ [kʌbʌrʌne] *(It is a) bird;*

- - - ʹ /ama:kiné/ [ʌma:gine] *(It is) his chin;*

- - ʹ - /nanokáewe/ [nʌno:gaewe] *(It is) my cousin;*

- - ʹ ʹ /nao'mantówé/ [naoʔmʌnto:we] *(It is) my elder brother;*

- ʹ - - /aenkáu'iwe/ [aeŋkauʔiwe] *(It is) at whct place?*

- ʹ - ʹ /na'ná:ntowé/ [nʌʔna:nto:we] *(It is) my younger brother;*

- ʹ ʹ - /a:'énáwe/ [a:ʔe:nʌwe] *(It is a) border;*

ʹ - - - /kái'kenawe/ [kaiʔke:nʌwe] *(It is) about to rain;*

ʹ - - ʹ /náka:ntowé/ [nʌga:nto:we] *(It is) my elder brother;*

ʹ - ʹ - /á:'taenáwe/ [a:ʔtaenʌwe] *(It is) bad;*

ʹ - ʹ ʹ /múya:tíné/ [muya:rine] *(It is a) snake.*

2.32 Intonation & Rhythm

No contrastive intonation patterns occur, although there are variants caused by differences in the mood, urgency and attitude of the speaker. A general pattern of falling pitch is basic to all Fore speech. Higher pitch associated with accent is the cause of departures from this pattern, with the pitch of surrounding syllables rising to meet the accent, or falling from it.

A basic rhythm is determined by syllable length, but with variations in timing according to the varying moods of the speaker. Basic syllable length is determined by its segmental constituents. Vowels /e, a:, o/ and vowel-glides /ai, au, ae, ao/ are longer than short vowels /i, a, u/. Both the prenasalised complexes and the glottal plus consonant sequences also tend to make syllables of longer duration.[33]

2.4 Summary of Phonemes

2.4(1) DISTINCTIVE FEATURES

Phonetic features which distinguish Fore phonemes are now summarised. The presentation which follows should facilitate comparison with the phonologies of other languages, and is given as a basis for the concise descriptive statement which concludes this chapter. Relevant distinctive features are defined as follows:[34]

(i) *Syllabic* segments are those which constitute syllable peaks;[35]

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[33] E.g. In the visecorder display of [aogi n̪ʌn̪int̪a: n̪ʌˀkuwe] in Pike and Scott (1963:186), [ˀk] is noticeably of longer duration than [g]; and [a:] is longer than either the preceding or following [ʌ].

[34] Based on phonetic features as presented by Chomsky and Halle (1968:298f). Alternatively, see Schane (1973:26f).

[35] I use 'syllabic' in preference to 'vocalic' to accommodate Fore's distinction between /u/ and /w/, and between /i/ and /y/, which lies in positioning rather than being purely acoustic. This accords with Chomsky and Halle's later choice of terminology (1968:354).

(ii) *Consonantal* segments are those whose phonetic features include complete or almost complete oral impedance;

(iii) *Continuants* are those in which the airstream is never completely impeded;

(iv) *Nasals* allow the airstream to pass through the nasal cavity;

(v) *Anterior* sounds are produced in the forward region of the oral cavity (forward of and including the alveolar region);

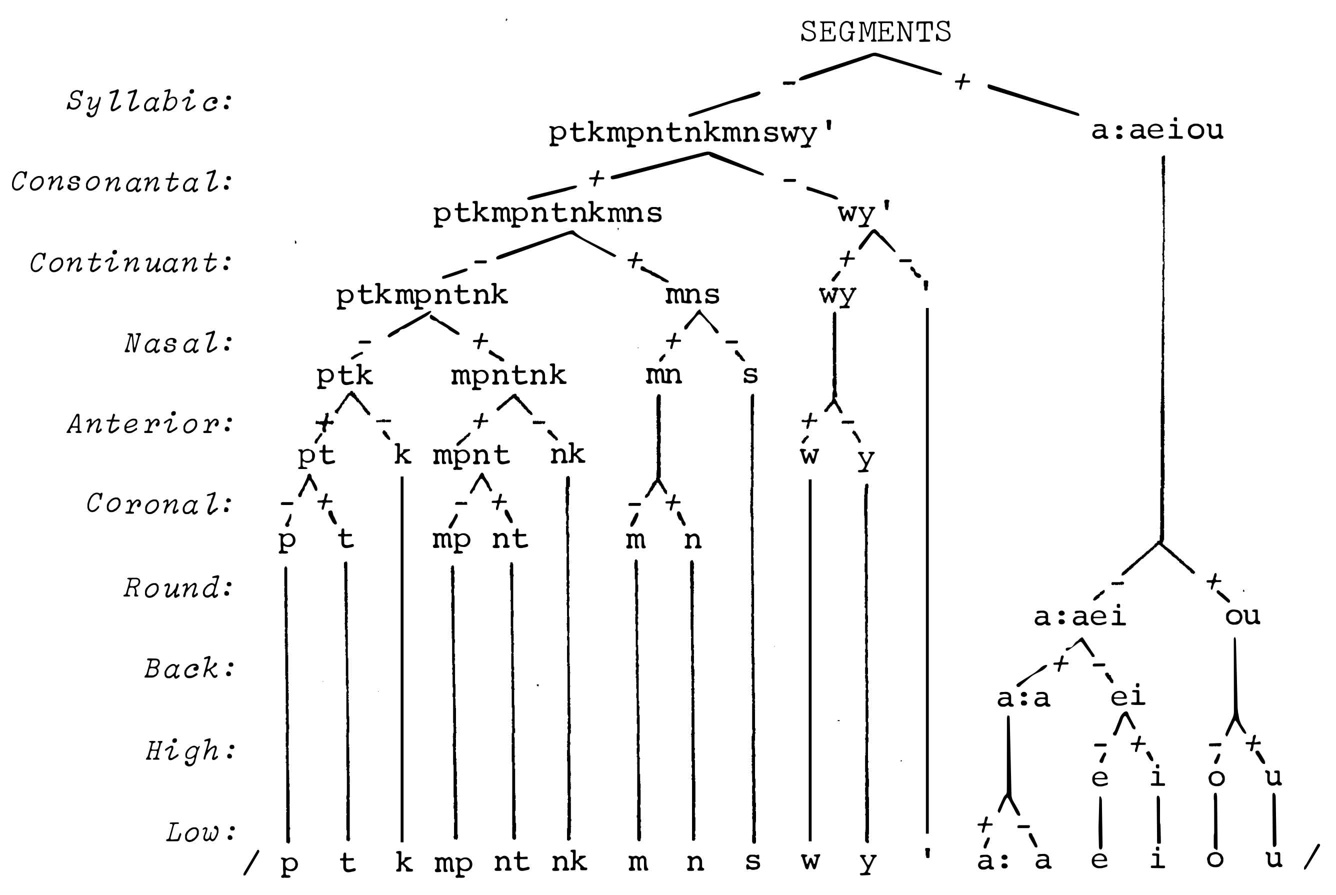
(vi) *Coronal* sounds are produced by the tongue tip or blade;

(vii) *Rounded* sounds include narrowing of the lips during articulation;

(viii) *Back*, (ix) *High*, or (x) *Low* sounds are produced by retracting, raising, or lowering the body of the tongue from neutral position.

These distinctive features are displayed structurally in (31), and then recast as a matrix display in (32), where it will be seen that redundant features have not been indicated.

(31) DISTINCTIVE FEATURES (Structural Display):



(32) DISTINCTIVE FEATURES (Matrix Display):

	/ p	t	k	mp	nt	nk	m	n	s	w	y	'	a:	a	e	i	o	u /
Syllabic:	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+
Consonantal:	+	+	+	+	+	+	+	+	+	-	-	-						
Continuant:	-	-	-	-	-	-	+	+	+	+	+	-						
Nasal:	-	-	-	+	+	+	+	+	-									
Anterior:	+	+	-	+	+	-				+	-							
Coronal:	-	+		-	+		-	+										
Round:													-	-	-	-	+	+
Back:													+	+	-	-		
High:															-	+	-	+
Low:													+	-				

Vowel-glides, which consist of two segments, undergo change in two features during articulation. Firstly, whatever value the first segment holds for the feature *Low*, the opposite value for *High* will be held by the second. Thus [**ae**, **ao**, **ʌi**, **ʌu**] are formed, but not *[**ʌe**, **ʌo**, **ai**, **au**]. Secondly, there is change in value for either *Back* or *Round*, to give [**ae**, **ʌi**] or [**ao**, **ʌu**] respectively.

2.4(2) DESCRIPTIVE STATEMENT

A concise but adequate descriptive statement of Fore phonemes may be achieved by reading the features of (32) in reverse order. This gives the statement in (33), in which I omit reference to the feature *Syllabic* wherever *Consonantal* has a plus value. Interpretive editing will produce the versions in parentheses.

(33) DESCRIPTIVE STATEMENT OF FORE PHONEMES:

/**a**/ non-low, back unrounded, syllabic phoneme;
(mid central vowel)

/**a:**/ low, back unrounded, syllabic phoneme;
(low central vowel)

/**ae**/ low back to non-high non-back, unrounded syllabic phoneme;
(lax front vowel-glide)

(continued overleaf)

/ai/ non-low back to high non-back, unrounded syllabic phoneme; (tense front vowel-glide)

/ao/ low unrounded to non-high rounded, back syllabic phoneme; (lax back vowel-glide)

/au/ non-low unrounded to high rounded, back syllabic phoneme; (tense back vowel-glide)

/e/ non-high, non-back unrounded, syllabic phoneme; (mid front vowel)

/i/ high, non-back unrounded, syllabic phoneme; (high front vowel)

/k/ non-anterior, non-nasal non-continuant, consonantal phoneme; (velar obstruent)

/m/ non-coronal, nasal continuant, consonantal phoneme; (labial nasal)

/mp/ non-coronal anterior, nasal non-continuant, consonantal phoneme; (labial nasal obstruent)

/n/ coronal, nasal continuant, consonantal phoneme; (dental nasal)

/nk/ non-anterior, nasal non-continuant, consonantal phoneme; (velar nasal obstruent)

/nt/ coronal anterior, nasal non-continuant, consonantal phoneme; (dental nasal obstruent)

/o/ non-high, rounded, syllabic phoneme; (mid back vowel)

/p/ non-coronal anterior, non-nasal non-continuant, consonantal phoneme; (labial obstruent)

/s/ non-nasal continuant, consonantal phoneme; (sibilant)

/t/ coronal anterior, non-nasal non-continuant, consonantal phoneme; (dental obstruent)

/u/ high, rounded, syllabic phoneme; (high back vowel)

/w/ anterior, continuant, non-consonantal non-syllabic phoneme; (labial semivowel)

/y/ non-anterior, continuant, non-consonantal non-syllabic phoneme; (palatal semivowel)

/'/ non-continuant, non-consonantal non-syllabic phoneme. (glottal stop).

Chapter 3

MORPHOPHONOLOGY

3.1 Introduction

In their paper on Fore phonology, Nicholson and Nicholson (1962:132) stated that "initial non-syllabics of most stems (both noun and verb) undergo certain changes morphophonemically when they are preceded by other morphemes within the same phonological phrase." They then listed these consonantal changes, which are rearranged and re-presented shortly in (34).

Further research in Fore shows firstly that this system of consonantal change is far more pervasive than the Nicholsons indicated, being applicable to all morphemes, whether stem or otherwise; and secondly, that other systems of morphophonemic change also occur in Fore.

3.2 CONSONANTAL CHANGE

3.21 Morphophonemic Classes

Each morpheme in Fore belongs to one of three classes, conveniently labelled V, Q, N.[36] Each morpheme, according to its class, determines the surface realisation of the initial consonant of the following morpheme. These predictable realisations are set out in (34), in which a hyphen indicates that there is no initial consonant, and thus implies that a vowel occurs morpheme-initially.

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[36] These three classes were first labelled V, Q, N by Bee (1965a: 4), who showed that similar patterns of change occur in languages of the neighbouring Eastern family. The labels represent the typical realisations which follow morphemes of these classes: V: voicing; Q: glottalisation; N: nasalisation.

(34) DISPLAY OF CONSONANTAL MORPHOPHONEMICS:

Morpheme-initial:	p	t	k	m	n	y	w	-	s
Realisation following Class V:	p(b)	t(r)	k(g)[37]	m	n	y	w	-[38]	s[39]
Class Q:	'p	't	'k	'm	'n	'y	'w	'	s
Class N:	'p	't	'k	mp	nt	nt	nk	nk	s

For example, morphemes such as **te'té** *red* (Class V), or **ka:sá:'** *new* (Class Q), or **tunú'** *black* (Class N), determine whether the underlying form **má'** *soil*[40] is realised with initial **m**, **'m** or **mp**, as shown in (35).

(35) te'té mawé. *(It is) red soil.*
  [te'té *red;* má'-e *soil-INDIC*] [41]

  ka:sá: 'mawé. *(It is) new soil.*
  [ka:sá:'Q *new;* má'-e *soil-INDIC*]

  tunú mpawé. *(It is) black soil.*
  [tunú'N *black;* má'-e *soil-INDIC*]

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[37]As noted earlier in 1.4(4), I now proceed to follow general Fore orthography through the remaining chapters, in using **b, r, g** intervocalically within words and within underlying morpheme forms, and **p, t, k** elsewhere, to represent the phonemes /p, t, k/.

[38]Vowel fusion usually occurs here, as outlined below in this section. I have nevertheless retained the general term 'consonantal' for this system of changes, since it is the absence of consonant which leads to vowel fusion.

[39]Morpheme-initial **s**, the only other word-initial phoneme, is listed here to show that it does not undergo change.

[40]As already stated in 1.4(1), the underlying form of a morpheme is the form from which the application of morphophonemic and phonetic realisation rules will effect a surface realisation.

[41]Here, and in all subsequent illustrations, usage of Q or N immediately following an underlying morpheme indicates the morphophonemic class to which that morpheme belongs. Absence of such notation assumes that the morpheme is of Class V.

3.21(1) CLASSES V, Q, N

Consonantal changes always occur within a phonological phrase,[42] and consequently occur both within and across word boundaries,[43] as will be seen in the examples on (36-38), which follow the description of each class, which is now given:

(i) *Class V* morphemes cause no morphophonemic change to an initial consonant.[44] Where there is no initial consonant, the initial vowel undergoes fusion with any vowel which immediately precedes it.

Vowel fusion rules, based on relative tongue position of adjacent vowels, are: (a) Vowels with similar contiguous tongue positions fuse;[45] (b) Same or higher position of the second vowel results either in a vowel-glide (if central plus other), or in loss of the second vowel;[46] (c) lower tongue height of the second results either in loss of the second (if central) vowel, or in retention of separate syllables by means of an intervocalic palatal semivowel.[47]

In the examples now given in (36), the Class V morpheme **yaga:** *pig* is placed ahead of certain other morphemes to show typical Class V realisations, which are indicated by means of the subscript ␣.

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[42]Briefly defined, a phonological phrase is a breath group. Further definition and discussion is given in 3.22.

[43]Native speaker reaction during literacy classes has shown that changes within words are recognised, and must be indicated orthographically. Between words there is no such automatic recognition.

[44]Obstruents **p**, **t**, **k** are phonetically voiced in this position. However, they are only written as **b**, **r**, **g** when occurring intervocalically.

[45]Thus, like vowels fuse. With vowel-glides it is the beginning or end point which fuses with a juxtaposed vowel, with vowels **a:** and **a** acting as though of similar tongue height in these rules. E.g. **i + i → i**; **ai + i → ai**; **a + ai → ai**; **a: + ai → ai**; **a + a: → a:** .

[46]E.g. **a + i → ai**; **a: + i → ai**; **e + i → e**; **i + u → i**; **o + e → o**.

[47]E.g. **i + a → i**; **o + a → o**; **i + o → iyo**; **u + e → uye**.

(36) CLASS V: [yaga: *pig*]

tarawe. *(There are) two;*
yaga: tarawe (or: yaga:rarawe). *(There are) two pigs.*

máeye. *He gets (it);*
yaga: máeye. *He gets a pig.*

-ántowé. *(It is) DIMINUTIVE;*
yagá:ntowé. *(It is a) little pig.*

-néné. *(It is) mine;*
yaga:néné. *(It is) my pig.*

si'pára 'miye. *It is on the matting;*
yaga: si'pára 'miye. *The pig is on the matting.*

(ii) *Class Q* morphemes cause a glottal stop to appear at the commencement of the following morpheme, except when that morpheme commences with **s**. Illustrations using the Class Q morpheme **ko'** *netbag* are now given.

(37) CLASS Q: [ko'Q *netbag*]

tarawe. *(There are) two;*
ko 'tárawe. *(There are) two netbags.*

máeye. *He gets (it);*
ko 'máeye. *He gets a netbag.*

-ántowé. *(It is) DIMINUTIVE;*
ko'ántowé. *(It is a) small netbag.*

-néné. *(It is) mine;*
ko'néné. *(It is) my netbag.*

si'pára 'waiye. *It is on the matting;*
ko sí'pára 'waiye. *The netbag is on the matting.*

(iii) *Class N* morphemes cause oral closure. Non-fricative continuants **m**, **n**, **w**, **y** change into prenasalised stops at equivalent points of articulation,[48] as previously displayed in (34). Vowels in initial position are preceded by a velar prenasalised stop. Initial obstruents **p**, **t**, **k**, which already have oral closure, are preceded by a glottal stop, so that for the obstruents there is no distinction made between N and Q Class changes.[49] Once again **s** undergoes no modification. In the examples now given in (38), the morpheme **tú'** *axe* effects Class N changes.

(38) CLASS N: [**tú'N** *axe*]

tarawe. *(There are) two;*
tu 'tárawe. *(There are) two axes.*

máeye. *He gets (it);*
tu mpáeye. *He gets an axe.*

-ántowé. *(It is) DIMINUTIVE;*
tunkántowé. *(It is a) tomahawk.*

-néné. *(It is) mine;*
túntené. *(It is) my axe.*

si'pára 'waiye. *It is on the matting;*
tú si'pára 'waiye. *The axe is on the matting.*

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[48] Fore's **w**, given in the previous chapter as a labial semivowel, is possibly better labelled as labio-velar. As a velar, it changes to **nk** following Class N morphemes; as a labial, it corresponds to labial fricatives in related languages (see chapter 10). Explanation of the **nk** which appears when a Class N morpheme precedes a vowel is probably associated with the correspondence of initial **h** in related languages to Fore's lack of initial consonant (again see chapter 10).

[49] Analysis of oral closure as the generalised change following Class N morphemes appears to support the Nicholson' (1962:134) preferred analysis of **p:**, **t:**, **k:** rather than **'p**, **'t**, **'k** (see previous footnote 21). However, Usarufa of the adjacent Eastern family, which lengthens nasals rather than converting them into prenasalised stops, nevertheless adds preceding glottals to obstruents in this environment. This tends to confirm that the addition of glottal rather than lengthening is the better analysis for Fore stops. Gadsup, also of the Eastern family, distinguishes between Class Q and Class N changes in its obstruents, giving stops preceded by....

Although as stated earlier, each morpheme in Fore belongs to one of the three classes given, there are two qualifications which must be stated: one concerns underlying morphemes which always commence with a glottal or a prenasalised stop (these morphemes are unaffected); the other concerns mood morphemes.

3.21(2) UNAFFECTED MORPHEMES

There are some morphemes, which, while belonging to one of the three classes, nevertheless themselves do not undergo the changes set out above in (34). These are morphemes which never occur word-initially, and which always commence with a glottal or a prenasalised stop, and thus appear to be the products of either Class Q or Class N changes, even though they are always preceded by a Class V morpheme.[50] Examples are given in (39), where the relevant consonantal onset is indicated by the subscript ⌴ .

(39) **a'tauwe**. *I put it.*
[**a-'ta-u-e** *it-put-I-INDIC*]

kanantúwé. *I have come.*
[**kana-nt''-u-e** *come-PERF-I-INDIC*]

...glottalisation or nasalisation respectively (Bee, 1965a: 4). It could be that a contrast between the glottal plus stop of **'p, 't, 'k** (Class Q) and the lengthening of **p:, t:, k:** (Class N) may once have existed in Fore, but that minimal functionality and surface similarity caused the contrast to disappear repidly.

[50] Consequently, these morphemes could be alternatively analysed as commencing with a central vowel, which then disappears under the vowel-fusion rules of Class V morphophonemics already listed. Underlying morphemes of the examples in (39) would then be [**a-a'ta-u-e**] and [**kana-ant''-u-e**] respectively. Since the presence or absence of such a vowel is unfalsifiable, either analysis is possible. I have, however, opted for the analysis given in the text, since morpheme-medial glottal stop and the prenasalised stops are relatively rare, and thus themselves suspect of being the product of morphophonemic change at an earlier stage of development.

3.21(3) MOOD MORPHEMES

Whenever a mood morpheme occurs, it suspends expected morphophonemic realisations. Instead, a consonant indicating the class of the preceding morpheme is induced. If the preceding morpheme is of Class V, a **w** or **y**[51] may occur between that morpheme and mood. If the preceding morpheme is of either Classes Q or N, **n** occurs in that position. These induced consonants are demonstrated in (40) below.

(40) CLASS V: **yaga:we.** *(It is a) pig.*
[**yaga:-e** *pig-INDIC*]

CLASS Q: **koné.** *(It is a) netbag.*
[**ko'Q-e** *netbag-INDIC*]

CLASS N: **túné.** *(It is an) axe.*
[**tú'N-e** *axe-INDIC*]

3.22 Phonological Phrases

As already stated, consonantal changes occur within phonological phrases. A phonological phrase is defined as a breath group, as evidenced by a pause at its boundaries. For, example, the first utterance in (41) may be spoken as a single phonological phrase. It may however, be spoken as two phonological phrases, as indicated by the comma in the second rendition.

(41) **máe'te kana:gí 'agauwe.** *He brings (it) and I see it;*
Or: **máe'te kana:gí, agauwe.** *He brings (it), and I see it.*

[**máe-'te** *get-SIMU;* **kana-a:'-ki-Q** *come-he-CONJ-I;*
a-ka-u-e *it-see-I-INDIC*]

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[51]Most Northern speakers use **w**, although **y** is preferred in some words, e.g. **má:mpayé** *(It is) here* [**má:'N-má'-e** *this-ground--INDIC*]. There is a tendency towards **y** in the Central dialect, and **y** is used almost exclusively in the Southern dialect. Where the preceding morpheme ends in a consonant, that morpheme is of Class V, and no further consonant is added, e.g. **kanause** *We both come* [**kana-us-e** *come-we(DL)--INDIC*].

It will be seen from the second utterance above that the pause (indicated by the comma) breaks the morphophonemic process, and so no glottal stop phoneme is induced at the commencement of **agauwe**, although underlying morphemes are the same for both utterances.

For phonological phrases generally, there are no grammatical criteria, although boundaries for such phrases are usually found at the borders of larger grammatical groupings (such as following a mood morpheme, or co-ordinate inflexion, or a statement in apposition).

The criteria for defining a phonological phrase are pause (whereupon the falling intonation pattern also concludes), the cessation of consonantal changes,[52] and the cessation of accent induction (yet to be given in 3.4).

Nicholson and Nicholson (1962:146) wrongly limited consonantal morphophonemics to close-knit phrases. They stated that all verbal affixes and certain noun affixes close a phonological phrase. If this were correct, all three words of (41) would have been separate phonological phrases. What the Nicholsons actually attempted to define was the extent of obligatory consonantal changes: the close-knit grouping of words which occurs when inflexional suffixes are absent or stripped to a minimum. This condition is met in non-affixed possession (see Genitives, in 6.31); or where the final morpheme of a non-verb is its root (see chapter 5); or where a verb with independent inflexion concludes with its subject referent (4.31 and 7.41); or where a conjoining verb concludes with a Special Relationship marker (7.22(4)). These four conditions are illustrated respectively in (42).

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[52] Lack of phonetic or phonemic change does not necessarily signal the boundary of a phonological phrase, since **m**, **n**, **s**, **w**, **y** occur both initially and medially in phonological phrases.

(42) wamá ntamáne. *(It is a) men's house.*
[wá'-ma-N *man-DLN-GEN;* na:máN-e *house-INDIC*]

na:má nkagaye. *He sees the house.*
[na:máN *house;* a-ka-y-e *it-see-he-INDIC*]

kana'tá:mí ntagarawé. *(It is) the man who came.*
[kana-'tá-a:míN *come-PAST-he(EMPH);* yagara:'-e *man-INDIC*]

máe'te kana'táye. *He brought (it).*
[máe-'te *get-SIMU;* kana-'tá-y-e *come-PAST-he-INDIC*]

It is possible to add suffixes within the second and fourth examples of the above. When such suffixes are added, as shown below in (43), the resultant examples may each optionally be uttered as one or two phonological phrases (although this length of utterance would usually remain a single phrase).

(43) na:má'pa agaye (i.e. na:má'pagaye). *He sees the house;*
Or: na:má'pa, agaye. *The house, he sees it.*
[na:máN-pa *house-FOC;* a-ka-y-e *it-see-he-INDIC*]

máe'tegina kana'táye (i.e. máe'teginagana'táye). *He brought (it);*
Or: máe'tegina, kana'táye. *He got (it), and came.*
[máe-'te-ki-na *get-SIMU-CONJ-he:* kana-'tá-y-e *come--PAST-he-INDIC*]

In the phonology given in chapter 2, distribution of phonemes and their variants were given according to their position within a word as spoken in isolation. This was done to avoid a premature discussion of the phonological phrase, and to avoid discussing phonemes in terms of phenomena which may vary at the speaker's whim.

A word spoken in isolation is, in fact, a close-knit phonological phrase, and the distribution of phonemes and variants which applies to words spoken in isolation also applies within every phonological phrase (i.e. once the morphophonological changes between words have been effected).

3.23 Markedness

3.23(1) MARKED VERSUS UNMARKED STATUS

The concept of markedness, originally propounded by linguists of the Prague school,[53] and more recently formalised within the transformational-generative framework,[54] highlights some interesting features of Fore's consonantal morphophonemics. For if we assume that Q and N Class morphemes are marked, as opposed to unmarked V Class morphemes, and that additionally the N Class morphemes are marked vis-a-vis the Q Class morphemes, some aspects of the consonantal system in Fore are in accord with universal expectations involving the marked/unmarked distinction.

The above assumptions are made on the following grounds: Since Class V morphemes do not cause morphophonemic change to consonants which follow (although vowels fuse), it is more likely than not that, of the three classes, Class V morphemes are the unmarked ones. Then, since changes effected by Class N morphemes are more complicated than those of Class Q, it seems reasonable that Class N be considered more marked than Class Q.[55] If these assumptions are correct, many of the universals implicit in markedness assumptions should be found to occur.

Greenberg (1966:58f), in his summary of the characteristics of unmarked categories in various aspects of language, lists the following: (i) *neutralisation* (in which the unmarked member of the opposition will appear in the neutralising environment); (ii) *frequency* (more numerous textual occurrence of the unmarked item); (iii) *variability* (greater non-

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[53]See, for example, Trubetzkoy (1969:146). Greenberg (1966:11) notes that the first usage of markedness terminology in phonology was probably by Trubetzkoy (1931), and in relation to grammatical categories, probably by Jakobson (1932).

[54]See, for example, Chomsky and Halle (1968:402); Cairns (1969).

[55]That is, for some feature x, Class V is unmarked and Classes Q and N are marked; while for a further feature y, Class Q is unmarked and Class N marked.

contrastive variation of the unmarked than the marked); (iv) *syncretisation* (distinctions existing among unmarked items are neutralised in the marked category: thus unmarked items are never fewer than those which are marked; and (v) *independence environmentally* (in that unmarked items are not the variants which result from environmental conditioning). Three of these points are particularly pertinent regarding Fore's consonantal morphophonemics. These are frequency, syncretisation and neutralisation.

3.23(2) APPLICATION TO FORE

Firstly, the unmarked class usually has more frequent textual occurrence. In Fore, the frequency of usage of Class V morphemes is considerably higher than that of the other classes combined. For example, in the sample text given later in chapter 9, over three-fourths of morphemes are of Class V. (Class Q and N morphemes occur in about equal proportions.) This predominance of Class V usage is in spite of the fact that only about half of the total lexicon is of Class V.[56]

Secondly, syncretisation, a feature of marked categories, occurs in N Class changes. As may be seen from the display already given in (34), the distinctiveness of **n** from **y**, and **w** from absence of consonant, is maintained when glottal stop is introduced under Class Q changes. These distinctions are neutralised in Class N changes, where **n** and **y** both become **nt**, as illustrated in (44), and **w** and absence of consonant are both replaced by **nk**, as in (45).

(44) **tunú ntáowe**. *(It is) my black eye;*
[**tunú'**N *black;* **na-o-e** *my-eye-INDIC*]

tunú ntáowe. *(It is the) dark forest.*
[**tunú'**N *black;* **yao-e** *forest-INDIC*]

[56]See Scott (forthcoming, a).

(45) tunú nkaené. *(It is a) black woman;*
[tunú'N *black;* wáe'Q-e *woman-INDIC*]

tunú nkaené. *(It is) black seed.*
[tunú'N *black;* áe'N-e *seed-INDIC*]

Thirdly, the unmarked member of an opposition should appear in a neutralising environment. This occurs where obstruents undergo change. Here the distinctiveness of Q and N Class changes is neutralised, in that in both instances glottal stop is added to an obstruent. Since, relative to the N Class, the Q Class is unmarked, the Q Class form (which always includes glottal stop) appears in both instances rather than an N Class form (which would have been a prenasalised stop).

(46) ka:sá: 'tuné. *(It is a) new axe;*
[ka:sá:'Q *new;* tú'N-e *axe-INDIC*]

tunú 'tuné. *(It is a) black axe.*
[tunú'N *black;* tú'N-e *axe-INDIC*]

Fourthly, as indicated by Schane (1973:115): "In language change, segments may become less marked." One would expect, then, that if a three-way distinctiveness was reduced to a two-way distinctiveness in Fore, then either the feature marking Q and N Classes relative to V Class, or the feature marking N Class relative to Q Class, would become non-distinctive. Thus either V and Q Classes would coalesce, or Q and N Classes, but not V and N Classes as distinct from Q. In Fore, the Q and N Classes have indeed coalesced in some dialects. Central and Southern dialects, and the Northern villages of Famia-Tiarana and Okasa (see Map 2) now have only Class V and Class Q morphophonemics operating between words.[57] Class N morphemes of the Northern dialect have become Class Q in these instances.

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[57] Traces of Class N change still appear word-medially, and in some close-knit sequences.

(47) Northern: **na:má nkagauwe** *I see a house;*
[**na:máN** *house;* **a-ka-u-e** *it-see-I-INDIC*]

Elsewhere: **na:má 'agauwe** *I see a house.*
[**na:máQ** *house;* **a-ka-u-e** *it-see-I-INDIC*]

Finally, it is to be expected that borrowings into a language would assume unmarked status in class distinctiveness. In Fore, this is precisely what happens, for virtually all borrowed morphemes are of Class V.[58]

3.3 VOWEL REDUCTION

A second series of changes, completely independent of consonantal changes, is that of vowel reduction.

Long vowels **a:**, **e**, **o** of certain noun roots undergo reduction to a shorter vowel (**a**, **i**, **u**) whenever the word in which they occur does not occur initially in a noun phrase.[59] There seem to be no predictable features to say which roots will be affected, but the reduction is constant, and affects all long vowels each time such a word appears non-initially. The normal pattern for reduction is **a: > a**; **e > i**; **o > u**,[60] as illustrated in (48). Roots with similar vowels which fail to undergo reduction are shown for comparison in (49).

[58] See Scott (forthcoming (b)). It is interesting that loans also take a penultimate accent, plus accent induction on a following syllable, e.g. **ká:rewé** *(It is a) car* [**ká:re'-e** *car-INDIC*]. Consequently, non-accent in either or both of these positions may yet prove to be a marked feature.

[59] Noun phrases, which themselves are close-knit phonological phrases, are described in 6.21.

[60] The only departure from this pattern found to date is the rare **a: > i** reduction, as in **piga:we** *(It is a) bean type*, which reduces to **pigiwe** when not phrase-initial. But note also **píga:wé** *(It is a) banana type*, which remains **píga:wé** even when non-initial.

(48) **yagara:wé.** *(It is a) man;*
tabe yágarawé. *(It is a) big man.*

kabewé. *(It is a) door;*
tabe kábiwé. *(It is a) wide door.*

ko'tá:né. *(It is) cargo;*
tabe kú'tané. *(It is) much cargo.*

(49) **ísa'a:wé.** *(It is) sweet potato;*
tabe ísa'a:wé (or: **tabésa'a:wé**). *(It is) large sweet potato.*

kewe. *(It is an) evil spirit;*
tabe kéwe. *(It is the) chief evil spirit.*

noríwé. *(It is a) star;*
tabe nóriwé. *(It is a) big star.*

Only about one root in four undergoes this change. There may be some phonological or historical reason for this which is as yet undetected. It may be economy of effort in language flow, for words in common use are more likely to be affected; recently introduced words are not. As it is, the choice of root to undergo reduction appears purely arbitrary.

3.4 ACCENT INDUCTION

A third independent but concurrent morphophonemic system functioning in Fore is that of accent induction. Each morpheme has its own underlying accent patterning, which may include an accent to be induced on a following syllable (either adjacent or one removed). This phenomenon is demonstrated in (50) below, in which the morpheme **tunú'N** *black* induces an extra accent on the immediately following syllable. In that illustration, all three morphophonemic systems given thus far are in operation.

(50) **yagara:wé.** *(It is a) man;*
tunú ntágarawé. *(It is a) black man.*

3.41 Patterns of Induction

3.41(1) GENERAL

Accent induction is according to one of four patterns. Each morpheme will either: (i) induce an accent on the immediately following syllable nucleus, as does **yogí'N** *knife*; or (ii) induce an accent on the next-but-one syllable nucleus, as does **ke'pa:'** *sand*; or (iii) neither induce nor cancel any following accent, as with **te'té** *red*; or (iv) delete any accent which would otherwise occur on either or both of the two syllable nuclei which follow, as does **aogi** *good*.[61] The effects of these morphemes, equally applicable within words, are seen across word boundaries in (51) below.

(51) **tarawe.** *(There are) two;*

yogí 'tárawe. *(There are) two knives.*

ke'pa: taráwe. *(There are) two lots of sand.*

te'té tarawe. *(There are) two red ones.*

aogi tarawe. *(There are) two good ones.*

waníne. *(It is) water;*

te'té waníne. *(It is) muddy water.*

aogi wanine. *(It is) good water.*

másiwé. *(It is a) male child;*

te'té másiwé. *(It is a) light-coloured male child.*

aogi masiwé. *(It is a) good male child.*

The environment in which accent induction is effected is the phonological phrase. Thus, accent induction rules are applied whenever consonantal morphophonemics are in effect, and thus apply both within and between words. As accent induction rules are applied, there is the potential for multiple accents, but normal surface restraints are operative. These (the limitation to two adjacent accents, except that

[61] No distinction between (i) and (ii) above has been indicated in underlying morpheme forms given, nor between (iii) and (iv), for my records are incomplete at this point. Some further examples are given in Pike and Scott (1963:181).

initially only one may occur) have already been given in 2.31. Examples of surface realisations in such instances may be seen in the last example of both (48) and (49) above.

One corollary of accent induction rules (iii) and (iv) above is the chaining of non-accents which becomes possible. Examples are given in (52).

(52) namana:'maba ago auwaiye. *My sister is already asleep.*
[na-mana:Q-ma-pa *my-sister-DLN-FOC;* ago *already;*
a-u-wai-y-e *her-sleep-recline-she-INDIC*]

aogi wani ntamagina waye. *He drinks good water and goes.*
[aogi *good;* waníN *water;* na-ma-ki-na *eat-SEQ-CONJ-he;*
wa-y-e *go-he-INDIC*]

3.41(2) MOOD MORPHEMES

Whenever a mood morpheme appears, a separate set of realisation rules applies. This is the same environment where consonantal morphophonemics also has a separate set of realisation rules, as given in 3.21(3). Here, any accent to be induced will be realised on the mood morpheme, even if it would normally have occurred on the next syllable but one, as does ke'pa:' *sand* (shown above in (51)).

(53) yogíné. *(It is a) knife.*
[yogí'N-e *knife-INDIC*]

ke'pa:wé. *(It is) sand.*
[ke'pa:'-e *sand-INDIC*]

Secondly, any accent occurring as part of a mood morpheme is not cancelled by a morpheme which would normally delete a following accent, as does aogi *good* (also shown above in (51)).

(54) aogiwe. *(It is) good;*
[aogi-e *good-INDIC*]

aogiwó. *Is it good?*
[aogi-ó *good-INTERR*]

3.42 Summary

As far as has been noted to date, there is no correlation between accent induction and consonantal changes, nor between either of these and vowel reduction. The three systems function independently, distinguishing what would otherwise be many homophonous forms. Some of these are shown in (55), in which '*cons*' indicates distinctiveness via prospective consonantal change; '*vow*' indicates contrastive vowel reduction; and '*acc*' induced accent oppositions.

(55) *cons:* yogí' *raincape;*
yogí'N *knife.*

vow: aba: *waterfall;*
aba: *bark of tree* (a: > a).

acc: ke *evil spirit;*
ke' *who?*

cons, vow: ko' *trap;*
ko'Q *netbag* (o > u).

cons, acc: to *another;*
to'N *bird of paradise.*

vow, acc: -ke' *ear;*
-ke *name* (e > i).

cons, vow, acc: ke *evil spirit;*
ke'Q *path* (e > i).

Homophonous: amú'Q *egg;*
amú'Q *mountain.*

3.5 VERB CHANGES

3.51 Verb Base Compounding Accent

Whenever a verb base consists of more than a solitary stem,[62] an accent is induced on the last syllable of each additional verb stem or aspect morpheme. Such accents are subject to the surface realisation rules concerning multiple accents already given in 2.31(1).

(56) puwe. *I do (it);*
[pu-u-e *do-I-INDIC*]

puga'táuwe. *I do (it) for you.*
[pu-ka-'ta-u-e *do-you(SG)-put-I-INDIC*]
Additional verb stem

na'tá:ne. *You ate (it);*
[na-'tá-a:N-e *eat-PAST-you(SG)-INDIC*]

nawáegai'tá:ne. *You finished eating (it) all.*
[na-wae-kai-'tá-a:N-e *eat-TOTAL-castoff-PAST-you(SG)-INDIC*]
Additional aspect and stem

3.52 Verb Root Semivowel Induction

A transitional y follows verb roots whose final vowel is **ae**, **ai** or **i** (i.e. one which ends in a [-Back] position), whenever it is immediately followed by an inflexion commencing with a vowel. Normally, vowel fusion would be expected, since all verb roots are of Class V. However, in such an environment, the induction of y between the vowels overrides the vowel fusion rules already given in 3.21(1).

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[62] Stem Compounding is given later in section 4.23.

(57) **máeyuwe.** *I get (it).*
[**máe-u-e** *get-I-INDIC*]

iyóné. *I ascend!*
[**i-ó'N-e** *ascend-I(EMPH)-INDIC*]

waiyíne. *He sleeps!*
[**wai-íN-e** *recline-he(EMPH)-INDIC*]

3.53 **Verb Root Vowel Elision & Harmony**

3.53(1) ELISION

Whenever the root-final vowel is **u**, and is followed by a morpheme commencing with a vowel, the **u** of the root is elided.[63] This rule overrides vowel fusion rules of 3.21(1).

(58) **tumóné.** *I descend!*
[**tumu-ó'N-e** *descend-I(EMPH)-INDIC*]

tumíne. *He descends!*
[**tumu-íN-e** *descend-he(EMPH)-INDIC*]

3.53(2) HARMONY

Whenever the root-final vowel **u** precedes a morpheme commencing with **y**, the **u** obligatorily changes to **i**. Secondly, whenever the root-final **u** is followed by a syllable containing an unrounded vowel, there is a strong tendency for **u** to change to **i**. These features are illustrated respectively in (59).

(59) **tumiye.** *He descends.*
[**tumu-y-e** *descend-he-INDIC*]

tumi'táye (or: **tumu'táye**). *He descended.*
[**tumu-'tá-y-e** *descend-PAST-he-INDIC*]

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[63] The only exception found to date is the root **-egu'** *hit*, which, while retaining its **u** vowel throughout (undergoing neither elision nor harmony), takes transitional **y** in the manner of **ae**, **ai**, **i** roots mentioned above. E.g. **aeguyéwe** *They hit him* [**a-egu'-a:-e** *him-hit-they(PL)-INDIC*].

3.54 Verb Suffix Vowel Change

Whenever a morpheme commencing with **a:** immediately follows a verb root whose final vowel is **i**, **ai** or **u** (i.e. one which ends in a [+High] tongue position), the **a:** of that morpheme changes to **e**. Should the verb root not induce a transitional y as given above (i.e. for any roots ending in **u**), the root-final vowel is elided, and only the **e** remains.

(60) iyewe. *They ascend.*
[i-a:-e *ascend-they(PL)-INDIC*]

waiyéné. *They sleep!*
[wai-á:'N-e *recline-they(PL/EMPH)-INDIC*]

tumene. *You descend.*
[tumu-a:N-e *descend-you(SG)-INDIC*]

3.6 Other Changes

Other context-specific morphophonemic changes are given where relevant, as summarised in the illustrations numbered (86, 88, 92, 95, 206).

Chapter 4

BASIC VERB MORPHOLOGY

4.1 Introduction

A major distinction between verb and non-verb morphology is made in highland languages of Papua New Guinea,[64] and Fore is no exception. As will be seen in this chapter, verb stems in Fore may not occur in isolation as complete utterances simply by the addition of a mood morpheme. Non-verbs may. Secondly, verb suffixes indicate person and number of the grammatical subject[65] and also tense, which the non-verbs do not.

4.1(1) VERB RECOGNITION

A verb structure in Fore may be recognised in one of two ways. Firstly, it may be distinguished by the inclusion of a pronominal subject referent following the base, as in both words in (61). An optional tense morpheme may occur between base and subject referent, as (62) illustrates.

(61) kana:gíni aga:we. *As he comes they see him.*

[kana-a:'-ki-ni *come-he-CONJ-they(PL);*
VBs Subj
a-ka-a:-e *him-see-they(PL)-INDIC*]
VBs Subj

(62) kana'tá:gíni aga'tá:we. *As he came they saw him.*

[kana-'tá-a:'-ki-ni *come-PAST-he-CONJ-they(PL);*
VBs Tns Subj
a-ka-'tá-a:-e *him-see-PAST-they(PL)-INDIC*]
VBs Tns Subj

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[64] See, for example, Bee (1973:232); Bunn (1974:4).

[65] Terms 'subject' and 'object' are used in the traditional sense, awaiting discussion of intra-clausal syntax in chapter 6.

Secondly, in the absence of a subject referent, a verb structure may be recognised by the inclusion of one of the same-subject relationship markers. These indicate the type of co-ordination between clauses which are reckoned to have similar subjects, as illustrated in (63).[66]

(63) **kanama** ...(**aga:we**). *They come and ...(see him).*
[**kana-ma** *come-SEQ*]
VBs SameSubj

kanamagini ...(**aga:we**). *They come and they ...(see him).*
[**kana-ma-ki-ni** *come-SEQ-CONJ-they(PL)*]
VBs SameSubj

The present chapter presents only the basic verb morphology. As such, it deals with the morphology of independent verbs -- those able to stand alone as the only verb of a complete and isolatable utterance. Presentation of further verb morphology as it relates to relationships between clauses will then be postponed until after non-verb morphology has been given.

4.1(2) REANALYSIS

As noted earlier, improvements have been made to the analysis of my previous paper on independent verbs (Scott, 1968a). The main area of change is in the realm of aspect. In that earlier paper, three aspect positions were given. In the first position, the aspect of Intensity has been retained, an aspect of Totality (previously treated as part of the verb stem) added. That which I labelled 'Completive' has been reanalysed as the verb stem **kai** *to cast aside*, and Permissive and Cautionary aspects have been combined and relabelled 'Dubitative.' The Dubitative, however, is mutually exclusive with Tense morphemes, and so has been further reanalysed and given as a filler of Tense position.

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[66] It should be pointed out that anticipatory subject suffixes, such as **-ni** *they(PL)* in (61-63), do not enter into these considerations, since they refer to the subject of the following verb.

The second aspect position is no longer necessary. Morphemes which I then gave as marking Improbable and Alternative aspects are no longer analysed as part of basic verb morphology, but as markers in inter-clausal syntax. They are given later in 7.34 and 7.35 respectively. The marker **-n**, which I gave as marking Emphasis, is the consonant taken by Class N morphemes when followed by a mood morpheme, as already given in 3.21(3). It will be seen in 4.31(2) that Emphatic Subject morphemes are all of Class N.

The third aspect position has also been dispensed with. The two aspect morphemes **-yabaQ** *HABIT* and **-kena** *PURPOS* are better analysed as clause modifiers, and are given later in 7.42. The accent induced when two stems are juxtaposed is now seen as an integral part of morphophonemics, and has already been outlined in 3.51.

4.2 THE VERB BASE

All verb structures, irrespective of whether they are independent or dependent, consist of a verb base plus its inflexion. The structure of the verb base is common to both independent and dependent verbs, as shown below in (64), where a mood morpheme has been included in the first example. Occurrence of such a morpheme in independent utterances has already been noted in 1.4(5).

(64) PRIMARY DICHOTOMY IN VERB STRUCTURE:

Verb ⟶ Base + Inflexion.

E.g. **puna'táye**. *He does (it) for me.*

[**pu-na-'ta-y-e** *do-me-put-he-INDIC*]

VBs Infl (Independent)

puna'tá'tegina ...(waye). *He does (it) for me and he ...(goes).*

[**pu-na-'ta-'te-ki-na** *do-me-put-SIMU-CONJ-he*]

VBs Infl (Dependent)

The same morphemes by which a verb is recognised may also be used to determine the verb base. The base, then, is defined as that portion of a verb which precedes a Tense morpheme, or if no such morpheme is present, that which precedes the subject referent, or if no overt subject referent is present, that which precedes a same-subject co-ordinating suffix. All three possibilities have already been illustrated in (62, 61, 63) respectively.

The only item obligatory to a verb base is the verb stem, which itself may be polymorphemic. More than one stem may occur within a verb base, with three stems as the general limit of acceptability. An aspect morpheme optionally occurs, and always follows the first stem except where that stem is a defective directional verb, as shown in the third example below.

(65) COMPOSITION OF VERB BASE:

Base $\rightarrow$ (Stem) + Stem + (Aspect) + (Stem) + (Stem).

E.g. mae'táye. *He got (it).*

[máe-'tá-y-e *get-PAST-he-INDIC*]
VSt

máewae'táye. *He got (it) all.*

[máe-wae-'tá-y-e *get-TOTAL-PAST-he-INDIC*]
VSt Asp

tumpáewae'táye. *He went down and got (it) all.*

[tuN-máe-wae-'tá-y-e *downwards-get-TOTAL-PAST-he-INDIC*]
VSt VSt Asp

maewáena'tá'táye. *He got (it) all for me.*

[máe-wae-na-'ta-'tá-y-e *get-TOTAL-me-put-PAST-he-INDIC*]
VSt Asp VSt

máebugái'táye. *He got rid of (it) completely.*

[máe-pu-kai-'tá-y-e *get-do-castaside-PAST-he-INDIC*]
VSt VSt VSt

4.21 Verb Stem

A verb stem consists of either a root only, or an adjunct plus root, or a pronominal object referent plus root, or a referent plus adjunct plus root. As given in (66), angle brackets denote obligatory occurrence within some stems, and obligatory absence from others. Examples follow the order specified above.

(66) COMPOSITION OF VERB STEM:

Verb Stem ⟶ <Referent> + <Adjunct> + Root.

E.g. **naye.** *He eats.*

[**na**-y-e *eat-he-INDIC*]
VRt

ika:'piye. *He buys.*

[**ika:N-pu**-y-e *buy-do-he-INDIC*]
Ajt VRt

nagaye. *He sees me.*

[**na-ka**-y-e *me-see-he-INDIC*]
Ref VRt

naba:biye. *He escorts me.*

[**na-pa:-pu**-y-e *me-escort-do-he-INDIC*]
Ref Ajt VRt

4.21(1) VERB ROOT

Verb roots (which are all of morphophonemic class V) may be categorised according to their final vowel, for it is upon the type of vowel which is root-final that the changes given previously in 3.52 and 3.54 depend. If that vowel ends in any [-Back] tongue position, a transitional y is induced preceding any inflexion commencing with a vowel; if the root-vowel is [+High], any immediately following **a:** will change to

e. These phenomena are charted in (67), where all root-final vowels noted to date are included, and illustrated.[67]

(67) VERB ROOT VOWEL TYPES:

	(Unmarked)	a: > e
(Vowel Fusion)	a	u
Transition y	ae	i,ai

E.g. wa:ne. *You go.*
[wa-a:N-e *go-you(SG)-INDIC*]

urene. *You hold (it).*
[uru-a:N-e *hold-you(SG)-INDIC*]

kaeya:ne. *You cook (it).*
[kae-a:N-e *cook-you(SG)-INDIC*]

iyene. *You ascend.*
[i-a:N-e *ascend-you(SG)-INDIC*]

waiyene. *You sleep.*
[wai-a:N-e *sleep-you(SG)-INDIC*]

The root-final vowel may be determined from any form of the verb in which the morpheme following the root commences with a consonant or consonant cluster followed by a rounded vowel. Such an environment prevents vowel fusion or vowel harmony, as given earlier in 3.21(1) and 3.53 respectively.

[67] There are some irregular verb roots, of which the most common are -egu' *hit* and kai *cast aside*. -egu' *hit* retains its vowel u throughout, but takes transitional y as though its vowel were i, e.g. aeguyúwe *I hit him* [a-egu'-u-e *him-hit-I--INDIC*]. kai *cast aside*, as given later at the end of 4.23, has kasa and kas as variant forms of the root.

To illustrate, the five roots in (67) are given again in such an environment.

(68) wa'kubóné. *I really will go.*
[wa-'kub-ó'N-e *go-FUT-I(EMPH)-INDIC*]

uru'kubóné. *I really will hold (it).*
[uru-'kub-ó'N-e *hold-FUT-I(EMPH)-INDIC*]

kae'kubóné. *I really will cook (it).*
[kae-'kub-ó'N-e *cook-FUT-I(EMPH)-INDIC*]

i'kubóné. *I really will ascend.*
[i-'kub-ó'N-e *ascend-FUT-I(EMPH)-INDIC*]

wai'kubóné. *I really will sleep.*
[wai-'kub-ó'N-e *sleep-FUT-I(EMPH)-INDIC*]

4.21(2) ADJUNCT

Some verbs consist of an adjunct plus root, with the adjunct as carrier of the lexical meaning. Although word divisions between adjunct and root are usually preferred in vernacular materials, such divisions have not been maintained here.

(69) á'kibewe. *They gather together.*
[á'ki-pu-a:-e *gather-do-they(PL)-INDIC*]
Ajt VRt

asunú'kaeya:we. *They spill (it).*
[asunúQ-kae-a:-e *spill-cook-they(PL)-INDIC*]
Ajt VRt

ika:'pewe. *They buy.*
[ika:N-pu-a:-e *buy-do-they(PL)-INDIC*]
Ajt VRt

Adjuncts are analysed as part of the verb stem for the following reasons: (i) any obligatory pronominal object referent is prefixed to the adjunct rather than to the root (as will be shown in the next sub-section); (ii) there is a tightly knit association of adjunct and root such that no adverbial modifier may occur between them; (iii) the basic lexical meaning of the verb stem is carried by the adjunct rather than the root; (iv) a particular adjunct always takes the same root; and (v) the transitivity of a verb (i.e. whether a free form object may be taken) is determined by the adjunct rather than by the associated verb root.

That the adjunct is a separate morpheme from the root is shown by its ability to occur without its root, as shown in the last example of (70).

(70) i'ka:'pemíne. *He really is buying.*
[i'ka:N-pu-a:míN-e *buy-do-he(EMPH)-INDIC*]

i'ka:'pemí ntagarawé. *He is the one who is buying.*
[i'ka:N-pu-a:míN *buy-do-he(EMPH);* yagara:'-e *man-INDIC*]

i'ka: ntagarawé. *He is the one who is buying.*
[i'ka:N *buy;* yagara:'-e *man-INDIC*]

4.21(3) REFERENT PREFIX

Some verb stems demand the inclusion of a pronominal object referent prefix as part of their structure. This referent prefix is attached to the morpheme which carries the lexical meaning. Thus, if there is an adjunct, the referent is prefixed to that adjunct. If there is no adjunct, the referent is prefixed directly to the verb root.

(71) nabanaye. *It bites me.*
[na-pa-na-y-e *me-bite-eat-it-INDIC*]
Ref Ajt

nabiye. *It does me* (i.e. *I like it*).
[na-pu-y-e *me-do-it-INDIC*]
Ref VRt

There is no formal distinction between direct and indirect object referents. Neither is there ambiguity. Any verb which is able to sustain two free-form objects must have a referent prefix, irrespective of whether those free forms are retained. The prefix in this instance will always refer to the indirect object. On the other hand, only some of the verbs which are able to take a single object (direct) take the referent prefix, which then refers to that direct object, whether or not it occurs in free form.

(72) (náe'pa) (ka:mána'pa) nabigáye. *He asks (me) (something).*
[na-pigá-y-e *me-ask-he-INDIC*]

(náe'pa) na'taye. *He leaves (me).*
[na-'ta-y-e *me-put-he-INDIC*]

The full range of referent prefixes is displayed below in (73). Possible assignment of separate meaning to individual formants has been discussed by Pike (1963:6), who presented a field display showing how the interrelationship of these formants produces an unambiguous distinctiveness among all nine morphemes.[68] Pike's display is reproduced for convenience in (74).

[68] Formants n and k uniquely represent first singular and second singular respectively; Ø represents third person; t is non-third and non-singular; a is first or singular; i is non-first and non-singular; si denotes dual number. An analagous pattern is found among anticipatory subject morphemes, given later in 7.21(4).

(73) PRONOMINAL REFERENT PREFIXES:

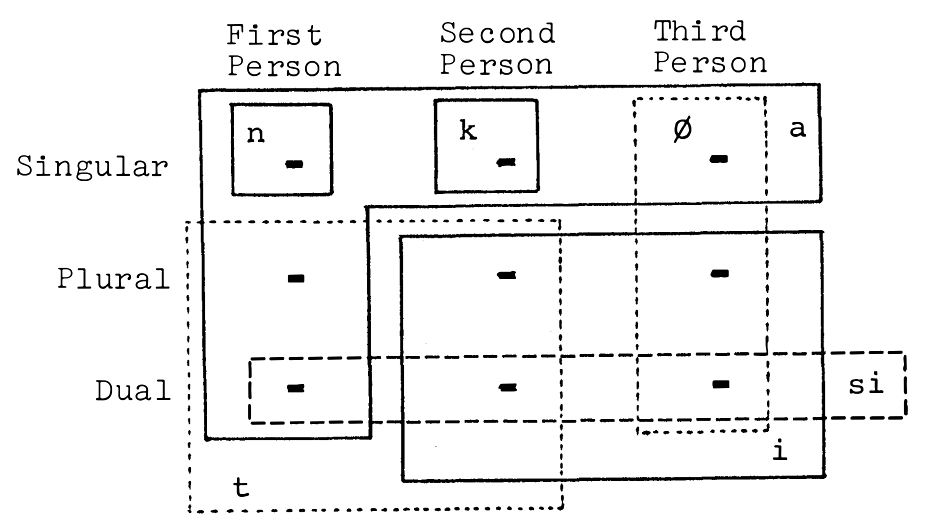
	First Person	Second Person	Third Person
Singular	na-	ka-	a-[69]
Plural	ta-	ti-	i-
Dual	tasi-	tisi-	isi-

E.g. naga:ne. *You see me.*
[na-ka-a:N-e *me-see-you(SG)-INDIC*]

kagauwe. *I see you.*
[ka-ka-u-e *you(SG)-see-I-INDIC*]

tasiga:we. *They see us.*
[tasi-ka-a:-e *us(DL)-see-they(PL)-INDIC*]

(74) FIELD DISPLAY OF REFERENT FORMANTS:
(Pike, 1963:6)



[69]Fore does not distinguish between masculine, feminine, neuter in its morphology. Pronominal forms are therefore glossed as *he, she, it, him, her, hers, its* according to context.

4.22 Aspect

As given earlier in 4.2, composition of a verb base includes an optional aspect position. This aspect slot may be filled by a morpheme indicating Totality, or by one which indicates Intensity. They do not co-occur.

These aspects, illustrated briefly in (74), modify the action of the stem to which they are attached. Their inclusion (as part of the verb base) induces an accent on their nucleus, in accordance with morphophonemic rules already given in 3.51.

(75) agaye. *He sees it.*
[a-ka-y-e *it-see-he-INDIC*]

agawáeye. *He sees it all.*
[a-ka-wae-y-e *it-see-TOTAL-he-INDIC*]

agagáye. *He sees it intensely* (i.e. *He stares at it*).
[a-ka-ka-y-e *it-see-INTENS-he-INDIC*]

4.22(1) ASPECT OF TOTALITY

The morpheme marking Totality is **-wae**. Morphophonemically, **-wae** patterns as an **ae** verb root by taking transitional **y** when preceding vowel-initial morphemes, as seen in the second example of (76).

(76) maewáeye. *He gets (it) all.*
[máe-wae-y-e *get-TOTAL-he-INDIC*]

nawáeyuwe. *I eat (it) all.*
[na-wae-u-e *eat-TOTAL-I-INDIC*]

As part of a verb base, **-wae** formally modifies the stem to which it is attached. The notion of totality, however, is interpreted as far as is semantically applicable, according to the following hierarchy: Indirect Object, then Direct Object, then Subject. These are illustrated progressively in (77).

(77) imiwáeya:we. *They give (it) to them all.*
[i-mu-wae-a:-e *them(PL)-give-TOTAL-they(PL)-INDIC*]

amiwáeya:we. *They give (it) all to him.*
[a-mu-wae-a:-e *him-give-TOTAL-they(PL)-INDIC*]

agawáeya:we. *They see it all.*
[a-ka-wae-a:-e *it-see-TOTAL-they(PL)-INDIC*]

nawáeya:we. *They eat (it) all.*
[na-wae-a:-e *eat-TOTAL-they(PL)-INDIC*]

wawáeya:we. *They all leave.*
[wa-wae-a:-e *go-TOTAL-they(PL)-INDIC*]

4.22(2) ASPECT OF INTENSITY

The morpheme -ka, used to denote intensity in an action, is also a filler of the aspect position. In contrast to -wae, Intensity's -ka is able to be reduplicated, but this quality is limited. Reduplication of -ka is found only when more than one stem occurs in the verb base, or when a same-subject co-ordinating inflexion is used, as given respectively in the last two examples of (78). In such instances, three occurrences is the generally recognised limit of acceptability.

(78) pugáye. *He does (something) intensely.*
[pu-ka-y-e *do-INTENS-he-INDIC*]

agagáye *He stares at it.*
[a-ka-ka-y-e *it-see-INTENS-he-INDIC*]

pugágabíye. *He does (something) very intensely.*
[pu-ka-ka-pu-y-e *do-INTENS-INTENS-do-he-INDIC*]

agágagágá'te ...(waye). *He (goes away) utterly amazed.*
[a-ka-ka-ka-ka-'te *it-see-INTENS-INTENS-INTENS-SIMU*]

As does its fellow aspect filler -wae, -ka patterns morphophonemically as a compounding verb stem, in that it receives an induced accent through its incorporation into the verb base. It also acts as an **a** type root during suffixation. By statistical count, **-ka** occurs most frequently with the multipurpose verb root **pu** *do*, or in association with the simultaneous relationship morpheme **-'te**, both of which are shown above in (78).

4.23 Stem Compounding

When verb stems compound, there is a definite order which stems bear in relation to each other. Further research is necessary to determine all limitations, but some patterns have already emerged.

In the formula presented earlier in (65), the first stem was given as optional. This position may be filled only by a defective verb stem, which indicates direction of the action. Defective verb stems occur only in this first compounding position, or in association with the sequence co-ordinator **-ma**, as given later in 7.22(4). Their compounding function is illustrated below in (79), where it will be seen that they induce an accent on the following stem. This morphophonemic process has already been given in 3.51.

(79) **umíye.** *He went to where he is.*
[u-mi-y-e *overto-be-he-INDIC*]

ampíye. *He arrived at where he is.*
[aN-mi-y-e *overat-be-he-INDIC*]

tumpíye. *He went down to where he is.*
[tuN-mi-y-e *downwards-be-he-INDIC*]

asumíye. *He went up to where he is.*
[asu-mi-y-e *upwards-be-he-INDIC*]

Then secondly, except for two stems whose roots are **-'ta** *put* and **-mu** *give*, any stem which incorporates an adjunct or referent must occur in the stem position given in (65) as obligatory. That is, it either occurs first, or immediately follows the stem of a defective verb.

(80) i'ka:'purúwe. *I buy and have (it).*
[i'ka:N-pu-uru-u-e *buy-do-hold-I-INDIC*]

tunki'ka:'púrúwe. *I go down and buy and have (it).*
[tuN-i'ka:N-pu-uru-u-e *downwards-buy-do-hold-I-INDIC*]

agabúwe. *I stare at him.*
[a-ka-pu-u-e *him-see-do-I-INDIC*]

tunkagábúwe. *I go down and stare at him.*
[tuN-a-ka-pu-u-e *downwards-him-see-do-I-INDIC*]

Thirdly, the two stems whose roots are **-'ta** *put* and **-mu** *give* may appear in the obligatory stem position, but also occur following other stems as mentioned above, to give a benefactive sense. In this benefactive usage, referent prefixes attached to **-'ta** and **-mu** become infixed, but with some departure from normal morphophonemic rules. Third person singular **-a** fuses with **u** roots to become **-o**, while plural and dual forms add a **wa** onset following all roots. The last two examples of (81) show these changes.

(81) na'tawáye. *It has left me.*
[na-'ta-wa-y-e *me-put-go-it-INDIC*]

tamigasáye. *He finished giving (it) to us.*
[ta-mu-kai-y-e *us(PL)-give-castaside-he-INDIC*]

puna'táye. *He does (it) for me.*
[pu-na-'ta-y-e *do-me-put-he-INDIC*]

puramíye. *He makes (it) for us.*
[pu-ta-mu-y-e *do-us(PL)-give-he-INDIC*]

po'táuwe. *I do (it) for him.*
[pu-a-'ta-u-e *do-him-put-I-INDIC*]

puwaimúwe. *I make (it) for them.*
[pu-i-mu-u-e *do-them(PL)-give-I-INDIC*]

Fourthly, whenever the root **kai** *cast aside* is used in compounds, it takes final position, and gives a sense of completion to the action. **kai** is irregular, becoming **kasa** when followed by a vowel or semivowel, but dropping the final **a** when the following vowel is rounded (as does the Past tense morpheme **-'tá** as seen later in 4.32(1)).

(82) **nagái'táye.** *He had finished eating.*
[**na-kai-'tá-y-e** *eat-castaside-PAST-he-INDIC*]

nagasáye. *He finished eating.*
[**na-kai-y-e** *eat-castaside-he-INDIC*]

nagasúwe. *I finished eating.*
[**na-kai-u-e** *eat-castaside-I-INDIC*]

4.3 INDEPENDENT VERB INFLEXION

As already stated earlier, this chapter presents only basic verb morphology. As such, it includes the inflexion of independent verbs -- those able to stand alone as the only verb of a simple sentence. Their ability to stand alone is reflected in their inflexion, which contains no morpheme relating to a subsequent action or event.

Only one position in the independent verb inflexion must always be filled: that of a pronominal subject referent. This subject referent may be preceded by a tense morpheme. (The reader is reminded that the mood clitic given in the examples is necessary for them to be complete utterances.)

(83) COMPOSITION OF INDEPENDENT VERB INFLEXION:

Inflexion $\longrightarrow$ (Tense) + Subject.

E.g. **mae'tá:ne.** *You got (it).*
[**máe-$\underbrace{\text{'tá}}_{\text{Tns}}$-$\underbrace{\text{a:N}}_{\text{Subj}}$-e** *get-PAST-you(SG)-INDIC*]

máeya:ne. *You get (it).*
[**máe-$\underbrace{\text{a:N}}_{\text{Subj}}$-e** *get-you(SG)-INDIC*]

4.31 Subject

That which is syntactically regarded as the actor of an event is reflected in pronominal form as a Subject suffix. In all, there are seven sets of pronominal subject referents, of which three occur in independent verb inflexions.[70] Two of these sets occur in statements and questions, the third in commands. A parallel example from each of these three sets is now given.

(84) máeya:we. *You get (it).*
[máe-a:-e *get-you(PL)-INDIC*]
$\underbrace{\text{a:}}$ Basic

máeya:né. *You get (it)!*
[máe-á:'N-e *get-you(PL/EMPH)-INDIC*]
$\underbrace{\text{á:'N}}$ Emphatic

máeyiyó. *Get (it)!*
[máe-íy-ó *get-you(PL)-IMPER*]
$\underbrace{\text{íy}}$ Imperative

4.31(1) BASIC SUBJECT MORPHEMES

The full array of the basic set of subject referent morphemes is given below in (85). It will be seen that there is no contrast between second and third person in non-singular forms.

[70] The other four sets are presented in 7.21.

(85) BASIC SUBJECT REFERENTS:

	First Person	Second Person	Third Person
Singular	-u	-a:N	-y
Plural	-uN	-a:	-a:
Dual	-us	-a:s	-a:s

E.g. **nauwe.** *I eat.*
[**na-u-e** *eat-I-INDIC*]

na:ne. *You eat.*
[**na-a:N-e** *eat-you(SG)-INDIC*]

naye. *He eats.*
[**na-y-e** *eat-he-INDIC*]

nause. *We both eat.*
[**na-us-e** *eat-we(DL)-INDIC*]

One general morphophonemic rule pertinent to these basic subject referents has already been given in 3.54, that of the **a: > e** change following roots of vowel types **i, ai, u**. Other rules specific to basic subject morphemes only are as follows: (i) **a:** reduces to **a** when following the Perfect tense morpheme **-nt''** (given this chapter in 4.32(2)); (ii) **a:** changes to **i** following the Dubitative morpheme **-s** (given in 4.32(4)); (iii) **y** of third person singular is realised as **i** between consonants, and as **iy** between consonant and vowel; (iv) **s** of dual forms is followed by central vowel **a** when preceding a consonant. These rules are listed and illustrated in the same order in (86).

(86) VARIANTS OF BASIC SUBJECT REFERENTS:

a: > e / VRt{i;ai;u}___ ;
a: > a / *PERF*___ ;
a: > i / *INTENT*___ ;
y > i / C___C ;
y > iy / C___V ;
s > sa / ___C .

E.g. tumene. *You descend.*
[tumu-a:N-e *descend-you(SG)-INDIC*]

tumintáné. *You have descended.*
[tumu-nt''-a:N-e *descend-PERF-you(SG)-INDIC*]

tumisinó. *Will you be descending?*
[tumu-s-a:N-ó *descend-INTENT-you(SG)-INTERR*]

tumintíbáya:wé. *Has he descended (or not)?*
[tumu-nt''-y-paya:'-e *descend-PERF-he-ALTERN-INDIC*]

tumintíyé. *He has descended.*
[tumu-nt''-y-e *descend-PERF-he-INDIC*]

tumesabaya:wé. *Are they both descending (or not)?*
[tumu-a:s-paya:'-e *descend-they(DL)-ALTERN-INDIC*]

Scrutiny of the matrix in (85) suggests that the vowel formant refers to person, with **u** denoting first person, and **a:** indicating non-first (with the exception of third singular, where irregularity is perhaps to be expected). Obviously **s** represents dual number,[71] but then a curious criss-cross pattern of morphophonemic marking is used to unambiguously distinguish between singular and plural. This criss-cross pattern is not unique to independent inflexions (for it occurs again in the co-ordinate inflexions given in 7.21(1)). Neither is it unique to Fore.[72]

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[71] Elsewhere in Fore, and also in related languages, dual forms appear to have been derived from the plural. Addition of **s** to the plural subject referents given in (85) will, under present morphophonemic rules, result in the dual forms given.

[72] This same pattern may be seen in cognate subject morphemes of other languages in the same East-Central family, as ....

If we assume that u is both first person and singular number, and that a: is both non-first and non-singular (except for the aberrant y of third singular), then it is the change from unmarked to marked morphophonemic category which is the signal for change to an opposite value for singular or plural number.

4.31(2) EMPHATIC SUBJECT MORPHEMES

The criss-cross patterning seen above is also found in emphatic subject referents, which are now displayed in (87).

(87) EMPHATIC SUBJECT REFERENTS:

	First Person	Second Person	Third Person
Singular	-ó'N	-a:mpéN	-a:míN
Plural	-ompéN	-á:'N	-á:'N
Dual	-oméN	-a:méN	-a:méN

E.g. náoné. *I eat!*
[na-ó'N-e *eat-I(EMPH)-INDIC*]

na:mpéne. *You eat!*
[na-a:mpéN-e *eat-you(SG/EMPH)-INDIC*]

na:míne. *He eats!*
[na-a:míN-e *eat-he(EMPH)-INDIC*]

naoméne. *We both eat!*
[na-oméN-e *eat-we(DL)-INDIC*]

... reproduced from Wurm (1975c:487). Proto-forms were proposed by Pawley (1966:178).

	Gende	Yabiyufa	Asaro, Gahuku	Benabena	Kamano, Yate, Yagaria	Gimi	*proto Eastern, East-Central (Pawley)
Sg 1	u	u	u	u	u	u	*u
2	an	an	an	an	an	an	*an
3	(a)i	a i	i	i	i	i	*i
Pl 1	un	un	un	un	un	un	*un
2,3	a	a	a	a	a	a	*a
Dl 1	ur	u	usi	u'i	u'	ur	*uR
2,3	ar	ai	asi	a'i	a'	ar	*aR

When these morphemes are used, special attention is drawn to the subject of the verb, hence the label 'Emphatic'. These emphatic suffixes contrast with the basic set in independent verbs, and also during formation of alternation sentences (see 7.35). Elsewhere (as given in 7.41 and 7.42), this contrast is absent and only the emphatic set is used.

Morphophonemically, the general rule of **a: > e** change following root types **i, ai, u** (as given in 3.54) also applies to these emphatic forms of the subject referent. There is one further rule which applies specifically to the emphatic third singular form. Here the **-a:míN** may be optionally shortened to **-íN**. These two rules are now illustrated in (88).

(88) VARIANTS OF EMPHATIC SUBJECT MORPHEMES:

a: > e / VRt{i;ai;u}___ ;

-a:míN ~ -íN .

E.g. **tumempéne.** *You descend!*
[**tumu-a:mpéN-e** *descend-you(SG/EMPH)-INDIC*]

kana:míne ~ kanáine. *He comes!*
[**kana-a:míN~íN-e** *come-he(EMPH)-INDIC*]

Emphatic subject referents do not co-occur with the Dubitative tense marker (given in 4.32(4)). This may be because of the lack of certainty inherent in the Dubitative. Consequently, the third rule of **a: > i** given in (86) does not apply here. Neither does the second rule of **a: > a** of (86), since emphatic referents do not undergo such vowel reduction, as illustrated now in (89).

(89) **tumintá:mpéne.** *You have descended!*
[**tumu-nt''-a:mpéN-e** *descend-PERF-you(SG/EMPH)-INDIC*]

Relative to the basic set previously given, emphatic subject morphemes may be considered marked, as they are apparently derived from the basic set. Distinctions made in the basic set are retained here, including a vowel difference between first and non-first persons, a common feature marking duality, and the criss-cross pattern which reverses number in non-duals.

Derivation of emphatic from basic forms is as follows (though not necessarily in the order given): (i) change from short vowel **u** to long **o** for first person; (ii) change from **s** to **me** as the dual marker, and the addition of **me** into the criss-cross pattern following N marking (thus giving **mpe**); (iii) addition of accent; and (iv) assignment of all morphemes to the marked morphophonemic class N. The result, with allowances for uniqueness in third person singular, is the emphatic set given above in (87).

4.31(3) IMPERATIVE SUBJECT MORPHEMES

Basic and emphatic referents are never used with an Imperative mood morpheme. Instead, a special set of Imperative subject referents is used. Only second person forms of these referents occur (exclusively) with the Imperative mood morpheme -ó; first and third person referents co-occur with Indicative's -e. Imperative subject referents, which are displayed and illustrated in (90), are not derivable from the basic set of (85). Later in 7.31(1) it will be seen that a somewhat similar pattern to this occurs in future forms of the subject morphemes used in switch-reference co-ordinates, while a pattern similar to that of (85) occurs in the two sets of non-future switch-reference morphemes.

(90) IMPERATIVE SUBJECT REFERENTS:

	First Person	Second Person	Third Person
Singular	-á:N	-∅	-á:N
Plural	-á:N	-íy	-íy
Dual	-á:s	-ís	-ís

(illustrations overleaf)

E.g. tumó. *Descend!*
[tumu-Ø-ó *descend-you(SG/IMPER)-IMPER*]
tumíyó. *Descend!*
[tumu-íy-ó *descend-you(PL/IMPER)-IMPER*]
tuméné. *Let us* (or *me;* or *him*) *descend!*
[tumu-á:N-e *descend-we(PL/IMPER)-INDIC*]
tumíyé. *Let them descend!*
[tumu-íy-e *descend-they(PL/IMPER)-INDIC*]

Utilisation of the mood morpheme **-e** (which elsewhere indicates Indicative mood) softens the imperative aspect of non-second forms to give a hortatory sense. These non-second forms are usually difficult for a foreigner to elicit, since it is difficult to create a context in which simpler options are not available. The most common and reliable context for such elicitation involves the addition of the same-subject sequential morpheme **-ma** plus a closing Indicative morpheme. This structure, the syntax of which is given later in 8.2(3), may also be used with second person (which the last example of (91) illustrates). Usage of **-ma** in this way is difficult to gloss, with *Okay let's go* or *Let's go then* as the type of meaning communicated.

(91) tuménémawé. *Let us* (*PL/DL;* or *me;* or *him*) *descend then!*
tumu-á:N-e-ma-e *descend-we(PL/IMPER)-INDIC-SEQ-INDIC*]
tumíyémawé. *Let them descend then!*
[tumu-íy-e-ma-e *descend-they(PL/IMPER)-INDIC-SEQ-INDIC*]
tumíyómawé. *Descend then!*
[tumu-íy-ó-ma-e *descend-you(PL/IMPER)-IMPER-SEQ-INDIC*]

Morphophonemically, the general rule of **a:> e** following root types **i**, **ai**, **u** (see 3.54) applies, as seen in the first example of (91) above. Two other rules apply specifically in relation to these imperative referents. Firstly, an accent is induced on any Indicative morpheme occurring within the same word, as shown in all three examples of (91). Secondly, first person dual is alternatively rendered -á:y, as illustrated below in (92).

(92) VARIANTS OF IMPERATIVE SUBJECT MORPHEMES:

a: > e / VRt{i;ai;u}___ ;
e > é / *SUBJ(IMPER)*___(ma___) ;
-á:s ~ -á:y .

E.g. **tumésémawé ~ tuméyémawé**. *Let us both descend then!*
[tumu-á:s~á:y-e-ma-e *descend-we(DL/IMPER)-INDIC--SEQ-INDIC*]

4.32 Tense

In Fore, Tense includes the aspectual notion of degree of completeness of an action. In most instances, a temporal definition is adequate to cover the intentions of a speaker, but there are situations in which a Tense morpheme occurs contrary to its normal temporal usage, and so highlights the aspect of completion or non-completion of an action which it contains.

Verbs in Fore may occur without a morpheme marking Tense, as was indicated by the bracketting (for optionality) of Tense in the formula given earlier for independent inflexions (83). When no tense is indicated in independent inflexions, the action is considered current. In illustrations without a marker of tense, the gloss is therefore usually given in the English present. English's past tense would have been just as appropriate (and is sometimes given), as the temporal span usually inferred includes events of this day up until the immediate moment. An event of the previous night will also usually be left uncoded for tense, since the end of the previous day effectively passes once sleeping has commenced.

(93) **kanaye**. *He comes; He is coming;*
He came; He was coming.
[kana-y-e *come-he-INDIC*]

kanáo. *Come!*
[kana-Ø-o *come-you(SG/IMPER)-IMPER*]

As shown in the first example of (93) above, Fore does not usually indicate any distinction between punctiliar and continuous actions.[73] This is true whether or not a tense morpheme is present. Secondly, whenever an imperative subject referent is used, as in the second example, tense is obligatorily unmarked.

Incorporation of both temporal and aspectual considerations in tense marking is not peculiar to Fore. Bee (1973: 252), in her study of the neighbouring Usarufa (a language of the Eastern family), states that "the Usarufa tense-aspect category is primarily one of aspect rather than time, although a time component is involved." In Fore, the aspectual attribute of a tense morpheme has to do with the relative completeness of an action. Thus, usage of a Past tense morpheme may indicate completed action; Perfect tense may denote a complete action whose result is current; expected fulfilment of an action is usual with Future tense usage; lack of such expectation is a feature of Dubitative usage.

In the Fore examples given below in (94), the usual temporal meaning of the Perfect tense (that of remote past) is given in the first illustration. However, in response to the question *Did he come?* (second illustration), either of the answers given are possible, both being applicable to today's events.

(94) kanantíyé. *He came (a long time ago).*
[kana-nt''-y-e *come-PERF-he-INDIC*]

kanayó. *Did he come?*
[kana-y-ó *come-he-INTERR*]

kanaye. *He came;*
[kana-y-e *come-he-INDIC*]
Or: kanantíyé. *He has come.*
[kana-nt''-y-e *come-PERF-he-INDIC*]

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[73]Unlike many of the languages of the same family, Fore does not have a verb prefix to mark an action as continuous, such as Gahuku's progressive marker no- (Deibler, 1976:13). Fore instead may show continuity by stem compounding as described in 4.23, as in kanamíye *He is coming* [kana-mi-y-e *come-be--he-INDIC*].

Sometimes a Past tense will be used in a future context (thus assuming the completeness of an action), or a Future tense may be used in a past context (to highlight incompleteness of an action already performed). A change in tense marking may also be used to signal the denouement of a well-told narrative. As the story-teller approaches his climax, he may change from the Perfect tenses he has been using, into Past forms; and then as his story peaks, into unmarked forms. Once the denouement has passed, reversion to the original Perfect tense usage occurs. Such a narrative has been given by Scott (1973:49f).

4.32(1) PAST TENSE

Use of the Past tense morpheme **-'tá** usually signifies the occurrence of an event any time from yesterday back to about a week ago.

The Past tense morpheme **-'tá**, a Class V morpheme, undergoes predictable vowel fusion when followed by unrounded vowels. For some reason in the Northern dialect (which is the basis of this account), rounded vowels cause elision of the **a** vowel, so that **-'tá** is effectively **-'t'** in such instances, as shown in (95), where the asterisk marks unacceptability.

(95) VARIANT OF PAST TENSE MORPHEME:

-'tá > -'t' / __{u;o}.

E.g. **kana'tá:ne.** *You came; You were coming.*

[**kana-'tá-a:N-e** *come-PAST-you(SG)-INDIC*]

kana'táine. *He came!; He was coming!*

[**kana-'tá-íN-e** *come-PAST-he(EMPH)-INDIC*]

kana'túwe. *I came; I was coming.*

(But not: ***kana'táuwe**)[74]

[**kana-'tá-u-e** *come-PAST-I-INDIC*]

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[74] This is actually the acceptable form in the Central dialect, where **kana'túwe** is unacceptable.

4.32(2) PERFECT TENSE

The Perfect tense morpheme **-nt''**, when used purely temporally, signifies that period of time prior to that of Past tense. Thus, any event further back than a week or so ago will normally receive a Perfect tense encoding.

(96) **kanantúwé**. *I came; I was coming (a long time ago).*
[kana-nt''-u-e *come-PERF-I-INDIC*]

kanantáné. *You came; You were coming (a long time ago).*
[kana-nt''-a:N-e *come-PERF-you(SG)-INDIC*]

kanantíyé. *He came; He was coming (a long time ago).*
[kana-nt''-y-e *come-PERF-he-INDIC*]

As already noted, the Perfect tense is also used to encode an action which has been completed (irrespective of when it was performed), but whose results are still current. This aspect was illustrated earlier in (94).

This aspectual usage has led to an abnormality in verbs formed from the existential stems **mi** *be (animate)* and **wai** *be (inanimate)*. The common usage with these stems of the Perfect morpheme in its aspectual sense has led to its reduplication whenever a remote past action is envisaged. This abnormality, as illustrated in (97), occurs only with these stems, and results in the only special morphophonemic rule additionally required for Perfect tense marking. This rule is necessary to add the vowel **a** as a transition between adjacent tense morphemes.[75]

[75] Mention has already been made of the possibility of analysing such a morpheme as commencing with a vowel in inderlying form, to give **-ant''** (see earlier footnote 50). If that analysis were followed, this would be the only instance where vowel fusion rules of 3.21(1) would not apply to elide the central vowel.

(97) VARIANTS OF PERFECT TENSE MORPHEME:
nt'' > ant'' / nt''___ .

E.g. miye. *He is (there); He was (there, today).*
[mi-y-e *be-he-INDIC*]

mintíyé. *He is (there, even now).*
[mi-nt''-y-e *be-PERF-he-INDIC*]

mintántiyé. *He was (there, a long time ago).*
[mi-nt''-nt''-y-e *be-PERF-PERF-he-INDIC*]

So strong is this reduplicative pattern for these two stems, that reduplication may also occur in Past tense forms (of these two verbs only), where it is, in fact, the preferred rendition.

(98) mi'táye. *He was (there).*
[mi-'tá-y-e *be-PAST-he-INDIC*]

mi'tá'táye. *He was (there).*
[mi-'tá-'tá-y-e *be-PAST-PAST-he-INDIC*]

4.32(3) FUTURE TENSE

The Future tense morpheme -'kubu is used in most instances where an action is yet to occur.

(99) kana'kubompéne. *We will come!; We will be coming!*
[kana-'kubu-ompéN-e *come-FUT-we(PL/EMPH)-INDIC*]

Morphophonemically, -'kubu acts as a verb root, in that any immediately following a: changes to e, as given previously in (86, 88). For no apparent synchronic reason, -'kubu reduces to -'ku preceding u and y. Both -'kubu and -'ku act as though they were verb roots in vowel elision and harmony, in that the final u is elided when preceding a vowel, or harmonises by changing to i before y. The first u of the longer form also harmonises, by changing to i when the following vowel is unrounded. Vowel harmony rules were given in 3.54.

(100) VARIANTS OF FUTURE TENSE MORPHEME:

'kubu > 'ku / ___{u;y} ;
u > Ø / {'kub;'k}___ *VOWEL* ;
'ku > 'ki / ___y ;
'kub > 'kib / ___ *UNROUNDED VOWEL*.

E.g. kana'kuwe. *I shall come; I shall be coming.*
[kana-'kubu-u-e *come-FUT-I-INDIC*]

kana'kiye. *He will come; He will be coming.*
[kana-'kubu-y-e *come-FUT-he-INDIC*]

kana'kibene. *You shall come; You shall be coming.*
[kana-'kubu-a:N-e *come-FUT-you(SG)-INDIC*]

4.32(4) DUBITATIVE TENSE

When an action is intended, but with much doubt that it may be performed, the Dubitative morpheme -s may be used.

(101) kanasiye. *He may come; He may be coming.*
[kana-s-y-e *come-DUBIT-he-INDIC*]

kanasiyó. *May he come?; Should he come?*
[kana-s-y-ó *come-DUBIT-he-INTERR*]

kanasinó. *Should you come?; Are you intending to come?*
[kana-s-a:N-ó *come-DUBIT-you(SG)-INTERR*]

The Dubitative morpheme occurs only with the basic set of subject suffixes, given earlier in (85). It also usually occurs in association with the Interrogative mood, but in certain contexts Indicative mood is allowable. So strong is the preference for Interrogative mood that some speakers totally reject the first example of (101), giving either the second of (101), or the second of (100), as the acceptable form.

An interesting corollary is that only with Dubitative marking is the Interrogative completely acceptable in first person forms, since it is only here that first person and Interrogative mood are considered semantically compatible by Fore speakers. Usage of other tenses with Interrogative mood may become acceptable only in highly specific contexts. Thus the first example of (102) will mostly be regarded as unacceptable, to be replaced by the second.

(102) kana'kuwó. *Will I come?*
[kana-'kubu-u-ó *come-FUT-I-INTERR*]
kanasuwó. *Should I come?; May I come?*
[kana-s-u-ó *come-INTENT-I-INTERR*]

Chapter 5

BASIC NON-VERB MORPHOLOGY

5.1 Introduction

As already noted, a major morphological distinction exists between verb and non-verb structure. Unlike the verb stem which never occurs without one or more suffixes, the non-verb stem may stand alone as a complete word, or in the case of a locative, requiring only a locative morpheme attached to the stem. The addition of a mood morpheme to all but the exclamations then allows these non-verbs to be grammatically acceptable as independent utterances.

(103) yogawe. *(It is a) garden.*
[yoga-e *garden-INDIC*]

kewé. *Who (is it)?*
[ke'-e *who?-INDIC*]

tarawe. *(There are) two.*
[tara-e *two-INDIC*]

toganáwe. *(It will be) later.*
[toganá-e *later-INDIC*]

karusuwe. *(It is) quickly.*
[karusu-e *quickly-INDIC*]

abe'ìwe. *(It is) outside.*
[abe'Q-i-e *outside-to-INDIC*]

a'a. *No!*
[a'a *no*]

Case marking is effected by the addition of a case morpheme to the last word of the noun phrase, or to a temporal or locative adverb. Since the marking of case is applicable to the phrase, it is not handled as part of the basic non-verb given in this chapter, but is presented as part of clause composition in the following chapter.

5.2 THE NOUN

A noun consists of a noun base which may be inflected for possession. The base itself usually consists of a single noun stem, but may also be a two-stem compound, or be derived through nominalisation or diminution.

(104) COMPOSITION OF NOUN:

Noun → Noun Base + (Possessive);

$$\text{Noun Base} \longrightarrow \left\{ \begin{array}{l} \text{Stem + (Stem)} \\ \text{Derived Stem} \end{array} \right\}.$$

E.g. napa:wé. *(It is) my father.*
[na-pa:ʹ-e *my-father-INDIC*]
NSt

naba:néné. *(It is) my father.*
[na-pa:ʹ-néʹN-e *my-father-my-INDIC*]
NSt Poss

nanonába:wé. *(They are) my parents.*
[na-noʹ-na-pa:ʹ-e *my-mother-my-father-INDIC*]
NSt NSt

naya:'pisáenawe. *(It is) the (work) of my hands.*
[na-ya:ʹN-piN-sa-ena-e *my-hand-in-from-NOMZ-INDIC*]
Derived NSt (Nomz)

yagará:ntowé. *(It is a) child.*
[yagara:ʹ-antoʹ-e *man-DIMIN-INDIC*]
Derived NSt (Dimin)

5.21 Noun Stem

A noun stem consists either of a root only, or of a pronominal referent plus root. This referent indicated inalienable possession which must be present with some roots, but is obligatorily absent from the remainder.

(105) COMPOSITION OF NOUN STEM:

Noun Stem ⟶ <Referent> + Root.

E.g. **yogawe**. *(It is a) garden.*
[yoga-e *garden-INDIC*]
NRt

nagewe. *(It is) my name.*
[na-ke-e *my-name-INDIC*]
Ref NRt

5.21(1) NOUN ROOT

Morphophonemically there are two types of noun root: those whose long vowels shorten when preceded by other items within a noun phrase; and those whose vowels undergo no change. Vowel reduction, which was described earlier in 3.3, is in no way related to the occurrence of the pronominal referent prefix, as will be seen in (106), where the descriptive **aogi** *good* is added ahead of each noun.

(106) **koné**. *(It is a) netbag;*
aogi kune. *(It is a) good netbag.*
[ko'Q-e *netbag-INDIC*]

kowé. *(It is a) trap;*
aogi kowe. *(It is a) good trap.*
[ko'-e *trap-INDIC*]

nagewe. *(It is) my name;*
aogi nagiwe. *Mine (is a) good name.*
[na-ke-e *my-name-INDIC*]

nagewé. *(It is) my ear.*
aogi nagewé. *Mine (is a) good ear.*
[na-ke'-e *my-ear-INDIC*]

5.21(2) REFERENT PREFIX

The referent prefix, which occurs within certain noun stems, marks inalienable possession. This prefix takes the same form as that which marks object in some verb stems, as already given in 4.21(3). The forms given there are reproduced here in (107) for convenience.

(107) PRONOMINAL REFERENT PREFIXES:

	First Person	Second Person	Third Person
Singular	na-	ka-	a-
Plural	ta-	ti-	i-
Dual	tasi-	tisi-	isi-

E.g. kagewe. *(It is) your name.*
[ka-ke-e *your(SG)-name-INDIC*]

igewe. *(They are) their names.*
[i-ke-e *their(PL)-name-INDIC*]

tasigewe. *(They are) our names.*
[tasi-ke-e *our(DL)-name-INDIC*]

Most kin and quasi-kin terms, and most names of body parts, require the incorporation of a referent prefix within their stem. In the examples given in (108), this referent has been given in its first person singular form. Also included as the last two examples of (108) are the only two body exudations which are also inalienably possessed.

(108) SOME KIN & QUASI-KIN:[76]

naya:bámawé. *(It is) my ancestor.*
naba:wé. *(It is) my father.*
na'ná:ntowé. *(It is) my younger sibling.*
naontowe. *(It is) my sister-in-law's husband.*
nagaya:we. *(It is) my agemate.*
naone. *(It is) my friend; (It is) my kinsman.*
naga:'nuwe. *(It is) my grandchild.*

SOME BODY PARTS & EXUDATIONS:

ná'none. *(It is) my head.*
naowe. *(It is) my eye.*
nanta:we. *(It is) my intestines.*
narowe. *(It is) my penis.*
nagainé. *(It is the) calf of my leg.*
náesewé. *(It is) my perspiration.*
nampa:we. *(It is) my nose mucus.*

Kin terms which do not take the referent prefix are given in (109), where it will be seen that the last four terms must be inflected for possession for kin meaning to be established. This inflexion is otherwise optional.

(109) KIN TERMS WITHOUT REFERENT PREFIX:

á'ta:wé. *(It is) a grandfather.*
á:rowé. *(It is) a grandmother.*
á:buwé. *(It is) a paternal uncle.*
pa:'pá:we. *(It is) a maternal uncle.*

karená:nené. *(It is) my father-in-law.*
(From: karená:wé *(It is) an old man*)
aentá:nené. *(It is) my mother-in-law.*
(From: aentá:we *(It is) an old woman*)
yagara:néné. *(It is) my son.*
(From: yagara:wé *(It is) a man*)
araganéné. *(It is) my daughter.*
(From: aragáwé *(It is) a girl*)

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[76] For a complete listing of kin terminology, see Scott (1975b).

Only two body parts do not take the referent prefix. These are **nónoné** *(It is) a breast* (which is also used for *milk*, an exudation), and **wasanánené** *(It is) my pupil* (which comes from **wasanáwe** *(It is) a person*, and must be inflected by a possessive suffix to stand as a body-part).

5.22 Stem Compounding & Derivation

5.22(1) COMPOUNDING

When two noun stems occur together within the same noun phrase, it is usual that the first acts as a descriptive qualifying the second. This is illustrated below in (110), and described later in 6.21(3) as part of noun phrase structure.

(110) ya'kú ntamáne. *(It is) a house for fire (burning/wood).*
[ya'kú'N *fire;* na:máN-e *house-INDIC*]

ísa'a: yúgawe. *(It is) a sweet-potato garden.*
[ísa'a:' *sweetpotato;* yoga-e *garden-INDIC*]

There are, however, other occasions where two nouns are used together, each complementing the other, to provide a composite meaning. This compounding of stems forms a single noun base, as will be seen in the examples given in (111).

(111) nanonába:wé. *(They are) my parents.*
[na-no'-na-pa:'-e *my-mother-my-father-INDIC*]

aragáyágarawé. *(They are) children.*
[aragá'-yagara:'-e *girl-man-INDIC*]

úmugába:wé. *(They are) wild animals.*
[úmu'-kaba:'-e *rat-bug-INDIC*]

5.22(2) NOMINALISATION

Further fillers of noun base position may be derived through the addition of what I have termed a 'nominalising' suffix **-ena** directly to the stem of many non-verbs (including nouns) and some adjuncts.[77] For some reason as yet unknown, the form of **-ena** following a Class N morpheme does not conform to morphophonemic rules given in 3.21(1), in that **-ntana** (and not **-nkena**) is the resultant form, with **-ntena** as marginally acceptable.

(112) yagaráenawe. *(It is) child-bearing.*
[yagara:'-ena-e *man-NOMZ-INDIC*]
Noun

wanïntanawe. *(It is) becoming liquid.*
[wanïN-ena-e *water-NOMZ-INDIC*]
Noun

na:náenawe. *What (is) happening?*
[na:ná-ena-e *what?-NOMZ-INDIC*]
Interr

ma:ntánawe. *(It is) this thing.*
[má:'N-ena-e *this-NOMZ-INDIC*]
Dem

igáenawe. *(It is) sweetness.*
[iga:'-ena-e *sweet-NOMZ-INDIC*]
Desc

karu'enawe. *(It is) in a quick manner.*
[karuQ-ena-e *quickly-NOMZ-INDIC*]
Adv

ika:ntanawe. *(It is the) act of buying.*
[ika:N-ena-e *buy-NOMZ-INDIC*]
Ajt

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[77] Further investigation is required before this statement may be made more specific. Pronouns are nominalised only after taking marking as an oblique case, and are thus actually noun phrases marked as genitives. E.g. náe'enawe *(It is) mine* [náe'- Q-ena-e *I-OBL-NOMZ-INDIC*]. Noun phrases in genitive case are mentioned next paragraph.

Noun phrases with Genitive or Ablative case marking may also be nominalised to perform the function of a noun base. So may relative clauses, as illustrated in the last example of (113).[78]

(113) te'té yaga:mantanawe. *(It is) property of the red pig.*
[te'té *red;* yaga:-ma-N-ena-e *pig-DLN-OBL-NOMZ-INDIC*]
NP(Gen)

paisa namá'pisaenawe. *(It is) contents of the old house.*
[paiQ-sa *longago-from;* na:máN-piN-sa-ena-e *house-in--from-NOMZ-INDIC*]
NP(Abl)

máe'te kanáontánawe. *(It is) that which I brought.*
[máe-'te *get-SIMU;* kana-ó'N-ena-e *come-I(EMPH)-NOMZ--INDIC*]
RelCl

In acting as noun bases, these derived forms are able to take diminution and possessive suffixation, which are given in the next two sub-sections.

5.22(3) DIMINUTION

Noun bases may also be derived by adding the Diminutive morpheme **-anto'** *little* to many non-verb bases (but not to Interrogatives, locatives or exclamations, and only to the exclusive form of the pronoun given in 5.31(2)), and even to the nominaliser **-ena**. All such derived forms only appear in the head position in noun phrases, and so must be regarded as derived noun stems, irrespective of their source.

[78] See formation of Genitive case in 6.31(5); Ablative case in 6.31(8); Relative clauses in 7.41.

(114) yaga:ntowé. *(It is a) little pig.*
[yaga:-anto′-e *pig-little-INDIC*]
Noun

nábintówé. *(It is) only I alone.*
[nábi′-anto′-e *I(EXCL)-little-INDIC*]
Pro(Excl)

ma:nkántowé. *(It is) only this.*
[má:′N-anto′-e *this-little-INDIC*]
Dem

te'téntowé. *(It is a) little red (one).*
[te'té-anto′-e *red-little-INDIC*]
Desc

tarantowé. *(There are) only a few.*
[tara-anto′-e *two-little-INDIC*]
Num

iba:ntówé. *(It is) now.*
[iba:′-anto′-e *today-little-INDIC*]
Temp

na:náenantowé. *What little thing (is) happening?*
[na:ná-ena-anto′-e *what?-NOMZ-little-INDIC*]
Nomz

While **-anto′** denotes smallness in size or quantity, it is also used to denote insignificance (as seen among the examples above), or in some instances (as with kin or quasi-kin), endearment.

(115) nao'antowé. *(It is) my dear friend.*
[na-oQ-anto′-e *my-friend-little-INDIC*]

This diminutive suffix may also be reduplicated (once only) to indicate plurality.[79]

[79]Two words commonly found with reduplication of the diminutive undergo the addition of a glottal stop within their root (one also has a syllable reduplicated). Such a change does not ....

(116) kankábentowé. *(It is a) little bowl; (They are) little bowls.*
[kankábe-anto'-e *bowl-little-INDIC*]

kankábentóntowé. *(They are) little bowls.*
[kankábe-anto'-anto'-e *bowl-little-little-INDIC*]

ya'kúnkántowé. *(It is a) small amount of firewood; (It is) small firewood.*
[ya'kú'N-anto'-e *firewood-little-INDIC*]

ya'kúnkantóntowé. *(They are) little bits of firewood.*
[ya'kú'N-anto'-anto'-e *firewood-little-little-INDIC*]

5.23 Possessive Inflexion

A pronominal possessive suffix may be attached to a noun base. This suffix must agree in number and person with any immediately preceding word phrase which is marked for Genitive case. This is illustrated in the last two examples of (117) below.

(117) na:mánka:né. *(It is) his house.*
[na:máN-wá:'N-e *house-his-INDIC*]

naba:néné. *(It is) my father.*
[na-pa:'-né'N-e *my-father-my-INDIC*]

kana: yagaramá ntamánka:né. *(It is) that man's house.*
[kana: *mentioned;* yagara:'-ma-N *man-DLN-OBL;* (Gen)
na:máN-wá:'N-e *house-his-INDIC*]

náe 'naba:néné. *(It is) my father.*
[náe'- Q *I-OBL;* (Gen) na-pa:'-né'N-e *my-father-my-INDIC*]

... occur when only one diminutive morpheme is included. These are: ya'kará:ntóntowé. *(They are) little children;*
[yagara:'-anto'-anto'-e *man-little-little-INDIC*]
ara'tágantóntowé. *(They are) little girls.*
[aragá'-anto'-anto'-e *girl-little-little-INDIC*]
as compared with:
yagará:ntowé. *(It is a) young lad;*
[yagara:'-anto'-e *man-little-INDIC*]
aragántowé. *(It is a) young girl.*
[aragá'-anto'-e *girl-little-INDIC*]

The full display of possessive suffixes is now given in (118).

(118) PRONOMINAL POSSESSIVE SUFFIXES:

	First Person	Second Person	Third Person
Singular	-né'N	-ká:'N	-wá:'N
Plural	-té'N	-tí'N	-wái'N
Dual	-tési'N	-tísi'N	-wáisi'N

E.g. na:má'ka:né. *(It is) your house.*
[na:máN-ká:'N-e *house-your(SG)-INDIC*]

na:mánkainé. *(It is) their house; (They are) their houses.*
[na:máN-wái'N-e *house-their(PL)-INDIC*]

na:má'tésiné. *(It is) our house; (They are) our houses.*
[na:máN-tési'N-e *house-our(DL)-INDIC*]

These possessive suffixes show the same patterning as the referent prefixes given in (107), and are even more like the appositional pronouns displayed later in (123). Obviously these sets are all derived from the same source. To derive the possessive suffixes given above in (118) from the appositional pronouns of (123), the rules would be: (i) change of **a:** > **e** in first person occurrences (or: following alveolar consonants); (ii) the addition of accents; and (iii) re-assignment of all morphemes to Class N. These rules may appear somewhat ad hoc, but the **a:** > **e** change occurs elsewhere in a different environment (3.54), while addition of accent and assignment to Class N are both used to indicate emphasis in subject referent morphemes (4.31(2)).

It is usual for this possessive inflexion to agree in number and person with any referent prefix which may occur, as shown in the first example of (119). This, however, is not a syntactic requirement, for it is quite possible for someone to possess something without being the inalienable possessor, as shown in the second example of (119). In such an instance, the possessive prefix is always third singular.

(119) naba:néné. *(It is) my father.*
[na-pa:'-né'N-e *my-father-my-INDIC*]

awasenéné. *(It is) my piece of (pig's) meat.*
[a-wase'-né'N-e *its-flesh-my-INDIC*]

5.3 OTHER NON-VERBS

5.31 Personal Pronouns

Personal pronouns have also been derived from the same source as the pronominal affixes given in (107, 118, 123). There are two free-form sets of the pronoun, and a further set which occurs as a post-clitic.

5.31(1) GENERAL SET

Derivation of the general set of free-form pronouns from the prefixed set of (107) may be effected by the addition of -ge plus accents, with the option of omitting the g when it is preceded by a. The full set, plus options, is given in (120).

(120) PERSONAL PRONOUN STEMS:

	First Person	Second Person	Third Person
Singular	{náe' náge'}	{káe' káge'}	{áe' áge'}
Plural	{táe' táge'}	tíge'	íge'
Dual	tasíge'	tisíge'	isíge'

Shorter forms are currently in more common usage. These short forms occur where the omission of the consonant g results in reduction of the number of syllables. This occurs following **a**, since **a** + **e** > **ae**, in keeping with vowel fusion rules for Class V morphemes given in 3.21(1). Since **i** + **e** > **iye** under those same rules, the **ige** sequences of the remaining pronouns do not reduce.

5.31(2) EXCLUSIVE SET

A second set of free-form pronouns may be derived by the addition of **-bi** plus accents. Use of this set infers that only the referent/s, and no other persons, are involved, as in **tisíbi'** *you two only*. The full set is given in (121).

(121) PERSONAL PRONOUN STEMS (EXCLUSIVE):

	First Person	Second Person	Third Person
Singular	**nábi'**	**kábi'**	**ábi'**
Plural	**tábi'**	**tíbi'**	**íbi'**
Dual	**tasíbi'**	**tisíbi'**	**isíbi'**

As mentioned earlier, the diminution morpheme **-anto'** may be added to this exclusive set of pronouns, but not to the general set. This has already been illustrated by the second example of (114).

5.31(3) REFLEXIVE FORMS

A reflexive form of the personal pronoun is brought into being whenever a possessive suffix from the display in (118) is added. Both general and exclusive pronoun stems may be inflected in this way.

(122) náenené. *(It is) I myself.*
[náe'-né'N-e *I-my-INDIC*]

nábinéné. *(It is) I myself alone.*
[nábi'-né'N-e *I(EXCL)-my-INDIC*]

5.31(4) APPOSITIONAL PRONOUNS

The appositional pronoun occurs as a post-clitic which may be added only to nouns or pronouns denoting humans, including the interrogative pronoun ke' *who?*. An appositional pronoun may be used metaphorically, as shown in the last example of (123). The full set of these clitics is now given.

(123) APPOSITIONAL PRONOUNS:

	First Person	Second Person	Third Person
Singular	-na:	-ka:	-wa:
Plural	-ta:	-ti	-wai
Dual	-ta:si	-tisi	-waisi

E.g. wará:we. *We are humans.*
[wa'-ta:-e *man-we(PL)-INDIC*]

isigewáisi 'kéwáisiwe. *Who are they, their names?*
[isi-ke-wáisi'N *their(DL)-name-their(DL);*
ke'-waisi-e *who?-they(DL)-INDIC*]

aogi yagaraná: kanauwe. *I, the good man, come.*
[aogi *good;* yagara:'-na: *man-I;*
kana-u-e *come-I-INDIC*]

kara:gá:we. *You are a dog.*
[kara:'-ka:-e *dog-you(SG)-INDIC*]

As mentioned previously, it is obvious that these appositional pronouns and the referent prefixes of (107) have arisen from the same source, since the rules to derive one from the other are so simple. For instance, if referent prefixes were derived from appositional pronouns, the rules would be: (i) w > Ø; (ii) a: > a; (iii) ai > i.

5.32 Interrogatives

Fore has four monomorphemic interrogative stems: **ae'** *where?;* **ayá:** *how?;* **ke'** *who?;* **na:ná** *what?.* Where these are used, no Interrogative mood marker may occur. Instead, the mood marker takes the form of the Indicative, and is so glossed in all examples given. This mood marker takes an accent whenever it is not attached to the word containing the interrogative pronoun, as illustrated now in (124).

(124) **na:náwe.** *What is (it)?*
[**na:ná-e** *what?-INDIC*]

na:ná máeya:né. *What did you get?*
[**na:ná** *what?;* **máe-a:N-e** *get-you(SG)-INDIC*]

The interrogative locative **ae'** *where?* may occur alone in a locative function, or it may be marked for Locative or Ablative case, or function as a descriptive. When used other than alone as a locative adverb, **ae'** changes its morphophonemic class to Class N, a phenomenon also undergone by demonstratives, as given next sub-section.

(125) **ae wá:né.** *Where are you going?*
[**ae'** *where?;* **wa-a:N-e** *go-you(SG)-INDIC*]

ae'tá 'wa:né. *Where are you going?*
[**ae'N-taQ** *where?-at;* **wa-a:N-e** *go-you(SG)-INDIC*]
Loc

ae'tása kana:né. *Where have you come from?*
[**ae'N-taQ-sa** *where?-at-from;* **kana-a:N-e** *come-you(SG)--INDIC*]
Loc Abl

ae ntámané. *Which house (is it)?*
[**ae'N** *where?;* **na:máN-e** *house-INDIC*]

The interrogative **ayá:** *how?* functions as an adverb of manner, or as a descriptive, as shown in the first two examples of (126). In the last two examples, and these alone, **ayá:** has undergone change of class to Class N as further interrogatives have been derived from it.

(126) **ayá: pené.** *How do you do?; How are you?*
[**ayá:** *how?;* **pu-a:N-e** *do-you(SG)-INDIC*]

ayá: yagarawé. *Which man (is it)?; What kind of man (is he)?*
[**ayá:** *how?;* **yagara:'-e** *man-INDIC*]

ayá:ntagáwé. *When (is it)?*
[**ayá:N-yagá'-e** *how?-day-INDIC*]

ayá:'kiné. *How many (are there)?; How much (is it)?*
[**ayá:N-kí'Q-e** *how?-sum-INDIC*]

The personal interrogative **ke'** *who?* functions as a proper noun in that it may not be inflected for possession, although case marking (including the Genitive) may be added.

(127) ke kánayé. *Who comes?*

[ke′ *who?;* kana-y-e *come-he-INDIC*]

ke'tása máeya:né. *From whom did you get (it)?*

[ke′-N-taQ-sa *who?-OBL-at-from;* máe-a:N-e *get-you(SG)--INDIC*]

Loc Abl

ke ntáninta:wé. *Whose food (is it)?*

[ke′-N *who?-OBL;* naninta:-e *food-INDIC*]

Gen

The interrogative na:ná *what?* functions as a pronoun which is inanimate. It may be inflected for possession, and may be used with case morphemes.

(128) na:ná máeya:né. *What did you get?*

[na:ná *what?;* máe-a:N-e *get-you(SG)-INDIC*]

aebá na:nánempáwe. *What (relationship) is he to me?*

[áe′-pa *he-FOC;* na:ná-né′N-ma-e *what-my-DLN-INDIC*]

Poss

na:nága máeya:né. *Why did you get (it)?*

[na:ná-ka *what?-concerning;* máe-a:N-e *get-you(SG)--INDIC*]

Reft

5.33 Demonstratives

In addition to descriptive and pronominal functions, the demonstrative stems given below in (129) are used in two locative functions. As verb-modifying locatives, they appear as members of morphophonemic Class V, which could be considered the unmarked class. When used in their other functions, they change class and appear as Class N morphemes. The full set is as follows:

(129) DEMONSTRATIVE STEMS:

Distance from Speaker →

			máe' *(that) up there (close)*		mayó' *(that) up there (distant)*
Vertical Relationship to Speaker ↕	má:' *(this) here (proximity)*	pí' *(that) there*	mí' *(that) over there (close)*	maré' *(that) over there (mid)*	maró' *(that) over there (distant)*
			mé' *(that) down there (close)*		mó' *(that) down there (distant)*

5.33(1) VERB-MODIFYING FUNCTION

In this locative function, demonstratives occur as verb-modifiers within the verb complex (as given later in 6.25). In this function, they must immediately precede the verb being modified.

(130) ma: kánauwe. *I have come here.*
[má:' *here;* kana-u-e *come-I-INDIC*]

mó waintíyé. *It is down there.*
[mó' *downthere(distant);* wai-nt''-y-e *be-PERF-it-INDIC*]

5.33(2) DESCRIPTIVE & PRONOMINAL FUNCTIONS

As indicated above, a demonstrative used in descriptive or pronominal finction occurs are a Class N morpheme. Then, as a pronoun, it may be inflected for possession.

(131) mó ntamané. *(It is) that house down there.*
[mó'N *thatdownthere(distant);* na:máN-e *house-INDIC*]
(Desc)

mómpa míntiyé. *He is down there.*[80]
[mó'N-má' *thatdownthere(distant)-ground;* mi-nt''-y-e *be-PERF-he-INDIC*]
(Desc)

mó mpaeyíyó. *Get that (which is) down there!*
[mó'N *thatdownthere(distant);* máe-íy-ó *get-you(PL)-IMPER*]
(Pro)

móntené. *That down there (is) mine.*
[mó'N-né'N-e *thatdownthere(distant)-my-INDIC*]
(Pro) Poss

It is this Class N form also which is used for derivatives constructed through nominalisation or diminution.

(132) montánawe. *(It is) that which is down there.*
[mó'N-ena-e *thatdownthere(distant)-NOMZ-INDIC*]

monkántowé. *(It is) only that down there.*
[mó'N-anto'-e *thatdownthere(distant)-DIMIN-INDIC*]

5.33(3) CLAUSE-MODIFYING FUNCTION

A demonstrative may also occur filling the Location slot in a clause, where it indicates location of the participants as well as the action. Once again the demonstrative stem appears in its Class N form.

This locative usage where the demonstrative stem may be separated from the verb, as shown in the first example of (133), explains the difference in surface forms between the second and third examples of (133) which contrast clause-modifying

[80] Although the demonstrative functions here as a descriptive, this combination of descriptive plus noun has become fossilised as a locative, and thus requires no locational case marking as would a noun phrase. Consequently, the combination has been written as a single word.

and verb-modifying functions respectively. Clause-modifying usage, however, may lead to ambiguity as shown in the last two examples, where it and the pronominal function have no formal contrastiveness.

(133) mó nkae túmiye. *He is down there descending.*
[mó'N *downthere(distant);* áe' *he;* tumu-y-e *descend--he-INDIC*]

ma: nkíyuwe. *I ascend here.*
[má:'N *here;* i-u-e *ascend-I-INDIC*]

ma: íyuwe (i.e. máiyuwe). *I ascend here.*
[má:' *here;* i-u-e *ascend-I-INDIC*]

ma: nkágaye. *He sees it here.*
[má:'N *here;* a-ka-y-e *it-see-he-INDIC*]

ma: nkágaye. *He sees this.*
[má:'N *this;* a-ka-y-e *it-see-he-INDIC*]

5.34 Descriptives

Descriptive stems are defined as those whose basic function is to describe or qualify a noun. A descriptive stem is unable to be inflected for possession while it remains in descriptive function, and is usually nominalised before becoming head of a noun phrase and thus able to be inflected.

(134) iga:wé. *(It is) sweet.*
[iga:'-e *sweet-INDIC*]

iga: náninta:we. *(It is) tasty food.*
[iga:' *sweet;* naninta:-e *food-INDIC*]

pi'pá igáenanéné. *Those are my sweets.*
[pí'N-pa *that-FOC;* iga:'-ena-né'N-e *sweet-NOMZ-my--INDIC*]

aga:síya:wé. *(It is) extreme.*
[aga:síya:'-e *extreme-INDIC*]

aga:síya: kináne. *(They are) awesome people.*
[aga:síya:' *extreme;* kináQ-e *being-INDIC*]

aga:síyaenábi ntasuwe. *I walk through a terrifying place.*
[aga:síya:'-ena-piN *extreme-NOMZ-in;* nasu-u-e *walk-I--INDIC*]

Interestingly, only three colour terms have descriptive bases. These are: **te'té** *red;* **tunú'N** *dark;* **taberabe'** *clear.* Other colour terms are the result of lexical expansion of noun bases, as given by Scott (forthcoming, b).

5.35 Numerals

There are two monomorphemic numerals: **ká:Q** *one;* **tara** *two.* These numeral stems differ from descriptives in their ability to occur following the head of a noun phrase, and to ake case markings in that position (while not actually the head).

(135) **na:má 'ká:'tasa máeye.** *He got (them) from one house.*
[na:máN *house;* $\underbrace{\text{ká:Q}}$-$\underbrace{\text{taQ-sa}}_{\text{Case}}$ *one-at-from;* máe-y-e *get--he-INDIC*]

na:má 'tarabi mpintáwé. *They are in two houses.*
[na:máN *house;* $\underbrace{\text{tara}}$-$\underbrace{\text{piN}}_{\text{Case}}$ *two-in;* mi-nt''-a:-e *be-PERF--they(PL)-INDIC*]

Other numbers (up to twenty) are highly stylised phrases and clauses, involving counting by means of hands and feet. These are outside the scope of this grammatical description, but are included in full in Scott (forthcoming, a).

5.36 Locatives

Locative stems differ from other non-verbs in that they must always carry a locative case marker. Furthermore, until they are nominalised, locatives are unable to be further derived by diminution, or be inflected for possession.

(136) **abe'tiwe.** *(It goes) down below;*
[abeQ-ti-e *below-to-INDIC*]

abe'tane. *(It is) down below.*
[abeQ-taQ-e *below-at-INDIC*]

amenta:ntíwe. *(It is) underneath;*
[amenta:′N-i-e *underneath-to-INDIC*] [81]

amenta:'píntiwe. *(It is) in the underneath (position).*
[amenta:′N-pinti-e *underneath-into-INDIC*]

Place names are analysed as being formed from locative stems, for like other locatives, they carry a locative case marker. There are, however, some peculiarities in place name usage. In common with other locatives, place names may be used descriptively when the ablative marker **-sa** follows their locative marker. Yet with some place names, **-sa** may alternatively be placed next to the stem (thus making the locative marker optional in that environment). Moreover, some other place names optionally drop both locative and ablative markers in descriptive usage. These options, which are specific to individual place names, are illustrated below.

(137) **mo'kentíwe.** *(It is) Moke (village);*
[mo'ke′N-i-e *Moke-to-INDIC*]

mo'kentísa kináne. *(They are) people of Moke;*
[mo'ke′N-i-sa *Moke-to-from;* kináQ-e *being-INDIC*]

mo'ke 'kínáne. *(They are) people of Moke.*
[mo'ke′N *Moke;* kináQ-e *being-INDIC*]

o'kantíwe. *(It is) Okasa (village);*
[o'ka′N-i-e *Okasa-to-INDIC*]

o'kantísa kináne. *(They are) people of Okasa;*
[o'ka′N-i-sa *Okasa-to-from;* kináQ-e *being-INDIC*]

o'kasá kináne. *(They are) people of Okasa.*
[o'ka′N-sa *Okasa-from;* kináQ-e *being-INDIC*]

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[81] Change of **i** to **nti** rather than to **nki** is given in 6.31(7).

5.37 Temporals

Temporal stems differ from nouns in that they may occur as time-words without any case marking. Nouns, on the other hand, require locative case marking for this function. Temporals may also take the ablative case marker **-sa** directly attached to the stem, an impossibility with nouns.[82] This is also an impossibility with locatives (apart from some place names) as given in the previous sub-section.

(138) **ma:rúné.** *(It is) first.*
[ma:rú'Q-e *ahead-INDIC*]

ma:rúsáwe. *(It is) from the beginning.*
[ma:rú'Q-sa-e *ahead-from-INDIC*]

paine. *(It is) long ago.*
[paiQ-e *longago-INDIC*]

paisawe. *(It is) ancient.*
[paiQ-sa-e *longago-from-INDIC*]

aiwé. *(It is) yesterday; (It is) tomorrow.*
[ai'-e *dayhence-INDIC*]

aisáwe. *(It is) old* (i.e. *from yesterday*).
[ai'-sa-e *dayhence-from-INDIC*]

5.38 Adverbs of Manner

Adverbs of manner may not be inflected for possession, nor may they take case marking. They may, however, be further derived by the addition of the diminution morpheme **-anto'**.[83] When **-anto'** is absent, an adverb of manner has a verb-modifying function, and so immediately precedes the verb it modifies. When **-anto'** is present, the adverb modifies the

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[82] There are two temporal stems which do not take ablative case marking: **toganá** *later;* **a:sá:'** *much later.*

[83] **ago** *already* is an exception, in that it is unable to take a diminution suffix.

clause as a whole, and so may be separated from the verb by other items in the clause. This distinction between verb-modifying and clause-modifying function has already been given in 5.33 as a feature of demonstratives.

(139) pasema kanaye. *He comes slowly.*
[pasema *carefully;* kana-y-e *come-he-INDIC*]

pasemanto má:mpa kánaye. *He comes here slowly.*
[pasema-anto′ *carefully-little;* má:′N-má′ *this-ground;*
kana-y-e *come-he-INDIC*]

agáro nká'kibene. *You will go soon.*
[agáro′N *impending;* wa-'kubu-a:N-e *go-FUT-you(SG)-INDIC*]

agáronkánto káe wá'kibene. *Soon you will go.*
[agáro′N-anto′ *impending-little;* káe′ *you(SG);*
wa-'kubu-a:N-e *go-FUT-you(SG)-INDIC*]

There are also two adverbs of manner which have been derived from the demonstratives má:′ *(this) here* and pí′ *(that) there.* Addition of -ya:′, which is unproductive elsewhere, results in the adverbs: máya:′ *like this;* and píya:′ *like that.* These two adverbs occur as verb-modifiers, and so immediately precede the verb they modify.

(140) máya: píye. *He does (it) like this.*
[máya:′ *likethis;* pu-y-e *do-he-INDIC*]

píya: íye. *He says (it) like that.*
[píya:′ *likethat;* u-y-e *say-he-INDIC*]

5.39 **Exclamations**

Exclamations are defined as those words which take neither verb nor noun affixation, nor form the basis of derived forms. They commonly occur in isolation.

The most common exclamations are: **a'a ~ a'áo** *no;* and **owé ~ o ~ e** *yes*. Others include: **áe ~ áeyi** *ouch!;* **wé** *hey!;* **wéne ~ wáenae** *really?;* **aera:né ~ aerawa:né** *no matter*.

Chapter 6

INTRA-CLAUSAL SYNTAX

6.1 Introduction

In this chapter I describe the grouping of words into phrases, and phrases into clauses. Many of the examples which are given in this chapter are used to illustrate less than complete utterances, and so are given without the addition of a mood morpheme. No such example is concluded by a period, since this mark has been reserved for utterances which may occur independently.

6.2 PHRASE STRUCTURE

6.21 Noun Phrases

There are four slots in a noun phrase which may be filled, although it is rare for all four slots to be represented simultaneously. As will be seen in (141), only the head word is obligatory.[84]

(141) COMPOSITION OF NOUN PHRASE:

Noun Phrase → (Demonstrative) + (Descriptive) + Head + (Numeral).

E.g. má: ntamá *this house*

[má:'N *this;* na:máN *house*]
Dem — Head

aogi nama *a good house*

[aogi *good;* na:máN *house*]
Desc — Head

na:má 'tara *two houses*

[na:máN *house;* tara *two*]
Head — Num

ma: nkáogi nama 'tara *these two good houses*

[má:'N *this;* aogi *good;* na:máN *house;* tara *two*]
Dem — Desc — Head — Num

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[84] Consequently many noun phrases consist only of a single word, as seen in the third and fourth examples of (142).

6.21(1) HEAD OF NOUN PHRASE

The head of a noun phrase is usually a noun, but may also be one of the other non-verbs taking the place of that noun.[85] Only when the head is a noun may the full range of optional qualifiers of (141) above be used. No qualifiers appear, for instance, when the head is a personal pronoun or interrogative or numeral, but a numeral may be used when the head is a demonstrative or a descriptive. Examples are given below in (142).

(142) aogi kina 'tara aborá:se. *Two good people appear.*

[aogi *good;* kináQ *being;* tara *two;* aborá-a:s-e *appear--they(DL)-INDIC*]
(Desc) Noun (Num)

isíge áborá:se. *They both appear.*

[isi-áge' *their(DL)-self;* aborá-a:s-e *appear-they(DL)--INDIC*]
Pro

ke áborá:se. *Who appears?* (i.e. *Which two appear?*)

[ke' *who?;* aborá-a:s-e *appear-they(DL)-INDIC*]
Interr

tara aborá:se. *Two appear.*

[tara *two;* aborá-a:s-e *appear-they(DL)-INDIC*]
Num

pi 'tára aborá:se. *Those two appear.*

[pí'N *that;* tara *two;* aborá-a:s-e *appear-they(DL)--INDIC*]
Dem (Num)

te'té tara aborá:se. *Two red (ones) appear.*

[te'té *red;* tara *two;* aborá-a:s-e *appear-they(DL)--INDIC*]
Desc (Num)

6.21(2) DEMONSTRATIVE SLOT

The demonstrative position, which may occur only when a noun is in the head slot, may be filled by a demonstrative or an interrogative, or by a noun phrase in Genitive case.[86]

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[85] Restrictions on which particular words may occur as head of a noun phrase has yet to be adequately investigated.

[86] All cases are presented shortly in 6.31.

(143) pí ntamá *that house*

[pí'N *that;* na:máN *house*]

Dem

ae ntámá *which house?*

[ae'N *where?;* na:máN *house*]

Interr

aegaya: ntámá *Aegaya's house*

[aegaya:'-N *Aegaya-OBL;* na:máN *house*]

NP(Gen)

áe 'namá *his house*

[áe'- Q *he-OBL;* na:máN *house*]

NP(Gen)

ke ntámá *whose house?*

[ke'-N *who?-OBL;* na:máN *house*]

NP(Gen)

pí 'kiná 'taramisi ntamá *those two people's house*

[pí'N *that;* kináQ *being;* tara-misi-N *two-DLN(DL)-OBL;*

NP(Gen)

na:máN *house*]

6.21(3) DESCRIPTIVE SLOT

The descriptive slot may be filled by a descriptive, or by a noun or numeral, or by a temporal, locative, or noun phrase in Ablative case, or by a clause which has been relativised or adapted for use in a modifying function.[87] These are illustrated below in (144).

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[87] Relative clauses, and clauses which have been adapted to function as modifiers, are given in 7.41 and 7.42 respectively.

(144) te'té ya *red timber*[88]

[te'té *red;* yá:' *tree*]
Desc

ya'kú nta *firewood*

[ya'kú'N *fire* (or *firewood*); yá:' *tree*]
Noun

tara yá *two trees*

[tara *two;* yá:' *tree*]
Num

aisá ya *old timber*

[ai'-sa *yesterday-from(ABL);* yá:' *tree*]
Temp(Abl)

abe'tisa kiná *people from down below*

[abe'ti-sa *below-from(ABL);* kináQ *being*]
Loc(Abl)

e'eró mparísa kiná *people from a long way away*

[e'eró'N *long;* má'-ti-sa *ground-to-from(ABL);*
NP(Abl)
kináQ *being*]

naninta: nayaba 'kiná *people who are always eating food*

[naninta: *food;* na-yabaQ *eat-HABIT;* kináQ *being*]
ModS

pai 'taeguntá: 'kiná *people who fought us long ago*

paiQ *longago;*[89] ta-egu'-nt''-á:'N *us(PL)-hit-PERF-*
RelS
-they(PL/EMPH); kináQ *being*]

When a noun fills a descriptive role, as in the second example of (144) above, it consists of a stem only. The resulting appearance of two adjacent nouns thus has two possible analyses: that of descriptive noun plus head noun (as

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[88] Accent realisation rules, as given earlier in 2.31, prevent the occurrence of more than two adjacent accents, and so preclude the occurrence of an accent on ya in this and in similar circumstances. This occurs because any syllable which follows (but which has not been indicated here) is to receive an induced accent.

[89] To avoid misunderstanding, whenever more than one word is used to gloss any one morpheme within square bracketting, that gloss is written as a single word, as given here. Elsewhere, such words are written separately.

given here), or that of a single noun containing two stems. In the latter, which has already been given in 5.22(1), the first noun does not qualify the second, but merges with it to form derived meaning, as illustrated now in (145).

(145) **aragáyágara** *children*
[**aragá′-yagara:′** *girl-man*]

When a numeral fills the descriptive slot, as in the third example of (144) above, it is not usual for the numeral slot following the head of the phrase to be filled. It is possible, however, to place the same numeral in both positions if the numeral is either of the basic stems **ká:Q** *one* or **tara** *two*.[90] Thus all three examples of (146) are grammatical.

(146) **ya: tára** *two trees*
[**yá:′** *tree;* **tara** *two*]

tara yá: *two trees*
[**tara** *two;* **yá:′** *tree*]

tara yá tára *two trees*
[**tara** *two;* **yá:′** *tree;* **tara** *two*]

It is possible for more than one filler to occur in the descriptive position, the ordering of which is apparently in terms of semantic proximity to the head of the phrase.[91] The

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[90] An anomaly occurs when the numeral **tara** *two* occurs both preceding and following **yagara:′** *man*. Here the second **tara** contracts to become a clitic, apparently to avoid the occurrence of three adjacent **ra** syllables: **tara yagarará** *two men* [**tara** *two;* **yagara:′-tara** *man-two*].

[91] Thus it is possible, when there is more than one modifier of the head, to regard this as evidence of noun phrase layering, with each noun phrase in turn taking head position of the next noun phrase. E.g. the first example of (147) would then be: **tara aogi te'té ya'kú nta** *two good red firewood types.*
two good red fire tree
Desc Head
Desc Head
Desc Head
Desc Head

most common order is: numeral, non-colour descriptive, other descriptive (including colour), locative or noun phrase with Ablative marking or relativised or modified sentence (these four are mutually exclusive), noun. Examples follow in (147).

(147) **tara aogi te'té ya'kú nta** *two good red firewood types*
[**tara** *two;* **aogi** *good;* **te'té** *red;* **ya'kú'N** *fire;* **yá:'** *tree*]
Num Desc Colour Noun

kana: abe'tisa yagara *the man from down below already mentioned*
[**kana:** *mentioned;* **abe'ti-sa** *below-from(ABL);* **yagara:'** *man*]
Desc Loc(Abl)

á:'ta máeya:mpé 'ku'tá *the bad goods you brought*
[**á:'ta'** *bad;* **máe-a:mpéN** *get-you(SG/EMPH);* **ko'tá:'N** *goods*]
Desc RelCl

6.21(4) NUMERAL SLOT

Within a noun phrase, only numerals may follow the head. By placing a numeral in this position, a speaker gives it more prominence than when it occurs preceding the head.[92]

(148) **tara ya'kú'tása aeguyúwe.** *I hit him with two (pieces of) firewood.*
[**tara** *two;* **ya'kú'N-tasa** *firewood-with;* **a-egu'-u-e** *him-hit-I-INDIC*]
Num Head Case(Inst)

ya'kú 'tárarasa aeguyúwe. *I hit him with* <u>*two*</u> *(pieces of) firewood.*
[**ya'kú'N** *firewood;* **tara-tasa** *two-with;* **a-egu'-u-e** *him-hit-I-INDIC*]
Head Num Case(Inst)

ka: 'ísa'a: námiye. *He gives me one (piece of) sweet potato.*
[**ká:Q** *one;* **ísa'a:'** *sweetpotato;* **na-mu-y-e** *me-give--he-INDIC*]
Num Head

ísa'a: ká: 'namiye. *He gives me* <u>*one*</u> *(piece of) sweet potato.*
[**ísa'a:'** *sweetpotato;* **ká:Q** *one;* **na-mu-y-e** *me-give--he-INDIC*]
Head Num

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[92] Thus the post-head position for numerals may be considered the marked position.

6.22 Noun Phrase Conjoining

There are two ways in which noun phrase may be conjoined. The most common is by the addition of **-ke** or **-pe** to the end of each noun phrase being conjoined. The second method is by a formalised listing device involving juxtaposition.

Firstly, there is the usage of **-ke** or **-pe**. There is a strong tendency towards use of **-ke** with nouns denoting humans, and the almost obligatory use of **-pe** with nouns denoting non-humans. Only when the delineator **-ma** is used, as shown shortly in the last example of (149), may **-ke** occur with non-human. In any set conjoined with **-ke** or **-pe**, either **-ke** will occur throughout, or **-pe** will occur throughout. When there is a mixture of human and non-human, **-pe** is the usual marker appearing on each member of the set, as shown in the second last example of (149) below.

(149) kabá:regé aegayá:gé kana:se. *Kabare and Aegaya are coming.*

[kabá:re'-ke *Kabare-and;* aegayá:'-ke *Aegaya-and;* kana-a:s-e *come-they(DL)-INDIC*]

yaga:be kara:bé kana:we. *Pigs and dogs are coming.*

[yaga:-pe *pig-and;* kara:'-pe *dog-and;* kana-a:-e *come-they(PL)-INDIC*]

aegayá:bé yaga:wá:'pé kana:se. *Aegaya and his pig are coming.*

[aegaya:'-pe *Aegaya-and;* yaga:-wá:'N-pe *pig-his-and;* kana-a:s-e *come-they(DL)-INDIC*]

yaga:wamage kara:wámage máeya:we. *The pigs and the dogs took it.*

[yaga:-wama-ke *pig-DLN-and;* kara:'-wama-ke *dog-DLN-and;* máe-a:-e *get-they(PL)-INDIC*]

The markers **-ke** and **-pe** are also used to show accompaniment. With no morphological distinction to show whether an accompaniment (comitative) or a conjoining usage is intended, ambiguity arises, for Fore speech does not demand the overt appearance of every conjoined noun phrase.[93] Some of the possibilities are shown below in (150).

(150) aegé naegé wause. *He and I are going.*
[áe'-ke *he-and;* náe'-ke *I-and;* wa-us-e *go-we(DL)--INDIC*]

aegé wauwe. *I am going with him.*
[áe'-ke *he-and;* wa-u-e *go-I-INDIC*]

aegé wause. *We are going with him;* or: *He and (I) are going.*
[áe'-ke *he-and;* wa-us-e *go-we(DL)-INDIC*]

naegé wause. *(He) and I are going.*
[náe'-ke *I-and;* wa-us-e *go-we(DL)-INDIC*]

naegé wauwe. *I also am going.*
[náe'-ke *I-and;* wa-u-e *go-I-INDIC*]

Noun phrases with -ke or -pe marking may also be marked for case. Any case marker which occurs always precedes the conjoining morpheme -ke or -pe, as shown in (151) below.

(151) kabá:re'ké aegayá:'ké isigauwe. *I see Kabare and Aegaya.*
[kabá:re'-N-ke *Kabare-OBL-and;* aegayá:'-N-ke *Aegaya--OBL-and;* isi-ka-u-e *them(DL)-see-I-INDIC*]
Case(Acc) Case(Acc)

kabá:re'ké agauwe. *I also see Kabare.*
[kabá:re'-N-ke *Kabare-OBL-and;* a-ka-u-e *him-see-I--INDIC*]
Case(Acc)

(continued overleaf)

[93] Further investigation is required at this point to ascertain the discourse factors applicable to this situation.

tu'tásabe írerásabe taeguyéwe. *They fought us with axes and arrows.*

[tú'N-tasa-pe *axe-with-and;* íre'-tasa-pe *arrow-with-*
Case(Inst) Case(Inst)
-and; ta-egu'-a:-e *us(PL)-hit-they(PL)-INDIC*]

tu'tásabe taeguyewe. *They fought us with axes as well.*
[tú'N-tasa-pe *axe-with-and;* ta-egu'-a:-e *us(PL)-hit-*
Case(Inst) *-they(PL)-INDIC*]

With conjoined noun phrases, it is usual to interpret any demonstrative or descriptive occurring as part of the first noun phrase, as being applicable to the second also. If the speaker intends any such qualifier to apply only to the first phrase, he may separate the two phrases by a pause (written by a comma), or may add a qualifier to the second, as shown below in (152).

(152) tabé ísa'a:bé yabúbe naye. *He eats large sweet potato and sugarcane.*

[tabé *big;* ísa'a:'-pe *sweetpotato-and;*
ya:bú-pe *sugarcane-and;* na-y-e *eat-he-INDIC*]

tabé ísa'a:bé, ya:búbe naye. *He eats large sweet potato, and sugarcane.*

tabé ísa'a:bé iga: yábúbe naye. *He eats large sweet potato and sweet sugarcane.*

[... iga:' *sweet* ...]

Usually nó more than two noun phrases are conjoined using **-ke** or **-pe**, although three is quite acceptable. When three or more phrases are to be conjoined, the usual method is by listing.

In listing, an Indicative mood marker is added to each noun phrase, and the defective verb **su** *together* is added at the end of the listing. The Indicative marker here is given as **-a**, which is its juxtaposed form.[94]

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[94] Juxtaposition and defective verbs are given in 8.1 and 7.22(5) respectively.

(153) kabá:rewá, aegayá:wá, náewá, suma waune. *There were Kabare, Aegaya, myself, we all went.*
(lit. *It is Kabare; it is Aegaya; it is I; we went together.*)
[kabá:re'-a *Kabare-INDIC;* aegayá:'-a *Aegaya-INDIC;* náe'-a *I-INDIC;* su-ma *together-SEQ;* wa-uN-e *go--we(PL)-INDIC*]

6.23 Noun Phrase Alternation

When there is a choice to be indicated, -pé and/or -paya:' may be attached to noun phrases.[95]

Alternation markers behave as interrogatives, which were given earlier in 5.32. As such, they do not co-occur with the Interrogative mood morpheme -ó, but their use causes an accent to appear on the (Indicative) mood morpheme which follows. Most commonly used is -paya:', which expects a negative answer. It is used when the alternatives are between the object and its absence, as in (154), or when one of two alternatives is more in doubt than the other, as in (155).

(154) ísa'a:báya: námi'kibené. *Is it (perhaps) sweet potato that you will give me?*
[ísa'a:'-paya:' *sweetpotato-ALTERN;*
na-mu-'kubu-a:N-e *me-give-FUT-you(SG)-INDIC*]

mabí'paya: kánayé. *Is it (perhaps) by walking that he is coming?*
[má'-piN-paya:' *ground-in-ALTERN;*
kana-y-e *come-he-INDIC*]

(155) ísa'a:báya: ína: námi'kibené. *Are you (perhaps) giving me sweet potato, or taro?*
[ísa'a:'-paya:' *sweetpotato-ALTERN;* ína:' *taro;*
na-mu-'kubu-a:N-e *me-give-FUT-you(SG)-INDIC*]

mabí'paya: ká:rebí 'kanayé. *Is it (perhaps) by walking, or by car that he is coming?*
[má'-piN-paya:' *ground-in-ALTERN;* ká:re'-piN *car-in;*
kana-y-e *come-he-INDIC*]

---

[95] The same markers are used to form Alternation linkages, as given later in 7.35.

When it is the second item which is in doubt, **-paya:ʹ** is attached to it, and **-pé** occurs on the first.

(156) **ísa'a:bé ína:báya: námi'kibené.** *Is it sweet potato, or (perhaps) taro that you are giving me?*
[ísa'a:ʹ-pe *sweetpotato-ALTERN;* ína:ʹ-paya:ʹ *taro-ALTERN;* na-mu-'kubu-a:N-e *me-give-FUT-you(SG)-INDIC*]

mábi'pé ká:rebí'paya: kánayé. *Is it by walking, or (perhaps) by car that he is coming?*
[máʹ-piN-pé *ground-in-ALTERN;* ká:reʹ-piN-paya:ʹ *car-in-ALTERN;* kana-y-e *come-he-INDIC*]

-pé may occur without **-paya:ʹ**, but never on the final item. It is used when listing, with phonological phrase boundaries usually following each **-pé**.

(157) **ísa'a:bé ína: námi'kibené.** *Is it sweet potato or taro that you will give me?*
[ísa'a:ʹ-pé *sweetpotato-ALTERN;* ína:ʹ *taro;* na-mu-'kubu-a:N-e *me-give-FUT-you(SG)-INDIC*]

mábi'pé, ká:rebí'pé, wa:rúsibí 'kanayé. *Is it on foot, by car, or by plane that he is coming?*
[máʹ-piN-pé *ground-in-ALTERN;* ká:reʹ-piN-pé *car-in-ALTERN;* wa:rúsiʹ-piN *plane-in;* kana-y-e *come-he-INDIC*]

6.24 Noun Phrase Marking

6.24(1) FOCUS

The end of any phrase, whether a single word phrase or larger, may be indicated using the marker **-pa.**[96] All other suffixes and clitics precede it, and unlike other morphemes, it may never be followed by a mood marker. Consequently, it never occurs at the end of an utterance.

[96] This marker is also used to form Focal linkages, as given in 7.31.

Since the marker **-pa** indicates the boundary of a phrase, and so highlights its separation from that which follows, all occurrences of **-pa** have been glossed as *FOCUS*.[97]

(158) **kawámaba aeye.** *The rain falls.*
[**ká'-wama-pa** *rain-DLN-FOC;* **ae-y-e** *propel-it-INDIC*]

yogariba waye. *He goes to the garden.*
[**yoga-ti-pa** *garden-to-FOC;* **wa-y-e** *go-he-INDIC*]

pi ntágarabá amiye. *He gives (it) to that man.*
[**pí'N** *that;* **yagara:'-pa** *man-FOC;* **a-mu-y-e** *him-give-he-INDIC*]

There are some uses of **-pa** which must be considered obligatory to the structures in which they occur. One of these is to separate subject from complement, as shown in the first example of (159). The second example shows how a different structure is formed when **-pa** is omitted.

(159) S: **pi-'pá** Comp: **aogi yagara** **mintiyé**.[98]
that-FOC good man he is
That is a good man.

S: **pi nkáogi yagara** **mintiyé.**
that good man he is
That good man is (here).

Other such situations occur when an object marked as an oblique case precedes another noun phrase;[99] or when a noun phrase marked for Ablative case precedes a noun phrase; or where a numeral is preceded by a noun phrase. These are illustrated respectively in (160).

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[97] Renck (1975:51) states that the equivalent morpheme **-mo** or **-bo** in the related Yagaria language, is the most frequently re-occurring morpheme in speech, cannot be glossed, in general is untranslatable, and has functions of connection and focus. He termed it a 'connective particle'.

[98] Superscripts S, Comp, etc. are used occasionally in this chapter only, to indicate syntactic category.

[99] See Accusative case in 6.31(4).

(160)
```
IO               O
naba:-'pá        waní   nkamuwe.
my father(OBL)-FOC water I give him
```
I give my father water.

```
O
naba: nkání          nkamuwe.
my father(OBL)'s water I give him
```
I give him my father's water.

```
Dir                S
mo'kentísa-ba      yagara  kánaye.
from Moke(ABL)-FOC man     he comes
```
A man comes from Moke.

```
S
mo'kentísa yagara  kánaye.
man from Moke(ABL) he comes
```
A man from Moke is coming.

```
S        O
mási-bá  ka:  'máeye.
boy-FOC  one  he gets
```
The boy gets one.

```
S
mási ká: 'máeye.
one boy  he gets
```
One boy gets (it).

6.24(2) PRONOMINAL COPY

A noun phrase may be followed by its pronominal copy, a device used particularly when the noun phrase is long. This pronoun occurs at the end of the noun phrase, and takes case markings on behalf of the whole phrase. Both the noun phrase and its pronominal copy are marked as oblique[100] where applicable, but with no further case marking allowable prior to the pronoun copy. Usually there is a break in phonological phrasing between a noun phrase and its copy, as indicated by the commas in (161) below. Consequently, the only time that oblique marking of the noun phrase becomes evident is when a conjoined noun phrase is copied, as in the last example of (161).

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[100] Any case other than Nominative, Vocative or Comitative is considered oblique. See discussion within 6.31(1).

(161) teméni nkába:, ae kánaye. *Temeni's father is coming.*
[teméni'-N *Temeni-OBL;* a-pa:' *his-father;*
áe' *he;* kana-y-e *come-he-INDIC*]

teméni nkába:, áe'ti kanauwe. *I come to Temeni's father.*
[teméni'-N *Temeni-OBL;* a-pa:'-N *his-father-OBL;*
áe'-Q-ti *he-OBL-to;* kana-u-e *come-I-INDIC*]

aba:'ké ano'ké, isíge'ti kanauwe. *I come to his father and mother.*
[a-pa:'-N-ke *his-father-OBL-and;* a-no'-N-ke *his--mother-OBL-and;* isíge'-Q-ti *they(DL)-OBL-to;*
kana-u-e *come-I-INDIC*]

6.24(3) THE DELINEATOR

A delineating morpheme may be suffixed to the head of a noun phrase ahead of any case morpheme. This delineator takes the form **-ma** when attached to nouns which denote humans, or **-wama** when non-human. These forms are grammatically singular (the relevant verb takes a singular subject suffix), although they may be used in a non-singular sense. If the speaker desires to specify non-singular (particularly in reference to humans), the plural form **-mi** or the dual **-misi** may be used.

(162) wasanáma kanaye. *A person comes; People are coming.*
[wasaná-ma *person-DLN;* kana-y-e *come-he-INDIC*]

wasanámi kana:we. *People are coming.*
[wasaná-mi *person-DLN(PL);* kana-a:-e *come-they(PL)--INDIC*]

wasaná taramisi kana:se. *Two persons are coming.*
[wasaná *person;* tara-misi *two-DLN(DL);*
kana-a:s-e *come-they(DL)-INDIC*]

ása:wáma naegúye. *A stick injures me.* 101(overleaf)
[ása:'-wama *stick-DLN;* na-egu'-y-e *me-hit-it-INDIC*]

yaga:wama naegúye. *A pig attacks me.*
[yaga:-wama *pig-DLN;* na-egu'-y-e *me-hit-it-INDIC*]

yaga:mi kana:we. *Pigs are coming.*
[yaga:-mi *pig-DLN(PL);* kana-a:-e *come-they(PL)-INDIC*]

The various functions of the delineator have made it difficult to gloss, and equivalent morphemes in related languages have been given a variety of labels. Deibler (1976:10) handles it as a subject marker of transitives in Gahuku, suggesting that Gahuku may thus be considered an ergative type language.[102] Haiman (forthcoming) for Hua, a dialect of Yagaria,[103] treats it as an ergative case marker. Renck (1975:35), working in the Move dialect of Yagaria, notes that it is also involved in possessive formation, and may also mark intransitive subject. He thus prefers the term 'pivotal'. McBride and McBride (1972:4) label it 'article' in Gimi. Payne and Drew (1970:74), recognising a wider range of functions in Kamano, label it 'personaliser'.

In Fore, the delineator marks someone or something thought of as being a potential agent or actor. It may be used without case marking to indicate a transitive subject, in which position it is sometimes obligatory, as seen by comparing the second and fourth examples of (163) below.

(163) aragáma mási áegúye. } *The girl hit the boy.*
mási áragámá aegúye. }
[aragá'-ma *girl-DLN;* mási' *boy;* a-egu'-y-e *him-hit--she-INDIC*]

Compare with:

aragá mási áegúye. *The girl hit the boy.*
mási áragá aegúye. *The boy hit the girl.*
[aragá' *girl;* mási' *boy;* a-egu'-y-e *him/her-hit--she/he-INDIC*]

101(from previous page)The accent of -egu' *hit* appears to function irregularly here, in that *aeguyé would be expected from accent induction rules. However, the proto-form of third singular -y is given by Pawley (1966:178) as *i (see my earlier footnote 72), which as a vowel would take the induced accent to produce the correct aegúye.

102 One of the main distinguishing features of an ergative language is the marking of the transitive subject (Ergative case) in contrast to the similar treatment of intransitive subject and transitive object (Absolutive case, which is usually unmarked). See, for example, Dixon (1972:42); Silverstein (1976:112).

103 See Renck (1975:3), who spells it 'Huva'.

The delineator in Fore, however, may also be used with other case markings. We have, for example, the anomaly of this agentive marker being able to occur on both subject and object of a transitive clause (although it is exceedingly rare for them to co-occur), and also on the subject of an intransitive, as shown below in (164). But note the distinctiveness of the object in the second example. It is the oblique case marking rather than the delineator which distinguishes object from both transitive and intransitive subject usage. Thus I analyse Fore as a pure nominative-accusative type language.[104]

(164) yaga:wama agaye. *The pig sees him.*
[yaga:-wama *pig-DLN;* a-ka-y-e *him-see-it-INDIC*]

yaga:wama nkagaye. *He sees the pig.*
[yaga:-wama-N *pig-DLN-OBL;* a-ka-y-e *it-see-he-INDIC*]

yaga:wama kanaye. *The pig comes.*
[yaga:-wama *pig-DLN;* kana-y-e *come-it-INDIC*]

Occurrence of the delineator on the object in the second example of (164) indicates the agentive potentiality of the item to which it is attached. The example could thus have been glossed: *He sees the pig (doing something).* This potentiality is also seen in the contrastive examples given in (165), where these examples could alternatively be respectively glossed: *He goes to (the place) where those people are;* and *He goes to those people (where they are).*

(165) pí 'kiná'ti waye. *He goes to those people.*
[pí'N *that;* kináQ-ti *being-to;* wa-y-e *go-he-INDIC*]

pí 'kiná'mi'ti waye. *He goes to those people.*
[pí'N *that;* kináQ-mi-N-ti *being-DLN-OBL-to;*
wa-y-e *go-he-INDIC*]

---

[104]Again see Silverstein (1976:112).

The delineator may not occur on proper nouns or pronouns, but must occur on inanimates when used as a transitive subject, and is a factor in the formation of Genitives. These roles of the delineator will be further shown during the presentation of cases in 6.31.

6.25 The Verb Complex

The verb complex, which is the final phrasal element in a clause, consists of an optional adverbial modifier plus an obligatory verb.

(166) COMPOSITION OF VERB COMPLEX:

Verb Complex → (Modifier) + Verb.

E.g. **waye.** *He goes.*
[wa-y-e *go-he-INDIC*]
Verb

karusu waye. *He runs.*
[karusu *quickly;* wa-y-e *go-he-INDIC*]
Mod Verb

maerúwe. *I have (it).*
[máe-uru-u-e *get-hold-I-INDIC*]
Verb

ago máerúwe. *I already have (it).*
[ago *already;* máe-uru-u-e *get-hold-I-INDIC*]
Mod Verb

6.25(1) VERB

The verb position is filled by a dependent or independent verb. The independent verb has already been presented in chapter 4, and other verb structures are given in the following chapter 7.

6.25(2) MODIFIER

The optional modifier position may be filled by a demonstrative, a descriptive, an adverb of manner, or by a sentence encoded to function as a modifier.[105]

Only when a demonstrative occurs in its Class V form, as given earlier in 5.33(1), may it occur in this position. Furthermore, demonstratives, descriptives and adverbs may only occur in this verb-modifying function when they occur as stems without suffixation.

(167) ma: ɨ́yuwe. *I ascend here.*

[$\underbrace{\text{má:'}}_{\text{Dem}}$ *here;* $\underbrace{\text{i-u}}_{\text{Verb}}$-e *ascend-I-INDIC*]

tabe píye. *He does (it) in a big way.*

$\underbrace{\text{tabe'}}_{\text{Desc}}$ *big;* $\underbrace{\text{pu-y}}_{\text{Verb}}$-e *do-he-INDIC*]

agáro 'kána'kiye. *He will come soon.*

[$\underbrace{\text{agáro'N}}_{\text{Adv(Manner)}}$ *impending;* $\underbrace{\text{kana-'kubu-y}}_{\text{Verb}}$-e *come-FUT-he-INDIC*]

yaga: máe'kena waye. *He goes to get a pig.*

[$\underbrace{\text{yaga: } \textit{pig;} \text{ máe-'kena}}_{\text{ModS}}$ *get-PURPOS;* $\underbrace{\text{wa-y}}_{\text{Verb}}$-e *go-he-INDIC*]

6.3 CLAUSE STRUCTURE

6.31 The Cases

As clauses are formed, case morphemes are attached where relevant to the noun phrases. Whenever a case morpheme occurs, it is attached to the last word of the particular noun phrase. Consequently, morphemes which mark case are analysed as clitics. A complete listing of these post-clitics, the cases they mark, and some appropriate glosses, are given below in (168).

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[105] Clauses encoded as modifiers are given in 7.42.

(168) CASES & CASE MORPHEMES:

Nominative: *(NOM)*	Unmarked		
Vocative: *(VOC)*	-ó		
Comitative: *(COM)*	-ke	(human)	
	-pe	(non human)	

OBLIQUE CASES:
A Potential Agent[106] occurring in any of the oblique cases listed below undergoes change of its morphophonemic class to: - Q (pronouns only)
-N (other Potential Agents)

Accusative: *(ACC)*	No further marker		
Genitive: *(GEN)*	No further marker		
Locative: *(LOC)*	-taQ	*at, on*	
	-piN	*in, within*	
Allative: *(ALL)*	-ti, -i	*to, towards*	(primary forms)
Ablative: *(ABL)*	-sa	*from*	
Instrumental: *(INST)*	-tasa	*with, by*	
Benefactive: *(BEN)*	-ti	*to, for*	
Referential: *(REFT)*	-ka	*concerning, about*	

6.13(1) NOMINATIVE CASE

Subjects of both transitive and intransitive verbs may be considered to occur in Nominative case, which is unmarked. Objects may also be unmarked, whereupon the interpretative criteria are animacy and word order, as given later in 6.32(2).

[106] Potential Agent is defined in the sub-section to follow.

S
(169) mási kánaye. *The boy comes; A boy comes.*
[mási' *boy;* kana-y-e *come-he-INDIC*]

S O
mási áragá ágaye. *The boy sees the girl.*
[mási' *boy;* aragá' *girl;* a-ka-y-e *her-see-he-INDIC*]

S O
aragá mási ágaye. *The girl sees the boy.*
[aragá' *girl;* mási' *boy;* a-ka-y-e *him-see-she-INDIC*]

A convention which overrides word order in distinguishing subject from object is that of marking as an oblique case. Any 'potential agent' must change its morphophonemic category to Class N (pronouns change to Class Q and cease to induce an accent)[107] whenever it occurs in non-Nominative, non-Vocative or non-Comitative usage. A Potential Agent is any proper noun representing an animate being, any personal pronoun, any inalienably-possessed kin term, or any term to which a delineator has been added. Each of these categories is illustrated as subject in (170), where the lack of change to Class N (or Q for pronouns) shows Nominative usage. In (171), the same items are given again as objects, where the Class N (or Q) change, which is glossed as *OBL* (Oblique), shows non-Nominative usage.

S
(170) aegayá: ágaye. *Aegaya sees him.*
[aegayá:' *Aegaya;* a-ka-y-e *him-see-he-INDIC*]

S
aebá agaye. *He sees him.*
[áe'-pa *he$_1$-FOC;* a-ka-y-e *him$_2$-see-he$_1$-INDIC*]

S
aba: ágaye. *His father sees him.*
[a-pa:' *his-father;* a-ka-y-e *him-see-he-INDIC*]

S
pi ntágaramá agaye. *That man sees him.*
[pí'N *that;* yagara:'-ma *man-DLN;* a-ka-y-e *him-see-he-INDIC*]

[107] This negation of accent is indicated in examples by a space between hyphen and Q in underlying forms, as in the second example of (171).

O
(171) aegayá: nkágaye. *He sees Aegaya.*
[aegayá:'-N *Aegaya-OBL;* a-ka-y-e *him-see-he-INDIC*]

O
áe'pa agaye. *He sees him.*
[áe'- Q-pa he_2*-OBL-FOC;* a-ka-y-e him_2*-see-*he_1*-INDIC*]

O
aba: nkágaye. *He sees his father.*
[a-pa:'-N *his-father-OBL;* a-ka-y-e *him-see-he-INDIC*]

O
pi ntágaramá nkagaye. *He sees that man.*
[pí'N *that;* yagara:'-ma-N *man-DLN-OBL;* a-ka-y-e *him--see-he-INDIC*]

6.31(2) VOCATIVE CASE

The Vocative case morpheme is **-ó**, which is the same as the marker used for Imperative mood, as given later in 8.2(3).[108] Vocative case marking occurs only on Potential Agents (as defined in the previous sub-section). The Vocative is not an oblique case, so does not require morphophonemic change before it is added to a non-verb.

(172) kabá:re-ó.[109] *Kabare!*
[kabá:re'-ó *Kabare-VOC*]

naba:-ó. *Father!*
[na-pa:'-ó *my-father-VOC*]

naba:némpa-ó. *Father!*
[na-pa:'-né'N-ma-ó *my-father-my-NOM-VOC*]

ma: ntágaramá-ó. *That man!*
[má:'N *this;* yagara:'-ma-ó *man-NOM-VOC*]

---

[108] Alternatively, occurrences of the Vocative could be analysed as separate utterances to which an Imperative mood morpheme has been added, in the manner of Equatives given later in 8.31. It is perhaps this which prevents a Vocative from being marked as an oblique case.

[109] As an alternative, this form could have been spelled **kabá:rewó**, with the other examples following suit, to fit syllable patterns throughout the rest of the language. ....

6.31(3) COMITATIVE CASE

The Comitative case is marked by the morphemes **-ke** and **-pe**, which are also used in noun phrase conjoining. As given earlier in 6.22, **-ke** is used when the head of the noun phrase denotes humans, and **-pe** with non-humans.

(173) naegé kanaye. *He comes with me.*
[náe'-ke *I-and;* kana-y-e *come-he-INDIC*]

kara: yága:be waye. *The dog goes with the pig.*
[kara:' *dog;* yaga:-pe *pig-and;* wa-y-e *go-it-INDIC*]

In this accompaniment usage, no other case marker may co-occur. Neither may a noun phrase in the Comitative case take oblique case marking. When oblique marking,or any other case morpheme co-occurs with **-ke** or **-pe**, noun phrase conjoining rather than the Comitative, is featured. This contrast may be seen in the examples in (174).

(174) aegé agauwe. *I see it with him.*
[áe'-ke *he-and;* a-ka-u-e *it-see-I-INDIC*]
Com

áe'ke agauwe. *I see him also.*
[áe'- Q-ke *he-OBL-and;* a-ka-u-e *him-see-I-INDIC*]
Conj

.... However, most Fore literates reject a transition consonant preceding this case marker, and so a hyphen has been used to show that the Vocative marker remains a separate syllable. The only other case marker which has no consonant onset (Allative's **-i**) also manifests this peculiarity, as seen in 6.31(7).

6.31(4) ACCUSATIVE CASE

There is no unique Accusative morpheme. The only morphological indication of Accusative case is the morphophonemic change undergone by a Potential Agent when occurring in any of the oblique cases. Here, as mentioned earlier in 6.31(1), Potential Agents change to Class N (with pronouns changing to Class Q and losing their inducing accent). This indication of Accusative case is illustrated now in (175), where it will be seen that both direct and indirect objects are indicated in the same manner.

(175) kabá:re nkágaye. *He sees Kabare.* (O: kabá:re)
[kabá:re′-N *Kabare-OBL;* a-ka-y-e *him-see-he-INDIC*]

naninta: kabá:re nkámiye. *He gives Kabare food.* (O: naninta:; IO: kabá:re)
[naninta: *food;* kabá:re′-N *Kabare-OBL;*
a-mu-y-e *him-give-he-INDIC*]

náe 'nagaye. *He sees me.* (O: náe)
[náe′- Q *I-OBL;* na-ka-y-e *me-see-he-INDIC*]

naninta: náe 'namiye. *He gives me food.* (O: naninta:; IO: náe)
[naninta: *food;* náe′- Q *I-OBL;*
na-mu-y-e *me-give-he-INDIC*]

It is quite rare for two such marked objects to appear in one clause, but when they do, a focus marker, as given in 6.24(1), must occur on the first, which will be the direct object.

(176) áe'pa áe 'amiye. *He gives him to him.* (O: áe'pa; IO: áe)
[áe′- Q-pa *he-OBL-FOC;* áe′- Q *he-OBL;*
a-mu-y-e *him-give-he-INDIC*]

All objects which are not Potential Agents are unmarked for case, as illustrated below in (177). They are interpreted according to hierarchy and word order, both of which are discussed shortly in 6.32.

	S	IO	O	
(177)	mási	áragá	náninta:	amiye.
	boy	*girl*	*food*	*he gives her*

A boy gives a girl food.

S	IO	O	
aragá	mási	náninta:	amiye.
girl	*boy*	*food*	*she gives him*

A girl gives a boy food.

S	O	IO	
aragá	náninta:	mási	ámiye.
girl	*food*	*boy*	*she gives him*

A girl gives a boy food.

O	S	IO	
naninta:	aragá	mási	ámiye.
food	*girl*	*boy*	*she gives him*

A girl gives a boy food.

6.31(5) GENITIVE CASE

The Genitive case has the same marking as for the Accusative -- noun phrases are simply marked as oblique cases. Yet Genitives differ from Accusatives in two ways. Firstly, they always precede the non-verb which is being possessed. Secondly, all phrase heads which are not Potential Agents must become so (by adding a delineator) before occurring as Genitives. Kin terms are already Potential Agents, but if they are inflected for possession, they also must take a delineator, as seen in the contrast between second and fourth examples of (178) below.

(178) kabá:re ntáninta:we. *(It is) Kabare's food.*
[kabá:re'-N *Kabare-OBL;* naninta:-e *food-INDIC*]

naba: ntáninta:we. *(It is) my father's food.*
[na-pa:'-N *my-father-OBL;* naninta:-e *food-INDIC*]

náe 'naninta:we. *(It is) my food.*
[náe'- Q *I-OBL;* naninta:-e *food-INDIC*]

naba:némpá ntaninta:we. *(It is) my father's food.*
[na-pa:'-né'N-ma-N *my-father-my-DLN-OBL;*
naninta:-e *food-INDIC*]

yaga:ma ntaninta:we. *(It is) pig's food.*
[yaga:-ma-N *pig-DLN-OBL;* naninta:-e *food-INDIC*]

yaga:wama ntaninta:we. *(It is) pig's food.*
[yaga:-wama-N *pig-DLN-OBL;* naninta:-e *food-INDIC*]

Except for personal pronouns, a Potential Agent is marked for oblique case by reclassification to Class N of its final suffix, as shown in (178) above. Personal pronouns, on the other hand, are marked by reclassification of the stem itself (to Class Q, minus inducing accent), even though another suffix may be present, as in (179).

(179) náe'ne ntáninta:we. *(It is) my own food.*
[náe'- Q-né'N *I-OBL-my;* naninta:-e *food-INDIC*]

6.31(6) LOCATIVE CASE

There are two Locative case markers, the 'exterior' (or Adessive) clitic **-taQ** *at, on* and the 'interior' (or Inessive) clitic **-piN** *in, within*.

(180) **na:má'ta 'miye.** *He is at the house.*
[na:máN-taQ *house-at;* mi-y-e *be-he-INDIC*]

ya:rá 'miye. *He is on the log.*
[yá:'-taQ *tree-on;* mi-y-e *be-he-INDIC*]

na:má'pi mpiye. *He is in the house.*
[na:máN-piN *house-in;* mi-y-e *be-he-INDIC*]

yogabi mpiye. *He is in the garden.*
[yoga-piN *garden-in;* mi-y-e *be-he-INDIC*]

It is considered unacceptable to use Locative case marking on Potential Agents, although they may be marked for any of the other oblique cases. As given in the next sub-section, the primary Allative marker is used where a Locative would otherwise have been expected.

6.31(7) ALLATIVE CASE

Fore has one primary Allative case marker, and two which are derived. The primary marker is **-ti** *to, towards* which has a variant **-i** which occurs on some specific locational words.

(181) **na:má'ti waye.** *He goes to the house.*
[na:máN-ti *house-to;* wa-y-e *go-he-INDIC*]

yogari tumiye. *He goes down to the garden.*
[yoga-ti *garden-to;* tumu-y-e *descend-he-INDIC*]

pi nkáu'i waye. *He goes to that place.*
[pí'N *that;* auQ-i *place-to;* wa-y-e *go-he-INDIC*]

abe'í tumiye. *He goes outside.*
[abe'Q-i *outside-to;* tumu-y-e *descend-he-INDIC*]

As mentioned above, the primary Allative marker is used with Potential Agents to cover both locative and allative functions. This double usage is illustrated in (182).

(182) nǽe'ti kanaye. *He comes to me.*
[nǽe′- Q-ti *I-OBL-to;* kana-y-e *come-he-INDIC*]

nǽe'ti miye. *He is (here) with me.*
[nǽe′- Q-ti *I-OBL-to;* mi-y-e *be-he-INDIC*]

pí 'kiná'mi'ti waye. *He goes to those people.*
[pí′N *that;* kináQ-mi-N-ti *being-DLN-OBL-to;*
wa-y-e *go-he-INDIC*]

pí 'kiná'mi'ti miye. *He is (there) with those people.*
[pí′N *that;* kináQ-mi-N-ti *being-DLN-OBL-to;*
mi-y-e *be-he-INDIC*]

With place names, Allative marking is obligatory,[110] again taking both locative and allative functions. Some place names take **-ti** and some take **-i**, which are mutually exclusive. Whenever **-i** follows any morpheme of Class N, it becomes **-nti** rather than the expected **-nki**. This aberration is not unique, having already been seen in Class N changes of the nominaliser **-ena**, in 5.22(2).

(183) kiya:gamu'tí iye. *He goes up to Kiyagamuti.*
[kiya:gamu′N-ti *Kiyagamuti-to;* i-y-e *ascend-he-INDIC*]

kiya:gamu'tí miye. *He is in Kiyagamuti.*
[kiya:gamu′N-ti *Kiyagamuti-to;* mi-y-e *be-he-INDIC*]

karo'ká'i tumiye. *He goes down to Goroka.*
[karo'káQ-i *Goroka-to;* tumu-y-e *descend-he-INDIC*]

karo'ká'i miye. *He is in Goroka.*
[karo'káQ-i *Goroka-to;* mi-y-e *be-he-INDIC*]

mo'kentí waye. *He goes to Moke.*
[mo'ke′N-i *Moke-to;* wa-y-e *go-he-INDIC*]

mo'kentí miye. *He is at Moke.*
[mo'ke′N-i *Moke-to;* mi-y-e *be-he-INDIC*]

[110] That is, except for some place names in their descriptive usage, as seen earlier in 5.36.

When the variant **-i** is used with place names of the Class V category, normal vowel fusion rules do not apply and the **-i** remains a separate syllable, as in (184) below. With separate syllables, a separate consonant transition is to be expected, but this is rejected by most Fore literates.

(184) **káinantu-í wauwe.** *I am going to Kainantu.*
[**káinantu'-i** *Kainantu-to;* **wa-u-e** *go-I-INDIC*]

kasorú-í mintíyé. *He is in Kasoru.*
[**kasorú'-i** *Kasoru-to;* **mi-nt''-y-e** *be-PERF-he-INDIC*]

Secondary Allative case markers are derived by the addition of the variant **-i** to each of the two Locative markers, to give **-ta'i** *to at, onto* and **-pinti** *into* respectively. These derived forms are usually used with verbs of motion, although co-occurrence with a verb of location is possible.

(185) **pi'tá'i waye.** *He goes there.*
[**pí'N-taQ-i** *there-at-to;* **wa-y-e** *go-he-INDIC*]

na:má'pinti iye. *He goes into the house.*
[**na:máN-piN-i** *house-in-to;* **i-y-e** *ascend-he-INDIC*]

na:má'pinti miye. *He is in the house.*
[**na:máN-piN-i** *house-in-to;* **mi-y-e** *be-he-INDIC*]

6.31(8) ABLATIVE CASE

The primary form of the Ablative case marker is **-sa** *from.* This morpheme occurs as a primary form only with some time words, as illustrated in the last two examples of (186). In all other instances, Ablative case markers are derived by the addition of **-sa** to any of the Locative or Allative markers (primary of derived).

(186) **na:má'tasa máeye.** *He gets (it) from the house.*
[**na:máN-taQ-sa** *house-at-from;* **máe-y-e** *get-he-INDIC*]

na:má'pisa tumiye. *He comes out of the house.*
[**na:máN-piN-sa** *house-in-from;* **tumu-y-e** *descend-he-INDIC*]

yogarisa kanaye. *He comes from the gardem.*
[**yoga-ti-sa** *garden-to-from;* **kana-y-e** *come-he-INDIC*]

yogabintisa máeye. *He gets (it) from the garden.*
[**yoga-piN-i-sa** *garden-in-to-from;* **máe-y-e** *get-he-INDIC*]

mo'kentísa kanaye. *He comes from Moke.*
[**mo'ke'N-i-sa** *Moke-to-from;* **kana-y-e** *come-he-INDIC*]

mo'kentísa máeye. *He gets (it) from Moke.*
[**mo'ke'N-i-sa** *Moke-to-from;* **máe-y-e** *get-he-INDIC*]

aisá yawé. *(It is) old wood.*
[**ai'-sa** *yesterday-from;* **yá:'-e** *tree-INDIC*]

paisaenawe. *(It is) something ancient.*
[**paiQ-sa-ena-e** *longago-from-NOMZ-INDIC*]

6.31(9) INSTRUMENTAL CASE

The Instrumental case is marked by **-tasa** *with, by.*[111]

(187) **kasó'tása aeguyúwe.** *I hit him with a club.*
[**kasó'N-tasa** *club-with;* **a-egu'-u-e** *him-hit-I-INDIC*]

ya:rása kiye. *He builds (it) with timber.*
[**yá:'-tasa** *tree-with;* **ki-y-e** *build-he-INDIC*]

---

[111] This morpheme takes the same form as the Ablative **-tasa** *from*, which itself is a derivative of the Locative **-taQ** *at, on.*

6.31(10) BENEFACTIVE CASE

The Benefactive clitic is **-ti** *to, for.*[112] It only occurs on Potential Agents, and only in association with the benefactive-forming verb root **-'ta** *put.*

(188) **naba:némpá'ti a'taye.** *He puts (it there) for my father.*
[**na-pa:'-né'N-ma-N-ti** *my-father-my-NOM-OBL-to;*
a-'ta-y-e *him-put-he-INDIC*]

pí 'kiná'mi'ti puwai'táye. *He does (it) for those people.*
[**pí'N** *that;* **kináQ-mi-N-ti** *being-NOM(PL)-OBL-to;*
pu-wai-'ta-y-e *do-them(PL)-put-he-INDIC*]

náe'ti máewáena'táye. *He gets (it) all for me.*
[**náe'- Q-ti** *I-OBL-to;*
máe-wae-na-'ta-y-e *get-TOTAL-me-put-he-INDIC*]

6.31(11) REFERENTIAL CASE

The Referential clitic is **-ka** *concerning, about.* It occurs on both Potential Agents and other heads of noun phrases, but once again, any Potential Agent undergoes a change in morphophonemic class when used in this oblique case, as seen in the last two examples of (189).

(189) **na:má'ka u'túwe.** *I spoke concerning the house.*
[**na:máN-ka** *house-concerning;* **u-'tá-u-e** *say-PAST-I-INDIC*]

na:nága máeya:né. *Why do you get (it)?*
[**na:na-ka** *what?-concerning;* **máe-a:N-e** *get-you(SG)-INDIC*]

káe'ka máeyuwe. *I get (it) with you in mind.*
[**káe'- Q-ka** *you(SG)-OBL-concerning;*
máe-u-e *get-I-INDIC*]

aegayá:'ká kanauwe. *I come about Aegaya.*
[**aegayá:'-N-ka** *Aegaya-OBL-concerning;*
kana-u-e *come-I-INDIC*]

---

[112] This morpheme takes the same form as the Allative **-ti** *to,* and could be considered the same marker, taking on its Benefactive aspect through its association with **-'ta** *put.*

6.32 Interpretation of Nuclear Roles

6.32(1) PREFERRED ORDER

The preferred order of nuclear phrases in a clause is: Subject, Direct Object, Indirect Object, Verb Complex. Fillers of the non-nuclear slots of Time, Manner, Location, Direction (Both Allative and Ablative), Instrumental and Reference, usually precede Subject (with no preferred order among themselves apparent at the present stage of analysis). Accompaniment usually follows Subject, as does a Complement. Benefactives usually follow Direct Object. It is also preferred that any phrase containing an interrogative word (see 5.32) immediately precede the Verb Complex.

(190) PREFERRED ORDER OF CLAUSE ITEMS:

Clause ⟶ (Time; Manner; Location; Direction; Instrument; Reference) + (Subject) + (Accompaniment) + (Direct Object; Complement) + (Indirect Object; Benefactive) + Verb Complex.

```
       Time     S       Acm        VC
E.g.   iba:bá   naebá   kaegé      wa'kuwe.
       today    I       with you   I will go
```

Today I will go with you.

```
Reft             O          IO        VC
aegayá:'ká       naninta:   kabá:re   nkámuwe.
about Aegaya     food       Kabare    I give him
```

I give Kabare food for Aegaya.

```
Time        Loc      Reft          O        VC
aibá        pi'tá    'eri'ya:'ka   kamána   'omú'toné.
yesterday   there    work          talk     I told him
```

Yesterday I debated with him there about work.

```
S       Comp         VC
pi'pá   tabe námá    nkaintíyé.
that    big house    it is
```

That is a big house.

```
S       O       Loc(Interr)   VC
kaebá   kasú    'ae'tása      máeya:né.
you     club    whence?       you get
```

Where did you get the club from?

Exclamations and Vocatives usually precede all other clause items. Since they are used to attract the addressee's attention and are usually bounded by pauses, they are analysed as extra-clausal, and omitted from the formula given above in (190). The example that follows illustrates their positioning.

	Ex	Voc	Inst	O	VC
(191)	**wé,**	**ma ntágaramá-ó,**	**kasó'tása**	**yaga:**	**aeguyúwe.**
	hey	*that man*	*with club*	*pig*	*I hit it*

Hey, man, I killed the pig with a club.

Only the Verb Complex is obligatory to clause formation, and it is rare for more than two other phrases, either nuclear or non-nuclear, to occur within the same clause. Should a Fore speaker desire to overtly indicate a number of noun phrases, he usually adds additional verbs (and thus additional clauses) to carry the information load. The example in (192), which contains two clauses, demonstrates such an occurrence.

	Loc	O	VC	IO	VC
(192)	**kuma:'tá**	**'naninta:**	**máema**	**yaga:né**	**nkámuwe.**
	at village	*food*	*get and*	*my pig*	*I give it*

I feed my pig in the village area.

6.32(2) INTERPRETIVE HIERARCHY

Since most heads of noun phrases are not Potential Agents, nuclear noun phrases in most clauses are unmarked for case. To interpret such phrases in terms of their roles within the clause, Fore has a hierarchical system whereby items higher on an animacy scale correspondingly rate higher on the grammatical scale, unless otherwise indicated.

The animacy scale is: Potential Agent > Human > Animate > Inanimate; and the grammatical scale is: Subject > Indirect Object > Direct Object. Thus, when noun phrases are unmarked for case, the phrase which is highest in animacy will be interpreted as Subject; the next in rank as Indirect Object; the lowest as Direct Object. If two items are of equal ranking, the word order given previously (S, O, IO) will determine their function.

	S	IO	O	
(193)	**naebá**	**yaga:**	**naninta:**	**amuwe.**
	I	*pig*	*food*	*I give it*

IO	S	O	
yaga:	**náebá**	**naninta:**	**amuwe.**
pig	*I*	*food*	*I give it*

O	S	IO	
naninta:	**náebá**	**yaga:**	**amuwe.**
food	*I*	*pig*	*I give it*

I give the pig food.

S	O	
wa	**wáya:**	**'máeye.**
man	*woman*	*he gets*

The man takes a wife.

S	O	
wáya:	**'wá**	**máeye.**
woman	*man*	*she gets*

The woman takes a husband.

6.32(3) DELINEATOR USAGE

There are two environments in which marking by means of the delineator (given earlier in 6.24(3)) becomes mandatory: (i) to permit changes in word order of equally ranked items; and (ii) to rank an item which is lower on the animacy scale higher grammatically.

Take, for example, the equally ranked terms, **wá'** *man* and **mási'** *boy*. They are both [+Human] but [-Potential Agent]. Word order determines that it is *man* who sees *boy* in the first example of (194) below. If the order is reversed, a delineator must be added to *man* to make it [+Potential Agent], thus preserving *man* as Subject, as in the second example. Absence of the delineator would result in the change of roles given in the last example.

S O
(194) wa mási ágaye.
man boy he sees him

O S
mási wá-má agaye.
boy man-DLN he sees him

The man sees the boy.

S O
mási wá ágaye.
boy man he sees him

The boy sees the man;
**The man sees the boy.*

The second situation occurs where a noun phrase which is lower in animacy is required to rank higher grammatically. In (195) below, the preferred word order is insufficient to interpret **yaga:** *pig* as Subject in the first example. A delineator is required to raise its status above that of **wá'** *man*.

O S
(195) yaga: wá aegúye.
pig man he hits him

The man kills the pig;
**The pig attacks the man.*

S O
yaga:-wama wá aegúye.
pig-DLN man he hits him

O S
wa yága:-wama aegúye.
man pig-DLN he hits him

The pig attacks the man.

Elsewhere, indication of Subject through use of the delineator is an option available to the speaker.[113] He may, for example, add a delineator to the Subject when there has been a change to preferred order, even though the Subject is hierarchically determinable.

[113] I should point out again that it is not the delineator per se which marks Subject. It is the absence of oblique case marking of the delineator which infers nominative usage. See 6.31(1).

```
      O       S
(196) yaga:   wá     aegúye.
      pig     man    he hits him

      O       S
      yaga:   wá-má      aegúye.
      pig     man-DLN    he hits him
      The man kills the pig.
```

It is, however, far more common for only one nuclear noun phrase to appear overtly in any one clause, so that word order becomes no longer relevant. If there are no other factors, such as concordant pronominal affixation in the verb, a lone noun phrase without marking will usually be interpreted as Direct Object. To counteract this, the delineator is often added even when context alone would clarify the issue.

For instance, in (196) below, the first example is ambiguous, though, out of context, the first reading is usually taken. Use of the delineator will prevent ambiguity, as the next two examples show. Of course, context will often specify the interpretation, as the first two examples of (197) show. Even so, a Fore speaker may still add a delineator, as the last of (197) illustrates.

```
      O~S
(196) yaga:   aegúye.
      pig     he hits him
      He kills the pig;
      The pig attacks him.

      S
      yaga:-wama   aegúye.
      pig-DLN      he hits him
      The pig attacks him.

      O
      yaga:-wama      nkaegúye.
      pig-DLN(OBL)    he hits him
      He kills the pig.
```

```
      S                           O
(197) wa   kánamagina[114]        yaga:  aegúye.
      man  he1 comes and he1      pig    he1 hits him
      The man comes and kills the pig.

      S                           S
      wa   kána:gína[115]         yaga:  aegúye.
      man  he1 comes and he2      pig    he2 hits him
      The man comes and the pig attacks him.

      S                           S
      wa   kána:gína              yaga:-wama  aegúye.
      man  he1 comes and he2      pig-DLN     he2 hits him
      The man comes and the pig attacks him.
```

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[114] **kánamagina** [**kana-ma-ki-na** *come-SEQ-CONJ-he*] anticipates a similar subject for the following verb, which again will be **wá'** *man*. See description of sequential verb in 7.22(1).

[115] **kána:gína** [**kana-a:'-ki-na** *come-he₁-CONJ-he₂*] anticipates a different third singular subject for the following verb, and thus **wá'** *man*, by inference, becomes object of the second verb. See switch-reference verbs in 7.21.

Chapter 7

RELATIONSHIPS BETWEEN CLAUSES

7.1 Introduction

In Fore, as in other languages of the highlands of Papua New Guinea, relationships between clauses are indicated in verb morphology. There are no free-form conjunctions. These relationships are indicated within the inflexion of the dependent verbs.

When any two clauses bear a syntactic relationship to each other, inflexion of the verb of the first clause indicates this interdependency. Consequently, linguists working in these languages have termed such verbs dependent, secondary, non-finite, medial. Conversely, verbs which indicate no relationship (and which have already been presented in chapter 4), have been termed independent, primary, finite, final.[116]

In order to describe relationships between clauses, this chapter deals with the inflexion of dependent verbs. Most of the examples given through this chapter consist of two clauses, in which the first contains a dependent verb, and the second, a verb which is independent. To this independent verb is added a mood marker, as previously explained in 1.4(5), so that the whole may stand as a complete and isolatable utterance.

7.2 COORDINATE LINKAGE

When clauses are conjoined in any type of coordinate linkage, a coordinate inflexion occurs as part of the dependent verb. This inflexion, for which a general formula is

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[116] See, for example, Bee (1973:302); Franklin (1971:103); James (1970:1121); Longacre (1972:2).

given in (198), indicates the type of conjoining relationship held towards some following verb. Its fillers indicate whether the subjects of the conjoined clauses are syntactically the same, or whether there has been a switch in subject-reference.[117]

(198) COMPOSITION OF CO-ORDINATE VERB INFLEXION:

Inflexion → <Specific Relationship> + Conjoiner
+ Anticipatory Subject.

E.g. **kana:gírá agause.** *He comes and we see him.*
[kana-a:'-ki-tá *come-he(SWREF)-CONJ-we(DL);*
a-ka-us-e *him-see-we(DL)-INDIC*]

kanamagirá agause. *We come and see him.*
[kana-ma-ki-tá *come-SEQ-CONJ-we(DL);*
a-ka-us-e *him-see-we(DL)-INDIC*]

kanantará agause. *We come and we see him.*
[kana-nta-tá *come-CONJ(COORD)-we(DL);*
a-ka-us-e *him-see-we(DL)-INDIC*]

Once again angle brackets show that an item is obligatory in some instances, but necessarily absent in others. Here the Conjoiner **-ki**, as in the first two examples, demands the presence of a Specific Relationship morpheme, which may not co-occur with **-nta** of the last example.

When more than two clauses are conjoined in a coordinate relationship, each clause except the last contains a dependent verb to indicate that relationship.

(199) **kanamagí 'agamagí 'miyuwe.** *I come and see him and stay.*
[kana-ma-ki-'Q *come-SEQ-CONJ-I;*
a-ka-ma-ki-'Q *him-see-SEQ-CONJ-I;*
mi-u-e *be-I-INDIC*]

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[117] As previously stated in (64), a verb consists of a verb base plus its inflexion. The verb base for both dependent and independent verbs has already been given in 4.2.

7.21 Switch-Reference Coordination

Marking for Switch-Reference is achieved through use of a specific type of pronominal subject morpheme which fills the Specific Relationship position in the formula given above. This pronominal morpheme indicates the subject of the verb base to which it is attached, the general tense of that verb, and also that the subject of the following conjoined verb will be different. This switch-referent subject morpheme is then followed by the Conjoiner **-ki**, which in turn is followed by another morpheme which anticipates the subject of the next clause.

(200) **kana:gíra agause.** *He comes and we see it.*
  [kana-a:ʹ-ki-tá *come-he(SWREF)-CONJ-we(DL);*
  a-ka-us-e *it-see-we(DL)-INDIC*]

kanáu'kuna aga'táye. *You came and he saw it.*
  [kana-úN-ki-na *come-you(SG/PAST/SWREF)-CONJ-he;*
  a-ka-'tá-y-e *it-see-PAST-he-INDIC*]

kanaisíginisí aga'kibese. *They will come and you will see it.*
  [kana-isí-ki-nisí *come-they(DL/FUT/SWREF)-CONJ-you(DL);*
  a-ka-'kubu-a:s-e *it-see-FUT-you(DL)-INDIC*]

7.21(1) SUBJECT (SWITCH-REFERENCE)

There are three sets of Switch-Reference Subject morphemes. One of these occurs in situations where an Independent inflexion would have occurred without a Tense marker, as given earlier in 4.32. I have labelled these as 'Contemporary' in (201) below, but have left them unspecified as such in glosses. A second set occurs where an Independent inflexion would have included a Past or Perfect marker, (202); while a third reflects Future or Dubitative tense-aspect, (203).

(201) CONTEMPORARY SWITCH-REFERENCE MORPHEMES:

	First Person	Second Person	Third Person
Singular	-ó	-a:ʼN	-a:ʼ
Plural	-oʼN	-á:	-á:
Dual	-oʼ	-a:ʼ	-a:ʼ

(202) PAST SWITCH-REFERENCE MORPHEMES:

	First Person	Second Person	Third Person
Singular	-uwá:	-úN	-oʼ
Plural	-úwa:N	-ú	-ú
Dual	-úwa:	-usú	-usú

(203) FUTURE SWITCH-REFERENCE MORPHEMES:

	First Person	Second Person	Third Person
Singular	-a:ʼN	-a:	-a:N
Plural	-á:N	-í	-í
Dual	-á:	-isí	-isí

An example from each set was given above in (200), and more appear below in (204) when vowel harmony is illustrated. But prior to that, note needs be taken of the patterning of these Switch-Reference sets, for the curious criss-cross phenomenon seen earlier in Independent inflexions (85, 87) is also evident here.

Firstly, the Contemporary set of (201) reveals the same pattern of contrasts as the Emphatic Subject morphemes of (87). Only the **-me**, **-mi** or second accent of the Emphatic morphemes, and their final assignment to Class N, is missing from the forms in (201). So it is obvious that their origins were the same: previously shown to be the Basic forms of (85).

Secondly, the Switch-Reference set of (202), which is used in Past tense situations, is also obviously derived from the Basic forms of (85). The **u** of first person in (85) has become **uwa:** ; **a:** is replaced by **u** ; dual forms have been adjusted to two syllables; third singular has maintained its distinction from the rest of the set; and accent has been added, albeit a little irregularly.

Finally, the Future tense set of (203) does not exhibit the criss-cross pattern found in the others. Instead, there is a marked degree of similarity between it and the Imperative set from Independent inflexions given in (90), both of which could well have derived their forms from the same source as the referent prefixes of (73).

One further comment needs be made about Switch-Reference morphemes. Since they all commence with a vowel, verb roots of types **ae**, **ai** or **i** induce a transition y when immediately preceding them; and verb roots of types **ai**, **i** or **u** change a following **a:** to e. These rules were previously given in 3.52 and 3.54 respectively.

(204) **kana:gína...** *He₁ comes and he₂...*
[**kana-a:'-ki-na** *come-he(SWREF)-CONJ-he*]

máeya:gína... *He₁ gets (it) and he₂...*
[**máe-a:'-ki-na** *get-he(SWREF)-CONJ-he*]

tumegína... *He₁ descends and he₂...*
[**tumu-a:'-ki-na** *descend-he(SWREF)-CONJ-he*]

iyegína... *He₁ ascends and he₂...*
[**i-a:'-ki-na** *ascend-he(SWREF)-CONJ-he*]

7.21(2) TENSE

Occasionally a Tense morpheme appears in conjunction with a Switch-Reference morpheme, as part of the Specific Relationship position given above in (198). This occurs only rarely, with Past or Perfect tense markers, to emphasise the prior completion or completeness of an action.[118] The tense morpheme is usually used with the Contemporary set of morphemes, but a Perfect tense marker may be used with a Past Switch-Reference morpheme.

(205) **kana'tá:gína wa'táye.** *He$_1$ came and then he$_2$ went.*
[**kana-'tá-a:'-ki-na...** *come-PAST-he(SWREF)-CONJ-he*]

kanantégína waye. *He$_1$ came and now he$_2$ goes.*
[**kana-nt''-a:'-ki-na...** *come-PERF-he(SWREF)-CONJ-he*][119]

kanantógána wa'táye. *He$_1$ came and then he$_2$ went.*
[**kana-nt''-o'-ki-na...** *come-PERF-he(PAST/SWREF)--CONJ-he*][120]

7.21(3) CONJOINER

The conjoining morpheme is **-ki**, whose vowel harmonises when used with Switch-Reference morphemes. Vowel harmony is manifested in many languages in the East-Central family. but occurs only rarely in Fore. The basic form has been given as **-ki**, which is its constant form in same-subject constructions, where it follows only **a** or **e**, as seen later in 7.22.

In Switch-Reference usage, it remains **-ki** when preceded by **i**, but changes to **-ku** when preceded by **u**, or to **-ka** when preceded by **a:** or **o**.[121] There is one overriding factor:

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[118] For Tense morphemes, see 4.32. I have been unable to elicit Future or Dubitative morphemes in this construction.

[119] Perfect tense's **-nt''** changes any **a:** which follows to **e** when used in this manner.

[120] Change of the Conjoiner's **i** to **a** is given below in (206).

[121] The third singular form of the Contemporary set does not cause **-ki** to harmonise. See examples in (204).

whenever the vowel of the following Anticipatory Subject morpheme is **i**, vowel harmony is blocked, so that **-ki** remains **-ki**. These rules, plus examples, are set out now in (206).

(206) VOWEL HARMONY OF CONJOINER MORPHEME:

$$\text{-ki} > \left\{ \begin{array}{ll} \text{-ka} & / \ \text{a:} \\ \text{-ka} & / \ \text{o} \\ \text{-ku} & / \ \text{u} \end{array} \right\} \_\_\_\text{non-i} \ .$$

E.g. **kanáigina...** *They will come and he...*
[**kana-í-ki-na** *come-they(PL/FUT/SWREF)-CONJ-he*]

kaná:giri... *They come and you...*
[**kana-á:-ki-ti'** *come-they(PL/SWREF)-CONJ-you(PL)*]

kaná:gana... *They come and he...*
[**kana-á:-ki-na** *come-they(PL/SWREF)-CONJ-he*]

kanaogána... *He$_1$ came and he$_2$...*
[**kana-o'-ki-na** *come-he(PAST/SWREF)-CONJ-he*]

kanáuguna... *They came and he...*
[**kana-ú-ki-na** *come-they(PL/PAST/SWREF)-CONJ-he*][122]

7.21(4) ANTICIPATORY SUBJECT

Any verb inflexion containing a Conjoiner morpheme must also include an Anticipatory Subject marker, which indicates the person and number of the following conjoined verb. The full set of these markers is given below.

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[122] Elsewhere through this grammar, *SWREF* is omitted from such glosses, since the presence of two subject morphemes is sufficient to indicate that a switch is being made.

(207) ANTICIPATORY SUBJECT MORPHEMES:

	First Person	Second Person	Third Person
Singular	-'Q	-na'	-na
Plural	{-'ta' / -Q'}	-ti'	-ni'
Dual	-tá	-tisí	-nisí

E.g. kana:gá 'kaga'kuwe. *You shall come and I shall see you;* or: *When you come I shall see you.*

[kana-a:-ki-'Q *come-you(SG/FUT)-CONJ-I;*
ka-ka-'kubu-u-e *you(SG)-see-FUT-I-INDIC*]

kana:gará kaga'kuboméne. *You shall come and we will see you;* or: *When you come we will see you.*

[kana-a:-ki-tá *come-you(SG/FUT)-CONJ-we(DL);*
ka-ka-'kubu-oméN-e *you(SG)-see-FUT-we(DL/EMPH)-INDIC*]

kana:gini kágáigina úwaimí'kibene. *When you come and they see you, you shall tell (it) to them.*

[kana-a:-ki-ni' *come-you(SG/FUT)-CONJ-they(PL);*
ka-ka-í-ki-na' *you(SG)-see-they(PL/FUT)-CONJ-you(SG);*
u-wai-mu-'kubu-a:N-e *say-them(PL)-give-FUT-you(SG)--INDIC*]

Either morpheme given as first plural may be used, although -Q' (Class Q change plus accent induced on the following syllable) is statistically more frequent.

The field structure of these morphemes is very similar to that of referent prefixes given earlier in (73-74), apparently being derived from a similar source.[123]

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[123] First person forms are somewhat aberrant, as is the consonant onset of second singular. Otherwise, **n** has been added to all third persons; **t** is non-third and non-singular; **a** (or no vowel) is first or singular; **i** is both non-first and non-singular; **si** again denotes dual, except in first person; accent has been added, but not completely regularly. Compare with earlier footnote 65 in section 4.21(3).

7.22 Same-Subject Coordination

When two or more clauses have identical subjects, the subject of a dependent verb is not overtly indicated. Rather, if the Conjoiner is **-ki**, the Specific Relationship morpheme obligatorily present will indicate the temporal relationship between the events conjoined: i.e. whether they are regarded as in sequence, or simultaneous. When the Conjoiner is **-nta** (which is glossed *COORD* throughout), no specific temporal relationship is thereby expressed, and no Specific Relationship morpheme occurs.

(208) **máemagina kanaye.** *He gets (it) and then he comes.*
[máe-ma-ki-na *get-SEQ-CONJ-he;*
kana-y-e *come-he-INDIC*]

máe'tegina kanaye. *He gets (it) and comes;*
or: *He brings it.*
máe-'te-ki-na *get-SIMU-CONJ-he;*
kana-y-e *come-he-INDIC*]

máentana kanaye. *He gets (it) and he comes.*
máe-nta-na *get-COORD-he;*
kana-y-e *come-he-INDIC*]

7.22(1) SEQUENCE

The morpheme used to indicate a sequence relationship between two or more actions is **-ma**. It occurs only when the subjects of each clause so conjoined are the same. Consequently, only one subject morpheme appears in the inflexion: an Anticipatory Subject morpheme.

(209) wamagina agaye. *He goes and sees it.*
[wa-ma-ki-na *go-SEQ-CONJ-he;*
a-ka-y-e *it-see-he-INDIC*]

wamagini ágantáwé. *They went and saw it.*
[wa-ma-ki-ni' *go-SEQ-CONJ-they(PL);*
a-ka-nt''-a:-e *it-see-PERF-they(PL)-INDIC*]

wamagi'ta ága'kune. *We shall go and see it.*
[wa-ma-ki-'ta' *go-SEQ-CONJ-we(PL);*
a-ka-'kubu-uN-e *it-see-FUT-we(PL)-INDIC*]

No Tense marking is possible, for when a coordinate inflexion indicates same subjects, tenses are also assumed to be the same. And, as already stated above, more than two clauses may be joined in a same-subject coordinate relationship.

(210) kanamagina agamagina máe'táye. *He came and saw it and got (it).*
[kana-ma-ki-na *come-SEQ-CONJ-he;*
a-ka-ma-ki-na *it-see-SEQ-CONJ-he;*
máe-'tá-y-e *get-PAST-he-INDIC*]

7.22(2) SIMULTANEITY

When two or more same-subject actions are encoded as occurring simultaneously, the Specific Relationship position is filled by the simultaneity marker -'te.

(211) máe'tegina kanaye. *He gets (it) and comes (= brings).*
[máe-'te-ki-na *get-SIMU-CONJ-he;*
kana-y-e *come-he-INDIC*]

máe'tegini kánantáwé. *They got (it) and came.*
[máe-'te-ki-ni' *get-SIMU-CONJ-they(PL);*
kana-nt''-a:-e *come-PERF-they(PL)-INDIC*]

máe'tegi'ta kána'kune. *We shall get (it) and come.*
[máe-'te-ki-'ta' *get-SIMU-CONJ-we(PL);*
kana-'kubu-uN-e *come-FUT-we(PL)-INDIC*]

(continued overleaf)

aga'tegina pu'tegina kanaye. *He looks at it and does (it) as he comes.*

[**a-ka-'te-ki-na** *it-see-SIMU-CONJ-he;*
pu-'te-ki-na *do-SIMU-CONJ-he;*
kana-y-e *come-he-INDIC*]

7.22(3) GENERAL SAME-SUBJECT COORDINATION

When no specific relationship apart from general conjoining of same-subject verbs is required, the marker used is **-nta**. Whenever **-nta** is followed by an Anticipatory Subject marker whose vowel is **i**, vowel harmony occurs, and **-nta** is realised as **-nti**.[124]

(212) VOWEL HARMONY OF CO-ORDINATOR MORPHEME:

$$\textbf{-nta} > \textbf{-nti} \;/\; \_\_\{\textbf{ti};\textbf{ni}\} .$$

E.g. **nagantana kanaye.** *He sees me and he comes.*

[**na-ka-nta-na** *me-see-COORD-he;*
kana-y-e *come-he-INDIC*]

nagantini kánantáwé. *They saw me and they came.*

[**na-ka-nta-ni'** *me-see-COORD-they(PL);*
kana-nt''-a:-e *come-PERF-they(PL)-INDIC*]

kanantá 'aga'kuwe. *I shall come and I shall see him.*

[**kana-nta-'Q** *come-COORD-I;*
a-ka-'kubu-u-e *him-see-FUT-I-INDIC*]

aobuntá 'ari'tántá 'kamána 'yuwe. *I light (a fire) and I serve out (food) and I talk.*

[**aobu-nta-'Q** *ignite-COORD-I;*
ari'tá-nta-'Q *serve-COORD-I;*
ka:mánaQ *talk;* **u-u-e** *say-I-INDIC*] [125]

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[124] This, in effect, is the same situation experienced by the other Conjoiner **-ki**, as given above in (206). However, **-nta** rather than **-nti** has been given here as underlying, since **-nta** is the form which appears when the Anticipatory Subject morpheme contains no vowel, as in the last example of (212).

[125] The verb stem **u** *say* is irregular when followed by a vowel (where it becomes **yu**) or **y** (Where it becomes **i**).

7.22(4) REDUCED VERBS

One of the features of same-subject verbs in Fore is that they may occur in a shortened form. Many New Guinean languages manifest such verb structures, for which Longacre (1972:48) also uses the term 'stripped-down'. In Fore, this reduction applies only to same-subject inflexions which are formed using the Conjoiner -ki. Thus sequence and simultaneity inflexions may be reduced, but not the general coordinate forms given above in (212).

When a verb appears in its reduced form, it occurs without Conjoiner or Anticipatory Subject morphemes. The illustrations below repeat the first two examples of (209) and (211) respectively, in reduced form.[126]

(213) wama agaye. *He goes and sees it.*
[wa-ma *go-SEQ;* a-ka-y-e *it-see-he-INDIC*]

wama agantáwé. *They went and saw it.*
[wa-ma *go-SEQ;* a-ka-nt''-a:-e *it-see-PERF-they(PL)- -INDIC*]

máe'te kanaye. *He brings (it).*
[máe-'te *get-SIMU;* kana-y-e *come-he-INDIC*]

máe'te kanantáwé. *They brought (it).*
[máe-'te *get-SIMU;* kana-nt''-a:-e *come-PERF-they(PL)- -INDIC*]

When reduced verbs occur, clausal elements common to all such conjoined verbs precede the first verb. Those which apply only to other than the first verb may either precede all verbs or only the verb to which they apply. Apart from any verb modifier (which is part of the verb complex), it is usual that only Direct Object, Indirect Object or Benefactive occur elsewhere than preceding all such reduced verb linkages.

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[126] In a previous paper (Scott, 1973:18), I analysed these reduced verbs as occurring within complex clauses. Longacre (1972:49; 1973:vii) preferred to consider these clause groupings as merged sentences, a concept with which I now agree, but refrain from using at this point, since 'sentence' in this account of Fore grammar is defined slightly differently to that used by Longacre.

In (214) below, the first example shows verbs in their full forms. The second example shows a typical reduced equivalent.

	O	V	Loc	IO	V
(214)	**naninta:**	**máemagí**	**'ma:'tá**	**'yaga:né**	**nkámuwe.**
	food	*I get and I*	*here*	*my pig*	*I give to it*

I get food and I give (it) to my pig here.

Loc	O	V	IO	V
ma:'tá	**'naninta:**	**máema**	**yaga:né**	**nkámuwe.**
here	*food*	*get and*	*my pig*	*I give to it*

I get and give food to my pig here.

7.22(5) DEFECTIVE VERBS

Defective verb stems, which indicate direction of an action, occur either as the first stem of a compounded base (as given earlier in 4.23), or with sequential marking (as given here). With sequential encoding, they most frequently occur in their reduced form, as illustrated in (215). Longer forms are then illustrated in (216).

(215) **uma miye.** *He went over and is (there).*
[**u-ma** *overto-SEQ;* **mi-y-e** *be-he-INDIC*]

ampa miye. *He arrived and is over (there).*
[**aN-ma** *overat-SEQ;* **mi-y-e** *be-he-INDIC*]

tumpa miye. *He went down and is (there).*
[**tuN-ma** *downwards-SEQ;* **mi-y-e** *be-he-INDIC*]

asu miye. *He went up and is (there).*
[**asu** *upwards;*[127] **mi-y-e** *be-he-INDIC*]

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[127] **asu** *upwards* is irregular in that it occurs in sequential usage without the addition of **-ma** *SEQ*, with which it may not co-occur.

(216) umagina miye. *He went over and he is (there).*
[u-ma-ki-na... *overto-SEQ-CONJ-he*]

ampagina miye. *He arrived and he is over (there).*
[aN-ma-ki-na... *overat-SEQ-CONJ-he*]

tumpagina miye. *He went down and he is (there).*
[tuN-ma-ki-na... *downwards-SEQ-CONJ-he*]

asugina miye. *He went up and he is (there).*
[asu-ki-na... *upwards-CONJ-he*]

7.22(6) NEGATION

There are two negative morphemes: **ka'N** for general use; **á:'N** exclusively for Imperatives.

The non-Imperative **ka'N** functions as a defective verb stem. Thus it may occur as the first stem in a compound verb-base, or as stem of a reduced sequential verb, or with Conjoiner and Anticipatory Subject morphemes. It may not be encoded for switch-reference.

(217) kampíye. *He is not (here).*
[ka'N-mi-y-e *not-be-he-INDIC*]

kampá miye. *He is not (here).*
[ka'N-ma *not-SEQ;* mi-y-e *be-he-INDIC*]

kampágina miye. *He is not (here).*
[ka'N-ma-ki-na *not-SEQ-CONJ-he;* mi-y-e *be-he-INDIC*]

The Imperative negative **á:'N**, on the other hand, does not function as a verb stem. Instead, it is an enclitic usually attached to the verb complex, but may alternatively, for purposes of specificity, be attached to a relevant noun phrase which immediately precedes the verb complex. It occurs only in association with the Imperative mood (given later in 8.2(3)), but has been included in the description at this point because of its mutual exclusion with **ka'N**.

(218) á:mpiyó. *Don't stay!*
[á:'N-mi-Ø-ó *not-be-you(SG)-IMPER*]

á:ntamá'pi mpiyó. *Don't stay in the house!*
[á:'N-na:máN-piN *not-house-in;* mi-Ø-ó *be-you(SG)-IMPER*]

7.3 NON-COORDINATE LINKAGE

Clauses may also be linked in non-coordinate relationships. Except for alternation, non-coordinate linkage is a relationship between two clauses only, the first of which again contains morphological indication of the relationship in the inflexion of its verb. In some instances, the second verb also carries a special marker, as indicated in the last two examples of (219) below.

Non-coordinate linkages indicating Focal, Referential, Simile, Contrafactual and Alternational relationships are now illustrated.

(219) na'piyó'pá kana'kibene. *I think that you shall come.*
[na-pi'-ó'N-pa *think-I(EMPH)-FOC;*
kana-'kubu-a:N-e *come-FUT-you(SG)-INDIC*]

a'ta:mí'kana waye. *He goes that he may deposit it.*
[a-'ta-a:míN-ka-na *it-put-he(EMPH)-REFT-he;*[128]
wa-y-e *go-he-INDIC*]

úmu náisá: 'piye. *As a rat eats, so does he.*
[úmu' *rat;* na-íN-sá:Q *eat-he(EMPH)-SIME;*
pu-y-e *do-he-INDIC*]

agáisintá maeyísiné. *If he had seen it, he would have got (it).*
[a-ka-íN-sintá *it-see-he(EMPH)-CONTRA;*
máe-íN-si'N-e *get-he(EMPH)-CONTRA-INDIC*]

máe'kibí'pé a'ta'kibaya:wé. *Will he take (it) or leave it?*
[máe-'kubu-íN-pé *get-FUT-he(EMPH)-ALTERN;*
a-'ta-'kubu-y-paya:'-e *it-put-FUT-he-ALTERN-INDIC*]

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[128] Occurrence of an anticipatory subject morpheme (-na *he* in this illustration) is a peculiarity of this construction, as given below in 7.32.

While non-coordinate linkages indicate the relationship between clauses, they do not indicate whether or not there is any switch in subject reference, as do coordinates. Instead, verbs encoded for non-coordinate linkage usually occur with independent inflexion, to which is added one of the non-coordinate relationship markers. Furthermore, the subject marker in that inflexion is usually from the Emphatic set given earlier in (87). When the second verb also carries the special marker, it too occurs with an Emphatic subject morpheme. Individual departures from this general patterning will be given where relevant.

7.31 Focal Linkage

In a Focal relationship, the morpheme **-pa** is added to the verb of the first clause. This morpheme, which was given in 6.24(1) as a phrasal marker, performs a similar task here between clauses. Here, the second clause acts as complement of the first. Consequently, this structure may be used to encode a variety of underlying semantic relationships such as topic-comment, thesis-antithesis, cause-effect, reason-result, and conditionals.

(220) na'piyó'pá kana'kiye. *I think that he will come.*
[na'pi'-ó'N-pa *think-I(EMPH)-FOC;*
kana-'kubu-y-e *come-FUT-he-INDIC*]

ago yí'pa abewe. *He has already spoken and they have heard.*
[ago *already;* u-íN-pa *say-he(EMPH)-FOC;*
abu-a:-e *hear-they(PL)-INDIC*]

aga'kibí'pa máe'kiye. *If he sees it, he will get (it).*
[a-ka-'kubu-íN-pa *it-see-FUT-he(EMPH)-FOC;*
máe-'kubu-y-e *get-FUT-he-INDIC*]

pi'kibempé'pa kaegu'kúwe. *If you do (it), I shall hit you.*
pu-'kubu-a:mpéN-pa *do-FUT-you(SG/EMPH)-FOC;*
ka-egu'-'kubu-u-e *you(SG)-hit-FUT-I-INDIC*]

As Bunn (1974:119) indicates for the Central family's Golin language, use of constructions which are specific to such relationships as cause-effect may be somewhat pedantic to a native speaker when that relationship is quite clear from context. In Fore, for example, a coordinate verb will often link clauses where a focal construction would be more specific (and thus 'marked'). Or, on rare occasions, the focal morpheme **-pa** may even be attached to the inflexion of the coordinate verb, as shown in the last example below.[129]

(221) **i'kibempé'pa kaegu'kíbíne.** *If you go up, you will fall.*
(lit. *Given that you will ascend, it will hit you*)
[**i-'kubu-a:mpéN-pa** *ascend-FUT-you(SG/EMPH)-FOC;*
ka-egu'-'kubu-íN-e *you(SG)-hit-FUT-it(EMPH)-INDIC*]

iyegana kaegu'kíbíne. *If you go up, you will fall.*
(lit. *You will ascend and it will hit you*)
[**i-a:-ki-na...** *ascend-you(SG/FUT)-CONJ-it*]

iyeganaba kaegu'kíbíne. *If you go up, you will fall.*
(lit. *Given that you will ascend, then it, it will hit you*)
[**i-a:-ki-na-pa...** *ascend-you(SG/FUT)-CONJ-it-FOC*]

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[129] An anomaly appears when **-pa** is added to coordinate verbs. Firstly, whenever it is used with a same-subject inflexion, a reduced form of that verb never appears. This is understandable, since reduced forms are the links in clauses which have been merged, whereas the function of **-pa** here is to separate clauses. E.g. **imaginabá aga'kibene.** *If you go up you will see him.* [**i-ma-ki-na'-pa** *ascend-SEQ-CONJ-you(SG)-FOC;* **a-ka-'kubu-a:N-e** *him-see-FUT-you(SG)-INDIC*].
However, the switch-reference form occasionally appears in a stripped-down version (minus Conjoiner and Anticipatory Subject), but such reduction only occurs in this construction. E.g. **iyúwa:'pa taga'táye.** *We went up and so he saw us.* [**i-úwa:N-pa** *ascend-we(PL/PAST/SWREF)-FOC;* **ta-ka-'tá-y-e** *us(PL)-see-PAST-he-INDIC*].

7.32 Referential Linkage

In a Referential relationship, the morpheme **-ka** is added to the verb in the first clause. This morpheme, given as a case marker in 6.31(11), performs a similar referential task here. In this usage, the second clause is uttered with specific relationship to the contents of the first. Again, this construction may encode a number of semantic relationships, of which topic-comment and reason-result are the most usual.

(222) a'ta:mí'kana waye. *He goes that he may deposit it.*
(lit. *Concerning "he puts it", he goes*)
[a-'ta-a:míN-ka-na *it-put-he(EMPH)-REFT-he;*
wa-y-e *go-he-INDIC*]

na'kibé'kána iye. *He talks about how they will eat.*
(lit. *Concerning "they will eat", he says*)
[na-'kubu-á:'N-ka-na *eat-FUT-they(PL/EMPH)-REFT-he;*
u-y-e *say-he-INDIC*]

mintémí'kiri írebu máeyiyó. *It is (there), so get bows!*
(lit. *Concerning "it is", get bows*)
[mi-nt''-a:miN-ka-ti' *be-PERF-it(EMPH)-REFT-you(PL);*
írebu' *bow;* máe-íy-ó *get-you(PL)-IMPER*]

kana'tá:me'ká 'i'ka:'puwe. *I buy because they came.*
(lit. *Concerning "they came", I buy*)
[kana-'tá-a:méN-ka-'Q *come-PAST-they(DL/EMPH)-REFT-I;*
i'ka:N-pu-u-e *buy-do-I-INDIC*]

In this usage, the morpheme **-ka** only occurs following Emphatic subject morphemes, but there is one pecularity. As seen in the examples above, this referential marker must always be followed by an Anticipatory Subject morpheme. There is no specific indication of switch-reference or otherwise, although in the last example above there is no other interpretation possible. The first example, for instance, could be interpreted as either same or switched subjects.

The full display of Anticipatory Subject morphemes has already been given in (207). The most reasonable but conjectured premise for their usage here is by analogy. Many of the forms generated are quite similar to those formed by the switch-reference processes of 7.21, in view of the common **-ki** > **-ka** change given in (206). This hypothesis has some support in that the Referential **-ka**, in keeping with the Conjoiner **-ki**, appears as **-ki** when the vowel of the following Anticipatory Subject marker is **i**. The third example of (222) above illustrates this. On the other hand, **-ka** in a non-verb environment (i.e. as a referential case marker) is never followed by an Anticipatory Subject morpheme.

7.33 Simile Linkage

Clauses show a Simile relationship when **-sá:Q** is attached to the verb of the first clause. It only occurs following an Emphatic subject morpheme, and is most frequently followed by the verb 'to do', as in the first two examples of (223). It is used when likening one action to another.[130]

(223) **úmu náisá: 'piye.** *He eats like a rat.*
(lit. *As a rat eats, so does he*)
[**úmu'** *rat;* **na-íN-sá:Q** *eat-he(EMPH)-SIME;*
pu-y-e *do-he-INDIC*]

(continued overleaf)

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[130] When the objects themselves are likened one to the other, **-sá:Q** is not used. Instead, the most common method is to attach **-kanta** to the non-verb. **-kanta** appears to be polymorphemic: **-ka-N-na** *REFT-GEN-thing*. Thus, *He is like a pig* has two Fore renderings:
(i) **yaga: písá: 'piye.** *He acts like a pig;*
[**yaga:** *pig;* **pu-íN-sá:Q** *do-he(EMPH)-SIME;* **pu-y-e** *do-he-INDIC*]
(ii) **yaga:ganta piye.** *He looks like a pig.*
[**yaga:-ka-N-na** *pig-REFT-GEN-thing;* **pu-y-e** *do-he-INDIC*]

aya:'kísá: 'puma kasaye. *He cuts (it) as he was shown.*
(lit. *As he showed him, he does and cuts*)
[a-ya:'ku-íN-sá:Q *him-show-he(EMPH)-SIME;*
pu-ma *do-SEQ;* kasa-y-e *cut-he-INDIC*]

aya:'kísá: 'kasaye. *He cuts (it) as he was shown.*
(lit. *As he showed him, he cuts*)
[a-ya:'ku-íN-sá:Q *him-show-he(EMPH)-SIME;*
kasa-y-e *cut-he-INDIC*]

ugamí'ta:sá: 'yó. *Tell (it) in the manner you were told!*
(lit. *As they told you, you say!*)
[u-ka-mu-'tá-á:'N-sá:Q *say-you(SG)-give-PAST-*
-they(PL/EMPH)-SIME;
u-∅-ó *say-you(SG)-IMPER*]

7.34 Contrafactual Linkage

A contrary-to-fact (or irreal conditional) relationship is usually rendered using markers **-sintá** on the first verb, and **-si'N** on the second.[131] These markers may only occur following an Emphatic subject morpheme, and are never used with a future tense morpheme. Any statement related to the future appears either without tense marking (third example below), or is handled via a Focal relationship (last example).

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[131] It appears that **-sintá** is polymorphemic: **-si'N-na** *CONTRA--thing*. If so, the same **-si'N** occurs on both verbs. The syntactic implications of analysing **-na** as *thing* (nominaliser??) have not yet been fully investigated, and thus at present, **-sintá** is given as a single morpheme. **na** *thing* occurs elsewhere, as a noun which is indeterminate, and which Fore literates often write as though it were a post-clitic. E.g. **yaga:manta** *pig's (food)* [yaga:-ma-N-na *pig-DLN-GEN-thing*].

(224) agáisintá maeyísiné. *If he had seen it, he would have got (it).*

[a-ka-íN-sintá *it-see-he(EMPH)-CONTRA;*
máe-íN-si'N-e *get-he(EMPH)-CONTRA-INDIC*]

kana'tá:sintá imi'tósiné. *If they had come, I would have given (it) to them.*

[kana-'tá-á:'N-sintá *come-PAST-they(PL/EMPH)-CONTRA;*
i-mu-'tá-ó'N-si'N-e *them(PL)-give-PAST-I(EMPH)- -CONTRA-INDIC*]

na:mpésintá purempésiné. *If you were to eat (it), you would die.*

[na-a:mpéN-sintá *eat-you(SG/EMPH)-CONTRA;*
puru-a:mpéN-si'N-e *die-you(SG/EMPH)-CONTRA-INDIC*]

na'kibempé'pa puri'kibene. *If you eat (it), you will die.*

[na-'kubu-a:mpéN-pa *eat-FUT-you(SG/EMPH)-FOC;*
puru-'kubu-a:N-e *die-FUT-you(SG)-INDIC*]

7.35 Alternation Linkage

Alternation of clauses is marked using morphemes **-paya:'** and **-pé**.[132] These are the same morphemes as those used to produce alternation of noun phrases, given earlier in 6.23. Similar patterns as those given earlier also occur, in that when doubt is particularly associated with one alternative, that alternative is marked by the addition of **-paya:'**. Other non-final alternatives are marked by **-pé**.

(225) máe'kibí'paya: á'ta'kíbiné. *Will he get (it) (probably not), or will he leave it?*

[máe-'kubu-íN-paya:' *get-FUT-he(EMPH)-ALTERN;*
a-'ta-'kubu-íN-e *it-put-FUT-he(EMPH)-INDIC*]

máe'kibí'pé a'ta'kibí'paya:wé. *Will he get (it), or will he (probably not) leave it?*

[máe-'kubu-íN-pé *get-FUT-he(EMPH)-ALTERN;*
a-'ta-'kubu-íN-paya:'-e *it-put-FUT-he(EMPH)-INDIC*]

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[132] A third form, **-péraQ** occurs in occasional alternation with **-pé**. It appears to be polymorphemic: **-pé-taQ** *ALTERN--at*, although I am presently unable to adequately explain why the locative case marker **-taQ** would appear here.

When either alternative is considered equally possible, or when listing more than two alternatives, **-pé** is used on all but the last verb.

(226) **máe'kibí'pé a'ta'kibíné.** *Will he get (it) or leave it?*
[**máe-'kubu-íN-pé** *get-FUT-he(EMPH)-ALTERN;*
a-'ta-'kubu-íN-e *it-put-FUT-he(EMPH)-INDIC*]

máe'kibí'pé a'ta'kibí'pé nami'kibíné. *Will he get (it), or leave it, or give (it) to me?*
[**máe-'kubu-íN-pé** *get-FUT-he(EMPH)-ALTERN;*
a-'ta-'kubu-íN-pé *it-put-FUT-he(EMPH)-ALTERN;*
na-mu-'kubu-íN-e *me-give-FUT-he(EMPH)-INDIC*]

Two further comments need be made. Firstly, **-paya:'** may be used with just one clause, the opposite result being expected. This is also a feature of **-paya:'** when occurring with noun phrases (see 6.23).

(227) **máe'kibí'paya:wé.** *Will he get (it), or (probably) not?*
[**máe-'kubu-íN-paya:'-e** *get-FUT-he(EMPH)-ALTERN-INDIC*]

Secondly, there is no compulsion for **-paya:'** to be used with Emphatic subject markers, but **-pé** must be, even though a final clause following **-pé** may contain only a Basic subject morpheme.

(228) **máe'kibaya: á'ta'kiyé.** *Will he get (it) (probably not), or will he leave it?*
[**máe-'kubu-y-paya:'** *get-FUT-he-ALTERN;*
a-'ta-'kubu-y-e *it-put-FUT-he-INDIC*]

máe'kibi'pé a'ta'kiyé. *Will he get (it) or leave it?*
[**máe-'kubu-íN-pé** *get-FUT-he(EMPH)-ALTERN;*
a-'ta-'kubu-y-e *it-put-FUT-he-INDIC*]

7.4 EMBEDDING WITHIN THE CLAUSE

7.41 Relative Clauses

Relativisation in Fore is achieved through the occurrence of a clause or combination of clauses in descriptive usage. As such, the relative clause (or clause combination) embeds within a noun phrase, usually as a qualifier of the head of that phrase.

(229) ago kanái ntagara míntiyé.
already he comes man he is
The man who has already come is here.
[ago kana-íN yagara:' mi-nt''-y-e]
[*already come-he(EMPH) man be-PERF-he-INDIC*]
RelCl

pi'pá aeguyógana purintí ntágawe.
that I hit it and it it died it is a pig
That is the pig I killed.
[pí'N-pa a-egu'-ó-ki-na puru-nt''-íN yaga:-e]
[*that-FOC it-hit-I-CONJ-it die-PERF-it(EMPH) pig-INDIC*]
RelCl

Relative clauses always conclude with an Independent verb inflexion containing an Emphatic subject morpheme. I use the term 'relative clause' to also include linked clauses, since that which is embedded in this way is often more than a clause, as shown in the second example of (229) above.

No separate verb encodings distinguish between the relativisation of subject, of direct or of indirect object, or of locative or allative or instrumental usage.[133] These are illustrated in the order stated, in (230).

[133] Relativisation of other case roles has resisted elicitation.

(230) naga'tái ntagara kánaye.
he saw me man he comes

The man who saw me is coming.

[na-ka-'tá-i̒N yagara:' kana-y-e]
[*me-see-PAST-he(EMPH) man come-he-INDIC*]
RelCl

aga'tó ntágara kánaye.
I saw him man he comes

The man whom I saw is coming.

[a-ka-'tá-ó'N yagara:' kana-y-e]
[*him-see-PAST-I(EMPH) man come-he-INDIC*]
RelCl

abigá'to ntágara kánaye.
I asked him man he comes

The man whom I asked (something) is coming.

[a-pigá-'tá-ó'N yagara:' kana-y-e]
[*him-ask-PAST-I(EMPH) man come-he-INDIC*]
RelCl

minti̒ 'kúma:'tása kanaye.
he is from the village he comes

He comes from the village in which he is (staying).

[mi-nt''-i̒N kuma:'Q-taQ-sa kana-y-e]
[*be-PERF-he(EMPH) village-at-from come-he-INDIC*]
RelCl

wa'tó mpari̒sa kanaye.
I went from the ground he comes

He comes from the place to which I went.

[wa-'tá-ó'N má'-ti-sa kana-y-e]
[*go-PAST-I(EMPH) ground-to-from come-he-INDIC*]
RelCl

aegu'tái 'kasú mpáeye.
he hit him club he gets

He gets the club with which he hit him.

[a-egu'-'tá-i̒N kasó'N máe-y-e]
[*him-hit-PAST-he(EMPH) club get-he-INDIC*]
RelCl

There is, however, one syntactic co-occurrence restriction: the noun phrase head which the relative clause qualifies prevents the occurrence of a co-referential free-form noun phrase within the relative clause. Thus, no free-form relative pronouns occur in Fore. This is illustrated in (231), where the subject of the relative clause is co-referential with its 'antecedent' ..ntágara- *man*; and in (232), where the direct object of the relative clause is co-referential with ..ntágara- *man*. Asterisks indicate unacceptable utterances.

(231) aga'tó ntágarawá:we.
I saw him he is the man

nae ága'tó ntágarawá:we.
I I saw him he is the man

*áe 'aga'tó ntágarawá:we.
him I saw him he is the man

He is the man whom I saw.

(232) aga'tó ntágaraná:we.
I saw him I am the man

*nae ága'tó ntágaraná:we.
I I saw him I am the man

áe 'aga'tó ntágaraná:we.
him I saw him I am the man

I am the man who saw him.

Since noun phrases (in this instance, pronouns) may be omitted, as seen in the first examples of (231) and (232) above, potential ambiguity often occurs, as illustrated below in (233). However, wider context, both linguistic and extra-linguistic, usually resolves such issues.

(233) ami'tái ntagaránto kánaye.
he gave him child he comes

The child who gave (it) to him is coming; or:
The child to whom he gave (it) is coming; or:
The child (whom) he gave to him is coming.

[a-mu-'tá-íN yagara:'-anto' kana-y-e]
[*him-give-PAST-he(EMPH) man-DIMIN come-he-INDIC*]

RelCl

As with descriptives, a relative clause may occasionally occur as head of the noun phrase, as in (234). This only eventuates when the phrase in which it occurs as head is marked for Locative, Allative or Instrumental case.[134]

(234) aegu'tó'tá 'mintíyé.
at where I hit him *he is*

He is there where I hit him.

[a-egu'-'tá-ó'N-taQ mi-nt''-y-e
him-hit-PAST-I(EMPH)-at *be-PERF-he-INDIC*]
RelCl Case

mintí'tí wa:nó.
to where he is *are you going?*

Are you going to where he is?

[mi-nt''-íN-ti wa-a:N-ó
be-PERF-he(EMPH)-to *go-you(SG)-INTERR*]
RelCl Case

wa'tó'tísa kanaye.
from where I went *he comes*

He comes from where I went.

[wa-'tá-ó'N-ti-sa kana-y-e
go-PAST-I(EMPH)-to-from *come-he-INDIC*]
RelCl Case

máe'te kana'tái'tasa aegu'táye.
with that which he got and came *he hit him*

He hit him with what he brought.

[máe-'te kana-'tá-íN-tasa a-egu'-'tá-y-e
get-SEQ *come-PAST-he(EMPH)-with* *him-hit-PAST-he-INDIC*]
RelCl Case

Alternatively, a relative clause may take the head position of a noun phrase when it is further derived by the addition of the nominalising morpheme **-ena**, as illustrated below in (235). This derivation has already been described in 5.22(2).

[134] Other case markings apparently demand an overt head noun.

(235) máe'te kana'tóntána kamuwe.
that which I brought *I give you*

I give you that which I brought.

[máe-'te kaṇa-'tá-ó'N-ena ka-mu-u-e]
[*get-SIMU come-PAST-I(EMPH)-NOMZ you(SG)-give-I-INDIC*]
RelCl Deriv

unamégí 'abóntána ugamúwe.
that which he told me and I heard *I tell you*

I tell you that which I was told.

[u-na-mu-a:'-ki-'Q abu-ó'N-ena u-ka-mu-u-e]
[*say-me-give-he-CONJ-I hear-I(EMPH)-NOMZ say-you(SG)- -give-I-INDIC*]
RelCl Deriv

7.42 Participial Clauses

Clauses may perform the function of either verb-modifying adverb, or noun-modifying descriptive. Where this occurs, a modifying morpheme is added directly to the verb root, so that it has a participle-type function. There are two such morphemes: **-yabaQ** *HABITUATIVE* and **-'kena** *PURPOSIVE*.

7.42(1) HABITUATIVE

When **-yabaQ** is added to the verb root, the habitual performance of an action is indicated. No inflexion may be included in the verb so modified, and only single clauses, or clauses linked by reduced verbs, are used in this way.

(236) máe'te kanayaba 'miye.
always getting (it) and coming *he is*

He is always bringing (something).

[máe-'te kana-yabaQ mi-y-e]
[*get-SIMU come-HABIT be-he-INDIC*]
PartCl

sé'po náyaba 'kiná 'mintáwé.
betelnut always eating people they are

Those people are forever eating betelnut.

[sé'po' na-yabaQ kináQ mi-nt''-a:-e]
[*betelnut eat-HABIT being be-PERF-they(PL)-INDIC*]
PartCl

7.42(2) PURPOSIVE

The morpheme **-'kena** may be added to the root of the verb to indicate purpose. Once again no inflexion may be attached to the root so modified, and again, only single clauses, or clauses linked by reduced verbs, are used.

(237) **máe'te kana'kena** **piye.**
for the purpose of bringing (it) *he does*
He intends to bring (it).
[**máe-'te** **kana-'kena** **pu-y-e**
get-SIMU *come-PURPOS* *do-he-INDIC*]
PartCl

sé'po **ná'kena** **kiná** **'mintáwé.**
betelnut *purpose of eating* *people* *they are*
They are people who eat betelnut.
[**sé'po'** **na-'kena** **kináQ** **mi-nt''-a:-e**
betelnut *eat-PURPOS* *being* *be-PERF-they(PL)-INDIC*]
PartCl

It appears that **-'kena** is polymorphemic, consisting of **-'kubu** *FUTURE* plus **-ena** *NOMINALISER*. This would explain why a verb which is modified by a clause containing **-'kena** may not occur with future tense inflexion.

(238) ***na'kena pi'kiye.** *He will intend to eat.*
[**na-'kena** *eat-PURPOS;* **pu-'kubu-y-e** *do-FUT-he-INDIC*]

The usage of **-'kena** -modified clauses is very similar to that of an English infinitive, as seen in the first gloss of each example in (239) below. The verb which follows then determines how the derived form is to be interpreted.

(239) na'kena waye. *He goes to eat.*
(lit. *He goes for the purpose of eating*)

[na-'kena *eat-PURPOS;* wa-y-e *go-he-INDIC*]

na'kena piye. *He is about to eat; He intends to eat.*
(lit. *He does for the purpose of eating*

[na-'kena *eat-PURPOS;* pu-y-e *do-he-INDIC*]

na'kena abiye. *He wants to eat.*
(lit. *It does him (he likes) for the purpose of eating*)

[na-'kena *eat-PURPOS;* a-pu-y-e *him-do-it-INDIC*]

Ambiguity may arise when the clause containing -'kena functions as a descriptive, as in the first example of (240) below. This ambiguity is more apparent than real (since context and participants are usually known), but may also be resolved through the addition of other elements within the clause concluded by -'kena. This is shown in the last two examples of (240).

(240) na'kena kináne. *They are beings who eat;*
They are beings for eating.

[na-'kena *eat-PURPOS;* kináQ-e *being-INDIC*]

ya:gi na'kena kináne. *They are beings who eat bananas.*

[ya:gi... *banana*]

yaga:wama na'kena kináne. *They are beings which pigs eat.*

[yaga:-wama... *pig-DLN*]

7.43 Quotations

Almost all reported speech is embedded within the clause as the direct object of a speech verb.[135] As such, no

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[135] Anything which is said or thought is usually embedded in this manner. Occasionally Focal (7.31) or Referential (7.32) linkage is used instead.

other direct object may occur within that clause. Then, since quotations are themselves isolatable utterances, it is usual that they close with a mood morpheme, as demonstrated in (241).

(241) aeguyégina puriye iye.
he hit him and he *he died* *he said*

He$_1$ *said that he*$_2$ *killed him*$_3$.

[a-egu'-a:'-ki-na puru-y-e u-y-e
him-hit-he-CONJ-he *die-he-INDIC* *say-he-INDIC*]

Quote

pi'pá aogi namane u'tá:nó.
that *(it is a) good house* *did you say?*

Did you say that that was a good house?

[pí'N-pa aogi na:máN-e u-'tá-a:N-ó
that-FOC *good* *house-INDIC* *say-PAST-you(SG)-INTERR*]

Quote

máe'te wáo omó.
get (it) and *go!* *tell him!*

Tell him to take (it) away!

[máe-'te wa-Ø-ó u-a-mu-Ø-ó[136]
get-SIMU *go-you(SG)-IMPER* *say-him-give-you(SG)-IMPER*]

Quote

When quotes are made, it is very common to follow the quote by the verb **u** *say*, often in reduced form, prior to the main speech verb. For two verbs, **napi'**-*think* and **-pigá** *ask*, this interposition is mandatory. These are illustrated in (242).

(242) tumu'kuwe uma na'piyúwe.
I shall descend *(I) say and* *I think*

I think that I shall descend.

[tumu-'kubu-u-e u-ma na'pi'-u-e
descend-FUT-I-INDIC *say-SEQ* *think-I-INDIC*]

máeya:nó umagina nabigáye.
did you get? *(he) said and he* *he asked me*

He asked me if I had got (it).

[máe-a:N-ó u-ma-ki-na na-pigá-y-e
get-you(SG)-INTERR *say-SEQ-CONJ-he* *me-ask-he-INDIC*]

[136]The u + a > o rule for infixes was given in 4.23.

In long quotations, as in the telling of legends,[137] it is usual to follow each section of the related story with the verb **iye** *he says*. It is also permissible, though rarely used, to introduced longer reported speech by **máya: íye** *like this he says*. Whenever **máya: iyé** is used, the quote is foll- owed by **píya: íye** *like that he says*, each of which usually occur in separate phonological phrases.

(243)	**máya:**	**íye,**	**tígebá....**	**píyó,**	**píya:**	**íye.**
	like this	*he says*	*you*	*do!*	*like that*	*he says*

This is what he said, "You....do it!" he said.

[**máya:'**	**u-y-e**	......	**píya:'**	**u-y-e**
like this	*say-he-INDIC*	Quote	*like that*	*say-he-INDIC*]

[137]See, for example, two legends given in Scott (1973:49,58).

Chapter 8

SENTENCE STRUCTURE

8.1 Introduction

Probably the most intriguing aspect of non-Austronesian languages like Fore is the inordinate length of some of their sentences. These seemingly endless sentences are by no means simple linear chainings of clauses in which each clause is related to the one which follows.[138] They consist, rather, of layers of linked clauses, the last of which is followed by a mood marker to form a sentence.[139]

A sentence, then, for purposes of this description of Fore, consists of a single clause or any number of linked clauses (layered or linear) or even part of a clause,[140] to which has been added a mood marker.

The end of a sentence and closure of a phonological phrase usually coincide. Phonological closure, however, also often coincides with the ends of clauses or clause groupings, as will be seen in the sample text of chapter 9. Intonational factors thus confirm, rather than define, sentence boundaries.

Occasionally a phonological phrase continues past the mood marker and on into the next sentence. When sentences are

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[138] Although not necessarily intended, an impression of simple linear chaining is easily gained from formulae such as, for example: Sentence = (Nonfinal Clause)^n + Final Clause (see Bee, 1973:307). Many accounts of highland languages maintain this impression by describing sentences according to the individual types of linkage, while placing little emphasis on the layering (embedding) of these linkages. Longacre (1972), and papers emanating from the workshop which produced his report, has given the most comprehensive coverage of such layering to date.

[139] At this point I do not distinguish between sentence and paragraph, a problem which is discussed briefly later in this chapter.

[140] A word, phrase or combination of noun phrases, plus a mood morpheme, is labelled 'Equative', and described below in 8.31.

thus phonologically juxtaposed, an Indicative or Interrogative marker changes to the central vowel **a**, but retains any applicable accent. This is illustrated in (244).

(244) **waintíya máeyó.** *It is (there) et (it)!*
wai-nt''-y-e *be-PERF-it-INDIC;*
máe-Ø-ó *get-you(SG)-IMPER*]

kana:ná máeya:nó. *Did you come? Did you get (it)?*
[**kana-a:N-ó** *come-you(SG)-INTERR;*
máe-a:N-ó *get-you(SG)-INTERR*]

When, however, a sentence is embedded as a quote, as given in 7.43, there is usually no phonological phrase boundary between it and the following speech verb, and no change of mood vowel, for this is embedding rather than juxtaposition.

(245) **máeyuwe yuwe.** *I said, "I got (it)."*
[**máe-u-e** *get-I-INDIC;* **u-u-e** *say-I-INDIC*][141]

máeya:nó yuwe. *I said, "Did you get (it)?"*
[**máe-a:N-ó** *get-you(SG)-INTERR;* **u-u-e** *say-I-INDIC*]

8.2 MOOD MARKING

As given above, for any clause or clauses to occur as a sentence, a mood morpheme must be attached. It is added to the verb of the last clause, following that verb's Independent inflexion.[142] Description of the three moods and their markers is now given.

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[141]The **u > yu** irregularity of the verb stem *say* has already been mentioned in footnote 124.

[142]Only extremely rarely is a mood marker added to a dependent inflexion, in which case a further action is implied. See footnote 144 for this occurrence.

8.2(1) INDICATIVE MOOD

The Indicative mood marker -e is used in any sentence of the declarative type.

(246) **naninta: máe'kibene.** *You will get food.*
food you will get
[...máe-'kubu-a:N-e *get-FUT-you(SG)-INDIC*]

wa'eri wa:míne. *He goes home!*
to home he goes
[...wa-a:míN-e *go-he(EMPH)-INDIC*]

má: mintáwé. *They are here.*
here they are
[...mi-nt''-a:-e *be-PERF-they(PL)-INDIC*]

8.2(2) INTERROGATIVE MOOD

The Interrogative marker -ó is used whenever a *yes-no* question is asked.

(247) **naninta: máe'kibenó.** *Will you get food?*
food will you get?
[...máe-'kubu-a:N-ó *get-FUT-you(SG)-INTERR*]

wa'eri wa:mínó. *Does he go home?*
to home does he go?
[...wa-a:míN-ó *go-he(EMPH)-INTERR*]

má: mintáwó. *Are they here?*
here are they?
[...mi-nt''-a:-ó *be-PERF-they(PL)-INTERR*]

Whenever an interrogative base (see 5.32) is used, the marker -ó may not occur. Instead, the morpheme used is -e, which is the same as that used to show Indicative mood. Consequently it has been glossed as *INDIC* in all relevant examples. Furthermore, whenever this -e is added to a word other than that which contains the interrogative stem, an accent is induced on the -e.[143]

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[143] Further investigation may yet show that this aspect of pitch-accent is intonational rather than stress-based. Alternatively, backing of the mid-vowel, and accent, are two separate aspects of the marking of non-Indicative mood (with -e as the 'unmarked' opposition).

(248) na:náwe. *What is (it)?*
[na:ná-e *what?-INDIC*]

ae'tásawe. *Where is (it) from?*
[ae'N-taQ-sa-e *where?-at-from-INDIC*]

na:ná pené. *What are you doing?*
what? you do
[...pu-a:N-e *do-you(SG)-INDIC*]

8.2(3) IMPERATIVE MOOD

The Imperative mood marker is also -ó, but the subject suffixes that precede it must come from the Imperative set, given earlier in (90). -ó is only used with second person forms, where its function varies from marking a strong imperative to indicating a polite request.

(249) naninta: máeyó. *Get food!*
food get!
[...máe-Ø-ó *get-you(SG)-IMPER*]

má: miyíyó. *Stay here!*
here be!
[...mi-íy-ó *be-you(PL)-IMPER*]

With first and third person Imperative subject markers, the mood morpheme used is -e (and again glossed as *INDIC*). It must, however, take an induced accent as a result of its association with Imperative subject markers.[144]

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[144] These non-second person forms are difficult to elicit, except when followed by -mawé, which I tentatively analyse as the sequence morpheme -ma plus the Indicative mood marker -e plus accent. E.g. kaná:némawé *Let us come then!* [kana-á:N-e-ma-e *come-we(PL/IMPER)-INDIC-SEQ-INDIC*]. Second person imperatives may also occur in this form. E.g. kanáiyómawé *Come then!* [kana-íy-ó-ma-e *come-you(PL)--IMPER-SEQ-INDIC*].

A similar phenomenon occurs with defective verbs. E.g. umawé *(Let's go) over (there)!* [u-ma-e *overto-SEQ--INDIC*]. The negative ka'N is commonly used in this form, where it takes y rather than the expected w as its transition consonant. E.g. kampáyé *(It is) not (so); No!* [ka'N-ma-e *not-SEQ-INDIC*].

(250) **naninta: máeya:né.** *Let us get food!*
food let us get!
[...**máe-á:N-e** *get-we(PL/IMPER)-INDIC*]

má: miyíyé. *Let them stay here!*
here let them be!
[...**mi-íy-e** *be-they(PL/IMPER)-INDIC*]

8.3 SENTENCE BASES

The term 'sentence base' is used here in an ad hoc manner to give a common label to the clause or clauses or part of a clause, which, by the addition of a mood morpheme, comprise a sentence.

8.31 Non-Verbs

When the sentence base is a non-verb word or phrase, or combination of two phrases in which one is the complement of the other, the addition of a mood morpheme enables that base to occur in isolation. That base plus mood morpheme is thus a verb-less sentence, for which the term 'Equative' is used.[145]

When complementary items appear, the morpheme **-pa** *FOCUS* is used to separate them, as seen in the third example of (251) below. Otherwise **-pa** does not occur in Equatives, since it may not occur at the end of an independent utterance, as already noted in 6.24(1).

[145] This term appears in Scott (1968:59). 'Equational' is also commonly used, as indicated by Franklin (1971:75). See use also in Renck (1975:200). A possible alternative analysis of a clause containing a zero verb is rejected, for the many restrictions required would be unique and ad hoc.

(251) na:máne. *It is a house.*

[na:máN-e *house-INDIC*]

náe 'wa'erane. *It is at my place.*
my at place

[...wa'e-taQ-e *place-at-INDIC*]

pí 'karíba aga:síya: yágarawé. *That person is an*
that person extreme man awesome man.

[...karí-pa *person-FOC;* ...yagara:'-e *man-INDIC*]

mó ntamá'pinó. *Is (it) in that house*
that down there in house? down there

[...na:máN-piN-ó *house-in-INTERR*]

kana: kiná'kewó. *Is it with those people?*
mentioned with beings?

[...kináQ-ke-ó *being-and-INTERR*]

pí'kawó. *Is it about that?*

[pí'N-ka-ó *that-concerning-INTERR*]

8.32 Single Clauses & Linear Sequences

When a sentence contains only one clause, the verb of that clause is an independent verb, whose inflexion was described in 4.3. All the examples given in (246-250) during presentation of mood morphemes, are single-clause sentences, so no further illustration is warranted.

When a sentence contains two or more clauses linked in a single coordinate or non-coordinate relationship, the verbs of all but the last clause are dependent verbs which indicate that linkage. The verb of the final clause is an independent verb, to which the sentence-making mood marker is attached. Examples throughout (207-214) and (219-228) illustrate such sentences. The first examples of (207) and (219), whose linkages are switch-reference coordination and focal type respectively, are repeated now in (252), for quick reference. The mood marker is indicated by subscript in each example.

SWREF

(252) kana:gá 'kaga'kuwe. *You shall come and I shall see you; When you come I shall see you.*

[kana-a:-ki-'Q *come-you(SG/FUT)-CONJ-I;*
ka-ka-'kubu-u-e *you(SG)-see-FUT-I-INDIC*]

FOC

na'piyó'pá kana'kibene. *I think that you shall come.*

[na'pi'-ó'N-pa *think-I(EMPH)-FOC;*
kana-'kubu-a:N-e *come-FUT-you(SG)-INDIC*]

This is the level at which sentences and sentence types are usually described in highland languages. Sentences, however, may contain more than one type of linkage, whereupon layering occurs.

8.33 Layering of Clause Linkages

Two types of linkage, for example, occur in the examples given in (253) below. The three verbs given each constitute a clause. As indicated above the example, the last two verbs constitute a simultaneously linked clause grouping, which is linked to the first verb by switch-reference coordination. The last verb of the three is an independent verb which takes the mood morpheme to complete the sentence.

SWREF
SIMU

(253) namogá 'máe'te kana'túwe.
he gave me and I (I) got and I came

He gave (it) to me and I brought (it).

[na-mu-o'-ki-'Q máe-'te kana-'tá-u-e
me-give-he(PAST)-CONJ-I get-SIMU come-PAST-I-INDIC]

While it would seem that the switch-referencing of **namogá** could apply to either of the verbs which follow it, **namogá** actually takes its switch-reference form in relation to **kana'túwe**, which is the last verb of the simultaneously linked **'máe'te kana'túwe.** This linkage of clause groupings through the last verb in each, is seen more clearly in (254), where it is impossible to interpret the first verb as showing any specific relationship to the second.

COORD

SWREF

(254) **kanantá** **'namogá** **'mae'túwe.**
(I) came and I *he gave me and I* *I got*

When I came he gave (it) to me and I took (it).

[kana-nta-'Q na-mu-o'-ki-'Q máe-'tá-u-e
come-COORD-I *me-give-he(PAST)-CONJ-I* *get-PAST-I-INDIC*]

Here, both **kanantá** and **'namogá** are each specifically linked to **'máe'túwe**. For **kanantá** to have been linked to **'namogá**, a change in its inflexion, as shown in (255), is needed.

SWREF

(255) **kanauwá:gana** **namogá** **'mae'túwe.**
I came and he *he gave me and I* *I got*

I came and he gave (it) to me and I took (it).

[kana-uwá:-ki-na na-mu-o'-ki-'Q máe-'tá-u-e
come-I(PAST)-CONJ-he *me-give-he(PAST)-CONJ-I* *get-PAST-I-INDIC*]

When clause groupings embed within other clause groupings, as shown above in (253) and (254), there is only one restriction on the type of grouping (or linkage) which may occur within another. This restriction concerns reduced verbs. Apart from switch-reference coordination, clauses whose linkages are signalled by non-reduced verbs do not occur within those whose linkages are by means of reduced verbs. Thus, in (256) below, where **máe'te** is a reduced verb, an analysis of is acceptable, while is not.

SEQ

SIMU

(256) máe'te kanamagina namiye.
(he) got and (he) came and he he gave to me

He got (it) and came and gave (it) to me.

[máe-'te kana-ma-ki-na na-mu-y-e
get-SIMU come-SEQ-CONJ-he me-give-he-INDIC]

That this is correct is seen when a free-form subject is added. In keeping with the limitations given for reduced verb linkages in 7.22(4), a free-form subject such as áe' *he* does not precede kanamagina,[146] thus showing that máe'te kanamagina, and not kanamagina namiye, is the embedded grouping.

(257) ae máe'te kanamagina namiye; or

máe'te kanamagina áe námiye; but not

*máe'te áe kánamagina namiye.

He got (it) and came and gave (it) to me.

Clauses linked in switch-reference coordination occasionally occur within a reduced verb linkage. as illustrated in (258), where kanama is a reduced verb, and namegí indicates switch-reference. Such embeddings suggest that some of the switch-reference combinations (e.g. speech-response) are themselves functioning in the same way as same-subject reduced verbs. Occasional noun phrase placement ahead of switch-reference combinations appears to confirm this.[147]

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[146]Even this rule is occasionally flouted, as seen in clause *J* of the sample text given in the next chapter.

[147]With verb morphology indicating the subject of a clause, and often one of the objects as well, free-form non-verb items in a clause are only required when new information is included, or where some kind of emphasis is indicated. Consequently, the placement of free-form items has more relevance to theme/topic (which have yet to be adequately investigated) than to the present discussion. ...(cont)..

SEQ

SWREF

(258) nae kánama namegi̔ 'máeyuwe.
I (I) came and he gave me and I I got (it)

I came and he supplied me with it.

[náe' kana-ma na-mu-a:'-ki-'Q máe-u-e
I come-SEQ me-give-he-CONJ-I get-I-INDIC]

8.4 Sentence or Paragraph?

One of the problems facing analysts of languages like Fore is whether to consider these long combinations of clauses as sentence or paragraph.

It is, of course, possible to analyse each clause grouping, and even each individual clause, as a sentence which may have either dependent or independent inflexion,[148] with mood as part of the independent inflexion. Each long utterance would then be a sentence with extensive embedding. This would mean just one grammatical level, that of sentence, between phrase and discourse. There are, however, some factors which make the positing of a paragraph level, as separate from a sentence level, attractive. These factors have already been discussed at some length by Longacre (1972: 27f; 1973:v) and Scott (1973:18f), so I shall only reiterate some factors briefly here.

Firstly, there is the length of linked clauses which far exceeds that which the term 'sentence' generally conjures

..... With the relationship between clauses also tied to verb morphology, it is not uncommon to find a number of consecutive clauses each consisting only of a verb. The examples through this chapter are all readily acceptable to native Fore speakers, although each is dependent upon social context for identification of participants and interpretation of events.

[148] James (1970), using a transformational-generative model, has indicated that this can be a very acceptable analysis. In her brief presentation of embedding and coordination in the related Siane language, she shows that dependent verbs may be analysed as derived from independent verbs by means of transformation, and thus are basically very similar.

up. This is particularly so in narrative, descriptive and procedural type discourses in Fore. Yet there are groupings within these long 'chains', groupings linked together by switch-reference coordination, which are closer to the length of sentences in other languages.

Secondly, usage of the specific same-subject coordinators **-ma** *SEQUENCE* and **-'te** *SIMULTANEITY* is far more extensive than that of the general same-subject coordinator **-nta**, which suggests that **-nta** may have some specialised function. It appears many times in the midst of long same-subject strings, as though to break the utterance into smaller chunks. Consequently, both **-nta** and the switch-reference markers might be analysed as linking sentences within paragraphs.

Thirdly, there is some reiteration which occurs within as well as between these long groupings. For example, in the sample text, clause *t* is a reiteration in switch-reference format, of the information given in the previous clause *s*. Clause *j* also restates a previous verb. Such pauses in the utterance indicate some kind of division, which could be considered as sentence groupings within a paragraph.

Fourthly, the exclamation **pígo'** *okay*, which often introduces these long sequences, also occurs within them, as in clause *H* of the sample text. Obviously some kind of internal grouping is indicated.

Finally, phonological phrasing often follows semantic groupings, giving some indication of possible grammatical divisions. (Commas are used in the sample text to indicate the phonological phrasing made by the speaker during recording on tape.)

Such considerations, however, are outside the scope of the present study. In keeping, then, with the description given in these chapters, the sample text which follows (as one long linked utterance) is presented as a one-sentence discourse.

Chapter 9

ANALYSIS OF A DISCOURSE

9.1 Introduction

Previous chapters have described how the various components of Fore phonology and morphology function. Now, in this chapter, the grammatical relationships of a complete but necessarily short discourse are indicated.

Underlying morpheme forms have been included in full. Apart from the irregularities given in footnotes, application of the morphophonemic rules from chapter 3 will produce the surface realisations given. The phonology in chapter 2 has already described the relationship between such written realisations and their spoken equivalents.

The text as given is grammatically unedited. It was recorded on tape in the field, and later discussed at length with David Ayamaso and Maneo Pane, my chief assistants during recent fieldwork. As spoken language within a social context, they accept it as grammatical. Commas have been used to show where the speaker paused when giving the narration. Between commas are single-breath groupings, each of which constitutes a phonological phrase.

9.2 THE TEXT

9.2(1) ORIENTATION

The speaker of the text, Ayore, recounts to this writer the day's events as she lived them.

Above her hamlet on the hillside at Aobakaumaenti lived her pig; below was her garden. After feeding her pig, she accompanied her nephew, Kabare, down to where he was to build a fence for the writer (hence the words *your work*). She then continued down to the writer's house.

Years previously, Ayore had adopted the writer's wife, local style, as daughter. This resulted in the mutual usage of kin terms (accounting for *mother-in-law* in the text).

In the early hours of this particular morning, the household cat, shut out for the night, caught and ate a rat, then killed a second which it left deposited near the doorway. Since any kind of game is a delicacy, and for Fore women and children fieldrats are no exception, the writer called to Ayore to see what her reaction would be. As she describes it, her son Pirinaunumu eventually made off with it.

The next event was to take over sweeping of the house from her adopted daughter (to whom she had given the name *Mabarita*). Then off she went to dig sweet potato from her garden, which another son, Aegaya, carried back down to the house. Telling him to look after her grandson, Ayaiya, she went up to another of her gardens near the hamlet of Kiyagamuti, where she filled her netbag with a type of edible plant.

Then she went on up to Kiyagamuti, where she cooked and ate some of the greens she had collected, before returning to the writer's house to collect her children -- and to tell her story.

9.2(2) THE TEXT

(259) *The Day's Events*, by Ayore.

a)

wa'ené'tísa	**ná:nte'písa**	**irósa'ú'tegí,**
from my place	*from my house*	*I departed and I*
[**wa'e-né'N-ti-sa**	**ná:N-né'N-piN-sa**	**irósá-'te-ki-'Q**[149]]
place-my-to-from	*house-my-in-from*	*depart-SIMU-CONJ-I*

Leaving my house in the village, ...

b)

yaga:némpá	**ntaba**	**tumpa**
my pig's	*food*	*I went down and*
[**yaga:-né'N-ma-N**	**na-pa**	**tuN-ma**]
pig-my-DLN-OBL	*thing-FOC*	*downwards-SEQ*

... I went down and dug food for my pig, ...

c)

ku'magí,
I dug and I
[**kubu-ma-ki-'Q**[150]]
dig-SEQ-CONJ-I

d)

aoba'káumaentísa	**mé**
from Aobakaumaenti	*down there*
[**aoba'káumae'N-i-sa**	**mé'**
Aobakaumaenti-to-from	*downthere*

... then went up from Aobakaumaenti

ásumí'tegí,
I went up and gave to it and I
asu-a-mu-'te-ki-'Q]
upwards-it-give-SIMU-CONJ-I

and put its food down there, ...

e)

tumima
I descended and
[**tumu-ma**]
descend-SEQ

... then I came on down ...

f)

tumimagí
I descended and I
[**tumu-ma-ki-'Q**]
descend-SEQ-CONJ-I

g)

'kabá:re'pá	**me**
Kabare	*down there*
[**kabá:re'-N-pa**	**mé'**
Kabare-OBL-FOC	*downthere*

... and down there left Kabare ...

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[149] The irregular verb root **irósá** *depart* in this construction takes the form **irósa'ú** prior to the application of morphophonemic and phonetic rewrite rules.

[150] The irregular verb root **kubu** *dig* here takes the form **kuQ** prior to the application of rewrite rules.

túnka'táogana
I went down and left him and he

tuN-a-'ta-ó-ki-na
downwards-him-put-I-CONJ-he

h) eri'ya: 'máe'kena
work to get

[eri'ya:Q máe-'kena
work get-PURPOS]

... who came down here

a'túmegí, káe 'eri'ya: 'máe'kena,
he descended here and I your work to get

aN-tumu-a:'-ki-'Q káe'- Q eri'ya:Q máe-'kena
overat-descend-he-CONJ-I you(SG)-OBL work get-PURPOS

to get work, to do work for you, ...

i) naebá tumimagí
I I descended and I

[náe'-pa tumu-ma-ki-'Q
I-FOC descend-SEQ-CONJ-I]

... and I came down ...

j) 'ma:
here

[má:'
here]

... and when I arrived

túmpintógana,
I came down and was here and you

tuN-mi-nt''-ó-ki-na'
downwards-be-PERF-I-CONJ-you(SG)

here ...

k) aentá:nempá-ó
my mother-in-law!

[aentá:'-né'N-ma-ó
oldwoman-my-DLN-VOC]

... you said, "Mother-

kanáo ye'ká
come! you said and I

kana-Ø-ó u-a:'-ki-'Q[151]
come-you(SG)-IMPER say-you(SG)-CONJ-I

-in-law, come here!" ...

l) 'wáogana,
I went and you

[wa-ó-ki-na'
go-I-CONJ-you(SG)]

... and I went ...

m) mé, púsiwáma úmu páma
down there the cat a rat it caught and

[mé'N púsi'-wama úmu' pa-ma
downthere cat-DLN rat shoot-SEQ]

... and you showed me down there where the cat had killed a

---

[151] The irregular verb root **u** *say* changes to y in this position.

n) ta:mí'pa
it completed

[ta-a:míN-pa
burn-it(EMPH)-FOC]

rat, ...

o) uma
you went over and

[u-ma
overto-SEQ]

p) naya:'ke'ká,
you showed me and I

[na-ya:'ku-a:'N-ki-'Q
me-show-you(SG)-CONJ-I]

q) umáerí'tegí
I went over and got it and I

[u-máe-uru-'te-ki-'Q
overto-get-hold-SIMU-CONJ-I]

... and I went and took it ...

r) 'ampa
I went and

[aN-ma
overat-SEQ]

s) kaemagí,
I cooked it and I

[kae-ma-ki-'Q
cook-SEQ-CONJ-I]

... and went and cooked it, ...

t) kaemíyógana
I was cooking and he

[kae-mi-ó-ki-na
cook-be-I-CONJ-he]

... and while I was cooking it ...

u) kana:gí,
he came and I

[kana-a:'-ki-'Q
come-he-CONJ-I]

v) pirínaunumú
to Pirinaunumu

[pirínaunumú-N
Pirinaunumu-OBL

... Pirinaunumu came, and I gave it to

nkamógana
I gave him and he

a-mu-ó-ki-na]
him-give-I-CONJ-he]

him ...

w) máe'te
he got and

[máe-'te
get-SIMU]

x) wagasá:gí,
he went away and I

[wa-kai-a:'-ki-'Q[152]
go-castaside-he-CONJ-I]

... and he took it away to eat, ...

y) má:mpa
here

[má:'N-má'
this-ground

má:barí'tabá
Mabarita

ma:barí'ta'-pa
Mabarita-FOC

purímiyená
sweeping

purími'-ena
broom-NOMZ

pumíyegí
she was doing and I

pu-mi-a:'-ki-'Q]
do-be-she-CONJ-I]

... and Mabarita was here sweeping ...

---

[152] The irregular verb root **kai** *cast aside* takes the form **kasa** when preceding vowels. See section 4.23.

z) 'asu'pa'úrintá,
I went up and took hold and I

[asu-a'parú-uru-nta-'Q[153]
upwards-clasp-hold-COORD-I]

... and I went in and took the broom, ...

A) purímiyenába
sweeping

[purími'-ena-pa
broom-NOMZ-FOC

... and I

puma
I do and

pu-ma
do-SEQ]

swept ...

B) mé
down there

túnka'tá'tegí
I went down and put it and I

[mé'
downthere

tuN-a-'ta-'te-ki-'Q
downwards-it-put-SIMU-CONJ-I]

... and put the rubbish down there ...

C) 'pumú'tá'tegí
I repeatedly did it and I

[pu-mú'tá-'te-ki-'Q[154]
do-REPET-SIMU-CONJ-I]

... and after doing that ...

D) 'aegayá: nta
Aegaya's food

[aegayá:'-N na
Aegaya-OBL thing

... I went and dug sweet

ísa'a:bá
sweet potato

ísa'a:'-pa[155]
sweetpotato-FOC

uma
I went and

u-ma
overto-SEQ]

potato for Aegaya ...

E) ku'ma
I dug and

[kubu-ma[156]
dig-SEQ]

F) aesaga'urí'tegí
I carried it and I

[aesaga'Q-uru-'te-ki-'Q
carryonhead-hold-SIMU-CONJ-I]

... and I carried it ...

G) 'má: me
here down there

[má:' mé'N
here downthere

... and put it down

---

[153] The irregular verb root **a'parú** *clasp* here takes the form **a'pa'ú** prior to application of rewrite rules.

[154] The repetitive morpheme **-mú'tá** appears to be an idiomatic form composed of a double benefactive: **a-mu** *it-give* plus **a-'ta** *it-put*. Vowel fusion and accent induction would then produce the form **-mú'tá**.

[155] **ísa'a:bá** *sweet potato* is here used appositionally to specify the generic **na** *thing*.

[156] **kubu > kuQ** *dig* has already been given.

nká'tá'tegí, *I put it and I*
a-'ta-'te-ki-'Q *it-put-SIMU-CONJ-I*
here, ...

H) pígoyá, *okay*
[pígo'-a *okay-JUXTA*]
... okay, ...

I) káe ma:'tá *you here*
[káe' má:'N-taQ *you(SG) here-at*]
... then I told him

'ayaiyá:'kaba kabiyó o'tá'te
concerning Ayaiya take care of! I commanded him and

ayaiyá:-N-ka-pa kabi'-Ø-ó u-a-'ta-'te
Ayaiya-OBL-REFT-FOC care-you(SG)-IMPER say-him-put-SIMU

to care for Ayaiya here ...

J) náebá anintaená purí'tegí
I preparing greens I did and I

[náe'-pa anínta:'-ena pu-uru-'te-ki-'Q
I-FOC greens-NOMZ do-hold-SIMU-CONJ-I]

... while I collected some green vegetables ...

K) 'kiya:gamu'tisá asugúma
from Kiyagamuti I went up and cooked and

[kiya:gamu'-ti-sa asu-ugu-ma
Kiyagamuti-to-from upwards-cookinbamboo-SEQ]

... and then I went up and cooked some and from Kiyagamuti ...

L) nagái'te
I finished eating and

[na-kai-'te
eat-castaside-SIMU]

... when I had eaten ...

M) má:mpa túmuwe.
here I came down

[má:'N-má' tumu-u-e
this-ground descend-I-INDIC]

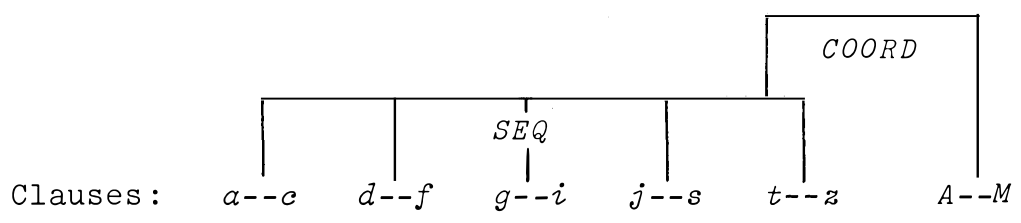
... I came down here.

9.3 Structure of the Text

The morphological analysis of each clause has been given within square brackets below the text proper. Relationships between the clauses are now given briefly.

The text contains six main clause groupings, lettered *a--c, d--f, g--i, j--s, t--z, A--M*. The first five of these are conjoined sequentially using the morphemes [**-ma-ki** *-SEQ-*-*CONJ*] in clauses *c, f, i, s*. This sequence of five is then joined to the sixth grouping of clauses by means of the general coordinate marker [**-nta** *COORD*] in clause *z*.[157]

(260) MAIN CLAUSE LINKAGES:



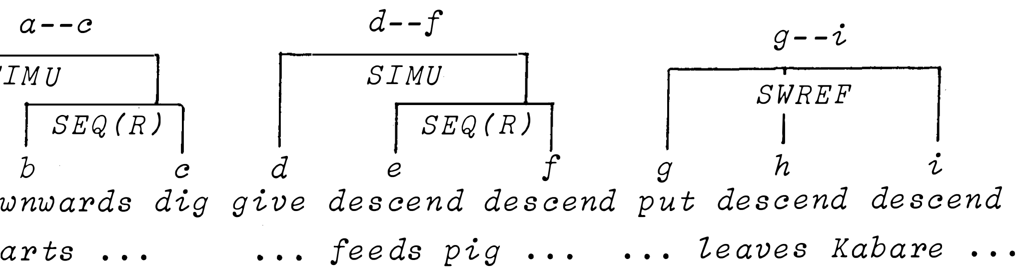
Relationships within each of the six main groupings are displayed below in (261). In that display, the gloss of the main verb root of each clause has been stated for the reader's orientation, as has a brief summary of the subject matter of each grouping. Relationships involving reduced verbs have been indicated by *(R)*.

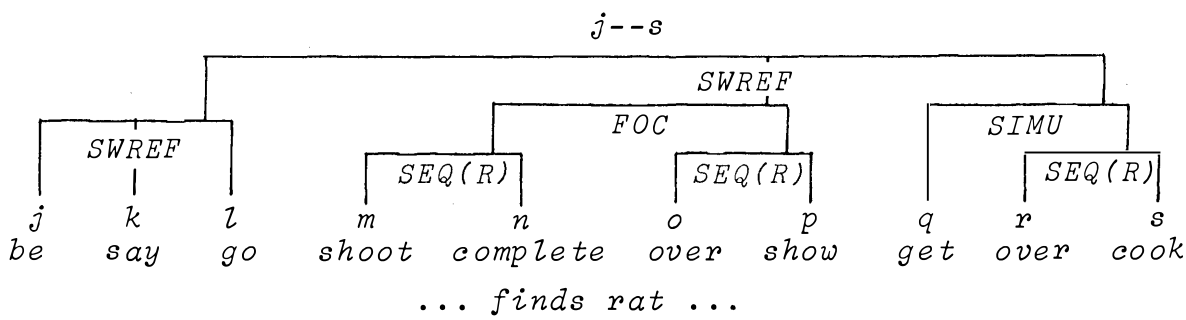
[157] Other analyses are possible, but that which is given is considered the most attractive. Each involves considerable embedding. For example, the text could alternatively have been analysed as a series of eight simultaneously-linked groups of clauses: *a, b-d,* a long embedded sequence *e-B, C, D-F, G, H-J, K-M*.

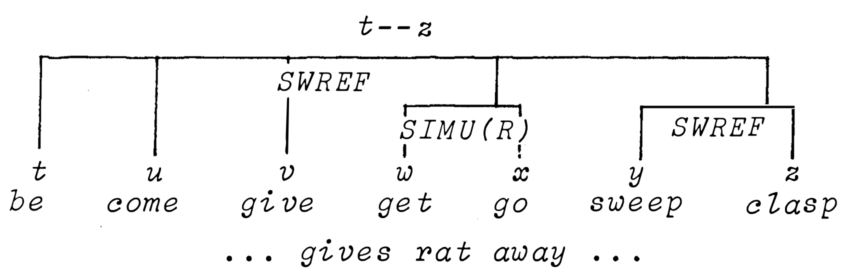
Some of the factors involved in such an analysis have already been mentioned. These include the closely knit clause groupings indicated by reduced verb linkage, phonological phrasing which suggests clause grouping boundaries, and the occurrence of **-nta** *COORD* as a possible sentence marker. Other factors include reiteration (in clauses *g, j, t*), and the use of **pígo'** *okay* (clause *H*), which were both given as links between sentences in Scott (1973:38f), but here also indicate groupings within the sentence.

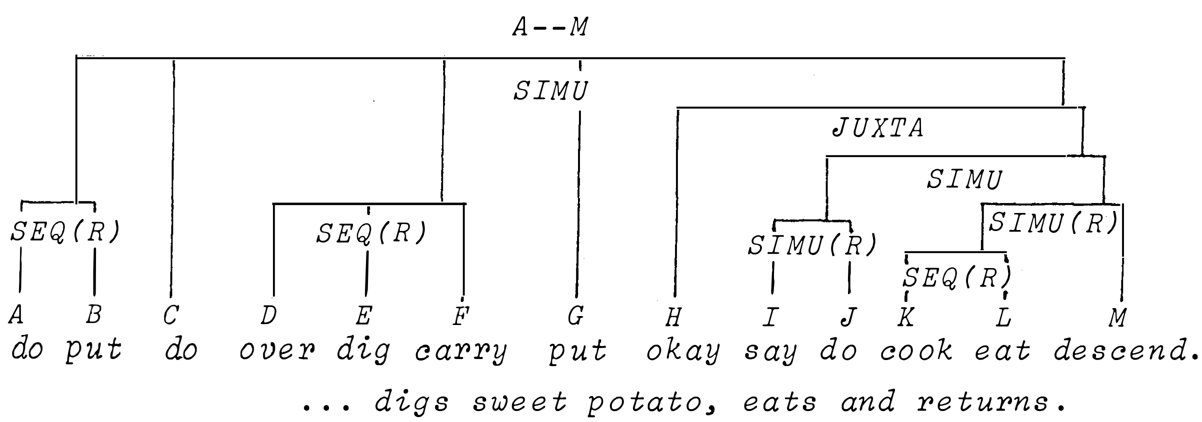
(261) LINKAGES WITHIN MAIN GROUPINGS:

Clauses:









Chapter 10

PROTO-PHONOLOGY

10.1 Introduction

Inevitably, one asks the question: How is this language related to those around it? In this chapter, I briefly discuss the phonological correspondences which exist between Fore and the other languages of the East-Central family, and state factors in the development of Fore phonemes. In view of the limited amount of data investigated, these findings must be regarded as tentative, pending further detailed research.

10.2 East-Central Languages

The languages of the East-Central family, whose locations were given earlier in Map 1, are listed again in (262) for convenience. The stylised format used in (262) indicates their relative physical proximity to each other.

(262) LANGUAGES OF THE EAST-CENTRAL FAMILY:

GENDE (Gn)			
ASARO (As)	*GAHUKU (Gh)*	*BENABENA (Bn)*	*KAMANO (Km)*
SIANE (Si)	*YABIYUFA (Yb)*	*YAGARIA (Yg)*	*YATE (Ya)*
		GIMI (Gm)	*FORE (Fo)*

10.2(1) LEXICOSTATISTICS

Wurm (1975c:468) places these languages into five subfamilies: Gende; Siane/Yabiyufa; Asaro-Gahuku/Benabena; Kamano-Yate-Yagaria; Fore/Gimi.[158] My own figures, given below in (263), basically confirm these groupings, but suggest that Yabiyufa is equidistant from Siane and Asaro-Gahuku (and thus possibly the result of simultaneous divergence), and that Benabena is similarly equidistant from Asaro-Gahuku and Kamano-Yate-Yagaria.[159]

The figures given are based upon the data given in the Appendix,[160] which was kindly supplied and checked by linguists working in the individual languages.

(263) PERCENTAGES OF COGNATES
BETWEEN EAST-CENTRAL LANGUAGES:

Gende										
37	*Siane*									
32	64	*Yabiyufa*								
39	55	59	*Asaro*							
34	58	62	80	*Gahuku*						
34	45	49	49	57	*Benabena*					
29	37	39	41	48	55	*Kamano*				
30	34	35	39	43	49	67	*Yate*			
28	33	35	40	41	49	47	66	*Yagaria*		
29	29	31	32	33	37	40	45	50	*Fore*	
29	31	34	33	34	39	36	43	47	60	*Gimi*

---

[158] Hyphens indicate dialects or dialect chains. Wurm's Yate-Keiagana-Kanite dialects have been included as one language under the label 'Yate'.

[159] This has already been mentioned by Wurm (1971:553f), who also suggests Gimi as a language linging East-Central and Eastern families.

[160] The total 171-word survey list of Bee and Pence (1962) is included in the Appendix. Some of the items (whose .....

10.2(2) CORRESPONDENCES

In this sub-section, sound correspondences from the data given in the Appendix are listed. These correspondences are given in support of the proto-phonology which is tentatively reconstructed for the East-Central family, as given in (264). The bracketted proto-phonemes must be regarded as extremely tentative, as explained below.

(264) EAST-CENTRAL PROTO-PHONEMES:
(Tentative)

*p	*t	*k	
*v	*s	*y	
*m	*n		
*(mp)	*(nt)	*(nk)	*(')

*i		*u
*e		*o
	*a	

Reflexes of these proto-phonemes in contemporary daughter languages are shown below in (265) and (266), where hyphenation is used to indicate distribution within a word. For example, p- occurs word-initially, -p- word-medially, and p occurs in all consonant positions. Items from the Appendix in which correspondences are found are listed following each set of correspondences.[161]

...glosses are bracketted in the Appendix) were ignored for percentage purposes. Of these, some are duplicate entries (e.g. *eat-drink, foot-leg, hair-feather, hit-kill*); others are derivatives (e.g. *bite* from *eat/hit/pain, sleep* from *recline, when?* from *what?*, and colours, numbers and dual forms). See Laycock (1970) for pitfalls inherent in the collection of lexical lists in New Guinean languages.

[161] For items which follow 'See:', a tentative reconstruction which includes this proto-phoneme is given in the Appendix. Items following 'Also see:' show correspondences, but no reconstruction has been attempted.

(265) CORRESPONDENCES:

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*p	p- / -v-	f	h	h	h	f	f	f	f- / -v-	p- / -b-	h- / -b- [162]

See: *die, father, root, sugarcane, sun, tongue.*
Also see: *ashes, flying fox, long, rat, seed, shoulder, snake, star, stone.*

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*t	t- / -r-	l	l	l	l	l	t- / -r-	l	l	t- / -r-	r [163]

See: *arrow, ashes, axe, blood, burn, die, dog, heart, two, we(PL), you(PL).*
Also see: *cassowary, catch, cloud, fall down, fly, flying fox, hear.*

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*k	k- / -g-	k	Ø- / -k-	g	g	g / k-	k- / -g-	k- / -g-	g	k- / -g-	k- / -g- [164]

See: *back, banana, blood, brother, cough, dog, ear, foot, head, heavy, hungry, laugh, name, netbag, new, nose, path, rain, sand, see, skin, you(SG).*
Also see: *hear, shoulder.*

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*v	v	w	v	v	v	v	v	v	v	w	b [165]

See: *full, man, tooth.*
Also see: *eye, fat, person, recline, woman, yam.*

(continued overleaf)

---

[162] Within the family, f fluctuates between labiodental and bilabial friction (Lucht and James, 1962:15; Rosemary Young, 1962:96).

[163] This proto-phoneme has been given as a voiceless *t (rather than *l or *r) in anticipation of analysis soon to be given. l and r represent flapped vibrants. In Yabiyufa, l is analysed as unflapped (Potts, et al., 1974:8), while in Yate and Yagaria it is phonetically a velar lateral affricate (Gibson and McCarthy, 1961:60; Renck, 1967:35).

[164] Throughout the family, g is often a fricative (Deibler, 1976:5; Potts, et al., 1974:7; Renck, 1967:31; Rosemary Young, 1962:94).

[165] v represents a bilabial fricative (Potts, et al., 1974:6; Renck, 1967:33; Rosemary Young, 1962:94).

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*s	Ø-			Ø-	h-	h-	Ø-	h-	h-	Ø-	Ø-
	-t-	-s-	-s-	-s-	-s-	-s-	-s-	-s-	-s-	-s-	-s,z-

See: *new, tobacco, where?, wind.*
Also see: *bite, leaf, liver, recline, stand, wallaby, yam.*

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*y	y,z	y	y	z	z	y	y	y	y	y	z[166]

See: *banana, bone, hair, hand, sugarcane, thumb, tree, wind.*
Also see: *seed, yesterday.*

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*m	m	m	m	m	m	m	m	m	b	m	m

See: *back, bird, breast, earth, egg, give, heart, hot, house, louse, meat, this, thumb.*
Also see: *sit.*

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*n	n	n	n	n	n	n	n	n	d	n	n

See: *baby, big, bird, eat, house, I, louse, tongue, vine, water, what?.*
Also see: *morning, person.*

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*i	i	i	i	i	i	i	i	i	i	i	i

See: *arrow, baby, breast, foot, moon, say, tobacco, wind.*

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*e	e,i	e	e	e	e	e	ä,e	e	e	a,e	a,e,i

See: *arrow, back, banana, man, sand, two.*
Also see: *meat, person, stone, wallaby.*

(continued overleaf)

---

166 y represents a palatal fricative which is occasionally described as grooved (z), or as occurring without friction (McBride and McBride, 1973:8a; D. Strange, 1965:7; Rosemary Young, 1962:95).

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*a	a	a	a	a	a	a	ă,a	a	a	a,a:	a[167]

See: *ashes, baby, big, bird, blood, bone, breast, dog, egg, father, foot, hand, heavy, hungry, louse, meat, new, path, root, sand, sugarcane, this, tongue, tree, vine, wind, woman.*

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*o	o	o	o	o	o	o	o	o	o	o,a,a:	o,a,au

See: *blood, brother, father, hair, head, heart, hot, house, netbag, new, nose, rain, sun, Thumb, water.*

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*u	u	u	u	u	u	u	u	u	u	u	u

See: *axe, baby, bone, egg, heart, hot, root, skin, tobacco, tongue.*
Also see: *afternoon, bark.*

The bracketted proto-phonemes *(mp), *(nt), *(nk), *(') are a tentative attempt to complete the inventory and account for some of the correspondences which are less well attested. These are given in (266), where the glottal stop *(') has been given preceding other consonants, pending discussion below.

(266) CORRESPONDENCES (continued):

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*(mp)	-mb-	-mb-	-p-	-mb-	-p-	-p-	-mp-	-p-	-p-		

See: *big.*
Also see: *baby, bite, black, neck.*

	Gn	Si	Yb	As	Gh	Bn	Km	Ya	Yg	Fo	Gm
*(nt)		-nd-	-d-	-nd-	-t-	-t-	-nt-	-t-	-t-	-nt-	-d-

See: *heavy.*
Also see: *head, morning, mother, you(DL).*

(continued overleaf)

[167] Kamano's short transitional central vowel ă never occurs in a stressed syllable. It has been omitted from the wordlist preceding **r** (Payne and Drew, 1961:35; Drew, 1975).

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*(nk)		-ng-	-k-	-ng-	-k-	-k-					

Also see: *afternoon, dance, morning, recline, you(PL).*

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*('m)	-m-	-m-	-b-	-'m-	-'m-			-m-	-p-	-mp-	-p-

See: *bone.*
Also see: *cloud, eye, heart, knee, mountain.*

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*('n)	-n-	-n-	-d-	-'n-	-'n-	-t-	-'n-	-'n-	-d-	-nt-	-d-

See: *ashes, tongue.*
Also see: *afternoon, axe, cassowary, fly, forehead, hungry, long, moon, neck, short, stone.*

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*('p)				-p-		-p-	-p-	-p-	-p-	-p-	-p- [168]

See: *heart, sand.*

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*('t)	-t-	-t-	-t-	-t-	-t-	-t-	-t-	-t-	-t-	-t-	-t-

See: *full.*
Also see: *cough, knife, round, sister, stand.*

	Gn	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*('k)		-k-	-k-	-k-	-k-	-k-	-k-	-k-	-k-		-k-

See: *moon.*
Also see: *hot, smoke, wing.*

	Gh	*Si*	*Yb*	*As*	*Gh*	*Bn*	*Km*	*Ya*	*Yg*	*Fo*	*Gm*
*(')				-'-	-'-	-'-	-'-	-'-	-'-	-'-	-'-

See: *no.*
Also see: *long.*

---

[168] Fore's **-'p-**, **-'t-**, **-'k-** have here been written simply as **-p-**, **-t-**, **-k-** in keeping with the orthography used in the other languages.

As seen above in (266), the less well attested proto-phonemes *(mp), *(nt), *(nk), *(') are built upon word-medial correspondences only. Therefore, at this stage, they are proposed as having had word-medial occurrence only, in proto-East-Central. The three prenasalised stops may yet be shown to have occurred initially, for prenasalised stops occur initially (as well as medially) in four of the present-day East-Central languages, where they are analysed as unitary phonemes.[169] *(mp), *(nt), *(nk) are thus analysed as unitary proto-phonemes.

Although the glottal stop is generally missing from Gende, Siane and Yabiyufa,[170] it is included as an East-Central proto-phoneme (rather than a more recent innovation), for it also occurs in languages of the closely related Eastern family.[171] Its somewhat haphazard pattern of co-occurrence with other consonants of East-Central languages suggests that it was a separate phoneme (rather than part of a complex-consonant series) in the proto-language.[172] Linguists working in Kamano, Yate, Yagaria, Fore and Gimi languages have also noted that medial -p-, -t-, -k- are either preceded by a glottal closure, or lengthened.[173] It appears then, that the medial correspondences of -p-, -t-, -k- given in (266) reflect glottal plus consonant sequences of *('p), *('t), *('k) in the proto-language.

---

[169] Prenasalised stops occur in initial position only in Gende, Siane, Asaro and Fore's southern dialect (Aufenanger, 1952: 185; Lucht and James, 1962:15; D. Strange, 1965:2; Scott, 1963:284).

[170] In Gende, Siane and Yabiyufa there is no glottal stop except in the exclamations *yes* (Gende) and *no* (Siane, Yabiyufa). In other languages of the family the glottal stop occurs both preconsonantally and intervocalically.

[171] See, for example, McKaughan (1973:711).

[172] Apart from possible glottal plus stop sequences, preconsonantal occurrences of glottal stop in the various languages are as follows:

As: 'l, 'm, 'n, 'v, 'z;
Gh: 'l, 'm, 'n, 'v, 'z;
Bn: 'm, 'n, 'y;
Km: 'm, 'n, 's, 'y;
Ya: 'm, 'n, 'v, 'y;
Yg: 'l, 'n, 'h, 'v, 'y;
Fo: 'm, 'n, 'w, 'y.

[173] Payne and Drew (1961:33); Gibson and McCarthy (1961:56); Renck (1967:27); Nicholson and Nicholson (1962:148; McBride and McBride (1973:7).

A note needs be made about the possibility of **kw** as a proto-phoneme. It occurs in Gende and in the southern dialect of Fore, and as a phonetic variant in other languages. Bee (1965a:26) proposed ***kw** as a separate phoneme in her reconstruction of Eastern family phonology. Whether its occurrence in Gende and southern Fore is an innovation, or a trace from the past, is not yet obvious.

High versus low tone, or stress versus non-stress, is also a feature of East-Central languages. Consequently, syllable prominence (whether by tone or by stress) must also be reckoned a feature of the proto-language. Its relevance to Fore central vowels is given in the next section.

Morphophonemic classes must also be reckoned as part of the proto-language. Some languages (Benabena, Kamano, Yate, Fore) have three morpheme classes; others (Siane, Asaro, Gahuku, Yagaria, Gimi) have two. Following Bee (1965a: 26), who proposed V, Q, N classes for the Eastern family, it appears that proto-East-Central had three similar classes, but further research is required to adequately substantiate this.

10.3 Relationship to Fore Phonology

Given the proto-phonology as proposed above, innovations made during the course of Fore's development have been relatively few.

It appears from the correspondences in Gende, Fore/Gimi, and occasionally other languages, that ***p**, ***t**, ***k** were voiced intervocalically, and voiceless when following glottal stop. Initially, voicing was not contrastive. If this were so, then Fore has retained the proto-system at this point.

The sibilant ***s** appears to have been phonetically [h] initially and [s] medially in proto-Esst-Central. The initial [s] has since disappeared during Fore's development, and any **s** which now occurs initially in Fore is not a reflex of East-Central's ***s**. Instead, initial **s** in present-day Fore is found only in recent borrowings. This may well explain why **s** alone among Fore's word-initial consonants fails to undergo morphophonemic change when preceded by Class Q or Class N morphemes.[174]

Proto- *v and *y, which were probably both fricatives, are now reflected in Fore as **w** (frictionless) and **y** (fluctuating between fricative and frictionless).

In other languages of the family, various combinations of vowels may occur in sequence, and presumably, this was also true of the proto-language. Fore has reduced four of these sequences to single syllable vowel-glides (as have Yate and Yagaria),[175] and now requires consonants to separate syllable nuclei.[176] Fore's **w** and **y** often fill this role.

Apart from the vowel-glides, Fore currently has a six-vowel system, as against the five-vowel system given for the proto-language. Syllable prominence in involved in this shift, for it appears that ***á** has been reanalysed in Fore as **a:**, and ***a** as **a**.[177] Each in Fore is now able to accept syll-prominence. Evidence for such postulation may be seen in the Appendix under entries *baby, bone, dog, hand, heavy, hungry, this, tree, what?;* with possible counter-examples under *foot, hair, sand, wallaby.*

Finally, there appears to be a change from the three-way *(V, Q, N) morphophonemic system which is still current in all but two areas of the northern dialect of Fore, to a two-way system (V, Q) in central and southern dialects, as

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[174]See (34) in 3.21(1).

[175]Given as **ae, ei, au, eu** in Yate (Rosemary Young, 1962:107);
ai, ei, au, ou in Yagaria (Renck, 1975:14);
ae, ai, ao, au in Fore (see 2.22(6)).

[176]See 2.21 and 2.23(1).

[177]**a: > a** reduction now fits into Fore morphophonemic patterning in the same manner as **e > i** and **o > u**, as given earlier in 3.3. Similar six-vowel systems, in which e, **a:**, o are phonetically longer than **i, a, u** (as described in 2.22(5)) also occur in the Eastern family in Gadsup (Frantz and Frantz, 1966:4), and in Tairora (Vincent, 1973:530).

well as in the other languages mentioned earlier.[178] In using a three-way system in central and southern dialects of Fore, I have often been accused of "speaking as our forefathers did."

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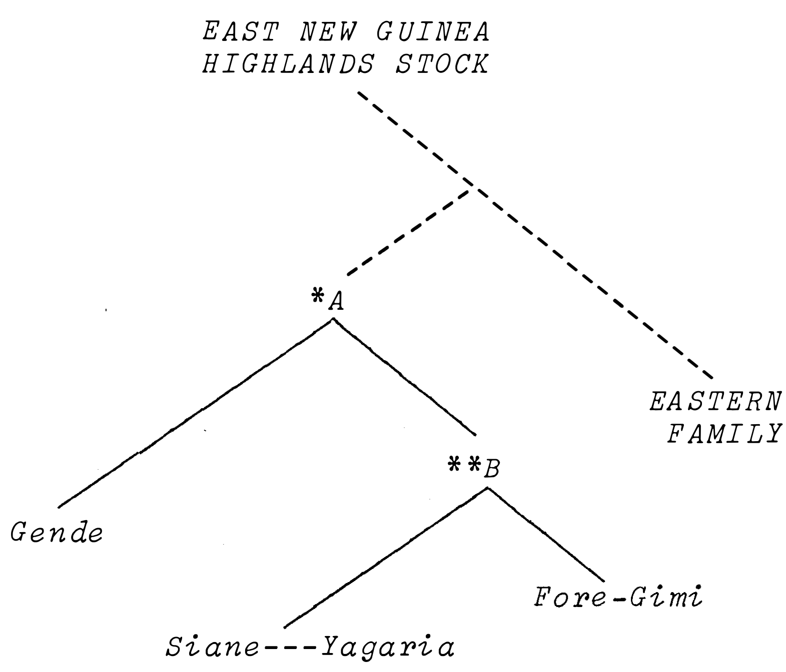
[178]The distinction between northern Fore's Q and N classes has collapsed to form a single Q class in central and southern dialects. It is probable that this is true of the other languages also.

APPENDIX: Wordlists, Cognations, Reconstructions of the East-Central Language Family

Following the East-Central family's separation from the rest of the East New Guinea Highlands Stock, Gende was the first language to diverge, as percentage figures given earlier in (263) show. Then Fore-Gimi branched. These divergences are diagrammed in (267).

(267) DIVERGENCES OF EAST-CENTRAL FAMILY



The two points *A* and *B* are pertinent to the proposed reconstructions given in this Appendix. Reconstructions which include a cognate form in Gende are marked with a single asterisk to show that they apply to the East-Central family as a whole (hence the single asterisk placed at point *A*), e.g. ***ite** *arrow*. Where evidence from Gende is lacking, a double asterisk (as at point *B*) is used, e.g. ****kota** *blood*. Where there is no supporting evidence from Gende, but cognates occur in Eastern family languages,[179] a single asterisk is used since the form is at least pre-East-Central, e.g. ***apo** *father*. Brackets have been used in the seventy-eight proposed reconstructions, at those points where correspondences are less well attested. Similarity in the numerals preceding items indicates cognates. Where a reconstruction has been attempted, its putative reflexes are indexed by the digit [1]. Otherwise the actual indexing numerals indicate no order of preference.

In Fore entries, a glottal stop has been written word-finally where the last morpheme of that word in not of Class V. This parallels the usage of word-final glottal stop in the data from other languages. Furthermore, glottal stops which precede **p**, **t**, **k** in Fore have been omitted here, again to conform to data from the other languages. I have also made some minor adjustments to the material supplied by others, again to minimise orthographic differences.[180] I trust I have not done them an injustice.

Wordlists, cognations and reconstructions are now given.

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179 Data from Eastern family languages (extracted from McKaughan, 1973: 721-738), and Eastern reconstructions proposed by Bee (1965a: 8-21) have also been included for ease in comparison.

180 Adjustments include **ƀ > v**, **ʌ > a** in Gende (following Aufenanger, 1952); indication of prenasalisation in prenasalised stops (Gende, Siane, Asaro); **q > '** (glottal stop in Gahuku, and in the extracts from McKaughan and Bee). Bracketting in the data themselves has not been adjusted, but follows the analyses of the individual linguists who supplied the data.

East Central Family:

	afternoon	*(all)*	*arrow*	*ashes*	*axe*	*baby*	*back*
Gende:	^{2}ivunai	^{2}pragi	^{1}ere	^{2}kwinua	^{1}tu	^{2}movori	^{1}migi-
Siane:	^{1}lúnanga	^{1}múki	^{1}îlé	^{1}láiná	^{1}lúna	^{1}námuna	^{1}me(yá)
Yabiyufa:	^{1}ludaka	^{3}vavuleko[a]	^{1}ile	^{1}lada	^{1}loda	^{3}aida	^{1}emesa(la)
Asaro:	^{2}nívenga'	^{1}mukí'	^{1}élese	^{1}láni	^{1}lúno	^{4}ízipe	^{1}mehéne
Gahuku:	^{1}u'náká'	^{1}múki'	^{2}magé'	^{1}laná	^{1}luní	^{1}namuní[e]	^{1}(a)megesá
Benabena:	^{1}uté(hi)	^{4}ásaga('i)	^{2}magé('i)	^{1}lá(hi)	^{1}lú(hi)	^{1}inapu(hi)	^{1}megésa('a)
Kamano:	^{1}kínäga	^{1}míka'	^{3}kéve	^{1}ta'nefa'	^{2}sasúme	^{4}osi' mofráve	^{1}(ä)mägéna
Yate:	^{1}úne(ná)	^{1}muki	^{3}keve	^{1}la'nefa'	^{3}ko'ne[c]	^{4}aese mofa'ne	^{1}(a)kamé('a)
Yagaria:	^{1}úte(na)	^{1}búki'	^{1}halí[b]	^{1}ládeva	^{1}lú(na)	^{1}hínapu(na)	^{2}gélega[f]
Fore:	^{3}atá:mai'	^{5}a'yá:'ma	^{1}íre	^{3}kagú'	^{1}tú'	^{1}ina:mu'	^{3}(a)ká
Gimi:	^{1}nugi'	^{4}hago'	^{1}iri	^{1}rase	^{1}ru'	^{5}muru ara'	^{3}(a)kai
Reconstn:			*ite	**ta('ne)	*tu	**ina(mp)u	*meke

Eastern Family (McKaughan, 1973):

Awa:	tunsoreri'	moke	poriah	tanah	konaro[d]	-nahni	---
Auyana:	eninka'a	amapa'a	paroima	kanama	koraroba	umaramba	
Gadsup:	ayinka'i	masi'demi	pakoni	yuni	kunta'i	aka'inta	
Tairora:	erairika	ekaa	beba	hantama	kaarima	naati	
Reconstn: (Bee, 1965a)			*paro-V, kwe-				

Alternatives: [a]muki; [b]aleiya; [c]sasume(na), alu(na); [d]poka; [e]izé(gipá komá); [f](a)ké(ta).

East Central Family:

	bad	*banana*	*bark (noun)*	*bean*	*belly*	*big*	*bird*
Gn:	[2]mbriki	[1]kwie	[2]tarawa(ra)	[1]paga	[1]mura	[1]namba	[2]nakai
Si:	[3]nósá(maiye)	[1]kîyé	[1]átuwá	[2]lîfá	[2]sí(ya)[n]	[1]nâmba	[1]nêmá
Yb:	[3]nosa(mibo)	[2]uve	[1]esuva	[3]ovi	[3]ohuma(lá)	[1]napa	[1]namá
As:	[4]góloso	[1]gízese	[1]gálupo	[3]oví'	[1]múlu(no)	[1]námba	[1]náma
Gh:	[4]golésá	[1]gizásí	[1]galúpa	[3]óvi'	[4](a)gátupá	[1]napá	[1]namá
Bn:	[5]siví[g]	[3]ígota('i)	[1]ákalúya('a)	[1]fagá	[1]múpa('a)	[1]nápa[o]	[1]namá
Km:	[1]hävíya	[4]káni	[1]akrú'a	[4]kóhe'	[4](ä)rímpa	[2]ra[p]	[1]nämá
Ya:	[1]havíya(ne)	[1]kaíye	[1]akafu'na	[5]épo(ná)[i]	[5](a)ípá	[2]alá	[1]namá
Yg:	[6]feípa	[5]ége	[1]gávuda	[3]héva(na)	[5](e)ípa	[3]legépa[q]	[1]namá
Fo:	[7]á:ta	[5]ya:gi	[1]arí	[5]a:ríkoko	[6](a)nta:	[4]tabe[r]	[3]kabara'
Gm:	[8]kokure'	[5]zaki	[1]ari	[5]aríkoko	[6](a)da	[5]anosa	[1]nímí
Rec:		*k(i)ye				*na(mp)a	*nama

Eastern Family (McKaughan):

Aw:	ahbaba'	potera	ahweh	arikoko'[j]	amu'	aanotah	nuwo
Au:	sawi'a	te'a	aamaamaba	ko'a[k]	amu'a	anomba	numama
Ga:	tampi'memi	e'i	a'kaami[h]	ko'i[l]	amu'i	ino'na	numi
Ta:	oraha	etaa	aabahi	kohe[m]	auha	nora	antau
Rec: (Bee)		*'e-Q		*ko-para-N	*-mu-Q		

Alternatives: [g]fóipa; [h]yagwami; [i]mépo(ná); [j]abehpero; [k]pisa; [l]naba; [m]e'i; [n]mulu(na); [o]sípi, fela; [p]tusi; [q]sipi; [r]anosá:.

East Central Family:

	(bite)	*(black)*	*blood*	*bone*	*boy*	*breast*
Gn:	[1] -gotu-	[1] ngemenanga	[2] mamia-	[1] yami-	[2] movo	[1] ami-
Si:	[2] n(áiye)[s]	[2] lúmú	[3] wánu	[1] aumá	[1] kîpá	[1] ámí(ná)
Yb:	[1] koh(iye)[t]	[2] lubuha	[1] olada(la)	[1] abuha(la)	[1] ipa	[1] amida(la)
As:	[3] (no)mbíl(ive)	[3] gónombu'	[3] vánise	[1] ámuzo	[1] gipe	[1] ámi(ne)
Gh:	[1] ákohú'[u]	[3] anupá'	[1] golání	[1] zá'muzá[z]	[1] gipá	[1] amí(ná)
Bn:	[4] (no)héni(ve)	[3] núpa('na)	[1] gólaha('a)	[2] félisa('a)	[3] pána('i)	[1] ámiha('a)
Km:	[3] (né)mpri(a)	[4] haní(nke')[w]	[1] kóra	[2] yäferiná	[4] né' mofráve	[1] ami(ma'a)
Ya:	[4] (ne)hae(ye)[v]	[3] anúpá[x]	[1] kólá(ne)	[1] (a)yámufá	[4] né(na)[a]	[2] nu(né)[d]
Yg:	[4] (no)haé	[3] núpa[y]	[1] góla(na)	[1] (á)pu(va)	[3] báde	[2] dú(na)
Fo:	[2] (a)ba na(ye)	[4] tunú'	[1] kora:'	[1] (a)ya:mpú	[5] mási[b]	[2] nóno'
Gm:	[2] (a)ona(ize)	[4] utunu'	[1] kora'	[1] (a)zapu	[6] ari'[c]	[1] ame[e]
Rec:			**kota	*ya('m)u		*ami

Eastern Family (McKaughan):

Aw:	ungiye	pabutsa	nehe	ayahnta	animai	nah
Au:	unkara	aubutamba	naema	ayaantamba	iyampoi	naamba
Ga:	unkano	kasi'i	naarei	ayampai	anintai	naami
Ta:	ka'aka	bankora	naare	buhaarima	baintima	naama
Rec: (Bee)			*nade-V			*nä-N

Alternatives: [s] ádalá óf(áiyê); [t] ud(aze); [u] ákohú' (na)pil(ivé); [v] (ne'a)n(ie); [w] ägänúmpa; [x] hanike; [y] hani'; [z] helísá; [a] ne'vane; [b] anenté; [c] mai'; [d] a'mi(ne); [e] ami.

East Central Family:

	brother (elder)	*burn*	*cassowary*	*catch*	*chin*	*claw*
Gn:	[2] aya-	[1] tai	[2] kembo[h]	[2] eti-	[1] magi-	[1] kogo(ra)
Si:	[2] yá(láfó)	[1] l(íye)	[1] ólona	[1] ól(aiyê)	[2] mainá	[1] kówa
Yb:	[2] ya(la)	[1] l(iye)	[1] oloda	[1] l(iye)[j]	[3] imila	[1] ova
As:	[3] uvó(loho)	[1] l(ave)	[1] olóni	[2] (no)nd(áve)	[4] ombuvo	[2] tólovo
Gh:	[3] uvó(láhó)	[1] (no)l(avé)	[1] olóní	[1] (n)al(ivé)	[4] ó'múva	[2] ótolová
Bn:	[1] gó('afu)	[1] (nó)la(ve)	[3] kíya'néfa	[3] nú (nó)ki(ve)	[5] ipa('a)	[3] ko'na('a)
Km:	[4] (né)mpu('amo')	[1] (né)re(a)	[4] mänáni	[1] ayé' (né)ri(a)	[6] (ä)gémäyampa	[3] (äyá)nko
Ya:	[4] népu('amó)	[1] (ne)l(ie)	[4] amanání(ná)[i]	[1] al(ie)	[6] (a)vémá(ná)	[4] (a)gínagó
Yg:	[1] é('a)go('a)	[1] (no')lé	[4] manáni(na)	[4] tavá (no)sí(e)[k]	[6] (a)vétata(pa)[m]	[4] (a)gínogo
Fo:	[1] (á)ga:(nto)	[1] ta(ye)[f]	[4] amama:ni'	[5] (a)ra:kurí(ye)[l]	[1] (a)ma:gí'	[5] (ayá:)besó
Gm:	[1] (a)káu(babo)	[1] rá(ize)	[4] amanani'	[6] ahu(ize)	[1] (a)mami'	[5] (a)bezo'
Rec:	**ko	*t(a)			* (maki)	

Eastern Family (McKaughan):

Aw:	(a)wahwa	tehre[g]	kuwaira		awai[n]	ayahnobe'
Au:	(a)waoma	kwegai	augwaima		amaimba	aisabu'a
Ga:	(ena)bai	ikankemi	buyemi		anaanaani	opa'i
Ta:	(ti)bakaara	itero	bukera		maatiri	kakahi
Rec: (Bee)	*-kwä-					

Alternatives: [f] kae(ye); [g] otoreh'; [h] orina; [i] manání(ná); [j] j(iye), s(iye); [k] bu(die); [l] uri(ye); [m] meta; [n] awehi.

East Central Family:

	cloud	*cold*	*come*	*cough*	*dance*	*die*
Gn:	^{1}tumi	^{1}ndandaranga-	^{1}a-[x]	^{1}kogoma-	^{2}kiana tara	^{1}pri-
Si:	^{1}lîmú	^{2}epe (líye)	^{1}Ø(áiye)	^{1}kômú (kílaiyé)	^{1}mélénge (ólaiyê)	^{1}fól(aiyê)
Yb:	^{1}limu	^{2}eha[t]	^{2}nis(iye)	^{2}otu (iye)	^{1}meleke (liye)	^{1}hel(iye)
As:	^{1}límuso	^{2}hepe' (elave)	^{1}(n)Ø(áve)	^{2}gútu (láve)	^{1}meleng(éni néive)	^{1}hél(ave)
Gh:	^{1}lí'musí	^{2}gehá (noivé)	^{1}(no)Ø(avé)	^{2}gulu' (nolive)	^{1}melek(ení noivé)	^{1}(no)hil(ivé)
Bn:	^{2}sopó(hi)	^{3}kétipa (noive)[u]	^{1}(nó)a(ve)	^{1}kuhu (noive)	^{1}meléke(hi nóive)	^{1}(nó)fili(ve)
Km:	^{2}hämpó[o]	^{4}yási'	^{1}(né)e(a)	^{1}kugo (nehia)	^{3}ävó (nérea)	^{1}(né)fri(a)
Ya:	^{3}hiya(ne)[p]	^{4}yási	^{1}(ne')Ø(ie)	^{1}kugo (nehie)[y]	^{4}yoke (hiye)[b]	^{1}(ne)fal(ie)
Yg:	^{3}híya(na)	^{4}yási' (nosíe)[v]	^{1}(no')e	^{2}gatu (nosie)[z]	^{5}ó (no'hagé)	^{1}(no)filí(e)
Fo:	^{4}ibiná'[q]	^{4}esibá: (piye)[w]	^{3}kana(ye)	^{1}ku'mo (iye)[a]	^{6}wa:(ena piye)	^{1}puri(ye)
Gm:	^{5}biki[r]	^{1}rane(tanena)	^{3}kana(ize)	^{2}kotu(iẓe)	^{6}bá(pe aráize)	^{2}idá(ize)
Rec:		*(tani)	*(a)-	*k(uko)		*p(i)t(i)

Eastern Family (McKaughan):

Aw:	irabuya	titiri'	tiye	ingoko'	abah	pukire
Au:	ainamba	taugwi'a	tiyo	(a)untamba	araimara	pukai
Ga:	konama[s]	ironemi	yeno	umise'u	tikoni make'u	pukono
Ta:	tonabu	antero	aniena	'untutiro	ihintero	'utubiro
Rec: (Bee)			*ye-			

Alternatives: [o]koríempa'na; [p]hapo(na), sá(ná); [q]ira:gi, kisana; [r]onu'; [s]ayoni; [t]lasi; [u]yasi (nohive); [v]getipana, lani(tani'na); [w]tani(tani 'píye), uguguya: ('píye); [x]pa-; [y]kató (nehie); [z]gúgo' (no'hae); [a]kagái (naegúye); [b]avo (ne'aiye).

East Central Family:

	dog	*(drink)*	*dry*	*ear*	*earth*	*eat*	*egg*
Gn:	[2]mavi	[1]na-	[1]kagarari	[1]ka-	[1]mikai	[1]na-	[1]mura
Si:	[1]kúlá	[1]n(áiye)	[2]ngend(íye)	[1]ká(lá)	[1]miká	[1]n(áiye)	[1]múla
Yb:	[1]ulá	[1](no)n(aiye)	[3]opati(bo)	[1]ata(la)	[1]mika	[1]n(aiye)	[1]omuda(la)
As:	[1]gúlo	[1](nó)n(ave)	[4]gokó' (láve)	[1]gá(la)	[1]misúmbo	[1](nó)n(ave)	[1]múlo
Gh:	[1]galá	[1](no)n(avé)	[2]gunáhá' (noivé)	[1](a)gátá	[1]miká(sí)	[1](no)n(avé)	[1]mulá
Bn:	[1]kalá	[1](nó)na(ve)	[5]ló('ehive)	[1]ékesa('a)	[1]mé('i)	[1](nó)na(ve)	[1]mú('a)
Km:	[1]kra	[1](né)ne(a)	[6]ähú (hú'nea)[d]	[1](ä)gésa	[1]mópa	[1](né)ne(a)	[1]ämú'
Ya:	[1]kalá	[1](ne)n(ie)	[6]hau (mainie)[e]	[1](a)gésá	[1]mópa[i]	[1](ne')n(e)	[1]amúna
Yg:	[1]galá	[1](no)dé	[6]hoú[f]	[1](a)géta	[1]ígopa	[1](no)dé	[1]mú(na)
Fo:	[1]kara:[c]	[1]na(ye)	[7]a:sa (wáyé)	[1](a)ge[h]	[1]má	[1]na(ye)	[1]amú'
Gm:	[1]kura	[1]ná(ize)	[7]azi(ize)	[1](a)geta	[1]ma	[1]na(ize)	[1]amu'
Rec:	**k(u)ta			*k(e)	*m(i)	*n(a)-	*(a)mu

Eastern Family (McKaughan):

Aw:	iya	nahno	totoragoye	ahre	marako	nahno	au
Au:	iyamba	nare	kasa'nagwi	a'a	marama	nare	auma
Ga:	iyami	naano	kasaguke[g]	aakami	maka	naano	amu'i
Ta:	bairi	naana	ahaara	aato	bata	naana	auru
Rec: (Bee)	*iya-N			*ä-Q-ra-N	*bara-V		

Alternatives: [c]kwara:; [d]hó'mu (hú'nea); [e]vai('ne); [f](no')veí(e); [g]oyama; [h](a)gená:; [i]mene.

East Central Family:

	elbow	*eye*	*fall down*	*fat*	*father*	*(feather)*
Gn:	[1](ya-) poma	[1]wi- (eza)	[1]timi-	[2]kagaya-	[2]-omo-wo	[1]yogo(ra)
Si:	[2](áná) úmola	[2]ómu(na)	[1]olúmó wí(yaiyê)	[3]ndúnúmá	[2]me(láfó)	[1]yówa(la)
Yb:	[2](ade) bo(la)	[2]omuda(lá)	[1]lemo j(iye)	[1]auva(la)[n]	[1]aho(la)	[1]yopa(la)
As:	[2](ána) ómbuvo	[1]ve(le)	[1]lémo óng(ave)[j]	[1]gávozo	[2]mé(leho)	[1]zópovo
Gh:	[2](agizání) ó'múva	[2](a)gó'mu(la)	[1](no)lim(ivé)[k]	[1]gavózá	[2]amé(láhó)	[1]zopóvá
Bn:	[3](yá) kupa('a)	[1]bú('a)	[2]hó (nó)ka(ve)	[4]gilíva('a)	[1]afó('afu)	[1]óka('a)
Km:	[3](ä̆ya)vú'a	[1](a)vúrä̆ga	[3]trä̆ká (ne)hí(a)	[1](ä̆)fóva'a	[1](né)fa	[1](ä̆)yóka'
Ya:	[3](aya)nupa	[1](a)ulegá	[4]asalone y(ie)[l]	[5]agúsá	[1](a)fo('amo)	[2](a)iyólegefá
Yg:	[4](ánita) oú('a)	[1](o)ulega	[5](a)go('no)taveí(e)	[5]agúsa[o]	[1]ávo('a)	[2](a)ólegeva
Fo:	[4](ái nk)ao'	[1](a)o	[6]a'wáre'ná(yé)[m]	[1](a)pa:[p]	[1](a)ba:	[3](a)ya:'
Gm:	[5](aza)su'	[1](a)o	[2]heka(ize)	[6](ai')áke	[1](a)bá(babo)	[3](a)za'
Rec:		*(vu)		**(po)	*apo	

Eastern Family (McKaughan):

Aw:	ayayo	aura	inahnsubire	mayehwe	(a)bowa	ayo
Au:	ayaanaumba	auramba	kuntimba	masawemba	(a)bowama	ayauma
Ga:	ayaa'omi	okami	yandono	basapemi	(ena)poi	ayoi
Ta:	kaantaa	abu	ru'utubiro	bahabera	(ti)'ora	kauhi
Rec: (Bee)				*watawe-N	*po-V	

Alternatives: [j]velehe' (do'mozi); [k]véléhé' (nolimivé); [l]taká (ne)l(ie), alino (nelevie); [m](a)egú(ye); [n]ava(lava); [o]va'a; [p]masawe.

East Central Family:

	fire	*fish*	*(five)*	*fly (verb)*	*flying fox*	*foot*
Gn:	[1]tuva	[2]mbure (mbare)	moyavo	[2]agara-	[2]tindombori[b]	[1]kia-
Si:	[2]yǒ	[3]laefá	ande fílingáléká[z]	[1]búl(íye)	[1]kíló	[1]kíya(na)
Yb:	[2]jo	[3]lahava	lade maloka suvoko	[3]ololoko v(iye)	[1]oliha	[1]i(la)
As:	[2]oló'	[3]alahá'	ánde héla okú' livó	[4]patélo (vave)	[1]vólihe[c]	[1]gízé(ne)
Gh:	[2]ló'	[3]lágahá	ligizání lugáloká asú' igó	[4](n)atal(avé)	[1]holíhá	[1](a)gísa
Bn:	[2]logó	[4]fáya'	nayáhi lúga'a sú hágo[a]	[5]héloto (nó)vi(ve)	[1]kólifa	[1]gígusa('a)
Km:	[1]téve	[1]nóya'	näyátiga'	[5]hréno' (ne)ví(a)	[3]támpra	[1](ä)gía
Ya:	[3]atá[q]	[1]nóyame[t]	naiyo mogo kaiyaga'a	[5]haléno (ne)'v(ie)	[3]lápa(ná)	[1](a)íya
Yg:	[4]halí	[4]fáya(na)	dánita bogokó'	[5](no')halé	[1]óliva	[1](e)íya
Fo:	[5]yakú'	[1]ínoya:ntá[u]	naya:ká:'mu'	[1]para(ye)	[3]ta:paya:'	[1](a)gisá:
Gm:	[5]kuku'	[2]mado	kaisanazaubu	[6]habete ba(ize)	[4]kuke	[1](a)gesu'[f]
Rec:						*ki(y)a

Eastern Family (McKaughan):

	fire	*fish*	*(five)*	*fly (verb)*	*flying fox*	*foot*
Aw:	ira[r]	nontah[v]	mobesah	puwambuwa	tahpah[d]	ai
Au:	irama[s]	noyaa'a[w]	eba'aasi	ararabena kore	kaampaamba	aisamima
Ga:	ikai	noyana[x]	manaayaa'mani	akemi	panemi	akani
Ta:	iha	--- [y]	kau'uru	atabarero	kaakaara	ai'u
Rec: (Bee)	*ida-V				*kämpä-N[e]	

Alternatives: [q]leve; [r]eku; [s]iyaba; [t]faiyane; [u]tarí'; [v]koeya'; [w]kuma; [x]kauya; [y]haabuka; [z]lelei lelei láwokoi; [a]loé yági loé yági móne yági; [b]komogatagai; [c]gólihe; [d](McKaughan: *bat*); [e](Bee: *flying fox*); [f](a)isu'.

East Central Family:

	forehead	*(four)*	*frog*	*full*	*girl*	*give*
Gn:	[1]puga-	ereguiei	[2]tumua	[1]vaitai	[2]erikevi	[1]-imi
Si:	[2]ónómba(la)	lelei lelei	[3]kélá	[1]fait(íye)	[3]nomílí	[1]óm(aiyê)
Yb:	[3]otipa(la)	loveki loveki	[1]osulepa	[1]vaito(ne)	[4]olu	[1](ni)m(iye)
As:	[3]golihi(le)	setá've setá've	[1]gízele'	[1]vái' (láve)	[4]álungo	[1](noní)m(ive)
Gh:	[3]golihi(la)	lósivé lósivé	[1]gízalá'	[1]vaí' (noivé)	[1]mohó'	[1](noni)m(ivé)
Bn:	[4]kokóvisa('a)	loé yági loé yági	[1]soló('i)	[1]vái tó('ehive)	[5]pá('i)	[1](nóni)m(ive)
Km:	[5](ä)séni	táregi' táregi'	[4]hogá'[h]	[1]vité('nea)	[1]mófa'	[1](nénä)mi(a)
Ya:	[5]hani(a)	tólegí tólegí	[5]ésó'[i]	[1]háváte	[1]a'mofa('ne)[o]	[1](ne'na)m(ie)
Yg:	[5]háni[g]	lolé'e' lolé'e'	[1]olúsapa(na)[j]	[1]haveí('no)te[m]	[6]ábade	[1](no'a)mí(e)
Fo:	[6](a)i'ne	tarawa tarawakí'	[6]táro'[k]	[1]awaitá(ye)[n]	[7]aragá	[1](a)mi(ye)
Gm:	[6](a)di	rarebete rarebete	[7]kua'[l]	[1]ibirí(ize)	[7]rakana'	[1](ne)me(ize)
Rec:				*v(ai'ta)-		*-m(i)-

Eastern Family (McKaughan):

Aw:	ayai	tapotahpa	iyo	orahpeh	ahrari	awi'
Au:	auweyaamba	eyimba	awaima	ogwitarai	arasi	ami
Ga:	apemi	eribami	kabani	ubikemi	akintai	ameno
Ta:	tiri	tara'anta	e'aboka	mpi'ero	baraata	amina
Rec: (Bee)						

Alternatives: [g]guita; [h]písu, näkéke, úntu; [i]hésó(na), hoga(na); [j]éso(na); [k]táko'; [l]uka'; [m]beida gilipaedae; [n]pumae(wáyé), kigí (waye); [o]múná(na).

East Central Family:

	good	*(green)*	*hair*	*hand*	*he*	*head*	*hear*
Gn:	[1]mogori	[1]ndengendengru	[1]yogo	[1]ya-	[1]ya	[2]koi-	[1]-egeri
Si:	[2]lálo	[2]yáilakó	[1]yówa(la)	[1]á(ná)	[1]á(mo)	[3]máne(na)[e]	[1]kól(aiye)
Yb:	[3]dovaloko[p]	[3]ohugo[v]	[1]yopa(la)	[1]ade(la)	[1]e(mo)	[3]mado(na)	[1]el(iye)
As:	[4]lámine'	[4]zavíle	[1]zópovo	[1]á(na)	[1]é(i')[a]	[1]góndo(lo)	[1]gél(ave)
Gh:	[4]lamáná'	[5]gihísígó'	[1]zopóva(lá)	[2](a)gizá(ní)	[1]e(zá)[b]	[1]góto(lá)	[1](no)gil(ivé)
Bn:	[3]hétofa[q]	[5]kifíya('na)[w]	[1]óka('a)	[1]yahá('a)	[1]á(i)	[4]látaha('a)	[1](nó)kehéli(be)
Km:	[5]känárere	[6]yáfasí'nage'	[1](ä)yóka'	[1](ä)yá	[1]ä(gärá)	[1](ä)nú	[2](né)ntähi(a)
Ya:	[5]kanáliné[r]	[7]yósa hai('na)[x]	[2](a)iyólegefa	[1](a)yá(na)	[1]a(gáya)	[1](a)génopa	[3](né)hav(ie)[g]
Yg:	[6]sóko[s]	[8]eígava(ko')[y]	[2](a)ólegeva	[3](á)nita	[1]a(gaéa)[c]	[1](a)genopa[f]	[3](no')haví(e)
Fo:	[7]aogi[t]	[9]ya:nta:	[3](a)ya:'[z]	[1](a)ya:'	[1]áe[d]	[1](a)'no	[4](a)bi(ye)
Gm:	[6]soko'[u]	[7]zasikaka'	[3](a)za'	[1](a)za'	[1]a(ge)	[3](a)bido'	[2]he(ize)
Rec:			*yo('ka)	*ya	*(a)	*k(ent)o	

Eastern Family (McKaughan):

Aw:	kaweh	aukaka	(a)yahra	ayahnobeh	wega	aya'no	iro
Au:	kawi'a	sokomba	tauma	ayaamba	kwema	a'nomba	enisa
Ga:	aboku'i	yanamanai	-nyoi	aayaami	beni	aa'nomi	inde'u
Ta:	ko'eba	bukana	kauhi	kau'u	biba	'ieta	iri
Rec: (Bee)				*-yä-u-	*kwe, bi-	*-'no-N, pia-	

Alternatives: [p]dotalibo; [q]ba; [r]alagepa; [s]hó; [t]kana:ra'; [u]bida'; [v]makililivago; [w]agó('na); [x]aekifatiliyi; [y]yáva haéya, gavú haéya; [z](a)ra:, (a)biya:'; [a]á(za); [b]a('ísí); [c](gaea); [d]á(ge); [e]áte(la); [f]leta('amo); [g](ne')af(ie).

East Central Family:

	heart	*heavy*	*(hit)*	*(horn)*	*hot*	*house*
Gn:	^{2}kwia- ganua	^{1}kanuara-	^{1}tuvi-^{i}	---	^{2}tonone	^{1}nomu
Si:	^{3}kómo(la)	^{1}kéiná (íye)	^{2}óf(áiye)	^{1}káúwá	^{3}kálákala (líye)	^{1}númú(ná)
Yb:	^{3}oboha(la)	^{1}eda	^{3}koh(aiye)	^{2}sipiya	^{1}mumusi	^{1}numuda
As:	^{3}go'mohó(lo)	^{1}géni	^{4}mbel(ave)	---	^{4}ólo' (láve)	^{1}númuno
Gh:	^{3}gómohá(lá)	^{1}gená (noivé)	^{4}(na)pil(ivé)	^{2}sípivá	^{1}mumusí' (noivé)	^{1}numu(ní)
Bn:	^{1}lutúmopa('a)	^{1}kéta (hú'ehive)	^{5}(nó)ha(ve)	^{3}kómu('a)^{l}	^{1}múkoho (nolivé)	^{1}nó(hi)
Km:	^{1}tumo('á)	^{1}käna (hú'nea)	^{5}(né)he(a)	^{4}väyíve('a)	^{1}amuhó (nehía)	^{1}no
Ya:	^{4}ayamopa^{h}	^{1}kana (hie)	^{6}amag(ie)^{j}	^{5}(a)vé(ná)	^{1}amúko (hie)	^{1}nó(na)
Yg:	^{1}(a)lútumopa	^{1}gatá (nosie)	^{6}(no)begí(e)	^{6}lókia	^{1}búko	^{1}yó(na)
Fo:	^{5}(a)mako	^{1}kunta: (píye)	^{6}(a)egú(ye)^{k}	^{7}(a)wa^{m}	^{1}mu'mu ('píye)	^{1}na:má'^{n}
Gm:	^{1}rumopa(ba')	^{1}kudi	^{5}ha(ize)	^{8}rákazaná(ba')	^{1}muka(na)	^{1}nama'
Rec:	**tumo('pa)	*k(a'n)a			**mu('ko)	*nom(u)

Eastern Family (McKaughan):

Aw:	awahbo	umehi'			toto'i	nah
Au:	amaaboomba	umbaintai			koko'a	naamba
Ga:	amukuni	umaniremi			koko'memi	ma'i
Ta:	muntuka	maramentero			toto'a	naabu
Rec: (Bee)						

Alternatives: ^{h}túmótia; ^{i}mbrinua; ^{j}(ne'a)l(ie); ^{k}aruti(ye); ^{l}(from Pidgin); ^{m}(a)gasúna:; ^{n}ná:'.

East Central Family:

	hungry	*I*	*kill*	*knee*	*knife*	*(know)*
Gn:	^{1}yagai pri	^{1}na	^{1}mbrene pri-	^{2}koima-	^{1}kovia	^{1}kiri
Si:	^{2}kándúnámú (fólaiyê)	^{1}ná(mo)	^{2}ófó (fólaiyê)	^{3}úmo(la)	^{2}êmí	^{2}k(áiye)[y]
Yb:	^{2}nodekumu	^{1}ne(mo)	^{3}ko(ha heliye)	^{3}íbo(la)	^{2}emita[w]	^{1}ele(ne)
As:	^{1}gá'na (nólave)	^{1}ne(ní')[p]	^{1}mbél(e hélave)	^{3}ómbuvo(lo)	^{2}mité'	^{1}gél(e néive)
Gh:	^{1}gáu'ná (nolokavé)	^{1}ne(zá)	^{1}(a)pel(e nohilivé)	^{3}ó'múva	^{2}amíta'	^{1}gel(eneivé)
Bn:	^{1}káu'na (nokavé)	^{1}ná(ni)	^{4}hó(nó filive)	^{4}lápusa('a)	^{2}émita('i)	^{1}(nó)kehéli(ve)
Km:	^{1}(ä)gá' (nétea)	^{1}nä(gärá)	^{4}(ä)hé(geno' néfria)	^{1}(ä)réna	^{3}käyí	^{2}(né)ntähi(a)
Ya:	^{1}(a)ga (nelie)	^{1}na(gáya)	^{4}he(geno falie)[r]	^{1}(a)le'yá[t]	^{4}hagina[x]	^{3}(né)hav(ie)
Yg:	^{1}(a)gá (nofilíe)	^{1}da(gaéa)	^{5}begí(na nofilíe)	^{1}(a)léta	^{4}hagí(ta)	^{3}havi(díe)
Fo:	^{1}(a)ga:'é(na abiye)[o]	^{1}náe[q]	^{5}(a)egú(yégina puriye)	^{1}(a)rá:[u]	^{4}yogí'	^{4}(a)bi(ye)
Gm:	^{3}ao(ize)	^{1}ne(ge)	^{4}ha(ne idaize)	^{1}(a)rae	^{5}sibuku'	^{3}he(ize)
Rec:	*ka	*n(a)		*(-te)		

Eastern Family (McKaughan):

	hungry	*I*	*kill*	*knee*	*knife*	*(know)*
Aw:	arupibi'	ne	subio	arau		iro
Au:	ainkwankai	kema	tufuo	arauma		enisa
Ga:	tanidebagu	teni	are'i	akona[v]		inde'u
Ta:	naataamiru	tere	'u'ubiro[s]	tori		iri
Rec: (Bee)				*-rau-N		

Alternatives: [o](a)ga: (puríyé); [p]ná(za); [q]ná(ge); [r]amag(ino kite); [s]are *hit*; [t](a)lege'ya; [u](a)ra:wó'; [v]akoraumi; [w]sopolo; [x]ka'yi(na), kepa; [y]éy(aiyê).

East Central Family:

	laugh	*leaf*	*(leg)*	*(light)*	*liver*	*long*	*louse*
Gn:	^{1}kwiga	^{1}kuruma	^{1}kia-	^{1}kanua omui	^{1}kavu gra	^{1}kavaya	^{1}tinima
Si:	^{2}kíya (íye)	^{2}ailá	^{1}kíya(na)	^{1}kéiná ám(aiye)[g]	^{2}múlú(ná)	^{2}fána	^{1}némá
Yb:	^{2}ija (iye)[z]	^{2}ailá	^{1}i(la)	^{2}sogotibo[h]	^{3}sili(na)	^{2}hana	^{1}nama
As:	^{2}gíze (ógave)	^{2}avíle	^{1}gíze(ne)	^{1}géni (a)mi(vé)	^{4}hénive[m]	^{2}há'na	^{1}sílime
Gh:	^{2}gizá (noivé)	^{2}agílá	^{1}(a)gísa	^{3}vá'váni (noivé)	^{2}mulú(ná)	^{2}ha'ná	^{1}lilimá
Bn:	^{2}giyá (nóhive)	^{3}háya('a)	^{1}gígusa('a)	^{3}vava(hi hu'ehive)[i]	^{5}luháya('a)	^{3}yátama	^{1}namá
Km:	^{2}kíya (nérea)	^{4}(ä)ni'na	^{1}(ä)gía	^{4}ó'ya' (hú'nea)[j]	^{6}(ä)súmäna	^{4}yá'yare	^{1}hínäma
Ya:	^{1}kigi (hie)	^{3}háeya[c]	^{1}(a)íya	^{1}kana ó(hie)	^{7}háu(ne)	^{4}ayá'ayá[n]	^{1}namá
Yg:	^{1}gígi (nosíe)	^{3}haéya[d]	^{1}(e)íya	^{4}yó'yo' (nosíe)[k]	^{7}hoú(na)	^{3}yátala'[o]	^{1}namá'
Fo:	^{1}kagi (piye)[a]	^{5}a'ye'[e]	^{1}(a)gisá:	^{5}péro (piye)[l]	^{7}(á)u'	^{4}e'eró'[p]	^{1}uma:[q]
Gm:	^{1}koki(ize)	^{5}asi'	^{1}(a)gesu'	^{6}akazena	^{7}(a)u'	^{4}e'e'	^{1}nimi
Rec:	*k(iki)						*n(i)ma

Eastern Family (McKaughan):

Aw:	wireh wirehi'[b]	ahnah	ai		aru	tahtahi	nu
Au:	wiyaima	anama	anama		aruma	ayaata'a	numba
Ga:	inteno	anai	anai		anonomi	iyaa'i	numi
Ta:	naraihiana	mare[f]	ai'u		tubu	bukai	numa
Rec: (Bee)					*-ru-N		*nu-N

Alternatives: [z]iya (iye); [a]kwagi (iye); [b](McKaughan: *smile*); [c]hai'na, hae'ya; [d]zavasa; [e]ana:; [f]itu; [g]kót(íye); [h]gogotibo; [i]kéta me(hú'ehive); [j]käna o(sú'nea); [k]gatá a(sú'); [l]kampá kúntá: (píye); [m]gitihulu(no); [n]yatala; [o]ya'ya'ne; [p]ya:'eró', watayá:'; [q]numa:.

East Central Family:

	man	*many*	*meat*	*moon*	*morning*	*mother*	*(mountain)*	*mouth*
Gn:	[1]vei[r]	[2]mbombrene[t]	[1]misa	[2]kozi	[2]mim kurari	[1]-iowo	[1]omona	[1]apo- kanowa
Si:	[1]wé	[3]sǒ (líye)[u]	[1]émilá	[1]íkana	[3]lêndá	[1]ó(lafó)	[1]mówa	[2]wé(lá)
Yo:	[1]ve	[1]muki[v]	[1]mida(va)[d]	[1]ukada	[1]nekeva	[1]do(la)	[1]bola	[1]epa(lá)
As:	[1]ve	[1]mukí'[w]	[1]me'méle	[1]iké'ni	[1]nénenga'[g]	[1]izé(leho)	[2]gólo	[2]vé(le)
Gh:	[1]ve	[1]múki'	[1]me'melá[e]	[1]iká(ni)	[1]netéká'	[1]izó(láhó)	[2](a)goká	[3](a)gepá
Bn:	[1]vó	[4]samá(hi)[x]	[1]méme('a)	[1]íka(hi)	[1]eté(hi)	[1]itó('afu)	[2]kósa[j]	[4]vagá('a)
Km:	[1]ve	[1]máka'[y]	[1](ä)mé'a	[1]íka	[1]näntérane	[2](né)rera[h]	[2](ä)góna	[3](ä)gí'
Ya:	[1]ve[s]	[1]múki[z]	[1](a)méná	[1]íka(ná)[f]	[1]naténe	[1]ita('amo)	[2](a)gó'ya	[5](a)vaya[m]
Yg:	[1]vé	[3]sóle'[a]	[1]mé	[1]geí	[1]deté(na)	[1]íta('a)[i]	[3]aé[k]	[6]haéyapa[n]
Fo:	[1]wá	[5]uwoma'[b]	[2](a)wase	[3]o'	[4]a:baya:	[1](a)no	[1]amú'	[7](a)wa:mú'
Gm:	[1]bana	[6]hago'	[2](a)bése	[1]ki'	[5]igibe'	[1](a)nó(babo)	[1]abi'	[8](a)sa
Rec:	*ve		*m(e'n)a	*i('ka)		*(into)		

Eastern Family (McKaughan):

Aw:	weh	ahnde	aweh'	iyo	ahbiai(pe')	(a)nowa	taweh[l]	aweh
Au:	kwaima	nesu'a[c]	ama'a	(k)wiyomba	aabeama	(a)nowama	omaa'a	andampa'
Ga:	banta	amu'na	ama'i	ikona	baanudami	(ana)noi	anui	abani
Ta:	bainti	airi	mati	tora	toa'i	(ti)nora	batamuatu	no
Rec: (Bee)	*kwe-(t)-V		*+ma-(t)-Q			*-no-V		

Alternatives: [r]vei(sg), vana(pl); [s]víe; [t]aragai; [u]múki; [v]wawuleko; [w]vai'; [x]babú; [y]máfäka', hákare; [z]kasago; [a]lá', gotayana; [b]a:taru, uwa(ena); [c]suwifa'i; [d]ja; [e]izá; [f]kae(ye); [g]nédenga'; [h]äntá; [i]i('i)la('a); [j]vohupo; [k]moa; [l]oma'; [m](a)gi(ne); [n]hamota.

East Central Family:

	name	*neck*	*netbag*	*new*	*night*	*no*	*nose*	*not*
Gn:	1 kuri-	2 nisa	1 ko	2 wuo	1 nungwai nambari	1 ooha[c]	1 kumo-	1 omoy
Si:	1 kúlí(yá)	1 kenómbá(lá)	2 ówó	1 kófawá	2 lúwaila	1 e'e	1 ko(lá)	1 -ám
Yb:	1 uli(va)	1 eno(lá)	2 ovo	1 ohatama	2 lubuka	1 o'e[d]	1 okepa(lá)	1 -am
As:	1 gúlive	3 luvó(no)	1 gó'	1 gosohó'	3 hóluka'	1 ó've	1 gó(lo)	1 -mi
Gh:	1 (a)gulízá'	3 luvá(ná)	1 go'	1 gosohá'	3 hólugú'	1 o'é[e]	1 (a)goká	1 -am
Bn:	1 gí('a)	1 gi'núpa('a)	1 gú('i)	1 kósava[s]	3 fólugu('i)	1 ó'e	1 gólaga('a)	1 me-
Km:	1 (ä)gí('a)	1 (ä)géna	1 ku'	1 kähéfa'[t]	4 kénägere	1 a'ó	1 (ä)góna	2 o-
Ya:	1 agí('a)	1 (a)gunupa[o]	1 kú(na)	1 sofae[u]	5 hani'ina[z]	1 ha'áo[f]	1 (a)go'yá	2 o-
Yg:	1 (a)gí	1 (a)gúnupa	1 gú(na)	3 eígava[v]	5 haní(na)	1 e'é	1 (a)góta	2 a̧'-
Fo:	1 (a)ge	4 (a)na'mu[p]	1 ko'	1 ka:sá:'[w]	6 áse(ka:')[a]	1 a'a[g]	2 (a)mo'	3 kampá'[i]
Gm:	1 (a)keke	5 (a)hae[q]	1 ko'	1 esa	7 utuna(bi')	0 kakáre	3 (a)sigi'	4 kakáre
Rec:	*k(u)		*ko	**kosa		*(o'e)	*ko	

Eastern Family (McKaughan):

Aw:	awi'	anuo	unah	o[x]	inokahpe'	a'ao	abiah	ire
Au:	awi'a	anuwaramba[r]	unaamba	aunama	no'wamba	a'au	ai'a	imani
Ga:	abi'i	anokami	unaami	onana[y]	ayupumi[b]	ao[h]	asi'i	iye
Ta:	autu	aru	uta	araaka	enta'ira	a'au	ai'i	kia
Rec: (Bee)	*-wi-Q		*una-N				*-hi-Q	

Alternatives: [o](a)go'ya; [p](a)nampi; [q](a)goma, (a)naita; [r]awaima; [s]yuhúfa; [t]käséfa'; [u]yáufae, meni; [v]soúva; [w]aoso', iba:(sa); [x]nauna; [y]oyami; [z]kégená; [a]tare; [b]nuramba'i; [c]omoy ame; [d]savaye, minam(iye); [e]o'vé; [f]o'afiyo; [g]kampá; [h]iye; [i]á:'-.

East Central Family:

	old	*old man*	*old woman*	*one*	*path*	*person*	*pig*	*rain*
Gn:	1 kaiza	1 (vei) kindari	1 (ana) kindari	1 karama	1 kanua	---	1 poi	1 koti
Si:	2 lîlá	2 (wé) kílófó	2 (wéná) kílófó	2 láwo(ko)	1 kánu	1 wénéná	1 yafó	1 ko
Yb:	3 asihava	2 (ve) iloho[o]	2 (mena) iloho	3 mako(ko)	1 anu	1 vevena[z]	2 ja	1 go[e]
As:	4 lítehe	3 váni	3 éleni	4 hamó'	1 aká	1 évene'	2 izé	1 golíne
Gh:	4 litáha[j]	4 ozáhá	3 gelehósí	4 hamó'[u]	1 gapó	1 vegéná'	2 izá	1 golíní
Bn:	5 táfa	4 óyafa	4 lítana('i)	5 móne	1 kápo	1 vóna('i)	3 yagá	1 kó('i)
Km:	6 kó'[k]	4 óyafa	5 täváva	3 mägó(ke')[v]	1 ka	1 vähé'	1 äfú'	1 ko'
Ya:	5 atáfá[l]	5 kósú(no)[p]	6 (ane') kono've[t]	3 magó(ke)[w]	1 ká(ná)	1 vayá(na)[a]	1 afú	1 kó(na)
Yg:	5 táva[m]	5 gósu(ta)	4 ítene	3 bogó	1 gí(na)	2 dé[b]	3 gayále[d]	1 gó(na)
Fo:	7 pai(sa)[n]	6 karená:[q]	4 aentá:	6 ká:'[x]	1 ke'	1 wásaná[c]	3 yaga:	1 ká[f]
Gm:	5 ata	4 orada[r]	4 eda'	7 kika'	1 ke'	1 ina'	4 ugunu	1 kau
Rec:					*ka			*ko

Eastern Family (McKaughan):

	old	*old man*	*old woman*	*one*	*path*	*person*	*pig*	*rain*
Aw:	naho	wehura[s]	oreni	mora	ah	morani	peorah'	ibo[g]
Au:	airamba	anonu'maima	araankamba	morama	aambi	kwaasima	poima	aa'a
Ga:	peyami	ayokuni	ayokurinini	manaa	aani[y]	akaami	poni	a'i
Ta:	naaruara	bainti tarura	naenti konta	bohai'a	aara	boru	'uara	aa'u
Rec: (Bee)				*boda	*ä-N		*poe-V	*ä-Q

Alternatives: [j]li'náha; [k]peye; [l]kolapa; [m]lópa; [n]pari(sa), ana:sa; [o](ve) hamola; [p]oyafa; [q]oya:pa:; [r](borrowing suspected); [s]ore; [t]tavava; [u]mako *another*; [v]nägóke'; [w]nagó(ke); [x]ká:no'; [y]aami; [z]weina; [a]kano; [b]yále; [c]wána, kiná'; [d]fua; [e]o; [f]agúwa; [g]ah'.

East Central Family:

	rat	*recline*	*(red)*	*root*	*round*	*run*
Gn:	[1]mito	[1]viki-[h]	[1]kana	[1]tovaya	[1]boma	[2]puguti-
Si:	[2]kunémbé	[2]ón(aiye)	[2]kisí[k]	[1]lúfawá	[1]fouma	[1]ólúl(íye)
Yb:	[3]ukela	[2]ud(aiye)	[3]laho	[1]luhava	[2]lubola	[1]lolosa (jiye)
As:	[4]sóngoloni	[3]óngo (néive)	[3]gulehé'	[1]lúhive	[3]vóndo(vóndo)	[1]lóti' (nóizive)
Gh:	[5]gahá	[3](n)ak(avé)	[3]golohá'	[1]luhusá	[4]vego(vegó)[v]	[1]olólú (nolivé)
Bn:	[5]kafá	[3](nó)ka(ve)	[4]sáfa('na)	[1]lufúsa('a)	[2]túmo('na)	[1]hólolu (nólive)
Km:	[5]käfá	[4]mäsé('nea)	[3]kóra(nke')	[1](ä)räfú'na	[2]tupó	[2](äga)r(éno' nevía)
Ya:	[5]kafá	[5]havae(no mai'ne)[i]	[5]haesa[l]	[1]hafú'ya	[4]vego (vego)[w]	[3](áiya)yé(no nevie)[z]
Yg:	[6]hamú	[5](no')haé	[3]góla(ko')[m]	[1]hávu[s]	[3]bónu'[x]	[4]dúgu(dúgu nosíe)[a]
Fo:	[6]úmu	[5]wai(ye)	[6]teté	[1]aubu[t]	[5]arogú'[y]	[5]karusi(ye)[b]
Gm:	[7]atumi	[5]be(ize)	[7]naku'[n]	[1]ami[u]	[6]omukoko	[5]karu(ize)
Rec:				*(t)upa		

Eastern Family (McKaughan):

Aw:	umo'	tugeh'[j]	ehtah[o]	anu'	aiteh	pehirahnuo
Au:	(k)waima	aunkwai	karogaromba[p]	anu'a	monumba	isaisi
Ga:	bai	barano	korami[q]	anu'i	amu'i	iyayono
Ta:	tubura	baitaana	--- [r]	tu'a	potariboara	kantaana
Rec: (Bee)				*+ru-Q, +nu-Q		

Alternatives: [h]mina; [i](ne)fáe(ye); [j](McKaughan: *sleep*); [k]lafá; [l]kola(na); [m]gítuma', lote'; [n]ago', bida'; [o]nehe; [p]naema; [q]naarei; [r]naare; [s]savuta; [t]ai'áná; [u]abi; [v]hóumá'; [w]tufo(na), kági(kági); [x]végo; [y]abarú(so); [z]nagu(nagu ai); [a]gupa (no'eie), guru(kuru fie); [b]pigósu(ye).

East Central Family:

	sand	*say*	*see*	*seed*	*short*	*shoulder*	*sister (elder)*
Gn:	2 visu	1 ti-[f]	1 kwa-[h]	1 isa	1 tumakeme	1 bokia-	2 apo-
Si:	3 áké	1 l(íye)	1 k(áiye)[i]	2 ûfá	2 lína	2 ákí(yá)	3 áté(láfó)
Yb:	3 ake	1 l(iye)	2 mud(aiye)	2 yuha[j]	3 minava	3 ele(la)	3 ato(la)
As:	1 gépe	1 l(áve)	3 (nó)ning(ive)	3 gihíle[k]	2 lí'nimbe	4 gáta(na)	3 áte(laho)
Gh:	1 getá(ní)	1 (no)l(ivé)	3 (na')níg(avé)	2 zuhá(neta')	2 alí'nipá	4 gata(ná)[o]	3 ato(láhó)
Bn:	1 kehé('i)	1 (nó)li(ve)	1 (no)ga(ve)	4 vihá('a)	4 húpa móne	2 yáke('na)	3 ató('afu)
Km:	1 käsépa[c]	2 (ńe)hi(a)	1 (ne)ge(a)	5 (yafá)räga	4 úpare	5 (ä)fú[p]	1 núna('amo')
Ya:	1 kaipa	2 (ne)h(ie)	1 (ne'a)g(ie)	5 alaga[l]	4 aupá	4 (a)gi'na[q]	4 asa('amo')[r]
Yg:	1 gahaépa[d]	2 hu(die)	1 (no'a)ge	6 eíta	5 hógo[n]	4 (a)gída	4 sá('a)
Fo:	1 kepa:	3 i(ye)[g]	1 (a)ga(ye)	6 á:'	6 aro'	5 (a)bo	1 (a)noná(nto)
Gm:	1 kepa	4 kainá(ize)	1 (a)ga(ize)	7 azu(ina)	7 aukika'	6 (a)koza'	4 (a)sí(babo)
Rec:	**ke(se'p)a	*(t)i-	*k(a)-				

Eastern Family (McKaughan):

Aw:	arahwe	iraruwo	tagaho	ahyu	wahto	ako	(a)nane
Au:	araiya[e]	siyo	awanao	auma[m]	akima	ayoima	(a)nanoa
Ga:	epayauni	se'u	onaano	ayumi	baaka'i	apumi	(ena)nanoi
Ta:	nu'ama	tiena	tabaana	auru	e'o	kururu	nakauba
Rec: (Bee)		*te-				*-pu-N	

Alternatives: [c]äntáma; [d]hagaepa, gipa; [e]amai; [f](wanaka) ti- (intr), -tono + *give*(tr); [g]kai(ye), si(ye); [h]kwa-(intr), -uga-(tr); [i]éy(aiyê); [j](ya) ihila; [k]zuho(nite'); [l]aví(na); [m]aramba; [n]oú(pa); [o](a)gi'na; [p](ä)yó'na; [q]afune, (a)yo'na; [r]núna('amó).

East Central Family:

	sit	*skin*	*(sleep)*	*small*	*smoke*	*snake*
Gn:	[1]tuv-	[2]tarava-	[1]viki(ngwa)	[1]kengua	[1]mura	[1]tomoi
Si:	[2]aménd(íye)	[3]atuwa	[2]ón(aiye)	[2]kéfó	[2](yo)kílá	[2]koiyófá
Yb:	[3](mikalo n)Ø(e)	[1]upa(la)	[2]ud(aiye)	[3]lasola	[2](jo)kila	[3]oleteha
As:	[3](míto' né)Ø(ive)	[4]oku'(no)	[3]óng(o néive)	[4]ngómo	[2](so)kíle	[2]gosihé'[d]
Gh:	[2](no)min(avé)	[1](a)gupe	[3](n)ak(avé)	[4]komá	[2](lo)kílá	[2]gosíha'
Bn:	[2](meto no)mína(ve)[s]	[1]gufa('a)	[3](nó)ka(ve)	[5]lagáso[v]	[2](lo)kíya	[2]ósifa('i)
Km:	[2]mä̈ní('ne)Ø(a)	[1](ä̈)vufä̈ga	[4]mä̈sé('nea)	[6]osí[w]	[2]ku[z]	[2]osifá've
Ya:	[4]mai(ye)[t]	[1](a)gufa	[5](ne)havae	[6]osi[x]	[3]haliná	[2]ósifá'vé[e]
Yg:	[4](igopalo' no)bei(e)	[1](o)uva	[5](o)ú' (no')haé	[7]havána	[3]halíta	[4]bákisave[f]
Fo:	[4](mara') mí(ye)	[1](a)u'[u]	[5](a)uwai(ye)	[7]amana'	[4]kunka:[a]	[5]kuya:[g]
Gm:	[4](mata) miri(ize)	[5](a)reu'	[5]be(ize)	[7]habana	[4]udi	[5]kuri
Rec:		**ku(pa)				

Eastern Family (McKaughan):

Aw:	maratuo	au	tuguh'	ma[y]	amuni'[b]	waya
Au:	mara'mai	awarasima	aunkwai	kito'a	umumba	osimba
Ga:	kumandeno	anda	barano	tsito'	i'kuni[c]	memani
Ta:	o'ubuana	paha	baitaana	inara	mura	memaru
Rec: (Bee)					*(u)mu-N	

Alternatives: [s]luga (no)fi(ve); [t]fi(to) mái(nie); [u](a)bare; [v]kitilí'asi; [w]ónena'; [x]aese; [y]pehgari'; [z](to)kí'; [a]kunta:, arabunta'; [b]aune; [c]inumuni; [d]sata'; [e]nagaloyave; [f]givolote; [g]kura:.

East Central Family:

	stand	*star*	*stick*	*stone*	*sugarcane*	*sun*	*sweet potato*
Gn:	^{1}oro	^{1}yoroi[i]	^{1}muturu[o]	^{1}owo	^{1}avi	^{1}po	^{1}ogwai
Si:	^{2}néind(aiyê)	^{2}úkúlú	^{2}óiyó	^{2}kífáná	^{1}áfó	^{1}fo	^{2}konúmǎ
Yb:	^{3}sin(aiye)	^{3}sonohi	^{2}oijo	^{2}ehada	^{1}yahu	^{1}ho	^{3}opa
As:	^{4}ot(áve)	^{3}sonohí'	^{3}gávoso[p]	^{2}géheni	^{1}ávoso	^{1}hó'	^{4}góvi
Gh:	^{4}(no)t(ivé)	^{3}sonóhí'	^{4}nogosání	^{2}gehání	^{1}zahí'	^{1}hó	^{4}goívé
Bn:	^{4}hó (nó)ti(ve)	^{3}sonófi('i)	^{5}osá(hi)	^{2}efáhi	^{1}yáfi	^{2}yegé	^{5}mayá
Km:	^{4}oti('nea)	^{3}hänáfi[j]	^{6}yóta	^{2}háve	^{1}yäfó'	^{2}yägé	^{6}yá'u
Ya:	^{4}heti (máiyie)	^{4}ka'néfi[k]	^{7}ka'yó(na)	^{3}yafá(ná)	^{1}yofe	^{2}yegé	^{5}mayá
Yg:	^{4}he('no)tí(e)	^{4}ganeví	^{3}gavé[q]	^{3}yavá(na)	^{1}éve	^{2}yegé	^{7}bá[v]
Fo:	^{5}así(ye)[h]	^{5}norí[l]	^{5}ása:[r]	^{3}yaba:'[s]	^{1}ya:bú	^{1}pa'	^{8}ísa'a:[w]
Gm:	^{6}ari(ize)	^{6}obu	^{8}zamu'	^{4}i[t]	^{1}zabi	^{1}ho	^{8}isapa
Rec:					*yap(i)	*po	

Eastern Family (McKaughan):

Aw:	irigaho	o'[m]	tegara	oniki	tah'	popo'nah[u]	topah
Au:	usasina	o'a	taamba	ontamba	taa'a	aabauma	kisaama
Ga:	akukaano	bayo	yaami	oni	yaa'i	ikona	kaamaami
Ta:	himpuaana	opu[n]	kairi'a	ori	kaa'a	kauri	'ama
Rec: (Bee)					*yä-Q		

Alternatives: [h]asorí(ye); [i]mbei; [j]ófu; [k]sanafi; [l]obú, ima:réya'; [m]wehyo'; [n]baho'ura; [o]warange; [p]zalekeseni; [q]fasuta, gatora; [r]ésa:'; [s]eba:'; [t]iyamu; [u]iyo; [v]baya; [w]ísapa.

East Central Family:

	swim	*tail*	*taro*	*(ten)*	*that*
Gn:	[1]kuruma karawi-	[1]ayawa	[1]mai	yetuma	[1]ni(za)
Si:	[2](nǒlúlau) w(íye)	[2]áfowa	[2]mafó	ándé fíligá	[2]yówa
Yb:	[3]asoda (jiye)	[3]aisa(va)	[3]ina	lade maloka maloka suvoko	[2]yola(ya)[c]
As:	[4]gúla'nese (nóizive)	[4]avásuvo	[4]mása	ánde héla héla okú' livó	[3]né(ne)[d]
Gh:	[4]galanógosá' (nozive)	[3](a)gásá	[4]masí	ligizání lugá lugá asú' igó	[3]né(né)
Bn:	[5](nagámi nó)ka(ve)	[3]kása('a)	[1]áma	nayáhi lúga lúga sú hágo	[2]yá[e]
Km:	[6](tímpi) fré(no nevía)	[5](ä)rísona	[5]néräga	näyántremá'a	[3]äná
Ya:	[4]nagosa (ne'aiye)	[6]áigo'yá	[6]yane[z]	náya tóle	[4]átu
Yg:	[4]dagósa (no'eíe)	[6]eígota	[6]yá(na)[a]	dánita lolé'a	[3]ná('i)[f]
Fo:	[7](wanípí) nasi(ye)	[1](a)ya:wa[x]	[3]ína:	naya: tára'mu'	[5]pí'
Gm:	[4]nókosa(pe ároize)	[2](a)be	[3]ina	nazatare	[6]koma'
Rec:					

Eastern Family (McKaughan):

	tail	*taro*	*(ten)*	*that*
Aw:	ehwe[y]	ango	tahyahte	mina
Au:	ameraamba	maiyamba	siyankai	mindama
Ga:	ameni	yami	tiyankani	mini
Ta:	beka	kara	kau'uruntanta	biha
Rec: (Bee)	*+be-	*ya-N	*tiyänkë-[b]	*bi-

Alternatives: [x]á:'wa; [y]awe; [z]nelagana; [a]yatave; [b]*hands two*; [c]tobaiyane; [d]vole(ne); [e]ána; [f]á'i, ai'na.

East Central Family:

	(they/DL)	*(they/PL)*	*this*	*three*	*thumb*	*(tobacco)*	*(tomorrow)*
Gn:	^{1}ya(i) oroi	^{1}ya	^{2}ni	kineisa	^{1}moyo(wo)	^{1}utu	^{1}migizango
Si:	^{1}á(mo) lele	^{1}á(mo)	^{3}-wa	lelei láwokoi	^{2}ménuwa	^{1}ûsí	^{2}méló
Yb:	^{2}edi(mo) love	^{2}edi(mo)	^{1}ma(ya)	loveki makoki	^{3}umava^{n}	^{1}usi	^{3}aiyo
As:	---	^{3}engí'^{h}	^{1}mé(ne)	setó hamo'	^{1}mózovo	^{1}usí'	^{3}áize'
Gh:	---	^{4}ke(zá)	^{1}íma(né)	lósivé makólé	^{4}napa(lá)^{o}	^{1}usí'	^{3}azó
Bn:	^{2}ét(ali)	^{2}én(ali)	^{1}má^{j}	loé yági móne yági	^{4}napa('a)^{p}	^{2}fúka('i)	^{4}yágo
Km:	^{1}yänä(gärá)	^{1}yämä(gärá)	^{1}amá'ne	tägúfa^{l}	^{5}(ä)yáfa	^{2}fúka'	^{5}okí
Ya:	^{1}ana(kaya)	^{1}apa(gaya)^{i}	^{1}ma^{k}	tólegí nagóki	^{6}ketale	^{1}usi^{r}	^{4}egá
Yg:	^{1}ta(gaéa)^{g}	^{1}pa(gaéa)	^{1}má('i)	lolé'e' bogó'e'	^{1}boto('a)	^{2}fúka^{s}	^{4}éga
Fo:	^{4}isí(gé)	^{5}í(ge)	^{1}má:'	kakága^{m}	^{1}moso	^{2}puka:'^{t}	^{3}ai
Gm:	^{4}i(gi)ri	^{5}i(gi)	^{1}kama'	rarega kika'	^{1}mozo(ba')^{q}	^{1}usi	^{3}aika'
Rec:			*ma		*mo(y)o	*usi	

Eastern Family (McKaughan):

	this	*three*	*thumb*	*(tomorrow)*
Aw:	mahna	tahmoro	ayanaobona	ahbiyah
Au:	maanda	kamboma	ayanabomba	apaya
Ga:	mana	kamore	apomi	kakana
Ta:	maana	tara'antabohai'a	enara	hura
Rec: (Bee)	* ma-			

Alternatives: ^{g}pa'a(gaéa); ^{h}íngi(ne); ^{i}ama(gaya); ^{j}yá'ma; ^{k}ina; ^{l}táregi' nägóki'; ^{m}tarawa ká:nakí'; ^{n}olopa(va); ^{o}hísu(lá); ^{p}yahá('a); ^{q}(a)beu'; ^{r}fúka(na); ^{s}usi; ^{t}usí.

East Central Family:

	tongue	tooth	tree	two	vine	walk	wallaby
Gn:	[1]navu-	[1]va(iza)	[1]izo	[2]ogondrari	[1]nara	[1]vi-	[2]panandi
Si:	[2]kúlumá	[2]aumá	[1]yá	[1]lele	[1]nêlá	[2]móin(aiye)[b]	[3]kóboni
Yb:	[2]ulumá	[3]elava	[1]ya	[3]love[z]	[1]nala	[2]mon(iye)	[3]oponi
As:	[1]náhu(no)	[4]gávu(lo)	[1]zá	[4]sita'	[1]nála'	[2](nó)mon(ive)	[4]lúmbo
Gh:	[1]genezá(lá)	[5](a)gepá	[1]za	[4]lósi(ta')	[1]nagá'	[2]mohóná (noivé)	---
Bn:	[1]kenétufa('a)	[6]yogó('a)	[1]yáfa	[3]loé	[1]nagá('i)	[3](nó)mala(ve)	[1]ésa
Km:	[1](ä)gänéfu'na	[1](ä)vé'	[1]yáfa	[1]táre	[2]nófi'	[4]váno (nehía)	[1]vého[d]
Ya:	[1](a)véfu('ná)[u]	[1](a)vé(ná)	[1]yósa[x]	[1]tóle	[2]nófi(na)	[1](ne')v(ie)[c]	[1]ésa
Yg:	[1]nevúda	[7]haeyapa	[1]yáva	[1]lolé	[3]gavéda	[2](no)humon(ie)	[1]ésa
Fo:	[1](a)ntebú	[1](a)wa	[1]yá:	[1]tara	[4]íga'ná:	[5]nasi(ye)	[1]esa:[e]
Gm:	[1](a)dabina'[v]	[1](a)ba'	[1]za	[1]rare	[1]naka'[a]	[5]nese(ize)	[1]beza
Rec:	*n(e)pu('n)a	*v(a)	*ya	*t(o)te	*na(ka)		**(vesa)

Eastern Family (McKaughan):

	tongue	tooth	tree	two	vine	walk	wallaby
Aw:	anehbi	aweh[w]	ta[y]	tahtare	nahga'	pokai'	nabanta
Au:	amaabi	awaiyaamba	taima	kai'a	andama	koro	kawima
Ga:	anapini	abakuni	yaani	kaantani	nani	bono	kabenami
Ta:	maa'iri	aabai	katari	taara'anta	na'unta	buana	tabenara
Rec: (Bee)	*-mäpi-V		*yë-V				

Alternatives: [u](a)genefu('na); [v](a)naita; [w]*mouth*; [x]yafa; [y]awahnga; [z]lowe; [a]hena; [b](Stem: moni); [c]vai (ne'ayie); [d]kämíntampa; [e]puwesa:.

East Central Family:

	water	*(we/DL)*	*we(PL)*	*wet*	*what?*	*(when?)*
Gn:	[1]nogoi	[1]ta(ri) oroi	[1]ta(ri)	[1]nogaya'i	[1]nanawima	namuru (konowa)
Si:	[1]nǒ	[1]lá(mo) lele	[1]la(mo)	[2]akoko (líye)	[1]néná(neta)	nénafékó[q]
Yb:	[1]no	[1]le(mo) love	[1]le(mo)	[3]eha (jene)	[1]nena(ye)	nena yupe(mae)[r]
As:	[1]nóso	---	[1]le(lí')[j]	[3]géhe(géhe)	[1]na(ndíve)	na(ni)hé'
Gh:	[2]nagamí'	---	[1]le(zá)	[3]gehá (nozivé)	[1]ná(na)	na(na)he'
Bn:	[2]nagámi('i)	[1]lé'(ali)	[1]lá(li)	[3]kéfa (í'ehive)	[2]héna	héna kanágu[s]
Km:	[3]ti	[1]tä'ä(gärá)	[1]tä(gärá)	[4]ti mé('nea)	[1]na'ané[n]	ína yúpe
Ya:	[4]ani(ne)[f]	[1]ta'a(gaya)[i]	[1]ta(gáya)	[5]ani ha'ne('ne)[l]	[1]ná'yane	ná'yupa[t]
Yg:	[4]ní(na)	[1]la'a(gaéa)	[1]la(gaéa)	[6]valá(vala')	[1]dá('ana)[o]	dákana(vi')[u]
Fo:	[4]waní'[g]	[1]tasí(ge)	[1]táe[k]	[7]tani(tani píye)[m]	[1]na:(ná)[p]	aya:ntágá
Gm:	[4]one'[h]	[1]re(ge)re	[1]re(ge)	[8]kazi(ize)	[3]erá(bena)	aekabi
Rec:	*no		*t(a)		*n(a)-	

Eastern Family (McKaughan):

	water	*we(PL)*	*wet*	*what?*
Aw:	no	ite	tantanagi'	ane'
Au:	nomba	kesama	tasiasi	none'i
Ga:	nomi	yikenama	noni'memi	nepi
Ta:	namari	tenabu	puta	nana
Rec: (Bee)	*no-N			

Alternatives: [f]tí(na), ali(ne); [g]áina; [h]bene'; [i]la'a(gaya); [j]lá(za); [k]tá(ge); [l]tina mai(nie); [m]ípaba: (piye); [n]ína yúpe; [o]heipa' (ouva); [p]a:(ná), áe; [q]néná kamena; [r]nena hekoi; [s]híya kanágu; [t]haenune; [u]heipa' (vitane).

East Central Family:

	where?	*(white)*	*who?*	*wind*	*wing*	*woman*	*yam*	*(yellow)*
Gn:	[2] nerea	[1] kürua	[1] koi	[2] ngomorai	[1] kogiena	[1] ana	[1] kambai	[1] kwitava
Si:	[3] éngá	[2] kíyobá[w]	[1] kéma	[3] epe	[2] óka(ná)	[2] wéná	[2] ká	[2] kómúléngé
Yb:	[4] nakaha(lokae)	[1] ukulo[x]	[2] eka(himae)	[1] lasi[f]	[3] lasi[i]	[2] méná	[3] uva	[3] sihuka
As:	[5] zála	[3] mokóno'	[3] záho	[3] hépe'	[4] holoké'ni	[2] véne'	[4] gása	[3] gihungó'
Gh:	[1] hi(la'auká)	[1] ukuló'[y]	[2] e'aho	[3] hépé'[g]	[2] (a)góketá[j]	[2] vená'	[4] gasí	[3] gíhuká'
Bn:	[1] híya(ga)	[2] kigopa[z]	[4] kíyafu	[1] yási	[2] kékona('a)	[1] á'i	[5] ávi	[4] sátu(na)
Km:	[1] íne	[4] éfeke'	[5] aya'é	[4] yähó'	[2] (ä)gekó'na	[1] a'	[5] ávi	[5] kaninkrú(ke')
Ya:	[1] hana(téga)[v]	[4] éfé[a]	[6] la'ae[d]	[1] yásí	[5] haku[k]	[1] á(na)	[5] avi	[6] kile'yane[m]
Yg:	[1] heípa(to')	[4] éfe'[b]	[7] nala('a)[e]	[1] yási	[5] háku	[1] á(na)	[6] hagó	[2] gamólu'[n]
Fo:	[1] ae(tá')	[5] wae'[c]	[1] ke	[1] esibá:	[6] (á)gagá'	[3] wáya:'	[6] ágo[l]	[7] ya:gigú(mpa')[o]
Gm:	[1] ae(tai)	[5] beze'	[1] keka	[1] zasina	[6] (a)kaka(za)	[3] baza'	[6] ago	[2] komoru
Rec:	**s(ai)		*(ke)	**yasi		*a		

Eastern Family (McKaughan):

Aw:		tehyahntah	entebo	toiri'	weto	ahre	ahweh'	pehya'
Au:		waiemba	nawa'i	undama[h]	aiyoima	arema	taawima	sebomba
Ga:		epani	yepe	tisobaani	aayami	anaatsi	obai	mi'yunawanemi
Ta:		e'ara	tababe	ubai	aroka	naenti	oba	tatabau'a
Rec: (Bee)								

Alternatives: [v] haiya (kotega); [w] óloto, fékél(íye); [x] iyopa; [y] mokoná', gizopá; [z] kohólina; [a] kalono; [b] vaye(vayena), fai(pai'na); [c] tabe(rabe), asasá: (piyé); [d] nala'e, ta'áe; [e] ga('a), gayo; [f] yasi, sasi; [g] uná; [h] taukwi'a; [i] okana(va); [j] (a)góke'ná; [k] agékó('ná); [l] a:raba:; [m] uya'alene, kanaleti; [n] egevu, gadipa; [o] mopái'.

East Central Family:

	yes	*yesterday*	*you(SG)*	*(you/DL)*	*you(PL)*
Gn:	[2]o'o	[1]nongoi[u]	[1]ka	[1]ta(ri) oroi	[1]ta
Si:	[1]ô	[2]méló	[1]ká(mo)	[2]íná(té) lele[z]	[2]íná(té)[c]
Yb:	[1]oo	[3]aiyo	[1]e(mo)[w]	[3]edi(mo) love	[3]edi(mo)
As:	[1]óo[p]	[3]áize'	[1]gé(i')[x]	---	[1]lengí'
Gh:	[1]oó	[3]azó	[1]ge(zá)	---	[1]leke(zá)
Bn:	[1]ó[q]	[4]yágo	[1]ká(i)	[1]lét(ali)	[1]lén(ali)
Km:	[1]oyó	[5]okí	[1]kä(gärá)	[1]tänä(gärá)	[1]tämä(gärá)
Ya:	[1]he[r]	[4]egá	[1]ka(gáya)	[1]tana(kaya)[a]	[1]tapa(gaya)[d]
Yg:	[1]hé	[4]éga	[1]ga(gaéa)	[1]lata(gaéa)[b]	[1]lapa(gaéa)[e]
Fo:	[1]o(wé)[s]	[3]ai[v]	[1]káe[y]	[4]tisí(ge)	[4]tí(ge)
Gm:	[1]ehe[t]	[3]aika'	[1]ka(ge)	[4]ri(gi)ri	[4]ri(gi)
Rec:	*(oo)		*k(a)		*t(e)

Eastern Family (McKaughan):

Aw:	kowe	ahbiyah[w]	are
Au:	owe	apaya	ema
Ga:	eyo	kakana	eni
Ta:	eo	hura	aare
Rec: (Bee)			

Alternatives: [p]vee; [q]ó'yo; [r]o; [s]e, ye; [t]ee; [u]nuŋgwayari; [v]a'i; [w]ge(mo); [x]gá(za); [y]ká(ge); [z]líná(té) lele; [a]lana(kaya); [b]pa'a(gaéa); [c]líná(té); [d]lapa(ka), lama(gaya); [e]pa(gaéa).

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